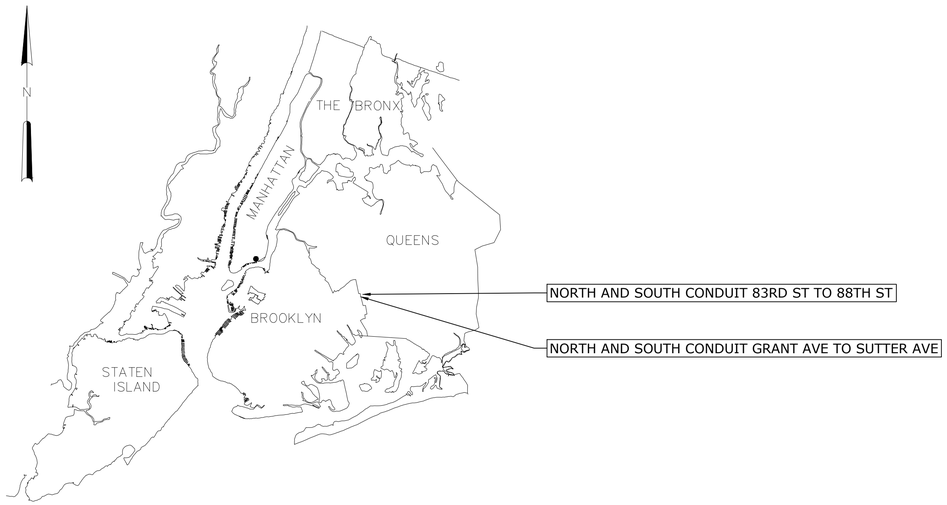
NEW YORK CITY ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING & ANALYSIS

ON-SITE GREEN INFRASTRUCTURE
DEP CAPITAL CONTRACT NO. GI-CONS-9
VOLUME 1 - BID SETS
NOVEMBER 2026



SITE NAME	ADDRESS
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST	NORTH CONDUIT BLVD & 88TH ST, QUEENS, NY 11414
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE	NORTH CONDUIT BLVD & SUTTER AVE, BROOKLYN, NY 11208

John McLaughlin — Digitally signed by John McLaughlin, Date: 2026.11.02 12:17:25 -05'00'

JOHN MCLAUGHLIN
MANAGING DIRECTOR
OFFICE OF ECOSYSTEM SERVICES, GREEN INFRASTRUCTURE AND RESEARCH
BUREAU OF ENVIRONMENTAL PLANNING, NYCDEP

Lisa F. Garcia — Digitally signed by Lisa F. Garcia, Date: 2026.10.30 14:43:32 -04'00'

LISA F. GARCIA
COMMISSIONER
NYCDEP

20260731 8:22A O:\WS36-nyc\Contract Management\000 - Construction\CONS-9 Documents\0-SHEETS\0-1 - BID PACKAGE COVER.dwg By:TAUTH Last Saved By: TAuth XREFs: Sandeep's Seal-2010
PLOT DATE: 7/31/2026 8:22 AM BY: TAuth

SHEET LIST		
SHEET NUMBER (PDF)	**DRAWING NO.**	**SHEET TITLE**
1	O-1	BID PACKAGE COVER
2	O-2	TABLE OF CONTENTS
3	O-3	GENERAL NOTES
4	O-4	GENERAL NOTES
5	O-5	LEGEND AND ABBREVIATIONS
6	O-6	PROPOSED LEGEND
7	G-01	COVER - 83RD ST TO 88TH ST
94	G-01	COVER - GRANT AVE TO SUTTER AVE
147	C900	STANDARD DETAILS 1
148	C901	STANDARD DETAILS 2
149	C902	STANDARD DETAILS 3
150	O-7	NYC PARKS STANDARD DETAILS
154	O-8	NYC DOT STANDARD DETAILS
160	O-9	NYS DOT STANDARD DETAILS
164	O-10	NYC DEP STANDARD DETAILS

File: O:\9033\NYCCONTRACT MANAGEMENT\000-CONSTRUCTION\CONS\9 DOCUMENTS\O-SHEETS\O-2 - TABLE OF CONTENTS Saved By: TAUTH Save Date: 2026/07/31 9:29 AM
PLOT DATE: 2026/07/31 9:27:23 AM BY: TAUTH

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

TABLE OF CONTENTS

DATE JUL 2026
PAGE 2 OF 171
SHEET O-2

XREFs= ..\O-SHEET TITLEBLOCK\9033G_TB_HAZEN_with_logo-OSHEETS_..\..\..\Work Plan\O-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

CONSULTANT DESIGN

STANDARD NYCDOT NOTES

1. MUNI METERS SHALL NOT BE REMOVED OR RELOCATED BY THE CONTRACTOR. ANY WORK RELATED TO MUNI METERS MUST BE PERFORMED BY THE DEPARTMENT OF TRANSPORTATION, BUREAU OF PARKING, CONTRACTOR SHALL CONTACT NYCDOT-PARKING VIA PHONE AT 212-839-3215, AS WELL AS SUBMIT VIA E-MAIL (ATIRELLA@DOT.NYC.GOV) ALL PERTINENT DRAWINGS, AND PROPOSALS THAT REQUIRE THE REMOVAL/RELOCATION OR RE-INSTALLATION OF MUNI METERS IN THE PROJECT AREA AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT DATE. IN ADDITION, UPON COMPLETION OF THE CONTRACTED WORK, A REQUEST FOR RE-INSTALLATION OF THE MUNI METER MUST ALSO BE MADE TO DOT AT THE NUMBER PROVIDED, AT LEAST A WEEK PRIOR TO THE END OF CONSTRUCTION.

2. FOR ANY GREEN INFRASTRUCTURE PRACTICE THAT WILL IMPACT AUTHORIZED PARKING SPACES DUE TO THE CONSTRUCTION OF GREEN INFRASTRUCTURE PRACTICES, THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE DEPARTMENT OF TRANSPORTATION (NYCDOT) AUTHORIZED PARKING AND SPECIAL USE UNIT AT LEAST TWO WEEKS IN ADVANCE OF CONSTRUCTION. CONTACT PERSON: MERISA GILMAN, SENIOR PROGRAM MANAGER, 212-839-3240, MGILMAN@DOT.NYC.GOV

3. BIKE RACKS/BIKE CORRALS/ STREET SEATS/ CITY BENCHES/ LEANINGS BARS/ MARTELLO BOLLARDS

   3.01 THE FOLLOWING CONTACT INFORMATION SHALL BE USED FOR ALL NOTICES:

      i. PHONE NUMBER (212)-839-6569

      ii. E-MAIL PUBLICSPACESTREETFURNITURE@DOT.NYC.GOV

   3.02 THE EXISTING BIKE RACKS, BIKE CORRALS, STREETSEATS, CITY BENCHES, LEANING BARS, AND MARTELLO BOLLARDS ("STREET FURNITURE") SHALL NOT BE REMOVED OR RELOCATED BY THE CONTRACTOR. ANY WORK RELATED TO EXISTING STREET FURNITURE MUST BE PERFORMED BY THE DEPARTMENT OF TRANSPORTATION. THE CONTRACTOR SHALL INFORM DOT VIA THE CONTACT INFORMATION PROVIDED ABOVE. THE CONTRACTOR SHALL SUBMIT BY E-MAIL ALL PERTINENT DRAWINGS AND PROPOSALS THAT REQUIRE THE REMOVAL/RELOCATION OR RE-INSTALLATION OF STREET FURNITURE WITHIN THE PROJECT AREA AT LEAST THREE WEEKS PRIOR TO THE COMMENCEMENT DATE. IN ADDITION, UPON COMPLETION OF THE CONTRACTED WORK, A REQUEST FOR RE-INSTALLATION OF THE STREET FURNITURE MUST ALSO BE MADE TO DOT AT THE NUMBER PROVIDED, AT LEAST THREE WEEKS PRIOR TO THE END OF CONSTRUCTION.

   3.03 IF THE CONTRACTOR REMOVES OR RELOCATES EXISTING STREET FURNITURE WITHOUT THE PERMISSION OF DOT, THE CONTRACTOR SHALL BE REQUIRED TO DELIVER UNDAMAGED PROPERTY TO A LOCATION SPECIFIED BY DOT AT THE CONTRACTOR'S SOLE COST, THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REPLACING ANY DAMAGED AND OR LOST STREET FURNITURE AT NO ADDITIONAL COST TO THE CITY.

   3.04 THE CONTRACTOR SHALL NOTIFY DOT AT THE ADDRESSES PROVIDED ABOVE UPON INSTALLATION OF NEW STREET FURNITURE PER THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL REQUEST DOT TO INSPECT ALL STREET FURNITURE INSTALLATIONS AND SHALL OBTAIN WRITTEN APPROVAL FROM DOT.

TREE PROTECTION NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL SITE CONDITIONS, BOTH ABOVE AND BELOW THE SURFACE, PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN INFORMATION SHOWN ON THE DRAWINGS AND ACTUAL FIELD CONDITIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE AGENCY IN WRITING, PRIOR TO THE COMMENCEMENT OF WORK.
2. CONSTRUCTION ACCESS ROUTE IS DIAGRAMMATIC. FINAL ROUTE SHALL BE ESTABLISHED ON SITE AND APPROVED BY THE RESIDENT ENGINEER, IN CONSULTATION WITH THE BOROUGH FORESTER OR THEIR REPRESENTATIVE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND PRESERVATION OF ALL EXISTING TREES NOT LISTED FOR REMOVAL THAT ARE LOCATED COMPLETELY OR PARTIALLY WITHIN THE CONTRACT LIMIT LINE.
4. THE CONTRACTOR SHALL NOTIFY THE BOROUGH FORESTER A MINIMUM OF 48 HOURS IN ADVANCE OF ANY WORK ON OR IMPACTING EXISTING TREES, INCLUDING BUT NOT LIMITED TO TREE PROTECTION, PRUNING, TREE REMOVAL, EXCAVATION WITHIN TREE PROTECTION ZONES, DECOMPACTION, TOPSOIL, AND PLANTING WORK.
5. THE TREE PROTECTION ZONE (TPZ) ALSO CALLED THE CRITICAL ROOT ZONE (CRZ) SHALL BE DEFINED AS THE AREA WITHIN THE DRIP LINE OF EXISTING TREES, UNLESS OTHERWISE SHOWN ON THE TREE PROTECTION PLAN.
6. THE CONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT THE ROOT SYSTEMS OF EXISTING TREES. MATERIAL, EQUIPMENT, OR VEHICLES SHALL NOT BE STOCKPILED OR PARKED WITHIN THE TPZ OF ANY TREE COMPLETELY OR PARTIALLY WITHIN THE CONTRACT LIMIT LINE TO MINIMIZE SURFACE AND SUBSURFACE ROOT AND SOIL COMPACTION. IF STOCKPILING OCCURS WITHIN THE TPZ, A STOP WORK ORDER SHALL BE ISSUED IMMEDIATELY, AND WORK SHALL NOT RE-COMMENCE UNTIL ALL STOCKPILED MATERIAL IS REMOVED FROM THE TPZ AND MITIGATION MEASURES ARE PERFORMED TO THE SATISFACTION OF THE RESIDENT ENGINEER, IN CONSULTATION WITH THE BOROUGH FORESTER OR THEIR REPRESENTATIVE.
7. IF DIRECTED, THE TREE PROTECTION ZONE SHALL BE COVERED WITH WOOD CHIPS TO A DEPTH OF AT LEAST SIX (6) INCHES, WITH PLYWOOD OR GROUND PROTECTION MATS, OR A COMBINATION THEREOF. SUCH COVERING SHALL BE MAINTAINED FOR THE DURATION OF THE CONTRACT AND IS NOT TO BE REMOVED UNTIL DIRECTED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE. REMOVAL SHALL BE BY HAND OR AS SPECIFIED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE (ITEM "PROTECT EXIST. TREE ROOTS W/WOODCHIPS 6"DEPTH" AND "PROTECT EXIST. TREE ROOTS W/PLYWOOD").
8. TEMPORARY WOODEN TREE GUARDS WITH WRAP FOR INDIVIDUAL TREES, TEMPORARY WOODEN TREE GUARD FOR GROVES, AND TEMPORARY SNOW FENCE BOUNDARY SHALL BE MAINTAINED FOR THE DURATION OF THE CONTRACT AND ARE NOT TO BE REMOVED UNTIL DIRECTED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE.
9. ALL TREES WITHIN THE CONTRACT LIMIT LINE ARE TO RECEIVE AT LEAST ONE (1) INCH (THE EQUIVALENT OF 750 GALLONS OF WATER PER 1,000 SQUARE FEET OF TREE PROTECTION ZONE) OF WATER PER WEEK BETWEEN THE MONTHS OF MARCH AND OCTOBER. IF RAINWATER IN ANY GIVEN WEEK IS BELOW THIS QUANTITY, THE CONTRACTOR MUST SUPPLEMENT THE AMOUNT RECEIVED BY A METHOD APPROVED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE.
10. ALL TREE PRUNING AND TREE REMOVAL IS TO BE PERFORMED IN ACCORDANCE WITH ANSI A300 STANDARDS BY AN ARBORIST HOLDING CERTIFICATION FROM THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) OR EQUIVALENT EDUCATION AND EXPERIENCE. ANSI PRUNING TYPES SPECIFIED ON TREE PROTECTION SCHEDULE AND TREE DIAMETERS AT BREAST HEIGHT ARE TO BE CONFIRMED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE BEFORE PRUNING WORK IS PERFORMED.
11. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN REMOVING CONCRETE OR ASPHALT WITHIN THE DRIPLINE OF EXISTING TREES - LIFTING RATHER THAN DRAGGING PIECES OF PAVING. TOOLS FOR THIS ACTIVITY SHALL BE APPROVED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE AND THE RESIDENT ENGINEER PRIOR TO THE START OF EXCAVATION.
12. ALL EXCAVATION AND PLANT INSTALLATION WITHIN THE TPZ SHALL BE PERFORMED BY HAND OR PNEUMATICALLY, WITH MINIMAL SOIL DISTURBANCE, AND UNDER THE SUPERVISION OF THE BOROUGH FORESTER OR THEIR REPRESENTATIVE. PLANTS SHALL NOT BE PLACED WITHIN THREE (3) FEET OF THE TREE TRUNK UNLESS APPROVED.
13. NO ROOTS SHALL BE CUT WITHOUT THE WRITTEN AUTHORIZATION OF THE BOROUGH FORESTER OR THEIR REPRESENTATIVE.
14. EXCAVATED AREAS WITHIN THE TPZ SHALL BE BACKFILLED IMMEDIATELY OR ROOTS SHALL BE KEPT CONSTANTLY MOIST WITH BURLAP COVERED WITH WHITE PLASTIC AND CHECKED A MINIMUM OF TWO (2) TIMES A DAY, ONCE IN THE MORNING AND ONCE IN THE AFTERNOON, FOR A MAXIMUM OF FORTY-EIGHT (48) HOURS, UNTIL BACKFILL IS COMPLETE. IF DIRECTED, SOAKER HOSES SHALL BE INSTALLED TO FACILITATE PROPERLY MOIST CONDITIONS. NO POOLING OF OR CONTINUOUS RUNNING WATER SHALL OCCUR WITHIN THE TPZ OTHER THAN THAT DURING THE IRRIGATION PROCESS. IF ROOTS ARE TO BE EXPOSED FOR A PERIOD GREATER THAN 48-HOURS, THE EXPOSED AREA SHALL BE COVERED WITH AT LEAST 6-INCHES MULCH AND MAINTAINED DURING THE COURSE OF CONSTRUCTION UNTIL THE AREA CAN BE PROPERLY BACKFILLED.
15. WHEN A TREE PROTECTION DEFICIENCY, AS DETERMINED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE, IS IDENTIFIED, IT MUST BE REMEDIED WITHIN 24-HOURS OF NOTIFICATION BY THE AGENCY. FAILURE TO CORRECT THE DEFICIENCY WITHIN THIS TIMEFRAME WILL RESULT IN A STOP WORK ORDER, LIQUIDATED DAMAGES, OR BOTH.
16. ANY DAMAGE TO EXISTING TREES DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL MITIGATE SUCH DAMAGE AS DIRECTED BY THE BOROUGH FORESTER OR THEIR REPRESENTATIVE, AT THE CONTRACTOR'S EXPENSE.
17. THE CONTRACTOR SHALL BE ASSESSED RESTITUTION FOR TREES THAT ARE INJURED, IRREPARABLY DAMAGED, DESTROYED, OR REMOVED WITHOUT AUTHORIZATION.

REMOVAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SITE CONDITIONS, BOTH ABOVE AND BELOW THE SURFACE, PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN THE INFORMATION SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER AND DEP IN WRITING PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS GOVERNING THIS WORK. THE CONTRACTOR SHALL COORDINATE DEMOLITION WITH APPLICABLE AGENCIES, UTILITY COMPANIES, AND/OR SUB-CONTRACTORS.
3. IT IS MANDATORY, AS PER NYS INDUSTRIAL CODE RULE 53, FOR THE CONTRACTOR TO NOTIFY NEW YORK CITY/LONG ISLAND ONE-CALL CENTER, 36-35 BELL BOULEVARD, SUITE 202, BAYSIDE, NY 11361, TEL 800.272.448. IN ADDITION TO ALL UNDERGROUND FACILITY OPERATORS IN THE AREA WHO ARE NOT ONE-CALL MEMBERS, NOT LESS THAN TWO (2) FULL BUSINESS DAYS AND NOT MORE THAN TEN (10) FULL BUSINESS DAYS BEFORE COMMENCING EXCAVATION. THE ONE-CALL CENTER IS ALWAYS OPEN. THE ONE-CALL CENTER WILL THEN NOTIFY MEMBER FIRMS WITH OPERATIONS IN THE SITE AREA OF THE CONTRACTOR'S PENDING EXCAVATION OPERATIONS. THE CONTRACTOR WILL RECEIVE A NOTIFICATION TICKET FROM THE ONE-CALL CENTER WHICH SHOULD BE PRESENTED TO THE RESIDENT ENGINEER AS PROOF OF THE CALL. THERE IS NO CHARGE FOR THIS SERVICE. THIS PROCESS ENSURES THAT UTILITY SERVICE LINES ARE PROPERLY MARKED PRIOR TO EXCAVATION TO MINIMIZE FACILITY DAMAGE, ON THE JOB INJURIES, AND CONTRACTOR'S LIABILITY.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ANY DAMAGE AND/OR RESTORE ANY INTERRUPTION TO ANY UTILITY SERVICE THAT MAY BE CAUSED BY THE CONTRACTOR'S CONSTRUCTION OR EQUIPMENT, AT THE CONTRACTOR'S EXPENSE, WITH NO ADDITIONAL EXPENSE TO THE CITY OF NEW YORK.
5. THE CONTRACTOR IS TO USE CARE DURING CONSTRUCTION TO AVOID DISTURBING OR DAMAGING ADJACENT ABOVE-GRADE OR SUBGRADE STRUCTURES, FACILITIES, CURBS, PAVEMENTS, AND PERIMETER FENCING. ANY DAMAGE RESULTING FROM THIS WORK WILL BE RESTORED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

REMOVAL NOTES (CONTINUED)

6. WHERE NEW CONSTRUCTION ABUTS EXISTING PAVEMENTS, CURBS, OR WALLS, THE EXISTING MATERIALS SHALL BE CLEANLY SAWCUT TO PROVIDE A CLEAN, NEAT MATCH AND A SMOOTH, FLUSH TRANSITION, AS DIRECTED BY THE RESIDENT ENGINEER. ALL SAWCUTTING SHALL BE DONE TO NEAT, STRAIGHT, AND ACCURATE LINES. CONTRACTOR SHALL PROVIDE EXPANSION JOINTS (TIE ROD AND/OR SLIP JOINT) WHERE OLD AND NEW CURBS MEET.
7. THE CONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT THE ROOT SYSTEMS OF EXISTING TREES. BULK MATERIAL, EQUIPMENT, OR VEHICLES SHALL NOT BE STOCKPILED OR PARKED WITHIN THE DRIPLINE OF ANY TREE.
8. THE CONTRACTOR SHALL DISPOSE OF ALL ITEMS AND MATERIALS REMOVED AND NOT SALVAGED, INCLUDING ALL EXCAVATED MATERIAL, OFF-SITE AND IN A LEGAL MANNER.
9. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES PRIOR TO COMMENCING WORK.
10. THE CONTRACTOR SHALL REMOVE, EXCAVATE, AND DISPOSE OF ALL MATERIALS ACCORDING TO CONTRACT SPECIFICATIONS.
11. CONTRACTOR SHALL REMOVE SIDEWALK FLAGS AS SPECIFIED BY THE ENGINEER, WHICH SHALL TYPICALLY EXTEND TO THE OUTERMOST EDGE OF ANY FLAGS IMPACTED BY CONSTRUCTION. CONTRACTOR SHALL REPLACE ALL REMOVED SIDEWALK.
12. WHEREVER A PROPOSED PIPE CROSSES OVER OR UNDER AN EXISTING UTILITY PIPE, TEST PITS SHALL BE DUG TO VERIFY THE DEPTH OF THE EXISTING UTILITY PIPE. THE RESULTS SHALL BE GIVEN TO NYCDEP AND ENGINEER FOR EVALUATION PRIOR TO FULL EXCAVATION.
13. WHERE THE PROPOSED GREEN INFRASTRUCTURE SYSTEM CONNECTS TO THE EXISTING SEWER SYSTEM, CONDUCT EXPLORATORY EXCAVATION TO DETERMINE THE LOCATION AND DEPTH OF THE SEWER AT THE CONNECTION POINT. RESULTS SHALL BE GIVEN TO NYCDEP AND ENGINEER PRIOR TO FULL EXCAVATION.

LAYOUT & MATERIAL NOTES

1. NO CHANGES SHALL BE MADE TO THE DESIGN OR LAYOUT WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. LAYOUT THE WORK AS DIMENSIONED ON THE PLANS. WRITTEN DIMENSIONS SHALL GOVERN. DO NOT SCALE DISTANCES.
2. CONTRACTOR SHALL LAYOUT IN THE FIELD THE ALIGNMENT AT ALL PATHS, PAVEMENTS AND CURBLINES FOR REVIEW BY THE ENGINEER. ADJUSTMENTS MAY BE MADE ONLY AS DIRECTED BY THE ENGINEER. CONTRACTOR MAY NOT PROCEED WITH CONSTRUCTION OF IMPROVEMENTS UNTIL HE HAS RECEIVED THE FINAL APPROVAL OF THE LAYOUT FROM THE ENGINEER.
3. ALL NEW PAVEMENTS AND CURBS AND EXISTING PAVEMENTS AND CURBS TO REMAIN SHALL MEET IN SMOOTH FLUSH CONDITION UNLESS NOTED OTHERWISE.
4. NEW CURBS, WALLS, AND PAVEMENTS SHALL BE BUILT TO A SMOOTH EVEN FINISH WITH A CONSISTENT TOP AND PROFILE WITHOUT WAVES OR IRREGULARITIES. ANY WORK NOT MEETING THIS QUALITY STANDARD SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR SHALL EXERCISE CARE DURING EXCAVATION OPERATIONS TO AVOID DISTURBING ADJACENT FACILITIES, SUB GRADE STRUCTURES AND TREES. ALL DAMAGE RESULTING FROM THE CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REPAIRED AT NO EXPENSE TO THE CITY AND THE AGENCY. ALL REPAIR WORK SHALL BE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
6. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ALL EXISTING TREES AND THEIR ROOT SYSTEM. EXCAVATIONS WITHIN THE DRIP LINES OF TREES SHALL BE KEPT TO A MINIMUM AND SHALL BE COMPLETED BY HAND ONLY AND SHALL BE PERFORMED IN THE PRESENCE OF THE RESIDENT ENGINEER, AT NO ADDITIONAL EXPENSE TO THE CITY. ROOTS OVER 2" DIAMETER SHALL NOT BE DISTURBED AND BRIDGE CURBS SHALL BE CONSTRUCTED WHERE NECESSARY.
7. IN AREAS WHERE NEW PAVEMENTS FALL WITHIN THE DRIP LINE OF EXISTING TREES, THE CONTRACTOR SHALL MINIMIZE EXCAVATIONS AT TREE ROOTS BY REDUCING THE AMOUNT OF FOUNDATION MATERIAL AS DIRECTED BY ENGINEER.
8. ALL NEW PEDESTRIAN RAMPS SHALL COMPLY WITH CURRENT NYS DOT STANDARDS. DETECTABLE WARNING STRIPS SHALL BE INSTALLED PER THESE STANDARDS.

DRAINAGE WORK NOTES

1. ALL PROPOSED DRAINAGE WORK SHALL BE DONE IN CONFORMANCE WITH THE LATEST STANDARDS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION. (NYCDEP)
2. ALL EXISTING SEWER MANHOLES TO BE RETAINED WITHIN THE CONTRACT LIMITS SHOULD BE ADJUSTED AS NECESSARY, SO THAT THEY WILL BE FLUSH WITH THE FINISHED GRADES AFTER COMPLETION OF THE WORK. ANY OF THESE MANHOLES WHICH HAVE DAMAGED, WORN OR NON-STANDARD FRAMES AND COVERS SHOULD BE PROVIDED WITH NEW 27" CASTINGS IN ACCORDANCE WITH THE LATEST STANDARDS OF NYCDEP INCLUDING ANY NECESSARY MODIFICATIONS OF THE MANHOLE MASONRY. ANY DAMAGE TO THE MANHOLES CAUSED BY THIS WORK SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER, AND AT NO COST TO THE CITY.
3. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING SEWERS DURING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER, AT NO EXTRA COST TO THE CITY.
4. WHERE THE HEIGHT OF AN EXISTING MANHOLE PERMITS MORE THAN ONE BASIN CONNECTION TO BE MADE ON THE SAME WALL, SPECIAL PRECAUTION SHALL BE TAKEN TO PROTECT THE STRUCTURAL INTEGRITY OF THE MANHOLE. THE MINIMUM CLEARANCE BETWEEN THE OUTSIDE WALLS OF ANY TWO BASIN CONNECTIONS OR BETWEEN A BASIN CONNECTION AND A SEWER, VERTICALLY OR HORIZONTALLY, SHALL BE 12 INCHES.
5. THE COST OF RAISING OR LOWERING CITY-OWNED MANHOLES, BASINS AND INLET HEADS TO PROPOSED GRADES WILL BE DEEMED INCLUDED IN THE PRICES BID FOR ALL THE SCHEDULED ITEMS WHEN THE VERTICAL UPWARD MOVEMENT OF ALL HEADS IS TWENTY-FOUR (24) INCHES OR LESS, WHEN THE VERTICAL DOWNWARD MOVEMENT OF MANHOLE HEADS IS SIX (6) INCHES OR LESS AND WHEN THE VERTICAL DOWNWARD MOVEMENT OF BASIN OR INLET HEADS IS THREE (3) INCHES OR LESS, UNLESS OTHERWISE PROVIDED OR DIRECTED, AND WHERE THE ADJUSTMENT IS WITHIN THE BRICK WORK LIMIT. WHEN THE EXISTING STRUCTURE CONSISTS OF A BRICK CHIMNEY OR A CONCRETE ROOF SLAB OR BRICK ON CONCRETE WALLS, THE MAXIMUM ALLOWABLE HEIGHT OF BRICK AFTER ADJUSTMENT SHALL BE TWENTY-FOUR (24) INCHES. ALL OTHER ADJUSTMENTS WILL BE PAID FOR UNDER THE APPROPRIATE MANHOLE, BASIN OR INLET MODIFICATION ITEMS.
6. ALL ABANDONED BASINS, INLETS AND DRAINAGE STRUCTURES AS SHOWN ON THE CONTRACT PLANS ARE TO BE BULK-HEADED AND CUT DOWN TO TWO (2) FEET BELOW THE SUBGRADE AND FILLED WITH COMPACTED CLEAN SAND. BASIN CONNECTIONS NOT REQUIRED SHALL BE PLUGGED AT BOTH ENDS. COST FOR THIS WORK SHALL BE DEEMED INCLUDED IN PRICES BID FOR ALL SCHEDULED ITEMS.
7. CATCH BASINS SHALL NOT, UNDER ANY CIRCUMSTANCES, BE CONNECTED TO SANITARY SEWERS.
8. UNLESS OTHERWISE SPECIFIED, ALL NEW CATCH BASIN CONNECTIONS SHALL BE CONNECTED TO EXISTING SEWERS AT MANHOLES, WITH 12" DUCTILE IRON PIPE, CLASS 56, WITH INTERNALLY LOCKED "PUSH-ON" JOINTS LAID ON 6" OF BROKEN STONE FOR THE ENTIRE WIDTH OF THE TRENCH AND FOR ONE-HALF THE PIPE DIAMETER. THE BROKEN STONE SHALL BE HARD UNWEATHERED STONE UNIFORMLY GRADED FROM 1/4" TO 3/4"IN DIAMETER. IT SHALL CONFORM TO COMMERCIAL 1/4" TO 3/4" STONE. ALL NEW CATCH BASINS SHALL HAVE A HOOD ON THE OUTLETTING PIPE.
9. CATCH BASINS SHALL NOT BE LOCATED WITHIN PEDESTRIAN CROSSWALK LIMITS. CATCH BASINS NEAR BUS STOP PADS SHALL BE LOCATED EITHER ENTIRELY WITHIN OR OUTSIDE OF BUS STOP PADS.
10. SLOPE ON ALL NEW CATCH BASIN CONNECTIONS SHALL BE A MINIMUM OF 1/2% AND A MAXIMUM OF 4% PROVIDED THE TOTAL DROP BETWEEN THE BASIN AND THE BASIN/MANHOLE IS AT LEAST 6 INCHES.
11. CATCH BASINS IN THE PROJECT AREA SHALL BE MAINTAINED OPERABLE AT ALL TIMES. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO AVOID FILLING THE CATCH BASINS WITH DEBRIS WITHIN THE CONTRACT LIMITS DURING THE CONTRACT OPERATIONS. IF, AS A RESULT OF CONSTRUCTION, A FLOODING CONDITION OCCURS OR IN THE EVENT THE CONTRACTOR'S OPERATIONS DAMAGE OR BLOCK THE DRAINAGE SYSTEM, THE CONTRACTOR SHALL AT HIS/HER OWN EXPENSE IMMEDIATELY REPAIR OR RESTORE THE DRAINAGE SYSTEM AS DIRECTED BY THE ENGINEER AT NO EXTRA COST TO THE CITY.
12. CONTRACTOR SHALL PROVIDE TEMPORARY MEANS (PIPES, PUMPS, ETC.) TO DRAIN ANY STORM WATER WHICH MAY DEVELOP WITHIN THE PROJECT LIMITS FOR THE DURATION OF CONSTRUCTION. CONTRACTOR SHALL SUBMIT A DRAINAGE SCHEME WHICH MUST BE APPROVED BY THE ENGINEER, PRIOR TO THE START OF EACH CONSTRUCTION STAGE. COST OF THIS WORK WILL BE DEEMED TO HAVE BEEN INCLUDED IN THE PRICE BID FOR ALL SCHEDULED ITEMS.
13. ALL EXISTING SEWERS AND SEWER HOUSE CONNECTIONS SHOULD BE CONTINUOUSLY MAINTAINED DURING CONSTRUCTION. IF ANY SEWER OR SEWER HOUSE CONNECTION IS TO BE DISCONNECTED FOR CONSTRUCTION PURPOSES, FLOW SHALL BE MAINTAINED BY FLUMING OR OTHER SUITABLE MEANS AS DIRECTED BY THE ENGINEER AND IN SUCH A MANNER THAT NO BACK-UPS OCCUR. EXISTING SEWERS, HOUSE CONNECTIONS OR OTHER SEWER APPURTENANCES WHICH ARE TO REMAIN, AND WHICH MIGHT BE DISTURBED FOR CONSTRUCTION PURPOSES, SHALL BE RESTORED TO THEIR PRESENT CONDITION AFTER COMPLETION OF THE WORK, AND DAMAGE DONE AS A RESULT OF THE WORK SHALL BE REPAIRED AT NO EXTRA COST TO THE CITY.

PLANTING NOTES

1. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONDITIONS THAT WOULD PREVENT HEALTHY GROWTH OF PLANT MATERIAL.
2. PLANT GROUPINGS & LOCATIONS ARE DIAGRAMMATIC. THE LOCATION OF PLANTS SHALL BE APPROVED IN THE FIELD BY THE ENGINEER.
3. THERE WILL BE NO SUBSTITUTIONS OF PLANT MATERIAL WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING QUANTITIES SHOWN ON THE PLANS AND MUST INSTALL MATERIAL IN A WORKMANLIKE MANNER.
5. PLANTS SHALL BE WATERED ON DAY OF INSTALLATION. MULCH TO A DEPTH OF (3") THREE INCHES. NO MULCH SHALL BE PLACED AGAINST THE ROOT FLARE OF NEW OR EXISTING TREES.

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra, STATE OF NEW YORK, 081201, LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GENERAL NOTES

DATE JUL 2026
PAGE 3 OF 171
SHEET O-3

CONSULTANT DESIGN

File: O:\9033&ANY\CONTRACT MANAGEMENT\00 - CONSTRUCTION\CONS\4 DOCUMENTS\O-SHEETS\O-3 Saved By: TAUTH Save Date: 2026/05/11 7:20 AM
PLOT DATE: 2026/07/31 8:22:13 AM BY: TAUTH
XREFs= ..\O-SHEET TITLEBLOCK\90336_TB_HAZEN_with_logo-OSHEETS____\Work Plan\O-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

EROSION AND SEDIMENT CONTROL NOTES

1. CONSTRUCTION SHALL BE COMPLETED IN PHASES TO ENSURE THAT NO MORE THAN 5 ACRES OF AREA IS DISTURBED AT ANY ONE TIME. SEE TP-10, R-10, C-10 AND M-10 FOR PHASING DETAILS FOR THE RESPECTIVE PROJECT AREAS. THE WORK AREAS ARE AS FOLLOWS:

83RD ST TO 88TH ST

PHASE	DISTURBED AREA	SHEET	GI PRACTICE	NEAREST STREET
1	2.07	TP-10	NSC-01RGa	80TH
2	1.35	TP-20	NSC-02RGa	83RD
3	4.59	TP-30, TP-31	NSC-03RGa	84TH TO 87TH
4	2.63	TP-40, TP-41	NSC-04RGa	88TH

GRANT AVE TO SUTTER AVE

PHASE	DISTURBED AREA	SHEET	GI PRACTICE	NEAREST STREET
5	2.36	TP-10	NW-01RGa	GRANT AVE
6	4.61	TP-20, TP-21	NW-02RGa	DREW ST

THE CONTRACTOR MAY PERFORM THE CONSTRUCTION IN NON-SEQUENTIAL ORDER (I.E. PHASE 1,4,3,2,5,6), AND MAY PERFORM PHASES CONCURRENTLY AS LONG AS THE TOTAL DISTURBED AREA DOES NOT EXCEED 5.00 ACRES AT A GIVEN TIME.

2. DUE TO THE NATURE OF THE WORK REQUIRED BY THIS CONTRACT, IT IS ANTICIPATED THE LOCATION AND NATURE OF EROSION AND SEDIMENT CONTROL MEASURES WILL BE ADJUSTED AS CONSTRUCTION PROGRESSES TO REFLECT THE CURRENT PHASE OF WORK. THE CONSTRUCTION SCHEDULE ADOPTED BY THE CONTRACTOR WILL IMPACT THE PLACEMENT AND NEED FOR SPECIFIC DEVICES REQUIRED FOR THE CONTROL OF EROSION. THE LOCATION AND EXTENT OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REVISED AT EACH PHASE OF CONSTRUCTION RESULTING IN A CHANGE OF EITHER THE QUANTITY OR DIRECTION OF SURFACE RUNOFF FROM THE CONSTRUCTION AREAS.

3. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE ENGINEER, OWNER, AND REGULATORY AGENCIES FOR DEVIATIONS FROM THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

4. NO LAND DISTURBANCE, DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING, BUT NOT LIMITED TO, SILT FENCING, INLET PROTECTION, AND TREE PROTECTION HAVE BEEN INSTALLED AS SHOWN ON THE CONTRACT DRAWINGS. IF CLEARING IS REQUIRED FOR INSTALLATION OF A PARTICULAR MEASURE, ALL MEASURES NOT REQUIRING CLEARING SHALL BE INSTALLED FIRST. CLEARING OF THE NECESSARY LAND FOR INSTALLATION OF THE PARTICULAR MEASURE MAY THEN PROCEED.

5. CLEARING SHALL BE LIMITED AS MUCH AS POSSIBLE TO AREAS REQUIRED FOR CURRENT CONSTRUCTION ACTIVITIES. MASS CLEARING AND GRADING SHALL BE AVOIDED.

6. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE ENGINEER WITHIN 24 HOURS FOLLOWING EVERY RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY SEVEN CALENDAR DAYS.

7. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REPAIRED OR REPLACED IMMEDIATELY AS REQUIRED TO MAINTAIN PERFORMANCE OF MEASURE. MEASURES SHALL BE CLEANED WHEN SEDIMENT VOLUME REACHES ½ OF TOTAL VOLUME OF MEASURE. REMOVED SEDIMENT SHALL BE DISPOSED OF IN SUCH A MANNER AND LOCATION AS TO INSURE FURTHER SEDIMENT TRANSPORT DOES NOT OCCUR.

8. CONTRACTOR SHALL INITIATE STABILIZATION MEASURES AS SOON AS PRACTICABLE ON STOCKPILES AND IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. THIS REQUIREMENT DOES NOT APPLY IN THE FOLLOWING INSTANCES:

   A) WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE;

   B) WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN FOURTEEN (14) DAYS, TEMPORARY STABILIZATION MEASURES NEED NOT BE INITIATED ON THAT PORTION OF THE SITE.

9. ALL DISTURBED AREAS SHALL DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBANCE ACTIVITIES AND UNTIL FINAL STABILIZATION IS ACHIEVED. SEDIMENT-LADEN GROUNDWATER ENCOUNTERED DURING TRENCHING, BORING, OR OTHER ACTIVITIES SHALL BE PUMPED INTO A SEDIMENT TRAPPING DEVICE PRIOR TO BEING DISCHARGED INTO A STREAM, POND, SWALE, OR CATCH BASIN.

10. SOIL STOCKPILE AND LAYDOWN AREAS SHALL HAVE PERIMETER SEDIMENT CONTROL MEASURES AND TEMPORARY OR PERMANENT STABILIZATION MEASURES INSTALLED AS SOON AS POSSIBLE AND AT COMPLETION OF STOCKPILING AND LAYDOWN ACTIVITIES. STOCKPILE SIDE SLOPES SHALL NOT EXCEED 3H ; 1V UNLESS APPROVED BY ENGINEER. TOP OF STOCKPILE SHALL BE GRADED WITH A MINIMUM 5% SLOPE TO INSURE PROPER DRAINAGE.

11. ALL DISTURBED AREAS, EXCEPT FOR CONCRETE AND PAVED AREAS, SHALL BE FERTILIZED, SEEDED AND MULCHED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE SEEDING SCHEDULE, AND RE-SEEDED AS NECESSARY, TO ESTABLISH AND MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

12. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSED OFFSITE ROADWAYS. IF MATERIAL IS TRACKED ONTO OFFSITE ROADWAYS, IT SHALL BE REMOVED IMMEDIATELY. DO NOT UTILIZE A WATER HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT CONTROL DEVICE. PROPER PRECAUTIONS SHALL BE TAKEN TO ENSURE THAT MATERIALS DEPOSITED ONTO OFFSITE ROADWAYS ARE REMOVED SO THAT THEY DO NOT ENTER YARD INLETS, CATCH BASINS, SEWERS, WETLANDS, SURFACE WATER BODIES, OR ROADSIDE SWALES.

13. WHERE CONCRETE EQUIPMENT WASHING IS REQUIRED, THIS MUST BE DONE IN AN APPROVED "CONCRETE CONTAINMENT AREA". CONTRACTOR SHALL NOT DISCHARGE ANY CONCRETE WASHOUT WATER INTO SEWERS, SURFACE WATER BODIES OR ONTO THE GROUND. ALL WASHOUT WATER MUST BE REMOVED FROM THE SITE(S) DAILY.

14. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", 2016, OR LATEST EDITION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

15. STAGING AREA, STOCKPILES, AND OTHER STORAGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND LOCATED OFFSITE. EXCAVATED SPOILS SHALL BE TRANSPORTED IN A SEALED/WATERTIGHT CONTAINER AND DISPOSED OF OFFSITE AT AN APPROVED FACILITY.

16. SEEDING DATES: THE FOLLOWING SEEDING DATES ARE BEST RECOMMENDED TO ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPSCD: SPRING - 4/1-6/1 AND FALL - 9/1 - 10/15

17. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT CONTROL DEVICE. WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER USING REMOVABLE PUMPING STATIONS, SUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT CONTROL BAGS.

18. WHERE CONCRETE EQUIPMENT WASHING IS REQUIRED, THIS MUST BE DONE IN AN APPROVED "CONTAINMENT AREA" WITHIN AN APPROVED STAGING AREA AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL NOT DISCHARGE ANY CONCRETE WASHOUT WATER TO SEWERS OR INTO THE GROUND. ALL WASHOUT WATER MUST BE REMOVED FROM THE SITE(S) DAILY.

19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION, PERMITTING, AND OPERATION OF A DEWATERING SYSTEM AS REQUIRED FOR THE COMPLETION OF THE WORK. PROCEDURES FOR DEWATERING INCLUDING ASSOCIATED EROSION AND SEDIMENT CONTROL PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO ANY EARTHWORK OPERATIONS. ALL WATER REMOVED BY DEWATERING OPERATIONS SHALL BE DISPOSED OF IN ACCORDANCE WITH - "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", 2005. CONTRACTOR MAY USE PORTABLE SETTLING TANK, SEDIMENT FILTER BAG, OR OTHER APPROVED METHOD TO SETTLE DEWATERING FLOW OF SEDIMENT BEFORE DISCHARGE.

20. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE, PERMANENT VEGETATION IS ESTABLISHED ON ALL DISTURBED AREAS, AND THE ENGINEER HAS GIVEN PERMISSION FOR REMOVAL.

GENERAL DISTRIBUTION WATER MAIN NOTES

1. ALL WATER MAIN WORK AND MATERIALS SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT PLANS AND IN CONFORMANCE WITH THE N.Y.C. D.E.P. STANDARD WATER MAIN SPECIFICATIONS, APPLICABLE STANDARD DRAWINGS, AND SPECIFIC CONTRACT REQUIREMENTS.

2. CONTRACTOR SHALL NOTIFY THE FIRE DEPARTMENT AND N.Y.C. D.E.P.- CONSTRUCTION AT LEAST 72 WORKING HOURS IN ADVANCE PRIOR TO SHUTTING OFF VALVES. NO REMOVAL SHALL TAKE PLACE BEFORE SHUT-OFF VALVES HAVE BEEN CLOSED BY THE D.E.P. PERSONNEL.

3. THE ALIGNMENT OF THE WATER MAINS AND THE LOCATION OF THE VALVES AND HYDRANTS ARE SHOWN SCHEMATICALLY. THE EXACT ALIGNMENTS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER, AS THE WORK PROGRESSES.

4. ALL DUCTILE IRON WATER MAINS UP TO AND INCLUDING 24" DIAMETER SHALL HAVE RESTRAINED JOINTS AND SHALL BE CEMENT LINED AS PER N.Y.C. D.E.P. STANDARD "SPECIFICATIONS FOR DUCTILE IRON PIPE WITH PUSH-ON JOINTS AND DUCTILE IRON FITTINGS WITH MECHANICAL JOINTS 6" THROUGH 48" IN DIAMETER," LATEST REVISION.

   ALL FITTINGS SHALL EMPLOY FULL BODY TYPE MECHANICAL JOINTS WITH RETAINER GLANDS AND SHALL CONFORM TO THE REQUIREMENTS OF N.Y.C. D.E.P. STANDARD SPECIFICATIONS FOR "DUCTILE-IRON AND GRAY-IRON FITTINGS, 3"-48" IN DIAMETER," LATEST REVISION.

5. ALL WATER MAIN VALVES SHALL BE DUCTILE IRON GATE VALVES IN ACCORDANCE WITH N.Y.C. D.E.P. STANDARD SPECIFICATIONS FOR GATE VALVES 3"- 20" IN DIAMETER, LATEST REVISION. ACCESS TO WATER VALVES WITHIN THE WORK AREA SHALL BE MAINTAINED AT ALL TIMES.

6. PRIOR TO CONNECTING THE NEW MAINS TO THE EXISTING ONES, IT MUST BE MADE ABSOLUTELY CERTAIN THAT ALL THE REPLACEMENT/ RESTRAINT REQUIREMENTS DUE TO NEWLY INSTALLED VALVES AND FITTINGS ARE FULLY MET. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO PROPERTY AND FOR PERSONAL INJURY CAUSED BY NEGLIGENCE OR OMISSION REGARDING COMPLIANCE WITH THE REPLACEMENT/RESTRAINT REQUIREMENTS.

   FOR TYPICAL MINIMUM LENGTHS OF REQUIRED REPLACEMENT/ RESTRAINT, SEE TABLE A8-2 IN "STANDARD SPECIFICATIONS FOR DUCTILE-IRON PIPE WITH PUSH-ON JOINTS AND DUCTILE-IRON FITTINGS WITH MECHANICAL JOINTS 6" THROUGH 48", LATEST REVISION.

7. PRIOR TO BEGINNING ANY WATER MAIN WORK, THE CONTRACTOR MUST IDENTIFY THE LOCATION, SIZE, AND TYPE OF ALL EXISTING UTILITIES, INCLUDING ALL SEWER AND WATER HOUSE/SERVICE CONNECTIONS

8. WATER AND SEWER HOUSE SERVICES SHOULD BE MAINTAINED AND PROTECTED AGAINST FREEZING DURING CONSTRUCTION.

9. ALL TAPS AND WET CONNECTIONS ON THE EXISTING WATER MAIN SHOULD BE TRANSFERRED TO THE NEW MAIN, AND ALL SERVICES SHOULD BE INSTALLED PERPENDICULAR TO THE DISTRIBUTION MAIN.

10. ALL HYDRANTS SHALL BE MAINTAINED IN SERVICE AS PER NEW YORK CITY FIRE DEPARTMENT REQUIREMENTS. HYDRANTS SHALL BE "BREAKAWAY" TYPE, AND SHALL HAVE HYDRANT FENDERS AS PER N.Y.C. D.E.P. STANDARDS.

11. ALL EXCAVATION SHALL BE DONE BY HAND WITHIN ONE FOOT (1'-0") OF EXISTING WATER MAINS, SEWERS, HOUSE CONNECTIONS, DRAINS AND OTHER UTILITIES.

12. ALL WATER MAINS WITH A COVER LESS THAN 2'-6" SHALL BE PROTECTED BY SHALLOW COVER PROTECTION. TYPE AND SIZE OF THE SHALLOW COVER PROTECTION SHALL BE AS SPECIFIED ON THE CONTRACT PLANS.

13. STEEL WATER MAINS SHALL BE USED WHERE SPECIFIED IN THE PLANS AND AS ORDERED BY THE ENGINEER. THE STEEL MAINS SHALL BE FABRICATED, TESTED, LINED, COATED, AND INSTALLED IN ACCORDANCE WITH "N.Y.C. D.E.P. STANDARD SPECIFICATIONS FOR FURNISHING DELIVERING AND LAYING STEEL PIPES AND APPURTENANCES", LATEST REVISION, ALL APPLICABLE N.Y.C. D.E.P. STANDARD DRAWINGS, AND AS ORDERED BY THE ENGINEER.

14. CONTRACTOR SHALL SUBMIT GEOMETRY DRAWINGS FOR FABRICATION AND LAYING OF STEEL PIPE, INCLUDING PIPE SUPPORTS AND SHALLOW COVER PROTECTION, TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

15. CONTRACTOR SHALL SUBMIT ALL STEEL WATER MAIN FABRICATION SHOP DRAWINGS AND CATALOG CUTS FOR THE WATER MAIN(S) AND APPURTENANCES, ALL IN ACCORDANCE WITH APPROVED/ACCEPTED GEOMETRY OF THE PIPE, AND ALL APPLICABLE D.E.P. STANDARDS, TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

16. ALL STEEL WATER MAINS UP TO AND INCLUDING 24" IN DIAMETER SHALL HAVE FLANGED JOINTS, UNLESS OTHERWISE NOTED ON THE PLANS. JOINTS SHALL BE FORGED STEEL SLIP-ON FLANGES, CLASS E, AS PER NYCDEP STANDARD DRAWING NO. 38336-Y-A, LATEST REVISION.

17. ALL BENDS ON STEEL WATER MAINS SHALL BE STANDARD WEIGHT LONG-RADIUS ELBOWS OR SHALL BE SHOP FABRICATED FROM PIPE SEGMENTS AS PER "N.Y.C. D.E.P. STANDARD SPECIFICATIONS FOR FURNISHING DELIVERING AND LAYING STEEL PIPES AND APPURTENANCES", LATEST REVISION.

18. THE CONNECTION BETWEEN STEEL AND DUCTILE IRON WATER MAINS SHALL BE ACCOMPLISHED BY INSULATED FLANGED JOINTS, AS SHOWN ON N.Y.C. D.E.P. STANDARD DRAWING NO. 46104 - W, LATEST REVISION.

19. AFTER WATER MAIN WORK UNDER THE CONTRACT IS SATISFACTORILY COMPLETED, THE CONTRACTOR SHALL SUBMIT, FIVE (5) COMPLETE SETS OF AS-BUILT DRAWINGS, APPROVED BY THE RESIDENT ENGINEER, FOR THE BUREAU'S FILES.

20. CONTRACTOR SHALL MAINTAIN 4 FEET OF COVER OVER ALL WATER MAINS AND THE COVER SHALL NOT BE LESS THAN 2 FEET. DUE TO FIELD CONDITIONS, IF WATER MAINS HAVE LESS THAN 3 FEET OF COVER, BUT MORE THAN OR EQUAL TO 2 FEET OF COVER, PIER AND PLATE THE WATER MAIN IN ACCORDANCE WITH NYC DEP STANDARD DRAWING NUMBERS: 46464-Z, 42063-Y, AND 22785. IF ADJACENT UTILITY INTERFERENCES RESTRICT THE CONSTRUCTION OF PIER AND PLATE AS PER NYC DEP STANDARD DRAWINGS, THE CONTRACTOR SHALL SUBMIT CUSTOMIZED SHOP DRAWINGS FOR PIER AND PLATE DETAILS FOR THE WATER MAIN CONSTRUCTION FOR NYC DEP APPROVAL.

TEST PIT NOTES

1. TEST PIT NOTES ON THIS DRAWING APPLY TO THE ENTIRE CONTRACT.

2. TEST PITS ARE SHOWN ON THE C-SERIES LAYOUT PLAN DRAWINGS. THE CONTRACTOR SHALL PERFORM TEST PITS AT LOCATION SHOWN PRIOR TO THE START OF CONSTRUCTION. THESE TEST PITS ARE AT THE DISCRETION OF THE ENGINEER OR OWNER AND DOES NOT PRECLUDE THE CONTRACTOR FROM VERIFYING EXISTING CONDITIONS.

3. TEST PITS SHALL BE PERFORMED TO THE DEPTHS REQUIRED TO CONFIRM LOCATION, AND MATERIAL CONDITIONS OF THE STRUCTURES, PIPES, OR DUCT BANKS AS SHOWN ON THE CONTRACT DRAWINGS.

4. ALL TEST PITS SHALL BE WITNESSED BY THE ENGINEER. ANY TEST PITS PERFORMED WITHOUT THE PRESENCE OF THE ENGINEER SHALL BE REDONE AT NO ADDITIONAL COST TO THE OWNER.

5. THE CONTRACTOR SHALL PROVIDE A LICENSED SURVEYOR IN THE STATE OF NEW YORK TO SURVEY ALL TEST PIT LOCATIONS AND SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

6. THE CONTRACTOR SHALL PERFORM UP TO TEN (10) ADDITIONAL TEST PITS AS DIRECTED BY THE ENGINEER OR THE OWNER. ADDITIONAL TESTS WILL BE BEYOND 5 FT IN DEPTH AND 15 SF IN SIZE.

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GENERAL NOTES

DATE JUL 2026
PAGE 4 OF 171
SHEET O-4

CONSULTANT DESIGN

File: O:\80336\AY\CONTRACT MANAGEMENT\00 - CONSTRUCTION\CONS\4 DOCUMENTS\0-SHEETS\O4 Saved By: TAUTH Save Date: 2026/05/11 7:20 AM
PLOT DATE: 2026/07/13 8:22:18 AM BY: TAUTH
XREFs= ..\0-SHEET TITLEBLOCK\80336_TB_HAZEN_with_logo-OSHEETS..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

ABBREVIATIONS

ABANDONED	ABDN.
APARTMENT	APT.
ASPHALT	ASPH.
BASEMENT	BSMT.
BITUMINOUS	BIT.
BLOCK	BLK.
BLUESTONE	B.S.
BLUESTONE CURB	B.S.C.
BLUESTONE WALK	B.S.W.
BOTTOM OF CURB	B.C.
BRICK	BRK.
BUILDING	BLDG.
BUILT	BLT.
CALIPER	CAL.
CAST IRON	C.I.
CENTER LINE	C.L.
CHAIN LINK FENCE	C.L.F.
CHAMBER	CH.
CLASS NUMBER	CL. #
COMBINED	COMB.
COMMERCIAL	COMM.
CONCRETE	CONC.
CONCRETE CURB	C.C.
CONCRETE WALK	C.W.
DIAMETER	DIA.
DOUBLE BARREL	D.B.
DOWN	DN.
DRAWING	DWG.
DUCTILE IRON PIPE	D.I.P.
EXISTING	EXIST.
EXTRA STRENGTH VITRIFIED PIPE	E.S.V.P.
FIRE ALARM	F.A.
FIRE DEPARTMENT	F.D.
FLAT TOP REINFORCED CONCRETE	F.T.R.C.
FRAME	FR.
GRANITE	GRAN.
GRANITE CURB	GRAN. C.
INTERCEPTOR	INT.
INVERT ELEVATION	INV.
IRREGULAR	IRR.
MANHOLE	MH
NOT IN CONTRACT	N.I.C.
NOT TO SCALE	N.T.S.
PAVEMENT	PVMT.
POINT OF CURVATURE	P.C.
POINT OF INTERSECTION	P.I.
POINT OF TANGENCY	P.T.
PRECAST REINFORCED CONCRETE	P.R.C.
RADIUS	R
REINFORCED CONCRETE PIPE	R.C.P.
ROADWAY	RDWY.
RIGHT-OF-WAY BIOSWALE	ROWB
SANITARY	SAN.
SEWER	SWR.
SIDEWALK	SW.
STANDARD	STD.
STEAM	ST.
STEEL	STL.
STEEL FACED CURB	SFC
STEEL NOSED CURB	S.N.C.
STONE	STN.
STORM	STM.
STORY	STY.
TOP OF CURB	T.C.
TRAFFIC SIGN	T.S.
VACANT	VAC.
WORKING POINT	W.P.

LEGEND

	EXISTING	PROPOSED
MANHOLES		
ELECTRIC	(E) [E]	
CABLE TV	[C]	
TELEPHONE	(T)	
TRAFFIC	[Tf]	
NYC MH	□NYC	
GAS	(G)	
WATER	(W)	
FIRE DEPT.	(F)	
SUBWAY	(Su)	
COAL CHUTE	○CC	
STORM SEWER	(S)STM	○STM
COMBINED SEWER	(S)COMB	○COMB
SANITARY SEWER	(S)SAN	○SAN
INTERCEPTOR SEWER	(S)INT	○INT
UNIDENTIFIED MANHOLE (NO RECORD AVAILABLE)	(MH)	
BUILT MANHOLE REPLACED BY NEW MANHOLE		◉
RECORD MANHOLE	(S)	
HARDWARE RIM EL. & INV. EL. (SEWER, ETC.)	(S)61.23 INV.47.89	
INLETS/OUTLETS		
STORMWATER INLET		INLET
ROWB, ROWG, ROWSGS INLET		
ROWB, ROWG, ROWSGS OUTLET		OUTLET
CATCH BASINS		
CATCH BASIN WITH CURB PIECE - TYPE 1	1	□
CATCH BASIN WITHOUT CURB PIECE - TYPE 2	2	□
CATCH BASIN WITHOUT CURB PIECE - TYPE 3	3	□
EXISTING CATCH BASIN TO BE REMOVED		R
TO BE ABANDONED		A
TO BE MODIFIED		M
TO BE ADJUSTED		A
CATCH BASIN - NON-STANDARD		N
NEW CATCH BASIN TO BE CONSTRUCTED IN SAME LOCATION AS OLD BASIN		
INLET	◪	
SEEPAGE BASIN	○SB	○SB
HYDRANTS		
LOW PRESSURE HYDRANT		
HIGH PRESSURE HYDRANT		
LOW PRESSURE HYDRANT TO BE RELOCATED		R
HIGH PRESSURE HYDRANT TO BE RELOCATED		R
LOW PRESSURE HYDRANT TO BE ADJUSTED (VERTICALLY)		A
HIGH PRESSURE HYDRANT TO BE ADJUSTED (VERTICALLY)		A
SIAMESE CONNECTION	⊰	
STREET LIGHTING AND TRAFFIC SIGNALS		
WOOD UTILITY POLE	-○-	
WOOD UTILITY POLE WITH STREET LIGHT	✲	
WOOD UTILITY POLE WITH TRAFFIC SIGNAL	-○-T	
WOOD UTILITY POLE WITH STREET LIGHT AND FIRE ALARM BOX	✲F	
WOOD UTILITY POLE WITH FIRE ALARM BOX	-○-F	
WOOD UTILITY POLE WITH PEDESTRIAN SIGNAL	-○-PS	
WOOD UTILITY POLE WITH TRAFFIC AND PEDESTRIAN SIGNAL	-○-TPS	
WOOD UTILITY POLE WITH STREET LIGHT AND TRAFFIC AND PEDESTRIAN SIGNAL	✲TPS	
WOOD UTILITY POLE WITH STREET LIGHT AND PEDESTRIAN SIGNAL	✲PS	
STREET LIGHT (METAL POLE)	✲	
STREET LIGHT AND TRAFFIC SIGNAL	✲T	
STREET LIGHT AND TRAFFIC SIGNAL WITH PEDESTRIAN SIGNAL	✲TPS	
STREET LIGHT WITH PEDESTRIAN SIGNAL	✲PS	
STREET LIGHT WITH FIRE ALARM BRACKET	✲F	
TRAFFIC SIGNAL POST	⊖T	
TRAFFIC SIGNAL CONTROL BOX	◫	
STANCHION WITH TRAFFIC SIGNAL	⊙T	
STANCHION W/PEDESTRIAN SIGNAL	⊙TPS	
TRAFFIC SIGNAL POST W/PEDESTRIAN SIGNAL	⊖TPS	
VALVE BOXES		
GAS	□G	
WATER	□W	
STEAM	□St	

LEGEND

	EXISTING	PROPOSED
TREES		
EXISTING TREE (SIZE AS LABELED)		
EXISTING TREE DRIPLINE		
EXISTING TREE CRITICAL ROOT ZONE		
EXISTING TREE TO BE REMOVED		
NEW TREE TO BE PLANTED		
SHRUB		
HEDGE (HEIGHT AS LABELED)		
MISCELLANEOUS		
VAULT (SIDEWALK)	V	
CELLAR WINDOW GRATING		
CELLAR DOOR	CD	
SUBWAY GRATING		
STORMWATER RUNOFF		
TRAFFIC DIRECTION	-	
PARKING METER		
OIL FILL CAP OR OIL VENT	◎ OR ○FILL	
FIRE ALARM POST	□F	
POLICE CALL BOX	□P	
MAIL BOX, PUBLIC PHONE	□MB □TEL.	
COLUMN - FOUNDATION (OF ELEVATED STRUCTURES)	⊠ OR ▣	
HEADER		
AREA OF ADJUSTMENT		
LIMIT OF NEW PAVEMENT		
BUS PAD		
SIGN (GROUND MOUNTED)		
SIGN (OVERHEAD)		
TRAIN STATION ENTRANCE		DOWN
SHAFT TO BUILDING BASEMENT		SH
PEDESTRIAN RAMP		
CURB (CONCRETE UNLESS OTHERWISE INDICATED)		
CURB WITH DROP CURB (DRIVEWAY)	DC	DC
EDGE OF PAVEMENT WITHOUT CURB		
PROPOSED CONSTRUCTION (TOP OF CURB) ELEVATION AND STATION		T.C. 13.8 STA. 26+33
ROCK OUTCROP		
NORTH ARROW		
BARRIERS		
BEAM TYPE MALL BARRIER		
PORTABLE PRECAST CONCRETE BARRIER		
CAST IN PLACE CONCRETE BARRIER		
RETAINING WALL (W/TYPE)		RW (STN.)
RAILROAD/TROLLEY TRACK		
FENCE (WITH HEIGHT AND TYPE)		
CHAIN LINK FENCE		6'
IRON PICKET FENCE		5'
WIRE FENCE		5'
IRON ON CONCRETE COPING		
WOOD PICKET FENCE		4'
GUARD POST		○GP
BUILDINGS		
HOUSE INFORMATION — HOUSE NUMBER, BLDG TYPE, FIRST FLOOR ELEV. (CE) CELLAR ENTR. (GE) GARAGE ENTR.		95-02 2-STY.FR. ▼ FF 25.3 C.E.17.5
STAIRS OR STOOPS		
CANOPY		CANOPY
ENTRANCE**		
GEOTECHNICAL		
BORING LOCATION		●B
PERMEABILITY TEST LOCATION		◇PT
SITE		
LIMITS OF DISTURBANCE		LOD LOD
CRITICAL ROOT ZONE		
ABSOLUTE CRITICAL ROOT ZONE		TPF

LEGEND

	EXISTING	PROPOSED
CONDUITS		
6" WATER MAIN	6" WATER	
8" WATER MAIN	8" WATER	
12" WATER MAIN	12" WATER	
16" WATER MAIN*	16" WATER	
20" WATER MAIN*	20" WATER	
24" WATER MAIN*	24" WATER	
30" WATER MAIN*	30" WATER	
36" WATER MAIN*	36" WATER	
42" WATER MAIN*	42" WATER	
48" WATER MAIN*	48" WATER	
54" WATER MAIN*	54" WATER	
60" WATER MAIN*	60" WATER	
66" WATER MAIN*	66" WATER	
72" WATER MAIN*	72" WATER	
84" WATER MAIN*	84" WATER	
96" WATER MAIN*	96" WATER	
STORM SEWER (WITH SIZE - LESS THAN 24")	15" STM. SEWER	15" STM. SEWER
STORM SEWER (WITH SIZE - 24" AND GREATER)*	24" STM. SEWER	24" STM. SEWER
SANITARY SEWER (WITH SIZE - LESS THAN 24")	15" SAN. SEWER	15" SAN. SEWER
SANITARY SEWER (WITH SIZE - 24" AND GREATER)*	24" SAN. SEWER	24" SAN. SEWER
COMBINED SEWER (WITH SIZE - LESS THAN 24")	15" COMB. SEWER	15" COMB. SEWER
COMBINED (WITH SIZE - 24" AND GREATER)*	24" COMB. SEWER	24" COMB. SEWER
INTERCEPTOR SEWER (WITH SIZE - LESS THAN 24")	15" INTERCEPTOR SEWER	15" INTERCEPTOR SEWER
INTERCEPTOR SEWER (WITH SIZE - 24" AND GREATER)*	24" INTERCEPTOR SEWER	24" INTERCEPTOR SEWER
CATCH BASIN CONNECTION		
GAS LINE (WITH SIZE)	4" GAS	
STEAM (WITH SIZE)	16" STEAM	
ELECTRIC	ELECTRIC	
TELEPHONE	TELEPHONE	
CABLE	CABLE	
FIRE ALARM	FIRE ALARM	
OVERHEAD (AERIAL) UTILITY LINE	A/E,T,F	
TA SUBWAY CONDUIT		
LEGAL DATA		
LOT & BLOCK NUMBER	39 BLOCK 2109	
ESTABLISHED/LEGAL GRADE	0.00	
ANGLE	86°30'48"	
BLOCK LENGTH	167.01' (65.75 m)	
INTERPOLATED/CALCULATED ANGLE OR LENGTH	[86°30'48"] [167.01'(65.75 m)]	
MAPPED PROPERTY LINE (RIGHT-OF-WAY LINE)	PL	
LOT LINE		
SURVEY MONUMENT (CITY) - IDENTIFY BY TOPO NUMBER	⊞M#	
BENCH MARK (LABEL)	⊼BM#	
SURVEY CONTROLS		
CONTROL SURVEY TRAVERSE		
CENTER LINE BASE LINE	10+00 10+50	
MAJOR EXISTING TOPOGRAPHIC LINE	15	
MINOR EXISTING TOPOGRAPHIC LINE	15	
MAJOR PROPOSED TOPOGRAPHIC LINE	15	
MINOR PROPOSED TOPOGRAPHIC LINE	15	

* LINE SPACING IN SYMBOL TO BE SCALED TO CONDUIT SIZE
** WIDTH OF ENTRANCE SYMBOL SHALL BE TO SCALE

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

LEGEND AND ABBREVIATIONS

DATE	JUL 2026
PAGE	5 OF 171
SHEET	O-5

CONSULTANT DESIGN

File: O:\90336\MYCONTRACT MANAGEMENT\00 - CONSTRUCTION\CONDS\4 DOCUMENTS\CS-SHEETS\O-5 Signed By SKANE Save Date: 2026/06/05 1:35 PM
PLOT DATE: 2026/07/31 8:22:22 AM BY: TAUTH
XREFs= ..\0-SHEET TITLEBLOCK\90336_TB_HAZEN_with_logo-OSHEETS____\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

LEGEND

	EXISTING	PROPOSED
TREE DRIPLINE		
TREE CRITICAL ROOT ZONE		
TREE PROTECTION ZONE		
MAJOR CONTOUR LINE	35	36
MINOR CONTOUR LINE	35	36
CONSTRUCTION ACCESS/ENTRANCE		
STAGING AREA		
STABILIZED CONSTRUCTION ENTRANCE		
TEMPORARY ASPHALT ENTRANCE		
FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT		
MILLING AND PAVING		
FULL EXCAVATION LIMIT		
SAWCUT LIMIT		
PIPE REMOVAL		
POINT OF BEGINNING		
CONTRACT LIMIT LINE		CLL
SILT FENCE		SF SF
TEMPORARY CONSTRUCTION FENCE		CF
INLET PROTECTION		
TREE DRIPLINE		
TREE CRITICAL ROOT ZONE		
STRAW BALE DIKE		
TREE TO BE PROTECTED		## 7"
TREE TO BE TRANSPLANTED		## 7"
TREE TO BE REMOVED		## 7"
BORING LOCATION		B
PERMEABILITY TEST LOCATION		PT
GREEN INFRASTRUCTURE PRACTICE		
ISOLATOR ROW WITH WOVEN GEOTEXTILE		
FULL DEPTH EXCAVATION LIMIT		
FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT		
RESTORATION SEED MIX		
BIORETENTION SEED MIX		
FULL DEPTH ASPHALT RESTORATION		
FULL DEPTH SIDEWALK RESTORATION		
CLEANOUT/INSPECTION PORT		
OUTLET CONTROL STRUCTURE		
FLARED END SECTION WITH RIP RAP APRON		
MODIFIED CURB INLET TYPE A		
PROPOSED STORM DRAIN (W/ FLOW DIRECTION)		
DRAINAGE AREA		
FLOW DIRECTION		FLOW
GREEN INFRASTRUCTURE CHARACTERISTICS		GI PRACTICE ID: TRIBUTARY AREA / VOLUME OF X.XX" STORM / CAPACITY MANAGED

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

PROPOSED LEGEND

DATE JUL 2026
PAGE 6 OF 171
SHEET O-6

CONSULTANT DESIGN

File: O:\90336\AY\CONTRACT MANAGEMENT\00 - CONSTRUCTION\CONS-9 DOCUMENTS\O-SHEETS\O-6 Saved By: BKANE Save Date: 2026/05/05 1:35 PM
PLOT DATE: 2026/07/31 8:22:26 AM BY: TALITH
XREFs= ..\O--SHEET TITLEBLOCK\90336_TB_HAZEN_with_logo--OSHEETS____\Work Plan\O--Reference Materia\S02 CAD Templates\Electronic Seal\Sandeep's Seal--2010

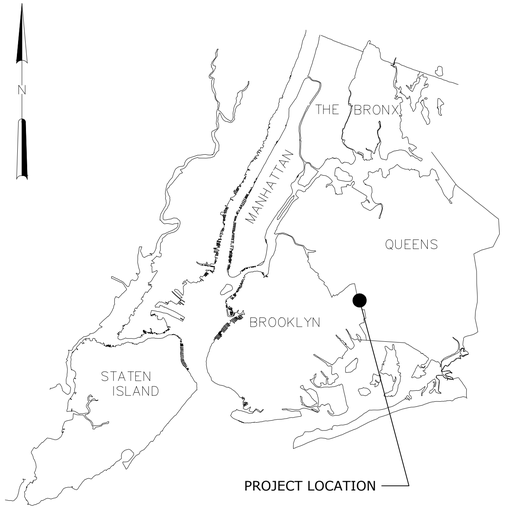
Environmental Protection

NEW YORK CITY ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

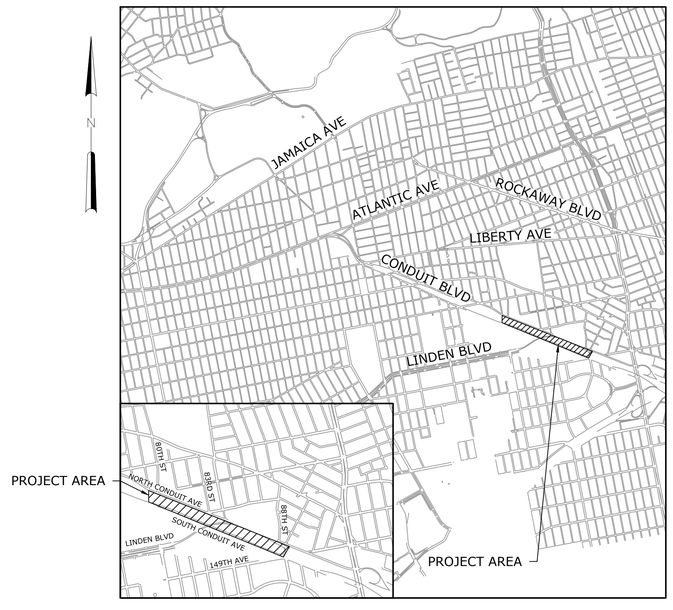
MEDIAN GREEN INFRASTRUCTURE
26TH WARD CSO TRIBUTARY AREA
OUTFALL 26W-005
DEP CAPITAL CONTRACT NO. GI-CONS-9
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST

QUEENS, NY

BID SET
NOVEMBER 2026



CONTRACT LOCATION



LOCATION PLAN
NTS

PROJECT AREA

John McLaughlin
Digitally signed by John McLaughlin
Date: 2026.11.02 12:19:30 -05'00'

JOHN MCLAUGHLIN
MANAGING DIRECTOR
OFFICE OF ECOSYSTEM SERVICES, GREEN INFRASTRUCTURE AND RESEARCH
BUREAU OF ENVIRONMENTAL PLANNING & ANALYSIS, NYCDEP

Lisa F. Garcia
Digitally signed by Lisa F. Garcia
Date: 2026.10.30 14:46:14 -04'00'

LISA F. GARCIA
COMMISSIONER
NYCDEP

NOT FOR CONSTRUCTION

DRAWING INDEX

SHEET NUMBER (PDF)	DRAWING NUMBER	SHEET TITLE
GENERAL		
7	G-01	COVER - 83RD ST TO 88TH ST
8	I-01	SHEET LIST
9	SC-1	SURVEY SHEET KEY PLAN
10	SC-2	SURVEY CONTROL POINTS
11	TS-1	TOPOGRAPHIC AND UTILITY SURVEY
12	TS-2	TOPOGRAPHIC AND UTILITY SURVEY
13	TS-3	TOPOGRAPHIC AND UTILITY SURVEY
14	TS-4	TOPOGRAPHIC AND UTILITY SURVEY
15	TS-5	TOPOGRAPHIC AND UTILITY SURVEY
16	TS-6	TOPOGRAPHIC AND UTILITY SURVEY
17	TS-7	TOPOGRAPHIC AND UTILITY SURVEY
18	TS-8	TOPOGRAPHIC AND UTILITY SURVEY
19	TS-9	TOPOGRAPHIC AND UTILITY SURVEY
20	TS-10	TOPOGRAPHIC AND UTILITY SURVEY
21	I-02	DESIGN SHEET KEY PLAN
SHEETS: SYSTEM 1		
22	S-10	EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-01RGa
23	B-10	GEOTECHNICAL PLAN - NSC-01RGa
24	TP-10	TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 1
25	R-10	REMOVAL PLAN - NSC-01RGa
26	C-10	LAYOUT PLAN - NSC-01RGa
27	GD-10	TRIBUTARY DRAINAGE AREA-NSC-01RGa
28	GD-11	DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN- NSC-01RGa
29	M-10	PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN
30	CS-10	PROFILE - NSC-01RGa I
31	CS-11	PROFILE - NSC-01RGa II
32	CS-12	CROSS SECTION - NSC-01RGa
SHEETS: SYSTEM 2		
33	S-20	EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-02RGa
34	B-20	GEOTECHNICAL PLAN - NSC-02RGa
35	TP-20	TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 2
36	R-20	REMOVAL PLAN - NSC-02RGa
37	C-20	LAYOUT PLAN - NSC-02RGa
38	GD-20	TRIBUTARY DRAINAGE AREA-NSC-02RGa
39	GD-21	DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NSC-02RGa
40	M-20	PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN
41	CS-20	PROFILE - NSC-02RGa I
42	CS-21	PROFILE - NSC-02RGa II
43	CS-22	CROSS SECTION - NSC-02RGa
44	CS-23	PROPOSED CB CONNECTION NSC-02RGa
SHEETS: SYSTEM 3		
45	S-30	EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-03RGa I
46	S-31	EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-03RGa II
47	B-30	GEOTECHNICAL PLAN - NSC-03RGa
48	TP-30	TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 3
49	TP-31	TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 3
50	R-30	REMOVAL PLAN - NSC-03RGa I
51	R-31	REMOVAL PLAN - NSC-03RGa II
52	C-30	LAYOUT PLAN - NSC-03RGa I
53	C-31	LAYOUT PLAN - NSC-03RGa II
54	GD-30	TRIBUTARY DRAINAGE AREA-NSC-03RGa
55	GD-31	DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN- NSC-03RGa I
56	GD-32	DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NSC-03RGa II
57	M-30	PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN I
58	M-31	PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN II
59	CS-30	PROFILE - NSC-03RGa I
60	CS-31	PROFILE - NSC-03RGa II
61	CS-32	PROFILE - NSC-03RGa III
62	CS-33	PROFILE - NSC-03RGa IV
63	CS-34	PROFILE - NSC-03RGa V
64	CS-35	PROFILE - NSC-03RGa VI
65	CS-36	CROSS SECTION - NSC-03RGa
66	CS-37	PROPOSED CB CONNECTIONS - NSC-03RGa
SHEETS: SYSTEM 4		
67	S-40	EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-04RGa I
68	S-41	EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-04RGa II
69	B-40	GEOTECHNICAL PLAN - NSC-04RGa
70	TP-40	TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 4
71	TP-41	TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 4
72	R-40	REMOVAL PLAN - NSC-04RGa I
73	R-41	REMOVAL PLAN - NSC-04RGa II
74	C-40	LAYOUT PLAN - NSC-04RGa I
75	C-41	LAYOUT PLAN - NSC-04RGa II
76	GD-40	TRIBUTARY DRAINAGE AREA-NSC-04RGa
77	GD-41	DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NSC-04RGa I
78	GD-42	DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NSC-04RGa II
79	GD-43	ADA RAMP GRADING PLANS - 83RD STREET AND 135TH STREET
80	M-40	PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN I
81	M-41	PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN II
82	CS-40	PROFILE - NSC-04RGa I
83	CS-41	PROFILE - NSC-04RGa II
84	CS-42	PROFILE - NSC-04RGa III
85	CS-43	PROFILE - NSC-04RGa IV
86	CS-44	PROFILE - NSC-04RGa V
87	CS-45	PROFILE - NSC-04RGa VI
88	CS-46	CROSS SECTION - NSC-04RGa
89	CS-47	PROPOSED CB CONNECTIONS - NSC-04RGa
D-SHEETS		
90	D-1	DETAILS
91	D-2	DETAILS
92	D-3	DETAILS
93	D-4	DETAILS

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.



Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

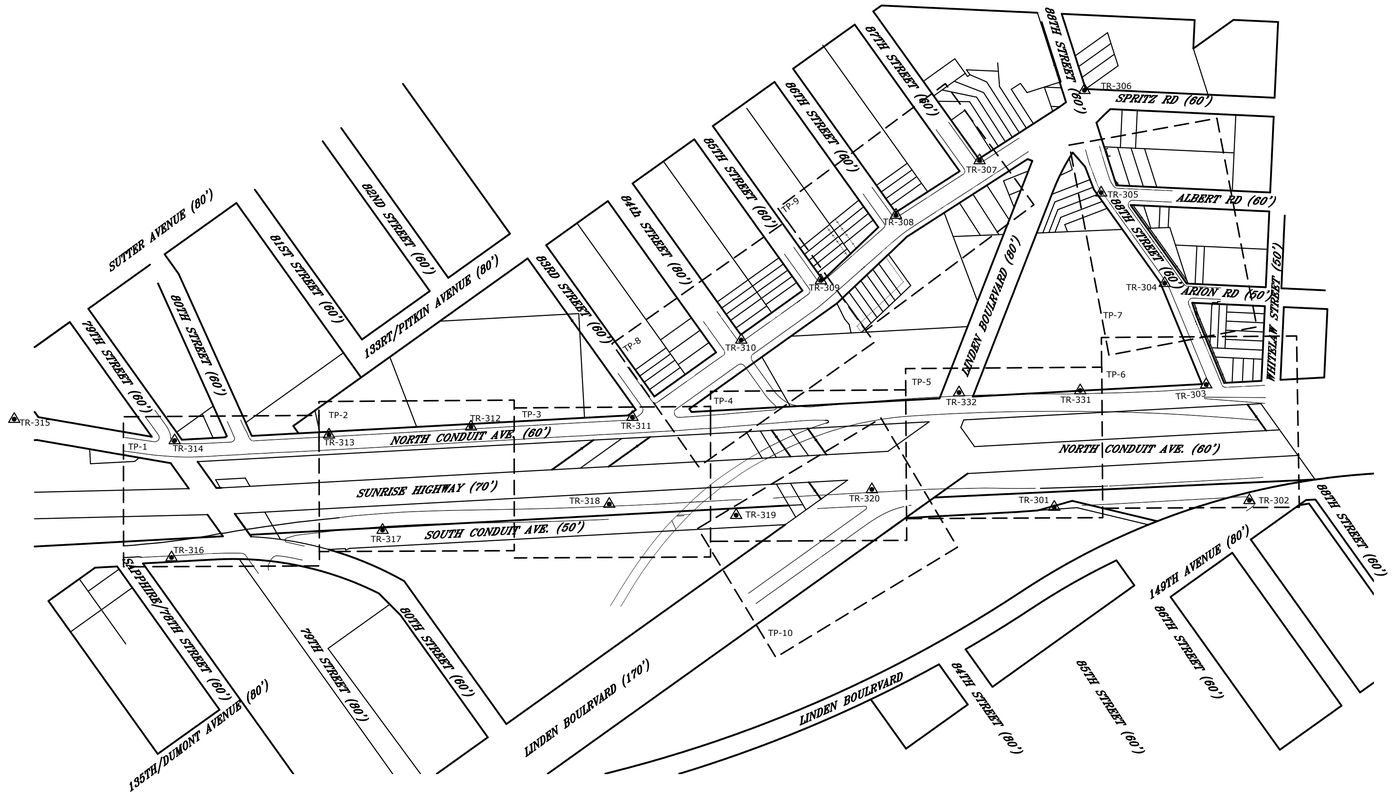
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
SHEET LIST

DATE	JUL 2026
PAGE	8 OF 171
SHEET	I-01

CONSULTANT DESIGN

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

File: O:\26036-NYC\26036-051\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\I-01 Saved By: SKANE Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 7:59:32 AM BY: TAUTH



KEY MAP
N.T.S.

NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
   BOROUGH PRESIDENT OF BROOKLYN HIGHWAY DATUM = NAVD88 - 1.460 FEET.

2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.

3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

NO.	DATE	ISSUED FOR	BY

DESIGNED _____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. _____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — PAUL SCHWARTZ — LICENSED LAND SURVEYOR — 049466

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

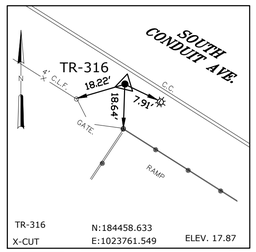
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

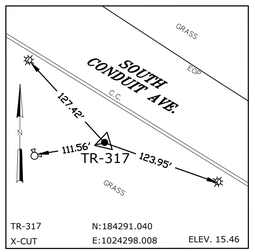
GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
KEY MAP & SURVEY CONTROL PLAN

DATE: JUL 2026
PAGE: 9 OF 171
SHEET: SC-1

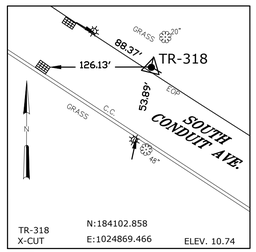
File = F:\PROJECTS\BES\22\QWC\Separate Contracts SS_4+-2025\11BES22_SE Conduit Ins Synet by jjiranillo Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:08 PM
BY: JJARANILLO
XREFs=



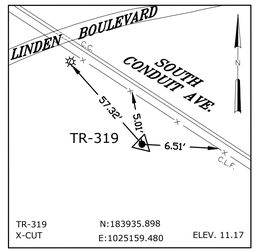
TR-316 N:184458.633
X-CUT E:1023761.549 ELEV. 17.87



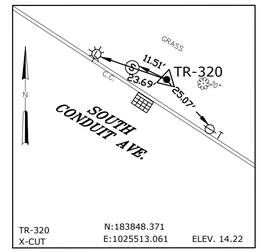
TR-317 N:184291.040
X-CUT E:1024298.008 ELEV. 15.46



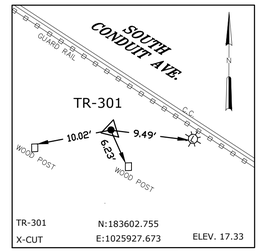
TR-318 N:184102.858
X-CUT E:1024869.466 ELEV. 10.74



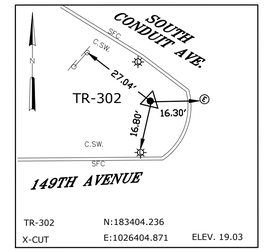
TR-319 N:183935.898
X-CUT E:1025159.480 ELEV. 11.17



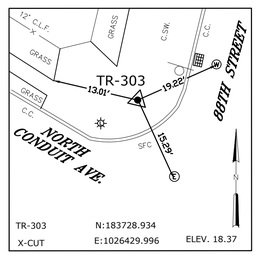
TR-320 N:183848.371
X-CUT E:1025513.061 ELEV. 14.22



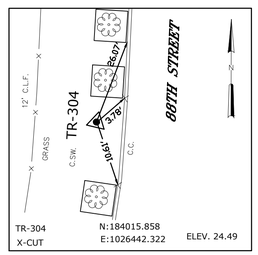
TR-301 N:183602.755
X-CUT E:1025927.673 ELEV. 17.33



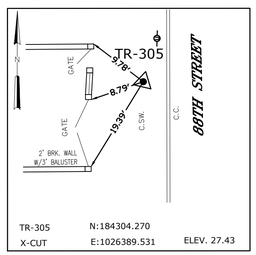
TR-302 N:183404.236
X-CUT E:1026404.871 ELEV. 19.03



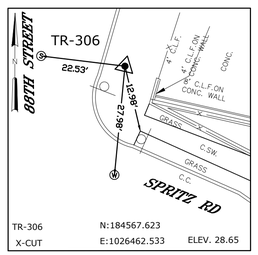
TR-303 N:183728.934
X-CUT E:1026429.996 ELEV. 18.37



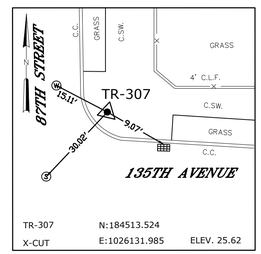
TR-304 N:184015.858
X-CUT E:1026442.322 ELEV. 24.49



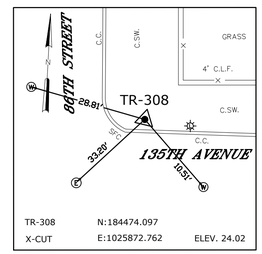
TR-305 N:184304.270
X-CUT E:1026389.531 ELEV. 27.43



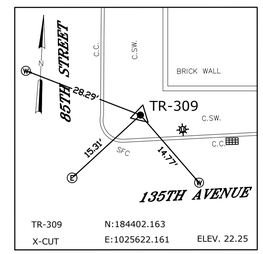
TR-306 N:184567.623
X-CUT E:1026462.533 ELEV. 28.65



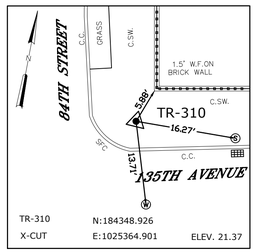
TR-307 N:184513.524
X-CUT E:1026131.985 ELEV. 25.62



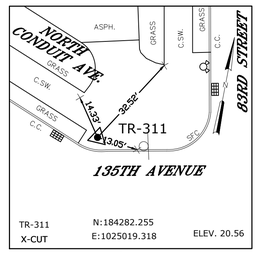
TR-308 N:184474.097
X-CUT E:1025872.762 ELEV. 24.02



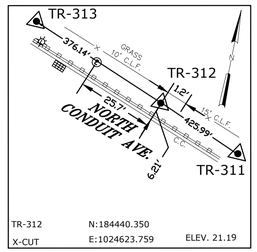
TR-309 N:184402.163
X-CUT E:1025622.161 ELEV. 22.25



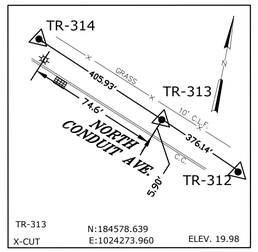
TR-310 N:184348.926
X-CUT E:1025364.901 ELEV. 21.37



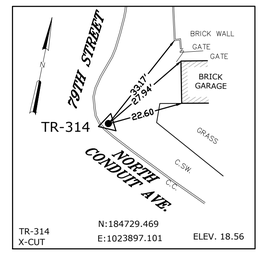
TR-311 N:184282.255
X-CUT E:1025019.318 ELEV. 20.56



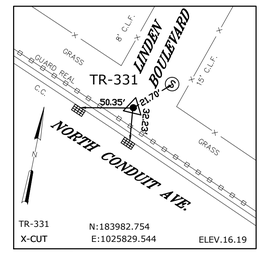
TR-312 N:184440.350
X-CUT E:1024623.759 ELEV. 21.19



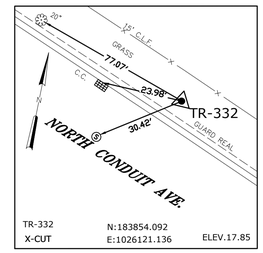
TR-313 N:184578.639
X-CUT E:1024273.960 ELEV. 19.98



TR-314 N:184729.469
X-CUT E:1023897.101 ELEV. 18.56



TR-331 N:183982.754
X-CUT E:1025829.544 ELEV.16.19



TR-332 N:183854.092
X-CUT E:1026121.136 ELEV.17.85

TIES
N.T.S.

NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
   BOROUGH PRESIDENT OF BROOKLYN HIGHWAY DATUM = NAVD88 - 1.460 FEET.

2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.

3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

NO.	DATE	ISSUED FOR	BY

DESIGNED ____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — PHILIP SANTELLA — LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK
____ P.E.
PROJECT MANAGER
____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
SURVEY CONTROL TIES

DATE: JUL 2026
PAGE: 10 OF 171
SHEET: SC-2

File = F:\PROJ\T\1853\23\DWG\Separate Contracts SL_4-4-2025\1853_23_SE Conduit Ave Scoped by Jpramilo_Scw.dgn = 7/4/2025 12:58 PM
PLOT DATE = 7/4/2025 1:08 PM BY: JARAMILO
XREFs=

NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED _____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. _____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — KAREEM JAMAL MUÑOZ — LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

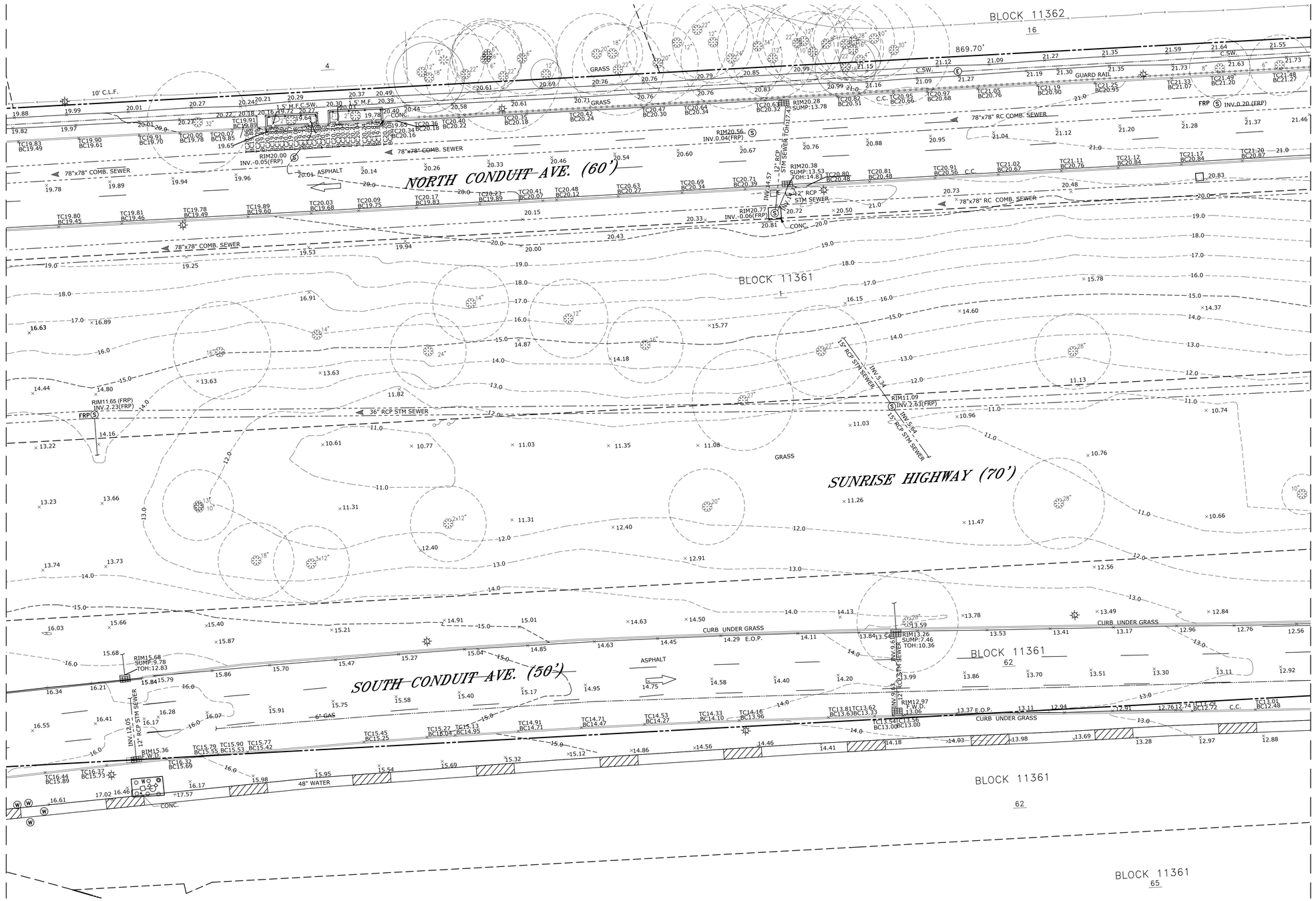
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 11 OF 171
SHEET: TS-1

File = T:\PVLT\11852.22\DWG\Separate Contracts SS_4-4-2025\11852.22_Conduit Ave Sewer.dwg [plan4to Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:08 PM BY: JJAMALLO
XREFs=



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED ____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 12 OF 171
SHEET: TS-2

File = T:\PVLT\11852\21\DWG\Upgrade Contracts SS_4-4-2025\11852_SE Conduit Ave Sewer.dgn Date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:06 PM BY: JAMAMLLO

MATCH LINE–SEE DWG TP–8

MATCH LINE–SEE DWG TP–2

MATCH LINE–SEE DWG TP–4



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED _____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. _____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — ANGELO SGOUTZOS — LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967–6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

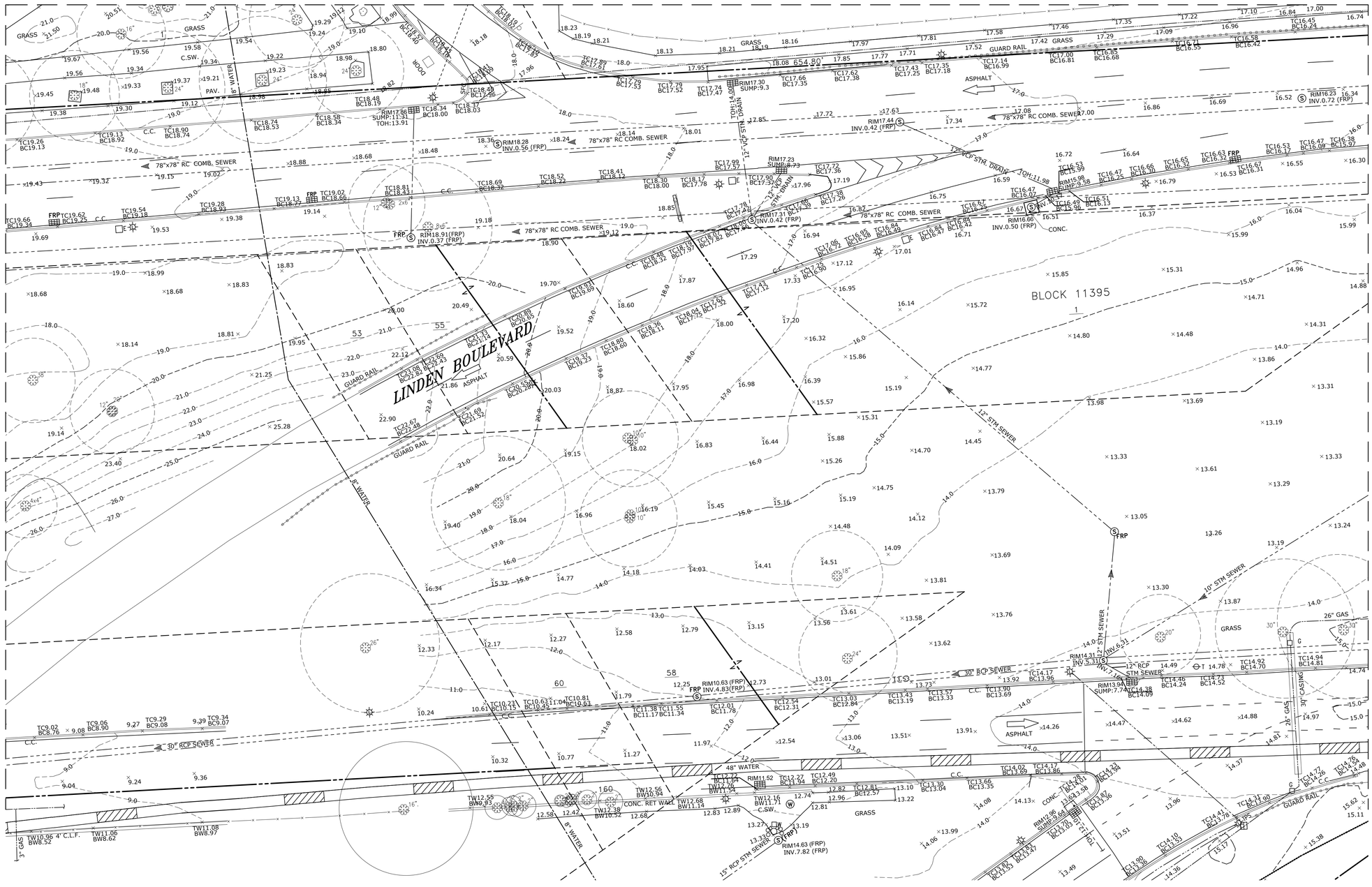
DATE: JUL 2026
PAGE: 13 OF 171
SHEET: TS-3

File = F:\PROJ\11853.22\PRO\Upgrade Contracts SI,-I-4-2025\11853.22_SE Conduit Ave Saved by jjarmillo Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:08 PM BY: JJARMILLO
XREFs=

MATCH LINE–SEE DWG TP–8

MATCH LINE–SEE DWG TP–3

MATCH LINE–SEE DWG TP–5



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'

1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED _____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. _____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967–6588

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

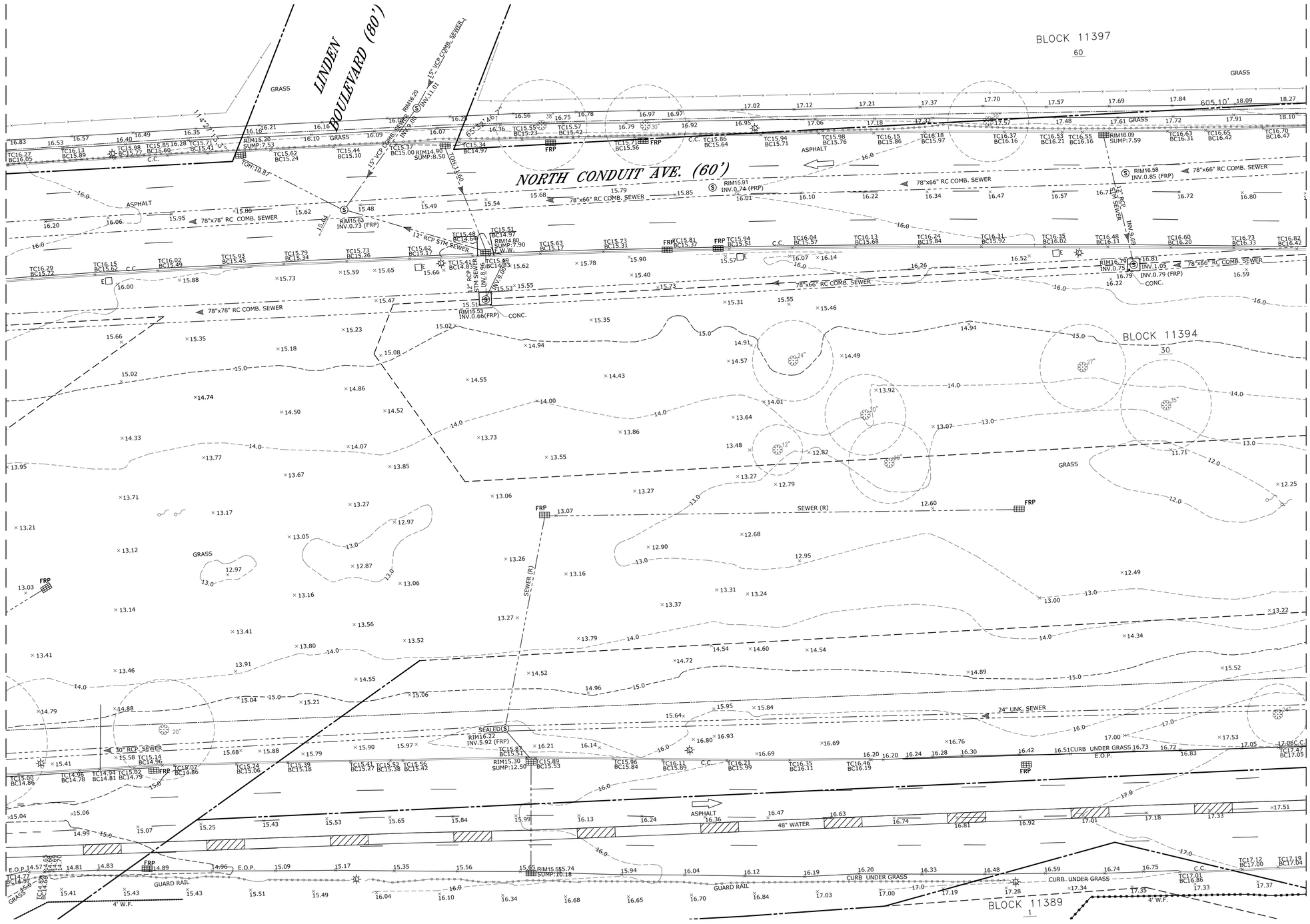
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 14 OF 171
SHEET: TS-4

File = P:\PLAT\11855.22\DWG\Sponsite Contracts SS_4-4-2025\11855.22_GI Conduit Ave Sized by Jaramillo Sewr.dgn = 4/4/2025 1:58 PM
PLOT DATE: 4/4/2025 1:58 PM BY: JJARAMILLO
XREFs=



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED ____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK
____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

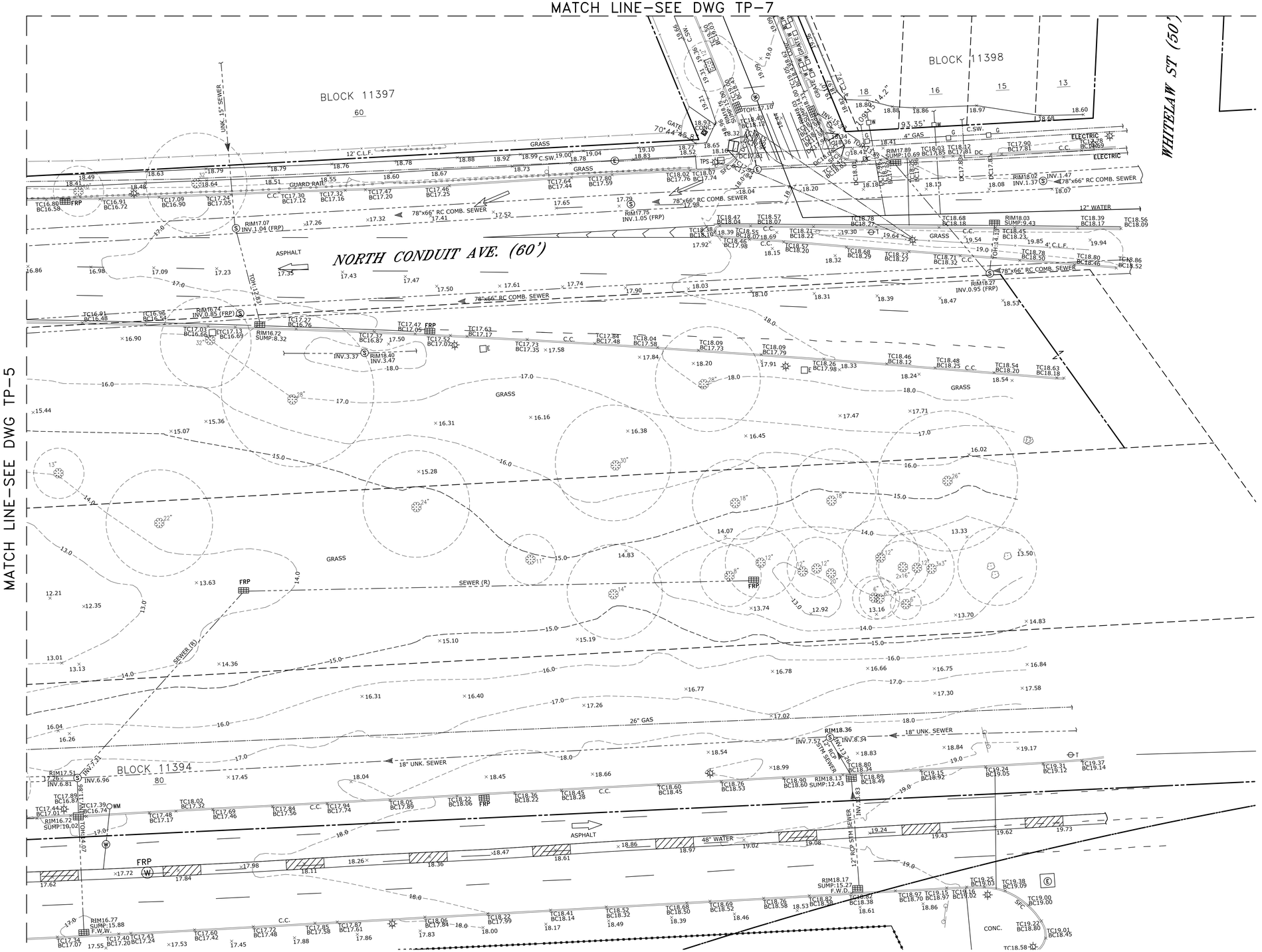
GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 15 OF 171
SHEET: TS-5

File = Y:\PROJECTS\2025\Upgrade Contracts SS_4-4-2025\11825.22_DE Conduit Ave Sewer\3 Design\Base data = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:08 PM BY: JJARAMILLO

MATCH LINE–SEE DWG TP–7

MATCH LINE–SEE DWG TP–5



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED ____ DRAWN K.O. CHECKED P.S. PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK · JOHN FORD · LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 16 OF 171
SHEET: TS-6

File = F:\PKCT\11853.22\DWG\Upgrade Contracts SS_4-4-2025\11853.22_SE Conduit Ave Saved by jjaramillo Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:08 PM BY: JJARAMILLO
XREFs=

MATCH LINE–SEE DWG TP–6

88TH STREET (60')

ARION RD. (50')

ALBERT RD. (50')

BLOCK 11397

BLOCK 11399

NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'

1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED ____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — KEVIN O'NEILL — LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 17 OF 171
SHEET: TS-7

File = P:\PVCT\11653.22\DWG\Separate Contracts SS_4-4--2025\11653.22_GE Conduit Ave Sewer.dwg by jgarrotto. Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:07 PM BY: JJARAMILLO

MATCH LINE–SEE DWG TP–3

MATCH LINE–SEE DWG TP–9

MATCH LINE–SEE DWG TP–3, TP–4

BLOCK 11363

BLOCK 11364

BLOCK 11382

83RD STREET (60')

84TH STREET (80')

85TH STREET (60')

135TH/DUMONT AVENUE (80')

135TH/DUMONT AVENUE (70')

NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'

1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED ____ DRAWN K.O. CHECKED P.S. PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK

____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 18 OF 171
SHEET: TS-8

File = I:\PLAT\11653.22\DWG\Layouts Contracts SS_4-4-2025\11653.22_GI_Conduit Ave Sewer.dwg Layout: TS-8 Saved by: jgrandin Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:07 PM BY: JAMMALO

MATCH LINE – SEE DWG TP–8

135TH/DUMONT AVENUE (70')

86TH STREET (60')

87TH STREET (60')

BLOCK 11365

BLOCK 11366

200.00'

201.95'

470.85'

465.50'

200.25'

475.25'

478.20'

252.50'

254.95'

378.15'

98°00'27.1"

92°47'22.1"

87°12'37.9"

169°12'10.8"

125°53'56.5"

15" VCP COMB. SEWER

8" RCP STM. SEWER

12" RCP STM. DRAIN

18" VCP COMB. SEWER

12" RCP STM. SEWER

4" C.L.F. ON 0.5' CONC. WALL

5.5' C.L.F. ON 0.5' CONC. WALL

0.5' CONC. WALL

4" C.L.F.

6" C.L.F.

4" GAS (RET)

6" GAS

8" WATER

ASPHALT

GRASS

C.SW.

VAULT

NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'

1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED _____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. _____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — JOSEPH MUÑOZ — LICENSED PROFESSIONAL ENGINEER AND LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
250 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967–6588

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

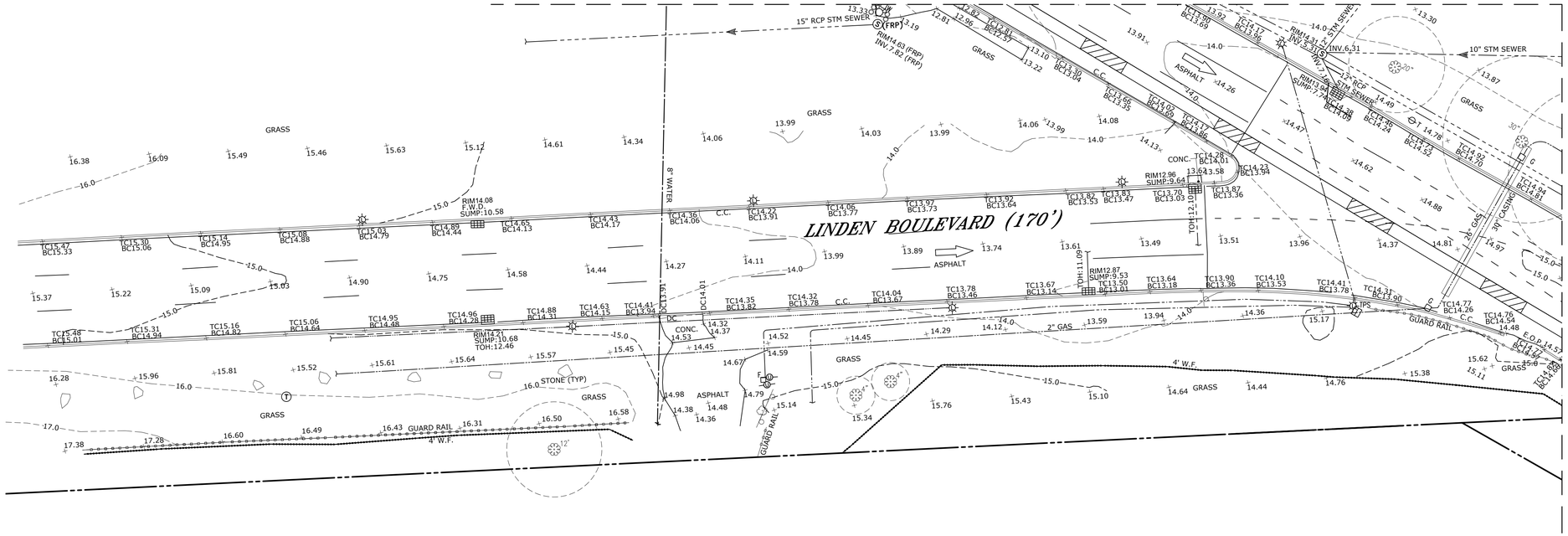
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 19 OF 171
SHEET: TS-19

File = F:\PLAT\1935.22\DWG\Sponsla Contracts SS_4-4-2025\1935.22_SE Conduit.dwg Saved by jbramillo Save date = 4/4/2025 11:58 PM
PLOT DATE: 4/4/2025 1:07 PM BY: JJARAMILLO
X1927.0+

MATCH LINE–SEE DWG TP–4, TP–5



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED ____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

MUÑOZ ENGINEERING P.C.
500 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967–6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

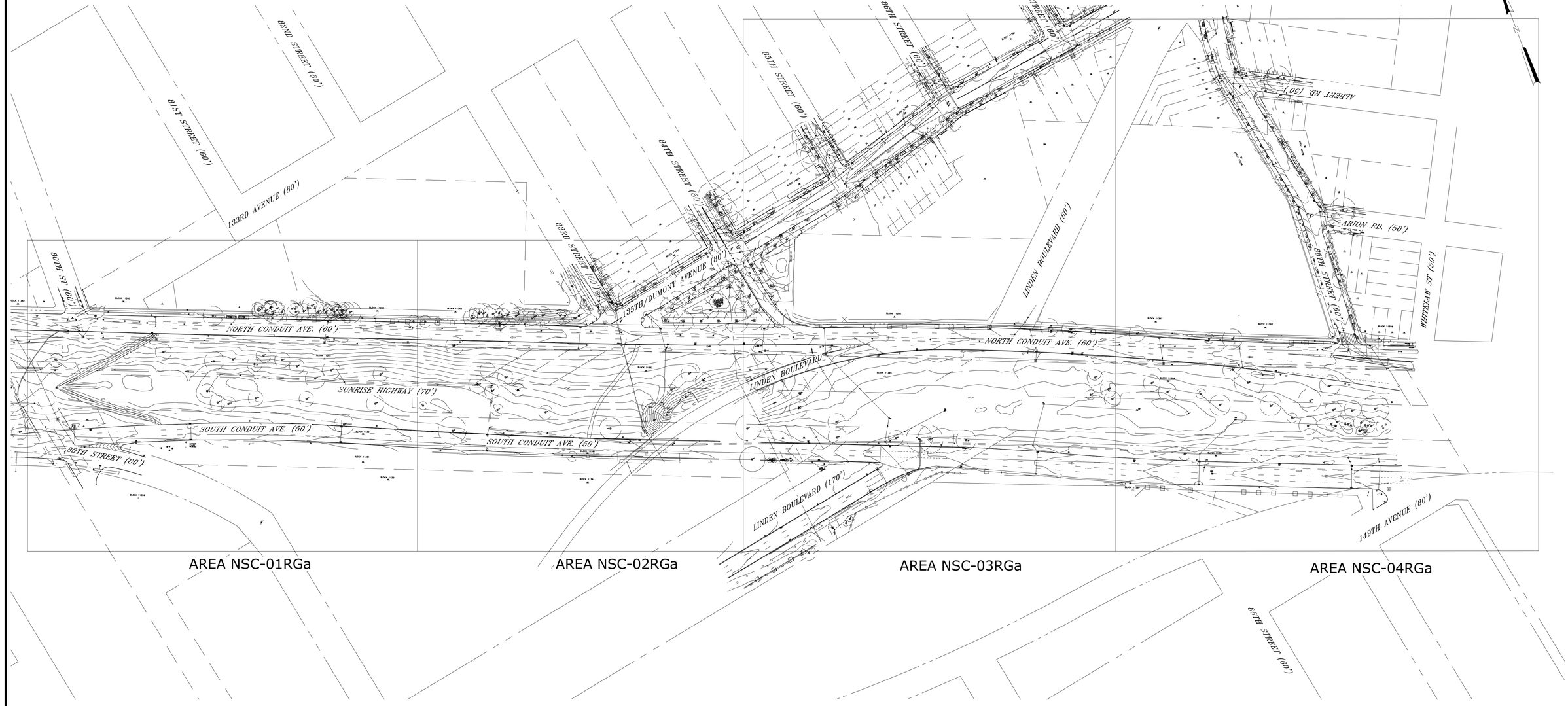
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 20 OF 171
SHEET: TS-20

File = F:\PLAT\1925.22\DWG\Separate Contracts SS_4-4-2025\1925.22_SE Conduit Ave Siteed by Jaramillo Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:07 PM BY: JARAMILLO



PLAN

SCALE: 1" = 100'

1"=100'-0"

100 50 0 100'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

Environmental Protection

CITY OF NEW YORK

ENVIRONMENTAL PROTECTION

BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

DESIGN SHEET KEY PLAN

DATE	JUL 2026
PAGE	21 OF 171
SHEET	I-02

CONSULTANT DESIGN

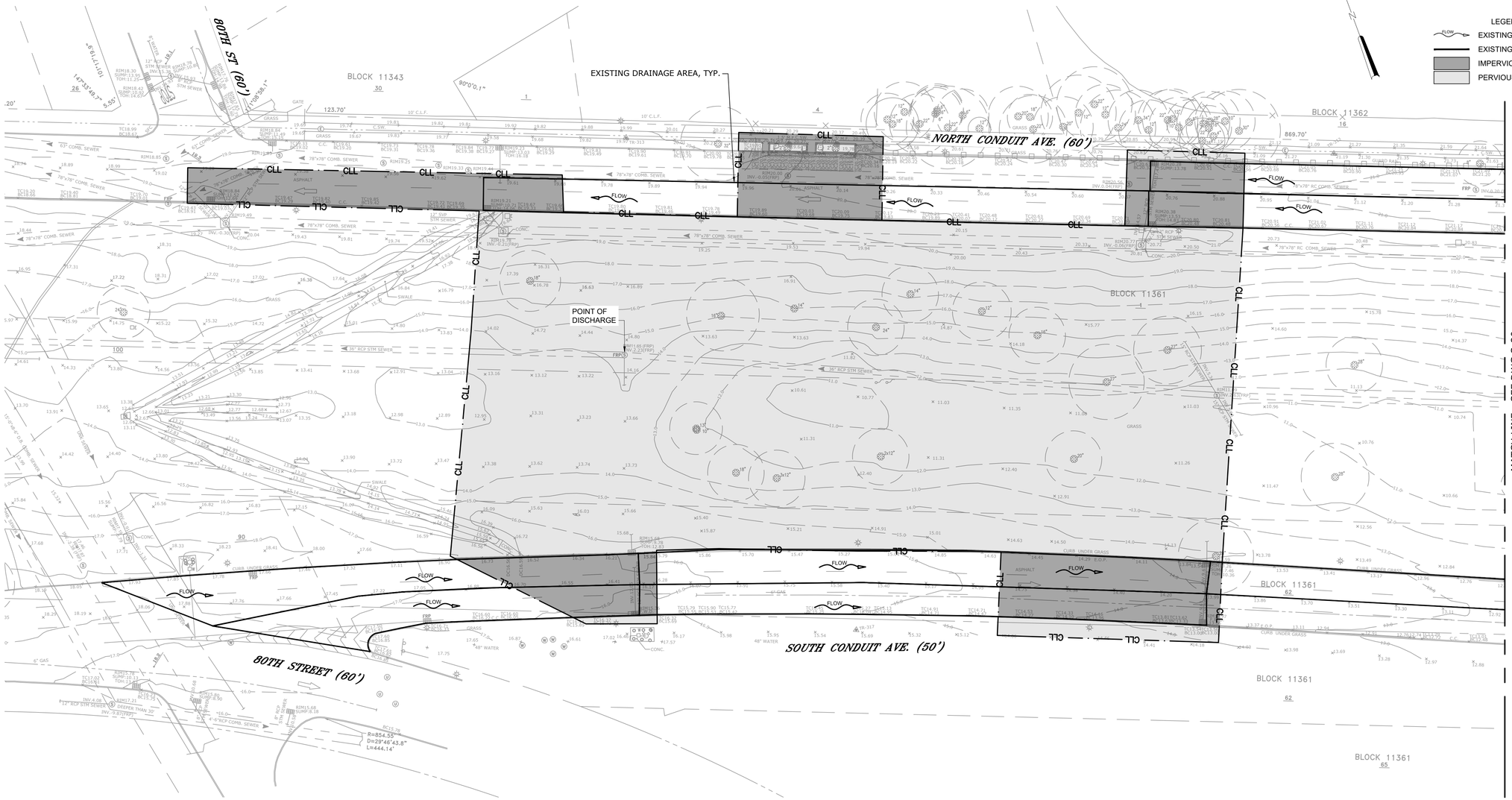
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CK-STRU,..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

File: O:\06336-NYC\06336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\KEY PLAN Saved By: SKANE Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 7:59:38 AM BY: TAUTH

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

LEGEND
- EXISTING FLOW DIRECTION
- EXISTING DRAINAGE AREA
- IMPERVIOUS AREA
- PERVIOUS AREA



PLAN
SCALE: 1" = 30'

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

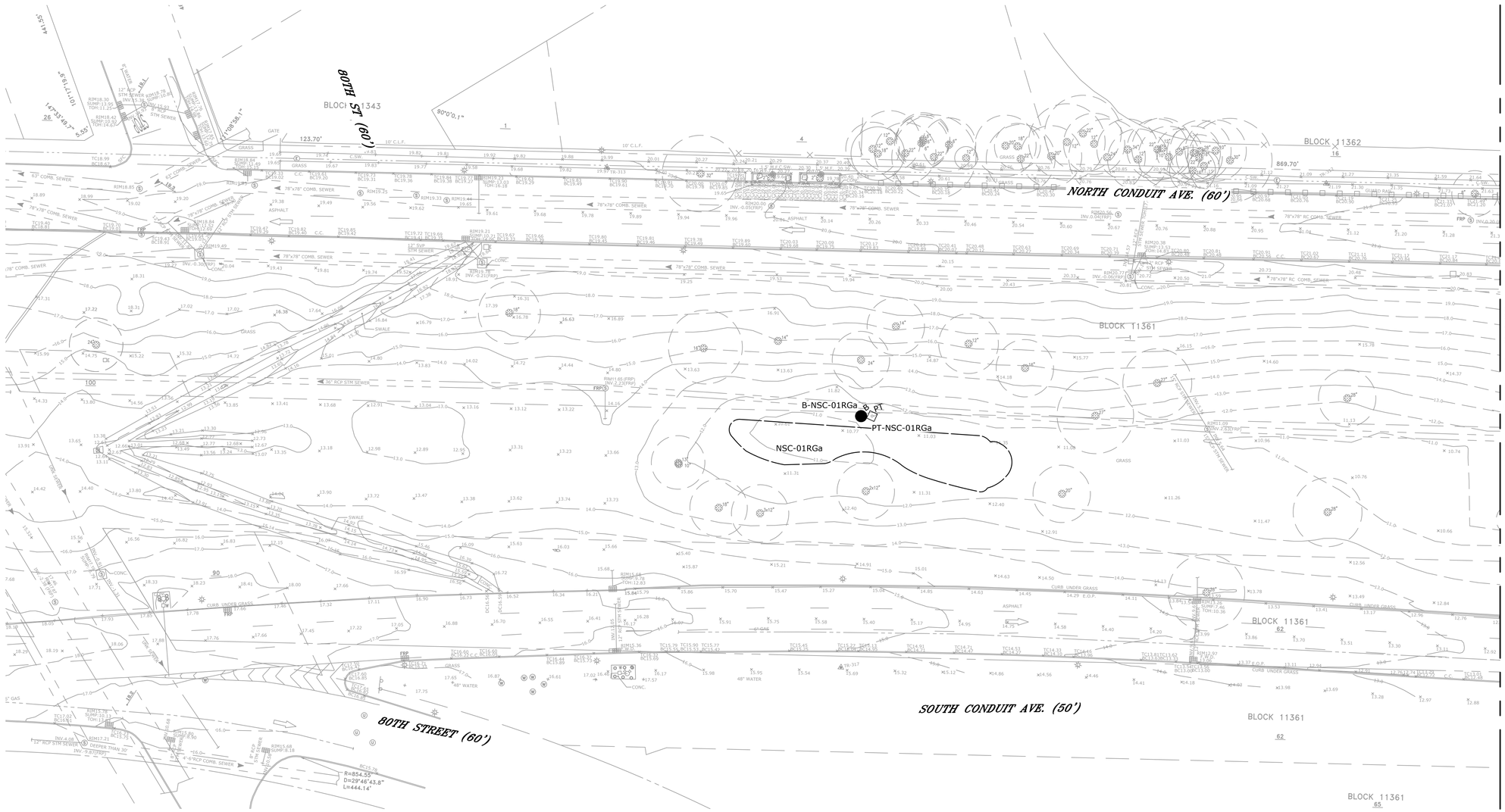
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-01RGa

DATE JUL 2026
PAGE 22 OF 171
SHEET S-10

CONSULTANT DESIGN

File: O:\00336-NYC\00336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - SHEET 1 Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:01:06 AM BY: TAUTH
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-X,..\..\000-BASE\SE CONDUIT\CN-DRAINAGE_EX,..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

PLAN

SCALE: 1" = 30'

NOTE: ALL GEOTECHNICAL TESTS WERE PERFORMED IN NOVEMBER 2013 UNDER THE CSO PlaNYC CONTRACT.

LABORATORY TESTING DATA SUMMARY - South East Conduit Avenue

BORING NO.	SAMPLE NO.	DEPTH (FT)	IDENTIFICATION TESTS			REMARKS
			WATER CONTENT (%)	USCS SYMB. (1)	SIEVE MINUS NO. 200	
B-NSC-01RGa	S-1	3-5	7.2	SM	22.3	
	S-2	8-10	14.8	SP	3.2	

Note: (1) USCS symbol based on visual observation and Sieve results reported.

PERMEABILITY TEST SUMMARY - South East Conduit Avenue

Location	Permeability Test Results				
	Test Depth (feet)	Average Permeability Testing 1 (inches/hour)	Average Permeability Testing 2 (inches/hour)	Average Permeability Testing (inches/hour)	Comments
PT- NSC-01RGa	5	5.00	5.00	5.00	Heavy rain on 11/7/2013. Ground water depth may be higher than normal. First PT 5' test drained in under 9 minutes. Second 5' PT test drained in under 6 minutes. 5 in/hr used due to infiltration rates of 23 in/hr
	10	1.01	0.90	0.96	-

LEGEND

- B - BORING LOCATION
- PT - PERMEABILITY TEST LOCATION
- BIORETENTION OUTLINE

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

GEOTECHNICAL PLAN - NSC-01RGa

DATE JUL 2026
PAGE 23 OF 171
SHEET B-10

CONSULTANT DESIGN

File: O:\30336-NYC\30336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\GEOTECHNICAL PLAN - NSC-01RGa Saved By: SKANE Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:01:13 AM By: FAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\000-BASE\SE CONDUIT\CX-STRU..\..\000-BASE\SE CONDUIT\CN-STRU..\..\..\..\Work Plan\O-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010

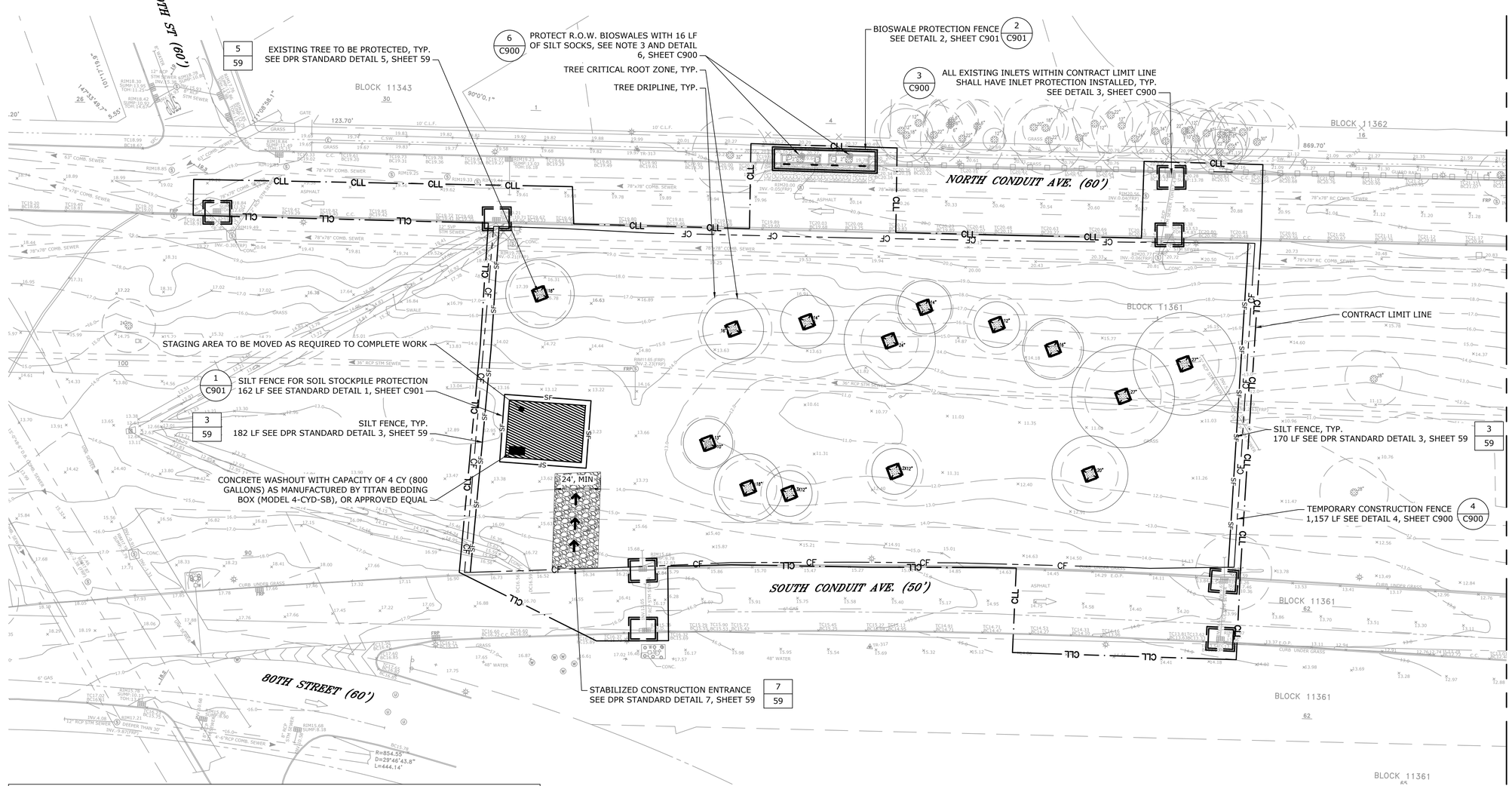


TABLE 4.6(a) - CONSTRUCTION SEQUENCING			
PHASE # N/A: Phase identical w/ exceptions noted STAGE # 1: Tree Protection, Construction Sequencing, and ESC			
CONSTRUCTION ACTIVITY (in sequential order)	**PRACTICE(S) INSTALLED PRIOR TO ACTIVITY1**	**PRACTICE(S) INSTALLED DURING ACTIVITY**	**PRACTICE(S) INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY1**
Complete test pit investigations		N/A	
Protect existing vegetation		Tree guards Bioswale Protection - Silt Socks	
Install perimeter erosion control measures and fencing		Silt Fence Inlet Protection Construction Entrance	
Establish Staging Area		Site Pollution Prevention Stockpile Protection	

PLAN

SCALE: 1" = 30'

LEGEND

- 12" - TREE TO BE PROTECTED
- - TREE DRIPLINE
- - TREE CRITICAL ROOT ZONE
- - CONSTRUCTION ACCESS/ENTRANCE
- - STAGING AREA
- - STABILIZED CONSTRUCTION ENTRANCE
- CLL - CONTRACT LIMIT LINE
- SF - SILT FENCE
- CF - TEMPORARY CONSTRUCTION FENCE
- - INLET PROTECTION
- - BIOSWALE PROTECTION

NOTES:

1. TREE CRZ DIAMETERS HAVE BEEN INCLUDED FOR ALL TREES WITHIN CONTRACT LIMIT LINE. TREE CRZ DIAMETERS HAVE BEEN ESTIMATED BASED ON SURVEYED TRUNK DBH's. CRZ VALUES ARE CALCULATED AS 1' CRZ DIA. FOR EVERY DBH 1".
2. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
3. FOR R.O.W. RAIN GARDENS/BIOSWALES, OBSERVE THE FOLLOWING PROTECTION MEASURES:
   - A. INSTALL SILT SOCKS TO BLOCK CURB CUT
   - B. INSTALL BIOSWALE PROTECTION FENCE TO PROTECT RAIN GARDENS/BIOSWALES.
   - C. WATER RAIN GARDENS WITH EXISTING VEGETATION PER SECTION G1-4.10(D)(1) OF STANDARD GREEN INFRASTRUCTURE SPECS ON DDC WEBSITE
   - D. INSTALL TEMPORARY COVERING, EROSION CONTROL FABRIC OR PLASTIC OVER BARE SOIL IN RAIN GARDENS AND GENTLY SECURE
   - E. AVOID STEPPING IN PLANTING BED WHEN INSTALLING PROTECTION MEASURES
   - F. DO NOT PLACE CONSTRUCTION MATERIALS WITHIN OR ON TOP OF RAIN GARDEN

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 1

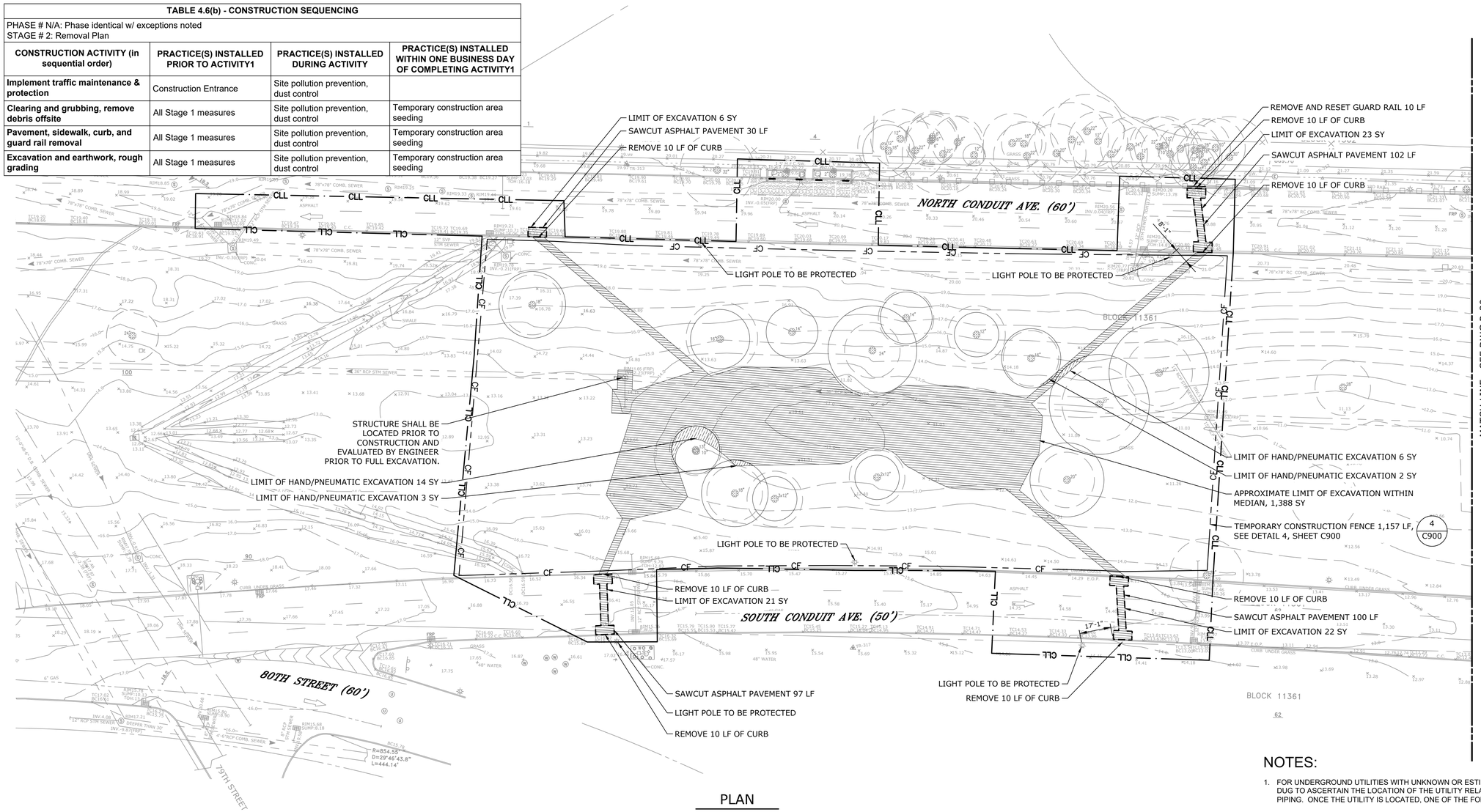
DATE JUL 2026
PAGE 24 OF 171
SHEET TP-10

CONSULTANT DESIGN

File: O:\30336-NYC\30336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\TREE PROTECTION PLAN - NSC-01RCA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:01:21 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-REMOVAL,..\..\000-BASE\SE CONDUIT\CX-STRU..\..\..\..\Work Plan\O-Reference Material\SO2 CAD Templates\Electronic Seal\Sondeep's Seal-2010

TABLE 4.6(b) - CONSTRUCTION SEQUENCING			
PHASE # N/A: Phase identical w/ exceptions noted STAGE # 2: Removal Plan			
CONSTRUCTION ACTIVITY (in sequential order)	**PRACTICE(S) INSTALLED PRIOR TO ACTIVITY1**	**PRACTICE(S) INSTALLED DURING ACTIVITY**	**PRACTICE(S) INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY1**
Implement traffic maintenance & protection	Construction Entrance	Site pollution prevention, dust control	
Clearing and grubbing, remove debris offsite	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding
Pavement, sidewalk, curb, and guard rail removal	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding
Excavation and earthwork, rough grading	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding



PLAN

SCALE: 1" = 30'

LEGEND

- FULL DEPTH EXCAVATION LIMIT
- FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT
- CLL — CONTRACT LIMIT LINE
- CF — TEMPORARY CONSTRUCTION FENCE

1"=30'-0" 30 15 0 30'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. NO UTILITY SERVICE VALVES (WATER, GAS, ETC) MAY BE LOCATED WITHIN THE FOOTPRINTS OF PROPOSED INFRASTRUCTURE.
3. ALL EXCAVATION WITHIN AN EXISTING TREE CRITICAL ROOT ZONE (CRZ) SHALL BE DONE BY HAND OR PNEUMATIC MEANS.
4. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF EXISTING UTILITIES WHERE ENCOUNTERED DURING EXCAVATION. SEE G-2 FOR FURTHER INFORMATION.

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
REMOVAL PLAN - NSC-01RGa

DATE JUL 2026
PAGE 25 OF 171
SHEET R-10

CONSULTANT DESIGN

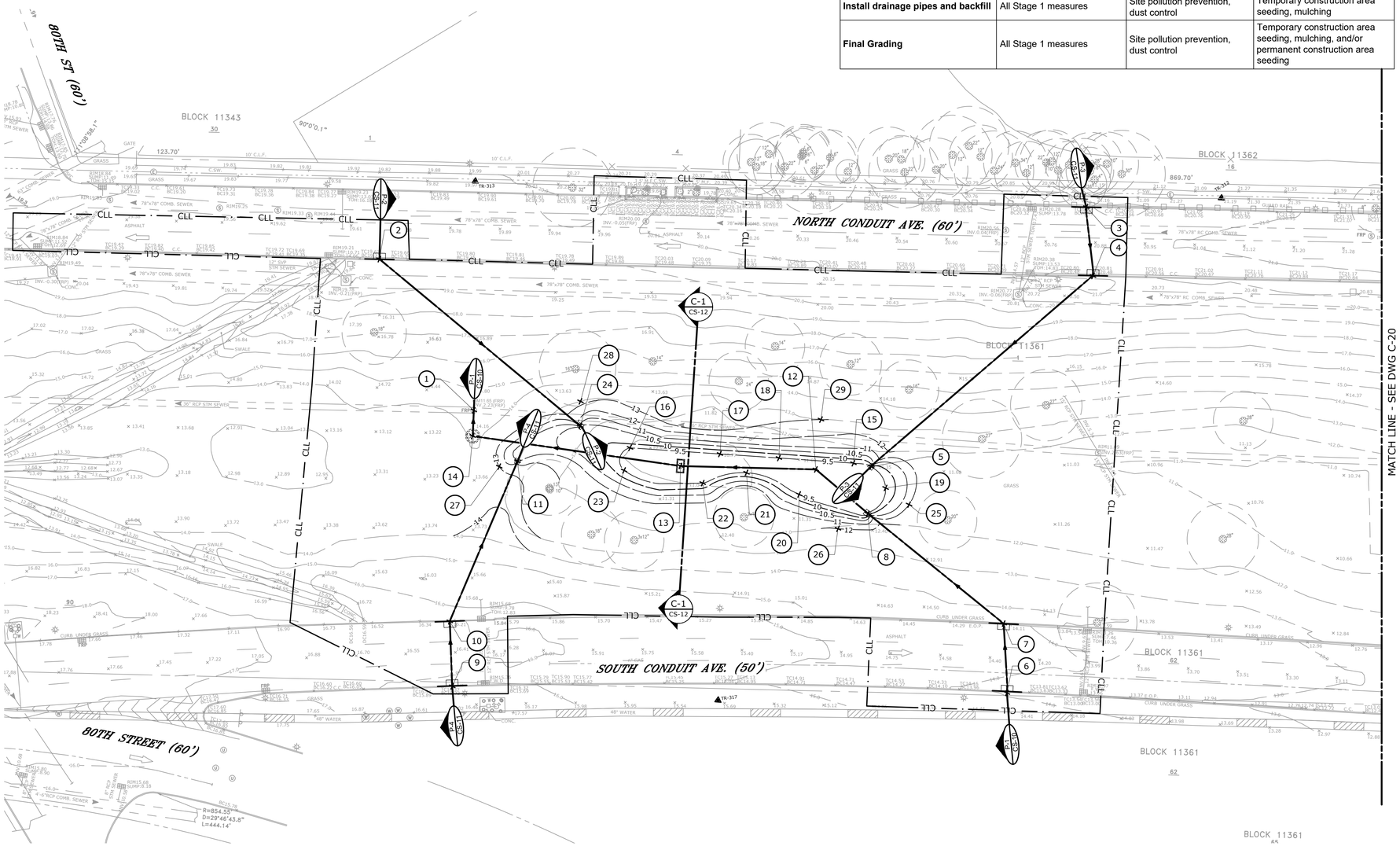
File: O:\0\336-NYC\0336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\REMOVAL PLAN NSC-01RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:01:28 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-REMOVAL,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

STAKING TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
1	184470.58	1024233.26	TEST PIT A
2	184558.45	1024215.12	NSC1-CB4
3	184459.49	1024558.20	NSC1-CB1
4	184425.81	1024549.29	NSC1-CB5
5	184374.56	1024411.20	NSC1-OUT2
6	184243.95	1024435.79	NSC1-CB2
7	184277.29	1024446.37	NSC1-CB6
8	184352.91	1024401.38	NSC1-OUT3
9	184343.99	1024174.91	NSC1-CB3
10	184375.11	1024185.10	NSC1-CB7
11	184438.93	1024245.03	NSC1-OUT4
12	184382.89	1024384.57	CLEANOUT
13	184408.19	1024321.22	NSC1-OF1
14	184458.62	1024228.28	NSC1-OCS
15	184379.27	1024403.40	9.5 CONTOUR
16	184425.56	1024300.56	9.5 CONTOUR
17	184406.96	1024341.96	9.5 CONTOUR
18	184394.75	1024369.12	9.5 CONTOUR
19	184361.97	1024414.28	9.5 CONTOUR
20	184374.00	1024372.31	9.5 CONTOUR
21	184393.44	1024351.23	9.5 CONTOUR
22	184396.21	1024328.73	9.5 CONTOUR
23	184415.92	1024293.80	9.5 CONTOUR
24	184444.54	1024280.93	NSC1-OUT1
25	184350.01	1024422.47	11.0 CONTOUR
26	184351.01	1024384.67	12.0 CONTOUR
27	184439.53	1024235.48	13.0 CONTOUR
28	184456.17	1024285.26	13.0 CONTOUR
29	184405.54	1024395.70	13.0 CONTOUR

TEST PITS - NSC-01RGa				
Point No.	**Description**	**Existing Utility**	**Hand Excavation Required (yes/no)**	**Depth (ft)**
1	TEST PIT A	EXISTING STORM MANHOLE	Yes	7.00
Note: Test pits shall be completed in the order they appear on this table				

TABLE 4.6(c) - CONSTRUCTION SEQUENCING			
PHASE # N/A: Phase identical w/ exceptions noted STAGE # 3: Install Site, Grading and Proposed Drainage Elements			
CONSTRUCTION ACTIVITY (in sequential order)	**PRACTICE(S) INSTALLED PRIOR TO ACTIVITY1**	**PRACTICE(S) INSTALLED DURING ACTIVITY**	**PRACTICE(S) INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY1**
Install bioretention areas and backfill	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding, mulching
Install drainage pipes and backfill	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding, mulching
Final Grading	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding, mulching, and/or permanent construction area seeding



LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- FLARED END SECTION WITH RIP RAP APRON
- STAKING POINT
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- ISOLATOR ROW WITH GEOTEXTILE
- TR-XXX - SURVEY CONTROL TIE

PLAN

SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — STATE OF NEW YORK — SANDEEP MEHROTRA — 100193 — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

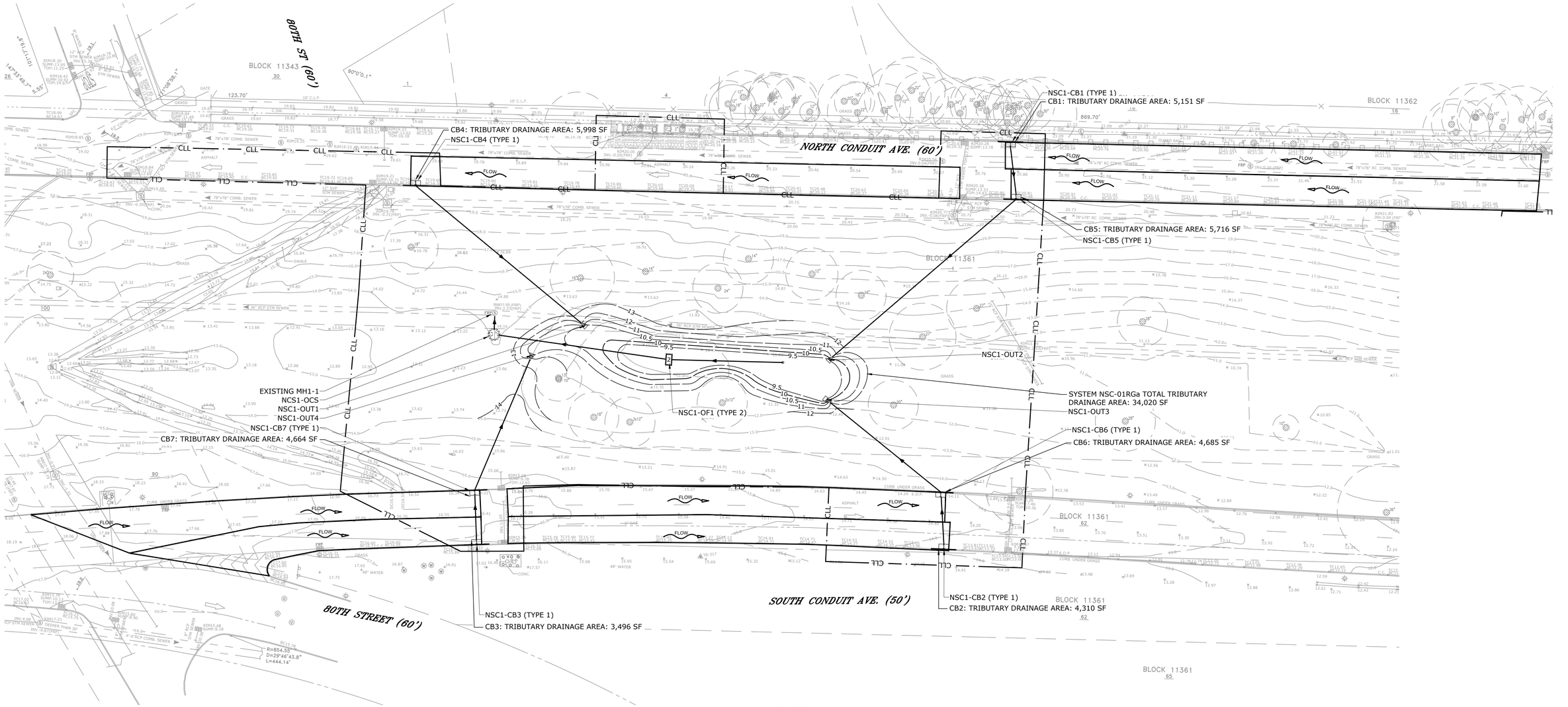
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
LAYOUT PLAN - NSC-01RGa

DATE JUL 2026
PAGE 26 OF 171
SHEET C-10

CONSULTANT DESIGN

File: O:\06336-NYC\06336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\STAKING PLAN NSC-01RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:01:37 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CH-STAKING - NSC1,..\..\..\..\Work Plan\O-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

LEGEND

- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- PROPOSED TRIBUTARY DRAINAGE AREA
- 1 - PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLOW - FLOW DIRECTION

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. SEE SHEET GD-11 FOR STRUCTURE ELEVATIONS.

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

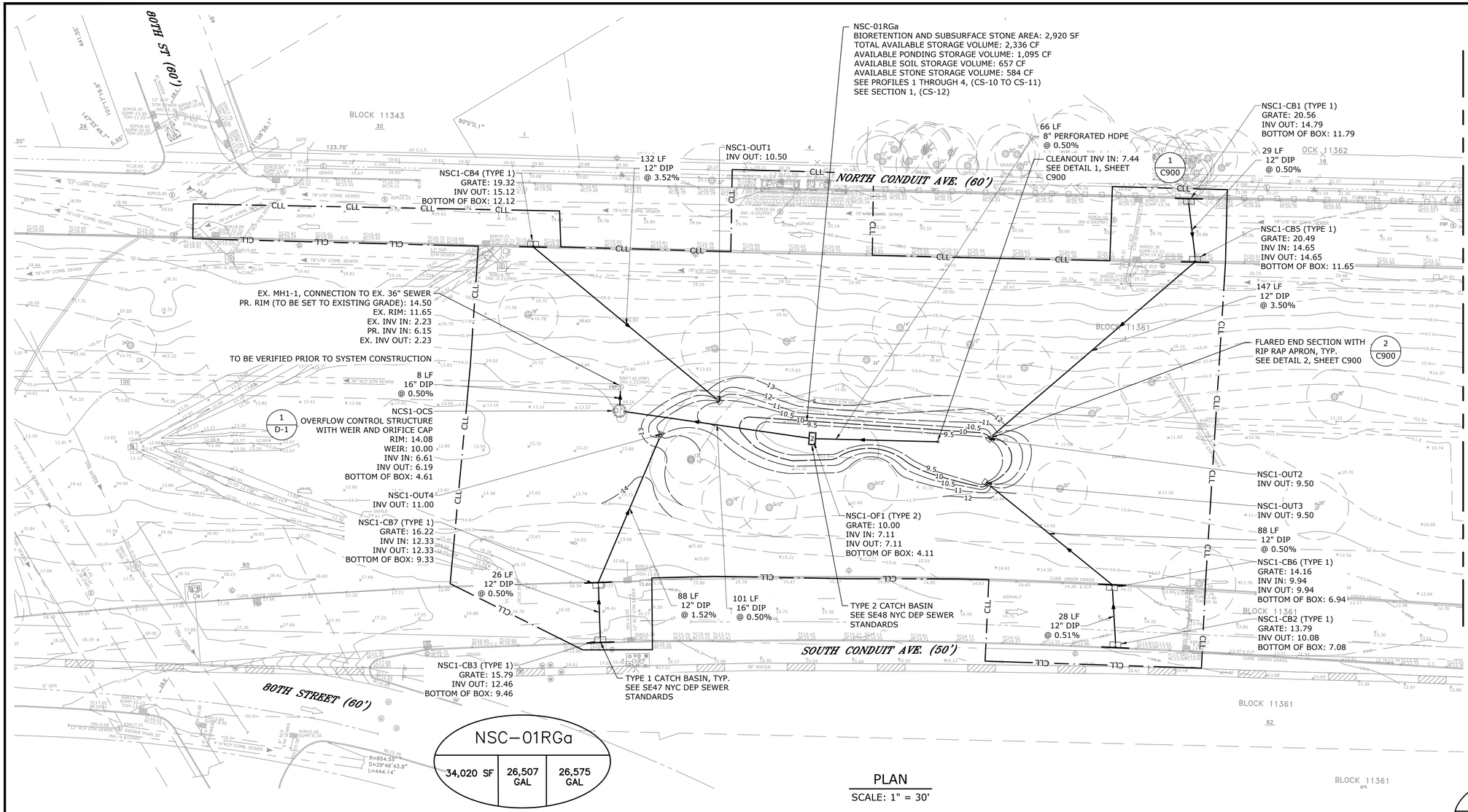
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

TRIBUTARY DRAINAGE AREA-NSC-01RGa

DATE JUL 2026
PAGE 27 OF 171
SHEET GD-10

CONSULTANT DESIGN

File: O:\WS36-NYC\WS36-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\TDA_NSC1 Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/23 8:01:46 AM BY: TAUTH
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-DRAINAGE,..\..\000-BASE\SE CONDUIT\CN-3D-PIPES,..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

LEGEND

- CLL — CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 — PROPOSED INLET
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- 15 — EXISTING GRADE
- 15 — PROPOSED GRADE
- A1 A3 — PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE

PLAN

SCALE: 1" = 30'

1"=30'-0"

30 15 0 30'

GI NAME

TRIBUTARY AREA | VOLUME OF 1.25" STORM | CAPACITY MANAGED

- GREEN INFRASTRUCTURE CHARACTERISTICS

GI ID		GI Asset Data					Stormwater Storage Calculations													Total Stormwater Managed (Infiltration + Storage)				
		Managed Impervious Tributary Area	Volume 1.25" Rainfall on Impervious Area	GI Footprint Surface Area	GI Perimeter	Permeability Coefficient	Stormwater chambers, pipes, tanks, etc. volume	Surface Storage			Engineered Soil			Drainage Stone Subbase			Stone Subbase			Estimated Total Infiltration Volume	Estimated Total Storage Volume	% Impervious Surface Managed	Calculated Volume of Rainfall Captured	Calculated Volume of Rainfall Captured
								Surface Storage Area	Surface Storage Depth	Surface Storage Volume	Soil Depth	Soil Voids	Stormwater Captured by Soil	Stone Depth	Stone Voids	Stormwater Captured by Stone Layer	Stone Depth	Stone Voids	Stormwater Captured by Stone Layer					
		sf	cf	sf	ft	in/hr	cf	sf	in	cf	ft	%	cf	ft	%	cf	ft	%	cf	cf	cf	%	cf	gal
NSC-01RGa	Retention credit, sized for static volume to capture 1.25 in (as above) but manages 1.5 in	34,020	3,544	2,920	400	5.00	0	2,920	6	1,095	0.90	25	657	0.50	40	584	0.00	0	0	1,217	2,336	100%	3,553	26,575

NO.	DATE	ISSUED FOR	BY	DESIGNED JWB	THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	
				DRAWN TLA		
				CHECKED ACE		
				PROJ.ENGR. ACE		

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

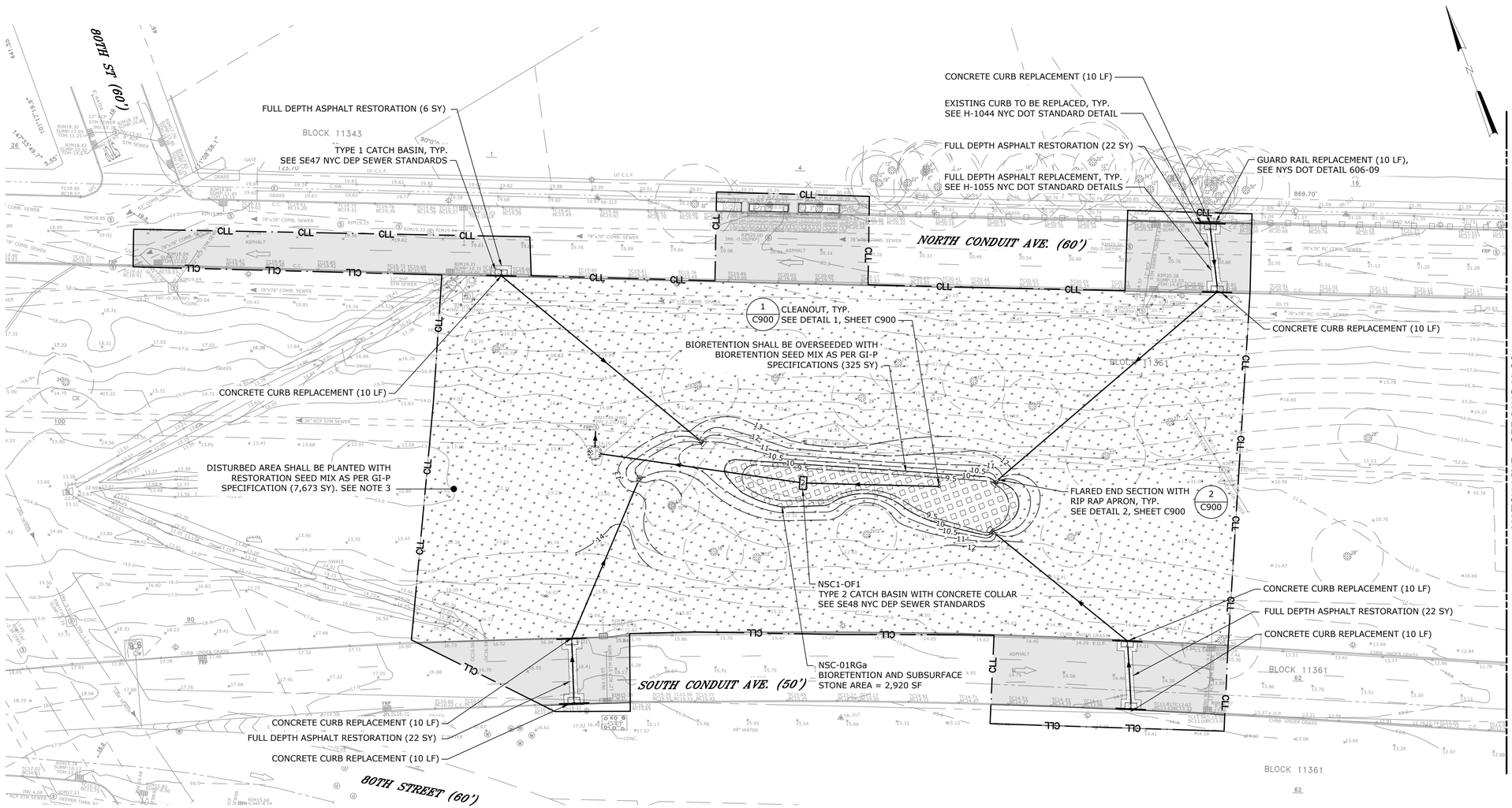
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN- NSC-01RGa

DATE	JUL 2026
PAGE	28 OF 171
SHEET	GD-11

CONSULTANT DESIGN

File: O:\WS336-NYC\WS336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\GRADING AND DRAINAGE PLAN - NSC-01RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:01:55 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-3D-PIPES,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\..\Work Plan\O-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. GRASSED AND MULCHED AREAS WITHIN CONTRACT LIMIT LINE, BUT NOT DENOTED FOR RESTORATION SEED MIX, ARE NOT INTENDED TO BE DISTURBED. IF GRASSED OR MULCHED AREAS ARE DISTURBED, AREA SHALL BE STABILIZED WITH RESTORATION SEED MIX PER THE CONTRACT SPECIFICATIONS.
3. TOP SOIL SHALL BE ADDED TO RESTORATION AREAS WHERE FULL DEPTH EXCAVATION HAS OCCURRED. ALL OTHER RESTORED AREAS SHALL USE RESTORATION SEED MIX ONLY.

LEGEND

- CLL — CONTRACT LIMIT LINE
- PROPOSED STORM PIPE
- 1 — PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- A1 A3 — PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- PROPOSED FLARED END SECTION WITH RIP RAP APRON
- IMPERVIOUS AREA (UNDISTURBED)
- IMPERVIOUS AREA (FULL DEPTH ASPHALT RESTORATION)
- IMPERVIOUS AREA (FULL DEPTH SIDEWALK RESTORATION)
- PERVIOUS AREA (UNDISTURBED, SEE NOTE 2)
- PERVIOUS AREA (RESTORATION SEED MIX)
- PERVIOUS AREA (BIORETENTION SEED MIX)

TABLE 4.6(d) - CONSTRUCTION SEQUENCING

PHASE # N/A: Phase identical w/ exceptions noted
STAGE # 4: Proposed Cover, Materials, and Final Stabilization

CONSTRUCTION ACTIVITY (in sequential order)	PRACTICE(S) INSTALLED PRIOR TO ACTIVITY1	PRACTICE(S) INSTALLED DURING ACTIVITY	PRACTICE(S) INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY1
Final site plantings	All Stage 1 practices	Permanent construction area seeding, mulching, topsoil	
Restore pavement, curbs, and sidewalks, ADA ramps, and guard rails	All Stage 1 practices Concrete washout (all phases except phase 1)	Site pollution prevention	
Repainting of disturbed street markings		Site pollution prevention	
Remove temporary erosion control measures and clean any sedimentation in the pavement and drainage pipes		Site pollution prevention	

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

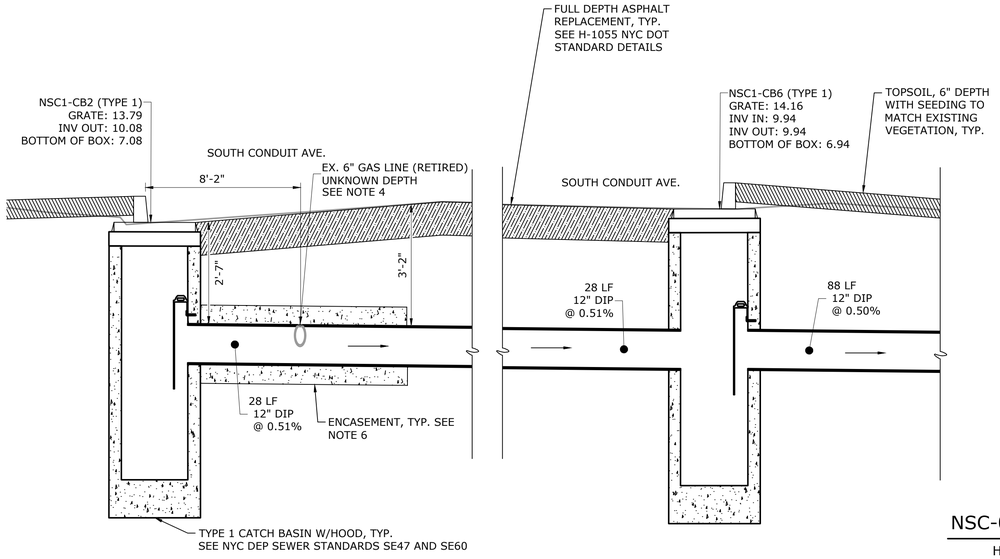
PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN - NSC -01RGa

DATE JUL 2026
PAGE 29 OF 171
SHEET M-10

CONSULTANT DESIGN

File: O:\WS336-NYC\WS336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\MATERIAL PLAN NSC-01RGA Saved By: TAUTH Save Date: 2026/05/05 1:02 PM
PLOT DATE: 2026/07/31 8:02:04 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CN-MATERIAL,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-R,..\..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010

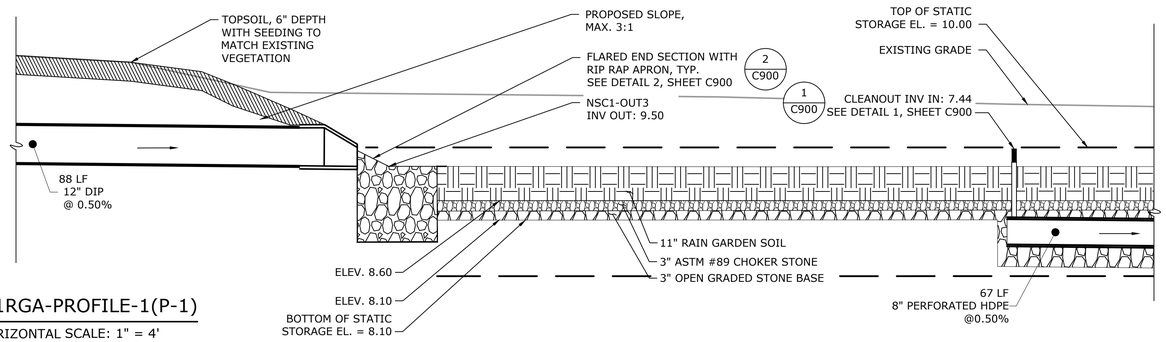


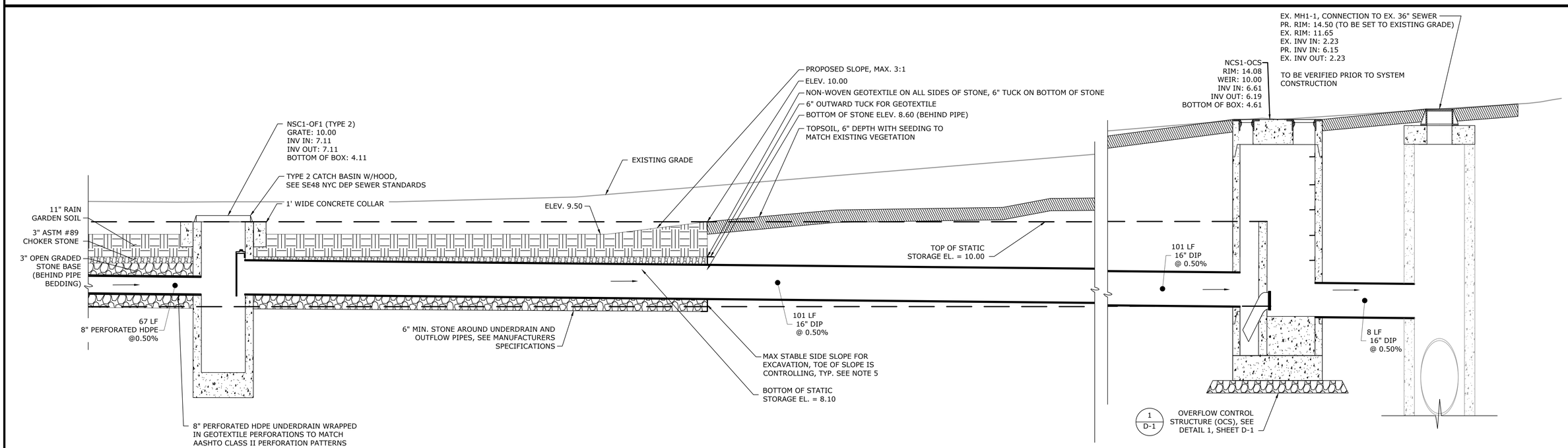
NSC-01RGA-PROFILE-1(P-1)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 2,336 CF AND IS CALCULATED BETWEEN EL. 6.61 AND EL 10.00.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES. FOLD 6" LEVEL WITH TOP OF CHOKER STONE LAYER. FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIN GARDEN SOIL AND STONE LAYERS.
6. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.





NSC-01RGA-PROFILE-1(P-1)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

2 1 0 2'
1" = 2'

4 2 0 4'
1" = 4'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-01RGa I

DATE	JUL 2026
PAGE	30 OF 171
SHEET	CS-10

CONSULTANT DESIGN

File: G:\00336-NYC\00336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-01RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/21 8:02:15 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\DN-3D-PIPES..\..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010

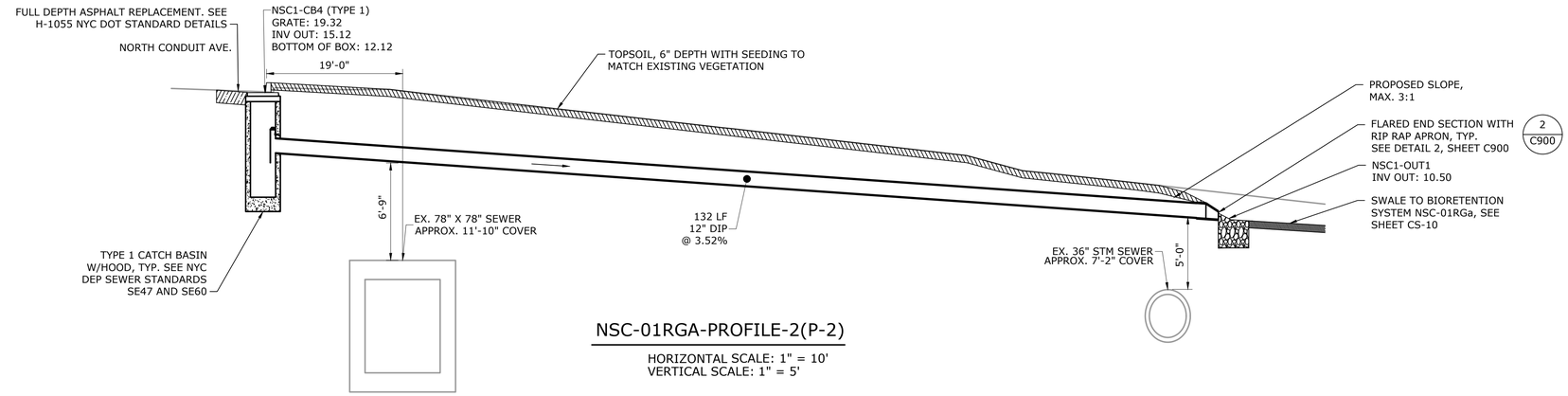
NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.

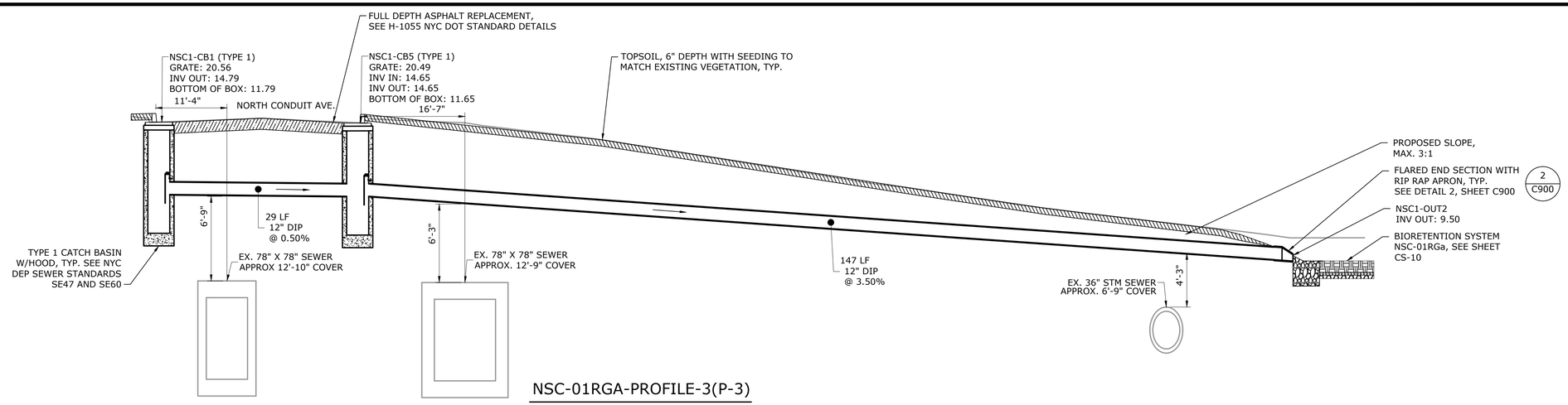
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.

2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.



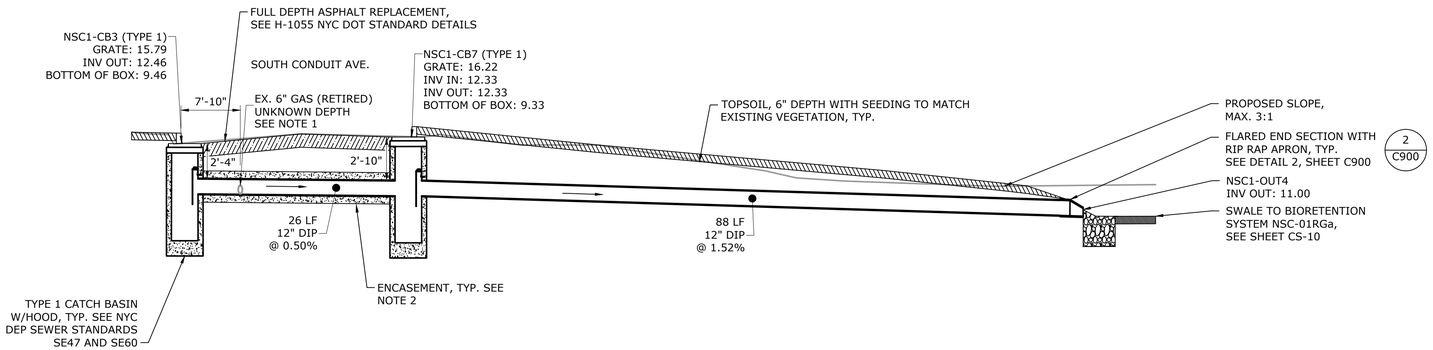
NSC-01RGA-PROFILE-2(P-2)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NSC-01RGA-PROFILE-3(P-3)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NSC-01RGA-PROFILE-4(P-4)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 10' 10 5 0 10'

1" = 5' 5 0 5'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — SANDEEP MELWANI — LICENSED PROFESSIONAL ENGINEER

Hazen

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK

ENVIRONMENTAL PROTECTION

BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

PROFILE - NSC-01RGa II

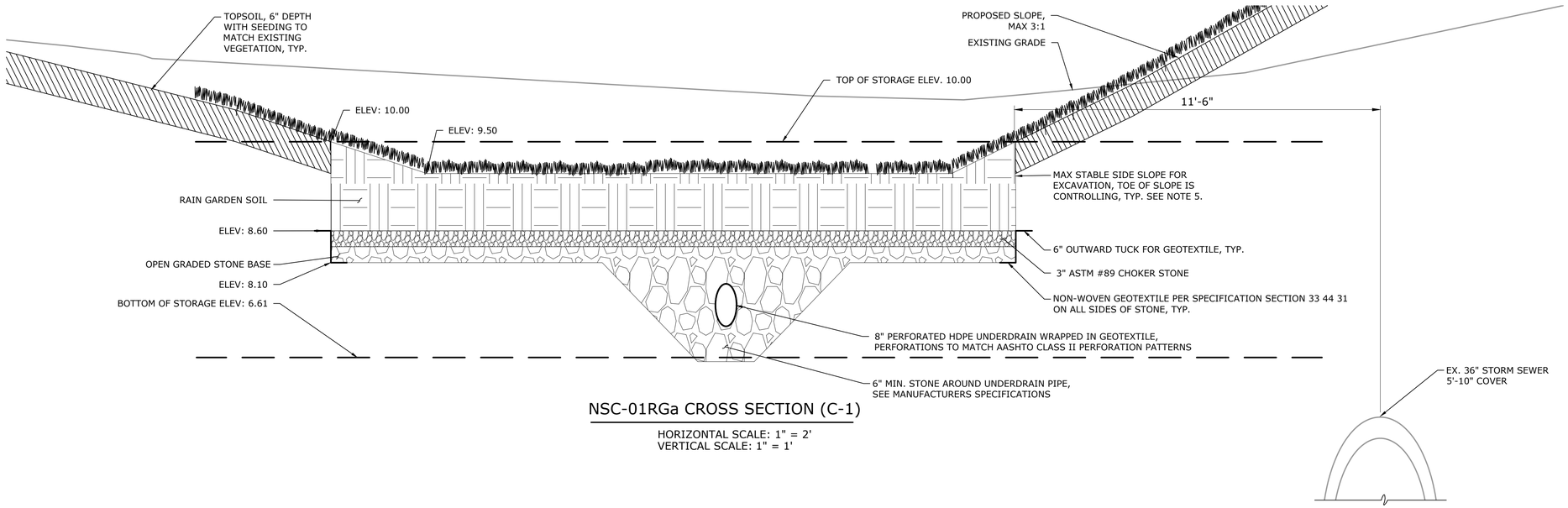
DATE JUL 2026
PAGE 31 OF 171
SHEET CS-11

CONSULTANT DESIGN

File: O:\06336-NYC\06336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-01RGA - CROSSING1 Saved By: SKANE Save Date: 2026/08/05 1:00 PM
PLOT DATE: 2026/07/31 8:02:23 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\CN-3D-PIPES,..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\..\Work Plan\D-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 2,336 CF AND IS CALCULATED BETWEEN EL. 6.61 AND EL 10.00.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES AND FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED VIA TEST PITS. CONTRACTOR SHALL SUBMIT FINDINGS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO SOURCING DRAINAGE STRUCTURES AND PRIOR TO BEGINNING EXCAVATION.
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE PIPE SHOULD BE SUPPORTED USING MEANS AND METHODS PERSCRIBED BY THE CONTRACTOR, AND ENGINEER'S REPRESENTATIVE SHALL COORDINATE WITH RESPECTIVE AGENCY.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTARCTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE, ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIL GARDEN SOIL AND STONE LAYERS.



NSC-01RGa CROSS SECTION (C-1)

HORIZONTAL SCALE: 1" = 2'
VERTICAL SCALE: 1" = 1'

1" = 1' (1 0 1')
1" = 2' (2 1 0 2')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
CROSS SECTION - NSC-01RGa

DATE JUL 2026
PAGE 32 OF 171
SHEET CS-12

CONSULTANT DESIGN

File: D:\30336-NYC\30336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\CROSS SECTIONS 1 Saved By TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:02:29 AM By: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\DN-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

LEGEND

- EXISTING FLOW DIRECTION
- EXISTING DRAINAGE AREA
- IMPERVIOUS AREA
- PERVIOUS AREA

EXISTING DRAINAGE AREA, TYP.

83RD STREET (60')

135TH/DUMONT AVENUE (80')

NORTH CONDUIT AVE. (60')

SOUTH CONDUIT AVE. (50')

POINT OF DISCHARGE

BLOCK 11362

BLOCK 11382

BLOCK 11361

MATCH LINE - SEE DWG S-10

MATCH LINE - SEE DWG S-30

PLAN

SCALE: 1" = 30'

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY	DESIGNED JWB	THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	Hazen HAZEN AND SAWYER 498 SEVENTH AVENUE, 11TH FLOOR NEW YORK, NY 10018	APPROVED FOR THE CITY OF NEW YORK _____ P.E. PROJECT MANAGER	CITY OF NEW YORK ENVIRONMENTAL PROTECTION BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS
				DRAWN TLA				
				CHECKED ACE				
				PROJ.ENGR. ACE				

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

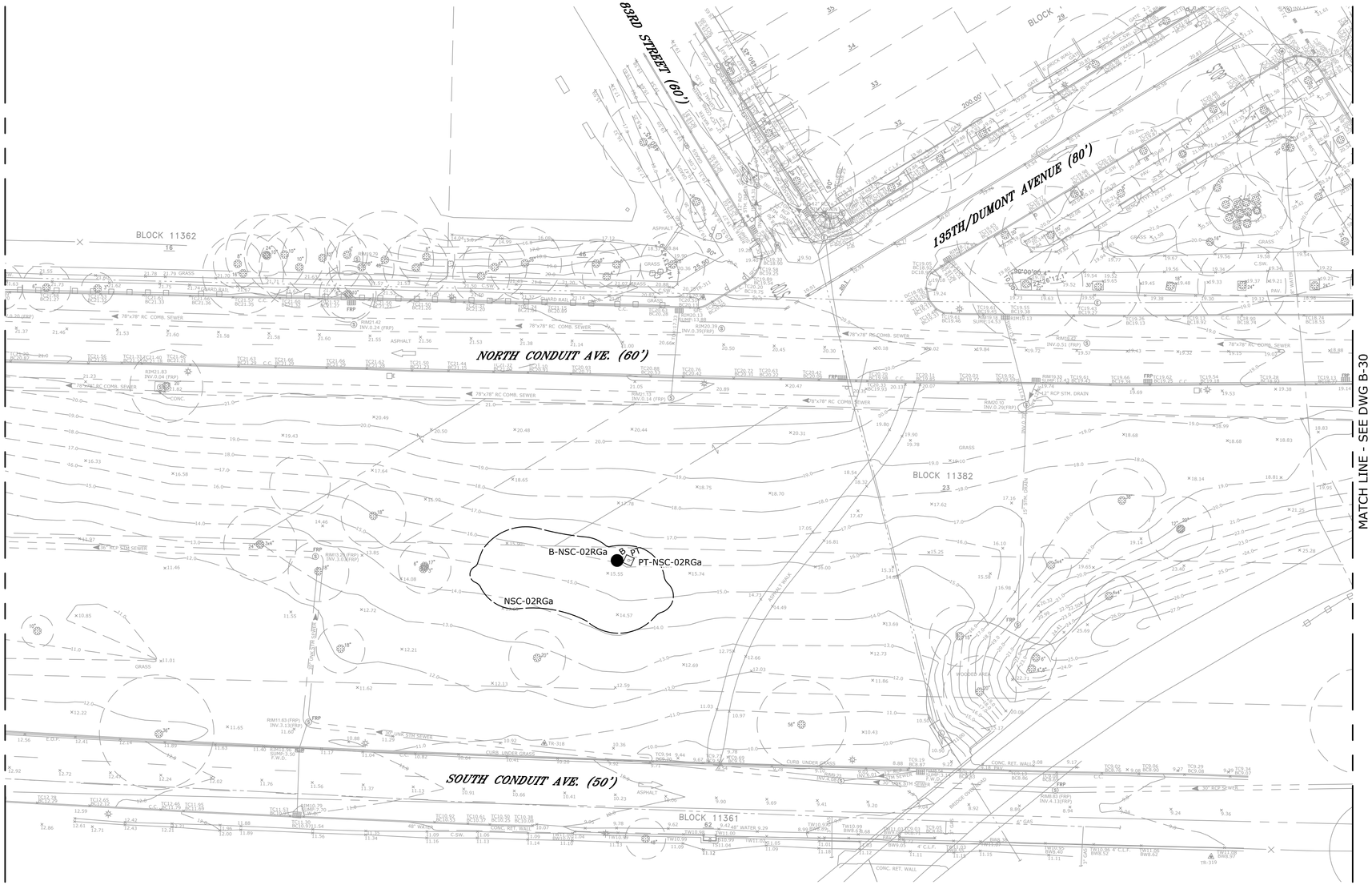
EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-02RGa

DATE	JUL 2026
PAGE	33 OF 171
SHEET	S-20

CONSULTANT DESIGN

File: D:\WS36-NYC\WS36-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - SHEET 2 Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:02:36 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\000-BASE\SE CONDUIT\CX-STRU..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-X..\..\000-BASE\SE CONDUIT\CN-DRAINAGE_EX..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

PLAN

SCALE: 1" = 30'

NOTE: ALL GEOTECHNICAL TESTS WERE PERFORMED IN NOVEMBER 2013 UNDER THE CSO PlaNYC CONTRACT.

LABORATORY TESTING DATA SUMMARY - South East Conduit Avenue

BORING NO.	SAMPLE NO.	DEPTH (FT)	IDENTIFICATION TESTS			REMARKS
			WATER CONTENT (%)	USCS SYMB. (1)	SIEVE MINUS NO. 200	
B-NSC-02RGa	S-1	3-5	5.9	SM	25.1	
	S-2	8-10	11.3	SM	23.7	

Note: (1) USCS symbol based on visual observation and Sieve results reported.

PERMEABILITY TEST SUMMARY - South East Conduit Avenue

Location	Permeability Test Results				
	Test Depth (feet)	Average Permeability Testing 1 (inches/hour)	Average Permeability Testing 2 (inches/hour)	Average Permeability Testing (inches/hour)	Comments
PT- NSC-02RGa	5	1.09	0.88	0.99	5' permeability test on Thursday 11/7/2013. heavy rain during 5' permeability tests.
	10	1.70	1.66	1.68	10' permeability tests performed on Friday 11/8/2013. Casing depth was 12 feet 7 1/8 inches deeper than tolerable depth

LEGEND

- B - BORING LOCATION
- PT - PERMEABILITY TEST LOCATION
- BIORETENTION OUTLINE

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

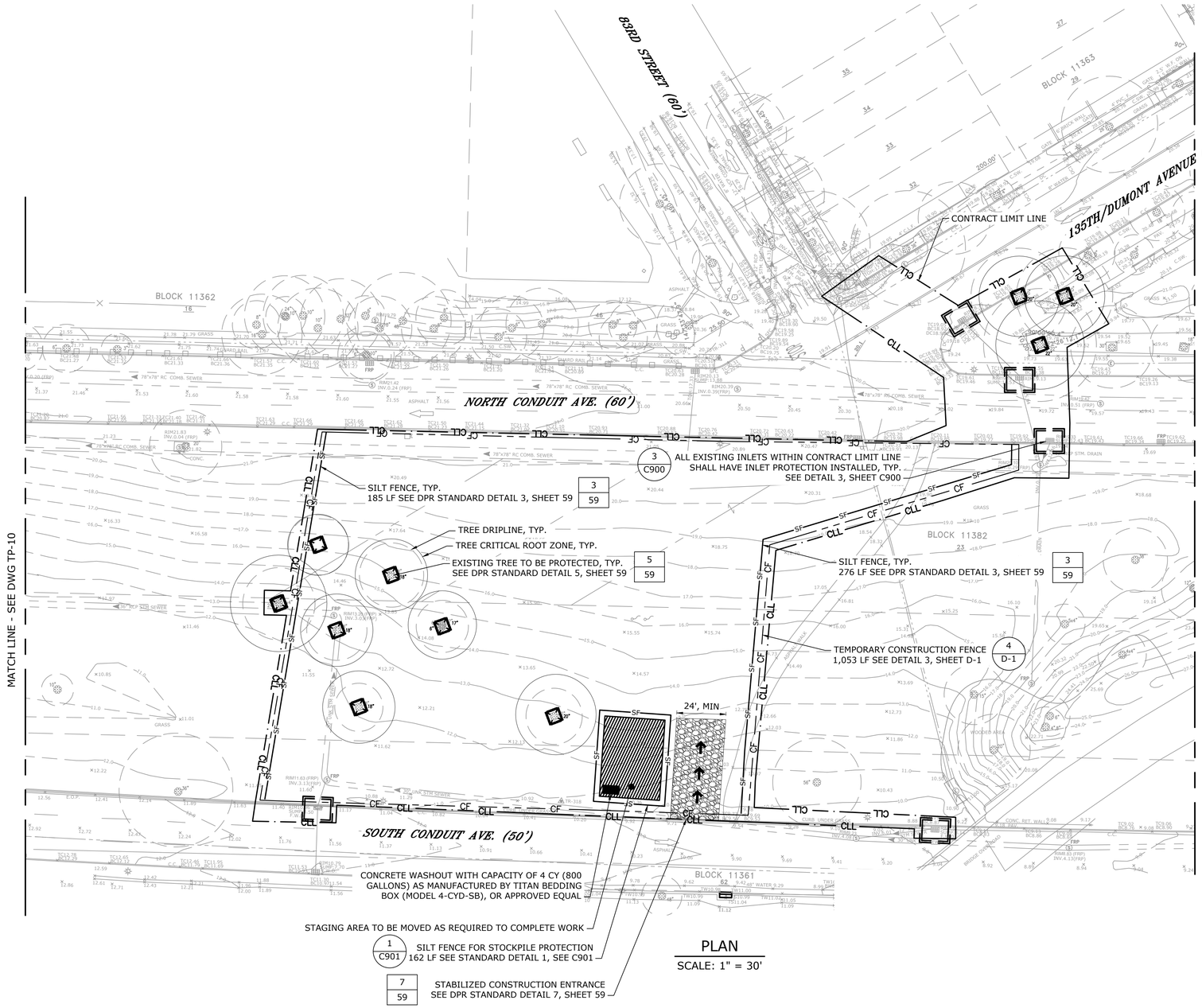
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
GEOTECHNICAL PLAN - NSC-02RGa

DATE JUL 2026
PAGE 34 OF 171
SHEET B-20

CONSULTANT DESIGN

File: D:\00336-NYC\00336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\GEOTECHNICAL PLAN - NSC-02RGA Saved By SKANE Save Date: 2026/05/05 1:02 PM
PLOT DATE: 2026/07/31 8:02:44 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\..\..\Work Plan\O-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

LEGEND

- TREE TO BE PROTECTED
- TREE DRIPLINE
- TREE CRITICAL ROOT ZONE
- CONSTRUCTION ACCESS/ENTRANCE
- STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CLL — CONTRACT LIMIT LINE
- SF — SILT FENCE
- CF — TEMPORARY CONSTRUCTION FENCE
- INLET PROTECTION

NOTES:

1. TREE CRZ DIAMETERS HAVE BEEN INCLUDED FOR ALL TREES WITHIN CONTRACT LIMIT LINE. TREE CRZ DIAMETERS HAVE BEEN ESTIMATED BASED ON SURVEYED TRUNK DBH's. CRZ VALUES ARE CALCULATED AS 1' CRZ DIA. FOR EVERY DBH 1".
2. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
3. SEE DRAWING TP-10 FOR STAGE 1: TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC SEQUENCING TABLE.

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

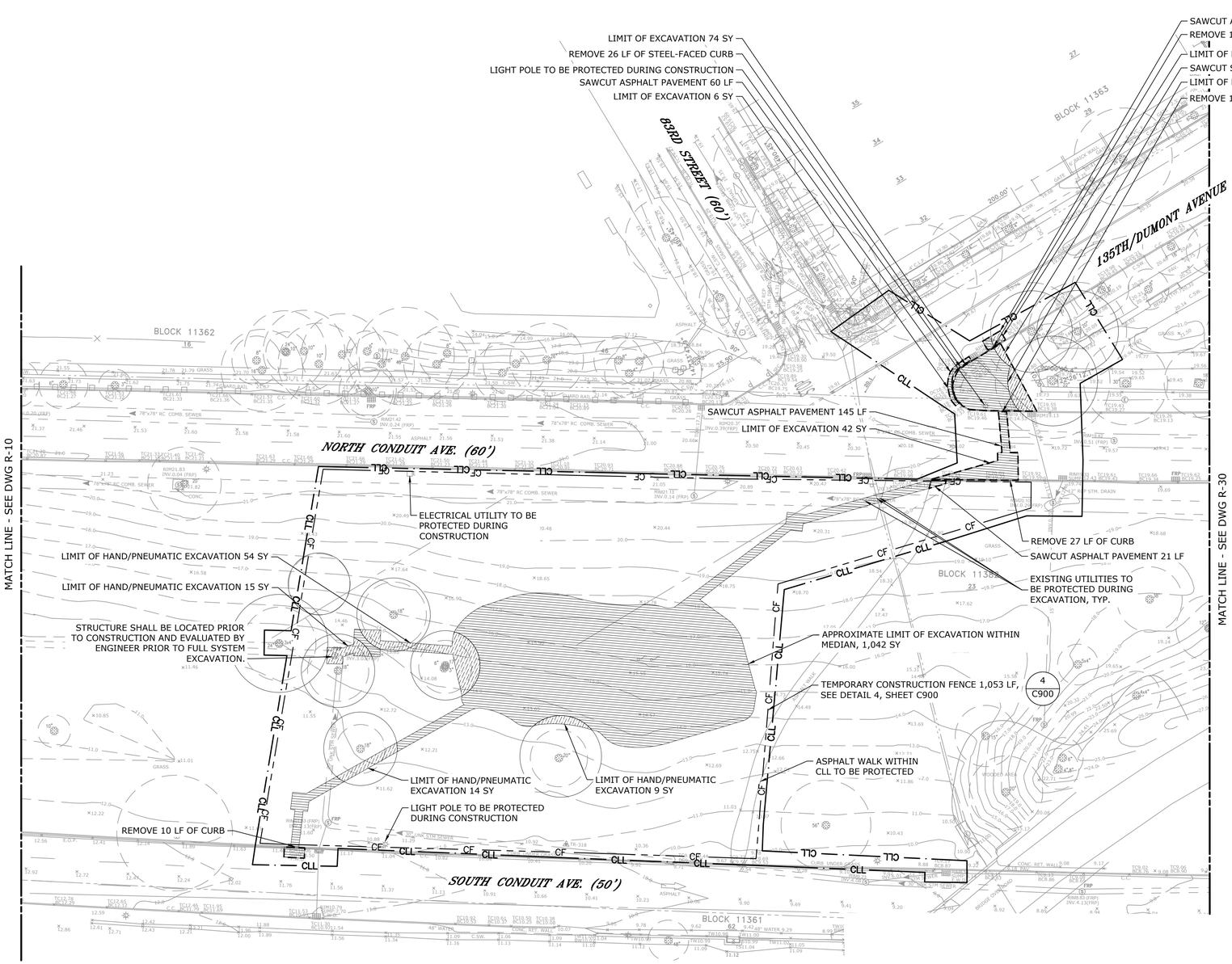
TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 2

DATE	JUL 2026
PAGE	35 OF 171
SHEET	TP-20

CONSULTANT DESIGN

File: O:\30336-NYC\30336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\TREE PROTECTION PLAN - NSC-02RCA Saved By: TAUTH Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:02:51 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-REMOVAL,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\..\Work Plan\O-Reference Material\S02 CAD Templates\Electronic Seal\Sondeep's Seal-2010



NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. NO UTILITY SERVICE VALVES (WATER, GAS, ETC) MAY BE LOCATED WITHIN THE FOOTPRINTS OF PROPOSED INFRASTRUCTURE.
3. ALL EXCAVATION WITHIN AN EXISTING TREE CRITICAL ROOT ZONE (CRZ) SHALL BE DONE BY HAND OR PNEUMATIC MEANS.
4. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
5. SEE DRAWING R-10 FOR STAGE 2: REMOVAL PLAN CONSTRUCTION SEQUENCING TABLE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF EXISTING UTILITIES WHERE ENCOUNTERED DURING EXCAVATION. SEE G-2 FOR FURTHER INFORMATION.

PLAN
SCALE: 1" = 30'

LEGEND

- FULL DEPTH EXCAVATION LIMIT
- FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT
- CLL - CONTRACT LIMIT LINE
- CF - TEMPORARY CONSTRUCTION FENCE

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
REMOVAL PLAN - NSC-02RGa

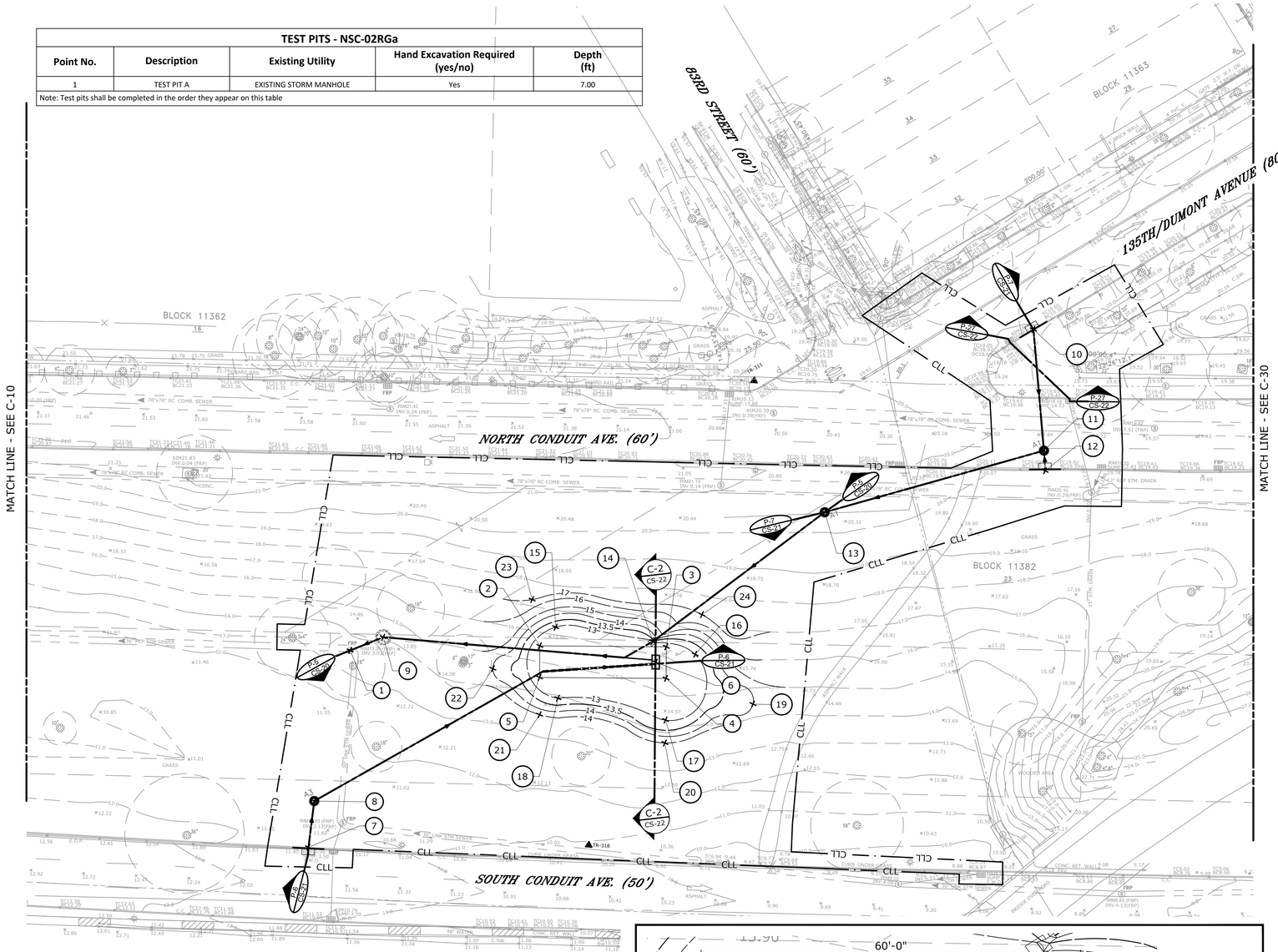
DATE JUL 2026
PAGE 36 OF 171
SHEET R-20

CONSULTANT DESIGN

File: O:\W536-NYC\W536-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\REMOVAL PLAN NSC-02RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:02:58 AM BY: TAUTH
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\GN-REMOVAL,..\..\000-BASE\SE CONDUIT\CK-STRU,..\..\..\..\Work Plan\G-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

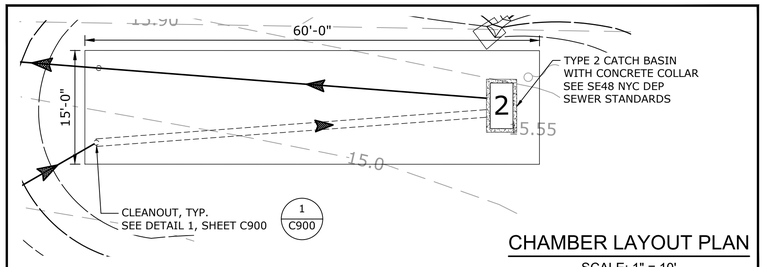
STAKING TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
1	184228.74	1024795.34	TEST PIT A
2	184199.57	1024880.48	SUBSURFACE SYSTEM
3	184178.32	1024936.59	SUBSURFACE SYSTEM
4	184164.30	1024931.28	SUBSURFACE SYSTEM
5	184185.54	1024875.17	SUBSURFACE SYSTEM
6	184173.18	1024929.35	NSC2-OF1
7	184147.98	1024744.38	NSC2-CB3
8	184167.61	1024754.58	NSC2-MH2
9	184229.17	1024812.25	NSC2-OCS
10	184259.19	1025152.14	NSC2-CB1
11	184203.51	1025136.89	NSC2-MH3
12	184194.33	1025134.06	NSC2-CB2
13	184212.16	1025029.21	NSC2-MH1
14	184182.93	1024931.45	NSC2-OUT1
15	184205.30	1024890.59	13.0 CONTOUR
16	184170.21	1024948.21	13.0 CONTOUR
17	184145.87	1024924.19	13.0 CONTOUR
18	184173.28	1024879.91	13.0 CONTOUR
19	184138.56	1024965.73	14.0 CONTOUR
20	184135.75	1024920.14	14.0 CONTOUR
21	184168.96	1024869.03	14.0 CONTOUR
22	184197.13	1024855.83	14.0 CONTOUR
23	184221.42	1024884.68	17.0 CONTOUR
24	184186.79	1024957.74	17.0 CONTOUR

TEST PITS - NSC-02RGa				
Point No.	Description	Existing Utility	Hand Excavation Required (yes/no)	Depth (ft)
1	TEST PIT A	EXISTING STORM MANHOLE	Yes	7.00
Note: Test pits shall be completed in the order they appear on this table				



PLAN

SCALE: 1" = 30'



CHAMBER LAYOUT PLAN

SCALE: 1" = 10'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. SEE DRAWING C-10 FOR STAGE 3: INSTALL SITE, GRADING, AND PROPOSED DRAINAGE PLAN CONSTRUCTION SEQUENCING TABLE.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- FLARED END SECTION WITH RIP RAP APRON
- STAKING POINT
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- ISOLATOR ROW WITH GEOTEXTILE
- TR-XXX - SURVEY CONTROL TIE

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

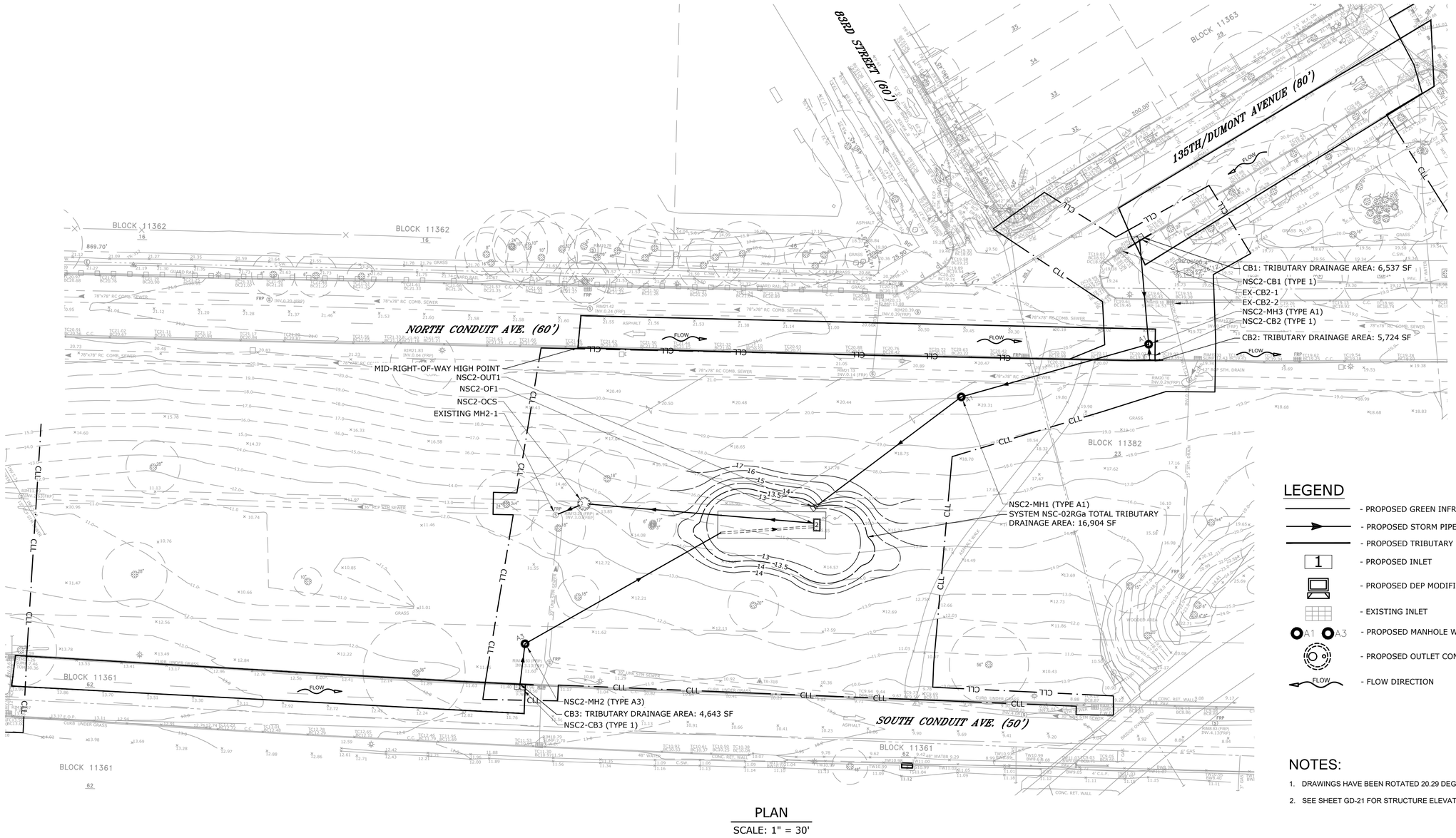
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
LAYOUT PLAN - NSC-02RGa

DATE JUL 2026
PAGE 37 OF 171
SHEET C-20

CONSULTANT DESIGN

File: O:\06336-NYC\06336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\STAKING PLAN NSC-02RGA Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:03:07 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CK-STRU,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CH-STAKING - NSC2,..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



LEGEND

- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- PROPOSED TRIBUTARY DRAINAGE AREA
- 1 - PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLOW - FLOW DIRECTION

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. SEE SHEET GD-21 FOR STRUCTURE ELEVATIONS.

PLAN

SCALE: 1" = 30'

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

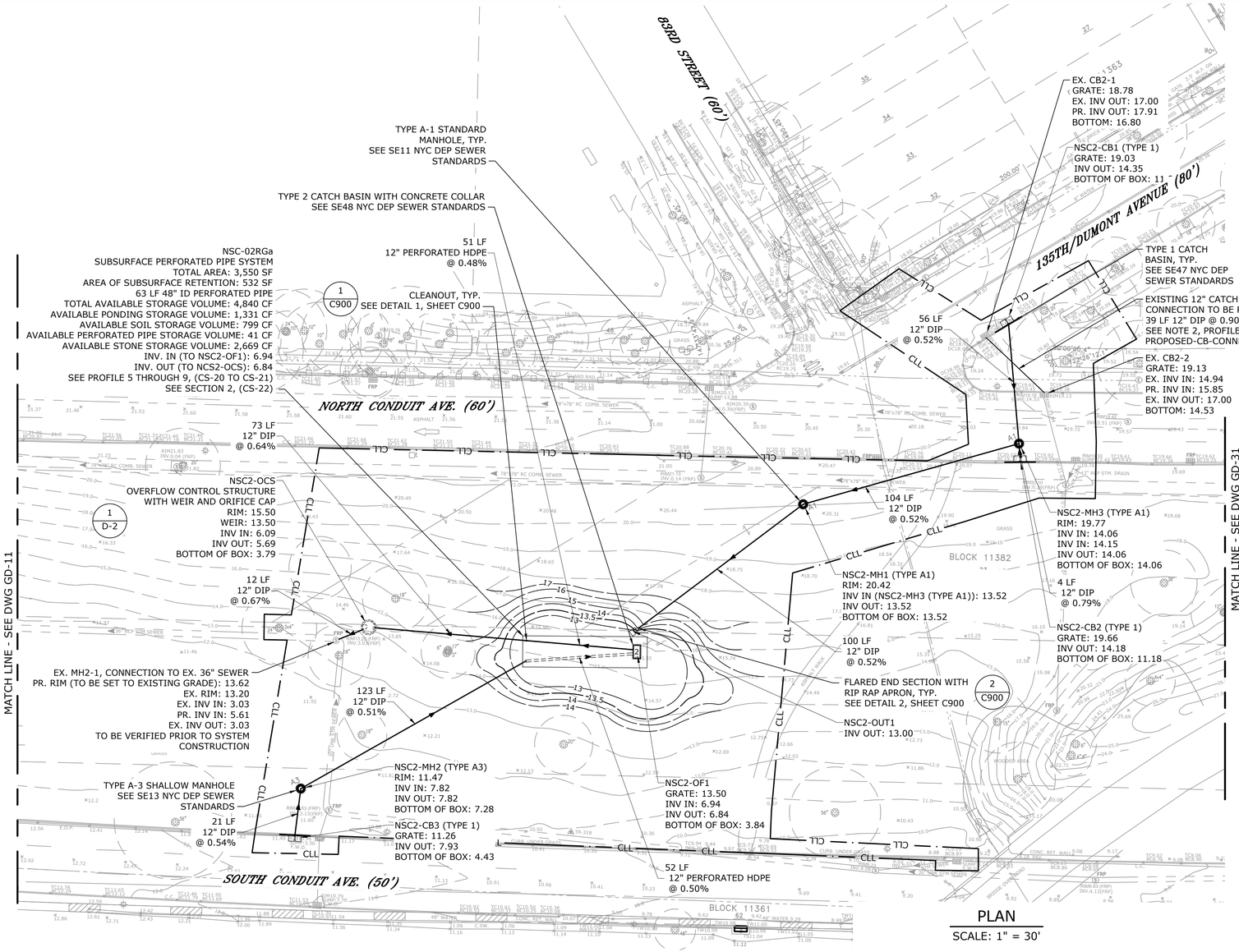
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TRIBUTARY DRAINAGE AREA-NSC-02RGa

DATE JUL 2026
PAGE 38 OF 171
SHEET GD-20

CONSULTANT DESIGN

File: D:\00336-NYC\00336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\TDA_NSC2 Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:03:16 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-DRAINAGE,..\..\000-BASE\SE CONDUIT\CN-3D-PIPES,..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. FOR EXISTING SEWER CONNECTED CATCH BASIN REPLACEMENTS, INSTALLED PIPE SHALL MAINTAIN 18" OF VERTICAL CLEARANCE FROM PROPOSED STORM SEWER. VERTICAL CLEARANCE CAN BE 12" IF PROPOSED STORM SEWER IS ABOVE NEW SEWER CONNECTED CATCH BASIN CONNECTION AND IS ENCASES IN CONCRETE OR MOUNTED ON CONCRETE CRADLE.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE

GI NAME

TRIBUTARY AREA	VOLUME OF 1.25" STORM	CAPACITY MANAGED

- GREEN INFRASTRUCTURE CHARACTERISTICS

NSC–02RGa

16,904 SF	13,171 GAL	37,307 GAL

GI ID		GI Asset Data: Managed Impervious Tributary Area	GI Asset Data: Volume 1.25" Rainfall on Impervious Area	GI Asset Data: GI Footprint Surface Area	GI Asset Data: GI Perimeter	GI Asset Data: Permeability Coefficient	Stormwater Storage Calculations: Stormwater chambers, pipes, tanks, etc. volume	Surface Storage: Surface Storage Area	Surface Storage: Surface Storage Depth	Surface Storage: Surface Storage Volume	Engineered Soil: Soil Depth	Engineered Soil: Soil Voids	Engineered Soil: Stormwater Captured by Soil	Drainage Stone Subbase: Stone Depth	Drainage Stone Subbase: Stone Voids	Drainage Stone Subbase: Stormwater Captured by Stone Layer	Stone Subbase: Stone Depth	Stone Subbase: Stone Voids	Stone Subbase: Stormwater Captured by Stone Layer	Total Stormwater Managed (Infiltration + Storage): Estimated Total Infiltration Volume	Total Stormwater Managed (Infiltration + Storage): Estimated Total Storage Volume	Total Stormwater Managed (Infiltration + Storage): % Impervious Surface Managed	Total Stormwater Managed (Infiltration + Storage): Calculated Volume of Rainfall Captured	Total Stormwater Managed (Infiltration + Storage): Calculated Volume of Rainfall Captured
		sf	cf	sf	ft	in/hr	cf	sf	in	cf	ft	%	cf	ft	%	cf	ft	%	cf	cf	cf	%	cf	gal
NSC-02RGa	Retention credit, sized for static volume to capture 1.25 in (as above) but manages 1.5 in	16,904	1,761	3,550	240	0.50	41	3,550	6	1,331	0.90	25	799	0.50	40	710	6.09	40	1,959	148	4,840	283%	4,988	37,307

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY	DESIGNED JWB	THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	Hazen HAZEN AND SAWYER 498 SEVENTH AVENUE, 11TH FLOOR NEW YORK, NY 10018	APPROVED FOR THE CITY OF NEW YORK _____ P.E. PROJECT MANAGER
				DRAWN TLA			
				CHECKED ACE			
				PROJ.ENGR. ACE			

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NSC-02RGa

DATE	JUL 2026
PAGE	39 OF 171
SHEET	GD-21

CONSULTANT DESIGN

File: G:\W0336-NYC\W0336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\GRADING AND DRAINAGE PLAN - NSC-02RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:03:28 AM BY: TAUTH

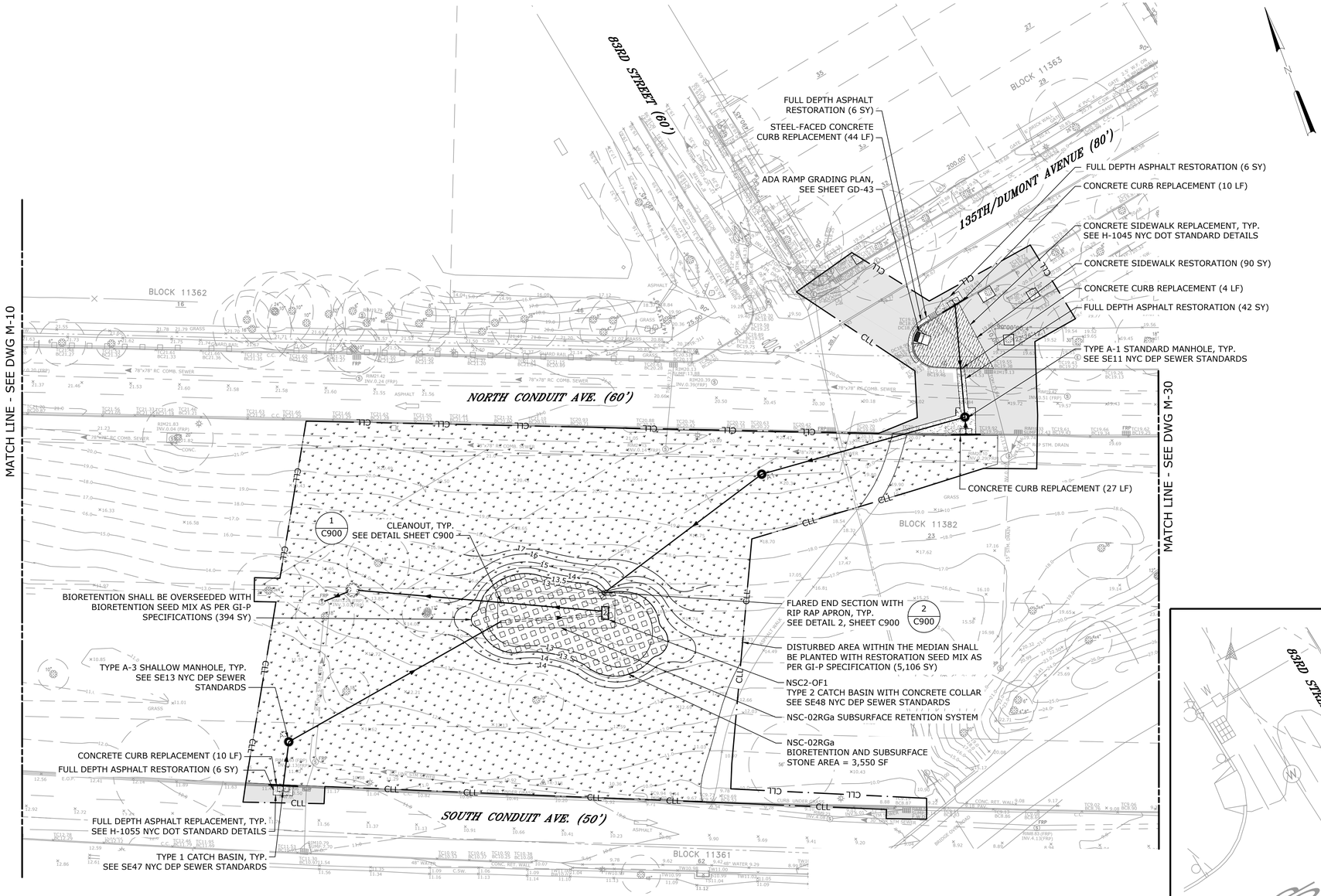
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CN-3D-PIPES,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\EXISTING WATER UTILITY RELAY,..\..\..\Work Plan\0-Reference Materia\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

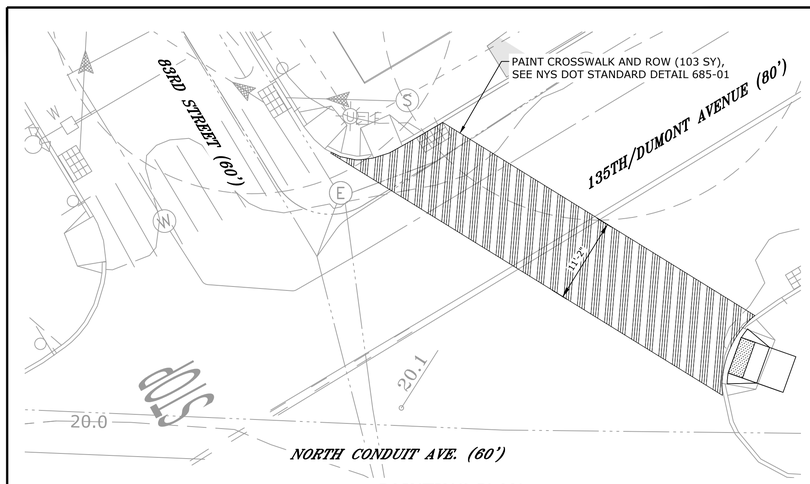
1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. GRASSED AND MULCHED AREAS WITHIN CONTRACT LIMIT LINE, BUT NOT DENOTED FOR RESTORATION SEED MIX, ARE NOT INTENDED TO BE DISTURBED. IF GRASSED OR MULCHED AREAS ARE DISTURBED, AREA SHALL BE STABILIZED WITH RESTORATION SEED MIX PER THE CONTRACT SPECIFICATIONS.
3. SEE DRAWING M-10 FOR STAGE 4: PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION CONSTRUCTION SEQUENCING TABLE.
4. TOP SOIL SHALL BE ADDED TO RESTORATION AREAS WHERE FULL DEPTH EXCAVATION HAS OCCURRED. ALL OTHER RESTORED AREAS SHALL USE RESTORATION SEED MIX ONLY.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLARED END SECTION WITH RIP RAP APRON
- IMPERVIOUS AREA (UNDISTURBED)
- IMPERVIOUS AREA (FULL DEPTH ASPHALT RESTORATION)
- IMPERVIOUS AREA (FULL DEPTH SIDEWALK RESTORATION)
- PERVIOUS AREA (UNDISTURBED, SEE NOTE 2)
- PERVIOUS AREA (RESTORATION SEED MIX)
- PERVIOUS AREA (BIORETENTION SEED MIX)
- RIGHT OF WAY PAINTING



PLAN
SCALE: 1" = 30'



PAINTING PLAN
SCALE: 1" = 10'

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

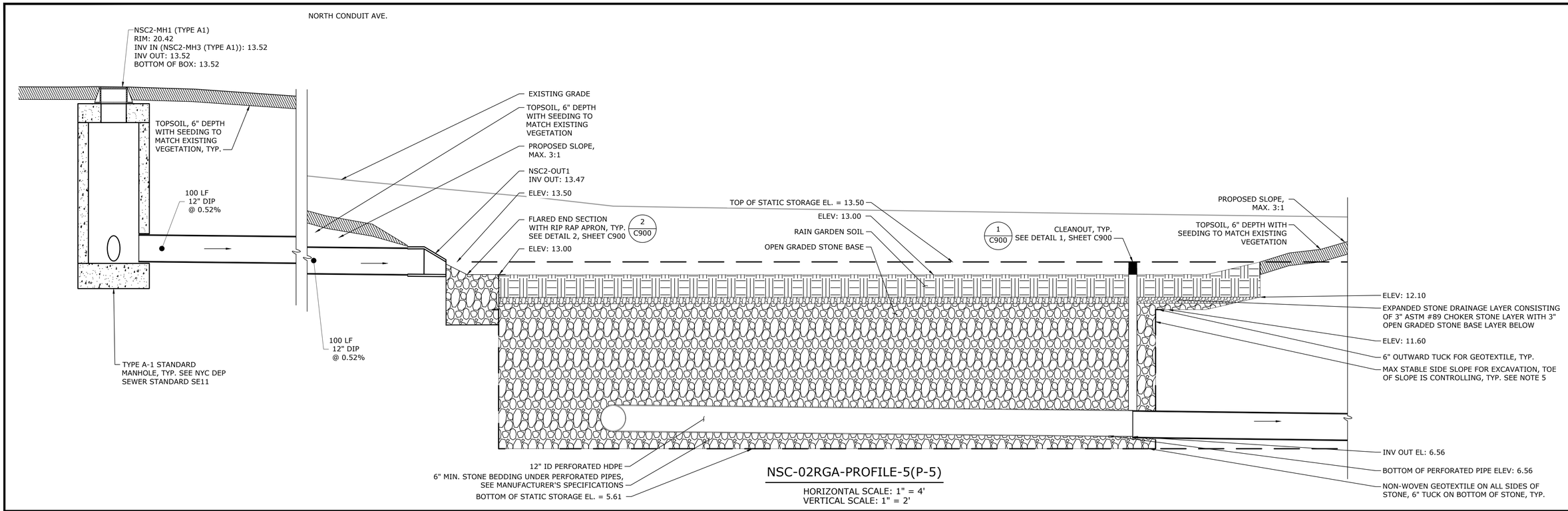
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN - NSC-02RGa

DATE	JUL 2026
PAGE	40 OF 171
SHEET	M-20

CONSULTANT DESIGN

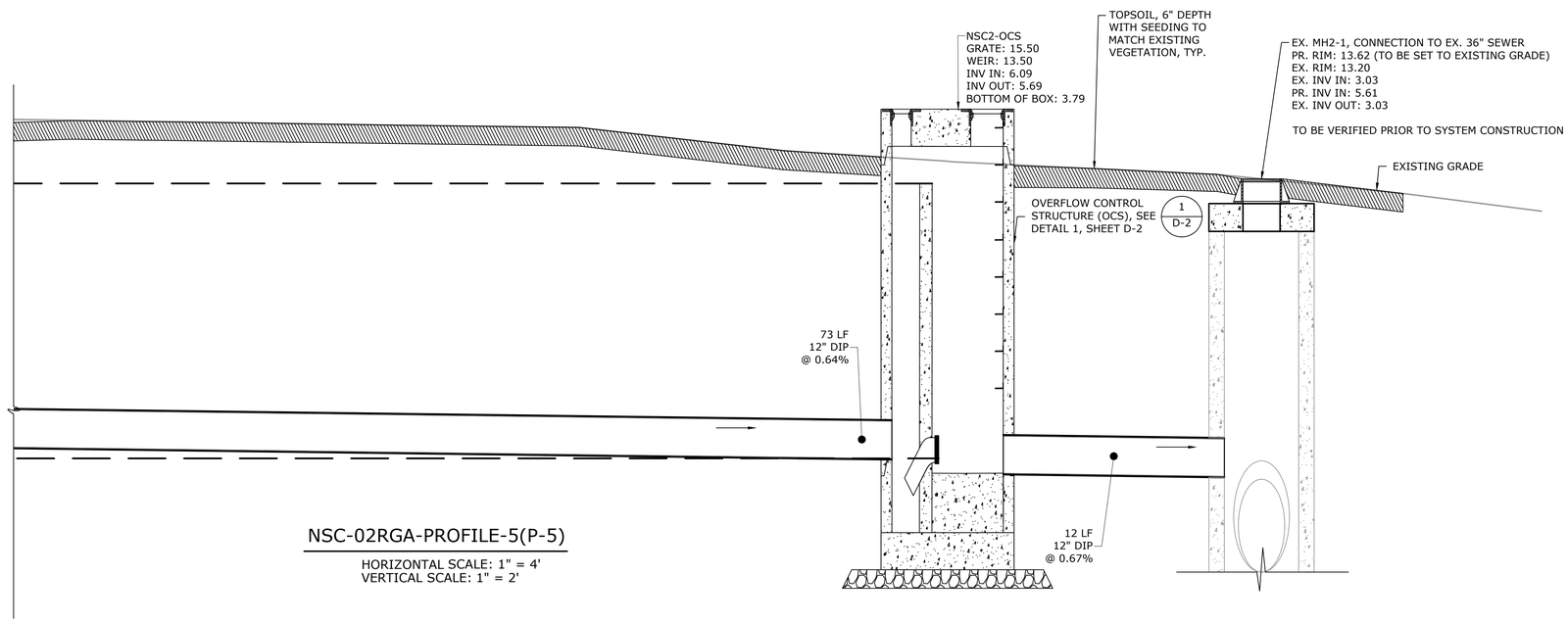
File: D:\00336-NYC\00336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\MATERIAL PLAN NSC-02RGa Saved By TAUTH Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:03:35 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\000-BASE\SE CONDUIT\CN-MATERIAL..\..\000-BASE\SE CONDUIT\CN-STRU..\..\000-BASE\SE CONDUIT\CX-STRU..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-R..\..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NSC-02RGA-PROFILE-5(P-5)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'



NSC-02RGA-PROFILE-5(P-5)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 4,818 CF AND IS CALCULATED BETWEEN EL. 6.09 AND EL 13.50.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES. FOLD 6" LEVEL WITH TOP OF CHOKER STONE LAYER. FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 5A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIN GARDEN AND STONE LAYERS.

1" = 2': 2 1 0 2'
1" = 4': 4 2 0 4'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

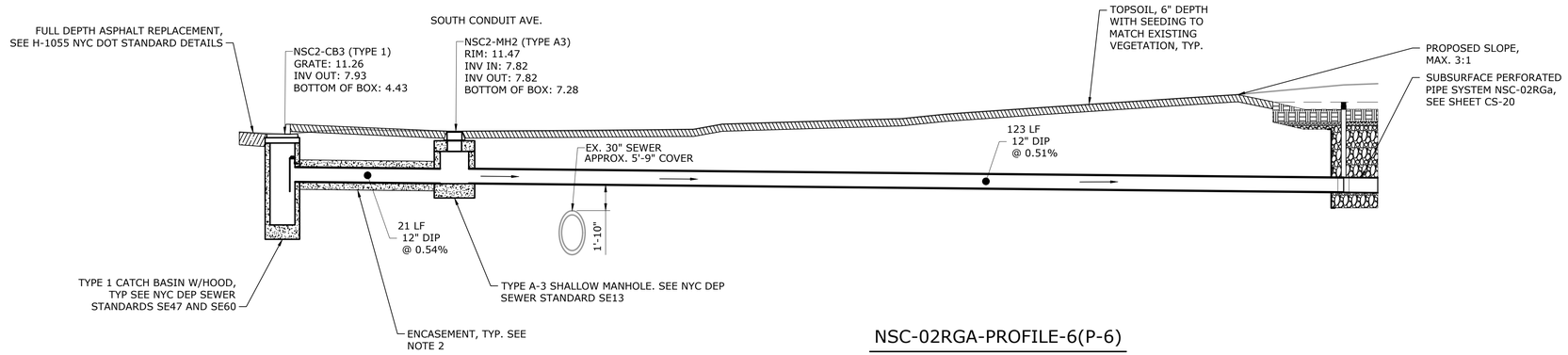
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-02RGa I

DATE JUL 2026
PAGE 41 OF 171
SHEET CS-20

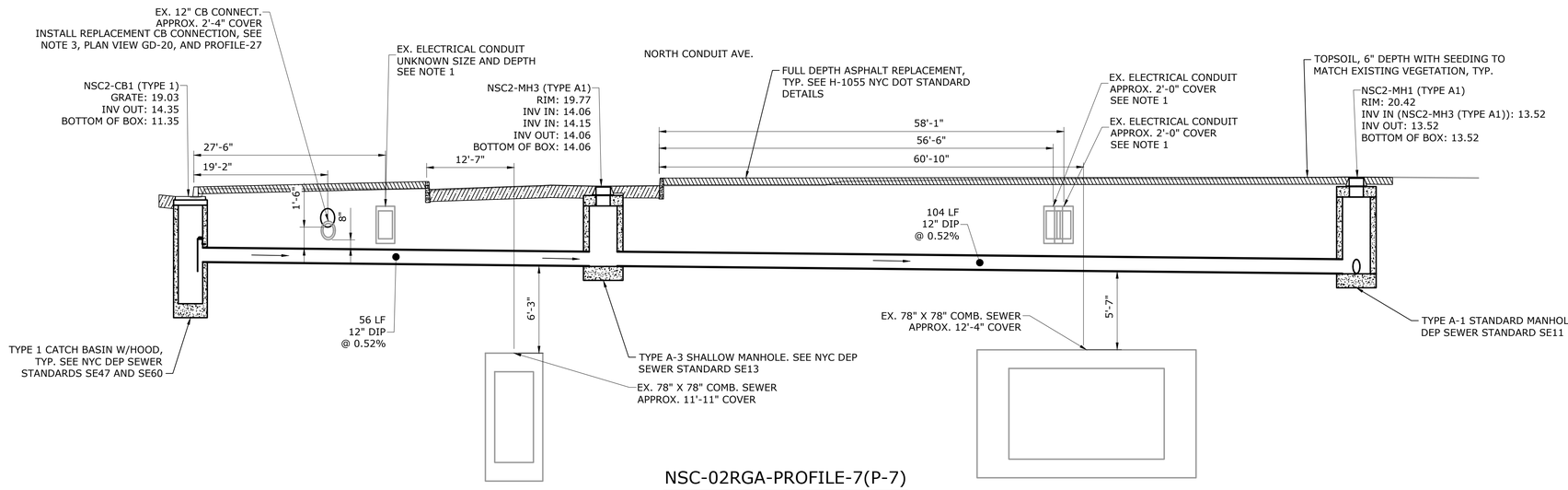
CONSULTANT DESIGN

File: Q:\WS36-NYC\WS36-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-02RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:03:44 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\GN-3D-PIPES,..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\..\Work Plan\D-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NSC-02RGA-PROFILE-6(P-6)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NSC-02RGA-PROFILE-7(P-7)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.
3. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE)

1" = 10' (10 5 0 10')
1" = 5' (5 0 5')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-02RGa II

DATE JUL 2026
PAGE 42 OF 171
SHEET CS-21

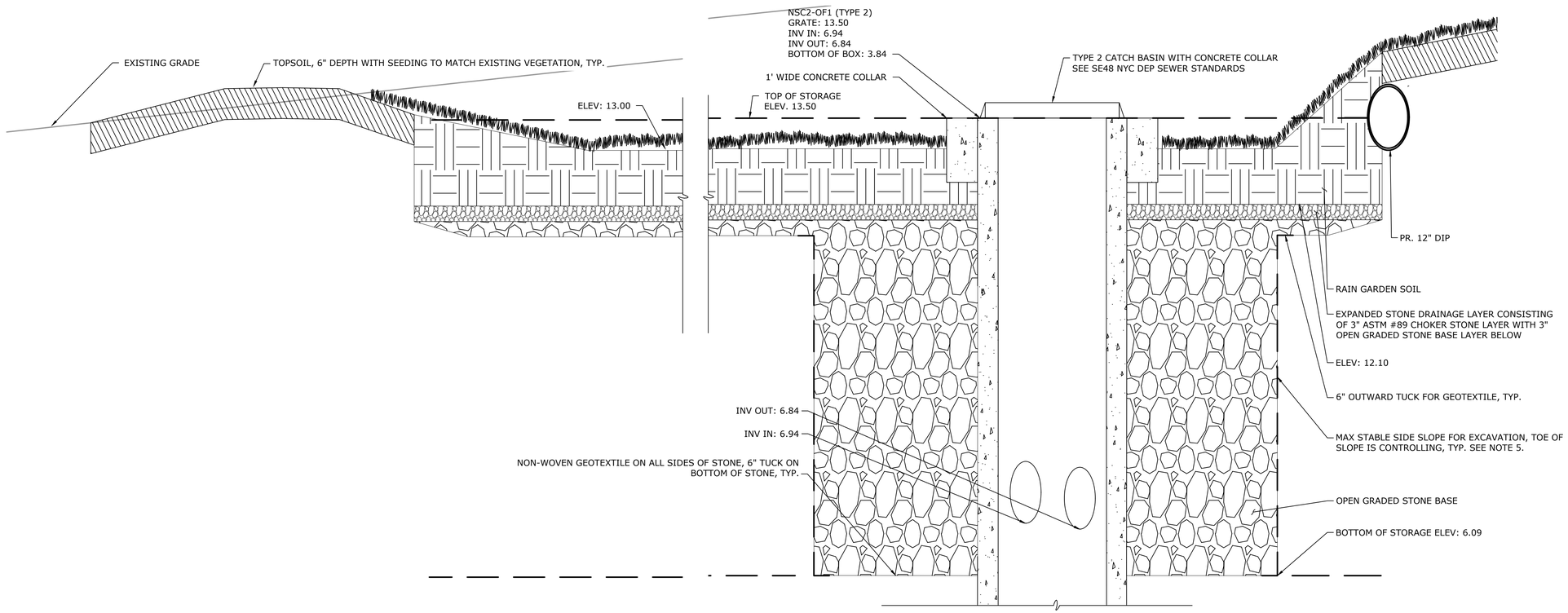
CONSULTANT DESIGN

XREFs= ..\..\000-BASE\SE CONDUIT\GN-3D-PIPES...\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT...\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

File: O:\W0336-NYC\W0336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-02RGA - CROSSING Saved By SKANE Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:03:51 AM BY: TAUTH

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 4,818 CF AND IS CALCULATED BETWEEN EL. 6.09 AND EL 13.50.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES AND FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED VIA TEST PITS. CONTRACTOR SHALL SUBMIT FINDINGS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO SOURCING DRAINAGE STRUCTURES AND PRIOR TO BEGINNING EXCAVATION.
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE PIPE SHOULD BE SUPPORTED USING MEANS AND METHODS PERSCRIBED BY THE CONTRACTOR, AND ENGINEER'S REPRESENTATIVE SHALL COORDINATE WITH RESPECTIVE AGENCY.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTARCTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE, ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIL GARDEN SOIL AND STONE LAYERS.



NSC-02RGa CROSS SECTION (C-2)

HORIZONTAL SCALE: 1" = 2'
VERTICAL SCALE: 1" = 1'

1" = 1' (1 0 1')
1" = 2' (2 1 0 2')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
CROSS SECTION - NSC-02RGa

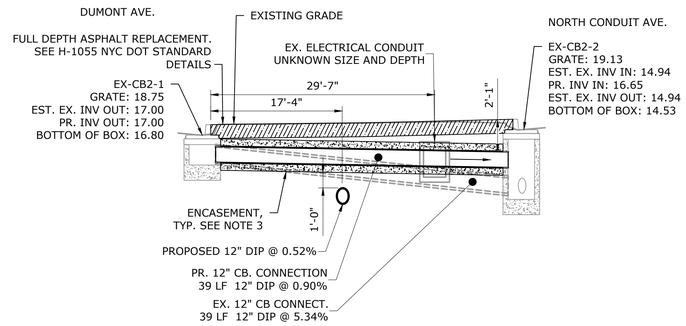
DATE	JUL 2026
PAGE	43 OF 171
SHEET	CS-22

CONSULTANT DESIGN

File: O:\WS336-NYC\WS336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\CROSS SECTIONS SYSTEM 2 Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:03:58 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\CN-3D-PIPES..\..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED VIA TEST PITS. CONTRACTOR SHALL SUBMIT FINDINGS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO SOURCING DRAINAGE STRUCTURES AND PRIOR TO BEGINNING EXCAVATION.
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE PIPE SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND ENGINEER'S REPRESENTATIVE SHALL COORDINATE WITH RESPECTIVE AGENCY.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE, ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
2. ALL PROPOSED CATCH BASIN CONNECTION PIPES SHALL BE CLASS 56 DIP.
3. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.
4. WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).
   A. WATER UTILITY PIPES TO BE REROUTED SHALL USE TWO 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER UTILITY RELAY, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC BWSO REPRESENTATIVE.
   B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.



PROPOSED-CB-CONNECTION-27(P-27)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 10' (10 5 0 10')
1" = 5' (5 0 5')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

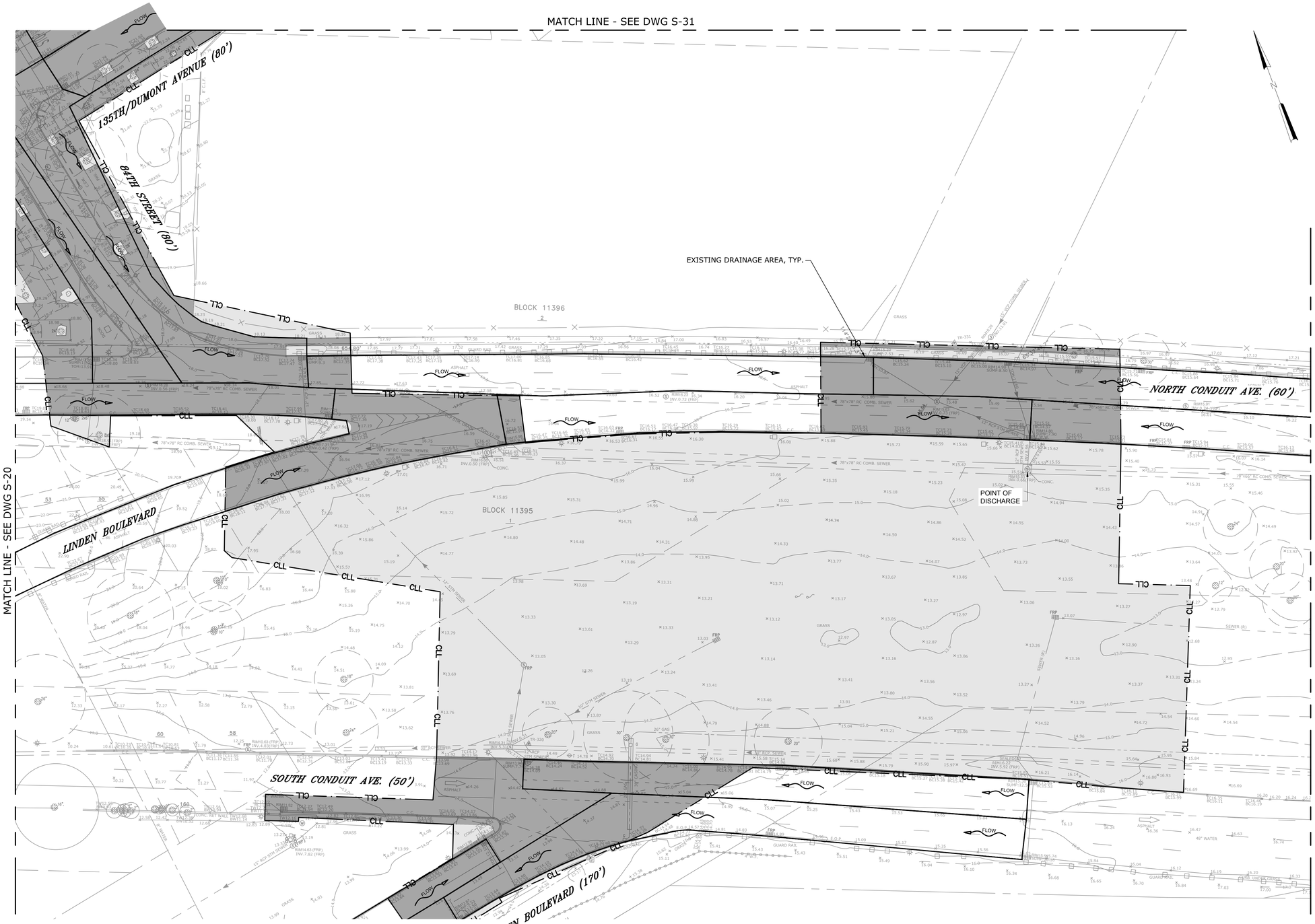
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROPOSED CB CONNECTION NSC-02RGa

DATE JUL 2026
PAGE 44 OF 171
SHEET CS-23

CONSULTANT DESIGN

File: Q:\0536-NYC\0536-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROPOSED CB CONNECTION NSC-02RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:04:04 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\DN-3D-PIPES,..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\..\Work Plan\D-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

LEGEND

- EXISTING FLOW DIRECTION
- EXISTING DRAINAGE AREA
- IMPERVIOUS AREA
- PERVIOUS AREA

PLAN

SCALE: 1" = 30'

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — STATE OF NEW YORK — SANDEEP MEHROTRA — 100193 — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER _____ P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-03RGa I

DATE JUL 2026
PAGE 45 OF 171
SHEET S-30

CONSULTANT DESIGN

File: G:\06336-NYC\06336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - SHEET 3 Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:04:12 AM BY: TAUTH

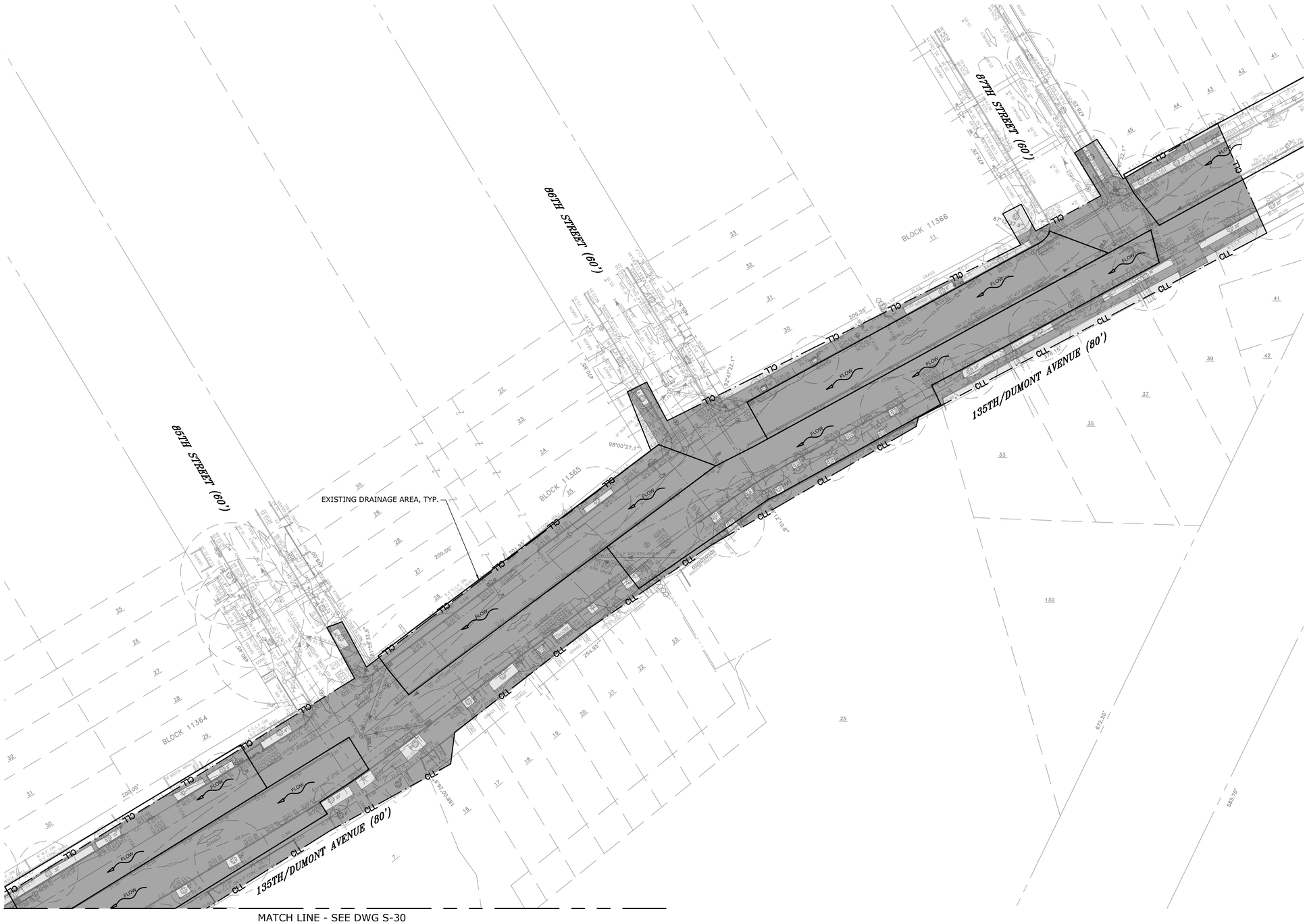
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-X,..\..\000-BASE\SE CONDUIT\CN-DRAINAGE_EX,..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

LEGEND

- EXISTING FLOW DIRECTION
- EXISTING DRAINAGE AREA
- IMPERVIOUS AREA
- PERVIOUS AREA



MATCH LINE - SEE DWG S-30

PLAN

SCALE: 1" = 30'

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-03RGa II

DATE	JUL 2026
PAGE	46 OF 171
SHEET	S-31

CONSULTANT DESIGN

File: O:\30336-NYC\30336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - SHEET 4 Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:04:20 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-X,..\..\000-BASE\SE CONDUIT\CN-DRAINAGE_EX,..\..\..\..\Work Plan\0-Reference Material\SD2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

NOTE: ALL GEOTECHNICAL TESTS WERE PERFORMED IN NOVEMBER 2013 UNDER THE CSO PlaNYC CONTRACT.

LABORATORY TESTING DATA SUMMARY - South East Conduit Avenue

BORING NO.	SAMPLE NO.	DEPTH (FT)	IDENTIFICATION TESTS			REMARKS
			WATER CONTENT (%)	USCS SYMB. (1)	SIEVE MINUS NO. 200	
B-NSC-03RGa	S-1	3-5	3.3	SP-SM	7	
	S-2	8-10	14.4	SP	3.1	

Note: (1) USCS symbol based on visual observation and Sieve results reported.

LEGEND

- B - BORING LOCATION
- PT - PERMEABILITY TEST LOCATION
- BIORETENTION OUTLINE

PERMEABILITY TEST SUMMARY - South East Conduit Avenue

Location	Permeability Test Results				
	Test Depth (feet)	Average Permeability Testing 1 (inches/hour)	Average Permeability Testing 2 (inches/hour)	Average Permeability Testing (inches/hour)	Comments
PT- NSC-03RGa	5	5.00	5.00	5.00	5 in/hr used due to rapid infiltration.
	10	1.06	1.02	1.04	-

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

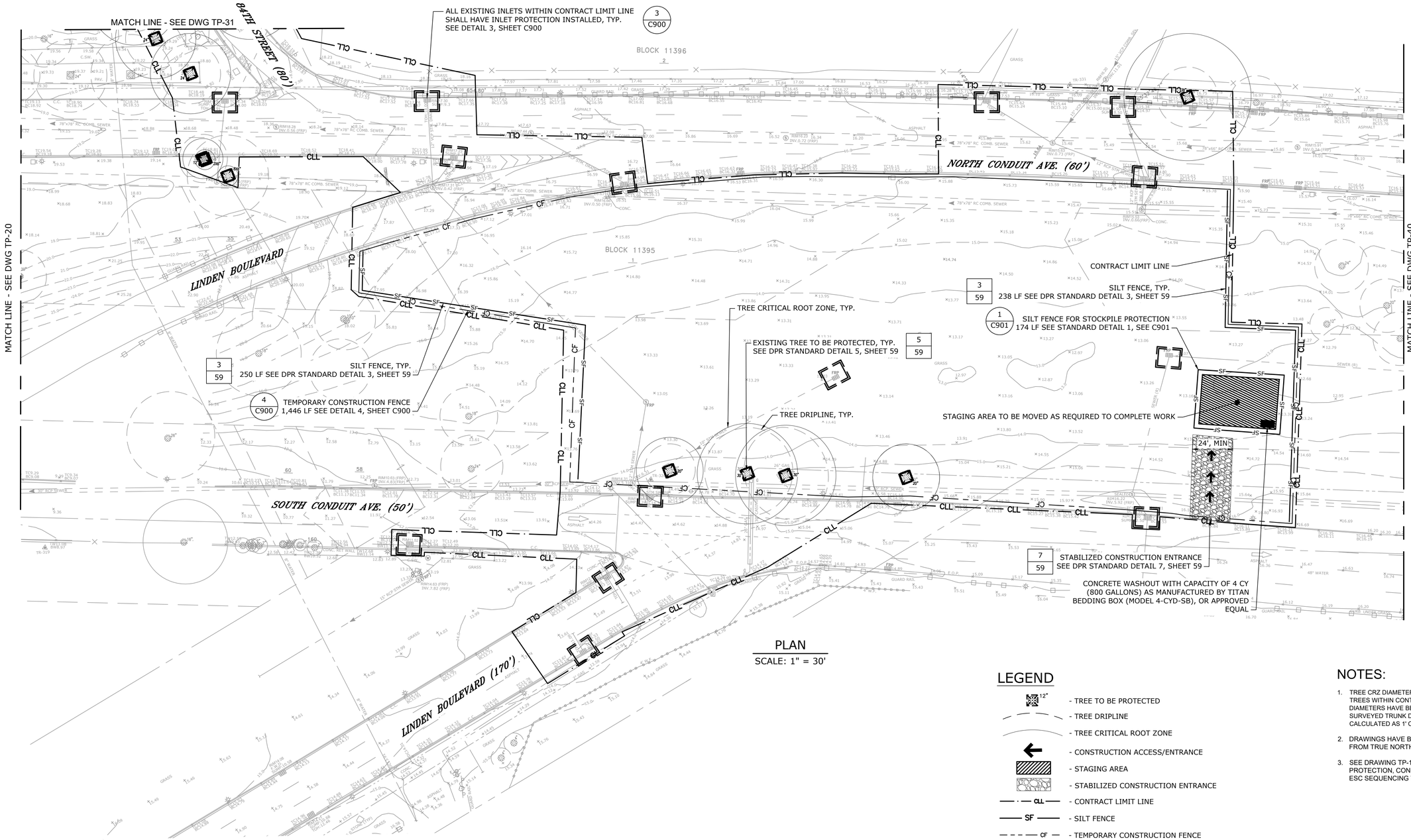
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
GEOTECHNICAL PLAN - NSC-03RGa

DATE JUL 2026
PAGE 47 OF 171
SHEET B-30

CONSULTANT DESIGN

File: O:\00336-NYC\00336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\GEOTECHNICAL PLAN - NSC-03RGA Saved By: SKANE Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:04:27 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\..\..\Work Plan\O-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

LEGEND

- 12" - TREE TO BE PROTECTED
- - TREE DRIPLINE
- - TREE CRITICAL ROOT ZONE
- - CONSTRUCTION ACCESS/ENTRANCE
- - STAGING AREA
- - STABILIZED CONSTRUCTION ENTRANCE
- CLL - CONTRACT LIMIT LINE
- SF - SILT FENCE
- CF - TEMPORARY CONSTRUCTION FENCE
- - INLET PROTECTION

NOTES:

1. TREE CRZ DIAMETERS HAVE BEEN INCLUDED FOR ALL TREES WITHIN CONTRACT LIMIT LINE. TREE CRZ DIAMETERS HAVE BEEN ESTIMATED BASED ON SURVEYED TRUNK DBH's. CRZ VALUES ARE CALCULATED AS 1' CRZ DIA. FOR EVERY DBH 1".
2. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
3. SEE DRAWING TP-10 FOR STAGE 1: TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC SEQUENCING TABLE.

1"=30'-0" (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

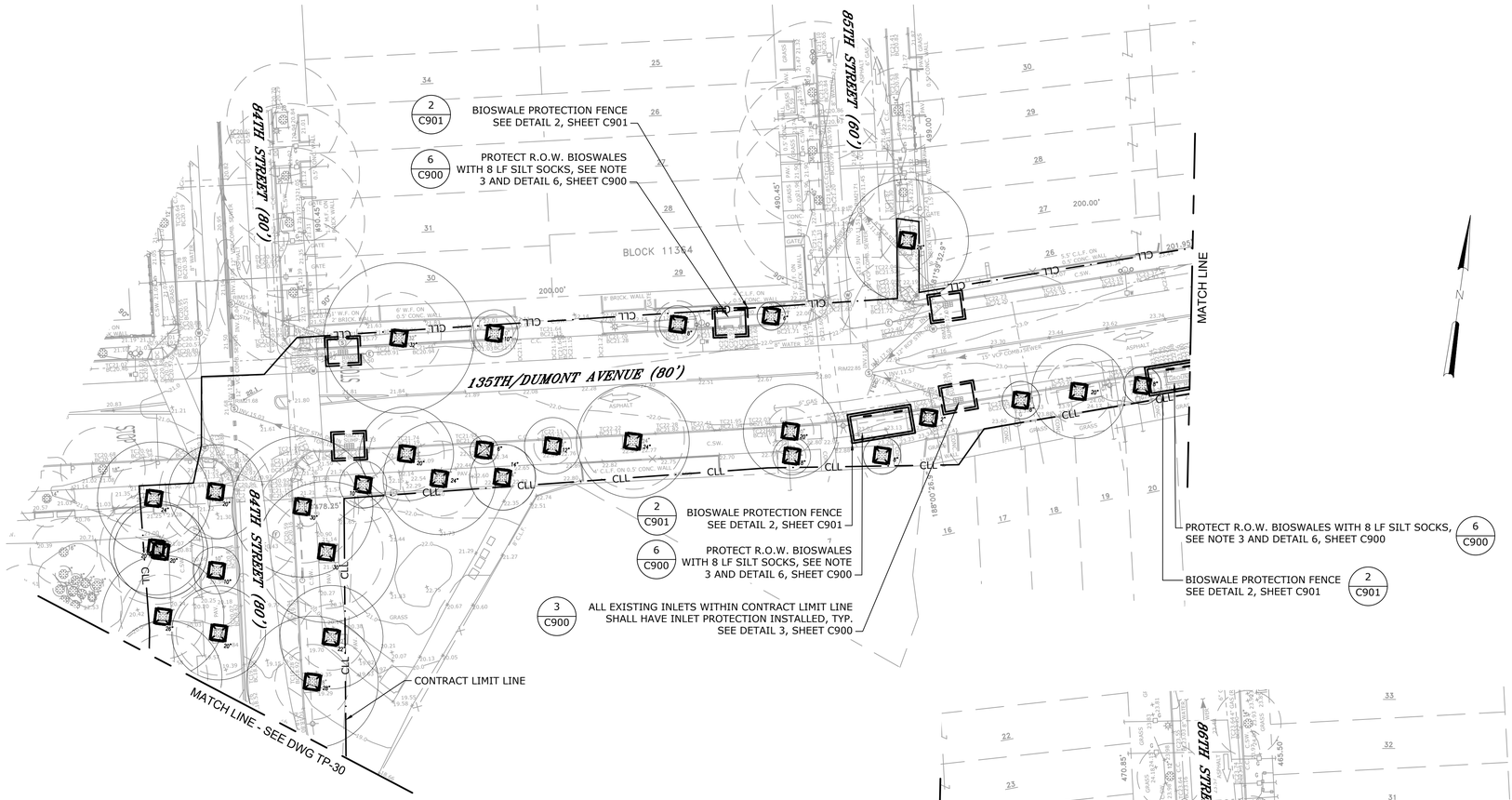
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 3

DATE	JUL 2026
PAGE	48 OF 171
SHEET	TP-30

CONSULTANT DESIGN

File: D:\00336-NYC\00336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\TREE PROTECTION PLAN - NSC-SMCA Saved By: TAUTH Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:04:35 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-REMOVAL,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

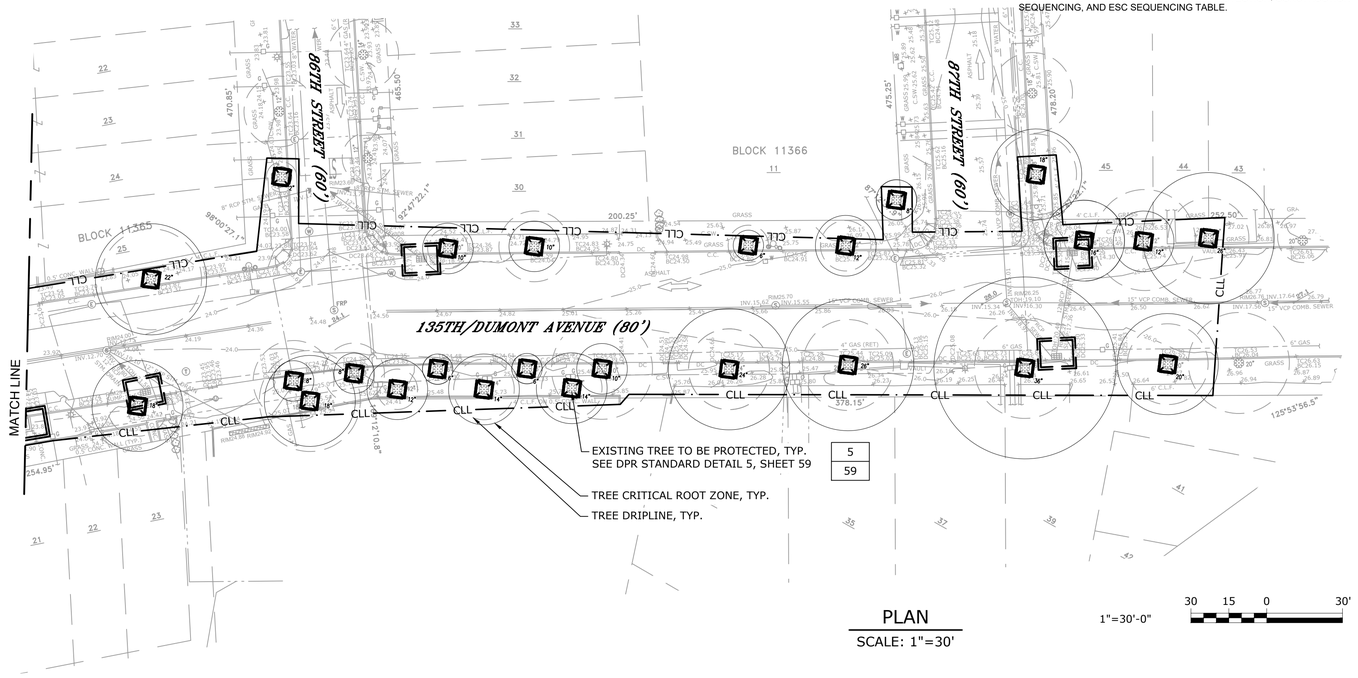


LEGEND

- 12" - TREE TO BE PROTECTED
- - TREE DRIPLINE
- - TREE CRITICAL ROOT ZONE
- - CONSTRUCTION ACCESS/ENTRANCE
- - STAGING AREA
- - STABILIZED CONSTRUCTION ENTRANCE
- CLL - CONTRACT LIMIT LINE
- SF - SILT FENCE
- CF - TEMPORARY CONSTRUCTION FENCE
- - INLET PROTECTION
- - BIOSWALE PROTECTION

NOTES:

1. TREE CRZ DIAMETERS HAVE BEEN INCLUDED FOR ALL TREES WITHIN CONTRACT LIMIT LINE. TREE CRZ DIAMETERS HAVE BEEN ESTIMATED BASED ON SURVEYED TRUNK DBH's. CRZ VALUES ARE CALCULATED AS 1' CRZ DIA. FOR EVERY DBH 1".
2. DRAWINGS HAVE BEEN ROTATED 7.75 DEGREES FROM TRUE NORTH.
3. FOR R.O.W. RAIN GARDENS/BIOSWALES, OBSERVE THE FOLLOWING PROTECTION MEASURES:
   - A. INSTALL SILT SOCKS TO BLOCK CURB CUT
   - B. INSTALL BIOSWALE PROTECTION FENCE TO PROTECT RAIN GARDENS/BIOSWALES.
   - C. WATER RAIN GARDENS WITH EXISTING VEGETATION PER SECTION G1-4.10(D)(1) OF STANDARD GREEN INFRASTRUCTURE SPECS ON DDC WEBSITE
   - D. INSTALL TEMPORARY COVERING, EROSION CONTROL FABRIC OR PLASTIC OVER BARE SOIL IN RAIN GARDENS AND GENTLY SECURE
   - E. AVOID STEPPING IN PLANTING BED WHEN INSTALLING PROTECTION MEASURES
   - F. DO NOT PLACE MATERIALS WITHIN OR ON TOP OF RAIN GARDEN
4. SEE DRAWING TP-10 FOR STAGE 1: TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC SEQUENCING TABLE.



PLAN
SCALE: 1"=30'

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

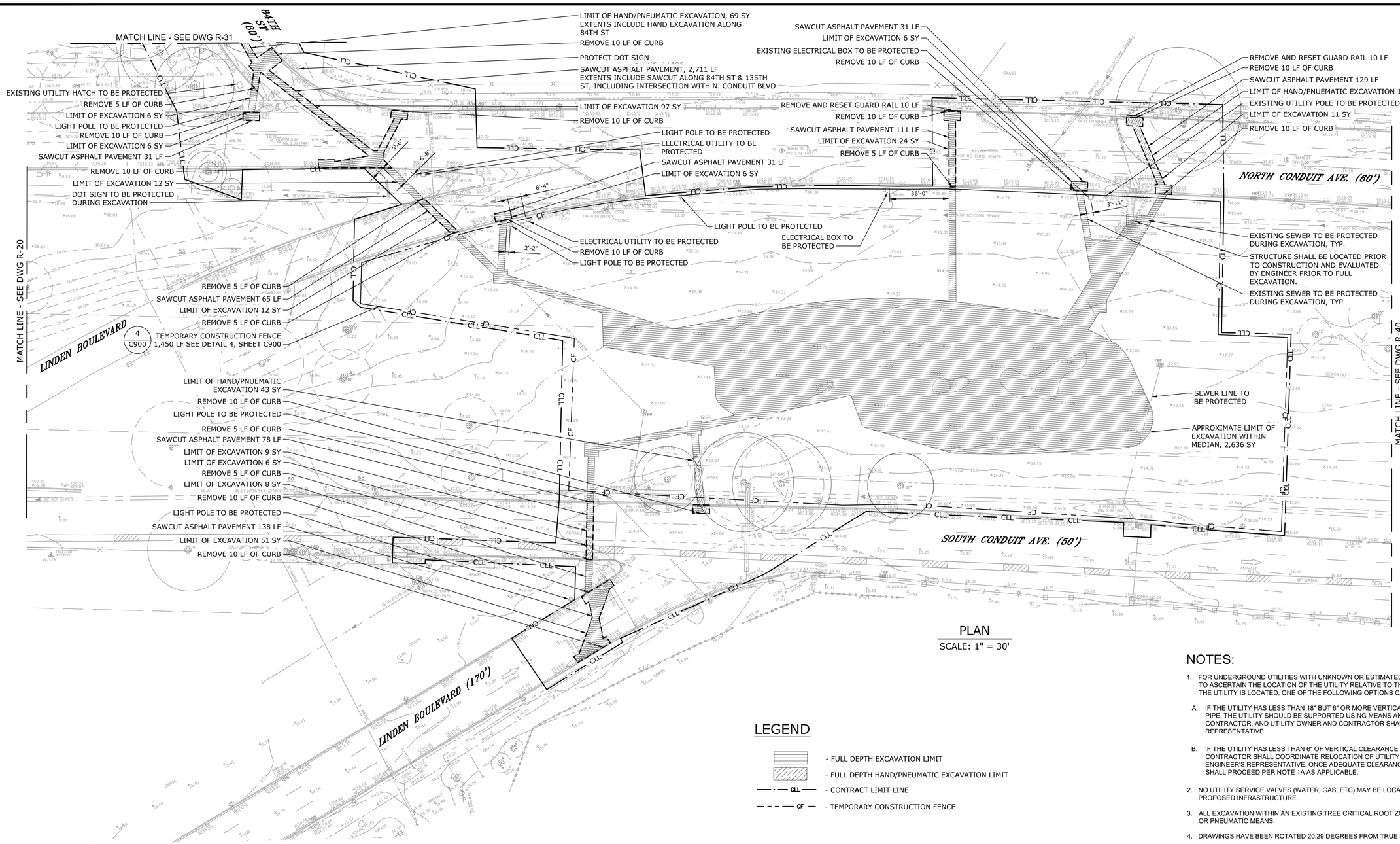
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 3

DATE JUL 2026
PAGE 49 OF 171
SHEET TP-31

CONSULTANT DESIGN

File: O:\06336-NYC\06336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\TREE PLAN - NSC-DBRGA_2 Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:04:44 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CK-STRU,..\..\000-BASE\SE CONDUIT\CN-REMOVAL,..\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

LEGEND

- FULL DEPTH EXCAVATION LIMIT
- FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT
- CLL — CONTRACT LIMIT LINE
- CF — TEMPORARY CONSTRUCTION FENCE

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. NO UTILITY SERVICE VALVES (WATER, GAS, ETC) MAY BE LOCATED WITHIN THE FOOTPRINTS OF PROPOSED INFRASTRUCTURE.
3. ALL EXCAVATION WITHIN AN EXISTING TREE CRITICAL ROOT ZONE (CRZ) SHALL BE DONE BY HAND OR PNEUMATIC MEANS.
4. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
5. SEE R-10 FOR STAGE 2: REMOVAL PLAN CONSTRUCTION SEQUENCING TABLE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF EXISTING UTILITIES WHERE ENCOUNTERED DURING EXCAVATION. SEE G-2 FOR FURTHER INFORMATION.

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — LICENSED PROFESSIONAL ENGINEER — STATE OF NEW YORK

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

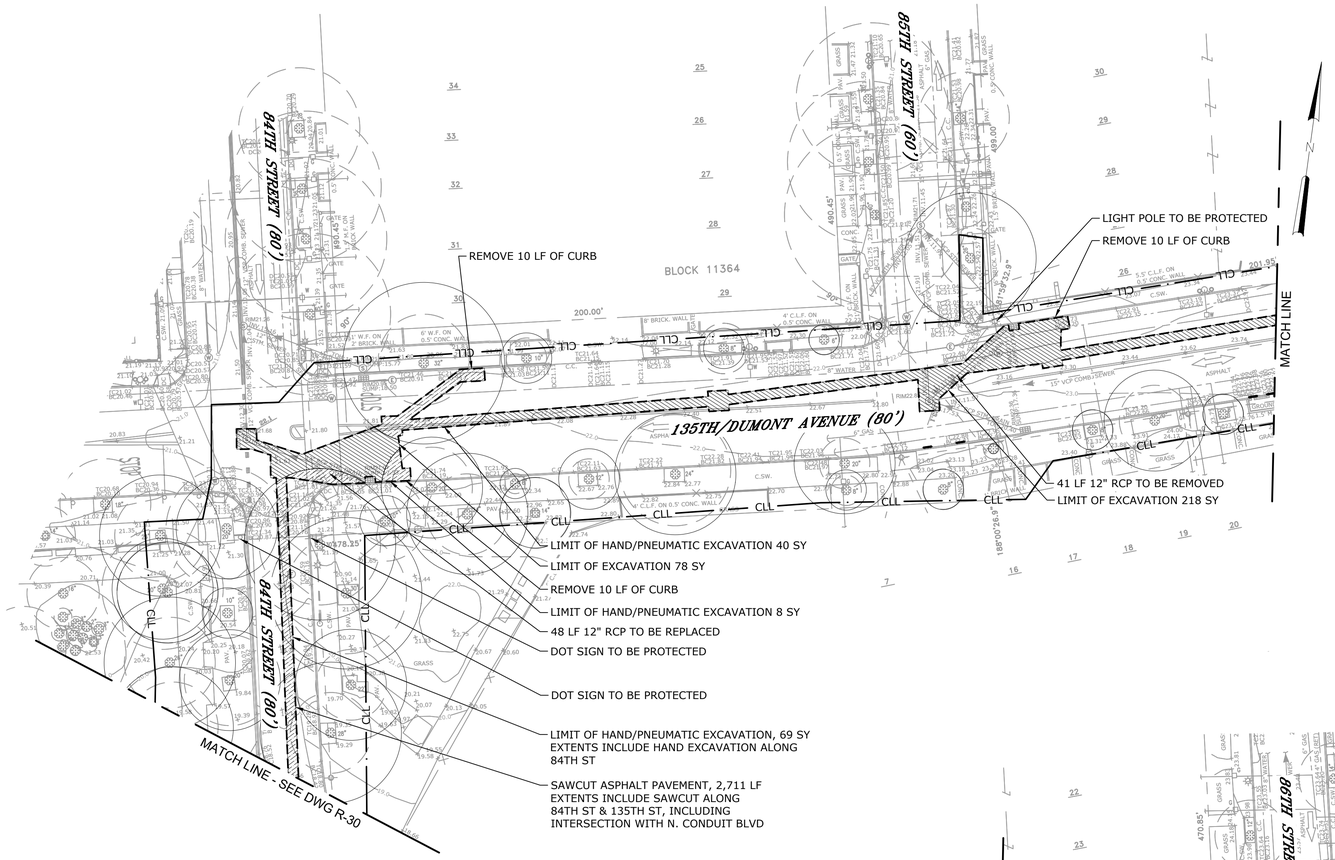
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
REMOVAL PLAN - NSC-03RGa I

DATE JUL 2026
PAGE 50 OF 171
SHEET R-30

CONSULTANT DESIGN

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-REMOVAL,..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010

File: O:\05336-NYC\05336-2011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\REMOVAL PLAN NSC-03RGA Saved By: TAUTH Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:04:52 AM BY: TAUTH



PLAN

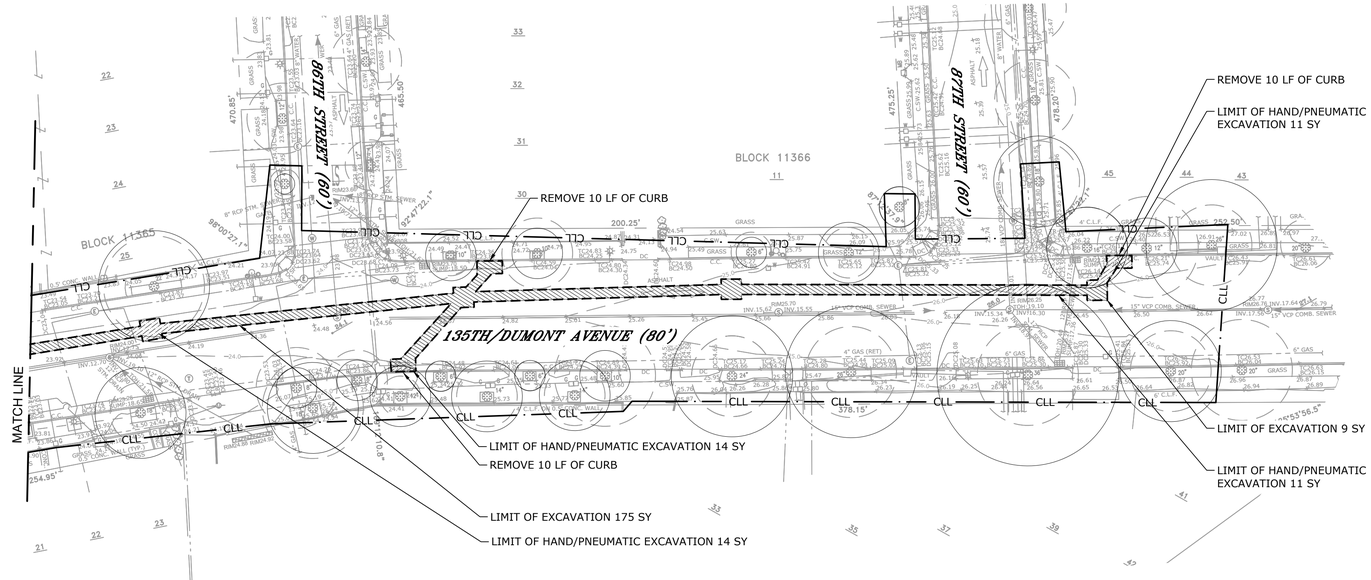
SCALE: 1"=30'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. NO UTILITY SERVICE VALVES (WATER, GAS, ETC) MAY BE LOCATED WITHIN THE FOOTPRINTS OF PROPOSED INFRASTRUCTURE.
3. ALL EXCAVATION WITHIN AN EXISTING TREE CRITICAL ROOT ZONE (CRZ) SHALL BE DONE BY HAND OR PNEUMATIC MEANS.
4. DRAWINGS HAVE BEEN ROTATED 7.75 DEGREES FROM TRUE NORTH.
5. SEE DRAWING R-10 FOR STAGE 2: REMOVAL PLAN CONSTRUCTION SEQUENCING TABLE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF EXISTING UTILITIES WHERE ENCOUNTERED DURING EXCAVATION. SEE G-2 FOR FURTHER INFORMATION.

LEGEND

- FULL DEPTH EXCAVATION LIMIT
- FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT
- CLL - CONTRACT LIMIT LINE



1"=30'-0" 30 15 0 30'

PLAN

SCALE: 1"=30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

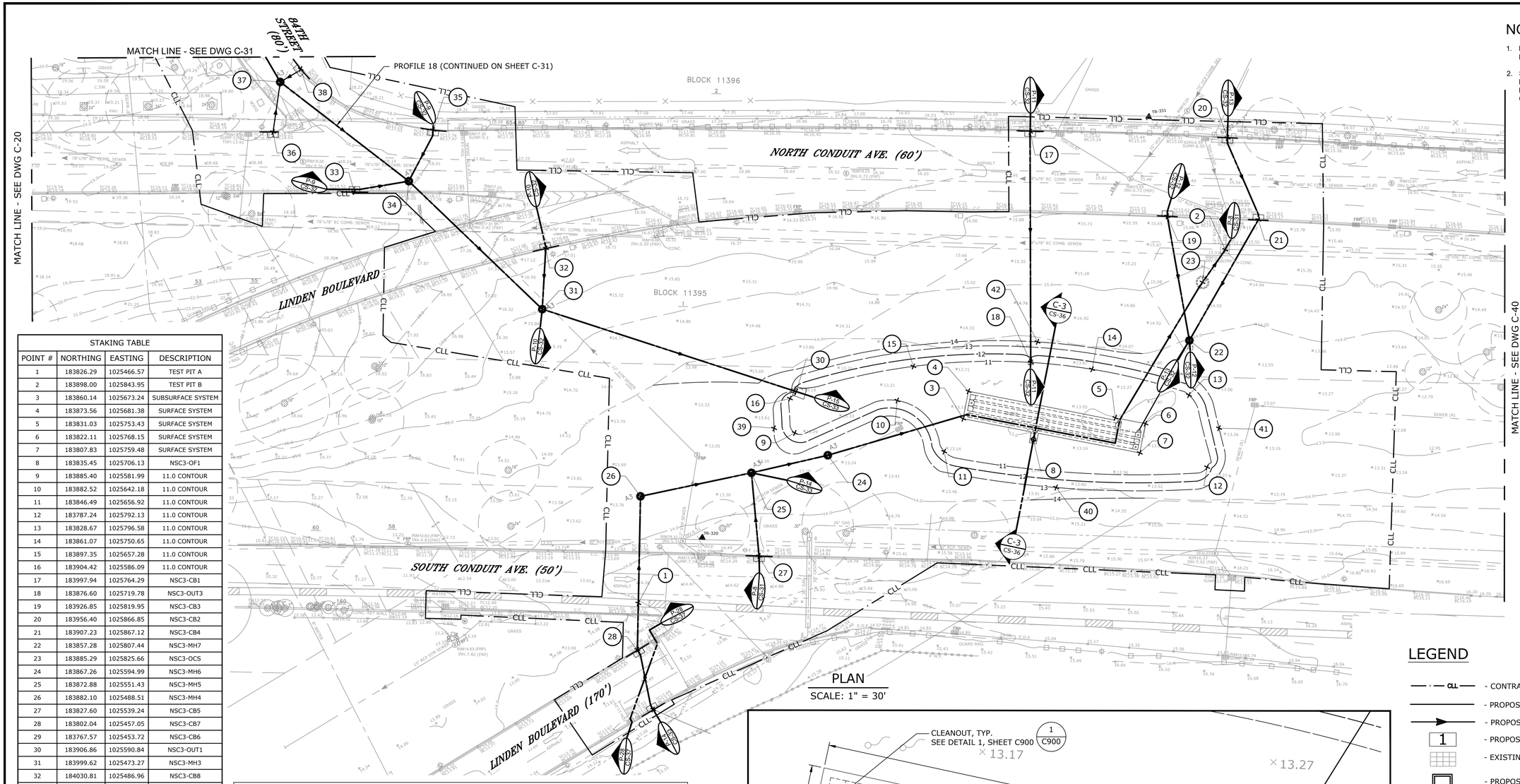
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
REMOVAL PLAN - NSC-03RGa II

DATE	JUL 2026
PAGE	51 OF 171
SHEET	R-31

CONSULTANT DESIGN

File: O:\WS36-NYC\WS36-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\REMOVAL PLAN - NSC-03RGa_2 Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:05:01 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CK-STRU,..\..\000-BASE\SE CONDUIT\CN-REMOVAL,..\..\..\..\Work Plan\G-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

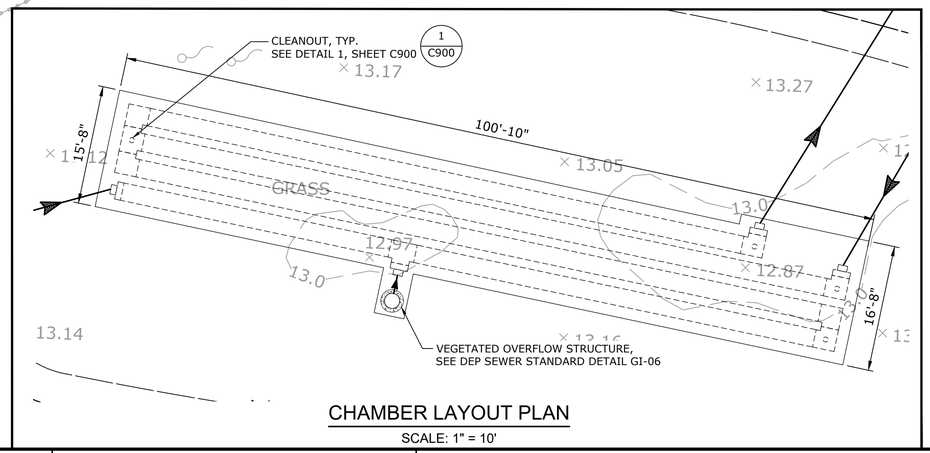


PLAN

SCALE: 1" = 30'

STAKING TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
1	183826.29	1025466.57	TEST PIT A
2	183898.00	1025843.95	TEST PIT B
3	183860.14	1025673.24	SUBSURFACE SYSTEM
4	183873.56	1025681.38	SURFACE SYSTEM
5	183831.03	1025753.43	SURFACE SYSTEM
6	183822.11	1025768.15	SURFACE SYSTEM
7	183807.83	1025759.48	SURFACE SYSTEM
8	183835.45	1025706.13	NSC3-OF1
9	183885.40	1025581.99	11.0 CONTOUR
10	183882.52	1025642.18	11.0 CONTOUR
11	183846.49	1025656.92	11.0 CONTOUR
12	183787.24	1025792.13	11.0 CONTOUR
13	183828.67	1025796.58	11.0 CONTOUR
14	183861.07	1025750.65	11.0 CONTOUR
15	183897.35	1025657.28	11.0 CONTOUR
16	183904.42	1025586.09	11.0 CONTOUR
17	183997.94	1025764.29	NSC3-CB1
18	183876.60	1025719.78	NSC3-OUT3
19	183926.85	1025819.95	NSC3-CB3
20	183956.40	1025866.85	NSC3-CB2
21	183907.23	1025867.12	NSC3-CB4
22	183857.28	1025807.44	NSC3-MH7
23	183885.29	1025825.66	NSC3-OCS
24	183867.26	1025594.99	NSC3-MH6
25	183872.88	1025551.43	NSC3-MH5
26	183882.10	1025488.51	NSC3-MH4
27	183827.60	1025539.24	NSC3-CB5
28	183802.04	1025457.05	NSC3-CB7
29	183767.57	1025453.72	NSC3-CB6
30	183906.86	1025590.84	NSC3-OUT1
31	183999.62	1025473.27	NSC3-MH3
32	184030.81	1025486.96	NSC3-CB8
33	184097.72	1025397.27	NSC3-CB9
34	184092.84	1025427.97	NSC3-MH2
35	184114.93	1025450.78	NSC3-CB10
36	184145.12	1025366.18	NSC3-CB11
37	184170.02	1025379.68	NSC3-MH1
38	184172.81	1025392.96	NSC3-CB12
39	183891.85	1025571.98	13.0 CONTOUR
40	183805.88	1025708.77	13.0 CONTOUR
41	183805.41	1025805.95	13.0 CONTOUR
42	183886.08	1025727.28	13.0 CONTOUR

TEST PITS - NSC-03RGa (1 of 2)				
Point No.	**Description**	**Existing Utility**	**Hand Excavation Required (yes/no)**	**Depth (ft)**
1	TEST PIT A	48" WATER	Yes	7.00
2	TEST PIT B	EXISTING STORM MANHOLE	Yes	5.00
Note: Test pits shall be completed in the order they appear on this table				



CHAMBER LAYOUT PLAN

SCALE: 1" = 10'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. SEE DRAWING C-10 FOR STAGE 3: INSTALL SITE, GRADING, AND PROPOSED DRAINAGE PLAN CONSTRUCTION SEQUENCING TABLE.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- FLARED END SECTION WITH RIP RAP APRON
- STAKING POINT
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- ISOLATOR ROW WITH GEOTEXTILE
- TR-XXX - SURVEY CONTROL TIE

1"=30'-0" (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

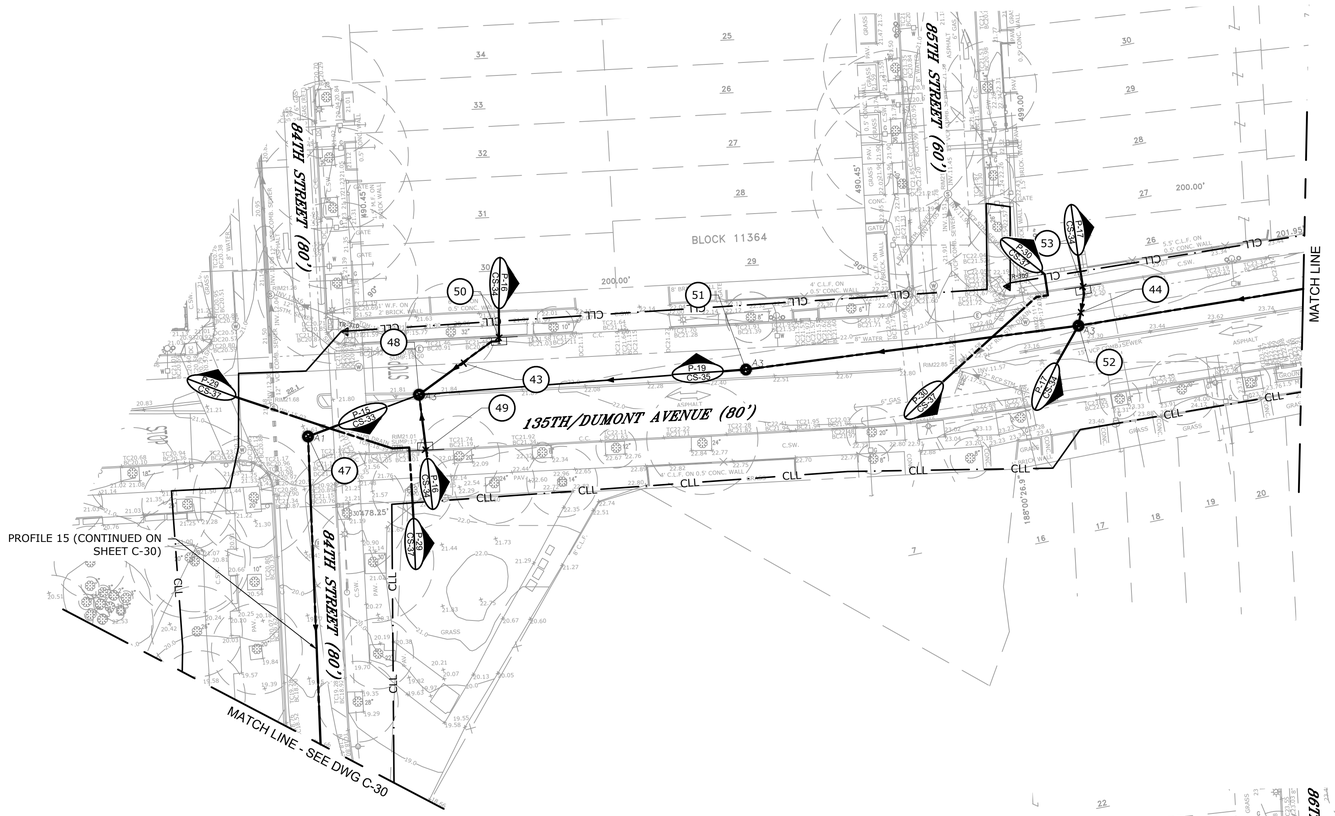
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
LAYOUT PLAN - NSC-03RGa I

DATE JUL 2026
PAGE 52 OF 171
SHEET C-30

CONSULTANT DESIGN

File: O:\06336-NYC\06336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\STAKING PLAN NSC-03RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:05:11 AM BY: TAUTH
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CH-STAKING - NSC3,..\..\..\Work Plan\O-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



STAKING TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
43	184342.94	1025412.78	TEST PIT C
44	184395.68	1025652.18	TEST PIT D
45	184468.00	1025910.85	TEST PIT E
46	184504.29	1026158.19	TEST PIT F
47	184305.88	1025355.57	NSC3-MH8
48	184328.15	1025396.89	NSC3-MH9
49	184306.79	1025402.34	NSC3-CB13
50	184354.88	1025425.16	NSC3-CB14
51	184355.47	1025523.81	NSC3-MH10
52	184390.55	1025651.96	NSC3-MH11
53	184405.97	1025651.59	NSC3-CB15
54	184430.93	1025784.49	NSC3-MH12
55	184427.95	1025885.70	NSC3-CB16
56	184460.30	1025905.43	NSC3-MH13
57	184475.97	1025914.21	NSC3-CB17
58	184477.69	1026009.95	NSC3-MH14
59	184496.81	1026153.59	NSC3-MH15
60	184511.53	1026160.37	NSC3-CB18

TEST PITS - NSC-03RGa (2 of 2)				
Point No.	**Description**	**Existing Utility**	**Hand Excavation Required (yes/no)**	**Depth (ft)**
43	TEST PIT C	8" WATER	No	5.00
44	TEST PIT D	8" WATER	No	5.00
45	TEST PIT E	8" WATER	No	5.00
46	TEST PIT F	8" WATER	No	5.00
Note: Test pits shall be completed in the order they appear on this table				

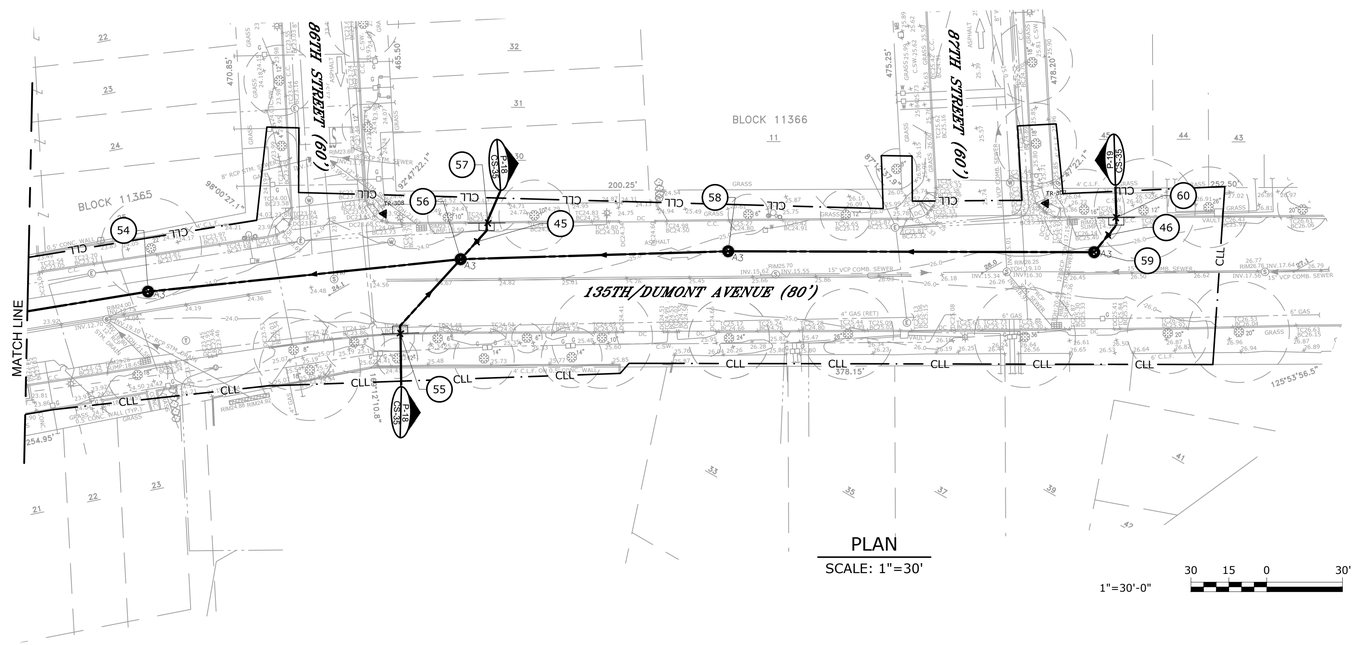
NOTES:

1. DRAWINGS HAVE BEEN ROTATED 7.75 DEGREES FROM TRUE NORTH.
2. SEE DRAWING C-10 FOR STAGE 3: INSTALL SITE, GRADING, AND PROPOSED DRAINAGE PLAN CONSTRUCTION SEQUENCING TABLE.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- FLARED END SECTION WITH RIP RAP APRON
- STAKING POINT
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- ISOLATOR ROW WITH GEOTEXTILE
- TR-XXX - SURVEY CONTROL TIE

PLAN
SCALE: 1"=30'



PLAN
SCALE: 1"=30'

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

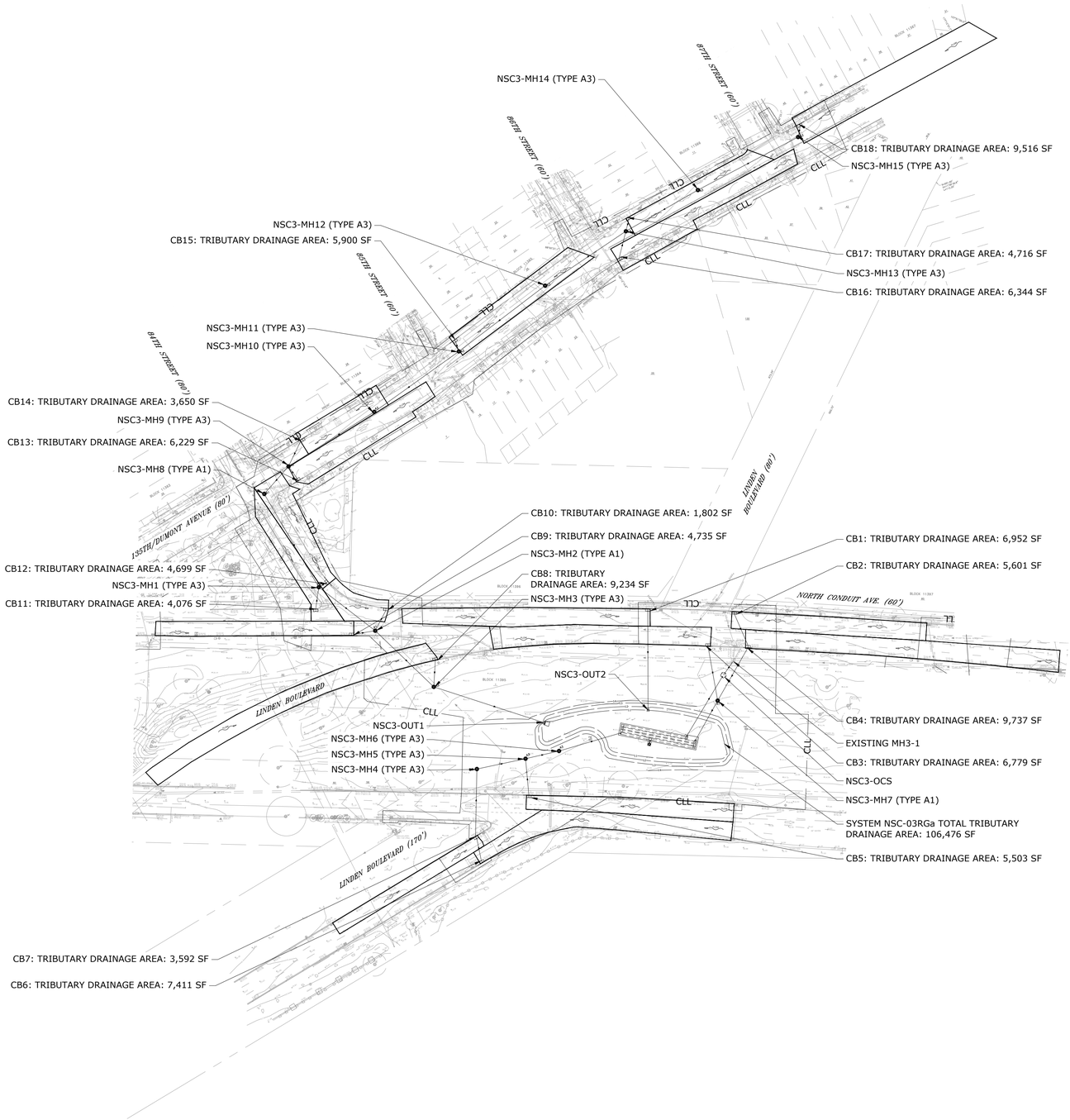
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
LAYOUT PLAN - NSC-03RGa II

DATE	JUL 2026
PAGE	53 OF 171
SHEET	C-31

CONSULTANT DESIGN

File: O:\30336-NYC\30336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\LAYOUT PLAN - NSC-03RGa_2 Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:05:21 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-STAKING - NSC3,..\..\..\..\Work Plan\O-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. SEE SHEET GD-31 FOR STRUCTURE ELEVATIONS.

LEGEND

- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- PROPOSED TRIBUTARY DRAINAGE AREA
- 1 - PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLOW - FLOW DIRECTION

PLAN

SCALE: 1"= 80'

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

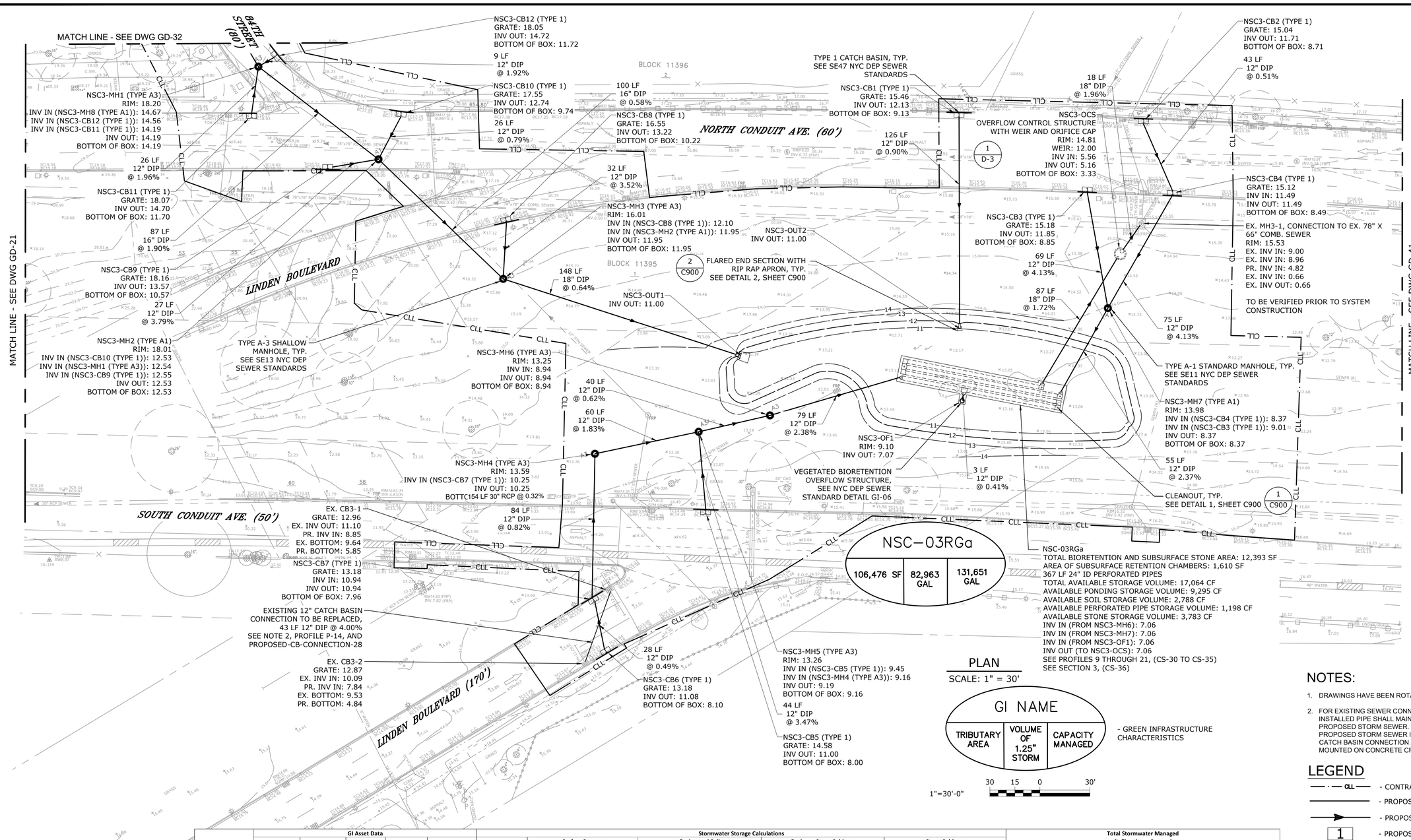
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TRIBUTARY DRAINAGE AREA-NSC-03RGa

DATE JUL 2026
PAGE 54 OF 171
SHEET GD-30

CONSULTANT DESIGN

File: D:\00336-NYC\00336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\TDA_NSC3 Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:05:33 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT, ..\..\000-BASE\SE CONDUIT\CN-STRU, ..\..\000-BASE\SE CONDUIT\CX-STRU, ..\..\000-BASE\SE CONDUIT\CN-DRAINAGE, ..\..\000-BASE\SE CONDUIT\CN-30-PIPES, ..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

GI NAME

TRIBUTARY AREA	VOLUME OF 1.25" STORM	CAPACITY MANAGED

- GREEN INFRASTRUCTURE CHARACTERISTICS

1"=30'-0" 30 15 0 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. FOR EXISTING SEWER CONNECTED CATCH BASIN REPLACEMENTS, INSTALLED PIPE SHALL MAINTAIN 18" OF VERTICAL CLEARANCE FROM PROPOSED STORM SEWER. VERTICAL CLEARANCE CAN BE 12" IF PROPOSED STORM SEWER IS ABOVE NEW SEWER CONNECTED CATCH BASIN CONNECTION AND IS ENCASES IN CONCRETE OR MOUNTED ON CONCRETE CRADLE.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- 75 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE

GI ID		Managed Impervious Tributary Area	Volume 1.25" Rainfall on Impervious Area	GI Footprint Surface Area	GI Perimeter	Permeability Coefficient	Stormwater chambers, pipes, tanks, etc. volume	Surface Storage: Surface Storage Area	Surface Storage: Surface Storage Depth	Surface Storage: Surface Storage Volume	Engineered Soil: Soil Depth	Engineered Soil: Soil Voids	Engineered Soil: Stormwater Captured by Soil	Drainage Stone Subbase: Stone Depth	Drainage Stone Subbase: Stone Voids	Drainage Stone Subbase: Stormwater Captured by Stone Layer	Stone Subbase: Stone Depth	Stone Subbase: Stone Voids	Stone Subbase: Stormwater Captured by Stone Layer	Total Stormwater Managed (Infiltration + Storage): Estimated Total Infiltration Volume	Estimated Total Storage Volume	% Impervious Surface Managed	Calculated Volume of Rainfall Captured	Calculated Volume of Rainfall Captured
		sf	cf	sf	ft	in/hr	cf	sf	in	cf	ft	%	cf	ft	%	cf	ft	%	cf	cf	cf	%	cf	gal
NSC-03RGa	Retention credit, sized for static volume to capture 1.25 in (as above) but manages 1.5 in	106,476	11,091	12,393	592	0.52	1,198	12,393	12	9,295	0.90	25	2,788	0.50	40	2,479	3.54	40	1,304	536	17,064	159%	17,600	131,651

NO.	DATE	ISSUED FOR	BY																					

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

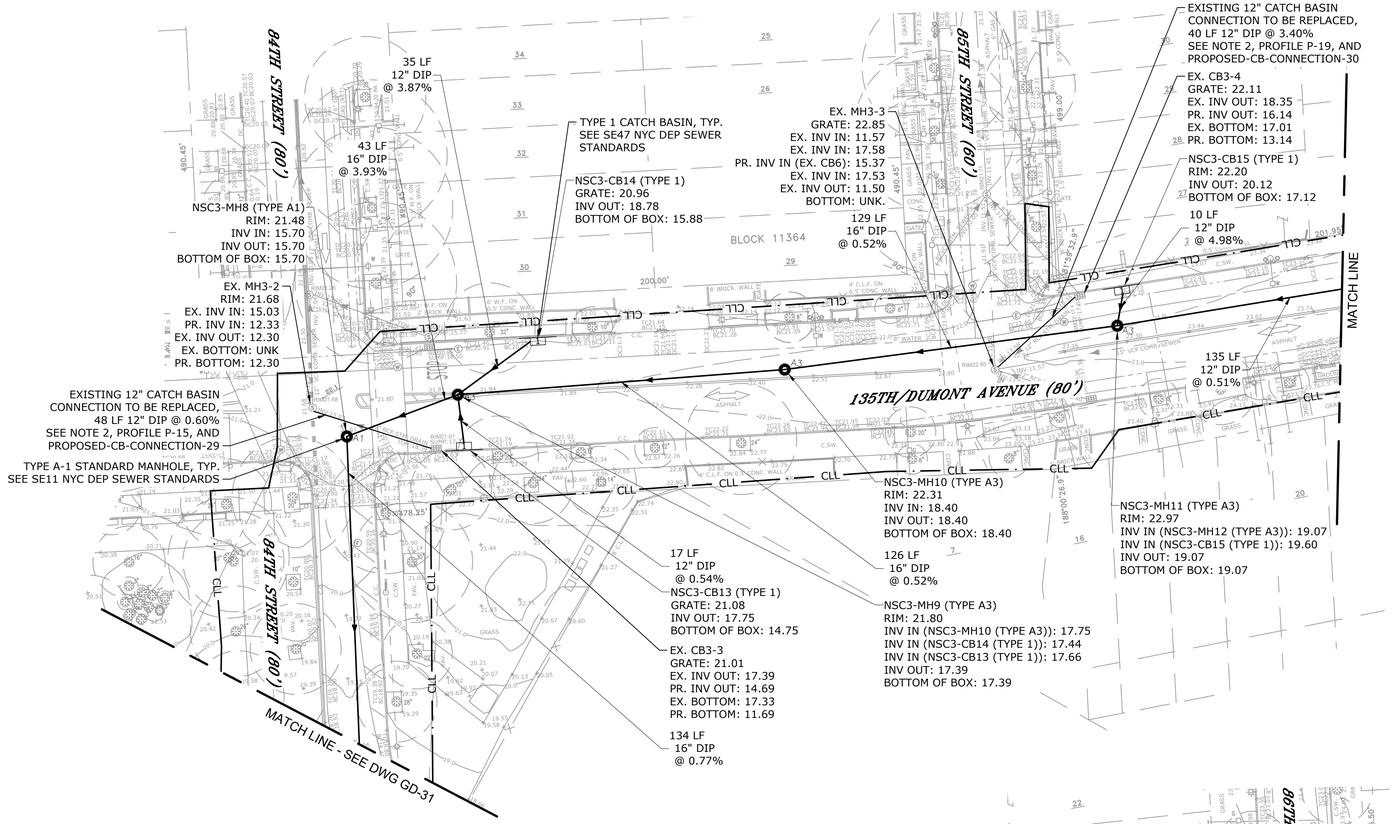
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN- NSC-03RGa I

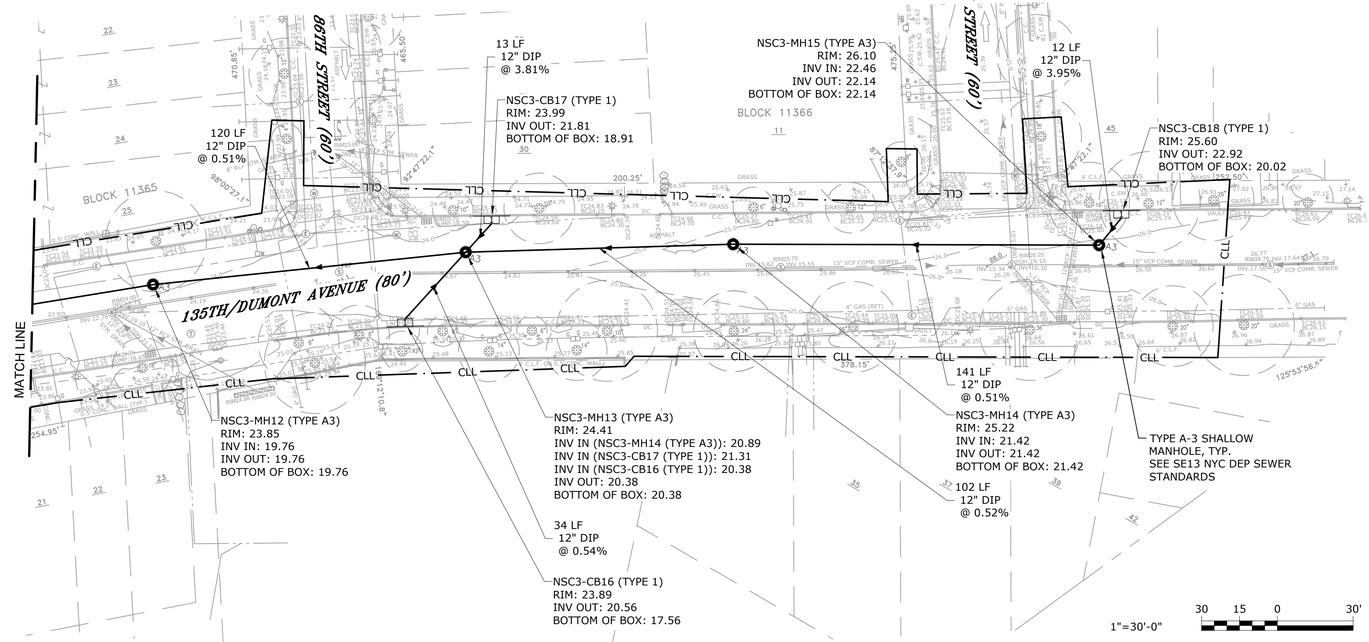
DATE JUL 2026
PAGE 55 OF 171
SHEET GD-31

CONSULTANT DESIGN

File: O:\30536-NYC\30536-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\GRADING AND DRAINAGE PLAN - NSC-03RGa Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:05:44 AM By: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CN-30-PIPES..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\EXISTING WATER UTILITY RELAY,..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010





PLAN

SCALE: 1"=30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 7.75 DEGREES FROM TRUE NORTH.
2. FOR EXISTING SEWER CONNECTED CATCH BASIN REPLACEMENTS, INSTALLED PIPE SHALL MAINTAIN 18" OF VERTICAL CLEARANCE FROM PROPOSED STORM SEWER. VERTICAL CLEARANCE CAN BE 12" IF PROPOSED STORM SEWER IS ABOVE NEW SEWER CONNECTED CATCH BASIN CONNECTION AND IS ENCASES IN CONCRETE OR MOUNTED ON CONCRETE CRADLE.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE

1"=30'-0"

30 15 0 30'

				DESIGNED	JWB	THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	
				DRAWN	TLA		
				CHECKED	ACE		
NO.	DATE	ISSUED FOR	BY	PROJ.ENGR.	ACE		

Sandeep Mehrotra — LICENSED PROFESSIONAL ENGINEER — STATE OF NEW YORK

Hazen

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK

ENVIRONMENTAL PROTECTION

BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

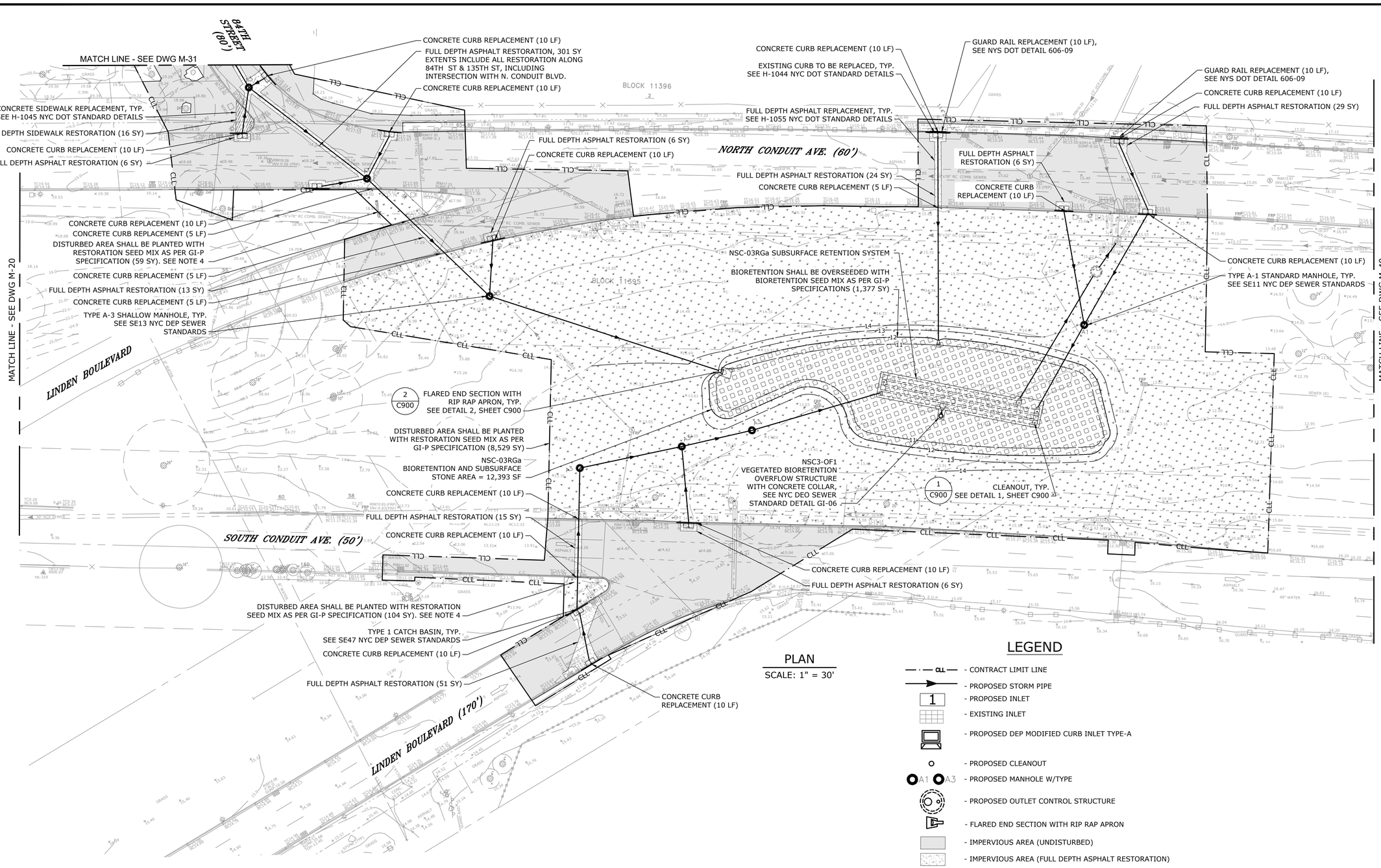
DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NSC-03RGa II

DATE	JUL 2026
PAGE	56 OF 171
SHEET	GD-32

CONSULTANT DESIGN

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CN-3D-PIPES,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\EXISTING WATER UTILITY RELAY,..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

File: O:\RI336-NYC\RI336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\LAYOUT PLAN - NSC-03RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:05:56 AM BY: TAUTH



PLAN

SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. GRASSED AND MULCHED AREAS WITHIN CONTRACT LIMIT LINE, BUT NO DENOTED FOR RESTORATION SEED MIX, ARE NOT INTENDED TO BE DISTURBED. IF GRASSED OR MULCHED AREAS ARE DISTURBED, AREA SHALL BE STABILIZED WITH RESTORATION SEED MIX PER THE CONTRACT SPECIFICATIONS.
3. SEE DRAWING M-10 FOR STAGE 4: PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION CONSTRUCTION SEQUENCING TABLE.
4. TOP SOIL SHALL BE ADDED TO RESTORATION AREAS WHERE FULL DEPTH EXCAVATION HAS OCCURRED. ALL OTHER RESTORED AREAS SHALL USE RESTORATION SEED MIX ONLY.

LEGEND

- CONTRACT LIMIT LINE
- PROPOSED STORM PIPE
- PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLARED END SECTION WITH RIP RAP APRON
- IMPERVIOUS AREA (UNDISTURBED)
- IMPERVIOUS AREA (FULL DEPTH ASPHALT RESTORATION)
- IMPERVIOUS AREA (FULL DEPTH SIDEWALK RESTORATION)
- PERVIOUS AREA (UNDISTURBED, SEE NOTE 2)
- PERVIOUS AREA (RESTORATION SEED MIX)
- PERVIOUS AREA (BIORETENTION SEED MIX)

1"=30'-0" (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN - NSC-03RGa I

DATE	JUL 2026
PAGE	57 OF 171
SHEET	M-30

CONSULTANT DESIGN

File: O:\WD336-NYC\WD336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\MATERIAL PLAN NSC-03RGa Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:06:06 AM BY: TAUTH

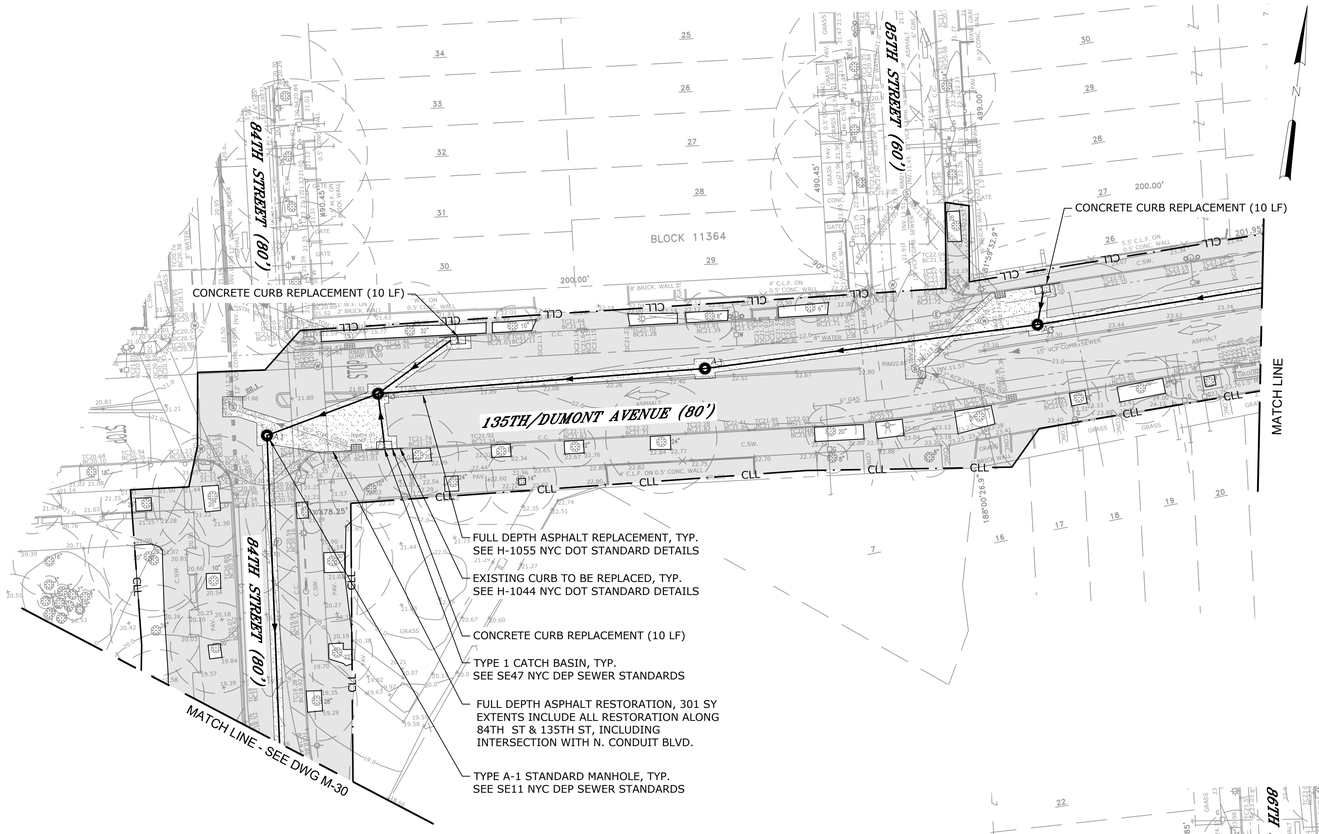
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-MATERIAL,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-R,..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

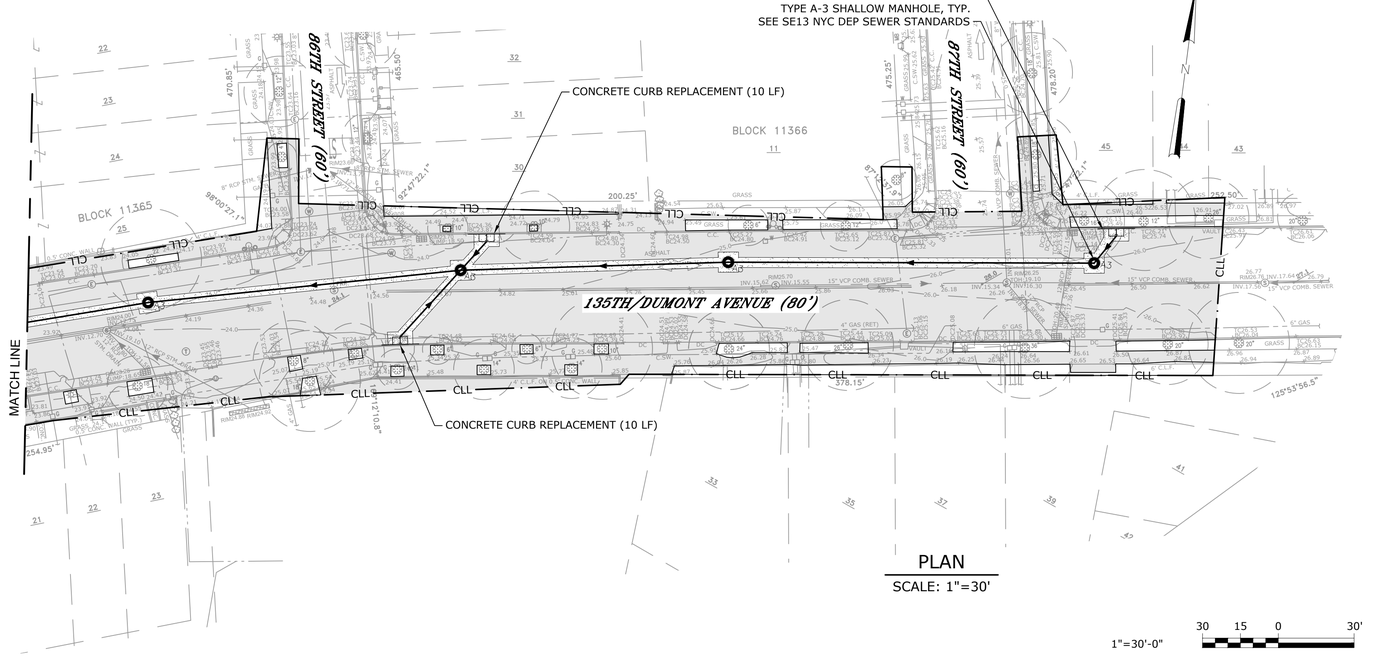
1. DRAWINGS HAVE BEEN ROTATED 7.75 DEGREES FROM TRUE NORTH.
2. GRASSED AND MULCHED AREAS WITHIN CONTRACT LIMIT LINE, BUT NOT DENOTED FOR RESTORATION SEED MIX, ARE NOT INTENDED TO BE DISTURBED. IF GRASSED OR MULCHED AREAS ARE DISTURBED, AREA SHALL BE STABILIZED WITH RESTORATION SEED MIX PER THE CONTRACT SPECIFICATIONS.
3. SEE DRAWING M-10 FOR STAGE 4: PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION CONSTRUCTION SEQUENCING TABLE.

LEGEND

- CLL — CLL — CONTRACT LIMIT LINE
- PROPOSED STORM PIPE
- 1 — PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- A1 A3 — PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- PROPOSED FLARED END SECTION WITH RIP RAP APRON
- IMPERVIOUS AREA (UNDISTURBED)
- IMPERVIOUS AREA (FULL DEPTH ASPHALT RESTORATION)
- IMPERVIOUS AREA (FULL DEPTH SIDEWALK RESTORATION)
- PERVIOUS AREA (UNDISTURBED, SEE NOTE 2)
- PERVIOUS AREA (RESTORATION SEED MIX)
- PERVIOUS AREA (BIORETENTION SEED MIX)



PLAN
SCALE: 1"=30'



PLAN
SCALE: 1"=30'

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY	DESIGNED JWB	THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	HAZEN AND SAWYER 498 SEVENTH AVENUE, 11TH FLOOR NEW YORK, NY 10018	APPROVED FOR THE CITY OF NEW YORK _____ P.E. PROJECT MANAGER
				DRAWN TLA			
				CHECKED ACE			
				PROJ.ENGR. ACE			

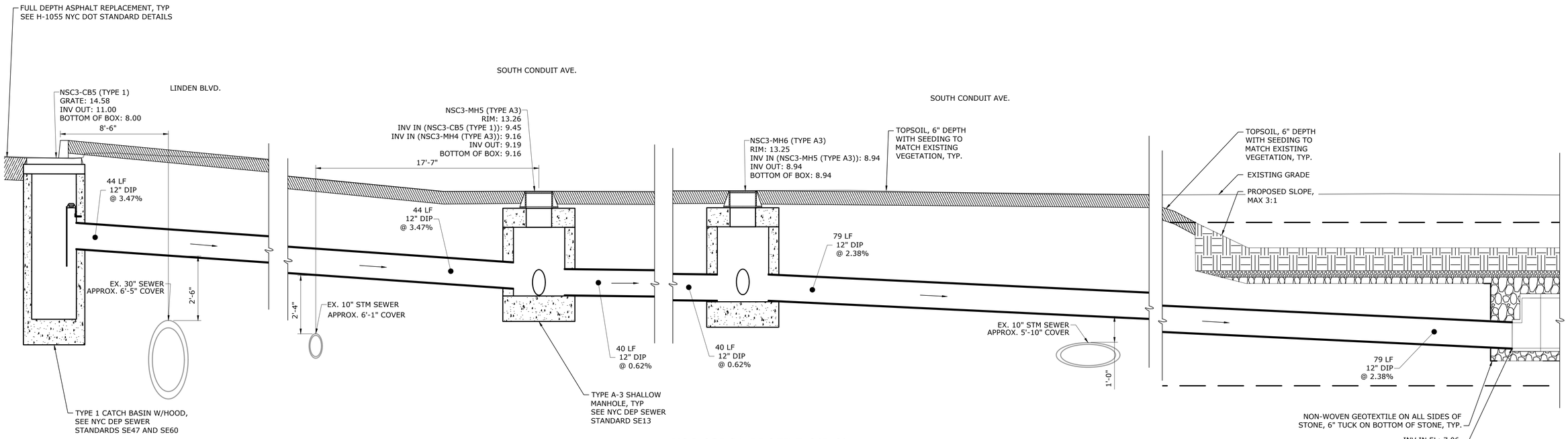
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN - NSC-03RGa II

DATE	JUL 2026
PAGE	58 OF 171
SHEET	M-31

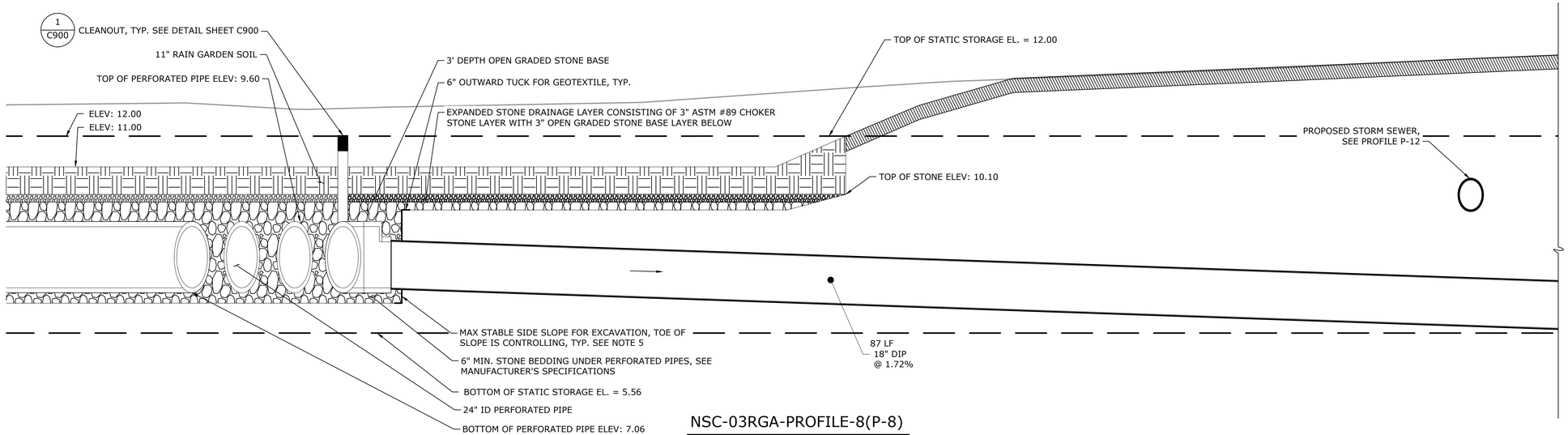
CONSULTANT DESIGN

File: G:\WS36-NYC\WS36-2011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\MATERIAL PLAN - NSC-03RGa_2 Saved By: TAUTH Save Date: 2026/06/09 1:00 PM
PLOT DATE: 2026/07/31 8:06:18 AM BY: TAUTH
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-MATERIAL,..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-R,..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NSC-03RGA-PROFILE-8(P-8)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'



NSC-03RGA-PROFILE-8(P-8)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 17,064 CF AND IS CALCULATED BETWEEN EL. 5.56 AND EL 12.00.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES. FOLD 6" LEVEL WITH TOP OF CHOKER STONE LAYER. FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 5A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIN GARDEN SOIL AND STONE LAYERS.

1" = 2': 2 1 0 2'
1" = 4': 4 2 0 4'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-03RGa I

DATE JUL 2026
PAGE 59 OF 171
SHEET CS-30

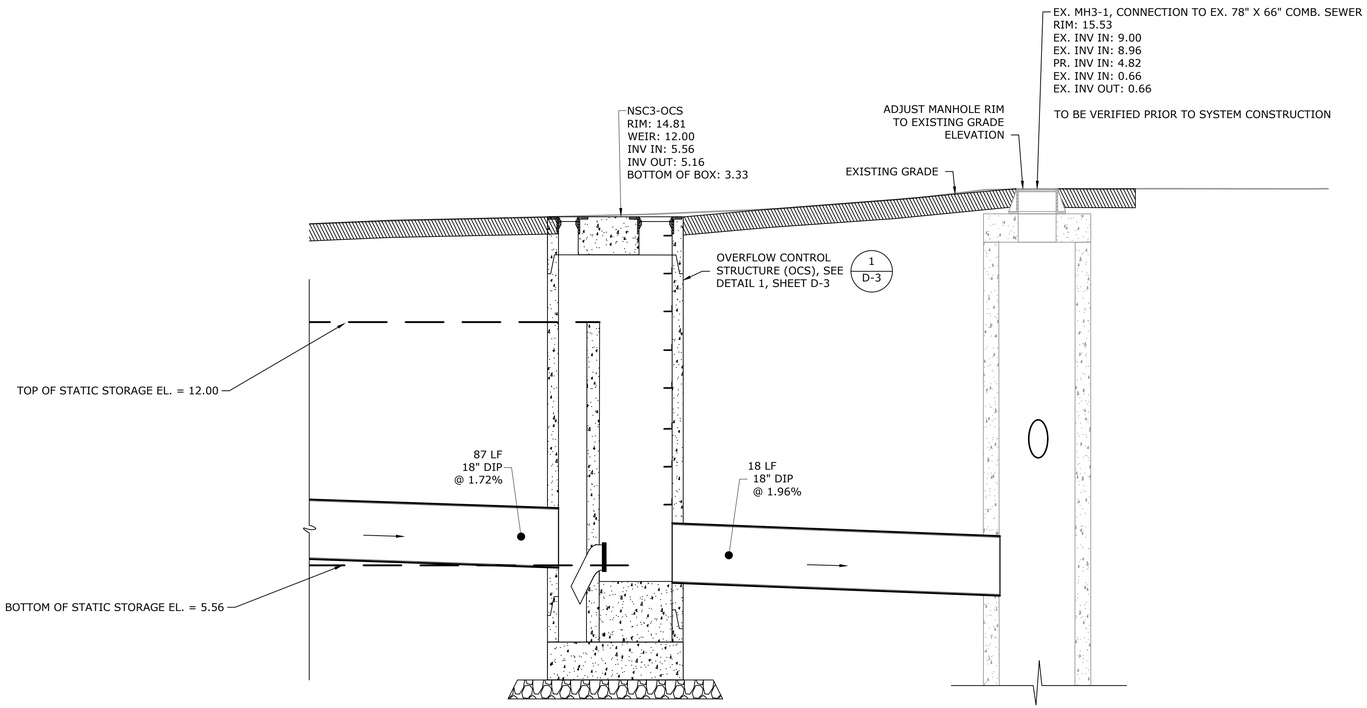
CONSULTANT DESIGN

File: O:\30336-NYC\30336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-03RGA Saved By SKANE Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/21 8:06:29 AM By: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\CN-3D-PIPES..\..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 17,064 CF AND IS CALCULATED BETWEEN EL. 5.56 AND EL 12.00.



NSC-03RGA-PROFILE-8(P-8)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

1" = 2' 2 1 0 2'

1" = 4' 4 2 0 4'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

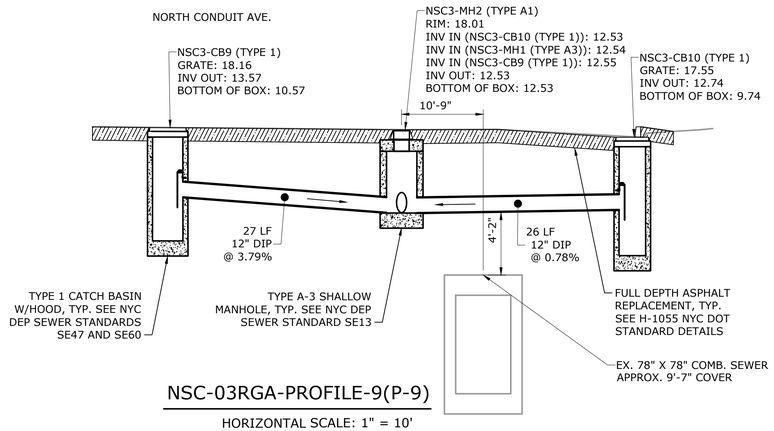
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-03RGa II

DATE JUL 2026
PAGE 60 OF 171
SHEET CS-31

CONSULTANT DESIGN

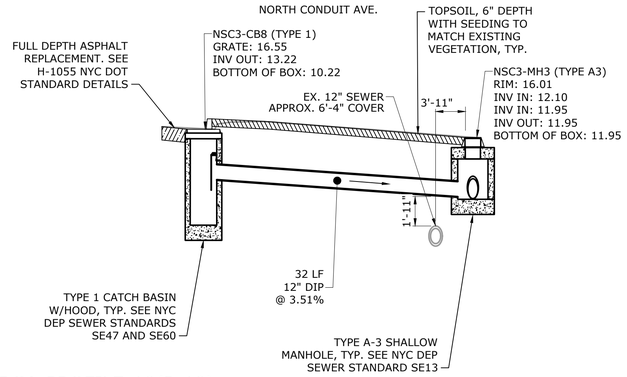
File: O:\W3336-NYC\W3336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-03RGA_2 Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:06:35 AM BY: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\ON-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



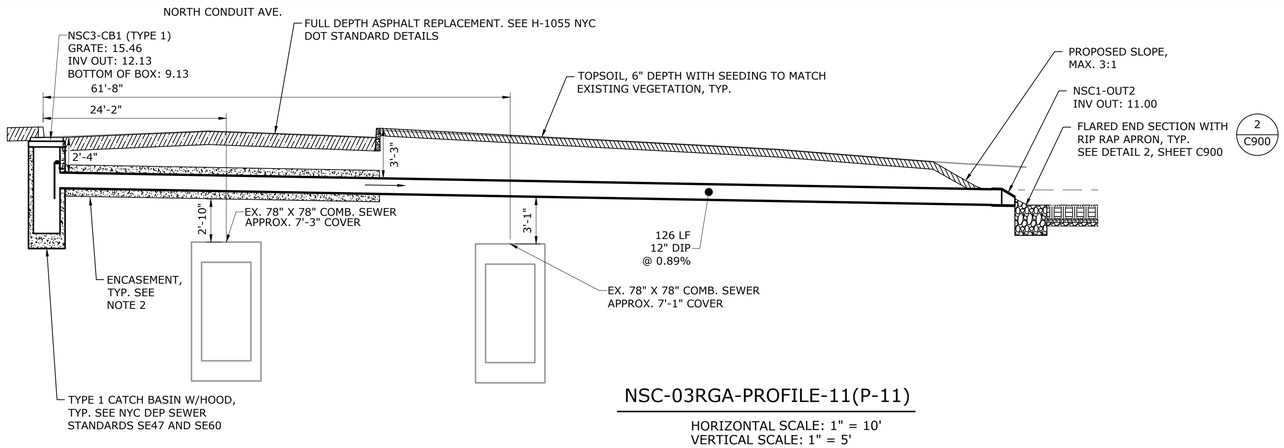
NSC-03RGA-PROFILE-9(P-9)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



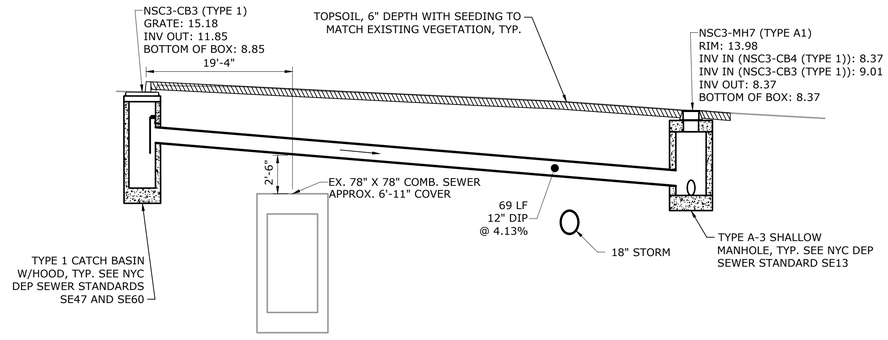
NSC-03RGA-PROFILE-10(P-10)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NSC-03RGA-PROFILE-11(P-11)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NSC-03RGA-PROFILE-12(P-12)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

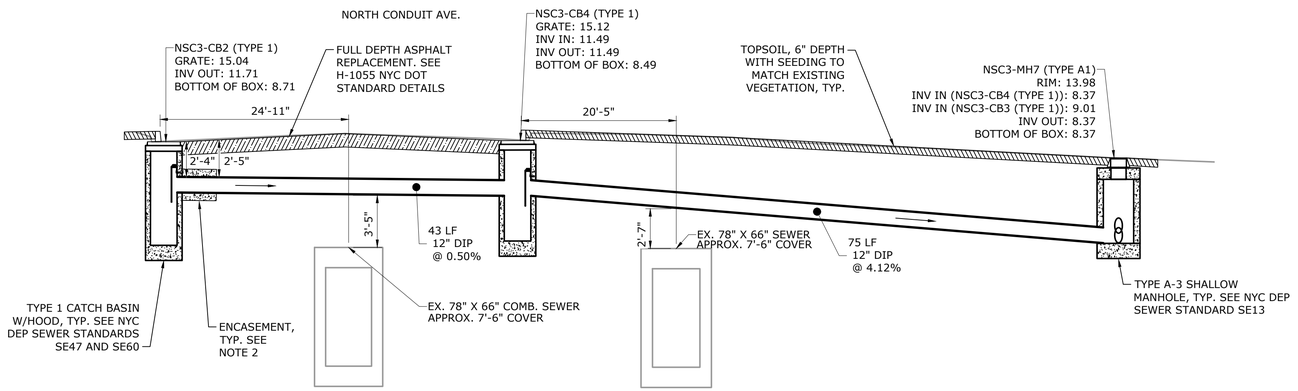
NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.

   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.

2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.



NSC-03RGA-PROFILE-13(P-13)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 10' (10 5 0 10')
1" = 5' (5 0 5')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra, P.E. — 032615 — STATE OF NEW YORK — PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

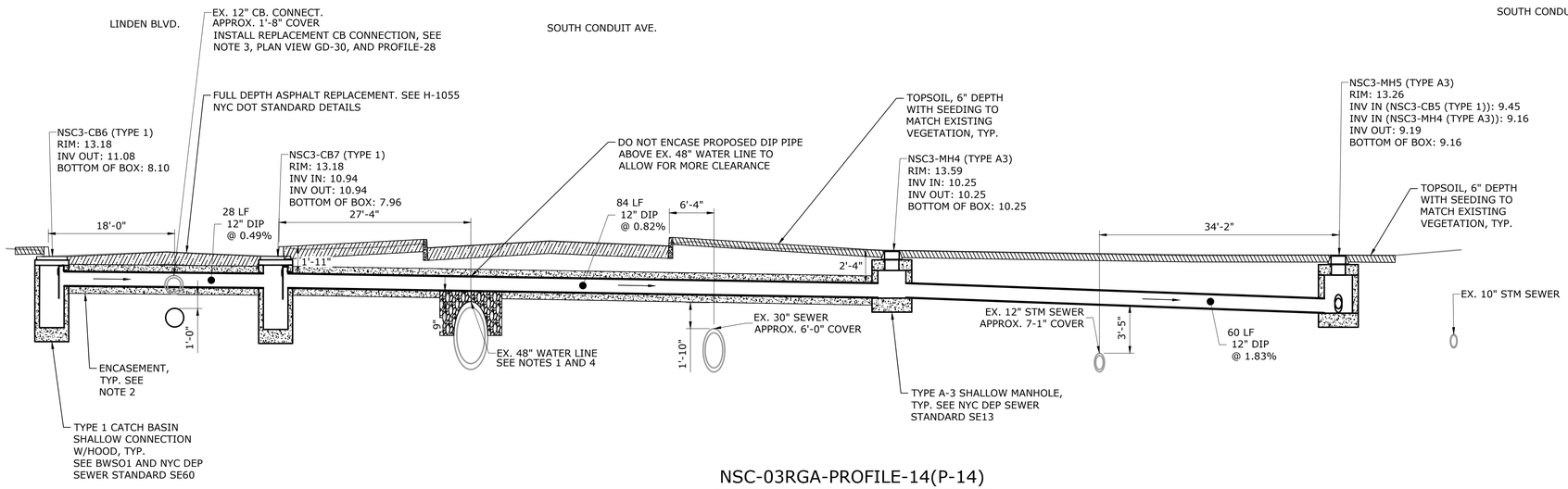
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-03RGa III

DATE JUL 2026
PAGE 61 OF 171
SHEET CS-32

CONSULTANT DESIGN

File: O:\W0336-NYC\W0336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-03RGA - CROSSING1 Saved By SKANE Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:06:44 AM BY: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\GN-3D-PIPES...\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT...\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

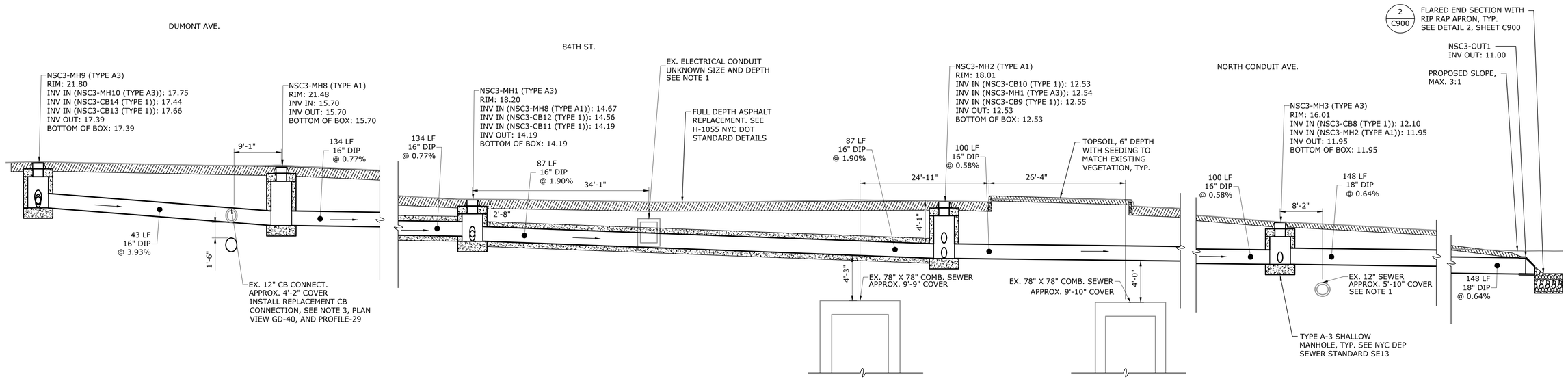


NSC-03RGA-PROFILE-14(P-14)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.
3. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).
4. DIP PIPE JOINTS SHALL BE SPACED TO AVOID POSITIONING THE PIPE BELL DIRECTLY OVERHEAD ANY EXISTING DEP 48-IN TRUCK WATER MAIN.



NSC-03RGA-PROFILE-15(P-15)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 10' (10 5 0 10')
1" = 5' (5 0 5')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — LICENSED PROFESSIONAL ENGINEER — STATE OF NEW YORK

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-03RGa IV

DATE JUL 2026
PAGE 62 OF 171
SHEET CS-33

CONSULTANT DESIGN

File: O:\DI336-NYC\DI336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-03RGA - CROSSING2 Saved By SKANE Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:06:55 AM BY: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\DN-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT...\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

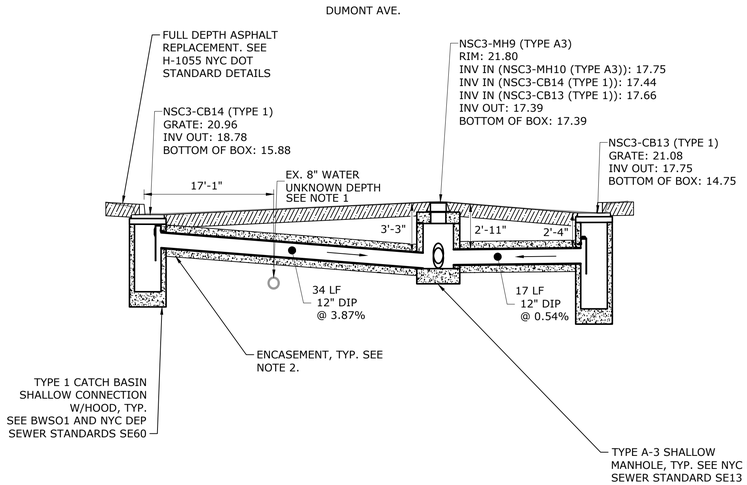
NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.

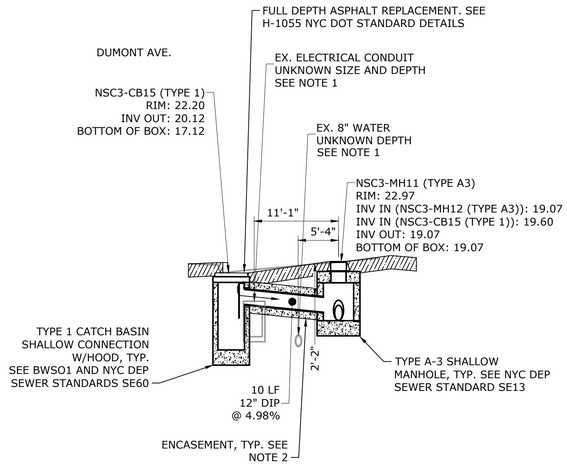
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.

2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.



NSC-03RGA-PROFILE-16(P-16)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NSC-03RGA-PROFILE-17(P-17)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 10' (10 5 0 10')
1" = 5' (5 0 5')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

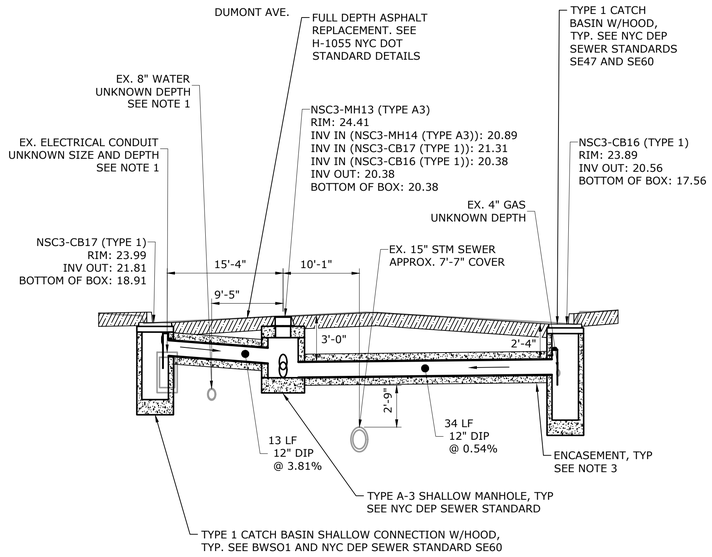
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-03RGa V

DATE JUL 2026
PAGE 63 OF 171
SHEET CS-34

CONSULTANT DESIGN

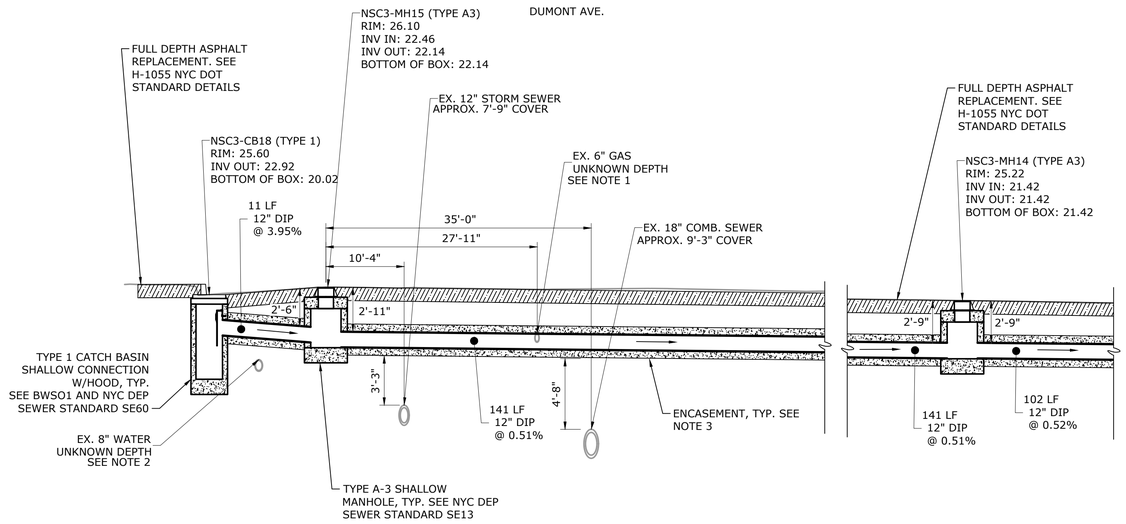
File: O:\W0336-NYC\W0336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-03RGA - CROSSING3 Saved By: SKANE Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/21 8:07:02 AM By: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\CN-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NSC-03RGA-PROFILE-18(P-18)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

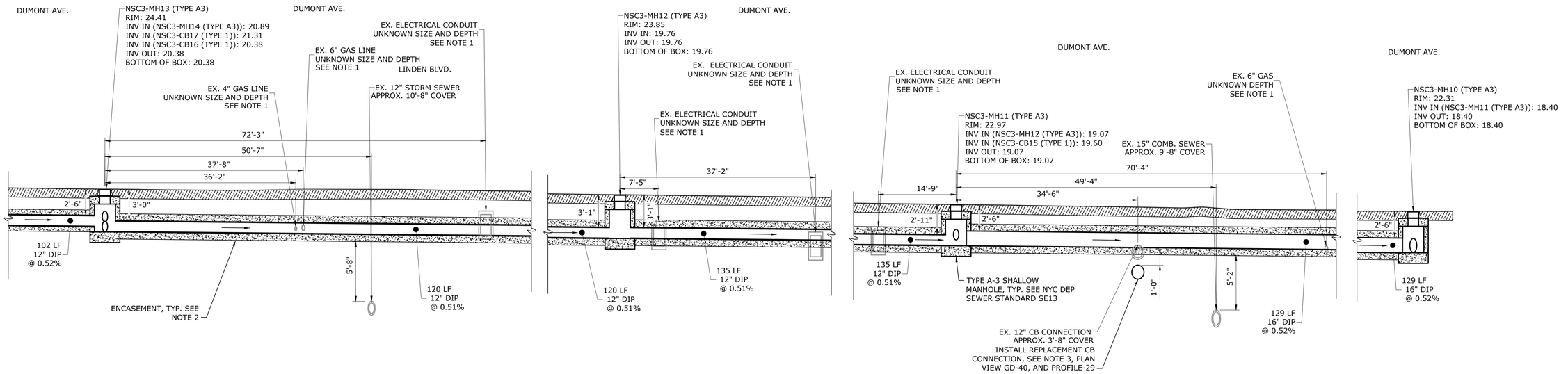


NSC-03RGA-PROFILE-19(P-19)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   - A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   - B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.
3. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE)



NSC-03RGA-PROFILE-19(P-19)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 10' (10 5 0 10')
1" = 5' (5 0 5')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-03RGa VI

DATE JUL 2026
PAGE 64 OF 171
SHEET CS-35

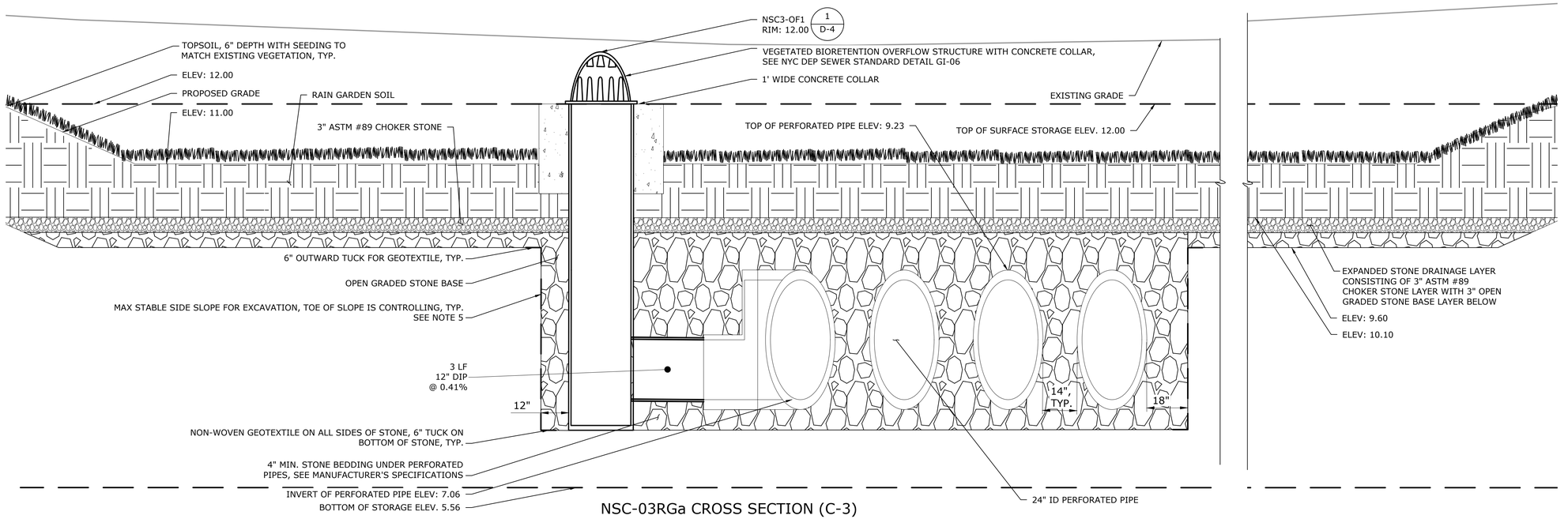
CONSULTANT DESIGN

File: O:\0536-NYC\0536-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-03RGA - CROSSING4 Saved By SKANE Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:07:14 AM BY: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\GN-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 17,064 CF AND IS CALCULATED BETWEEN EL. 5.56 AND EL 12.00.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES AND FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED VIA TEST PITS. CONTRACTOR SHALL SUBMIT FINDINGS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO SOURCING DRAINAGE STRUCTURES AND PRIOR TO BEGINNING EXCAVATION.
   - A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE PIPE SHOULD BE SUPPORTED USING MEANS AND METHODS PERSCRIBED BY THE CONTRACTOR, AND ENGINEER'S REPRESENTATIVE SHALL COORDINATE WITH RESPECTIVE AGENCY.
   - B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTARCTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE, ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIL GARDEN SOIL AND STONE LAYERS.



NSC-03RGa CROSS SECTION (C-3)

HORIZONTAL SCALE: 1" = 2'
VERTICAL SCALE: 1" = 1'

1" = 1' (1 0 1')
1" = 2' (2 1 0 2')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
CROSS SECTION - NSC-03RGa

DATE JUL 2026
PAGE 65 OF 171
SHEET CS-36

CONSULTANT DESIGN

File: O:\30336-NYC\30336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\CROSS SECTIONS 2 Saved By SKANE Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:07:23 AM By: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\CN-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED VIA TEST PITS. CONTRACTOR SHALL SUBMIT FINDINGS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO SOURCING DRAINAGE STRUCTURES AND PRIOR TO BEGINNING EXCAVATION.

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE PIPE SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND ENGINEER'S REPRESENTATIVE SHALL COORDINATE WITH RESPECTIVE AGENCY.

   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE, ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.

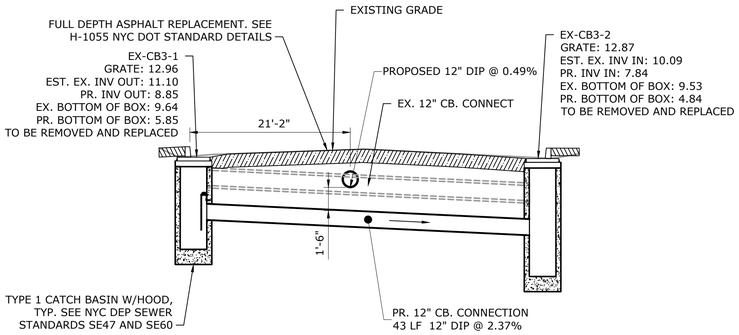
2. ALL PROPOSED CATCH BASIN CONNECTION PIPES SHALL BE CLASS 56 DIP.

3. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.

4. WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).

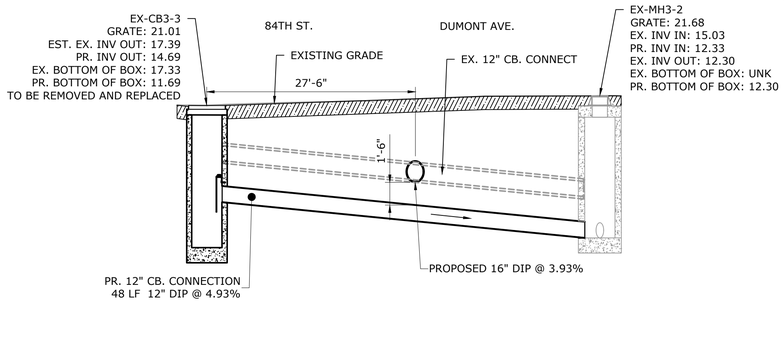
   A. WATER UTILITY PIPES TO BE REROUTED SHALL USE TWO 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER UTILITY RELAY, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC BWSO REPRESENTATIVE.

   B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.



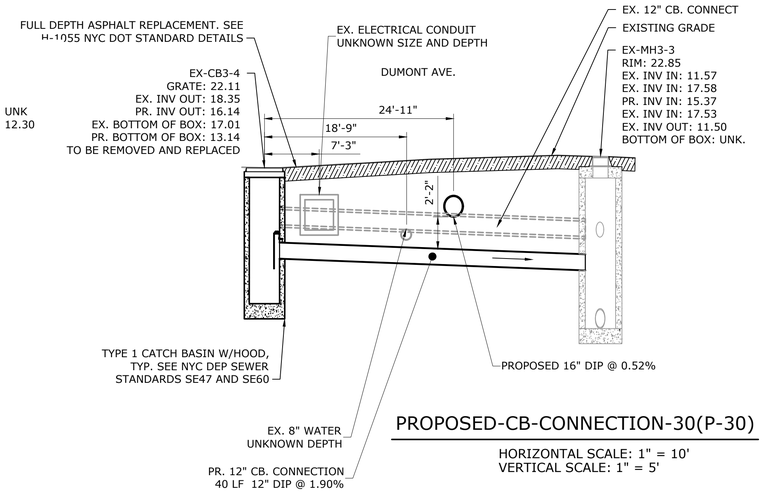
PROPOSED-CB-CONNECTION-28(P-28)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



PROPOSED-CB-CONNECTION-29(P-29)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



PROPOSED-CB-CONNECTION-30(P-30)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 10' 10 5 0 10'

1" = 5' 5 0 5'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROPOSED CB CONNECTIONS - NSC-03RGa

DATE JUL 2026
PAGE 66 OF 171
SHEET CS-37

CONSULTANT DESIGN

XREFs= ..\..\000-BASE\SE CONDUIT\DN-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

File: 0:\06536-NYC\06536-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROPOSED CB CONNECTIONS - NSC-03RGa Saved By: TAUTH Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:07:33 AM BY: TAUTH

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

LEGEND
- EXISTING FLOW DIRECTION
- EXISTING DRAINAGE AREA
- IMPERVIOUS AREA
- PERVIOUS AREA

MATCH LINE - SEE DWG S-41

MATCH LINE - SEE DWG S-30

EXISTING DRAINAGE AREA, TYP.

POINT OF DISCHARGE

88TH STREET (60')

WHITELAW ST (50')

NORTH CONDUIT AVE. (60')

SOUTH CONDUIT AVE. (50')

149TH AVENUE (80')

BLOCK 11397

BLOCK 11398

BLOCK 11394

BLOCK 11389

PLAN

SCALE: 1" = 30'

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-04RGa I

DATE JUL 2026
PAGE 67 OF 171
SHEET S-40

CONSULTANT DESIGN

File: O:\06036-NYC\06036-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - SHEET 5 Saved By: TALITH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:07:42 AM BY: TALITH
XREFs= ..\..\000-BASE\SE CONDUIT\CX-STRU... \..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-X... \..\000-BASE\SE CONDUIT\CN-DRAINAGE_EX... \..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT... \..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

LEGEND

- EXISTING FLOW DIRECTION
- EXISTING DRAINAGE AREA
- IMPERVIOUS AREA
- PERVIOUS AREA

EXISTING DRAINAGE AREA, TYP.

MATCH LINE - SEE DWG S-40

PLAN

SCALE: 1" = 30'

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NSC-04RGa II

DATE	JUL 2026
PAGE	68 OF 171
SHEET	S-41

CONSULTANT DESIGN

File: G:\36036-NYC\36036-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - SHEET 6 Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:07:49 AM BY: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\CX-STRU...\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-X...\..\000-BASE\SE CONDUIT\CN-DRAINAGE_EX...\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT...\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

MATCH LINE - SEE DWG B-30



PLAN

SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.

NOTE: ALL GEOTECHNICAL TESTS WERE PERFORMED IN NOVEMBER 2013 UNDER THE CSO PlaNYC CONTRACT.

LABORATORY TESTING DATA SUMMARY - South East Conduit Avenue

BORING NO.	SAMPLE NO.	DEPTH (FT)	IDENTIFICATION TESTS			REMARKS
			WATER CONTENT (%)	USCS SYMB. (1)	SIEVE MINUS NO. 200	
B-NSC-04RGa	S-1	3-5	6.8	SP-SM	9	
	S-2	8-10	18.6	SP	2.2	

Note: (1) USCS symbol based on visual observation and Sieve results reported.

LEGEND

- B - BORING LOCATION
- PT - PERMEABILITY TEST LOCATION
- BIORETENTION OUTLINE

PERMEABILITY TEST SUMMARY - South East Conduit Avenue

Location	Permeability Test Results				
	Test Depth (feet)	Average Permeability Testing 1 (inches/hour)	Average Permeability Testing 2 (inches/hour)	Average Permeability Testing (inches/hour)	Comments
PT- NSC-04RGa	5	3.78	3.43	3.61	Rain and snow in the morning on 11/12/2013
	10	1.73	1.64	1.69	-

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

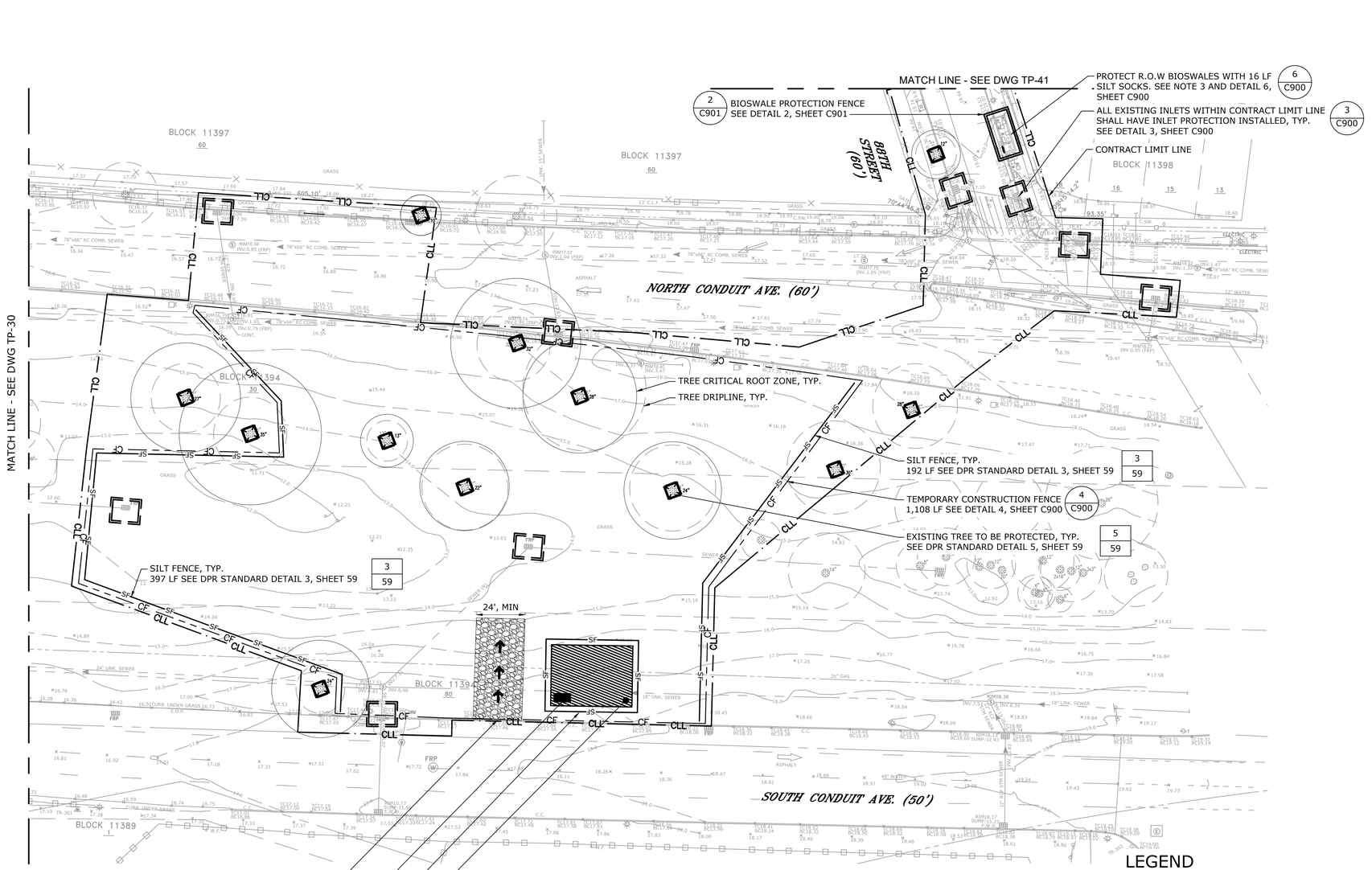
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
GEOTECHNICAL PLAN - NSC-04RGa

DATE JUL 2026
PAGE 69 OF 171
SHEET B-40

CONSULTANT DESIGN

File: O:\WS36-NYC\WS36-2011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\GEOTECHNICAL PLAN - NSC-04RGA Saved By: SKANE Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:07:56 AM BY: TAUTH

XREFs= ..\..\BLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\..\Work Plan\O-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

LEGEND

- 12" - TREE TO BE PROTECTED
- TREE DRIPLINE
- TREE CRITICAL ROOT ZONE
- CONSTRUCTION ACCESS/ENTRANCE
- STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CLL - CONTRACT LIMIT LINE
- SF - SILT FENCE
- CF - TEMPORARY CONSTRUCTION FENCE
- INLET PROTECTION
- BIOSWALE PROTECTION

NOTES:

1. TREE CRZ DIAMETERS HAVE BEEN INCLUDED FOR ALL TREES WITHIN CONTRACT LIMIT LINE. TREE CRZ DIAMETERS HAVE BEEN ESTIMATED BASED ON SURVEYED TRUNK DBH's. CRZ VALUES ARE CALCULATED AS 1' CRZ DIA. FOR EVERY DBH 1".
2. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
3. FOR R.O.W. RAIN GARDENS/BIOSWALES, OBSERVE THE FOLLOWING PROTECTION MEASURES:
   - A. INSTALL SILT SOCKS TO BLOCK CURB CUT
   - B. INSTALL BIOSWALE PROTECTION FENCE TO PROTECT RAIN GARDENS/BIOSWALES.
   - C. WATER RAIN GARDENS WITH EXISTING VEGETATION PER SECTION G1-4.10(D)(1) OF STANDARD GREEN INFRASTRUCTURE SPECS ON DDC WEBSITE
   - D. INSTALL TEMPORARY COVERING, EROSION CONTROL FABRIC OR PLASTIC OVER BARE SOIL IN RAIN GARDENS AND GENTLY SECURE
   - E. AVOID STEPPING IN PLANTING BED WHEN INSTALLING PROTECTION MEASURES
   - F. DO NOT PLACE MATERIALS WITHIN OR ON TOP OF RAIN GARDEN
4. SEE DRAWING TP-10 FOR STAGE 1: TREE PROTECTION, CONSTRUCTION SEQUENCING, ESC SEQUENCING TABLE.

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — LICENSED PROFESSIONAL ENGINEER — STATE OF NEW YORK

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

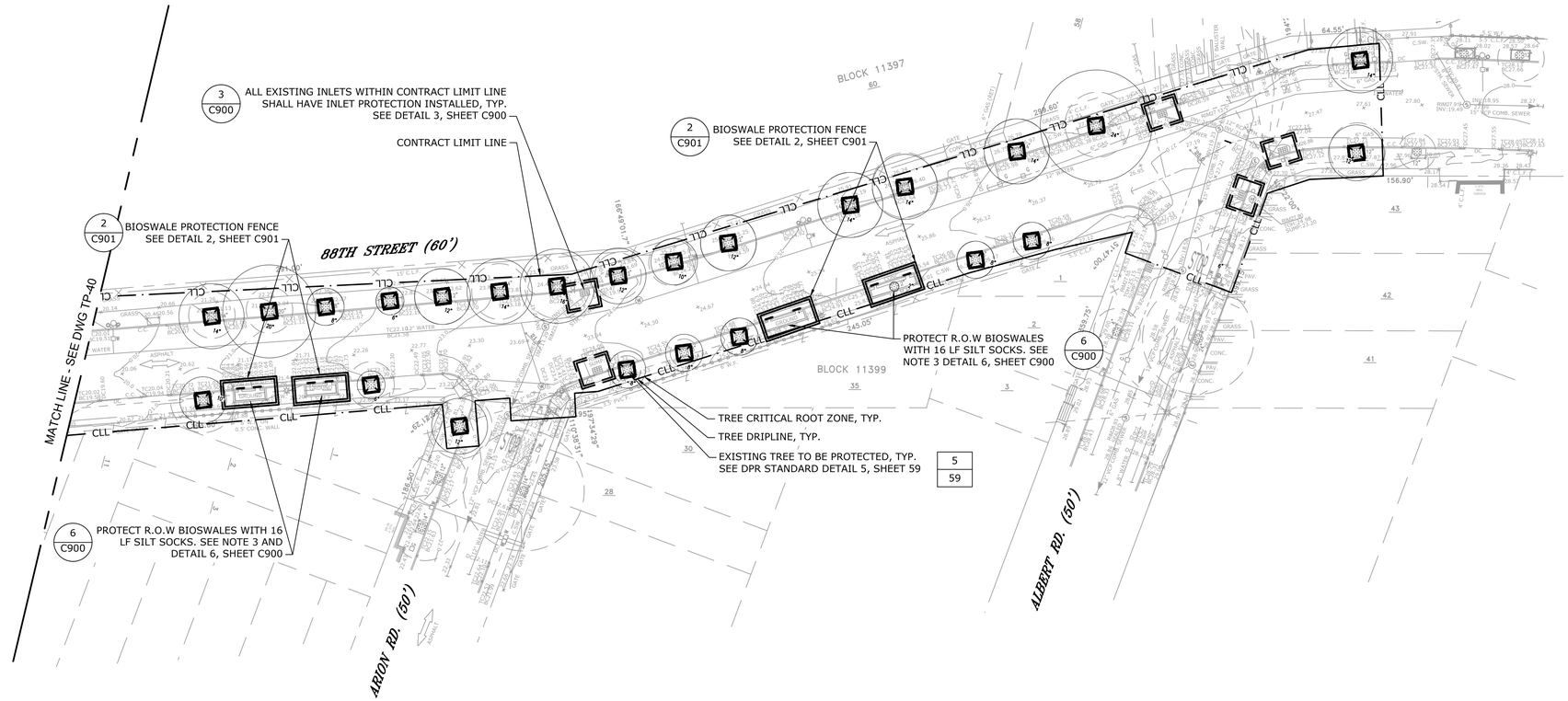
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 4

DATE JUL 2026
PAGE 70 OF 171
SHEET TP-40

CONSULTANT DESIGN

File: Q:\30356-NYC\30356-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\TREE PROTECTION PLAN - NSC-04RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:08:05 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT...\..\000-BASE\SE CONDUIT\CN-REMOVAL...\..\000-BASE\SE CONDUIT\CX-STRU...\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

NOTES:

1. TREE CRZ DIAMETERS HAVE BEEN INCLUDED FOR ALL TREES WITHIN CONTRACT LIMIT LINE. TREE CRZ DIAMETERS HAVE BEEN ESTIMATED BASED ON SURVEYED TRUNK DBH's. CRZ VALUES ARE CALCULATED AS 1' CRZ DIA. FOR EVERY DBH 1".
2. DRAWINGS HAVE BEEN ROTATED 83.07 DEGREES FROM TRUE NORTH.
3. FOR R.O.W. RAIN GARDENS/BIOSWALES, OBSERVE THE FOLLOWING PROTECTION MEASURES:
   - A. INSTALL SILT SOCKS TO BLOCK CURB CUT
   - B. INSTALL BIOSWALE PROTECTION FENCE TO PROTECT RAIN GARDENS/BIOSWALES.
   - C. WATER RAIN GARDENS WITH EXISTING VEGETATION PER SECTION G1-4.10(D)(1) OF STANDARD GREEN INFRASTRUCTURE SPECS ON DDC WEBSITE
   - D. INSTALL TEMPORARY COVERING, EROSION CONTROL FABRIC OR PLASTIC OVER BARE SOIL IN RAIN GARDENS AND GENTLY SECURE
   - E. AVOID STEPPING IN PLANTING BED WHEN INSTALLING PROTECTION MEASURES
   - F. DO NOT PLACE MATERIALS WITHIN OR ON TOP OF RAIN GARDEN
4. SEE DRAWING TP-10 FOR STAGE 1: TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC SEQUENCING.

LEGEND

- 12" - TREE TO BE PROTECTED
- - TREE DRIPLINE
- - TREE CRITICAL ROOT ZONE
- - CONSTRUCTION ACCESS/ENTRANCE
- - STAGING AREA
- - STABILIZED CONSTRUCTION ENTRANCE
- CLL - CONTRACT LIMIT LINE
- SF - SILT FENCE
- CF - TEMPORARY CONSTRUCTION FENCE
- - INLET PROTECTION
- - BIOSWALE PROTECTION

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra

Hazen

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

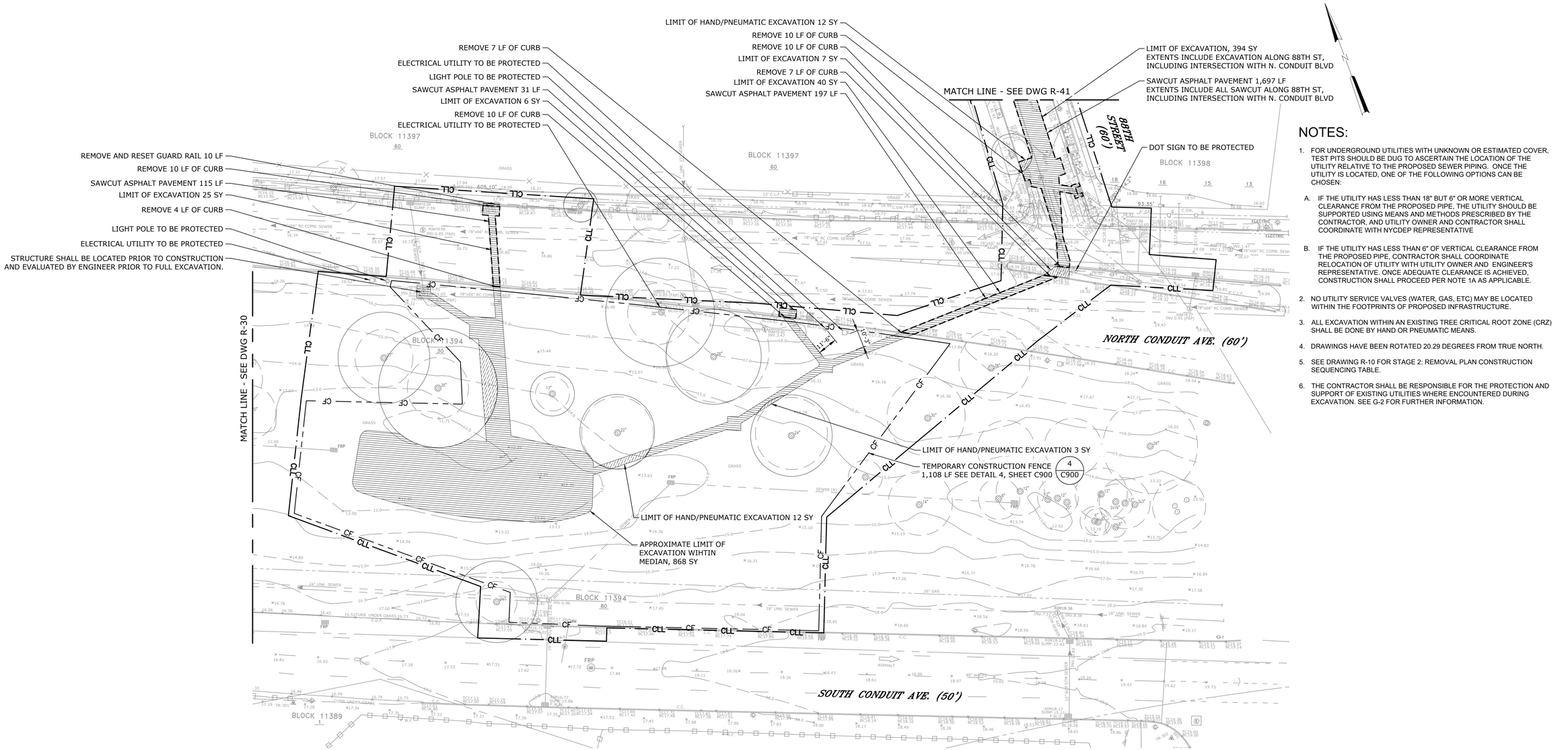
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 4

DATE JUL 2026
PAGE 71 OF 171
SHEET TP-41

CONSULTANT DESIGN

File: O:\PD336-NYC\PD336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\TREE PLAN - NSC-04RSA_2 Saved By TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:08:12 AM BY: TAUTH

XREFs= ..\..\BLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CK-STRU,..\..\000-BASE\SE CONDUIT\CK-REMOVAL,..\..\..\Work Plan\0-Reference Material\SD2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   - A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE
   - B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. NO UTILITY SERVICE VALVES (WATER, GAS, ETC) MAY BE LOCATED WITHIN THE FOOTPRINTS OF PROPOSED INFRASTRUCTURE.
3. ALL EXCAVATION WITHIN AN EXISTING TREE CRITICAL ROOT ZONE (CRZ) SHALL BE DONE BY HAND OR PNEUMATIC MEANS.
4. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
5. SEE DRAWING R-10 FOR STAGE 2: REMOVAL PLAN CONSTRUCTION SEQUENCING TABLE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF EXISTING UTILITIES WHERE ENCOUNTERED DURING EXCAVATION. SEE G-2 FOR FURTHER INFORMATION.

PLAN

SCALE: 1" = 30'

LEGEND

- FULL DEPTH EXCAVATION LIMIT
- FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT
- CLL - CONTRACT LIMIT LINE
- CF - TEMPORARY CONSTRUCTION FENCE

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
REMOVAL PLAN - NSC-04RGa I

DATE JUL 2026
PAGE 72 OF 171
SHEET R-40

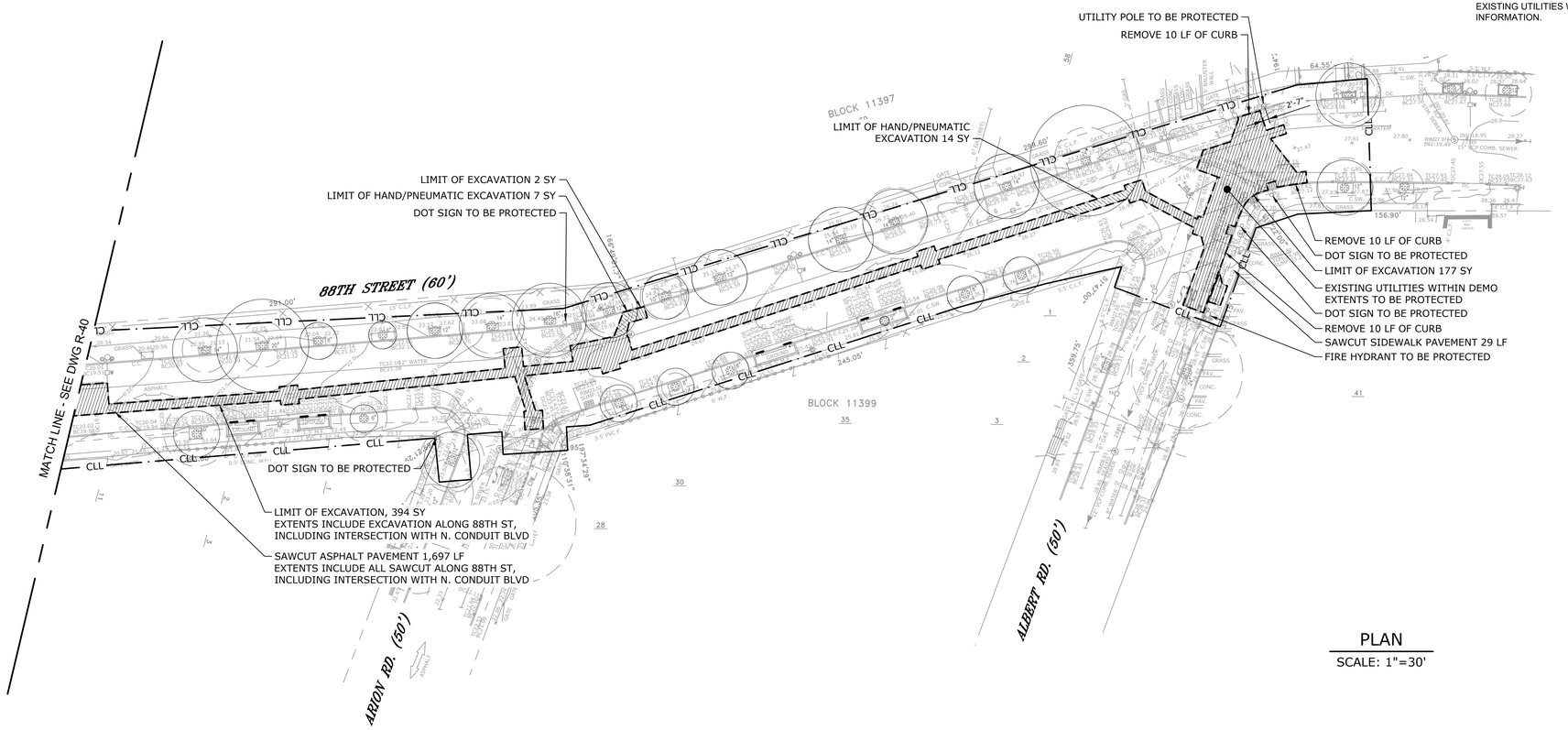
CONSULTANT DESIGN

File: G:\V0336-NYC\V0336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\REMOVAL PLAN NSC-04RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:08:20 AM BY: TAUTH

XREFs= ..\..\BLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-REMOVAL,..\..\000-BASE\SE CONDUIT\CK-STRU,..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. NO UTILITY SERVICE VALVES (WATER, GAS, ETC) MAY BE LOCATED WITHIN THE FOOTPRINTS OF PROPOSED INFRASTRUCTURE.
3. ALL EXCAVATION WITHIN AN EXISTING TREE CRITICAL ROOT ZONE (CRZ) SHALL BE DONE BY HAND OR PNEUMATIC MEANS.
4. DRAWINGS HAVE BEEN ROTATED 83.07 DEGREES FROM TRUE NORTH.
5. SEE DRAWING R-10 FOR STAGE 2: REMOVAL PLAN CONSTRUCTION SEQUENCING TABLE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF EXISTING UTILITIES WHERE ENCOUNTERED DURING EXCAVATION. SEE G-2 FOR FURTHER INFORMATION.



PLAN
SCALE: 1"=30'

LEGEND

- FULL DEPTH EXCAVATION LIMIT
- FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT
- CLL - CONTRACT LIMIT LINE

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
REMOVAL PLAN - NSC-04RGa II

DATE JUL 2026
PAGE 73 OF 171
SHEET R-41

CONSULTANT DESIGN

File: O:\06336-NYC\06336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\REMOVAL PLAN - NSC-04RGa_2 Saved By: TAUTH Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:08:29 AM BY: TAUTH
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CK-STRU,..\..\000-BASE\SE CONDUIT\CN-REMOVAL,..\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

STAKING TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
1	183802.70	1026083.01	TEST PIT A
2	183725.88	1026025.10	10.5 CONTOUR
3	183711.09	1026016.34	10.5 CONTOUR
4	183674.64	1026130.36	10.5 CONTOUR
5	183682.93	1026081.89	NSC4-OF1
6	183706.39	1026026.81	CLEANOUT
7	183771.16	1026107.13	NSC4-OCS
8	183837.27	1026138.42	NSC4-CB1
9	183692.86	1026096.23	NSC4-OUT1
10	183658.23	1026123.39	10.5 CONTOUR
11	183666.84	1026227.58	NSC4-MH1
12	183670.16	1026129.26	NSC4-OUT2
13	183714.68	1026278.48	NSC4-CB2
14	183679.97	1026289.86	NSC4-MH2
15	183683.70	1026439.42	NSC4-MH3
16	183748.04	1026437.91	NSC-CB3
17	183742.24	1026456.61	NSC4-MH4
18	183722.46	1026014.14	12.0 CONTOUR
19	183672.88	1026064.85	12.0 CONTOUR
20	183706.11	1026082.63	12.0 CONTOUR
21	183658.47	1026135.74	13.0 CONTOUR

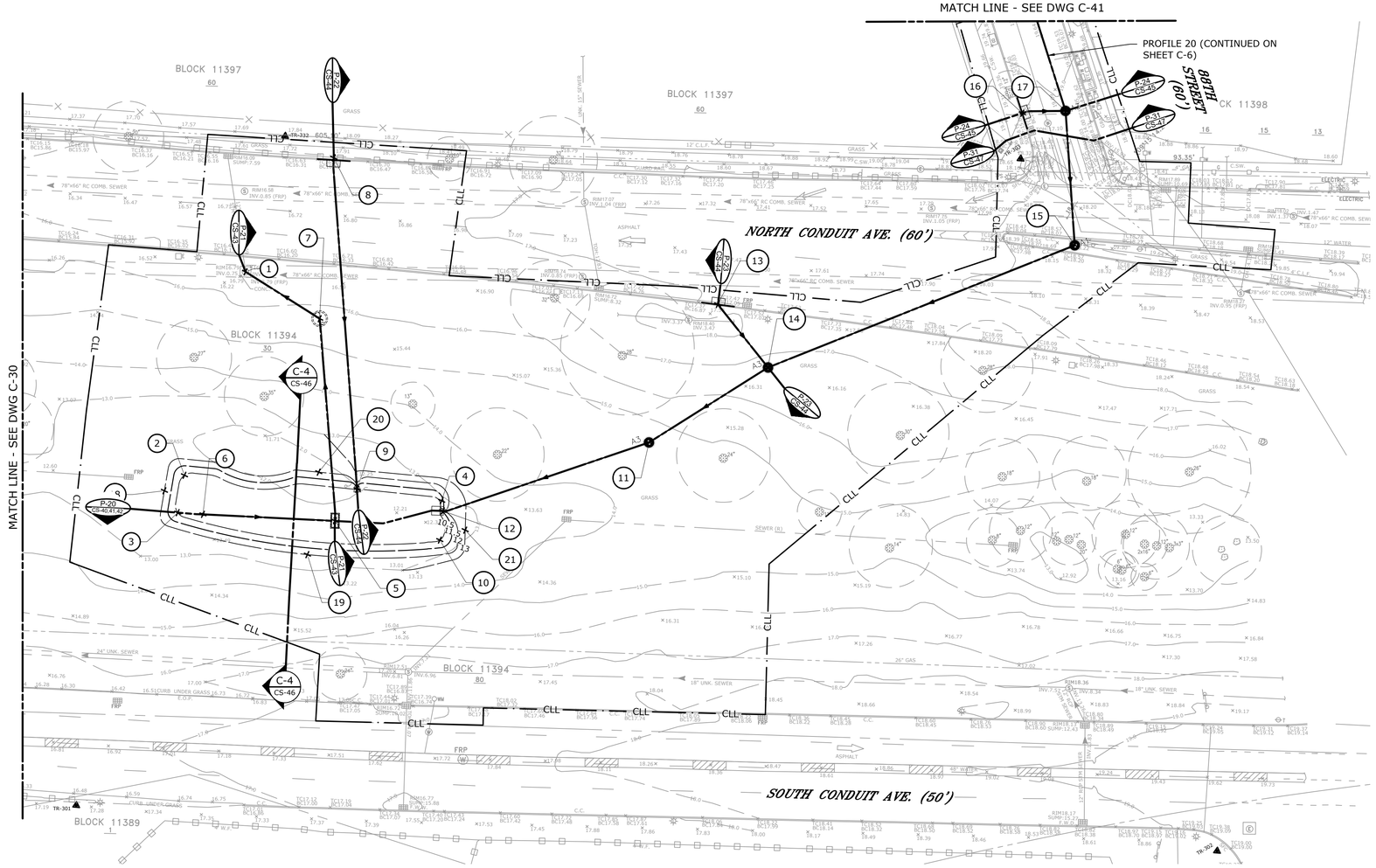
TEST PITS - NSC-04RGa				
Point No.	**Description**	**Existing Utility**	**Hand Excavation Required (yes/no)**	**Depth (ft)**
1	TEST PIT A	EXISTING STORM MANHOLE	Yes	5.00
Note: Test pits shall be completed in the order they appear on this table				

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. SEE DRAWING C-10 FOR STAGE 3: INSTALL SITE, GRADING, AND PROPOSED DRAINAGE PLAN CONSTRUCTION SEQUENCING TABLE.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- FLARED END SECTION WITH RIP RAP APRON
- STAKING POINT
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- ISOLATOR ROW WITH GEOTEXTILE
- TR-XXX - SURVEY CONTROL TIE



PLAN
SCALE: 1" = 30'

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY	DESIGNED JWB	THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	Hazen HAZEN AND SAWYER 498 SEVENTH AVENUE, 11TH FLOOR NEW YORK, NY 10018	APPROVED FOR THE CITY OF NEW YORK _____ P.E. PROJECT MANAGER
				DRAWN TLA			
				CHECKED ACE			
				PROJ.ENGR. ACE			

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
LAYOUT PLAN - NSC-04RGa I

DATE	JUL 2026
PAGE	74 OF 171
SHEET	C-40

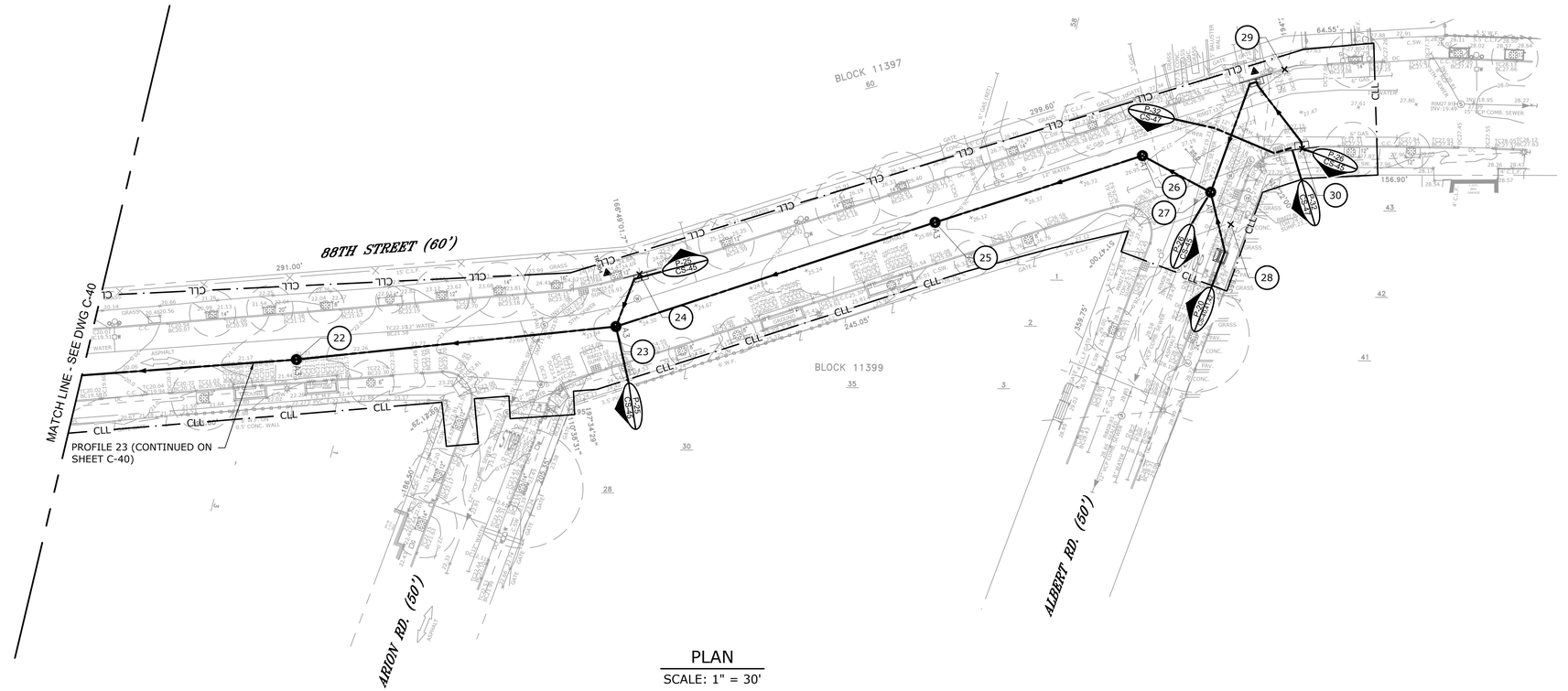
CONSULTANT DESIGN

File: G:\V0136-NYC\V0136-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\STAKING_PLAN NSC-04RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:08:39 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-STAKING - NSC4,..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 83.07 DEGREES FROM TRUE NORTH.
2. SEE DRAWING C-10 FOR STAGE 3: INSTALL SITE, GRADING, AND PROPOSED DRAINAGE PLAN CONSTRUCTION SEQUENCING TABLE.



PLAN
SCALE: 1" = 30'

STAKING TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
22	183877.64	1026463.12	NSC4-MH5
23	184016.58	1026465.68	NSC4-MH6
24	184029.56	1026444.42	NSC4-CB4
25	184159.04	1026437.65	NSC4-MH7
26	184251.59	1026419.89	NSC4-MH8
27	184278.99	1026439.17	NSC4-MH9
28	184285.93	1026454.05	NSC4-CB7
29	184317.15	1026390.30	NSC4-CB5
30	184320.57	1026425.28	NSC4-CB6

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- FLARED END SECTION WITH RIP RAP APRON
- STAKING POINT
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- ISOLATOR ROW WITH GEOTEXTILE
- TR-XXX - SURVEY CONTROL TIE

1"=30'-0" (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — STATE OF NEW YORK — 090441 — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

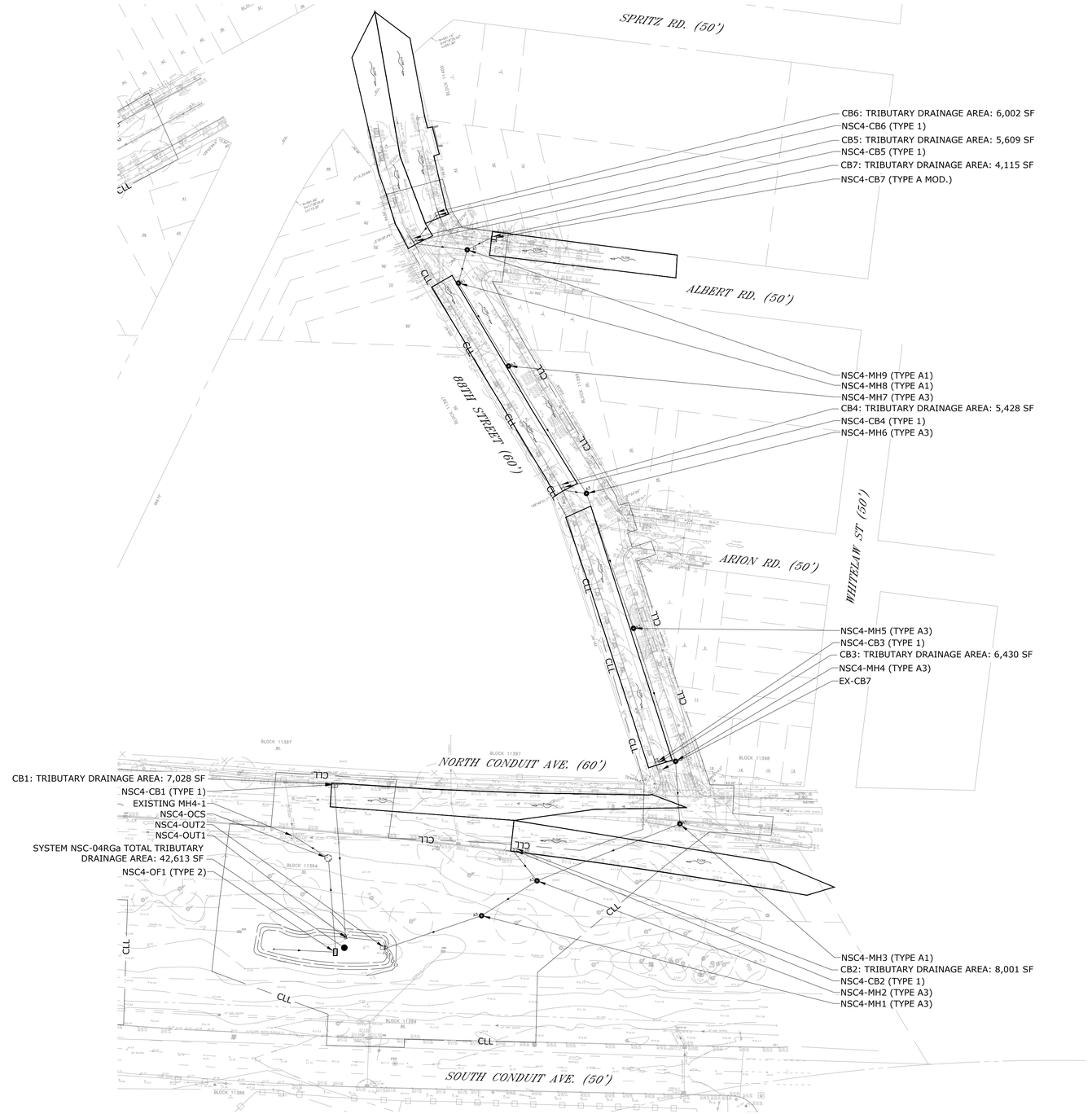
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
LAYOUT PLAN - NSC-04RGa II

DATE JUL 2026
PAGE 75 OF 171
SHEET C-41

CONSULTANT DESIGN

File: O:\PO336-NYC\PO336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\LAYOUT PLAN - NSC-04RGA_2 Saved By: TAUTH Save Date: 2026/05/05 1:00 PM
PLOT DATE: 2026/07/31 8:08:48 AM BY: TAUTH
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-STAKING - NSC4,..\..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 60'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. SEE SHEET GD-41 FOR STRUCTURE ELEVATIONS.

LEGEND

- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- PROPOSED TRIBUTARY DRAINAGE AREA
- 1 - PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLOW - FLOW DIRECTION

1"=60'-0" 60 30 0 60'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

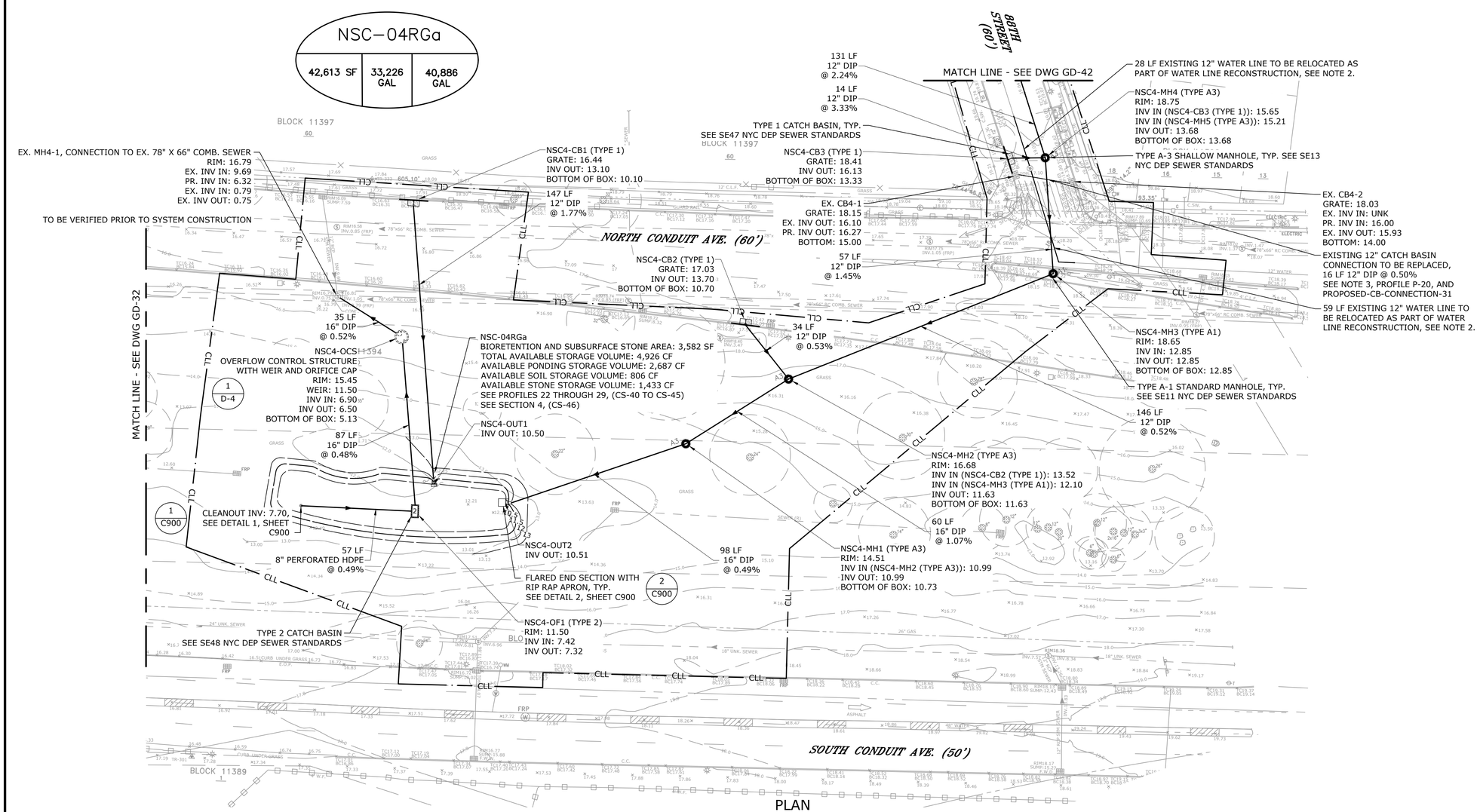
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TRIBUTARY DRAINAGE AREA-NSC-04RGa

DATE JUL 2026
PAGE 76 OF 171
SHEET GD-40

CONSULTANT DESIGN

File: G:\6\336-NYC\6\336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\DIA_NSC4 Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:08:59 AM BY: TAUTH
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\000-BASE\SE CONDUIT\CN-STRU..\..\000-BASE\SE CONDUIT\CX-STRU..\..\000-BASE\SE CONDUIT\CN-DRAINAGE..\..\000-BASE\SE CONDUIT\CN-3D-PIPES..\..\..\Work Plan\0-Reference Material\SD2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. FOR EXISTING WATER DISTRIBUTION PIPE REPLACEMENTS, INSTALLED PIPE SHALL MAINTAIN 18" OF VERTICAL CLEARANCE FROM PROPOSED STORM SEWER. VERTICAL CLEARANCE CAN BE 12" IF PROPOSED STORM SEWER IS ABOVE NEW WATER DISTRIBUTION PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).
   A. WATER DISTRIBUTION PIPES REQUIRING REPLACEMENT SHALL UTILIZE 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT LENGTH TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER DISTRIBUTION PIPE REPLACEMENT, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC DEP BWSO REPRESENTATIVE.
   B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.
3. FOR EXISTING SEWER CONNECTED CATCH BASIN REPLACEMENTS, INSTALLED PIPE SHALL MAINTAIN 18" OF VERTICAL CLEARANCE FROM PROPOSED STORM SEWER. VERTICAL CLEARANCE CAN BE 12" IF PROPOSED STORM SEWER IS ABOVE NEW SEWER CONNECTED CATCH BASIN CONNECTION AND IS ENCASES IN CONCRETE OR MOUNTED ON CONCRETE CRADLE.
4. DESIGN ASSUMES 10 LF OF PIPE WILL BE REPLACED FOR EACH WATER LINE RELOCATION IN ADDITION TO APPROPRIATE RESTRAINT LENGTHS ON SHEET C901.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE

GI NAME

TRIBUTARY AREA	VOLUME OF 1.25" STORM	CAPACITY MANAGED

- GREEN INFRASTRUCTURE CHARACTERISTICS

GI ID		GI Asset Data: Managed Impervious Tributary Area	Volume 1.25" Rainfall on Impervious Area	GI Footprint Surface Area	GI Perimeter	Permeability Coefficient	Stormwater Storage Calculations: Stormwater chambers, pipes, tanks, etc. volume	Surface Storage: Surface Storage Area	Surface Storage Depth	Surface Storage Volume	Engineered Soil: Soil Depth	Soil Voids	Stormwater Captured by Soil	Drainage Stone Subbase: Stone Depth	Stone Voids	Stormwater Captured by Stone Layer	Stone Subbase: Stone Depth	Stone Voids	Stormwater Captured by Stone Layer	Total Stormwater Managed (Infiltration + Storage): Estimated Total Infiltration Volume	Estimated Total Storage Volume	% Impervious Surface Managed	Calculated Volume of Rainfall Captured	Calculated Volume of Rainfall Captured
		sf	cf	sf	ft	in/hr	cf	sf	in	cf	ft	%	cf	ft	%	cf	ft	%	cf	cf	cf	%	cf	gal
NSC-04Ga	Retention credit, sized for static volume to capture 1.25 in (as above) but manages 1.5 in	42,613	4,439	3,582	324	1.81	0	3,582	12	2,687	0.90	25	806	1	40	1,433	0.00	40	0	540	4,926	123%	5,466	40,886

1"=30'-0"

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

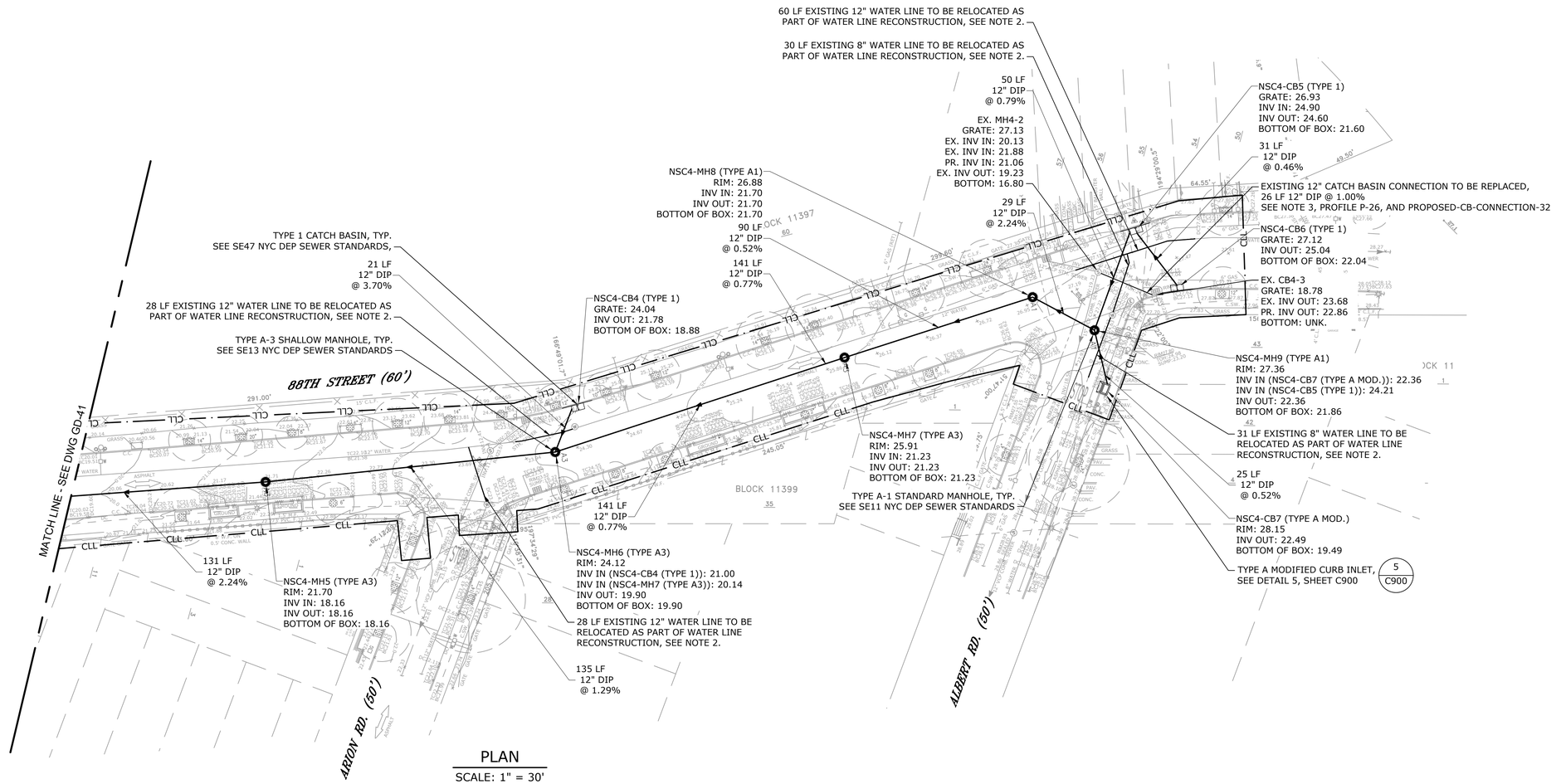
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NSC-04RGa I

DATE JUL 2026
PAGE 77 OF 171
SHEET GD-41

CONSULTANT DESIGN

File: O:\W3336-NYC\W3336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\GRADING AND DRAINAGE PLAN - NSC-04RGA Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:09:09 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CN-3D-PIPES,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\EXISTING WATER UTILITY RELAY,..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN
SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 83.07 DEGREES FROM TRUE NORTH.
2. FOR EXISTING WATER DISTRIBUTION PIPE REPLACEMENTS, INSTALLED PIPE SHALL MAINTAIN 18" OF VERTICAL CLEARANCE FROM PROPOSED STORM SEWER. VERTICAL CLEARANCE CAN BE 12" IF PROPOSED STORM SEWER IS ABOVE NEW WATER DISTRIBUTION PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).
   A. WATER DISTRIBUTION PIPES REQUIRING REPLACEMENT SHALL UTILIZE 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT LENGTH TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER DISTRIBUTION PIPE REPLACEMENT, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC DEP BWSO REPRESENTATIVE.
   B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.
3. FOR EXISTING SEWER CONNECTED CATCH BASIN REPLACEMENTS, INSTALLED PIPE SHALL MAINTAIN 18" OF VERTICAL CLEARANCE FROM PROPOSED STORM SEWER. VERTICAL CLEARANCE CAN BE 12" IF PROPOSED STORM SEWER IS ABOVE NEW SEWER CONNECTED CATCH BASIN CONNECTION AND IS ENCASES IN CONCRETE OR MOUNTED ON CONCRETE CRADLE.
4. DESIGN ASSUMES 10 LF OF PIPE WILL BE REPLACED FOR EACH WATER LINE RELOCATION IN ADDITION TO APPRPRIATE RESTRAINT LENGTHS ON SHEET C901.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE

1"=30'-0" (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

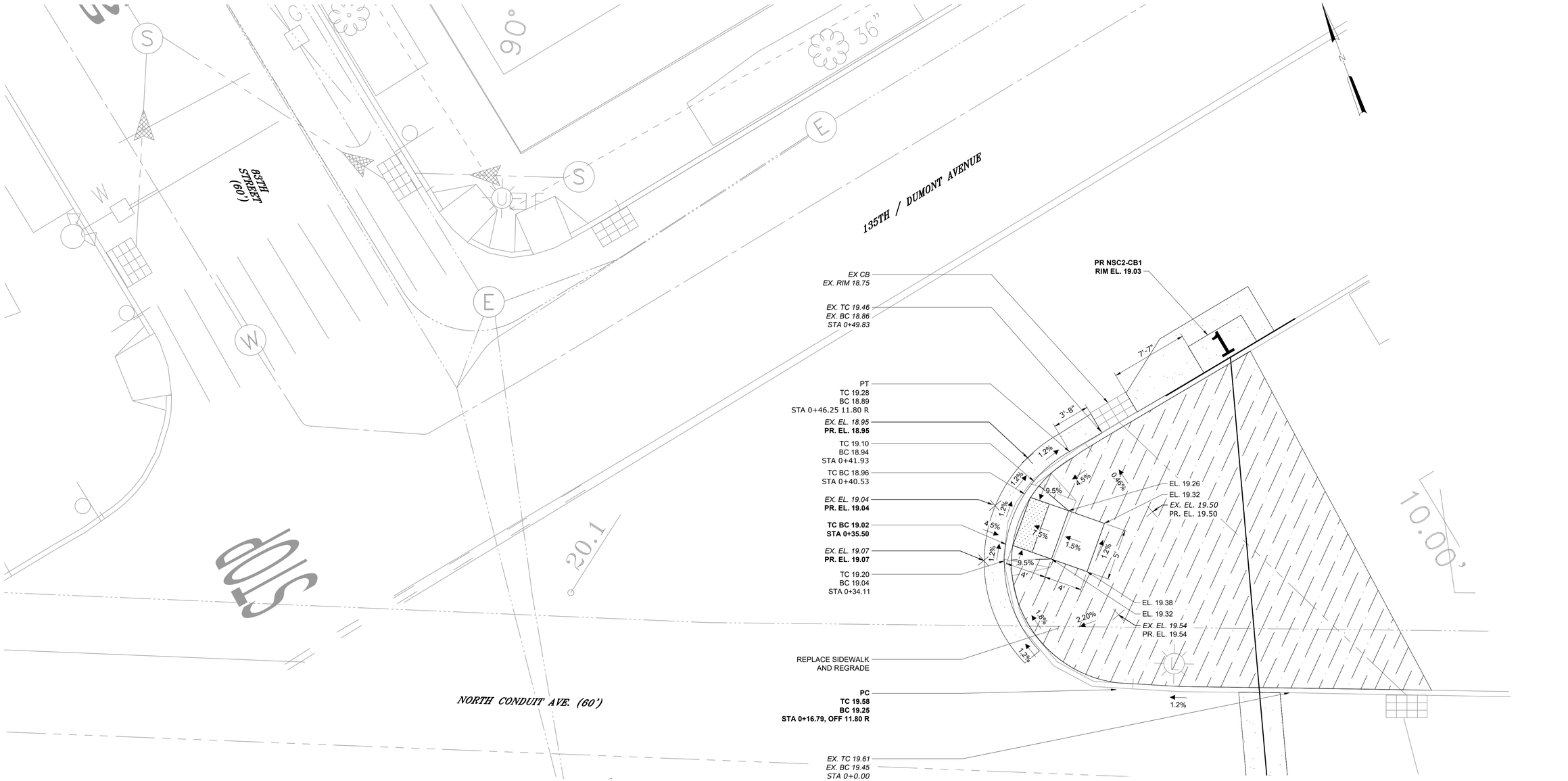
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NSC-04RGa II

DATE JUL 2026
PAGE 78 OF 171
SHEET GD-42

CONSULTANT DESIGN

File: O:\30336-NYC\30336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\LAYOUT PLAN - NSC-04RGA Saved By: TAUTH Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:09:21 AM By: TAUTH
XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CN-30-PIPES..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\EXISTING WATER UTILITY RELAY,..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 5'

LEGEND

- 1 - PROPOSED INLET
- - EXISTING INLET
- A1 A3 - PROPOSED MANHOLE W/TYPE
- - FULL DEPTH ASPHALT RESTORATION
- - FULL DEPTH SIDEWALK RESTORATION

1"=5'-0"

5 2.5 0 5'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — SANDEEP MEHROTRA — 100503 — LICENSED PROFESSIONAL ENGINEER

Hazen

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK

ENVIRONMENTAL PROTECTION

BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

ADA RAMP GRADING PLANS - 83RD STREET AND 135TH STREET

DATE JUL 2026
PAGE 79 OF 171
SHEET GD-43

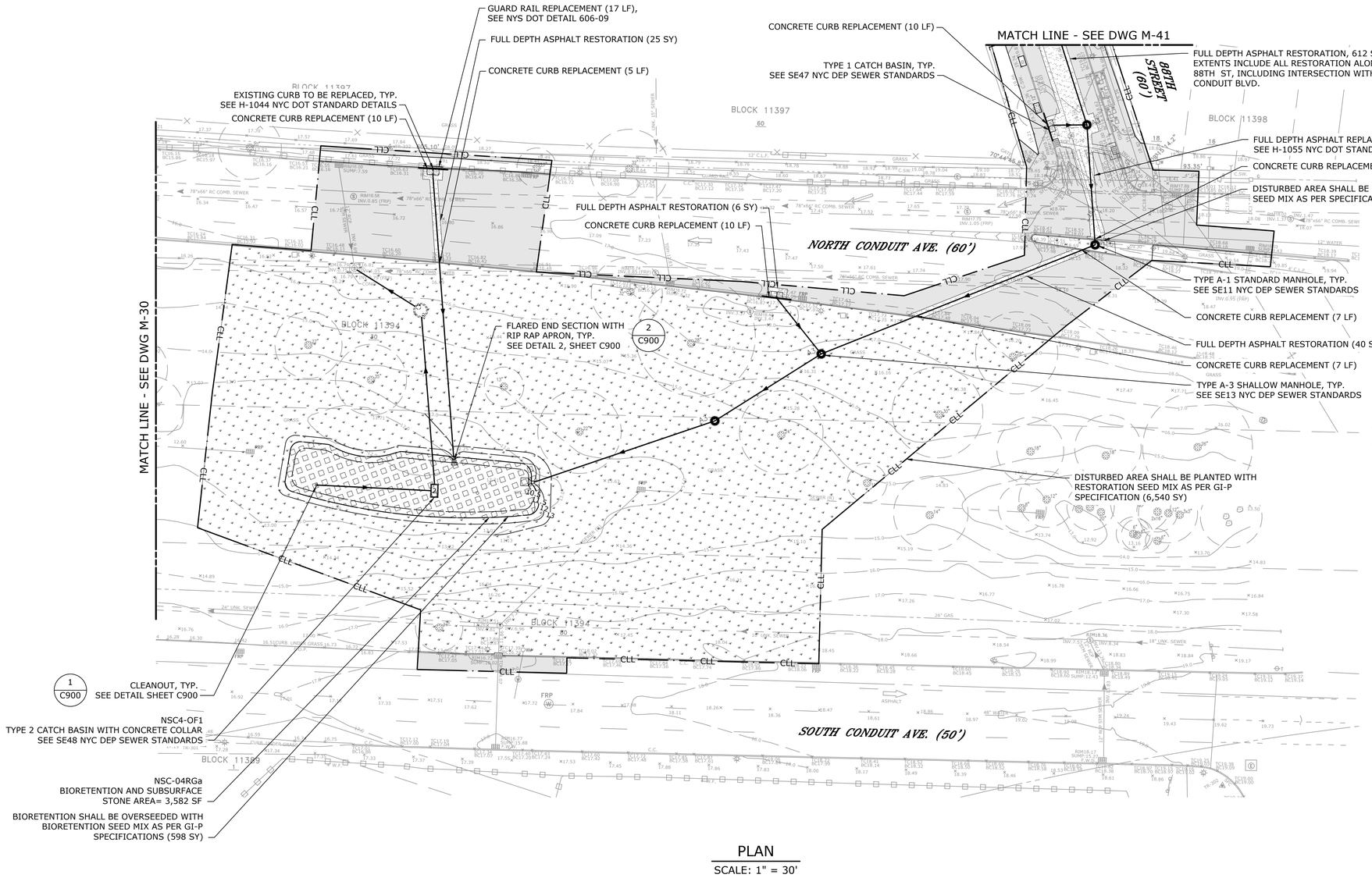
CONSULTANT DESIGN

File: O:\RI336-NYC\RI336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\GRADING PLAN Saved By: SKANE Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:09:30 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-MATERIAL,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.29 DEGREES FROM TRUE NORTH.
2. GRASSED AND MULCHED AREAS WITHIN CONTRACT LIMIT LINE BUT NOT DENOTED FOR RESTORATION SEED MIX, ARE NOT INTENDED TO BE DISTURBED. IF GRASSED OR MULCHED AREAS ARE DISTURBED, AREA SHALL BE STABILIZED WITH RESTORATION SEED MIX PER THE CONTRACT SPECIFICATIONS.
3. SEE DRAWING M-10 FOR STAGE 4: PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION CONSTRUCTION SEQUENCING TABLE.
4. TOP SOIL SHALL BE ADDED TO RESTORATION AREAS WHERE FULL DEPTH EXCAVATION HAS OCCURRED. ALL OTHER RESTORED AREAS SHALL USE RESTORATION SEED MIX ONLY.



LEGEND

- CLL — CONTRACT LIMIT LINE
- PROPOSED STORM PIPE
- 1 — PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- A1 A3 — PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- PROPOSED FLARED END SECTION WITH RIP RAP APRON
- IMPERVIOUS AREA (UNDISTURBED)
- IMPERVIOUS AREA (FULL DEPTH ASPHALT RESTORATION)
- IMPERVIOUS AREA (FULL DEPTH SIDEWALK RESTORATION)
- PERVIOUS AREA (UNDISTURBED, SEE NOTE 2)
- PERVIOUS AREA (RESTORATION SEED MIX)
- PERVIOUS AREA (BIORETENTION SEED MIX)

PLAN
SCALE: 1" = 30'

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY	DESIGNED JWB	THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	APPROVED FOR THE CITY OF NEW YORK _____ P.E. PROJECT MANAGER	CITY OF NEW YORK ENVIRONMENTAL PROTECTION BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS
				DRAWN TLA			
				CHECKED ACE			
				PROJ.ENGR. ACE			

Hazen — HAZEN AND SAWYER, 498 SEVENTH AVENUE, 11TH FLOOR, NEW YORK, NY 10018

NYC Environmental Protection

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN - NSC-04RGa I

DATE JUL 2026
PAGE 80 OF 171
SHEET M-40

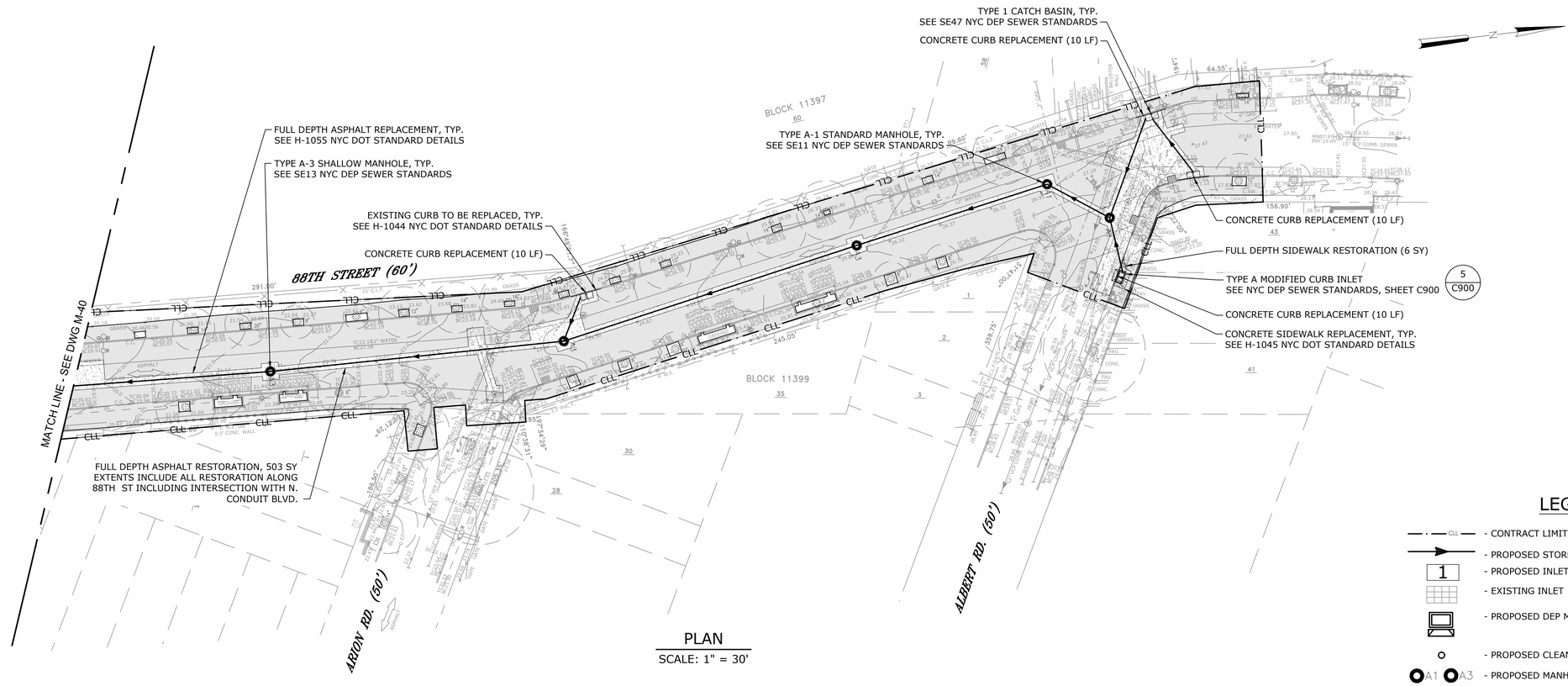
CONSULTANT DESIGN

File: O:\0\336-NYC\0336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\MATERIAL PLAN NSC-04RGA Saved By: TAUTH Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:09:38 AM BY: TAUTH

XREFs= ..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\000-BASE\SE CONDUIT\CN-STRU..\..\000-BASE\SE CONDUIT\CN-MATERIAL..\..\000-BASE\SE CONDUIT\CX-STRU..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-R..\..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 83.07 DEGREES FROM TRUE NORTH.
2. GRASSED AND MULCHED AREAS WITHIN CONTRACT LIMIT LINE, BUT NOT DENOTED BY RESTORATION SEED MIX, ARE NOT INTENDED TO BE DISTURBED. IF GRASSED OR MULCHED AREAS ARE DISTURBED, AREA SHALL BE STABILIZED WITH RESTORATION SEED MIX PER THE CONTRACT SPECIFICATIONS.
3. SEE DRAWING M-10 FOR STAGE 4: PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION CONSTRUCTION SEQUENCING TABLE.



PLAN
SCALE: 1" = 30'

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- EXISTING INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- PROPOSED CLEANOUT
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLARED END SECTION WITH RIP RAP APRON
- IMPERVIOUS AREA (UNDISTURBED)
- IMPERVIOUS AREA (FULL DEPTH ASPHALT RESTORATION)
- IMPERVIOUS AREA (FULL DEPTH SIDEWALK RESTORATION)
- PERVIOUS AREA (UNDISTURBED, SEE NOTE 2)
- PERVIOUS AREA (RESTORATION SEED MIX)
- PERVIOUS AREA (BIORETENTION SEED MIX)

1"=30'-0" 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

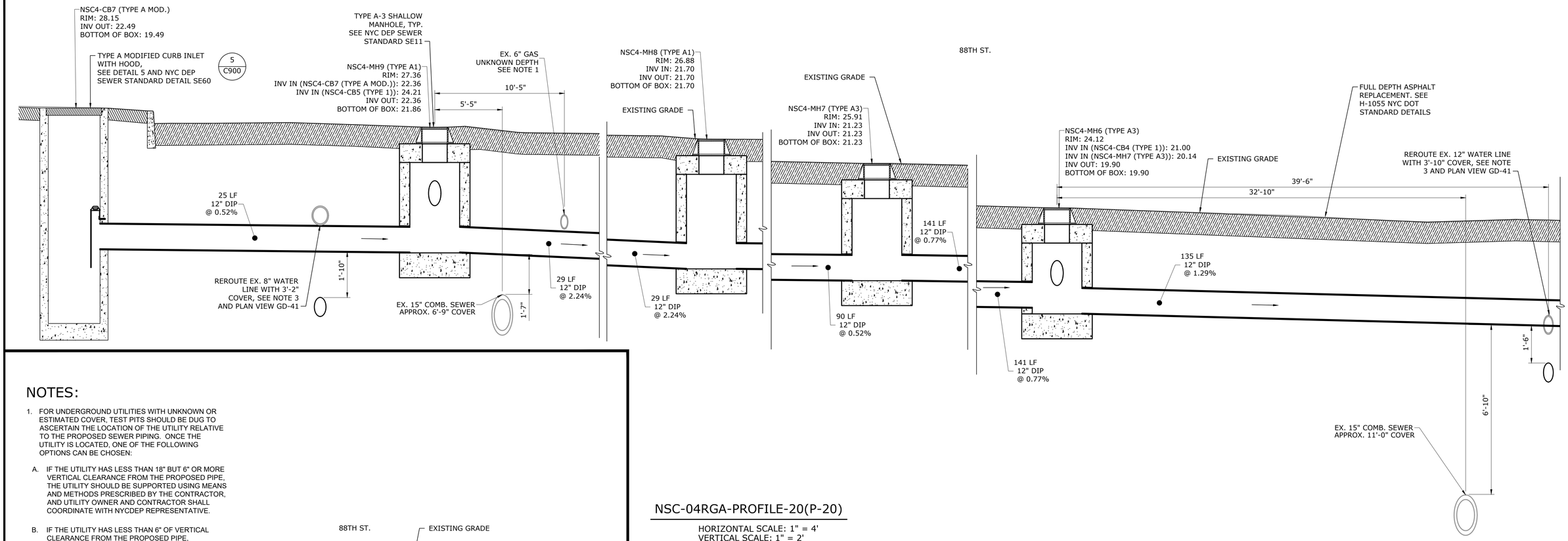
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN - NSC-04RGa II

DATE	JUL 2026
PAGE	81 OF 171
SHEET	M-41

CONSULTANT DESIGN

File: O:\V0336-NYC\V0336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\MATERIAL PLAN - NSC-04RGA_2 Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:09:48 AM BY: TAUTH
XREFs= ..\..\BLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\000-BASE\SE CONDUIT\CN-STRU,..\..\000-BASE\SE CONDUIT\CX-STRU,..\..\000-BASE\SE CONDUIT\CN-MATERIAL,..\..\000-BASE\SE CONDUIT\WORKING\CX-HATCHING-R,..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.

   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.

2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.

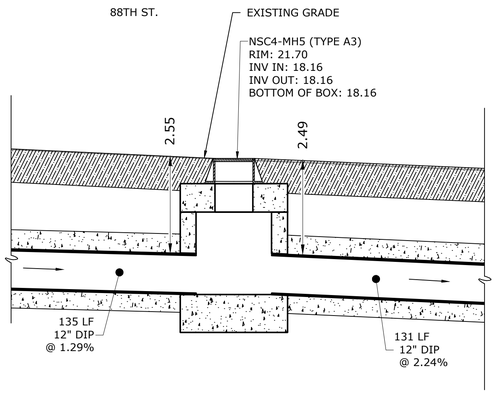
3. WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).

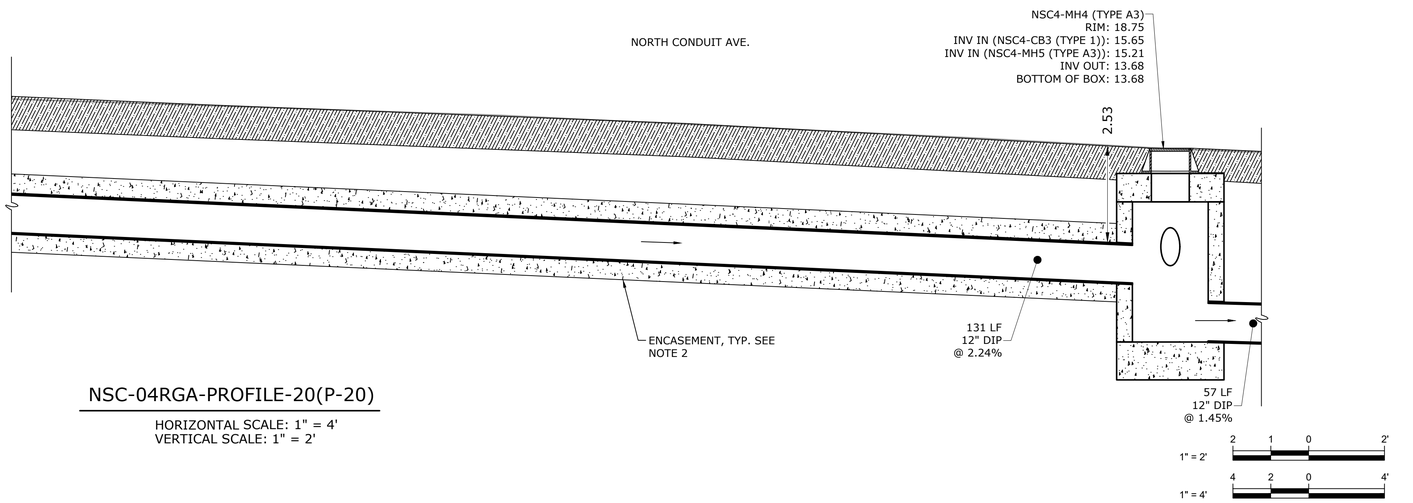
   A. WATER UTILITY PIPES TO BE REROUTED SHALL USE TWO 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER UTILITY RELAY, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC BWSO REPRESENTATIVE.

   B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.

NSC-04RGA-PROFILE-20(P-20)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'





NSC-04RGA-PROFILE-20(P-20)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

2 1 0 2' — 1" = 2'

4 2 0 4' — 1" = 4'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

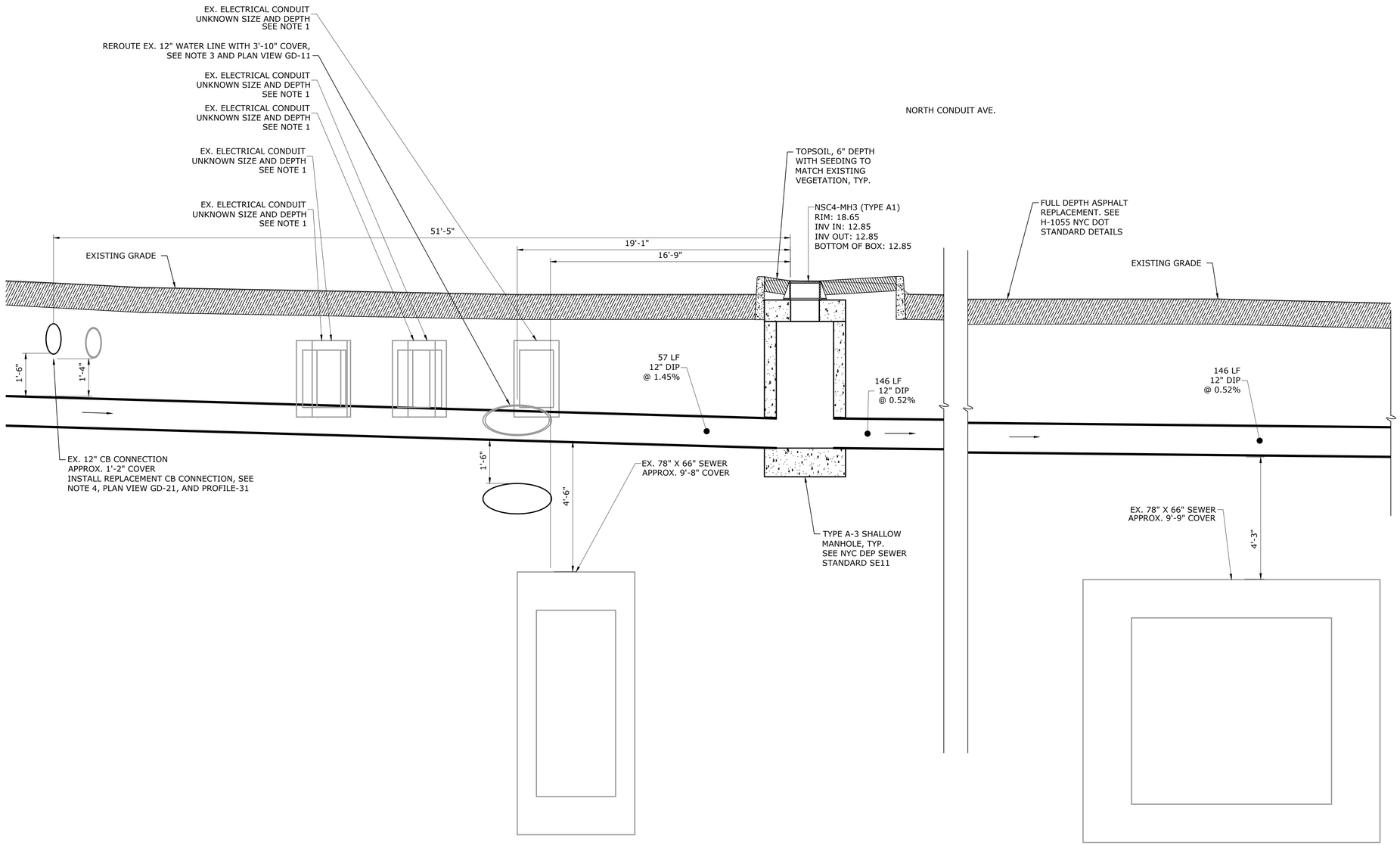
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-04RGa I

DATE	JUL 2026
PAGE	82 OF 171
SHEET	CS-40

CONSULTANT DESIGN

File: Q:\30336-NYC\30336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-04RGA Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:09:59 AM BY: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\GN-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\D-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NSC-04RGA-PROFILE-20(P-20)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.

   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.

2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.

3. WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).

   A. WATER UTILITY PIPES TO BE REROUTED SHALL USE TWO 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER UTILITY RELAY, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC BWSO REPRESENTATIVE.

   B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.

4. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE)

1" = 2': 2 1 0 2'
1" = 4': 4 2 0 4'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — Sandeep Mehrotra — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

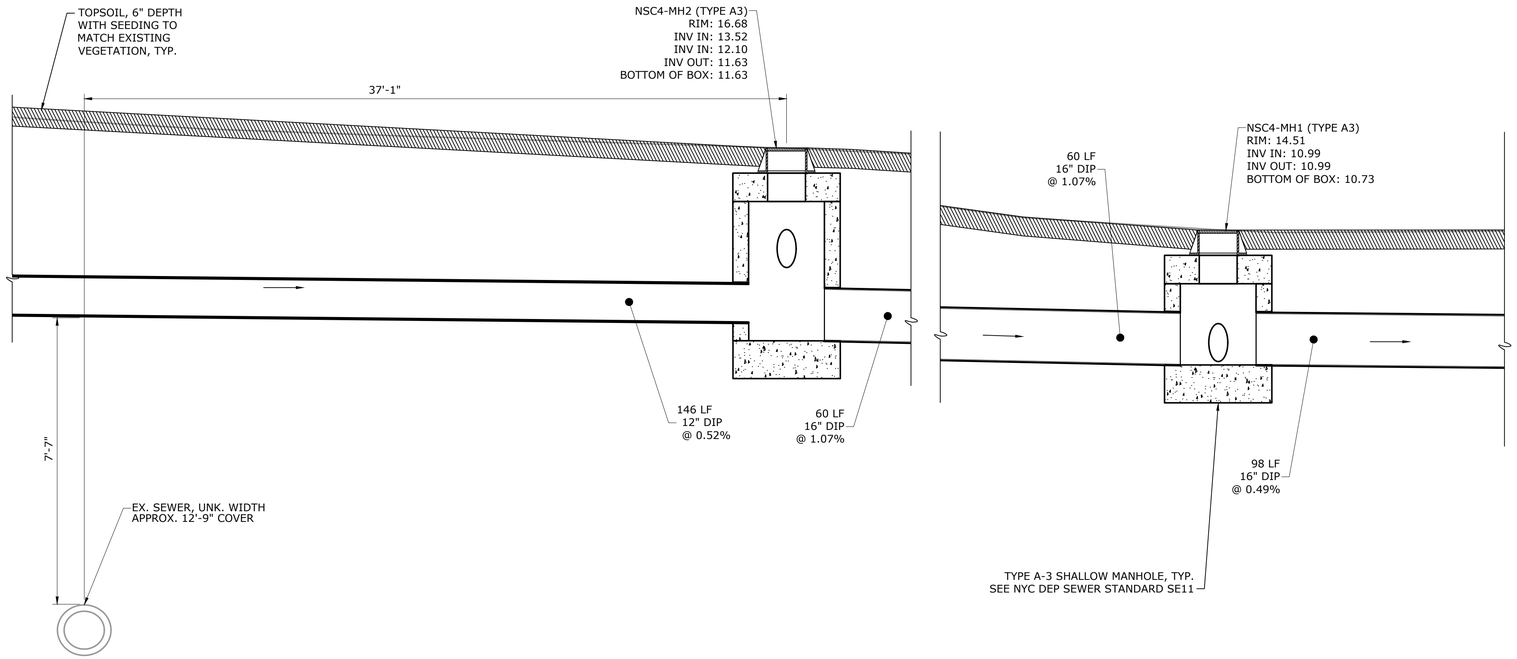
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-04RGa II

DATE JUL 2026
PAGE 83 OF 171
SHEET CS-41

CONSULTANT DESIGN

File: G:\WS36-NYC\WS36-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-04RGA_2 Saved By SKANE Save Date: 2026/05/05 1:01 PM
PLOT DATE: 2026/07/21 8:10:08 AM BY: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\DN-3D-PIPES,..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

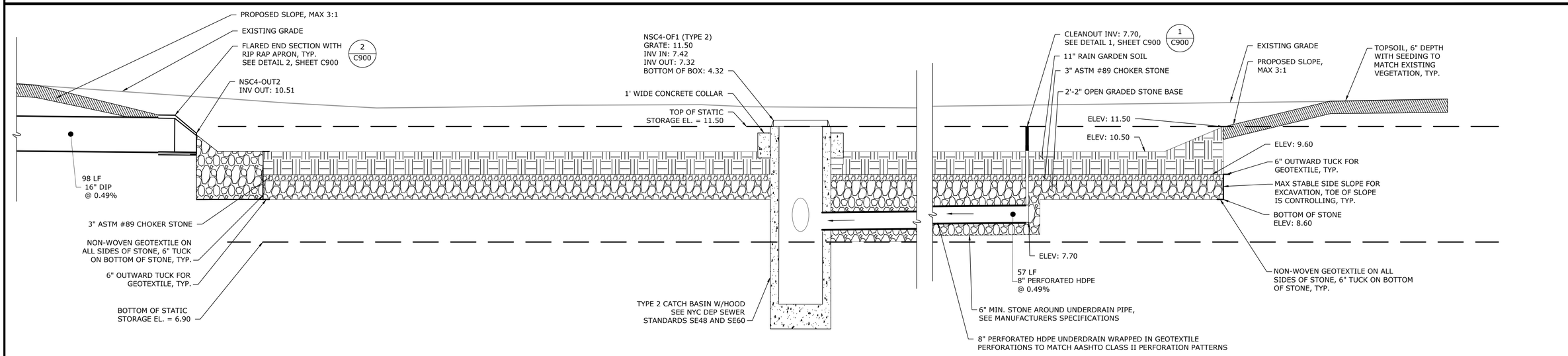


NSC-04RGA-PROFILE-20(P-20)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 4,926 CF AND IS CALCULATED BETWEEN EL. 6.90 AND EL 11.50.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES. FOLD 6" LEVEL WITH TOP OF CHOKER STONE LAYER. FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIN GARDEN SOIL AND STONE LAYERS.



NSC-04RGA-PROFILE-20(P-20)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

1" = 2' (2 1 0 2')
1" = 4' (4 2 0 4')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

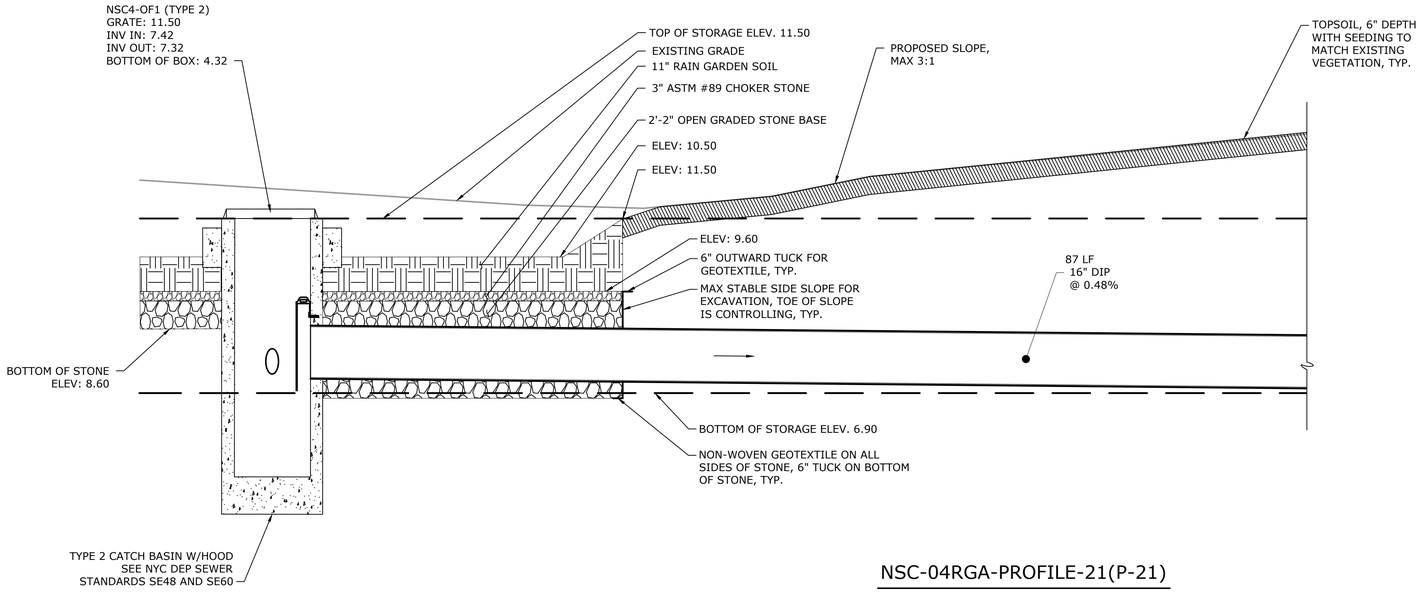
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-04RGa III

DATE JUL 2026
PAGE 84 OF 171
SHEET CS-42

CONSULTANT DESIGN

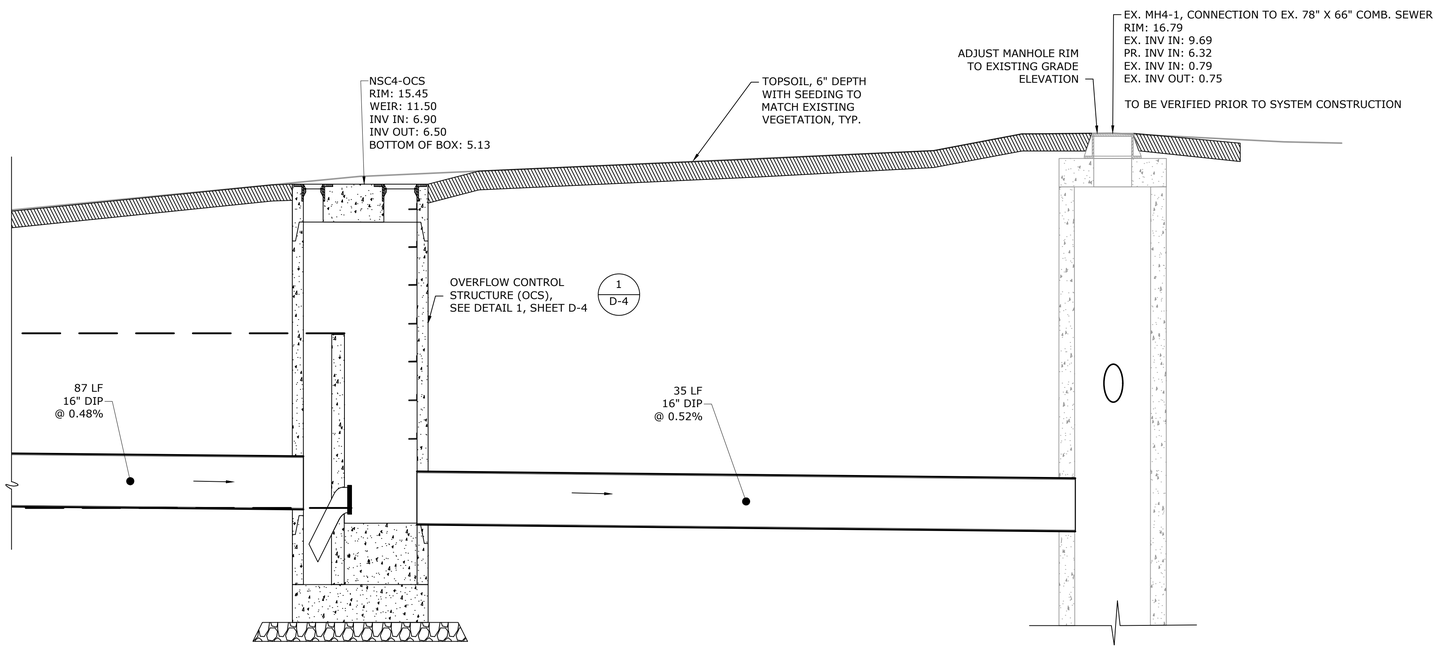
File: G:\WS36-NYC\WS36-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-04RGA_3 Saved By: TAUTH Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/21 8:10:17 AM BY: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\DN-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NSC-04RGA-PROFILE-21(P-21)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'



NSC-04RGA-PROFILE-21(P-21)

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 4,926 CF AND IS CALCULATED BETWEEN EL. 6.90 AND EL 11.50.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES. FOLD 6" LEVEL WITH TOP OF CHOKER STONE LAYER. FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIN GARDEN SOIL AND STONE LAYERS.

1" = 10' — 10 5 0 10'
1" = 5' — 5 0 5'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — STATE OF NEW YORK — 090744 — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

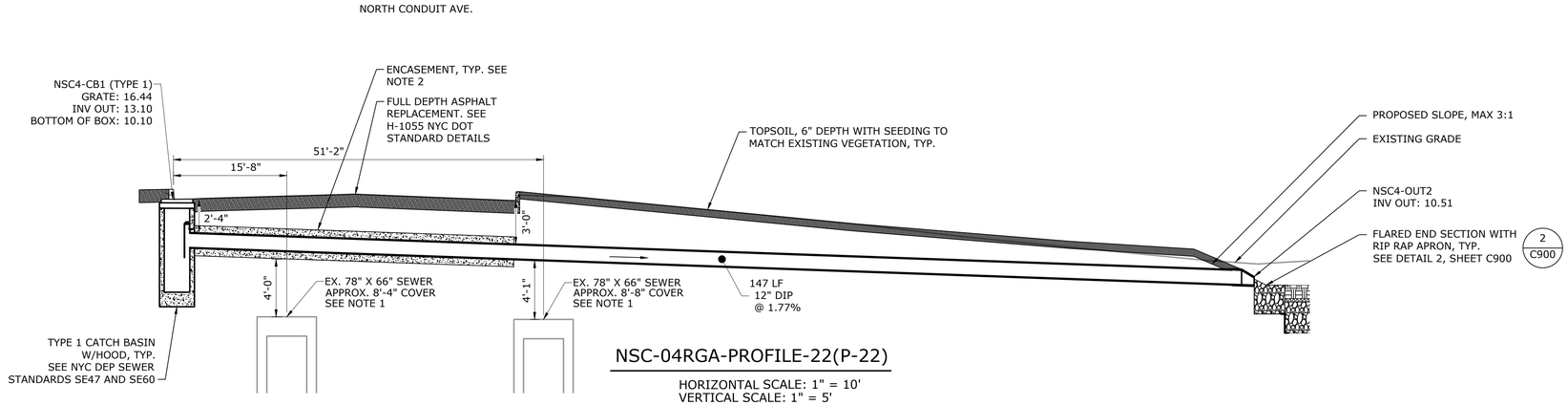
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-04RGa IV

DATE JUL 2026
PAGE 85 OF 171
SHEET CS-43

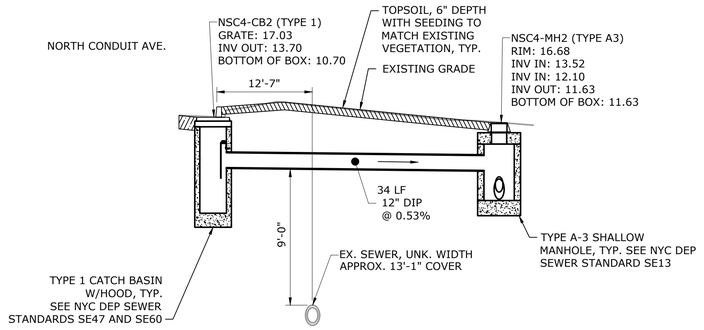
CONSULTANT DESIGN

File: O:\06336-NYC\06336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-04RGA - CROSSING1_2 Saved By: TAUTH Save Date: 2026/06/05 11:02 PM
PLOT DATE: 2026/07/31 8:10:25 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\CN-3D-PIPES,..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\..\Work Plan\D-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NSC-04RGA-PROFILE-22(P-22)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NSC-04RGA-PROFILE-23(P-23)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.

1" = 10' — 10 5 0 10'
1" = 5' — 5 0 5'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-04RGa V

DATE JUL 2026
PAGE 86 OF 171
SHEET CS-44

CONSULTANT DESIGN

File: Q:\06356-NYC\06356-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-04RGA - CROSSING1 Saved By: SKANE Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:10:34 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\ON-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.

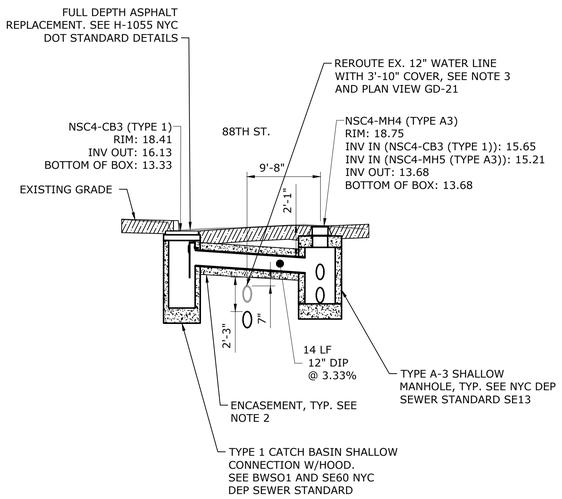
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.

2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.

3. WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).

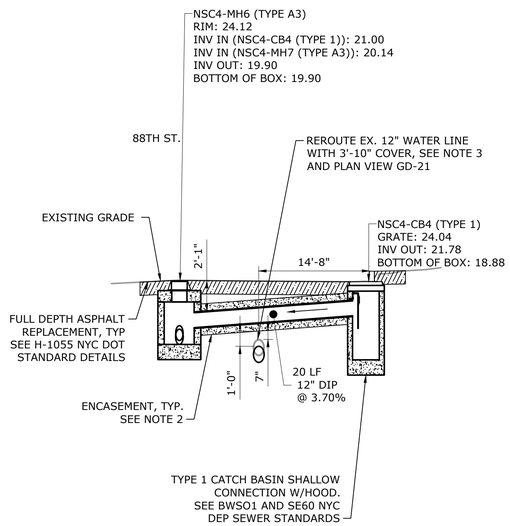
   A. WATER UTILITY PIPES TO BE REROUTED SHALL USE TWO 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER UTILITY RELAY, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC BWSO REPRESENTATIVE.
   B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.

4. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE)



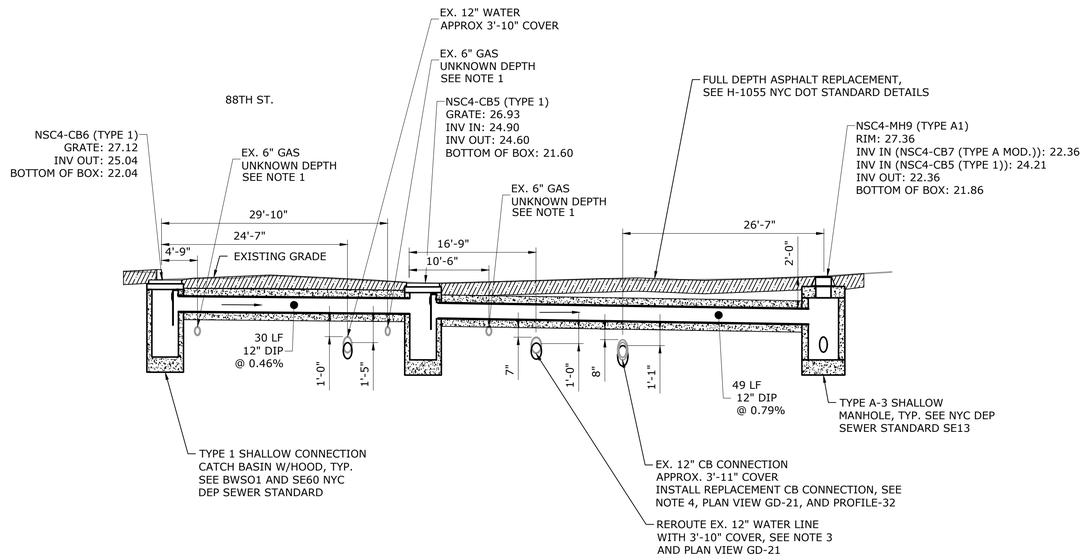
NSC-04RGA-PROFILE-24(P-24)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NSC-04RGA-PROFILE-25(P-25)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NSC-04RGA-PROFILE-26(P-26)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

10 5 0 10'
1" = 10'

5 0 5'
1" = 5'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra, P.E. — STATE OF NEW YORK — 090181 — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NSC-04RGa VI

DATE JUL 2026
PAGE 87 OF 171
SHEET CS-45

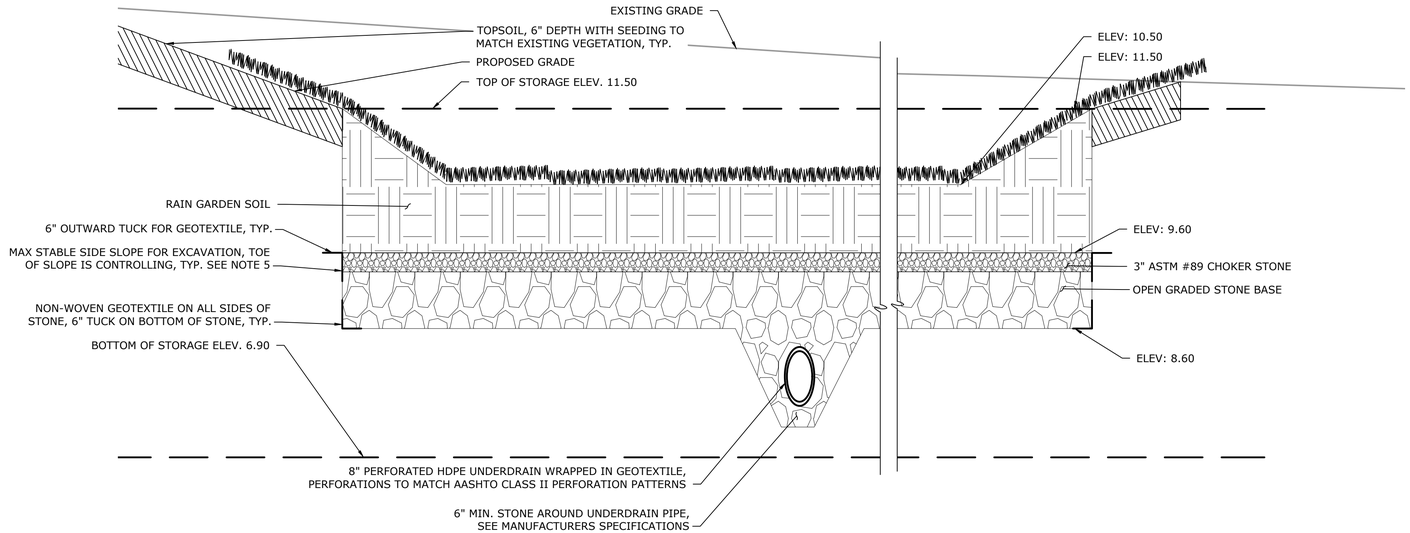
CONSULTANT DESIGN

File: O:\30336-NYC\30336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROFILE - NSC-04RGA - CROSSING2 Saved By: SKANE Save Date: 2026/06/05 1:00 PM
PLOT DATE: 2026/07/31 8:10:42 AM By: TAUTH

XREFs= ..\..\000-BASE\SE CONDUIT\CN-3D-PIPES..\..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 4,926 CF AND IS CALCULATED BETWEEN EL. 6.90 AND EL 11.50.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES AND FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED VIA TEST PITS. CONTRACTOR SHALL SUBMIT FINDINGS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO SOURCING DRAINAGE STRUCTURES AND PRIOR TO BEGINNING EXCAVATION.
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE PIPE SHOULD BE SUPPORTED USING MEANS AND METHODS PERSCRIBED BY THE CONTRACTOR, AND ENGINEER'S REPRESENTATIVE SHALL COORDINATE WITH RESPECTIVE AGENCY.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTARCTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE, ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIL GARDEN SOIL AND STONE LAYERS.



NSC-04RGa CROSS SECTION (C-4)

HORIZONTAL SCALE: 1" = 2'
VERTICAL SCALE: 1" = 1'

1" = 1' (1 0 1')
1" = 2' (2 1 0 2')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
CROSS SECTION - NSC-04RGa

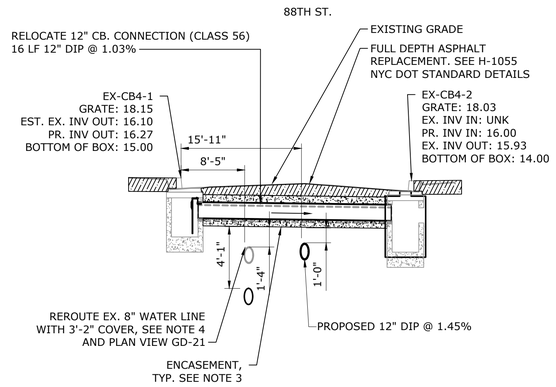
DATE JUL 2026
PAGE 88 OF 171
SHEET CS-46

CONSULTANT DESIGN

File: Q:\30336-NYC\30336-001\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\CROSS SECTIONS SYSTEM 4 Saved By: SKANE Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:16:50 AM By: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\GN-3D-PIPES..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

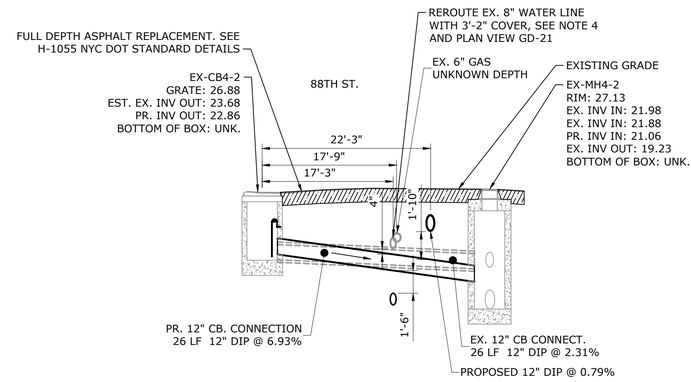
NOTES:

1. DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED VIA TEST PITS. CONTRACTOR SHALL SUBMIT FINDINGS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO SOURCING DRAINAGE STRUCTURES AND PRIOR TO BEGINNING EXCAVATION.
   - A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE PIPE SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND ENGINEER'S REPRESENTATIVE SHALL COORDINATE WITH RESPECTIVE AGENCY.
   - B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE, ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
2. ALL PROPOSED CATCH BASIN CONNECTION PIPES SHALL BE CLASS 56 DIP.
3. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.
4. WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).
   - A. WATER UTILITY PIPES TO BE REROUTED SHALL USE TWO 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER UTILITY RELAY, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC BWSO REPRESENTATIVE.
   - B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.



PROPOSED-CB-CONNECTION-31(P-31)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



PROPOSED-CB-CONNECTION-32(P-32)

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 10' — 10 5 0 10'
1" = 5' — 5 0 5'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Melwani — LICENSED PROFESSIONAL ENGINEER — STATE OF NEW YORK

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

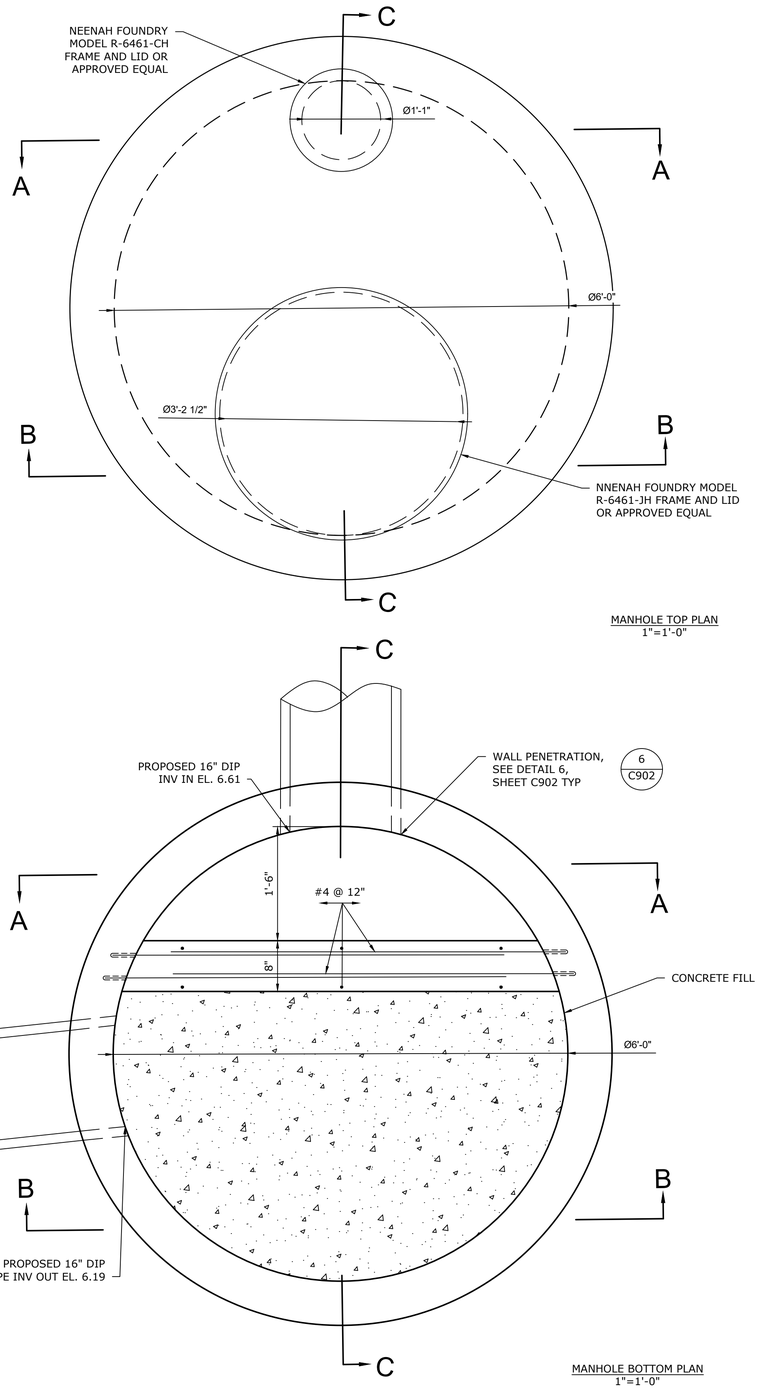
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROPOSED CB CONNECTIONS - NSC-04RGa

DATE JUL 2026
PAGE 89 OF 171
SHEET CS-47

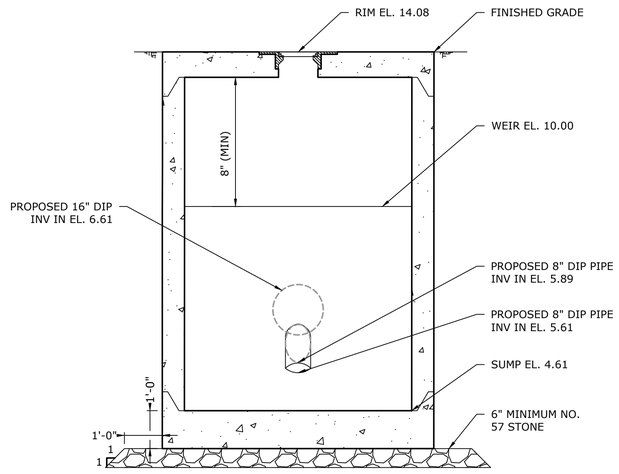
CONSULTANT DESIGN

File: Q:\00336-NYC\00336-2011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\PROPOSED CB CONNECTION NSC-04RGA Saved By: TAUTH Save Date: 2026/06/05 11:01 PM
PLOT DATE: 2026/07/31 8:11:02 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\DN-3D-PIPES,..\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT,..\..\..\Work Plan\D-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

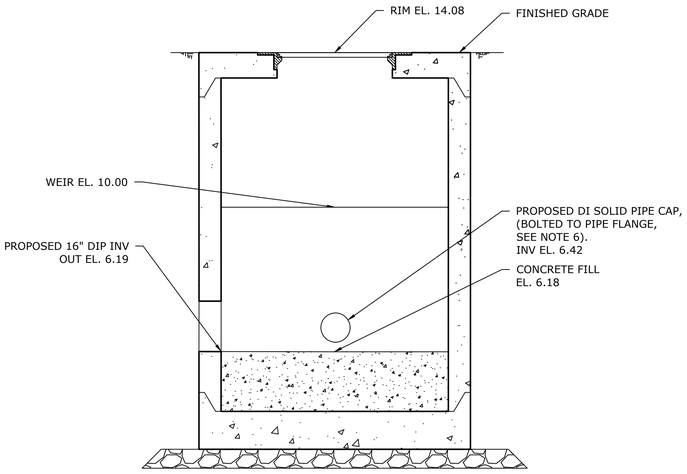


MANHOLE TOP PLAN
1"=1'-0"

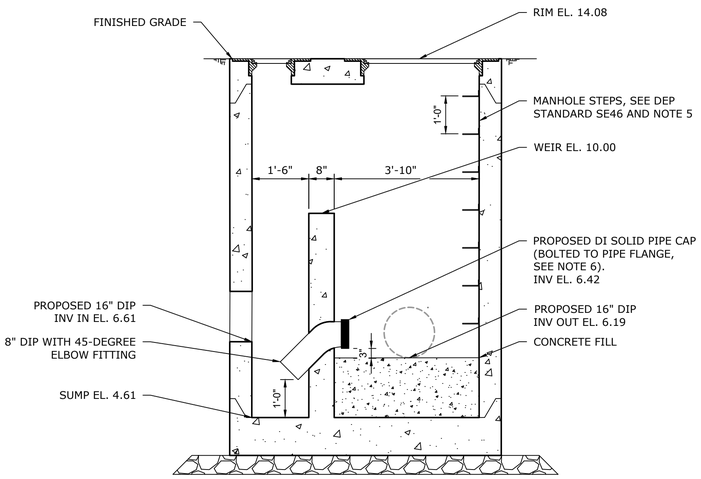
MANHOLE BOTTOM PLAN
1"=1'-0"



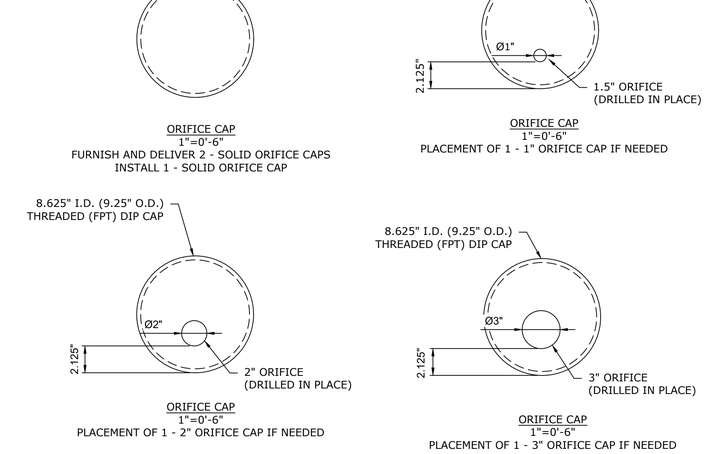
SECTION A-A
1"=2'-0"



SECTION B-B
1"=2'-0"



SECTION C-C
1"=2'-0"



ORIFICE CAP
1"=0'-6"
FURNISH AND DELIVER 2 - SOLID ORIFICE CAPS
INSTALL 1 - SOLID ORIFICE CAP

ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 1" ORIFICE CAP IF NEEDED

ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 2" ORIFICE CAP IF NEEDED

ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 3" ORIFICE CAP IF NEEDED

NOTES:

1. CONTRACTOR SHALL SUPPLY TWO(2) SOLID, THREADED ORIFICE CAPS FOR THE PROJECT. ONE (1) SOLID CAP SHALL BE INSTALLED IN THE FIELD. THE REMAINING SOLID CAP SHALL BE TURNED OVER TO NYCDEP FOR FUTURE USE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. REFER TO DETAILS 1-6 ON SHEET C902.
4. SEE GENERAL STRUCTURAL NOTES AND CONCRETE NOTES ON SHEET C902.
5. RUNGS SHOULD BE LOCATED 3" OFFSET FROM THE TOP SLAB OF THE MANHOLE, AND REPEAT EVERY 12".
6. BOLTS SHALL BE INSTALLED SO THAT THE BOLT HEAD IS ON THE WEIR WALL SIDE.

1
D-1

OCS MH #1 - MANHOLE WITH WEIR AND ORIFICE CAP DETAILS

AS SHOWN

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

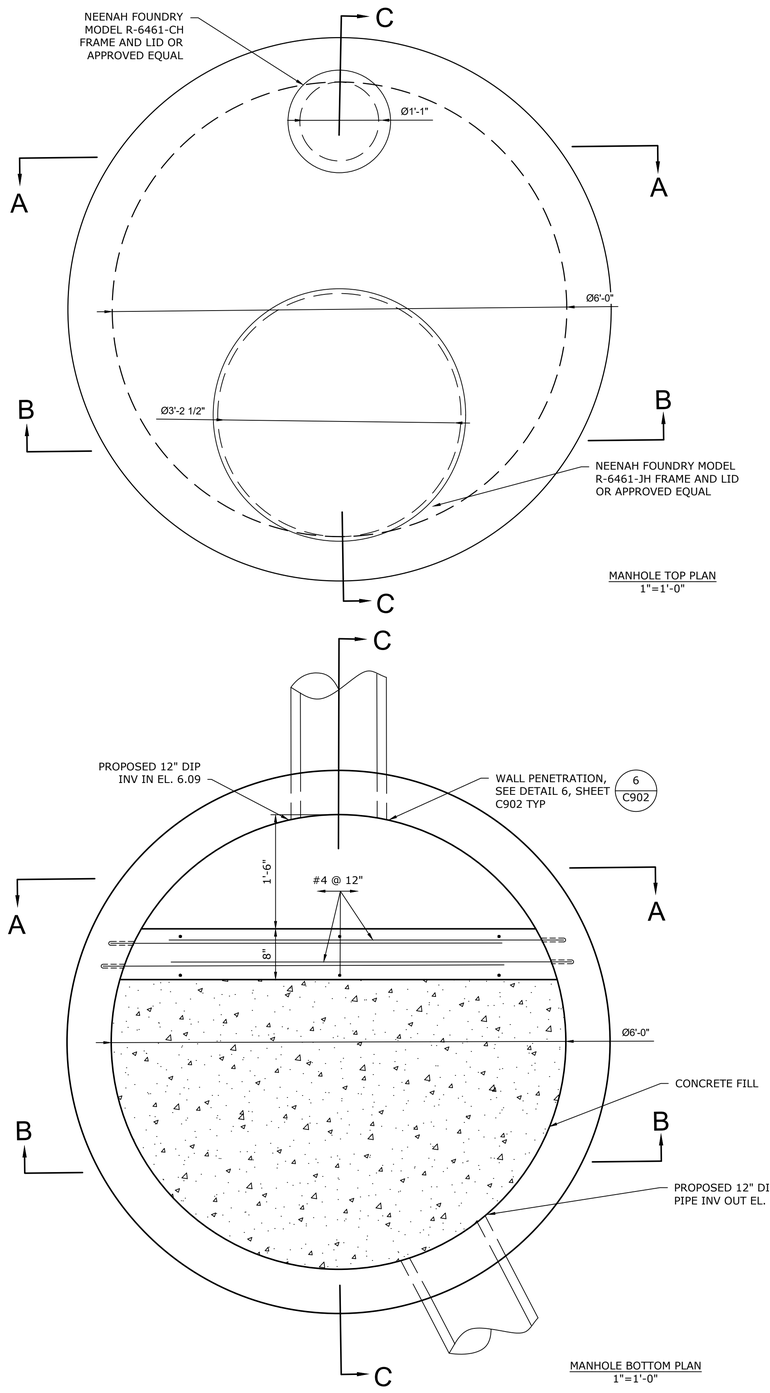
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
DETAILS

DATE	JUL 2026
PAGE	90 OF 171
SHEET	D-1

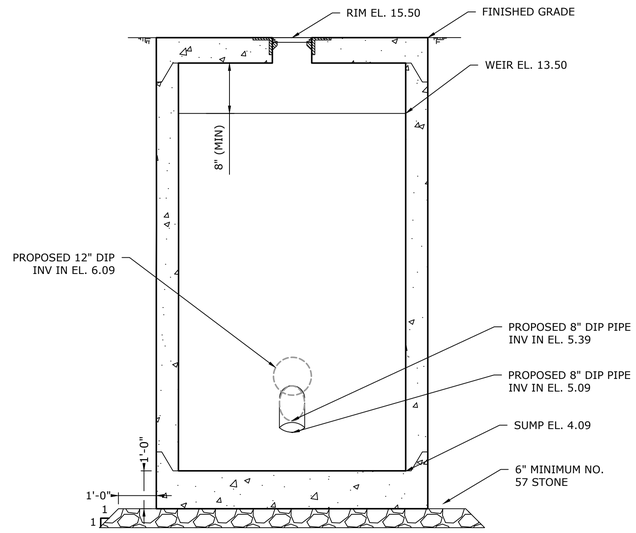
CONSULTANT DESIGN

File: G:\WS36-NYC\WS36-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\MH DETAIL Saved By: SKANE Save Date: 2026/05/05 1:01 PM
PLOT DATE: 2026/07/31 8:11:49 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\GN- CONTROL STRUCTURE MH1...\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT...\..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010

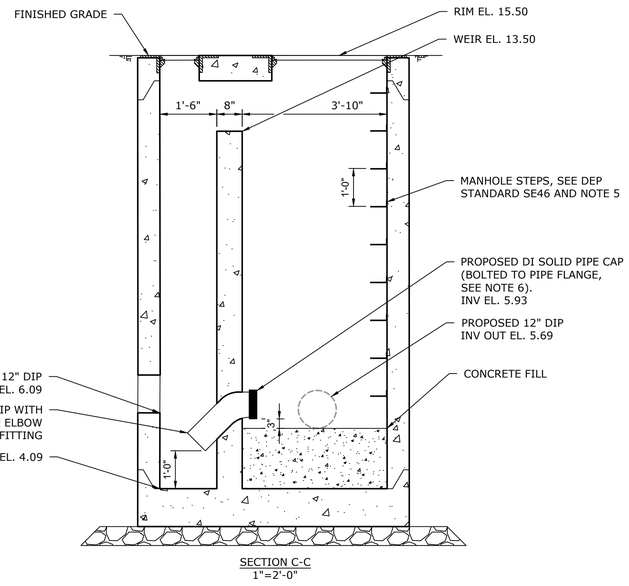


MANHOLE TOP PLAN
1"=1'-0"

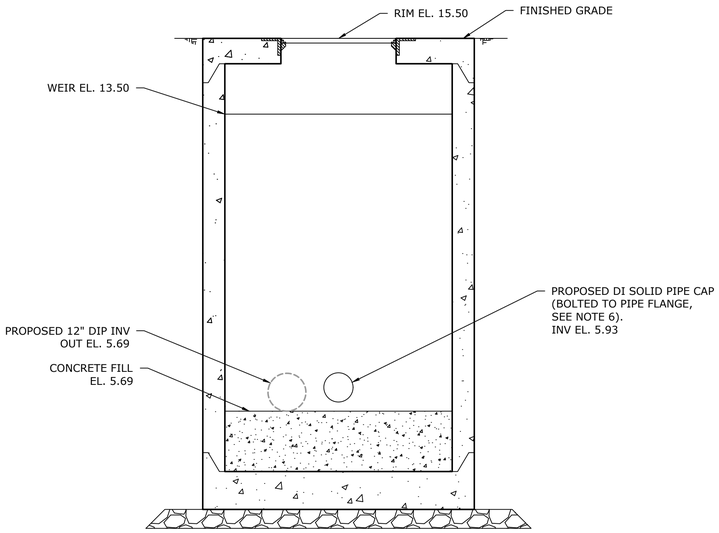
MANHOLE BOTTOM PLAN
1"=1'-0"



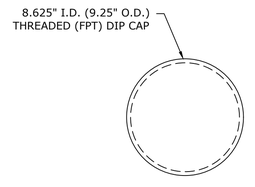
SECTION A-A
1"=2'-0"



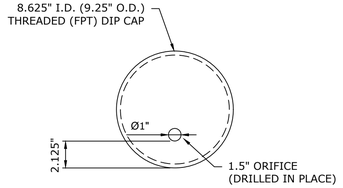
SECTION C-C
1"=2'-0"



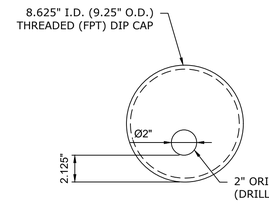
SECTION B-B
1"=2'-0"



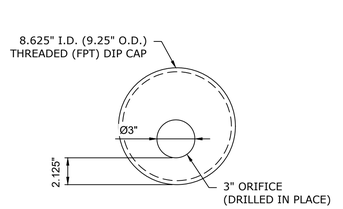
ORIFICE CAP
1"=0'-6"
FURNISH AND DELIVER 2 - SOLID ORIFICE CAPS
INSTALL 1 - SOLID ORIFICE CAP



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 1" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 2" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 3" ORIFICE CAP IF NEEDED

NOTES:

1. CONTRACTOR SHALL SUPPLY TWO(2) SOLID, THREADED ORIFICE CAPS FOR THE PROJECT. ONE (1) SOLID CAP SHALL BE INSTALLED IN THE FIELD. THE REMAINING SOLID CAP SHALL BE TURNED OVER TO NYCDEP FOR FUTURE USE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. REFER TO DETAILS 1-6 ON SHEET C902.
4. SEE GENERAL STRUCTURAL NOTES AND CONCRETE NOTES ON SHEET C902.
5. RUNGS SHOULD BE LOCATED 3" OFFSET FROM THE TOP SLAB OF THE MANHOLE, AND REPEAT EVERY 12".
6. BOLTS SHALL BE INSTALLED SO THAT THE BOLT HEAD IS ON THE WEIR WALL SIDE.

1
D-2

OCS MH #2 - MANHOLE WITH WEIR AND ORIFICE CAP DETAILS
AS SHOWN

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

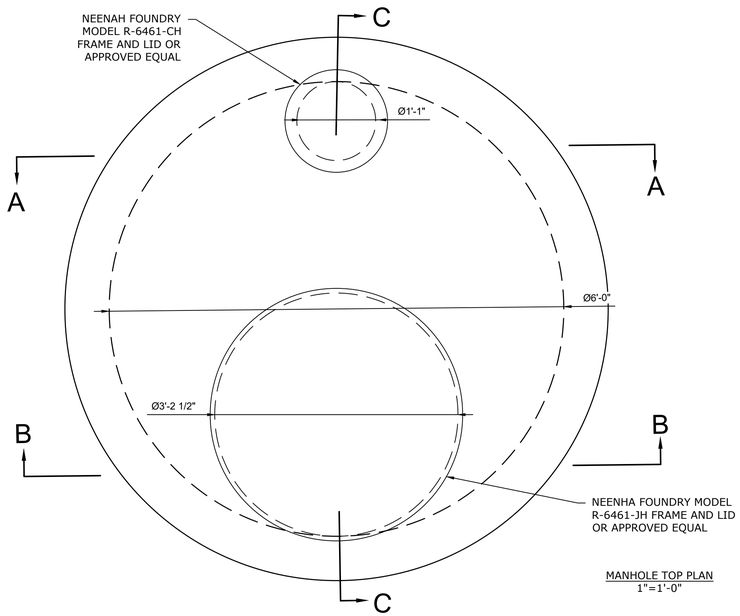
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
DETAILS

DATE JUL 2026
PAGE 91 OF 171
SHEET D-2

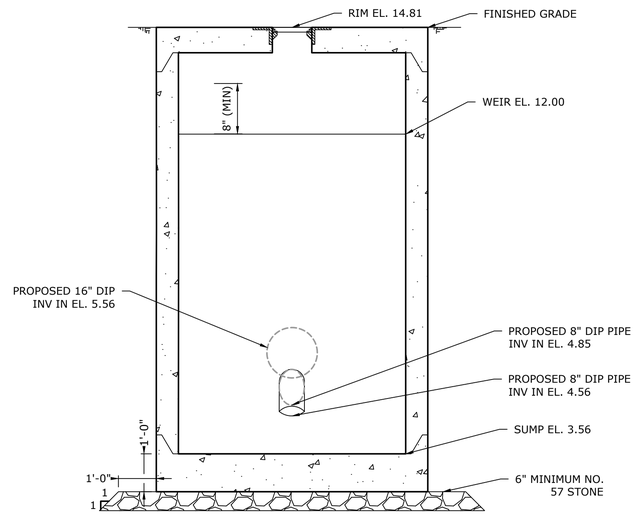
CONSULTANT DESIGN

File: O:\W336-NYC\W336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\WM2 DETAIL Saved By: WCARRAWAY Save Date: 2026/05/05 1:02 PM
PLOT DATE: 2026/07/31 8:11:54 AM BY: TAUTH

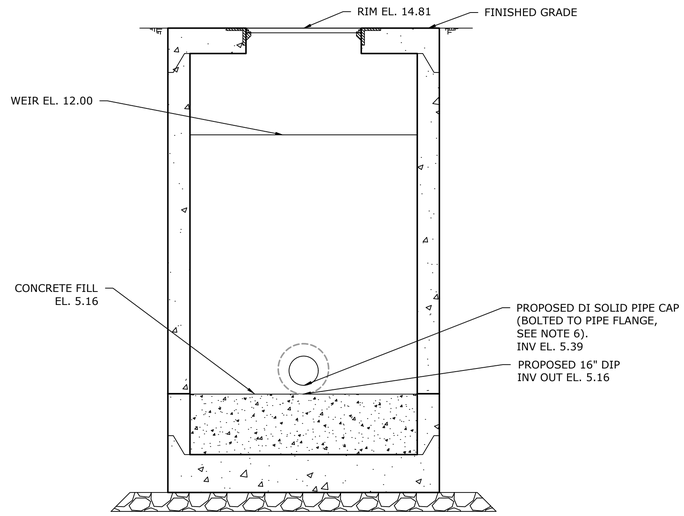
XREFs= ..\..\000-BASE\SE CONDUIT\CN- CONTROL STRUCTURE WM2..\..\BLOCK\SE CONDUIT\DEP-TB-SE CONDUIT..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



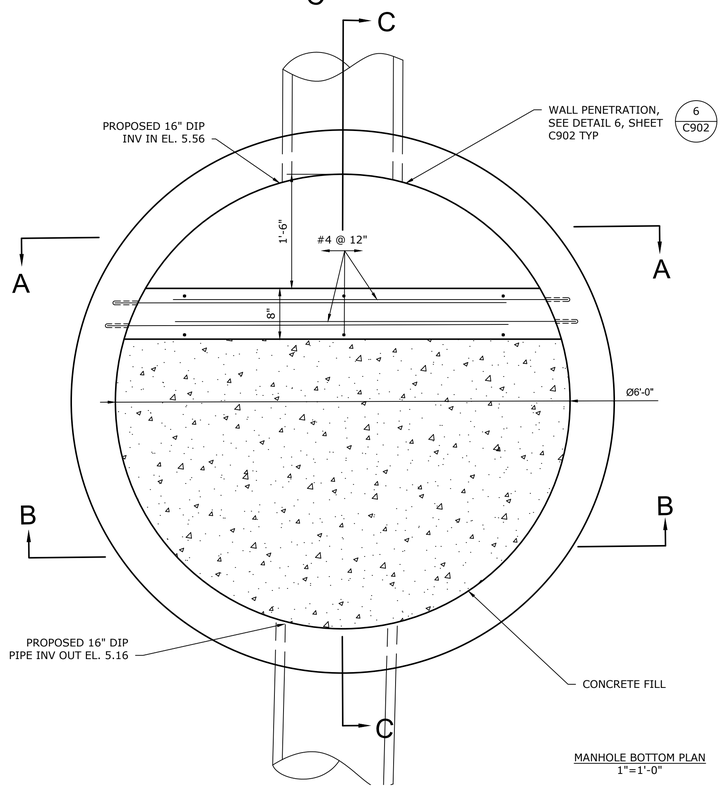
MANHOLE TOP PLAN
1"=1'-0"



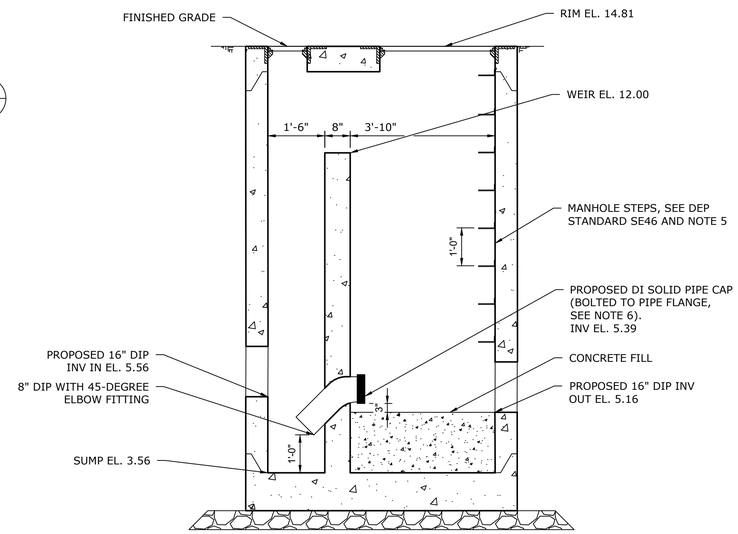
SECTION A-A
1"=2'-0"



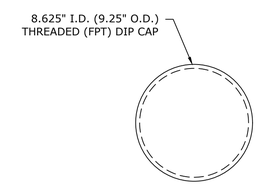
SECTION B-B
1"=2'-0"



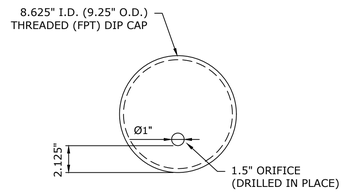
MANHOLE BOTTOM PLAN
1"=1'-0"



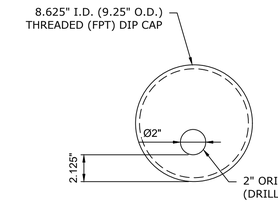
SECTION C-C
1"=2'-0"



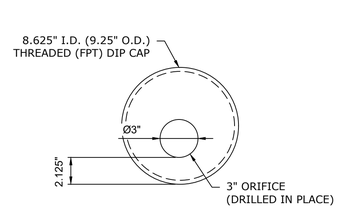
ORIFICE CAP
1"=0'-6"
FURNISH AND DELIVER 2 - SOLID ORIFICE CAPS
INSTALL 1 - SOLID ORIFICE CAP



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 1" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 2" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 3" ORIFICE CAP IF NEEDED

NOTES:

1. CONTRACTOR SHALL SUPPLY TWO(2) SOLID, THREADED ORIFICE CAPS FOR THE PROJECT. ONE (1) SOLID CAP SHALL BE INSTALLED IN THE FIELD. THE REMAINING SOLID CAP SHALL BE TURNED OVER TO NYCDEP FOR FUTURE USE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. REFER TO DETAILS 1-6 ON SHEET C902.
4. SEE GENERAL STRUCTURAL NOTES AND CONCRETE NOTES ON SHEET C902.
5. RUNGS SHOULD BE LOCATED 3" OFFSET FROM THE TOP SLAB OF THE MANHOLE, AND REPEAT EVERY 12".
6. BOLTS SHALL BE INSTALLED SO THAT THE BOLT HEAD IS ON THE WEIR WALL SIDE.

1 / D-3

OCS MH #3 - MANHOLE WITH WEIR AND ORIFICE CAP DETAILS

AS SHOWN

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — REGISTERED — Sandeep Mehrotra — PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

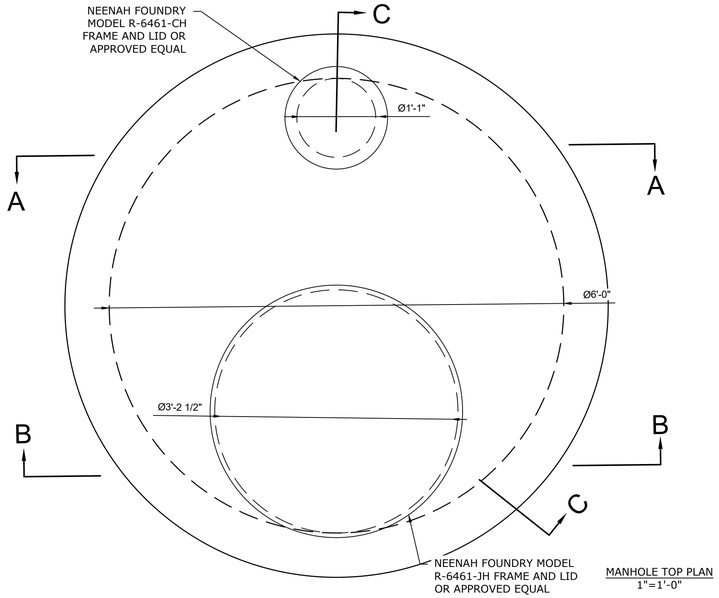
NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
DETAILS

DATE JUL 2026
PAGE 92 OF 171
SHEET D-3

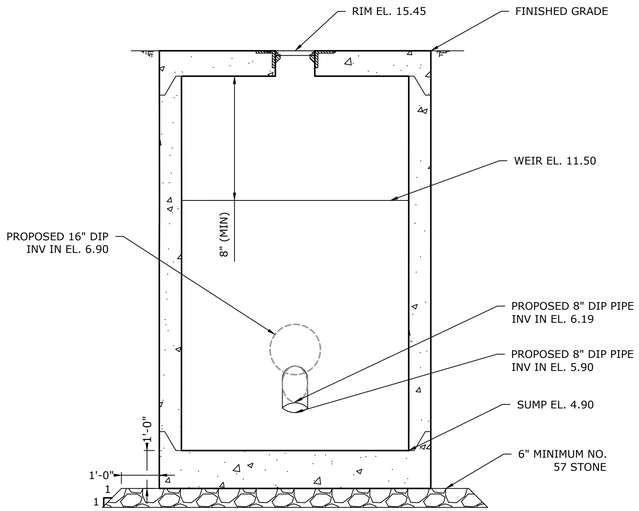
CONSULTANT DESIGN

File: O:\30536-NYC\30536-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\MH3 DETAIL Saved By: MCARRAWAY Save Date: 2026/06/05 1:01 PM
PLOT DATE: 2026/07/31 8:11:58 AM By: TAUTH

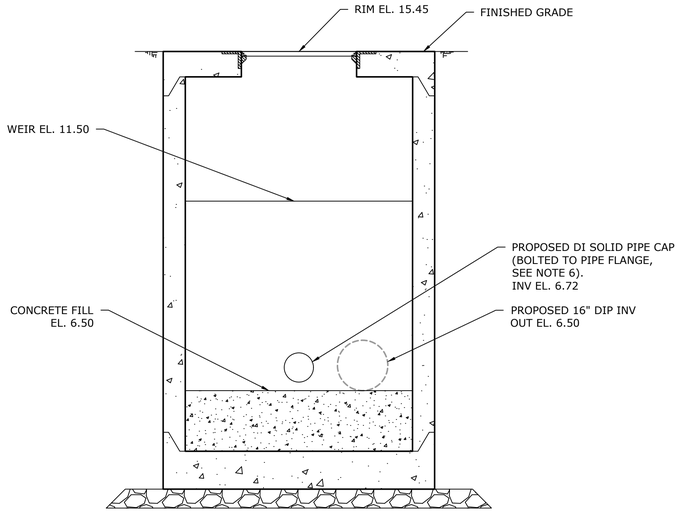
XREFs= ..\..\000-BASE\SE CONDUIT\CN- CONTROL STRUCTURE MH3...\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT...\..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



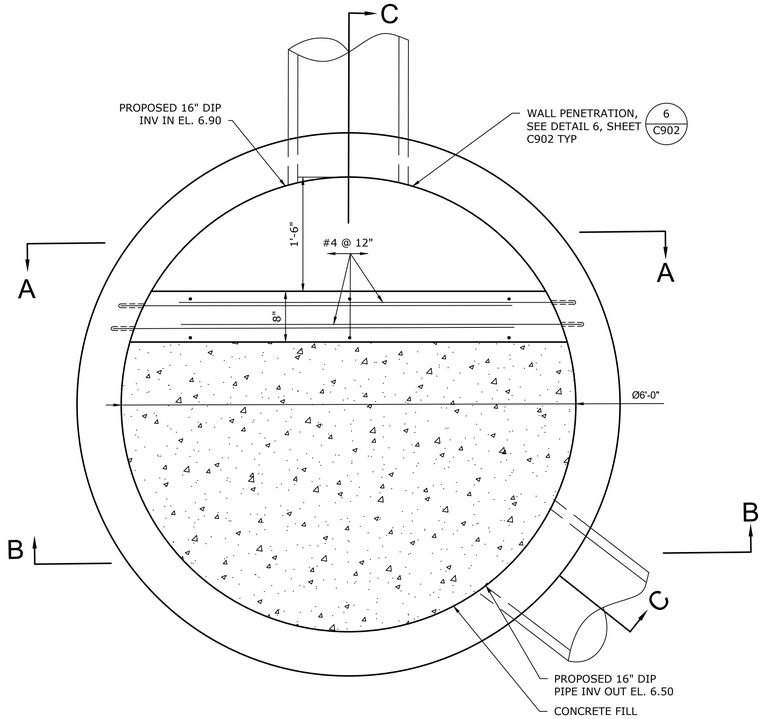
MANHOLE TOP PLAN
1"=1'-0"



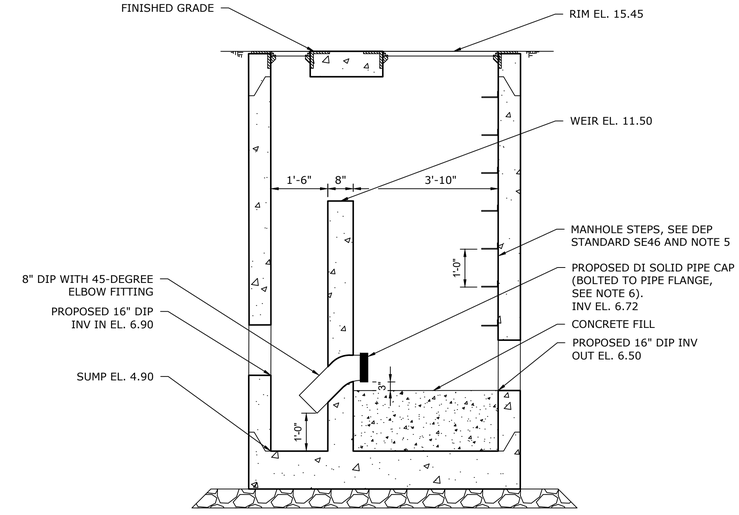
SECTION A-A
1"=2'-0"



SECTION B-B
1"=2'-0"



MANHOLE BOTTOM PLAN
1"=1'-0"

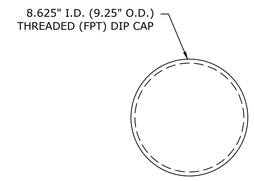


SECTION C-C
1"=2'-0"

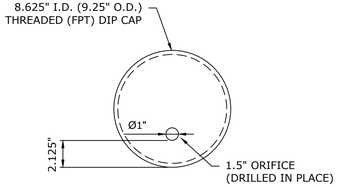
1
D-4

OCS MH #4 - MANHOLE WITH WEIR AND ORIFICE CAP DETAILS

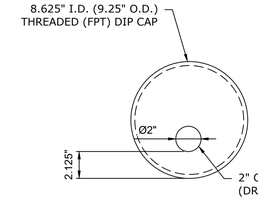
AS SHOWN



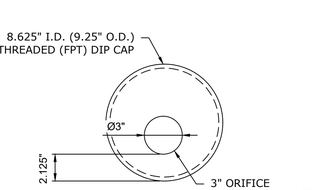
ORIFICE CAP
1"=0'-6"
FURNISH AND DELIVER 2 - SOLID ORIFICE CAPS
INSTALL 1 - SOLID ORIFICE CAP



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 1" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 2" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 3" ORIFICE CAP IF NEEDED

NOTES:

1. CONTRACTOR SHALL SUPPLY TWO(2) SOLID, THREADED ORIFICE CAPS FOR THE PROJECT. ONE (1) SOLID CAP SHALL BE INSTALLED IN THE FIELD. THE REMAINING SOLID CAP SHALL BE TURNED OVER TO NYCDEP FOR FUTURE USE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. REFER TO DETAILS 1-6 ON SHEET C902.
4. SEE GENERAL STRUCTURAL NOTES AND CONCRETE NOTES ON SHEET C902.
5. RUNGS SHOULD BE LOCATED 3" OFFSET FROM THE TOP SLAB OF THE MANHOLE, AND REPEAT EVERY 12".
6. BOLTS SHALL BE INSTALLED SO THAT THE BOLT HEAD IS ON THE WEIR WALL SIDE.

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT 83RD ST TO 88TH ST MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
DETAILS

DATE JUL 2026
PAGE 93 OF 171
SHEET D-4

CONSULTANT DESIGN

File: O:\W0336-NYC\W0336-011\DRAWINGS\CONTRACT DRAWINGS\SE CONDUIT\WH4 DETAIL Saved By: WCABRAWAY Save Date: 2026/06/05 1:02 PM
PLOT DATE: 2026/07/31 8:12:05 AM BY: TAUTH
XREFs= ..\..\000-BASE\SE CONDUIT\GN- CONTROL STRUCTURE WH4...\..\TBLOCK\SE CONDUIT\DEP-TB-SE CONDUIT...\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

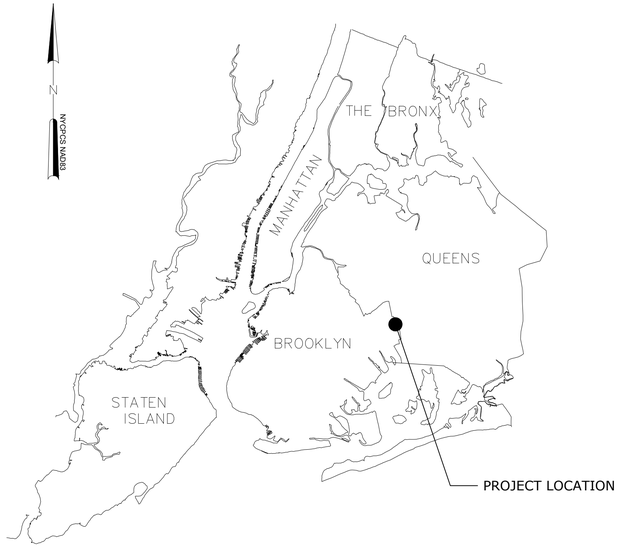
Environmental Protection

NEW YORK CITY ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

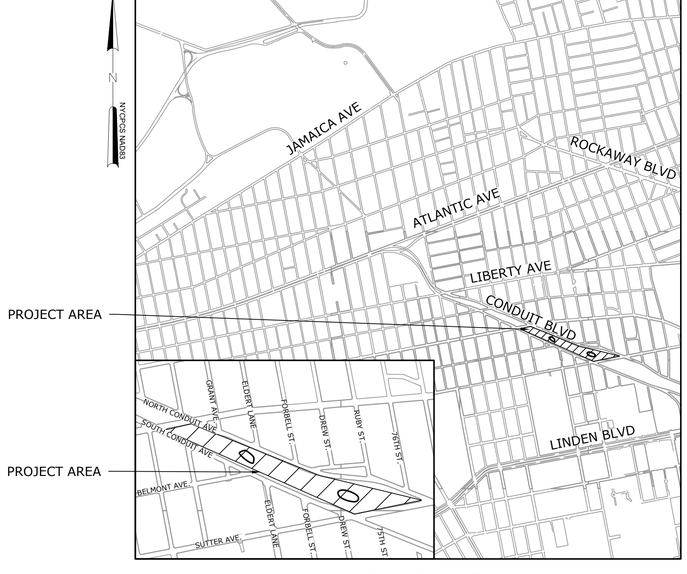
MEDIAN GREEN INFRASTRUCTURE
26TH WARD CSO TRIBUTARY AREA
OUTFALL 26W-005
DEP CAPITAL CONTRACT NO. GI-CONS-9
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE

QUEENS, NY

BID SET
NOVEMBER 2026



CONTRACT LOCATION



LOCATION PLAN
NTS

PROJECT AREA

John McLaughlin
Digitally signed by John McLaughlin
Date: 2026.11.02 12:21:59 -05'00'

JOHN MCLAUGHLIN
MANAGING DIRECTOR
OFFICE OF ECOSYSTEM SERVICES, GREEN INFRASTRUCTURE AND RESEARCH
BUREAU OF ENVIRONMENTAL PLANNING & ANALYSIS, NYCDEP

Lisa F. Garcia
Digitally signed by Lisa F. Garcia
Date: 2026.10.30 14:51:32 -04'00'

LISA F. GARCIA
COMMISSIONER
NYCDEP

NOT FOR CONSTRUCTION

SHEET LIST TABLE		
SHEET NUMBER (PDF)	DRAWING NUMBER	SHEET TITLE
GENERAL		
94	G-01	COVER - GRANT AVE TO SUTTER AVE
95	I-01	SHEET LIST
96	SC-1	SURVEY SHEET KEY PLAN & SURVEY CONTROL POINTS
97	TS-1	TOPOGRAPHIC AND UTILITY SURVEY
98	TS-2	TOPOGRAPHIC AND UTILITY SURVEY
99	TS-3	TOPOGRAPHIC AND UTILITY SURVEY
100	TS-4	TOPOGRAPHIC AND UTILITY SURVEY
101	TS-5	TOPOGRAPHIC AND UTILITY SURVEY
102	TS-6	TOPOGRAPHIC AND UTILITY SURVEY
103	TS-7	TOPOGRAPHIC AND UTILITY SURVEY
104	I-02	DESIGN SHEET KEY PLAN
SHEETS: SYSTEM 1		
105	MTA-01	MTA C&D GENERAL NOTES
106	MTA-02	MTA C&D GENERAL NOTES
107	MTA-03	MTA C&D GENERAL NOTES
108	S-10	EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN
109	TP-10	TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 5
110	R-10	REMOVAL PLAN - NW-01RGa
111	C-10	LAYOUT PLAN - NW-01RGa
112	GD-10	TRIBUTARY DRAINAGE AREA - NW-01RGa
113	GD-11	DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NW-01RGa
114	M-10	PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN
115	CS-10	PROFILE - NW-01RGa I
116	CS-11	PROFILE - NW-01RGa II
117	CS-12	PROFILE - NW-01RGa III
118	CS-13	CROSS SECTION - NW-01RGa
119	CS-14	PROPOSED CB CONNECTIONS - NW-01RGa

SYSTEM 2		
120	S-20	EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN
121	S-21	EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN
122	TP-20	TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 6
123	TP-21	TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 6
124	R-20	REMOVAL PLAN - NW-02RGa I
125	R-21	REMOVAL PLAN - NW-02RGa II
126	C-20	LAYOUT PLAN - NW-02RGa I
127	C-21	LAYOUT PLAN - NW-02RGa II
128	GD-20	TRIBUTARY DRAINAGE AREA - NW-02RGa
129	GD-21	DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NW-02RGa I
130	GD-22	DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NW-02RGa II
131	GD-23	ADA RAMP GRADING PLANS - SUTTER AVENUE AND N. CONDUIT AVENUE I
132	GD-24	ADA RAMP GRADING PLANS - SUTTER AVENUE AND N. CONDUIT AVENUE II
133	GD-25	ADA RAMP GRADING PLANS - SUTTER AVENUE AND N. CONDUIT AVENUE III
134	M-20	PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN I
135	M-21	PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN II
136	CS-20	PROFILE - NW-02RGa I
137	CS-21	PROFILE - NW-02RGa II
138	CS-22	PROFILE - NW-02RGa III
139	CS-23	PROFILE - NW-02RGa IV
140	CS-24	PROFILE - NW-02RGa V
141	CS-25	PROFILE - NW-02RGa VI
142	CS-26	PROFILE - NW-02RGa VII
143	CS-27	CROSS SECTION - NW-02RGa
144	CS-28	PROPOSED CB CONNECTIONS - NW-02RGa
DETAILS		
145	D-1	DETAILS
146	D-2	DETAILS

SYSTEM NW-01RGA - MTA CONSTRUCTION NOTES

1. THERE MUST BE NO MACHINE EXCAVATION, SAW CUTTING, OR DEMOLITION WITHIN 3 FEET OF MTA STRUCTURES, POWER DUCT LINES, OR ANY OTHER ASSETS UNTIL THEY HAVE BEEN CAREFULLY EXPOSED BY HAND EXCAVATION.
2. THE THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN WORKING WITHIN THE VICINITY OF THE NYCT STRUCTURES. THE CONTRACTOR SHALL BE DEEMED RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING NYCT STRUCTURES CAUSED BY CONTRACTOR OPERATIONS. ANY DAMAGE TO NYCT PROPERTY CAUSED BY CONTRACTOR OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR, AS DIRECTED BY THE NYCT ENGINEER, AT NO COST TO NYCT.
3. THE NYCT INSPECTOR IS REQUIRED DURING CONSTRUCTION. PLEASE CONTACT MOW ENGINEERING TO SCHEDULE A NYCT INSPECTOR AT LEAST 72 HOURS PRIOR TO CONSTRUCTION. TELEPHONE 718-694-1499 OR EMAIL CONTRACT.INSPECTION@NYCT.COM AND CC EPP-SAFETY@MTACD.ORG.
4. CONTRACTOR SHALL SUBMIT DETAILED MEANS AND METHODS FOR MTA REVIEW AND APPROVAL REGARDING THE PROPOSED WORK ADJACENT TO MTA STRUCTURE (WITHIN 200 FEET OF MTA PROPERTY). MEANS AND METHODS MUST SHOW WORK AREA IN PLAN, CROSS SECTION WITH INFLUENCE LINE, STEP-BY-STEP CONSTRUCTION PROCEDURE, EQUIPMENT/MATERIALS, AND CALCULATIONS.
5. CONTRACTOR SHALL SUBMIT SOE DRAWINGS AND CALCS FOR MTA REVIEW AND APPROVAL.

File: O:\90336-NYC\90336-010\CAD\CONTs\I-01 SHEET INDEX Saved By: JAUTH Save Date: 2026/07/31 8:54 AM
PLOT DATE: 2026/07/31 8:54:4 AM BY: TAUTH

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.



Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

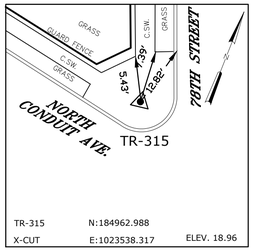
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

SHEET LIST

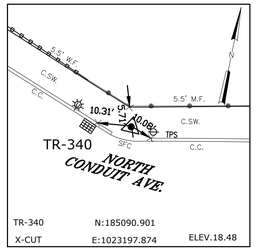
DATE JUL 2026
PAGE 95 OF 171
SHEET I-01

CONSULTANT DESIGN

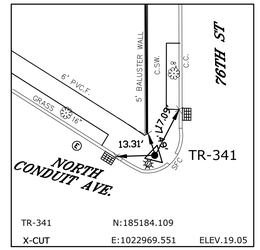
XREFs= .._TBLOCK\90336-010_TB_HAZEN..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



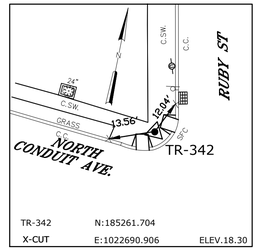
TR-315 N:184962.988
X-CUT E:1023538.317 ELEV. 18.96



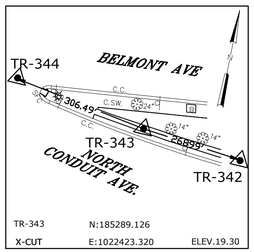
TR-340 N:185090.901
X-CUT E:1023197.874 ELEV.18.48



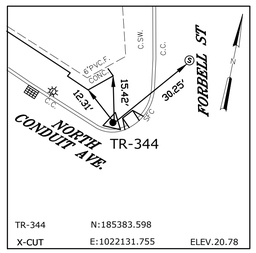
TR-341 N:185184.109
X-CUT E:1022969.551 ELEV.19.05



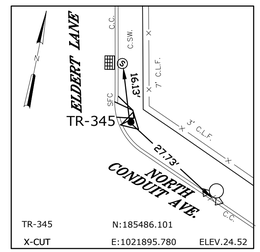
TR-342 N:185261.704
X-CUT E:1022690.906 ELEV.18.30



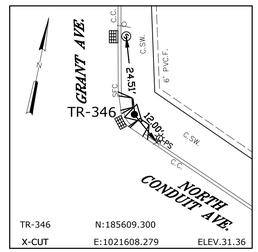
TR-343 N:185289.126
X-CUT E:1022423.320 ELEV.19.30



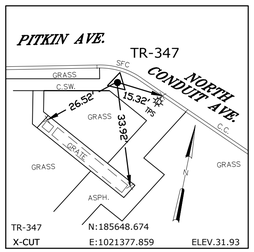
TR-344 N:185383.598
X-CUT E:1022131.755 ELEV.20.78



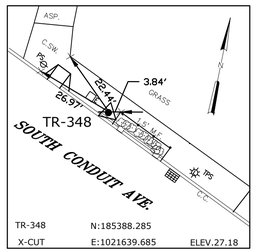
TR-345 N:185486.101
X-CUT E:1021895.780 ELEV.24.52



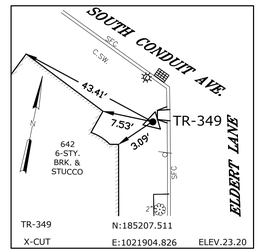
TR-346 N:185609.300
X-CUT E:1021608.279 ELEV.31.36



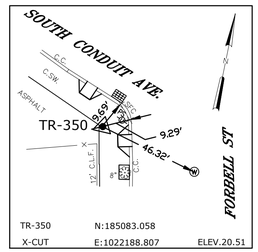
TR-347 N:185648.674
X-CUT E:1021377.859 ELEV.31.93



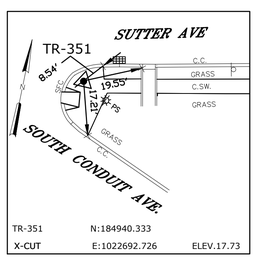
TR-348 N:185388.285
X-CUT E:1021639.685 ELEV.27.18



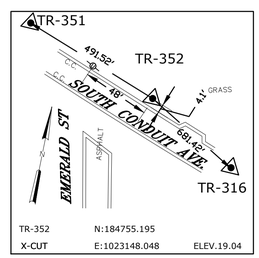
TR-349 N:185207.511
X-CUT E:1021904.826 ELEV.23.20



TR-350 N:185083.058
X-CUT E:1022188.807 ELEV.20.51

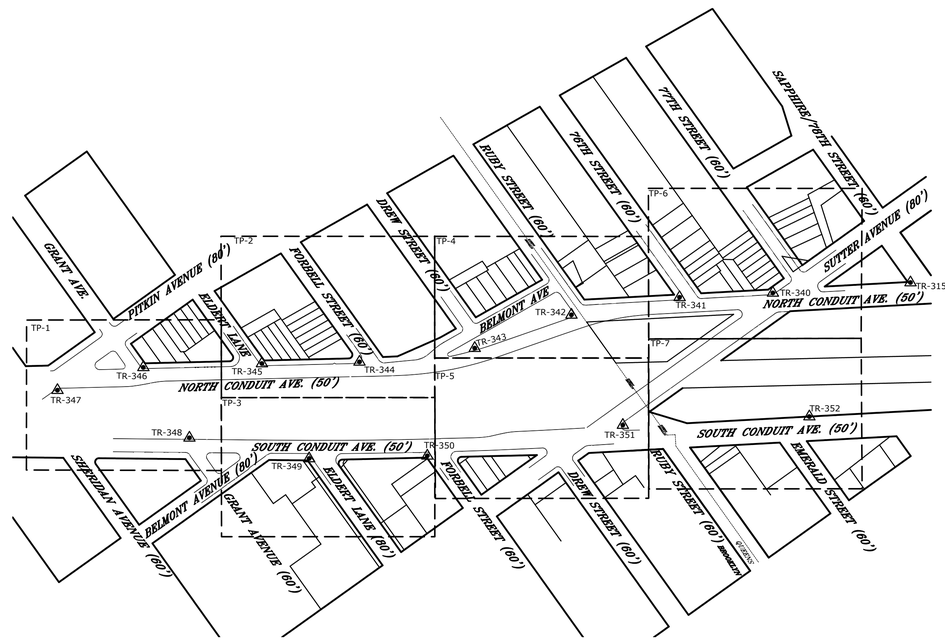


TR-351 N:184940.333
X-CUT E:1022692.726 ELEV.17.73



TR-352 N:184755.195
X-CUT E:1023148.048 ELEV.19.04

TIES
N.T.S.



KEY MAP
N.T.S.

NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS DATUM = NAVD88 - 1.625 FEET.
   BOROUGH PRESIDENT OF BROOKLYN HIGHWAY DATUM = NAVD88 - 1.460 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

File = F:\PROJ\T\1855.22\DWG\Separate Contracts SL_4-4-2025\1855.22_NW Conduit Ave Scoed by jpiarullo Scoe date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:05 PM BY: JARAMILLO
XREFs=

NO.	DATE	ISSUED FOR	BY

DESIGNED ____ DRAWN K.O. CHECKED P.S. PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

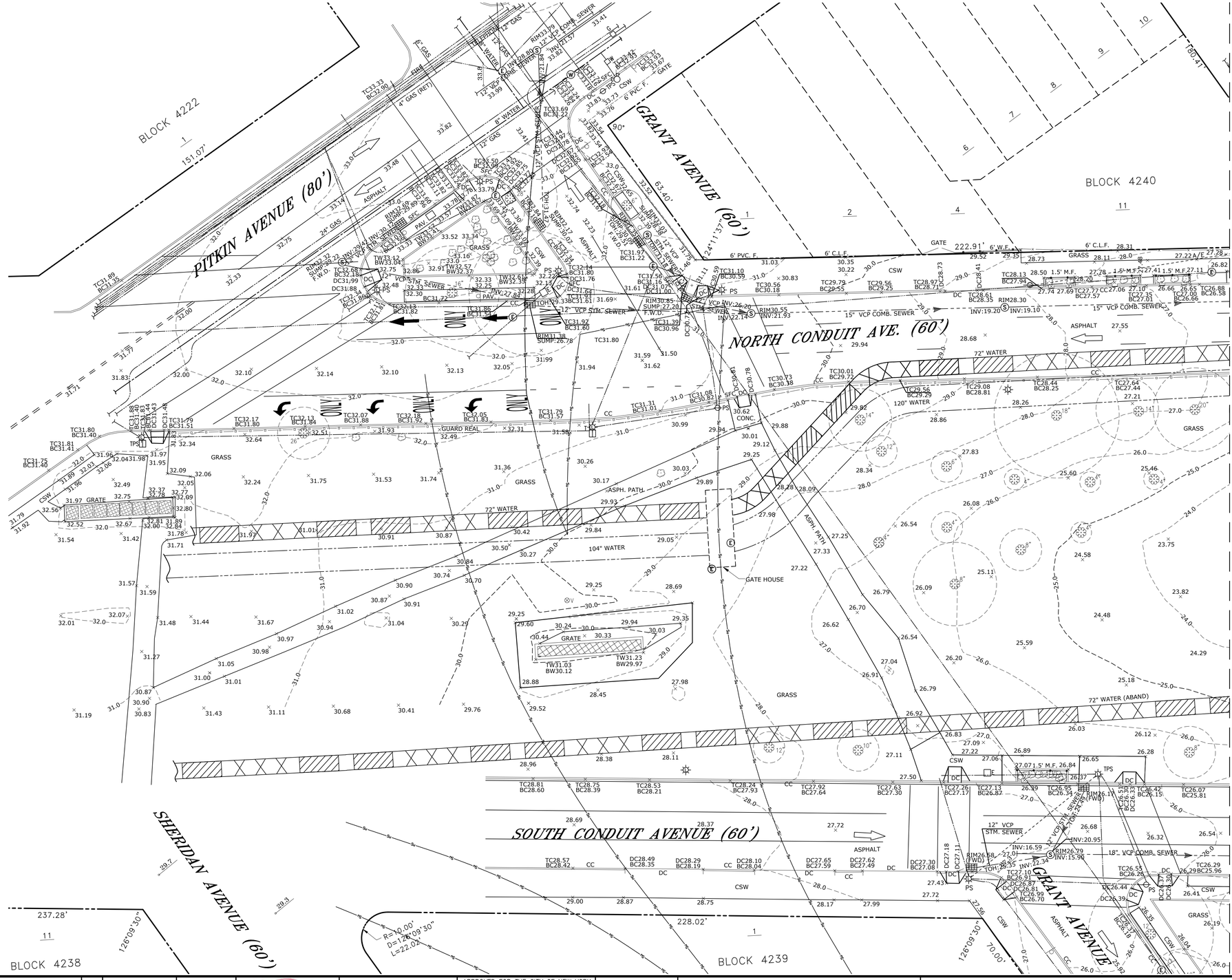
APPROVED FOR THE CITY OF NEW YORK
____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
KEY MAP & SURVEY CONTROL PLAN

DATE: JUL 2026
PAGE: 96 OF 171
SHEET: SC-1



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BOROUGH PRESIDENT OF BROOKLYN HIGHWAY DATUM = NAVD88 - 1.460 FEET. BOROUGH PRESIDENT OF BROOKLYN SEWER DATUM = NAVD88 - 0.62 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED _____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. _____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — PAUL SURVEYOR — LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967–6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

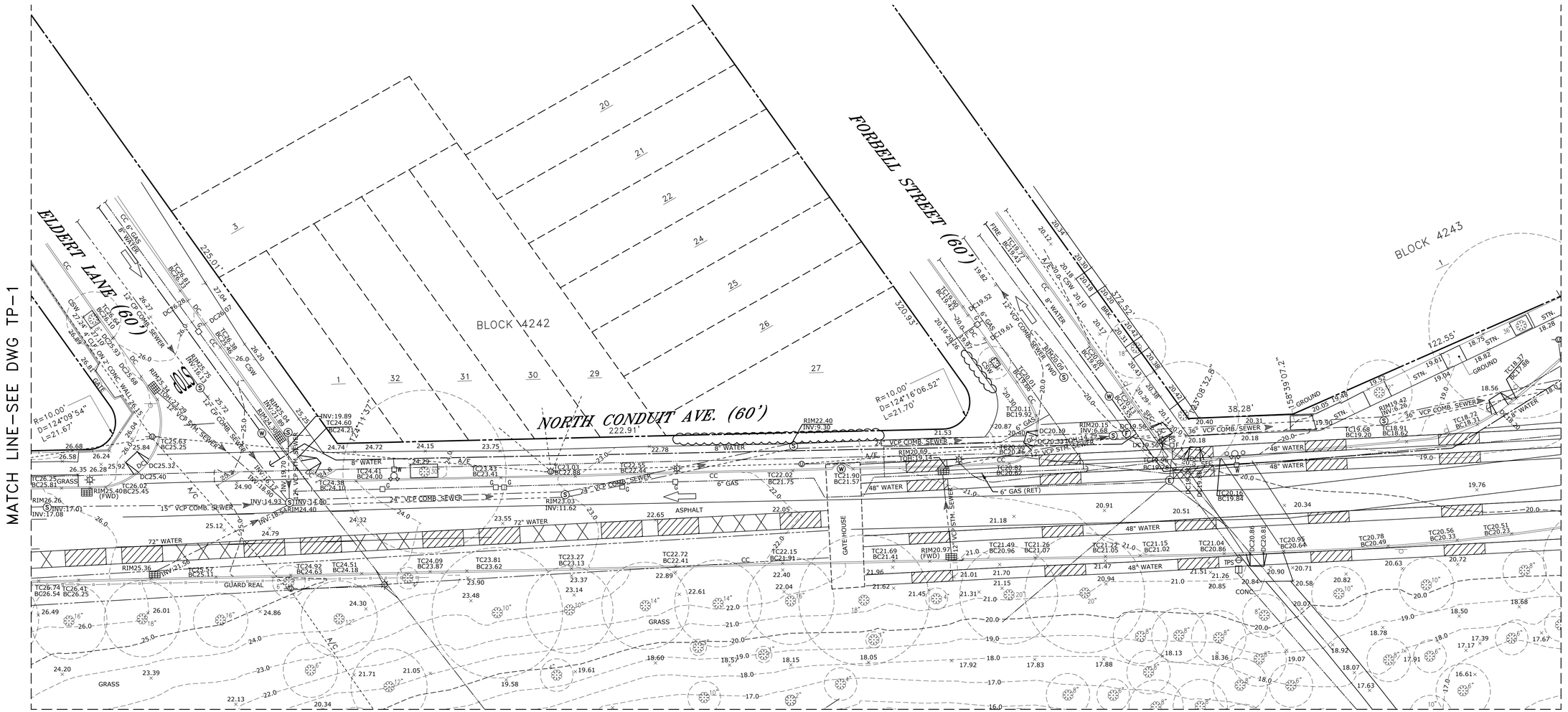
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 97 OF 171
SHEET: TS-1

File = F:\PROJECTS\BS123\GIP\Corporate Contracts 2G_4+4-2025\11BS123_2_NW Conduit Ave Scoped by Jjimenillo Sow date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:00 PM BY: JJIMENILLO
XREFs=



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF BROOKLYN HIGHWAY DATUM = NAVD88 - 1.460 FEET.
   BOROUGH PRESIDENT OF BROOKLYN SEWER DATUM = NAVD88 - 0.62 FEET.

2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.

3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED ____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — JOHN FORD — LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

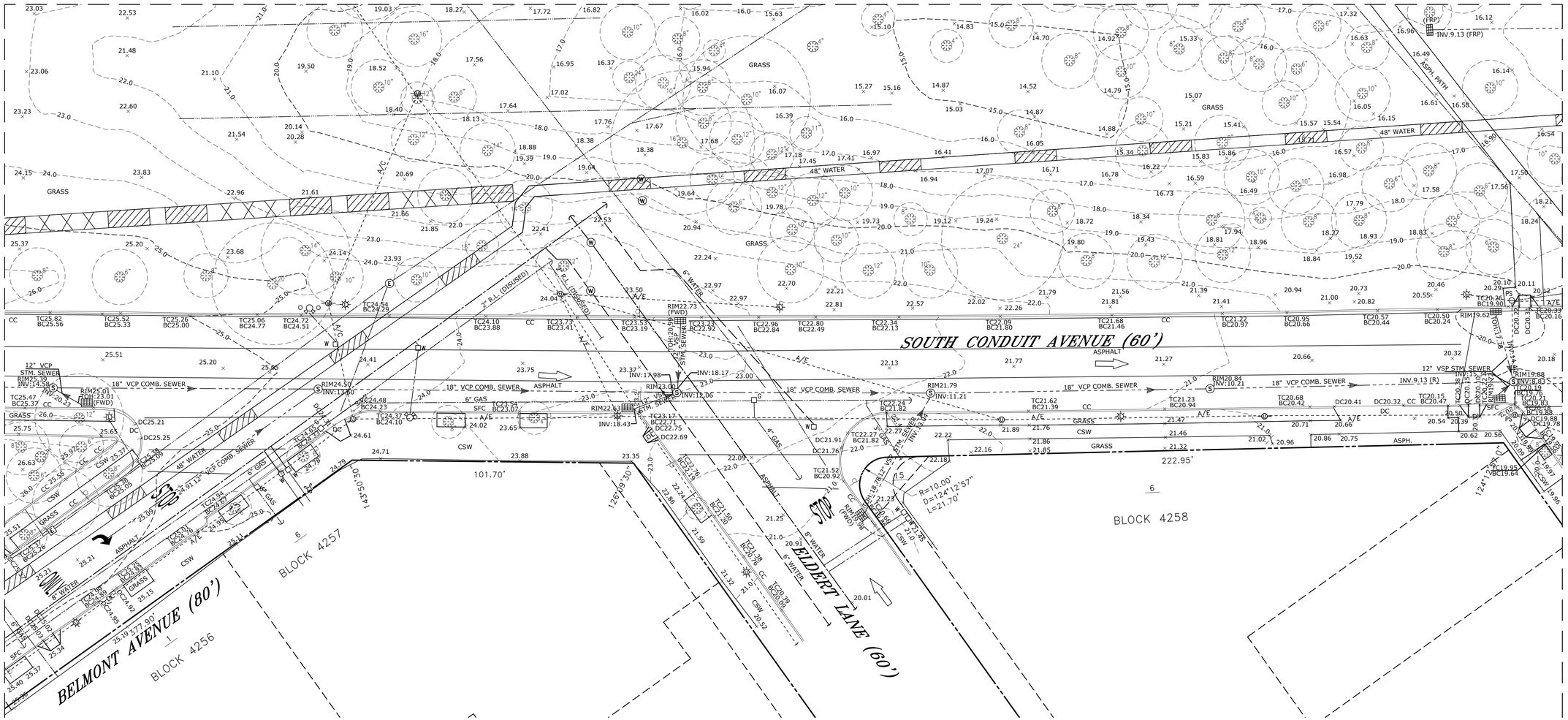
DATE:	JUL 2026
PAGE:	98 OF 171
SHEET:	TS-2

File = F:\PROJ\13825.22\DWG\Upgrade Contracts SS_4-4-2025\13825.22_NW Conduit Ave Sewer.dwg Saved by jjaramillo Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:00 PM BY: JJARAMILLO
XREFs=

MATCH LINE–SEE DWG TP–2

MATCH LINE–SEE DWG TP–1

MATCH LINE–SEE DWG TP–5



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF BROOKLYN HIGHWAY DATUM = NAVD88 - 1.460 FEET.
   BOROUGH PRESIDENT OF BROOKLYN SEWER DATUM = NAVD88 - 0.62 FEET.

2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.

3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED ____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — JOHN CONRAD — LICENSED LAND SURVEYOR — 049466

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

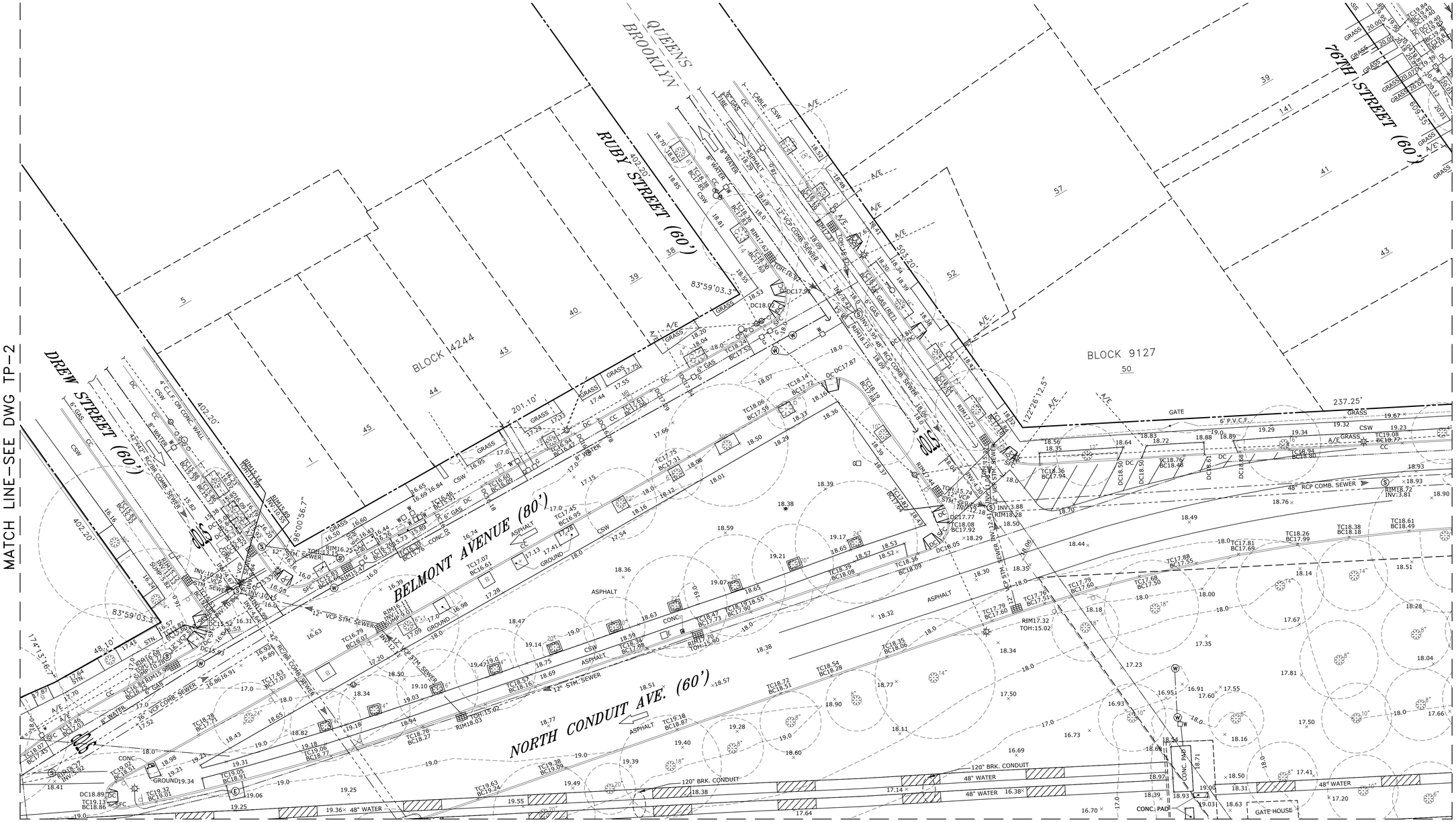
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 99 OF 171
SHEET: TS-3

File = F:\PKCT\1825.22\DWG\Upgrade Contracts SS_4-4-2025\1825.22_NW Conduit Xss Scned by Jaramillo Scnr.dcm = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:00 PM BY: JARAMILLO
XREFs=



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
   BOROUGH PRESIDENT OF BROOKLYN HIGHWAY DATUM = NAVD88 - 1.460 FEET.
   BOROUGH PRESIDENT OF BROOKLYN SEWER DATUM = NAVD88 - 0.62 FEET.

2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.

3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED _____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. _____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK · ANGELO SORRENTINO · 050868 · LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967-6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 100 OF 171
SHEET: TS-4

File = F:\PROJECTS\18533\29\CAD\Separate Contracts (SL,4+,2025)\18533_29_NW Conduit Ave Scope by Jjamalillo Saw.dgn = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:07 PM BY: JJAMALILLO
XREFs=

MATCH LINE–SEE DWG TP–4

MATCH LINE–SEE DWG TP–3

MATCH LINE–SEE DWG TP–7

QUEENS
BROOKLYN

SOUTH CONDUIT AVENUE (60')

SUTTER AVENUE (80')

FORBELL STREET (60')

DREW STREET (60')

BLOCK 4259

BLOCK 4275

BLOCK 4726

GATE HOUSE

CONC. PAD

GROUND PATH

ONLY

ONLY

ONLY

NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
   BOROUGH PRESIDENT OF BROOKLYN HIGHWAY DATUM = NAVD88 - 1.460 FEET.
   BOROUGH PRESIDENT OF BROOKLYN SEWER DATUM = NAVD88 - 0.62 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED _____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. _____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — ANGELO IOANNIDES — LICENSED LAND SURVEYOR

MUÑOZ ENGINEERING P.C.
608 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967–6588

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE:	JUL 2026
PAGE:	101 OF 171
SHEET:	TS-5

File = F:\PLAT\1925.22\DWG\Upgrade Contracts SL_4-4-2025\1925.22_NW Conduit Ave Sewer.dwg by jpramilo. Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:01 PM BY: JJARAMILLO
XREFs=

MATCH LINE–SEE DWG TP–4

MATCH LINE–SEE DWG TP–7

NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
   BOROUGH PRESIDENT OF BROOKLYN SEWER DATUM = NAVD88 - 0.62 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED _____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. _____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK · ANGELO TOMPKINS · LICENSED LAND SURVEYOR · 050668

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967–6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

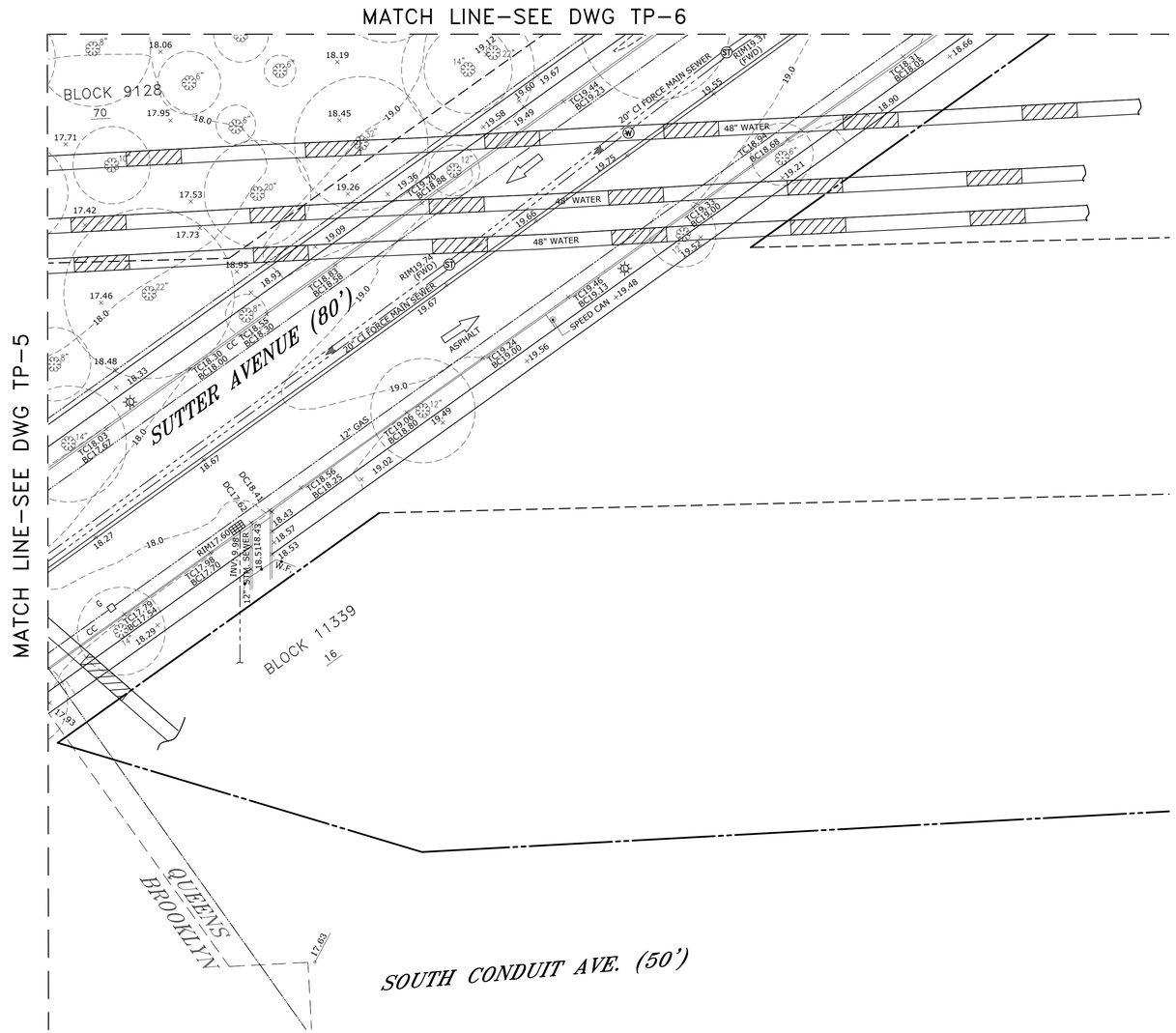
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 102 OF 171
SHEET: TS-6

File = F:\PROJECTS\BS22\GWO\Separate Contracts DS_4+4-2025\1825.22_NW Conduit Ave Saved by jjamello Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:07 PM BY: JJAMELLO
XREFs=



NOTES:

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   BOROUGH PRESIDENT OF QUEENS HIGHWAY DATUM = NAVD88 - 1.625 FEET.
   BOROUGH PRESIDENT OF BROOKLYN SEWER DATUM = NAVD88 - 0.62 FEET.
2. LOCATIONS, EXTENT AND SIZES OF UNDERGROUND UTILITIES AND SUBSTRUCTURES HAVE BEEN DETERMINED FROM RECORD INFORMATION, SUPPLEMENTED BY DATA OBTAINED IN THE FIELD. ACCURACY OF THIS UTILITY DATA IS NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES AND SUBSTRUCTURES, WHETHER FUNCTIONAL OR ABANDONED, ARE SHOWN ON THIS MAP.
3. FIELD SURVEY WAS COMPLETED ON: DECEMBER 2022.

0 10' 20' 40' 60'
1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED ____
DRAWN K.O.
CHECKED P.S.
PROJ.ENGR. ____

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

MUÑOZ ENGINEERING P.C.
505 EIGHTH AVENUE
NEW YORK, N.Y. 10018
TEL. (212) 967–6588

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

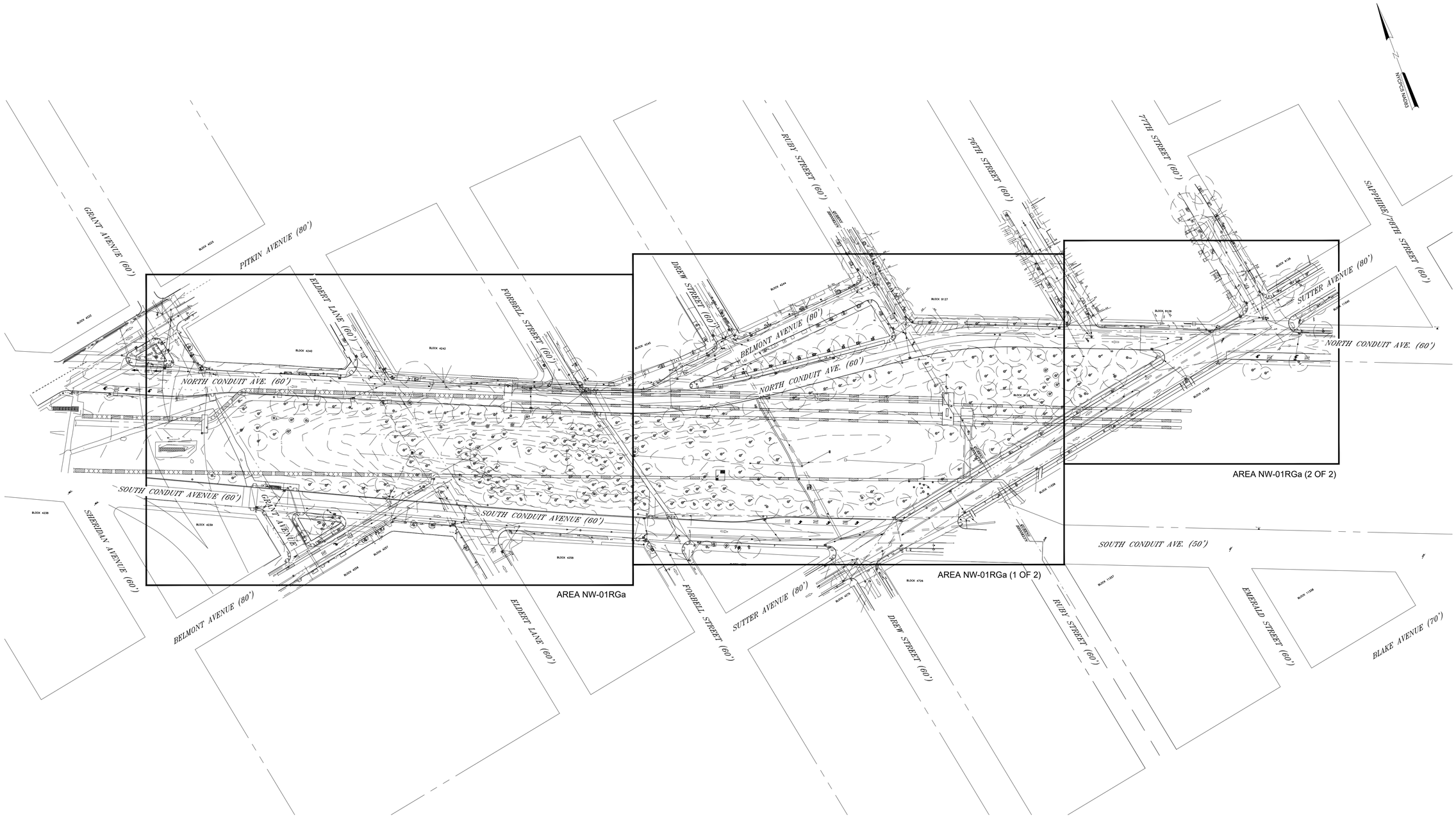
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

GREEN INFRASTRUCTURE PLANNING - GI-P DESIGN-3
ON SITE GREEN INFRASTRUCTURE AT NW & SE CONDUIT INVESTIGATIONS
TOPOGRAPHIC AND UTILITY SURVEY

DATE: JUL 2026
PAGE: 103 OF 171
SHEET: TS-7

File = F:\PROJECTS\8533-23\WD\Separate Contracts SI_4-4-2025\11825.22_NW Conduit Ave Saved by jjaramillo Save date = 4/4/2025 12:58 PM
PLOT DATE: 4/4/2025 1:01 PM BY: JJARAMILLO
XREFs=



PLAN

SCALE: 1" = 80'

1" = 80' 80 40 0 80'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK

ENVIRONMENTAL PROTECTION

BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

DESIGN SHEET KEY PLAN

DATE JUL 2026
PAGE 104 OF 171
SHEET I-02

CONSULTANT DESIGN

File: D:\WI336-NYC\WI336-010\CAD\CIVIL\KEY PLAN Saved By: TMUTH Save Date: 2026/06/03 1:01 PM
Plot Date: 2026/07/31 7:40:21 AM By: TMUTH

XREFs= ..\000_BASE\CX-STRU..._TBLOCK\WI336-010_TB_HAZEN...\..\..\Work Plan\0-Reference Material\502 CAD Templates\[Electronic Seal\Sandeep's Seal-2010

MTA C&D External Partner Program General Notes 2026

EPP Adjacency Drawing Review Process:

1. Applicants must obtain archival drawings/as-builts for MTA/NYCT structures for any proposed construction work within 200 ft of MTA/NYCT property, structures, assets, and operations. Requests for these drawings must be made using the EPP Archive Information Request Form
2. Archival drawing information of MTA/NYCT properties and/or structures must be overlaid onto the proposed engineering drawings in both plans and section views. All distances and dimensions must be clearly identified and referenced relative to MTA/NYCT property and structures. These references should include landmarks, property lines, curbs, and other relevant features shown on as-built drawings. This ensures the proposed work is accurately located in relation to existing MTA/NYCT infrastructure.
3. The proposed engineering drawings must call out all MTA/NYCT structure elements. This includes, but is not limited to, tunnels and mezzanine roof plans, elevated columns, vents, ducts, manholes, gratings, stations, substations, emergency exits, and subway entrances. The proposed engineering drawings must illustrate the influence line of MTA/NYCT structures in relation to the adjacent proposed work. This includes, but is not limited to, SOE, FO, and NB. Follow EPP Construction Guidelines for each construction type to prepare engineering drawings for adjacent projects.
4. The engineering drawings and supporting documents must be submitted via the EPP online platform for review and approval. All drawings and calculations must be signed and sealed by a Professional Engineer, Registered Architect, or Landscape Architect licensed in the state of New York.
5. The EPP General Notes and MTA NFB Insurance Clauses, in their entirety, must be included in the Project's proposed contract drawings.
6. Appropriate supporting documentation must be uploaded as separate files for a successful review, including but not limited to the DOB PW-1 or DOT Permit, geotechnical reports, and engineering calculations.
7. Before the start of construction, the applicant must meet the following MTA requirements: all proposed engineering drawings must receive a written disposition from EPP, either “No Impact” or “Approved” / “Approved as Noted”.
8. Projects receiving “Approved”/”Approved as Noted” dispositions must have an executed agreement with MTA, approved insurance by MTA, and meet minimum MTA Safety requirements. Once all requirements are met, an NTP will be issued.
9. EPP has the right to rescind dispositions of “No Impact”, “Approved” / “Approved as Noted”, and NTPs.
10. Third-party work cannot interfere with the maintenance, safety, and operations of any part of the MTA.

Pre-construction

11. MTA bus operations/routes affected by the project may require bus diversions. These arrangements must be made by contacting Mr. Robert Lai, Senior Director, Operations Planning at (646) 252-8589, Email: Robert.lai@mtabusco.com, when impacting any bus stop. Special Operations must be notified four weeks in advance.
12. Before the start of work, insurance documentation and an executed letter agreement must be submitted via the EPP online platform for review and approval. Proof of active approved insurance from MTA Risk and Insurance Management (RIM) is required before work may begin. For more information, check the current Insurance Guidelines.
13. Once EPP approval is obtained, the applicant must contact the EPP Safety Department at EPP-Safety@mtacd.org for Safety Requirements before the start of construction.
14. Once the EPP-required documents have been received, the project must receive a Notice to Proceed (NTP) before scheduling the start of work with MOW Contract Inspections. The following items must be submitted and approved for an NTP to be issued:
    a) Approved engineering drawings.
    b) Executed Legal agreement.
    c) Approved Insurance.
    d) Safe Work Plan (SWP), Health and Safety Plan (HASP), or other Safety documents as directed.
15. Upon approval of the engineering drawings, execution of the letter agreement, MTA-RIM-approved insurance, and meeting the minimum MTA Safety requirements, the project must notify the NYCT/MOW Contract Inspections unit to coordinate the start of work, providing at least 72 hours' notice. Notification must be given to Contract Inspection at contract.inspection@nyct.com, telephone: (718) 694-1499 / (718) 694-1385.
16. Before work begins, the Contractor must survey the inside and outside of the MTA/NYCT structure, assets, or property, as well as adjacent areas such as sidewalks, in the presence of the MTA/NYCT Inspector. Individuals authorized by the Contractor to perform these surveys must be approved by the NYCT MOW Contract Inspections Unit. The Contractor must take photographs as needed or as directed to document the MTA structure's condition. Any structural deficiencies found must be made safe before work starts. The Contractor must submit a copy of the pre-construction survey with photos to NYCT MOW Contract Inspection unit at contract.inspection@nyct.com or call (718) 694-1499 / (718) 694-1385 before start of construction.
17. If the project involves construction or alteration of a subway facility, the property owners must enter into a separate indemnity agreement with the MTA pertaining to all work affecting the transit facilities with clearly defined limits and responsibility for maintenance and liability prior to the start of work.
18. Before working within the MTA/NYCT Right-of-Way (ROW), Contractor or Subcontractor’s personnel must have valid MTA/NYC Track Safety Training and must follow MTA rules and regulations per training and instructions. (Personnel must have approved insurance and an executed access agreement). Encroachment, construction staging, or personnel presence within MTA ROW without a written authorization is prohibited.
19. If a change in field conditions is found or deviations are made from the approved drawings, MTA may elect to issue a stop work order until revised drawings are resubmitted and approved by MTA EPP.
20. The NYC Transit (NYCT) reserves the right to place inspectors, flagmen, or other personnel in the subway structures during construction of the project linked by a telephone system, if deemed necessary, to observe the effects of the construction on the transit facilities. NYCT further reserves the right to place such personnel whenever, in its opinion the project conditions warrant such placement, regardless of distance. The cost of such personnel, telephone installation and any re-routes, diversions of service, work trains, etc., made necessary by the project, must be borne by the project or the responsible New York City/State Agency.
21. The general requirements for MTA Station Areas or temporary Stairway closures are as follows:
    a) Approvals for closing any stairway must be obtained from the Division of Station Programs at least four to six weeks before the proposed closure.
    b) The Office of Station Programs; email: StationProgramsManagement@nyct.com, of the Division of Stations must be notified six weeks prior to the actual closing and reopening of the entrance.
    c) Signage must be supplied and posted at least two weeks in advance, advising the public on the proposed subway stair closing.
    d) The street entrance stairway must not be closed unless manpower and materials are available to commence work on dates permitted.
    e) Once closing is effective, construction signs must be placed at appropriate locations on the barricades at the street and mezzanine levels, stating the contractor’s name, 24-hour emergency telephone number, contract number, the duration of closing, direction to an alternate entrance/exit, and an apology for the inconvenience to our customers.
    f) Existing station signage must be adjusted to reflect any changes in access/egress.
    g) Barricades must be painted Federal Blue and made of fire-rated material. Barricades must be kept graffiti-free at all times. The contractor must maintain the barricaded area clean of all debris.
    h) All materials must be properly stored and secured away from customer traffic.
    i) The Contractor must remove all waste material and barricades from all station areas when construction is completed.
    j) Inspection of the area under construction by authorized NYCT Station Department employees must not be inhibited.
    k) If streetlights on the sidewalks are affected, temporary lights must be provided.
    l) Pre-construction survey report of the stairway shall be performed in the presence of MOW Contract Inspector (as required), and the report must be sent to contract.inspection@nyct.com. This report must include photos of all the walls, stairs, signs, and a drain test.

Construction

22. MTA access points, including but not limited to entrances and exits, emergency exits, hatches, manholes, and driveways, must be unobstructed at all times.
23. The MTA, at its discretion, reserves the right to require the project to close, or to maintain and protect existing subway entrances, ventilators, structures, and adjacent property during construction. Construction activities may include underpinning, shoring, bracing, and the erection of suitable barricades, canopies, and shields. All protection measures must comply with drawings and calculations submitted to EPP for review and approval.
24. Any damage to MTA property, structure, assets, or any elements must be repaired and/or replaced with the same in kind, subject to the approval of the MTA EPP Engineer at the expense of the project, contractor, and/or owner.
25. At the close of any project involving construction or alterations to transit facilities, “approved as-builts” drawings shall be submitted in .pdf and .dgn formats to the MTA record. For details on specific requirements, contact the EPP Project Manager.
26. The MTA will issue a Stop Work Order when the MTA/NYCT Inspector determines that the site has unsafe conditions or work is being done without the required approval.

Construction Equipment, Shielding, Temporary Structures

27. Tractors, cranes, excavators, and any heavy equipment used in the vicinity of the elevated structures must be isolated from the ground. Since the elevated structure is used as a negative return path, with a consequent potential between it and the ground, any contact between the structure and grounded equipment could result in burning of the steel.
28. Temporary and permanent shield installation plans and calculations, which protect MTA facilities and/or the public, must be submitted to MTA EPP for approval. The plans must include the location, design load, type, and method of attachment to the transit structure. Drilling through, welding to, using destructive methods on, or any type of permanent alteration of any MTA structures will not be allowed for shield attachments.
29. Construction of the shields must prevent any dust, debris, concrete, formwork, paint, tools, etc., from falling on or adjacent to the property below.
30. The erected protective shields must not infringe on any existing minimum vertical or horizontal MTA clearances.
31. All shield work must be performed with an MTA/NYCT inspector and/or appropriate Flagmen in attendance at hours determined by the MTA.
32. Precautions must be taken to protect from dust and fragmentation that may drop onto the shield. The shield must stand a minimum live load of 300lb/ sq ft.
33. All lumber and plywood used for protection of MTA structure, assets, property or operations must be fire-retardant. Fireproof materials must be used below street level.
34. It is the contractor’s responsibility to design shielding work and plans to conform to all governing laws, regulations, specifications, and the EPP General Notes and Guidelines.
35. Temporary construction sheds, barricades, or plywood partitions must be a minimum of 5'-0” from the edge of the finished platform. All barricade plans must be submitted to NYCT’s Office of Station Programs via email at StationProgramsManagement@nyct.com, for review and approval.

Demolition

36. Demolition must be by conventional hand demolition methods. Monitoring of MTA structure for vibration and settlement may be required for demolition applications.
37. The basement of adjacent building must be filled with demolition debris up to 3 feet below the grade level before the first-floor joists are removed. Alternatively, a bracing system for adjacent MTA structure must be provided or included in the Demolition set.
38. At or adjacent to subway entrance stairs or ventilating gratings or emergency exits, a standard sidewalk shed must be erected. A minimum four-foot-high solid fence, such as plywood, must be placed on the outside of the shed adjacent to the building and shown on the site plan.
39. Demolition materials and equipment are not to be stored on subway ventilators, gratings, obstruct walkways/paths, or obstruct ingress/egress. Subway grating must be protected with 1” steel plates for 8' adjacent to the truck entrance [shown on plan]. After demolition is completed, gratings and their drains must be cleaned of any clogging due to demolition debris.
40. The MTA structure, assets, property, or operations are to be protected during demolition to prevent damage to the MTA facilities or the creation of dangerous conditions.

Cranes

This section is applicable to equipment applying surcharge loads that are within 200 ft of an MTA structure and may include, but are not limited to, mobile cranes, crawler cranes, mini cranes, concrete pumps, knuckle booms, derricks, tower cranes, and other machinery and equipment. This section is also applicable to any equipment where an MTA structure is within the equipment fouling zone.

41. Roof loads: Surcharge loads must be analyzed and shown not to exceed the allowable design roof loads of any MTA structure. Surcharge loads applied to the ground surface must be assumed to spread uniformly along a trajectory of horizontal to vertical (1:H to 2:V).
42. Lateral loads: Surcharge loads must be analyzed and demonstrated that the lateral loads do not exceed the design loads of any MTA structure.
43. When a crane is fouling MTA structures and properties open to grade or elevated tracks, that is “the crane boom is pointing towards and within reach of MTA structure”, crane operation must be allowed only under NYCT flagging or General Order. In such a case, the crane must have a capacity of 150% of the lifted load.
44. Weathervaning is not permitted over MTA/NYCT open tracks. Weathervaning of tower cranes (TC) installed adjacent to MTA/NYCT structures will be permitted only under the following conditions but not limited to. Only if other operations that minimize impact to NYCT structure are explored. Maintain a minimum a clear distance of five feet between the train envelope and the TC boom tip (radius) during weathervane conditions. Tower crane shall weathervane only at the manufacturer specified wind speed. Detailed weathervane engineering drawings to include wind action plan, when weathervane condition be activated, direction the crane stowed after use.
45. For construction sites, contractor field contact information must be available at all times.

Sidewalks Reconstruction, Bridges, Hoists, Fences, and Barricades

46. Subway entrances, ventilators, vaults, and any MTA appurtenances at the sidewalk must be underpinned or shored and braced if directed by MTA's Engineer.
47. If new concrete construction is designed to join existing MTA concrete structure, dowels, lap splices, and keyways must be used in accordance with MTA Standards. Otherwise, cold joints must be designed in accordance with MTA Standards.
48. The subway facilities must be protected during sidewalk bridge erection and demolition to prevent any damage or dangerous conditions.
49. Wherever a new sidewalk is placed adjacent to MTA structures, the following must be adhered to:
    a. The top elevation of the new sidewalk must be flush with the subway vent gratings, storage, hatches, and emergency exits.
    b. The slope (1%min) of the new sidewalk must be such that the drainage is directed away from these structures.
    c. A 1/2" pre-molded filler must be installed between the new sidewalk and the existing MTA structure.
    d. Submit details of the proposed work around MTA structures for sidewalk elevation changes for approval. Obtain review and approval from MTA Code Compliance office for sidewalk elevations changes adjacent to MTA/NYCT stair landings.
50. Construction work done near vent gratings must be as follows: See Note 73
    e. All vent gratings and hatches should remain outside the construction site, separated by a construction fence. Protective shields must be provided over vent gratings as required by MTA’s Engineer. Gratings must be removed only if a change in elevations of the adjacent sidewalk is required. In such cases new grating must be provided at the cost of the project in accordance with MTA standard and specifications. Coordination with other MTA/NYCT Departments is required.
    f. No building material, vehicles, or construction equipment is to be stored or run over vents, gratings, hatches, or emergency exits.
    g. Details of sidewalk reconstruction around vent gratings, hatches and emergency exits are to be submitted to MTA EPP for approval using applicable MTA/NYCT as built drawings information.
51. No temporary post must be placed on subway gratings or their supporting walls; emergency exit covers or interfere with passenger use of subway stairs.
52. A solid fence, such as plywood, must be placed adjacent to the subway stairs or emergency exits adjacent to the work site.
53. When working near NYCT vent gratings, barricades and steel plates shall be placed around and onto them to prevent pedestrian traffic. Alternatively, subway gratings shall be protected by bridging 1” thick steel plates over it while creating a smooth transition/slope to prevent pedestrian tripping hazards and ease of vehicular traffic if barricades cannot be installed. Additional shielding and vent protection may be required with the installation of barricades and steel plates at and around the vent gratings. Fire-retardant plywood may be used as a substitute for steel plates for temporary use. Applicant is liable/responsible for cleaning, maintenance of covered gratings during construction. Approval may require review by other MTA/NYCT departments.

Piles and Borings

54. When piles are driven or drilled adjacent to the subway structure, boring data, pile layouts, and installation procedures must be submitted to EPP for approval. Velocity meters and optical monitors must be installed in the MTA property, structures and assets at critical locations to monitor induced vibrations and settlements during pile installation. Induced displacements along the tunnel structure and track invert must be monitored. The maximum particle velocity threshold above ambient levels caused by driving or drilling must be 0.5 inch per second. Values exceeding this level must be reviewed and evaluated by the MTA Engineering. Measured particle velocities due to driving or drilling pile work must not exceed the upset level of 2.0 inches per second at any time. Critical construction sites may require additional monitoring such as strain gauges, tiltmeters, and cracks monitors.
55. No piles must be installed by any method within 3 feet clear of the subway structure. The clear distance is measured from the edge of the pile or casing to the wall of the subway structure. This rule does not apply to under-river crossings and deep tunnels where review and approval must be made on a case-by-case basis. Said distance is not applicable to under-river crossings and deep tunnels. Closed-end piles must not be driven within ten feet of the subway structure.
56. All driven piles located within the MTA structure influence line must be placed within a pre-augered cased hole to the influence line. The casing must be cleaned without disturbing the soil outside the casing, and the pile must be placed within the casing for installation. The piles may then be driven beyond the influence line within the casing.
57. All piles must be driven or drilled a minimum of ten feet below the intersection of the pile centerline and the influence line of the subway structure.
58. The use of “down-the-hole-hammers” for the installation of piles through overburden and fill must be permitted only to remove boulders. This method is not permitted as a matter of course to advance the hole. Furthermore, this method used to construct rock sockets must not be allowed within 5 feet of the MTA structure. The use of machines utilizing air for soil removal or water for soil jet drilling shall not be allowed.
59. Permanent building’s vertical (compression or uplift) and lateral loads must be transferred below and away from MTA structure influence line. There must be no permanent lateral building loads transferred to MTA underground structures. Calculations and design details demonstrating building’s lateral loads are isolated must be submitted.
60. The MTA/NYCT structure influence line must start from the bottom of the MTA/NYCT underground structure and extend from a 1H:1V to a 2H:1V slope, depending on the soil properties and groundwater table. For piles or foundation elements installed within ten feet of the MTA/NYCT underground structure, the bottom of such structure is considered the influence line. Adjacent building footings must be placed a minimum one foot below the influence line.
61. Vibratory hammers must not be permitted within 75 feet of subway structures. Hoe rams must not be permitted within twenty-five feet of subway structures.

MTA C&D External Partner Program General Notes 2026

Excavation, Foundations, and SOE

62. All rock excavation adjacent to the NYC Transit structures must be channel drilled two feet below the subgrade. A detailed rock removal procedure, including line drilling details, vertical rock removal lifts, and equipment to be used must be submitted for review and approval.
63. If the top-of-rock is found below subway structure, the subway structure must be underpinned in accordance with the approved underpinning drawings. Underpinning must be performed before any construction activity.
64. If the rock stratum quality is soft or seamy, lateral support must be provided below the subway structure in accordance with drawings and calculations submitted to MTA for review and approval.
65. Blasting with light charges only is subject to the approval of MTA EPP's Engineer. It must comply with the regulations of the Fire Department of New York City. The Contractor must provide a detailed monitoring plan. This plan must include measurements of both particle velocity and displacements at critical locations of the MTA structure. The monitoring plan must specify threshold and upset levels for particle velocity and settlement. It must also include an action plan for handling these levels. The contractor must secure an approved seismologist to install and operate suitable velocity gauges. These must continuously monitor particle velocity. An independent licensed surveyor must monitor displacements. A qualified technician from the monitoring company must be on-site to provide vibration
readings when asked by an MTA Engineer. The threshold for maximum particle velocity above ambient, caused by blasting, must be 0.5 inch per second. Values above this level must be reviewed by MTA/NYCT Engineer. Measured particle velocities under blasting must not exceed the upset level of 2.0 inches per second at any time.
66. Before placing concrete, the subgrade of the foundations in the vicinity of the MTA structure must be inspected and approved by MTA/NYCT Engineer.
67. Support of excavation (SOE) drawings are required for all excavations adjacent to MTA-NYCT structures, or its embankments. Drawings indicating a suggested SOE method of construction, its design calculations and installation procedure must be submitted to EPP for review and approval in conjunction with the project's contract drawings. If it is determined that excavation may undermine MTA/NYCT's structural foundation, underpinning is required. Drawings and calculations for the underpinning must be submitted to EPP for review and approval prior to excavation.
68. Special care must be exercised when excavating over or near the MTA structure to avoid damaging the thin concrete protection of the waterproofing. Repair plans for damage to the waterproofing layer during excavation must be submitted to EPP for review and approval. Repair work must be performed before the excavated area is filled, closed or covered up at no expense to MTA/NYCT. Waterproofing shall be (3-ply) hot-mop or an approved equal and compatible with the latest MTA specification (PRDC) must be used. New waterproofing shall be compatible with the existing waterproofing and shall overlap with good, existing waterproofing by a minimum of 12".
69. Temporary shoring may be placed in direct contact with MTA structures only if the MTA structure can support all anticipated (existing and temporary) loads transferred through the temporary structures without damaging or altering the existing structure. All calculations and drawings for the temporary shoring installation and removal must be submitted to EPP for review and approval. At the completion of the project, the temporary shoring and bracing systems must be removed or cut off as approved by MTA. Any MTA structure damage incurred during the installation and removal of the temporary shoring must be repaired and/or replaced to the satisfaction of the MTA Engineer at the expense of the Contractor.
70. There must be no machine excavation, saw cutting, or demolition within 3 feet of MTA structures, power duct lines, or any other assets until they have been carefully exposed by hand excavation.
71. Dynamic compaction methods using dropped heavy weights must not be conducted within 1,000 feet of any MTA structure unless it is shown that induced settlements and vibrations will not damage these structures. A suitable monitoring plan including settlement and vibration measurements must be approved by the MTA EPP Engineer for all equivalent operations within these distances prior to work.

Utilities

72. MTA/NYCT Duct lines must be maintained and protected during construction. Any interference with duct lines must be reported to the MTA Engineer. When a duct line containing cables or when masonry adjacent is to be removed, penetrated, or drilled, the work must be done entirely by hand. The use of a hammer and chisel, jackhammers, bull points, or other power equipment is not allowed.
73. Where MTA/NYCT manholes are encountered:
    a. They must be protected and raised or lowered as required to match the new street grade.
    b. If manhole covers are raised or lowered, protect cables in manhole by wood sheeting of 2" nominal thickness.
    c. Prior to the start of construction operations affecting MTA/NYCT manholes and duct lines, the project must give seven days' notice to the Assistant Chief Officer, Inspections and Emergency Response, MOW Engineering at (718) 694-1499.
    d. Upon approval of insurance and at least 72 hours prior to the start of construction operations, notification must be given to Contract Inspection, MOW Engineering at contract.inspection@nyct.com, Telephone: (718) 694-1499 and, the Assistant Chief Officer, Inspections and Emergency Response, MOW Engineering, at (718) 694-1358.
74. Construction work done near vent gratings and hatches must be as follows:
    e. Unless approved by the NYCT Engineer, all vent gratings and hatches must remain outside the construction site, separated by a construction fence. Protective shields must be provided over vent gratings as required by the NYCT Engineer.
    f. No building material, vehicles, or construction equipment must be stored, or covering vents, gratings, hatches, or emergency exits.
    g. No building materials, vehicles, or construction equipment must be stored, nor should vents, gratings, hatches, or emergency exits be covered.
    h. Details of sidewalk reconstruction around vent gratings, entrances, hatches, and emergency exits must be submitted to EPP for review and approval.

Miscellaneous

75. All architectural details (including but not limited to service booths, railings, doors, hatches, gratings, manhole covers, emergency exit doors.) must conform to the latest MTA Standards (PRDCs). These MTA standards are available by request.
76. Burning of, welding to, or drilling through existing MTA steel structures is not permitted except as shown on EPP approved drawings.
77. If field conditions differ from the EPP approved drawings, an Addendum must be submitted for MTA EPP review and approval. See note 8
78. A copy of the approved MTA EPP drawings must be onsite at all times.
79. Vibration sensor and horizontal and vertical control survey data must be available onsite to MTA/NYCT staff.
80. MTA structure must be monitored for any construction activities that may cause vibration or movement per the threshold tabulated within note 80.
81. Desk space must be made available to MTA staff onsite to review drawings, sensor data, and complete project reports.
82. MTA reserves the right to rescind approved drawings at any time.

Dewatering and Monitoring

83. All dewatering operations conducted within 500 feet of the MTA structure must be performed in accordance with drawings, calculations, and procedures signed and sealed by a Professional Engineer licensed in the state of New York. These drawings, calculations, and procedures must be submitted to EPP for review and approval. The distance from the structure to the dewatering operation may be reduced, provided that soil conditions at the site indicate that the radius of influence of the dewatering is less than 500 feet. For dewatering within the radius of influence, the dewatering program must be shown to have negligible influence on settlements of the MTA structure.
84. Horizontal and vertical control survey data of the existing MTA structure must be performed by a Licensed Land Surveyor to monitor any movements that occur during construction and to certify that the induced movements are within the limits noted below. If any movements require work to be stopped based on the values below, a remediation plan must be submitted to MTA EPP for approval before the rehabilitation and repair work begins.

a. Monitoring plans in plan and cross-section shall be submitted and approved by MTA C&D EPP for any construction operations that may potentially cause vibrations, settlement, displacement, wracking or disruption to NYCT structures and/or train service prior to construction. Monitoring devices shall be installed at a minimum of 25' spacing along the NYCT structure adjacent to the property. Monitoring data shall be readily available upon NYCT request and baseline data shall be submitted to NYCT prior to construction. Automatic readings are unacceptable without the qualified monitoring personnel on site. Certified technicians shall be on site when automatic or manual readings are taken. Additional monitoring devices shall be installed as requested by NYCT at its discretion. Any blocking, obstruction, removal, relocation, replacement or substitution of monitoring devices shall be strictly prohibited without the pre-approval of C&D EPP based on justification and proven, fixed relationship between the original and new baseline data. Monitors shall be removed, re-calibrated and replaced annually from the date of its last calibration or as requested annually by NYCT. The monitoring contractor shall be monitoring the data and providing routine feedback to NYCT's contract.inspection@nyct.com especially when readings meet the the table below, and in Notes 54 and 65. Vibration sensor and horizontal and vertical control survey data shall be available on site to MTA/NYCT Engineer.

Structure Type	Monitored & Measured Movement	Action to Take
Elevated	1/8 inch or more	Notify MTA Engineer
Elevated	¼ inch or more	Stop Work
Subway	¼ inch or more	Notify MTA Engineer
Subway	½ inch or more	Stop Work

85. Monitoring reports are to be submitted via email to NYCT MOW Contract Inspections contract.inspection@nyct.com.
The frequency of the submission of the monitoring reports will be determined by NYCT MOW Contract Inspections.

Staten Island Railway (SIRTOA)

86. Accommodation services of Staten Island Railway personnel (Track access, flagmen, G.O.) must be made to Kevin Coughlin, P.E., Senior Director, Capital Projects, Staten Island Railway, at Telephone: (347) 694-3012 Email: kevin.coughlin@nyct.com and Contract Inspections at contract.inspection@nyct.com or call (718) 694-1499 / (718) 694-1385
87. Before entering MTA property, Contractor or Subcontractor's personnel must have attended MTA/NYC Track Safety Training and SIRTOA Track Safety Training.
Staten Island Railway reserves the right to place inspectors, flagmen or other personnel in the Staten Island Railway structures during construction of the project linked by a telephone system, if deemed necessary, to observe the effects of the construction on the transit facilities. It is expected that such personnel will be necessary when the construction comes within twenty-five feet of the facility of the Staten Island Railway structure. However, Staten Island Railway further reserves the right to place such personnel whenever, in its opinion, the projects conditions warrant such placement, regardless of distance.
The cost of such personnel, telephone installation, and any re-routes, diversions of service, or work trains made necessary by the project must be borne by the project.

Post-construction

88. Upon completion of the project, all Project equipment must be removed from MTA property. A post-construction survey must be prepared in accordance with MTA requirements.
89. All MTA invoices must be paid before the project can be closed.
90. The project shall provide written notice to the MTA when all work is complete. Please contact the EPP PMO at EPP-PMO@mtacd.org

Contact Information

Agency	Telephone	Email	Links
MOW Engineering	718-694-1499	contract.inspection@nyct.com	
Bus Service Planning	646-252-5188	brennan.ortiz@nyct.com	
	646-252-8589	robert.lai@mtabusco.com	
Stations Programs		StationsProgramsManagement@nyct.com	
EPP General Inbox		EPP@mtacd.org	External Partner Program
EPP Adjacency		EPP-Adjacency@mtacd.org	MTA EPP Adjacency
EPP Public Agency EPP PMO		EPP-PublicAgency@mtacd.org EPP-PMO@mtacd.org	MTA EPP Public Agency
EPP Safety		EPP-Safety@mtacd.org	
EPP Insurance		EPP-Insurance@mtacd.org	
MTA TOD		tod@mtacd.org	Transit-Oriented Development
SIRTOA	347-694-3012	kevin.coughlin@nyct.com	

MTA C&D External Partner Program General Notes 2026

SECTION A. NFB INSURANCE COVERAGES

The Permittee, at its sole cost and expense, shall obtain and maintain at all times during the performance of the Work such policies of insurance as set forth below:

1. **Workers' Compensation Insurance** as required by statute in the State in which the Work will be performed. Employer's Liability Insurance with limits of not less than $1,000,000 bodily injury per accident; $1,000,000 bodily injury per disease; and $1,000,000 annual aggregate. For work conducted outside the State of New York, Employer's Liability Insurance requires limits of not less than $2,000,000 bodily injury per accident; $2,000,000 bodily injury per disease; and $2,000,000 annual aggregate and must provide proof that its Workers' Compensation Insurance policy has been endorsed to include "Other States Coverage." If the Permittee leases one or more employees through the use of a payroll, employee management, or other similar company, then the Permittee must procure worker's compensation insurance written on an "if any" policy form, including an endorsement providing coverage for alternate employer/leased employee liability.
2. **Commercial General Liability ("CGL") Insurance**, covering claims for personal and advertising injury, bodily injury (including death) and property damage arising out of the Work and in a form providing coverage no less broad than that of the current ISO Commercial General Liability Insurance policy (Occurrence Form, number CG 00 01). Such insurance shall provide coverage for all operations including the products-completed operations hazard and shall be maintained for a period of at least three (3) years after final completion, subject to the limitation of any applicable statute. The limits of such insurance shall renew annually and not be less than $2,000,000 each occurrence; $4,000,000 products and completed operations aggregate; and $4,000,000 per project general aggregate. This requirement may be satisfied by a combination of a primary CGL policy coverage with limits of not less than $1,000,000 per occurrence and following form Excess or Umbrella liability insurance policy(ies) which equal the total limits required above and for excess or umbrella liability insurance in Section 4 below. The CGL and excess or umbrella liability insurance policies must be written on an occurrence basis form, and must comply with the following provisions:
   a. The policy shall include independent contractors and contractual liability coverage.
   b. The policy shall not contain any contractual exclusion relative to Labor Laws or any other exclusions or limitations directed toward any types of projects, materials or processes involved in the Work.
   c. The policy shall not contain any of the following exclusions: subcontractor's exclusion; construction defect exclusion; leased worker exclusion; cross liability exclusion; crane exclusion; and demolition exclusion or "explosion, collapse and underground" exclusion.
   d. Construction work taking place within 50 feet of a railroad must include:
      i. Contractual Liability – Railroads CG 24 17 listing the Scheduled Railroad and Designated Job Site.
      ii. Coverage for claims for bodily injury asserted by a railroad employee of an additional insured and any Employer's Liability Exclusion which may otherwise operate to exclude such coverage shall be removed.
3. **Business Automobile Liability Insurance**, if any owned, non-owned or hired vehicles are used by the Permittee whether on or off-site, covering the liability of the Permittee arising out of any vehicle that bears, or is required to bear, license plates according to the laws of the jurisdiction in which they are operated, and which are not covered by the Permittee's Commercial General Liability. Such insurance shall provide coverage at least as broad as the standard ISO Comprehensive Automobile Liability policy (CA 00 01, CA 00 05, CA 00 12, CA 0020), with limits not less than $2,000,000 each accident on a combined single basis. If the Work involves transportation of hazardous or regulated substances, hazardous or regulated wastes and/or hazardous or regulated materials, the Permittee shall provide pollution auto coverage equivalent to that provided under the ISO pollution liability-broadened coverage for covered autos endorsement (CA 99 48), and the Motor Carrier Act endorsement (MCS 90). Any statutorily required "No-Fault" benefits and uninsured/underinsured motorist coverage shall be included.
4. **Umbrella/Excess Liability Insurance**, with limits not less than $3,000,000 per occurrence in excess of the limits for Commercial General Liability, Employer's Liability, and Business Automobile Liability Insurance which is at least as broad as each of the underlying policies. The umbrella/excess liability policies shall be written on a "drop-down" and "following form" basis, with only such exceptions expressly approved by the Authority/MTA.
5. **Railroad Protective Liability Insurance** (ISO-RIMA or equivalent form), if any Work will be taking place within 50 feet of a railroad, subway or similar tracked conveyance or requires flag or protective measures by the Authority or its affiliates or their respective employees, covering the work to be performed at the designated job site and affording protection for damages arising out of bodily injury or death, physical damage to or destruction of property, including damage to the Insured's own property and conforming to the following:
   a. The policy shall be issued to and shall name as the "Named Insureds" each of the Indemnified Parties listed under Section D below.
   b. The limit of liability shall be not less than $2,000,000 per occurrence, subject to a $6,000,000 annual aggregate.
   c. Policy must be endorsed to provide coverage for claims arising from injury to employees covered by Federal Employer's Liability Act (FELA), when applicable.
   d. Indicate the Name and address of the designated Contractor, location of the Work, the Contract description and Contract Number, if applicable.
6. **Contractor's Pollution Liability Insurance,** if disposal of hazardous materials from the designated job site is undertaken or if the Work being performed in the Impact Area involves environmental or pollution exposures, with limits not less than $2,000,000 per occurrence and general aggregate on a per project basis including completed operations coverage to be maintained for at least three (3) years after completion of the work. Policy shall cover environmental damage resulting from pollution conditions that arise from the operations of the Permittee and described under the scope of services of this agreement. Coverage must apply to sudden and non-sudden pollution conditions including the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants, silt or sediment into or upon land, the atmosphere or any watercourse or body of water, provided such conditions are not naturally present in the environment in the concentration or amounts discovered, unless such natural condition(s) are released or dispersed as a result of the performance of Covered Operations. Such insurance shall include but not be limited to:
   a. Bodily injury, sickness, disease, mental anguish or shock sustained by any person, including death or medical monitoring.
   b. Physical injury to or destruction of tangible property of parties other than the Insured including the resulting loss of use and diminution in value thereof; Loss of use, but not diminution in value, of tangible property of parties other than the Insured that have not been physically injured or destroyed.
   c. Natural Resource Damages
   d. Cleanup Costs.
   e. Transportation and Non-Owned Disposal Site coverage (with no sunset clause/restricted coverage term) if the Permittee is disposing of contaminated material(s).
   f. No exclusions for asbestos, lead paint, silica or mold/fungus/legionella.
   g. Defense including costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages.

SECTION B. GENERAL INSURANCE REQUIREMENTS

The following requirements are applicable to all insurance coverage required during the performance of the Work, except to the extent otherwise indicated:

1. **Insurer Requirements.** All policies of insurance shall be placed with insurers acceptable to the Authority/MTA. The insurance underwriter(s) must be duly licensed or approved Surplus Lines insurer to do business in the state where the Work is to be performed and must have a financial rating of A-/VII or better in the most recent edition of Best's Key Rating Guide or otherwise satisfactory to the Authority/MTA.
2. **Right to Request Additional Insurance.** The Permittee shall increase the required insurance amounts upon direction by the Authority/MTA.
3. **Additional Insureds.** All insurance required under Section A (except for Workers' Compensation, Professional liability or otherwise noted), shall name the parties listed in Section D as Additional Insureds and shall include their respective subsidiary and affiliated companies, their Boards of Directors, officers, employees, representatives, and agents (hereinafter, collectively the "Additional Insureds"). For the Commercial General Liability insurance, additional insurance coverage must be provided on ISO forms or their equivalent at least as broad as CG 20 26. No other General Liability Additional Insured endorsement will be accepted unless approved by the Authority/MTA.
4. **Primary and Non-Contributory.** Each policy required in Section A, including primary, excess, and/or umbrella, shall provide that the insurance provided to the Additional Insureds is primary and non-contributory, such that no other insurance or self-insured retention carried or held by the Authority /MTA shall be called upon to contribute to a loss covered by insurance for the named insured.
5. **Waiver of Subrogation**. To the fullest extent permitted by applicable law, the Authority will require all insurance policies required in Section A to include clauses stating each insurer will waive all rights of recovery. All waivers provided herein shall be effective as to any individual or entity even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, or (b) did not pay the insurance premium directly or indirectly, and whether or not such individual or entity has an insurable interest in any damaged property.
6. **Self-Insured Retentions.** None of the insurance required in Section A shall be subject to any self-insured retention greater than $100,000 without the Authority/MTA written approval.
7. **Subcontract Agreements.** The Permittee shall by appropriate written agreements flow down the requirements for (a) the waiver of subrogation for all required insurance, (b) additional insurance coverage for all required insurance, and (c) other requirements of this Section to all tiers of Contractors, for all insurance required of such contractors by the Permittee for the Work.
8. **No Limitation.** Nothing in this Section shall be construed as limiting in any way the extent to which the Permittee may be held responsible for payment of damages resulting from their operations. The Permittee's/Contractor's obligations to procure insurance are separate and independent of and shall not limit the Permittee's contractual indemnity and defense obligations. The Authority/MTA does not represent that coverage and limits required in this Entry Permit will necessarily be adequate to protect the Permittee.
9. **Notice of Cancellation or Non-Renewal.** The Permittee agrees to notify the Authority/MTA thirty days prior to any cancellation, non-renewal or material change to any insurance policies required in Section A. Notice shall be sent electronically to the contract-specific email address provided to the Permittee via MTA Certificate of Insurance Management System (CIMS), ComplianzTM.
10. **Notice of Occurrence.** The Permittee shall immediately file with the Authority's Tort Division (with a copy to the Authority's Engineer), 130 Livingston Street, 11th Floor, Brooklyn, NY 11201, a notice of any occurrence likely to result in a claim against the Authority /MTA and shall also file with the Torts Division detailed sworn proof of interest and loss with the claim. This paragraph shall survive the expiration or earlier termination of the Permit Agreement/Entry Permit.
11. **Insurance Not in Effect**: If at any time during the performance of the Work, insurance as required is not in effect or proof thereof is not provided, the Authority /MTA shall have the options to: (a) direct the Permittee to suspend work or operation with no additional cost or extension of time due on account thereof; or (b) terminate the permission granted to the Permittee to perform the Work.
12. **Conformance to Law.** If applicable law limits the enforceability of any of the foregoing requirements, the Permittee shall be required to comply with the foregoing requirements to the fullest extent of coverage and limits allowed by applicable law and the provisions of insurance shall be limited only to the extent required to conform to applicable law.

SECTION C. EVIDENCE OF INSURANCE

1. **Submission of Insurance:** The Permittee must submit evidence of all required insurance to the MTA C&D External Partner Program via the Asite Portal. Additional information and instructions can be found at: https://new.mta.info/agency/construction-and-development/building-near-transit/external-partner-program. **a. Acceptable Forms**
   - ACORD 25: Certificate of Insurance
   - ACORD 855: NY Construction Certificate of Liability Addendum
   - ACORD 28: Certificate of Commercial Property Insurance
   - ACORD Binder or Insurance Policy
   - Workers' Compensation (Alternative Options): o C-105.2 – Certificate of Workers' Compensation Insurance; or o U-26.3 – Certificate of Workers' Compensation from the State Insurance Fund; or o GSI-105/SI-12 – Certificate of Workers' Compensation Self Insurance; or o CE-200 – Attestation of Exemption when Contractor meets the requirements (e.g.) Sole Proprietor

   b. Certificate of Insurance - The following minimum details must be referenced in the certificate:
   - Policy coverage details (e.g.) policy term, per occurrence/per project; limits/sub-limits, aggregate limits, deductibles, self-insured retentions, and insurance carrier name and corresponding NAIC #
   - Contract Identifier (e.g.) Contract #, RFP #, or Entry Permit #
   - Location and Description of Work
   - Indemnified parties as an additional insured including primary and noncontributory coverage and waiver of subrogation in favor of the Authority/MTA
   - Certificate Holder must list the Authority/MTA name and address
   - Certificate of Insurance must be signed by an authorized insurance representative

   c. Endorsements (where applicable):
   - General Liability - Additional Insured (CG 20 26)
   - General Liability - Primary and Non-Contributory CG 2001 or equivalent
   - General Liability - Per Project Aggregate, where applicable
   - General Liability - Indemnified Party
   - Automobile Liability - MCS 90 and CA 99 48
   - Contractor's Pollution Liability - Non-Owned Disposal Site and Transportation Coverage
   - Waiver of Subrogation (most recent NCCI/ISO or equivalent as applicable)
   - Joint Venture (JV) - If the Contractor/Consultant is a Joint Venture, General Liability Insurance must be provided in the name of the Joint Venture. Alternatively, a Named Insured Endorsement listing the Joint Venture may be accepted.

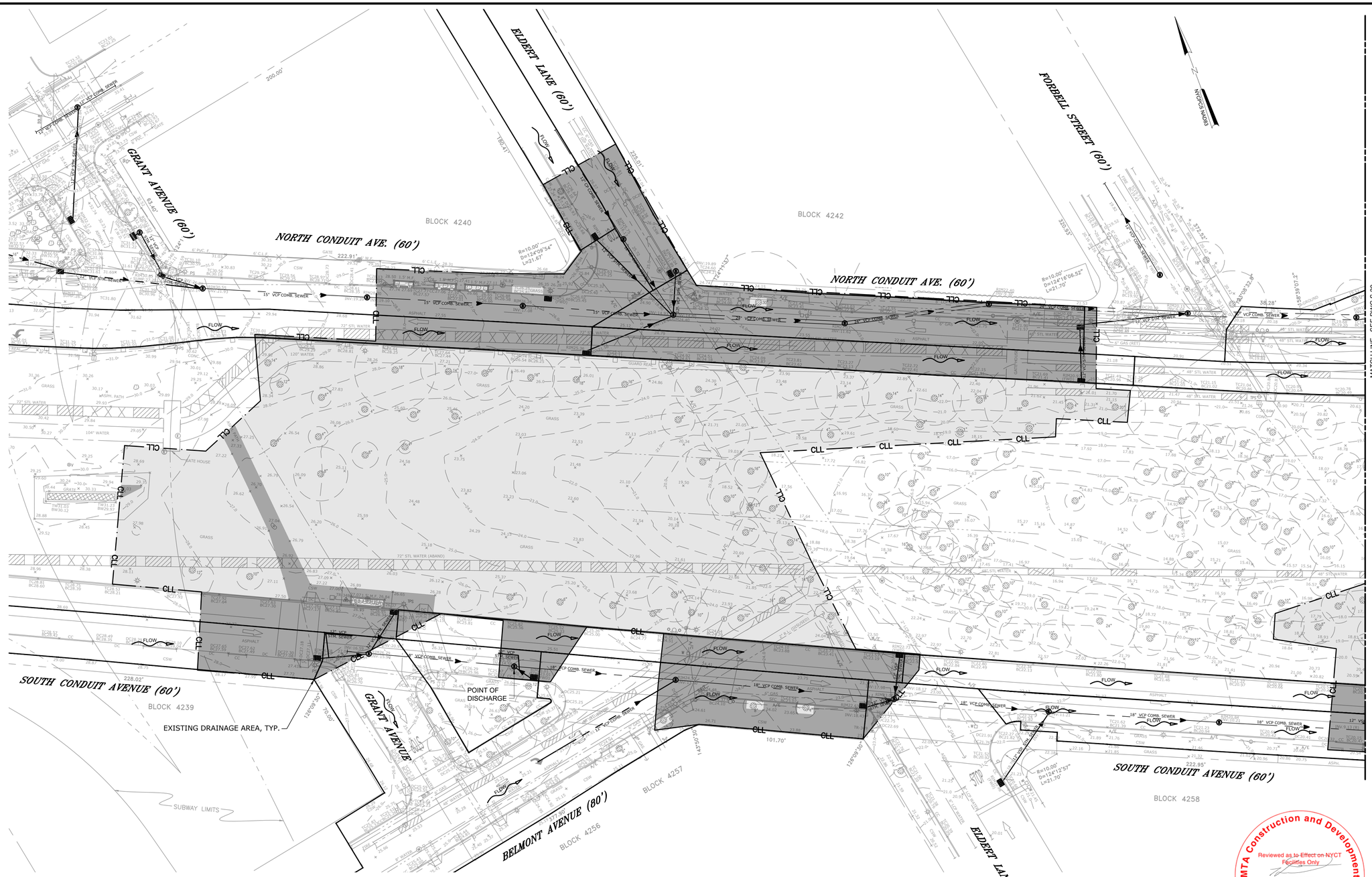
   d. Insurance Binder/Policy (Applicable to Railroad Protective Liability and Builder's Risk/Installation Floater). If a policy is not submitted, the insurance binder must include the following minimum details:
   - Policy coverages and details (e.g.) policy term, limits/sub-limits, aggregate limits, deductibles, self-insured retentions, insurance carrier name and applicable NAIC #
   - Contract Number or Entry Permit Number; Designated Contractor; Location and Description of Work
   - Indemnified parties as either a named insured or additional named insured
   - Binder must be issued and signed by the authorized insurance company or their authorized insurance agent
   - Binder may be accepted pending issuance of the policy. Policy must be submitted within 30 days from binder effective date.
2. **Insurance Compliance:** The Permittee will be notified when insurance is compliant through the assigned "contract specific" email address via the MTA Certificate of Insurance Management System (CIMS), the Complianz™.
3. **Renewal Insurance:** The Permittee will be notified via CIMS two (2) weeks prior to the expiration of their insurance and shall endeavor to provide renewal or replacement policies of insurance with terms and conditions no less favorable than the expiring coverages. The Permittee must submit evidence of renewal insurance using the "contract specific" email address assigned to this agreement.
   Do not use the assigned "contract specific" email address for other agreements. Each insurance submission must be sent separately and may not be combined with other agreements.
4. Failure of the Authority/MTA to demand such COIs or other evidence of full compliance with these insurance requirements, or failure of the Authority/MTA to identify a deficiency from evidence provided, will not be construed as a waiver of the Permittee's obligation to maintain such insurance. The Authority/MTA acceptance of any COI evidencing the required coverages and limits does not constitute approval or agreement by the Authority/MTA that the insurance requirements have been met or that the insurance policies shown in the COI are in compliance with the requirements.
5. The Authority/MTA has the right, but not the obligation, of prohibiting the Permittee from entering the Authority Property until the Authority/MTA receives all COIs or other evidence that insurance has been placed in complete compliance with these requirements.

SECTION D. REQUIRED ADDITIONAL INSUREDS/INDEMNIFIED PARTIES:

The New York City Transit Authority ("NYCT"), the Manhattan and Bronx Surface Transit Operating Authority ("MaBSTOA"), the Staten Island Rapid Transit Operating Authority ("SIRTOA"), the Metropolitan Transportation Authority ("MTA") including its subsidiaries and affiliates, MTA Construction & Development Company ("MTA C&D"), MTA Bus Company ("MTA Bus"), and the City of New York ("City" as Owner) and the respective affiliates and subsidiaries existing currently or in the future of and successors to each Indemnified Parties listed herein

DISCLAIMER:
The EPP General Notes are provided for informational and coordination purposes only. They do not supersede, replace, or alter any applicable laws, regulations, codes, standards, or contract requirements. The contractor is solely responsible for the means, methods, techniques, sequences, and safety procedures necessary to perform the work in compliance with all applicable requirements and industry best practices. The contractor shall verify all dimensions, field conditions, and requirements prior to commencing work and promptly report any discrepancies to the Contracting Officer or Project Manager for clarification.

The MTA EPP assumes no responsibility if the contractor makes deviations to the Approved engineering drawings and construction means and methods; or the contractor's failure to comply with applicable laws, regulations, or contractual obligations. Any reliance on these notes without independent verification is at the sole risk of the contractor.



NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

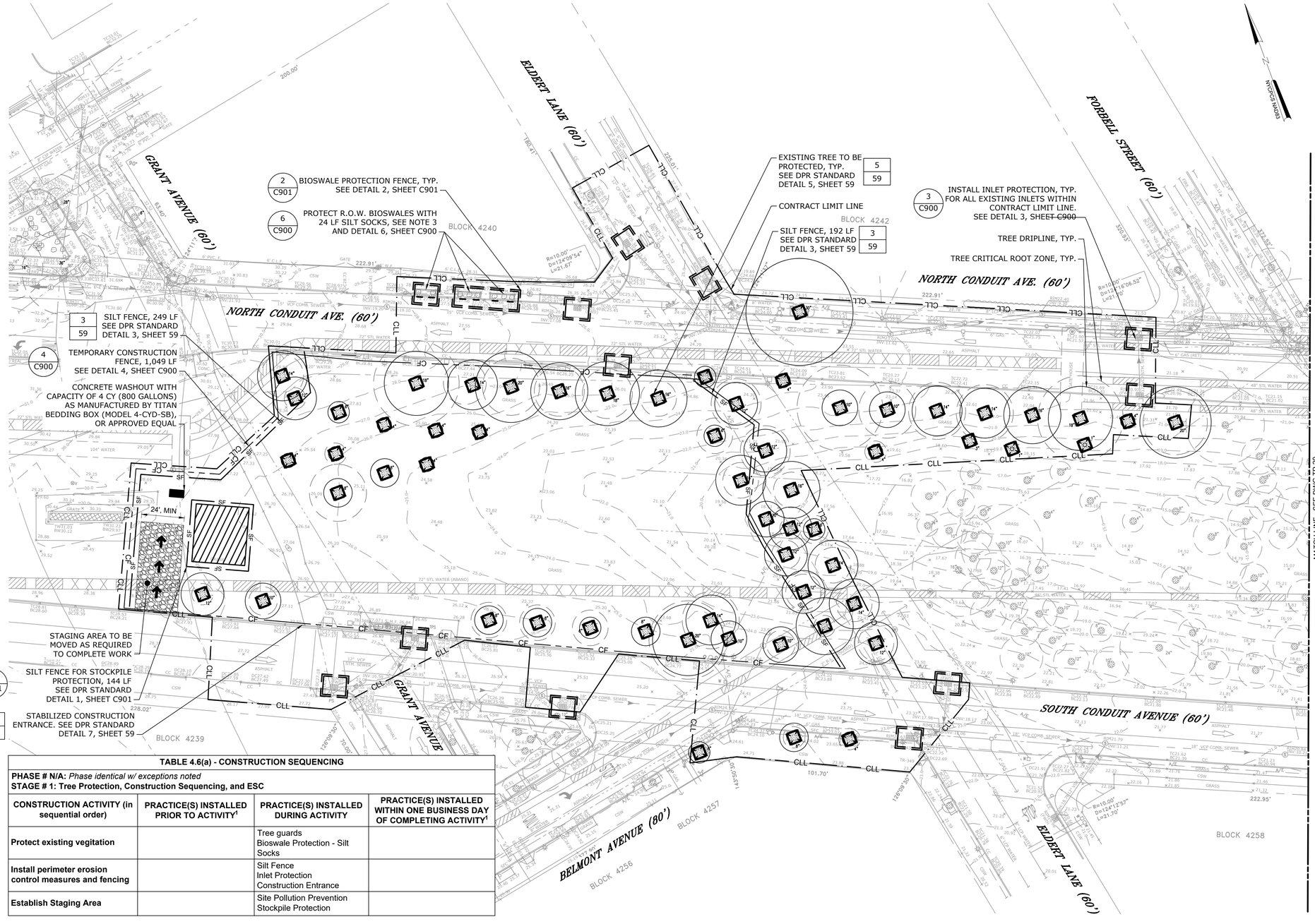
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTHWEST CONDUIT MEDIAN GREEN INFRASTRUCTURE
QUEENS, NY
EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NW-01RGa - SHEET 1

DATE	JUL 2026
PAGE	108 OF 171
SHEET	S-10

Plt = O:\WO336-NYC\WO336-010\CAD\CIVIL\EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - SHEET 1 Saved by alaina.Sosa date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:36 AM BY: TALYN
XREFs= ..\..TBLOCK\WO336-010_TB_MUNOZ...\000_BASE\CK-STRU...\000_BASE\WORKING\CK-HATCHING-X...\000_BASE\CN-DRAINAGE_EX



NOTES:

1. TREE CRZ DIAMETERS HAVE BEEN ESTIMATED BASED ON SURVEYED TRUNK DBH's. CRZ VALUES ARE CALCULATED AS 1' CRZ DIA. FOR EVERY DBH 1".
2. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
3. FOR R.O.W. RAIN GARDENS/BIOSWALES, OBSERVE THE FOLLOWING PROTECTION MEASURES:
   - A. INSTALL SILT SOCKS (SEE DETAIL 6, SHEET C900) TO BLOCK CURB CUT
   - B. INSTALL BIOSWALE PROTECTION FENCE (SEE DETAIL 2, SHEET C901) TO PROTECT BIOSWALES/RAIN GARDENS.
   - C. WATER RAIN GARDENS WITH EXISTING VEGETATION PER SECTION G1-4.10(D)(1) OF STANDARD GREEN INFRASTRUCTURE SPECS ON DDC WEBSITE
   - D. INSTALL TEMPORARY COVERING, EROSION CONTROL FABRIC OR PLASTIC OVER BARE SOIL IN RAIN GARDENS AND GENTLY SECURE
   - E. AVOID STEPPING IN PLANTING BED WHEN INSTALLING PROTECTION MEASURES
   - F. DO NOT PLACE MATERIALS WITHIN OR ON TOP OF RAIN GARDEN

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE
EXT-2699-BK-NYCDEP-GICP
9
EXTERNAL PARTNER PROGRAM

LEGEND

- 12" - TREE TO BE PROTECTED
- TREE DRIPLINE
- TREE CRITICAL ROOT ZONE
- CONSTRUCTION ACCESS/ENTRANCE
- STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CLL - CONTRACT LIMIT LINE
- SF - SILT FENCE
- CF - TEMPORARY CONSTRUCTION FENCE
- INLET PROTECTION
- BIOSWALE PROTECTION

TABLE 4.6(a) - CONSTRUCTION SEQUENCING

PHASE # N/A: *Phase identical w/ exceptions noted*
STAGE # 1: Tree Protection, Construction Sequencing, and ESC

CONSTRUCTION ACTIVITY (in sequential order)	PRACTICE(S) INSTALLED PRIOR TO ACTIVITY[1]	PRACTICE(S) INSTALLED DURING ACTIVITY	PRACTICE(S) INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY[1]
Protect existing vegitation		Tree guards Bioswale Protection - Silt Socks	
Install perimeter erosion control measures and fencing		Silt Fence Inlet Protection Construction Entrance	
Establish Staging Area		Site Pollution Prevention Stockpile Protection	

PLAN
SCALE: 1" = 30'

1" = 30' (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

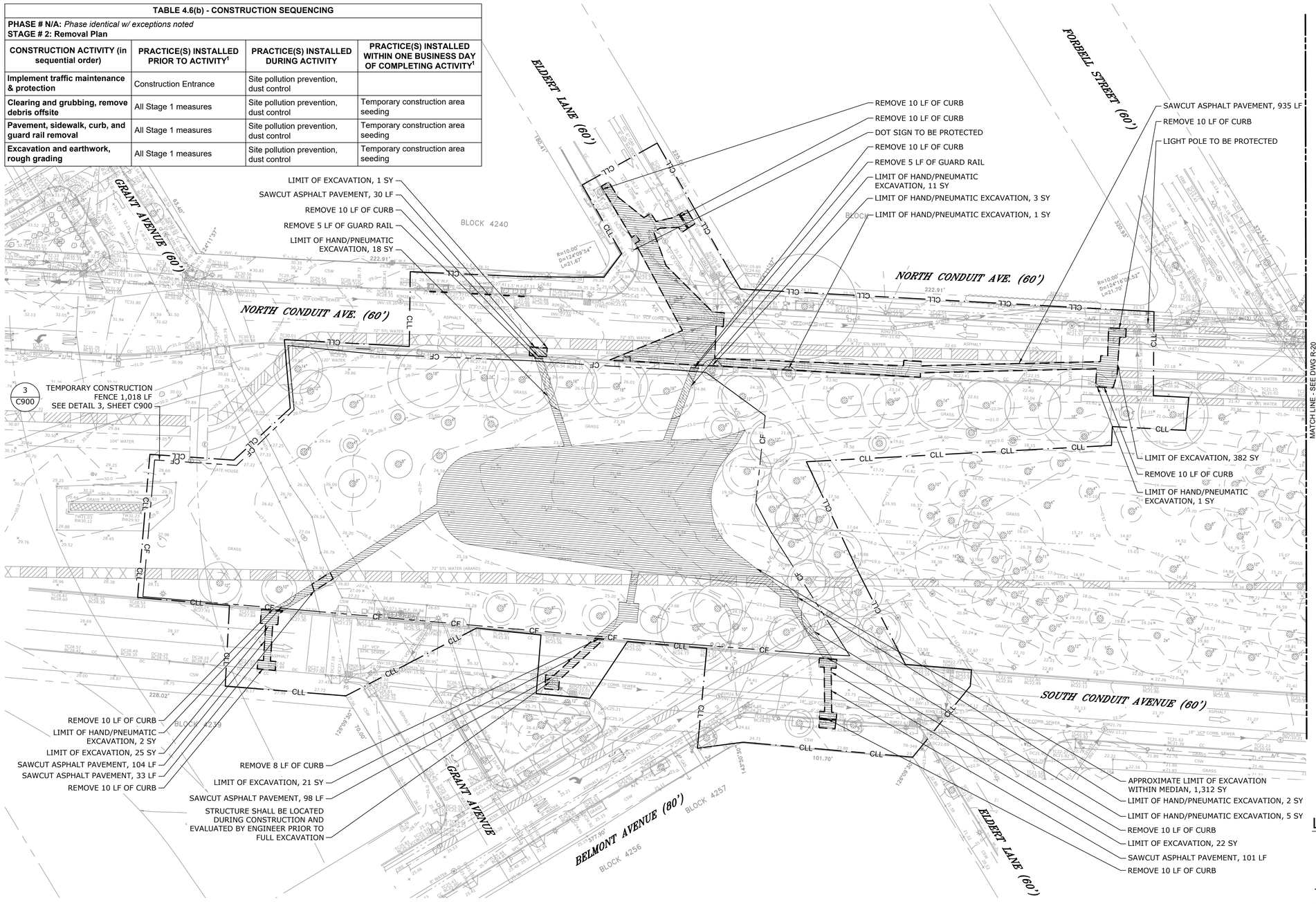
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 5

DATE JUL 2026
PAGE 109 OF 171
SHEET TP-10

File = O:\90336\ACAD\90336-010\CADD\LI\TREE PROTECTION PLAN - AREA N3Y1 Saved by DThomas Save date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:39 AM BY: FAUTH
XREFs= .._TBLOCK\90336-010_TB_HAZEN...\000_BASECX-STRU...\000_BASECN-REMOVAL

TABLE 4.6(b) - CONSTRUCTION SEQUENCING			
PHASE # N/A: *Phase identical w/ exceptions noted* **STAGE # 2: Removal Plan**			
CONSTRUCTION ACTIVITY (in sequential order)	**PRACTICE(S) INSTALLED PRIOR TO ACTIVITY[1]**	**PRACTICE(S) INSTALLED DURING ACTIVITY**	**PRACTICE(S) INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY[1]**
Implement traffic maintenance & protection	Construction Entrance	Site pollution prevention, dust control	
Clearing and grubbing, remove debris offsite	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding
Pavement, sidewalk, curb, and guard rail removal	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding
Excavation and earthwork, rough grading	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding



NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   - A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   - B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. NO UTILITY SERVICE VALVES (WATER, GAS, ETC) MAY BE LOCATED WITHIN THE FOOTPRINTS OF PROPOSED INFRASTRUCTURE.
3. ALL EXCAVATION WITHIN AN EXISTING TREE CRITICAL ROOT ZONE (CRZ) SHALL BE DONE BY HAND OR PNEUMATIC MEANS.
4. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF EXISTING UTILITIES WHERE ENCOUNTERED DURING EXCAVATION. SEE G-2 FOR FURTHER INFORMATION.

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE
EXT-2689-BK-NYCDEP-GICP-9
7/7/2026 12:54 PM
EXTERNAL PARTNER PROGRAM

LEGEND

- FULL DEPTH EXCAVATION LIMIT
- FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT
- CLL - CONTRACT LIMIT LINE
- CF - TEMPORARY CONSTRUCTION FENCE

PLAN
SCALE: 1" = 30'

1" = 30' (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
REMOVAL PLAN - NW-01RGa

DATE JUL 2026
PAGE 110 OF 171
SHEET R-10

File = O:\903\84-NYC\903384-010\CAD\CIVIL\REMOVAL PLAN - AREA NW1 Saved by TAuth Save date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:38 AM BY: TAUTH
XREFs= ..\TBLOCK\903384-010_TB_HAZEN...\000_BASECN-REMOVAL...\000_BASECK-STRU

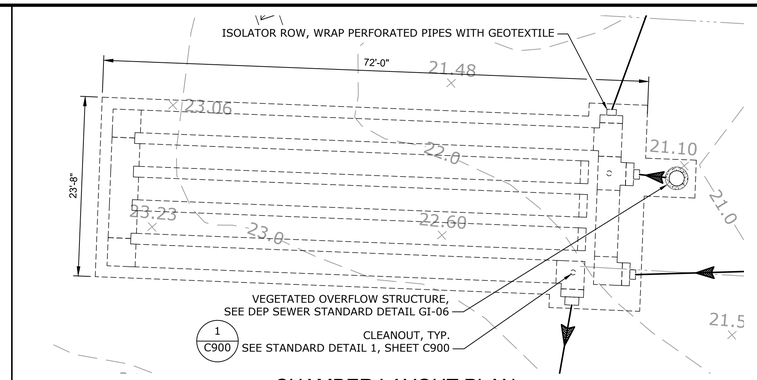
NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.



TABLE 4.6(c) - CONSTRUCTION SEQUENCING			
PHASE # N/A: *Phase identical w/ exceptions noted* **STAGE # 3: Install Site, Grading and Proposed Drainage Elements**			
CONSTRUCTION ACTIVITY (in sequential order)	**PRACTICE(S) INSTALLED PRIOR TO ACTIVITY[1]**	**PRACTICE(S) INSTALLED DURING ACTIVITY**	**PRACTICE(S) INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY[1]**
Install bioretention areas and backfill	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding, mulching
Install drainage pipes and backfill	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding, mulching
Final Grading	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding, mulching, and/or permanent construction area seeding

PLAN
SCALE: 1" = 30'



CHAMBER LAYOUT PLAN
SCALE: 1" = 10'

LEGEND

- CLL — CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 — PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- STAKING POINT
- 15 — EXISTING GRADE
- 15 — PROPOSED GRADE
- A1 A3 — PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- ISOLATOR ROW WITH GEOTEXTILE

STAKING TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
1	185292.93	1021866.01	TEST PIT A
2	185281.40	1021868.62	TEST PIT B
3	185539.35	1021872.74	TEST PIT C
4	185377.09	1021805.02	CORNER SUBSURFACE SYSTEM
5	185402.22	1021815.45	CORNER SUBSURFACE SYSTEM
6	185391.86	1021815.69	NW1-OF1
7	185567.93	1021843.26	NW1-CB2
8	185542.61	1021859.74	NW1-MH1
9	185537.78	1021880.01	NW1-CB3
10	185460.01	1021858.99	NW1-MH2
11	185394.08	1022091.18	NW1-CB4
12	185376.15	1022079.36	NW1-MH4
13	185365.12	1022072.46	NW1-CB5
14	185412.79	1021972.73	NW1-MH3
15	185241.93	1021858.11	NW1-CB6
16	185274.15	1021870.26	NW1-CB7
17	185314.23	1021861.23	NW1-MH6
18	185376.06	1021823.23	NW1-MH5
19	185379.95	1021566.61	NW1-CB8
20	185408.32	1021579.21	NW1-MH7
21	185435.69	1021704.44	NW1-OUT2
22	185494.26	1021774.68	NW1-CB1
23	185430.47	1021772.53	NW1-OUT1
24	185338.82	1021772.27	NW1-OCS
25	185442.81	1021713.63	CORNER OF 20.5 CONTOUR
26	185419.80	1021704.11	CORNER OF 20.5 CONTOUR
27	185370.53	1021798.56	CORNER OF 20.5 CONTOUR
28	185416.76	1021822.97	CORNER OF 20.5 CONTOUR
29	185428.20	1021748.29	CORNER SUBSURFACE SYSTEM
30	185406.31	1021739.21	CORNER SUBUSRFACE SYSTEM
31	185416.62	1021830.08	22.0 CONTOUR
32	185365.17	1021801.98	22.0 CONTOUR
33	185382.86	1021742.60	24.0 CONTOUR
34	185437.24	1021691.92	24.0 CONTOUR
35	185452.51	1021733.32	24.0 CONTOUR

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE
EXTERNAL PARTNER PROGRAM
2026.03.19 11:54:09 PM

TEST PITS - NW-01RGa				
Point No.	**Description**	**Existing Utility**	**Hand Excavation Required (yes/no)**	**Depth (ft)**
1	A	48" WATER	yes	7.00
2	B	8" WATER	no	7.00
3	C	8" WATER	no	8.00
Note: Test pits shall be completed in the order they appear on this table				

1" = 30' — 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — ANDREW C. MELNYK — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
LAYOUT PLAN - NW-01RGa

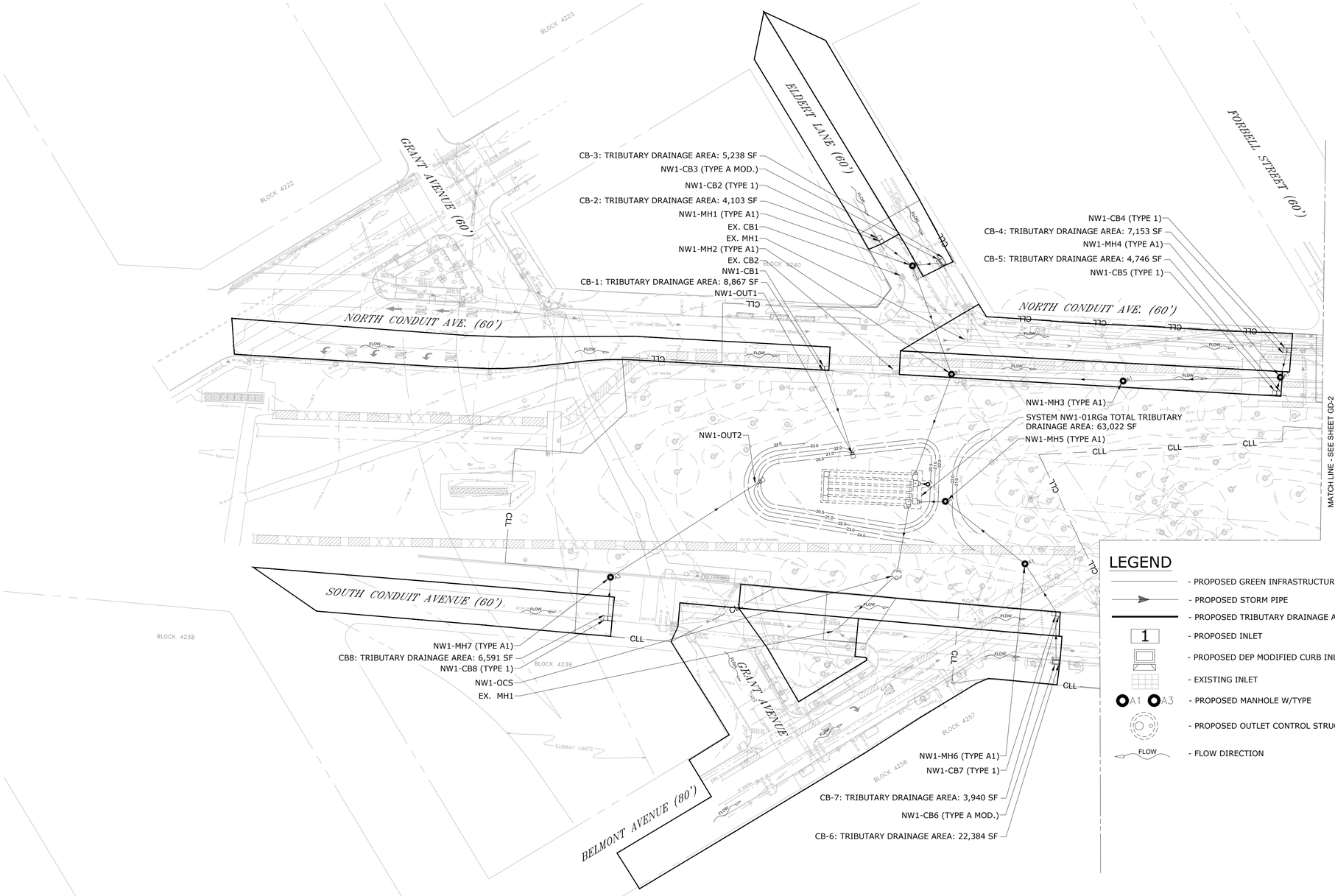
DATE JUL 2026
PAGE 111 OF 171
SHEET C-10

File = O:\90336\NYC\90336-010\CAD\CIVIL\STAKING PLAN - AREA-NW1 Saved by TAuth Save date = 5/6/2026 8:38 AM
PLOT DATE: 5/6/2026 8:38 AM BY: TAUTH

XREFs= .._TBLOCK\90336-010_TB_HAZEN...\000_BASE\CN-STRU...\000_BASE\CX-STRU...\000_BASE\CN-STAKING-NW1...\000_BASE\CN-REMOVAL

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
2. SEE SHEET GD-11 FOR STRUCTURE ELEVATIONS.



LEGEND

- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- PROPOSED TRIBUTARY DRAINAGE AREA
- PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLOW DIRECTION

PLAN

SCALE: 1" = 40'

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE, CP
LDCA-2699-BK-NYCDEP-GICONS
7/7/2026, 3:45:34 PM
EXTERNAL PARTNER PROGRAM

1" = 40' 40 20 0 40'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

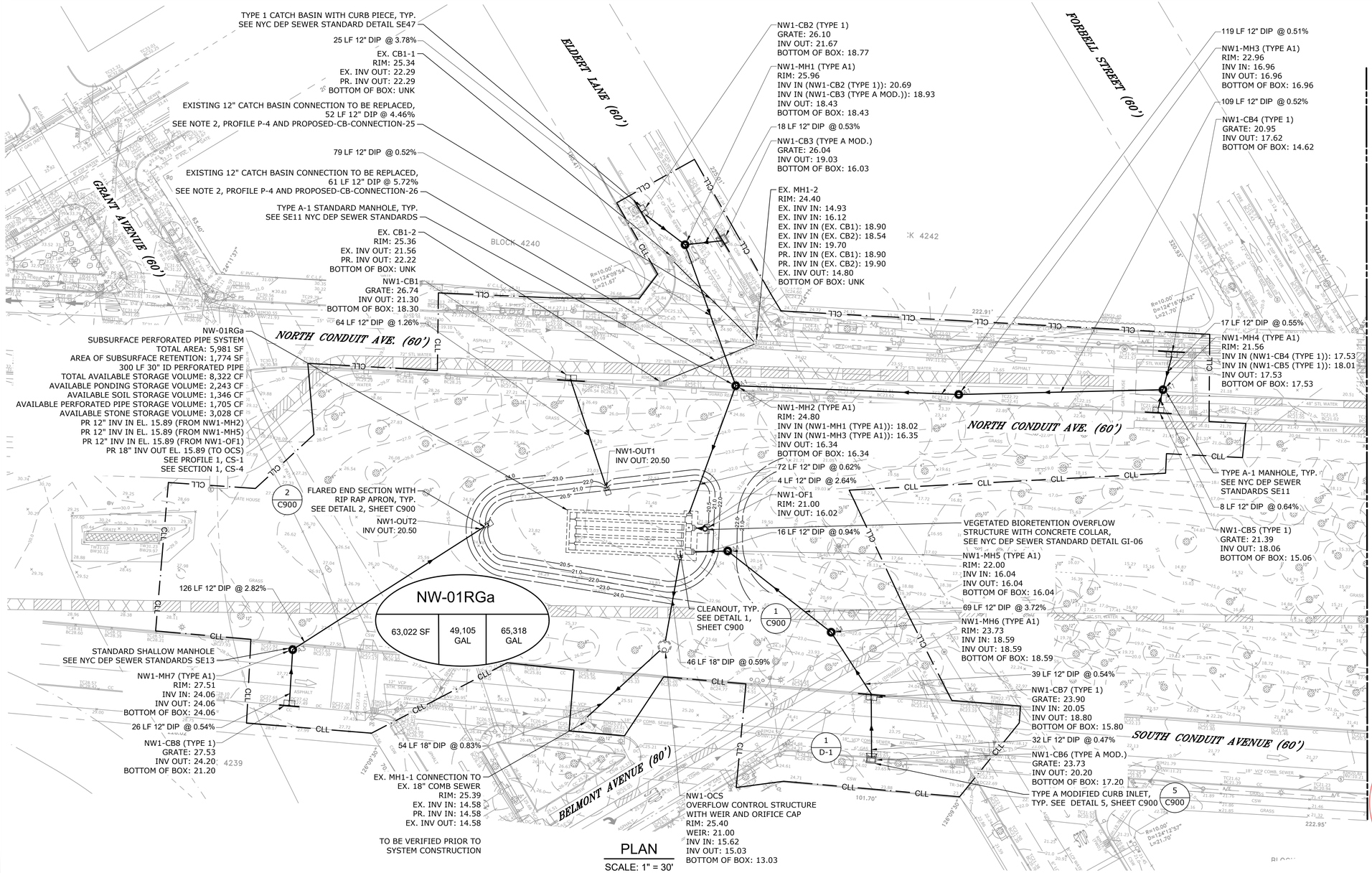
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
TRIBUTARY DRAINAGE AREA - NW-01RGa

DATE	JUL 2026
PAGE	112 OF 171
SHEET	GD-10

File = O:\90336-NYC\90336-010\CAD\CIVIL\TDA PLAN-ANY_2 Saved by TAuth Save date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:39 AM BY: TAUTH

XREFs= _TBLOCK\90336-010_TB_HAZEN...\000_BASE\CN-STRU...\000_BASE\CX-STRU,O:\90336-NYC\90336-010\CAD\000_BASE\CN-DRAINAGE...\000_BASE\CN-3D-PIPES

GI ID		GI Asset Data					Stormwater Storage Calculations													Total Stormwater Managed (Infiltration + Storage)				
								Surface Storage			Engineered Soil			Drainage Stone Subbase			Stone Subbase							
		Managed Impervious Tributary Area	Volume 1.25" Rainfall on Impervious Area	GI Footprint Surface Area	GI Perimeter	Permeability Coefficient	Stormwater chambers, pipes, tanks, etc. volume	Surface Storage Area	Surface Storage Depth	Surface Storage Volume	Soil Depth	Soil Voids	Stormwater Captured by Soil	Stone Depth	Stone Voids	Stormwater Captured by Stone Layer	Stone Depth	Stone Voids	Stormwater Captured by Stone Layer	Estimated Total Infiltration Volume	Estimated Total Storage Volume	% Impervious Surface Managed	Calculated Volume of Rainfall Captured	Calculated Volume of Rainfall Captured
		sf	cf	sf	ft	in/hr	cf	sf	in	cf	ft	%	cf	ft	%	cf	ft	%	cf	cf	cf	%	cf	gal
NW-01RGa	Retention credit, sized for static volume to capture 1.25 in	63,022	6,565	1,774	212	1.63	1,705	5,981	6	2,243	0.90	25	1,346	0.50	40	1,196	3.96	40	1,832	410	8,322	127%	8,732	65,318



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
2. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).

LEGEND

- CLL — CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 — PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- 15 — EXISTING GRADE
- 15 — PROPOSED GRADE
- A1 A3 — PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE

GI NAME

TRIBUTARY AREA	VOLUME OF 1.25" STORM	CAPACITY MANAGED

- GREEN INFRASTRUCTURE CHARACTERISTICS

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE
PE-2699-BK-NYCDEP-GICP
EXTERNAL 3rd PARTY REVIEW PROGRAM

1" = 30'

MATCH LINE - SEE SHEET GD-21

File = O:\90336\NYC\90336-010\CAD\CIVIL\GD-11 DRAINAGE PLAN - AREA-NW1 Saved by TAuth Save date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:38 AM BY: TAUTH

XREFs= .._TBLOCK\90336-010_TB_HAZEN...\000_BASE\XREF-ROW...\000_BASE\CN-STRU...\000_BASE\CX-STRU.D:\90336-NYC\90336-010\CAD\000_BASE\CN-3D-PIPES...\000_BASE\EXISTING UTILITY REPLACEMENT

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

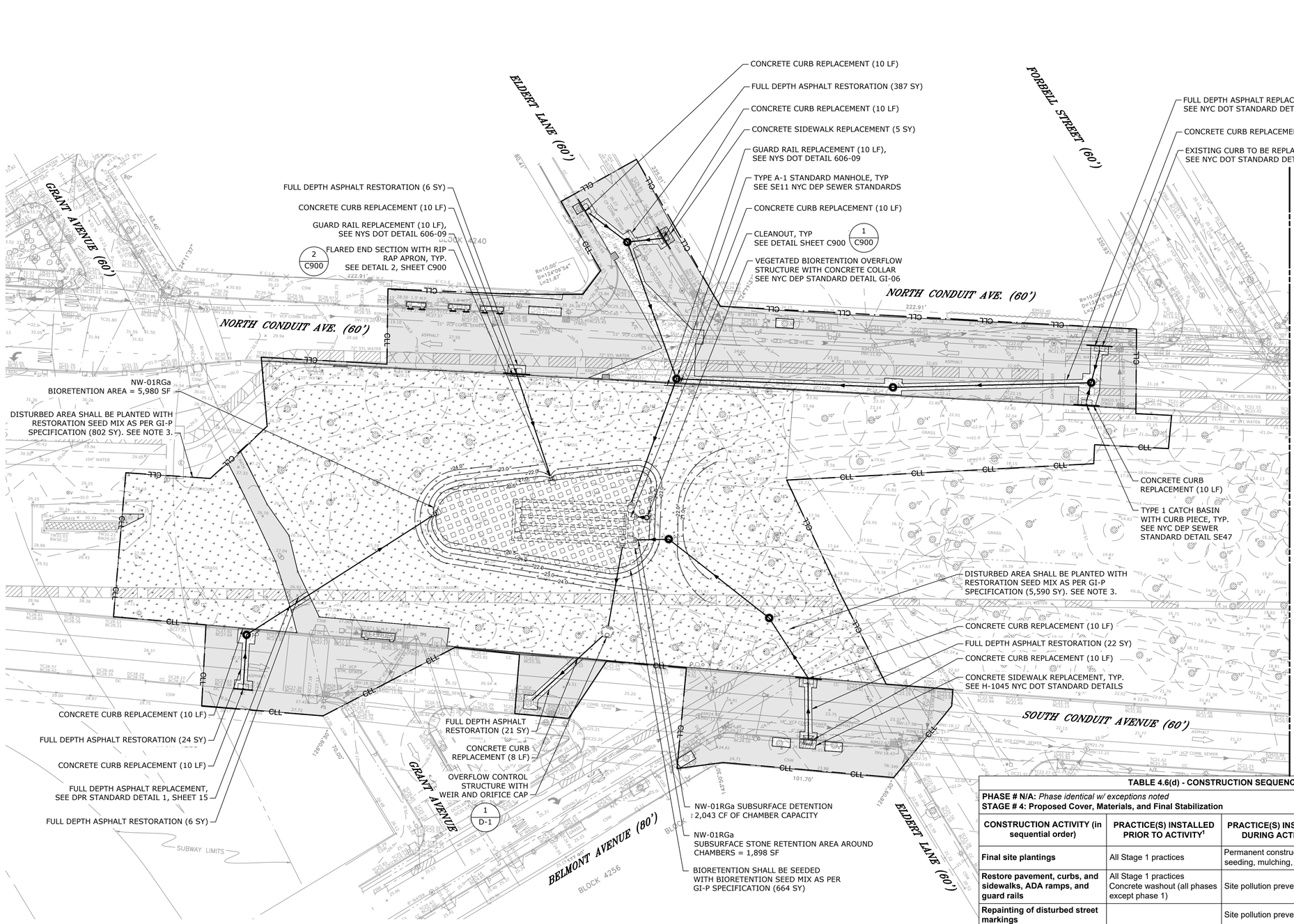
APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NW-01RGa

DATE JUL 2026
PAGE 113 OF 171
SHEET GD-11



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 FROM TRUE NORTH.
2. GRASSED AND MULCHED AREAS WITHIN CONTRACT LIMIT LINE, BUT NOT DENOTED FOR RESTORATION SEED MIX, ARE NOT INTENDED TO BE DISTURBED. IF GRASSED OR MULCHED AREAS ARE DISTURBED, AREA SHALL BE STABILIZED WITH RESTORATION SEED MIX PER THE CONTRACT SPECIFICATIONS.
3. TOP SOIL SHALL BE ADDED TO RESTORATION AREAS WHERE FULL DEPTH EXCAVATION HAS OCCURRED. ALL OTHER RESTORED AREAS SHALL USE RESTORATION SEED MIX ONLY.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLARED END SECTION WITH RIP RAP APRON
- IMPERVIOUS AREA (UNDISTURBED)
- IMPERVIOUS AREA (FULL DEPTH ASPHALT RESTORATION)
- IMPERVIOUS AREA (FULL DEPTH SIDEWALK RESTORATION)
- PERVIOUS AREA (UNDISTURBED, SEE NOTE 2)
- PERVIOUS AREA (RESTORATION SEED MIX)
- PERVIOUS AREA (BIORETENTION SEED MIX)

TABLE 4.6(d) - CONSTRUCTION SEQUENCING

PHASE # N/A: *Phase identical w/ exceptions noted*
STAGE # 4: Proposed Cover, Materials, and Final Stabilization

CONSTRUCTION ACTIVITY (in sequential order)	PRACTICE(S) INSTALLED PRIOR TO ACTIVITY[1]	PRACTICE(S) INSTALLED DURING ACTIVITY	PRACTICE(S) INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY[1]
Final site plantings	All Stage 1 practices	Permanent construction area seeding, mulching, topsoil	
Restore pavement, curbs, and sidewalks, ADA ramps, and guard rails	All Stage 1 practices Concrete washout (all phases except phase 1)	Site pollution prevention	
Repainting of disturbed street markings		Site pollution prevention	
Remove temporary erosion control measures and clean any sedimentation in the pavement and drainage pipes		Site pollution prevention	

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE
EXT-2699-BK-NYCDEP-GI-P
7/7/2026 11:11:11 AM
EXTERNAL PARTNER PROGRAM

PLAN
SCALE: 1" = 30'

1" = 30' 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN - NW-01RGa - SHEET 1

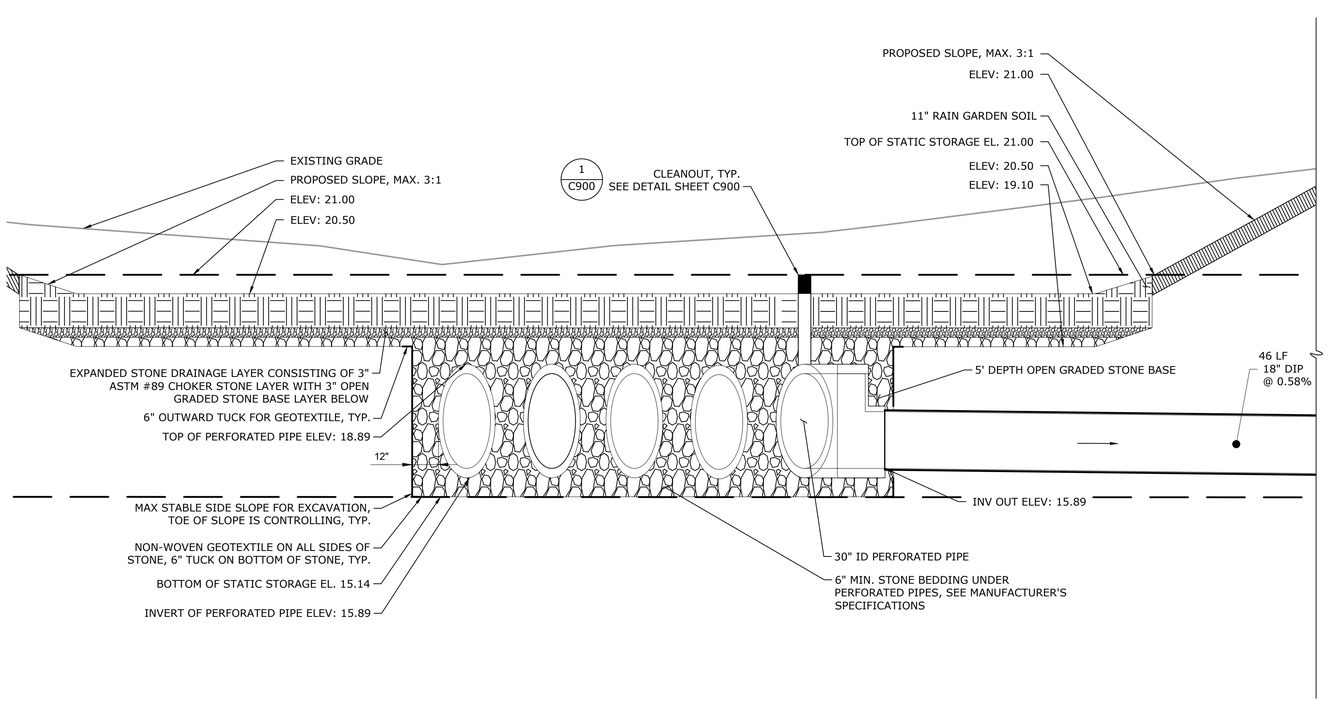
DATE	JUL 2026
PAGE	114 OF 171
SHEET	M-10

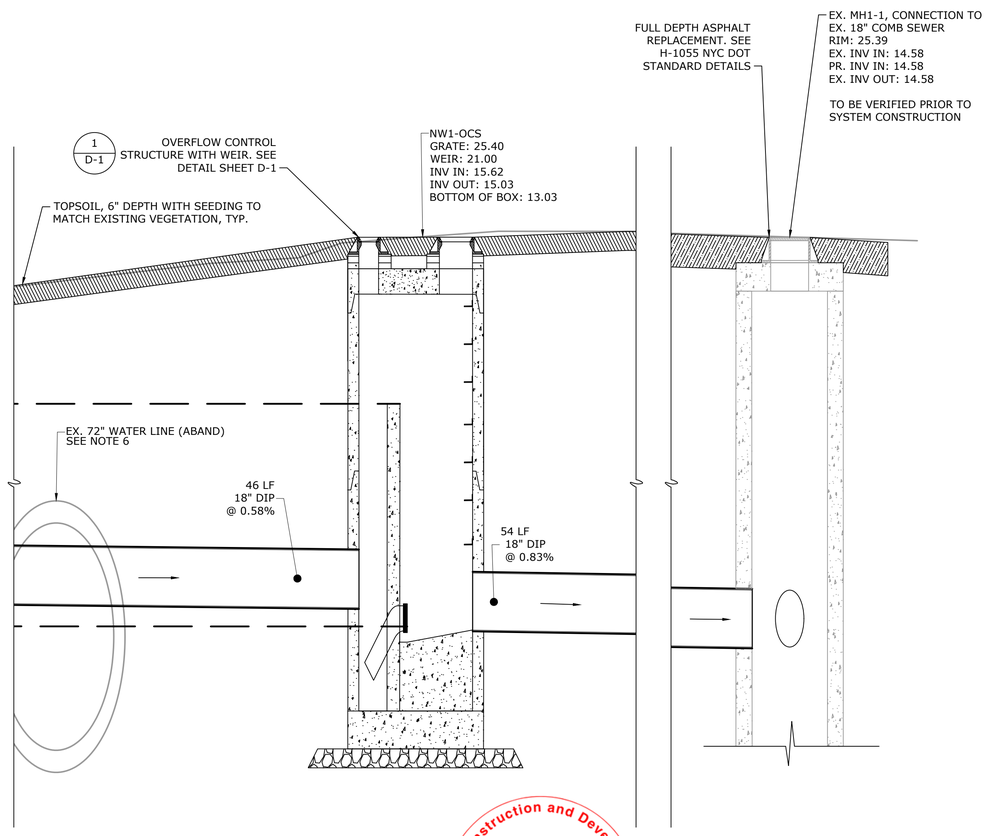
File = O:\90336-NYCWX\336-01\TCAD\CIVIL\MASTER\PLAN - AREA-NW1 Saved by TAuth Save date = 8/6/2026 8:39 AM
PLOT DATE: 8/6/2026 8:39 AM BY: TAUTH

XREFs= _TBLOCK\90336-010_TB_HAZEN...\000_BASE\XREF-ROW...\000_BASE\CN-REMOVAL...\000_BASE\CN-STRU...\000_BASE\CX-STRU...\000_BASE\CN-MATERIALS...\000_BASE\WORKING\CX-HATCHING-X...\000_BASE\WORKING\CX-HATCHING-R

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 8,322 CF AND IS CALCULATED BETWEEN EL. 15.14 AND EL 21.00.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES AND FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 5A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIL GARDEN SOIL AND STONE LAYERS.
6. EXISTING UTILITIES TO BE REMOVED WITHIN PROPOSED GREEN INFRASTRUCTURE FOOTPRINT WHERE INDICATED IF CONFLICT EXISTS, IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.





NW-01RGA-PROFILE-P-1

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE
EPC-2699-BK-NYCDEP-GICP-NS-9
7/17/2026 8:37:55 PM
EXTERNAL PARTNER PROGRAM

1" = 2' 2 1 0 2'
1" = 4' 4 2 0 4'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

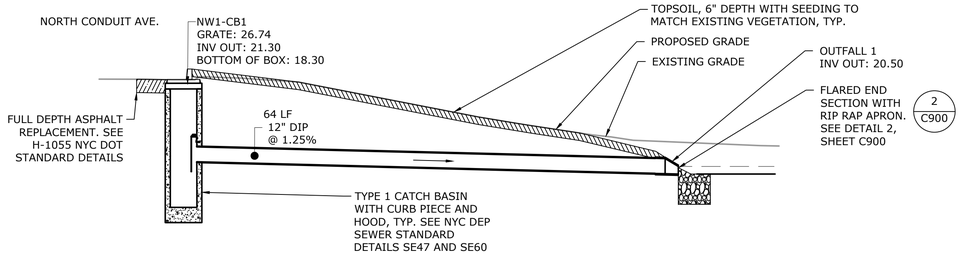
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NW-01RGa I

DATE JUL 2026
PAGE 115 OF 171
SHEET CS-10

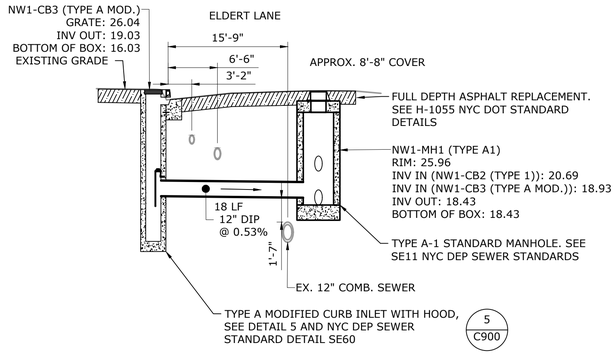
File = O:\90336-NYC\90336-010\CAD\CIVIL\PROFILE - AREA NW1 - SHEET I Saved by TAuth Save date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:39 AM BY: TAUTH

XREFs= .._TBLOCK\90336-010_TB_HAZEN.O:\90336-NYC\90336-010\CAD\000_BASE\CN-3D-PIPES



NW-01RGA-PROFILE-P-2

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

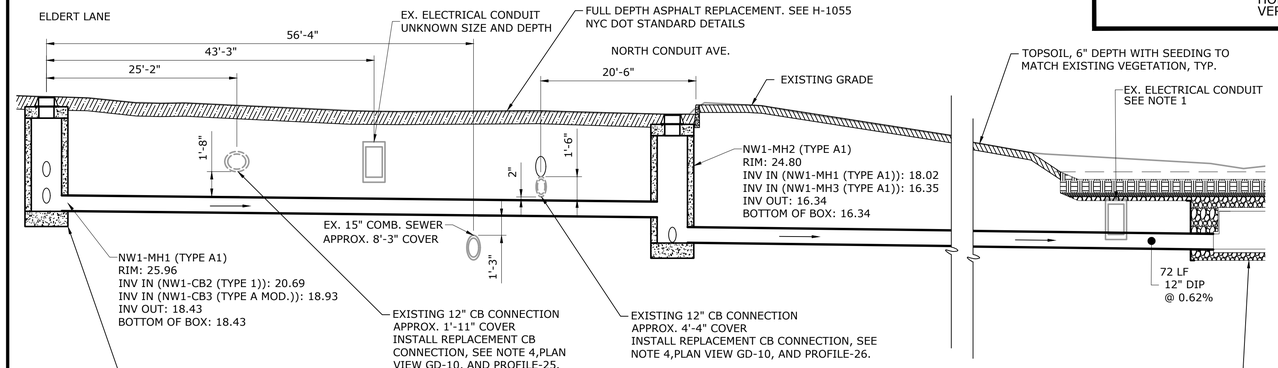


NW-01RGA-PROFILE-P-3

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

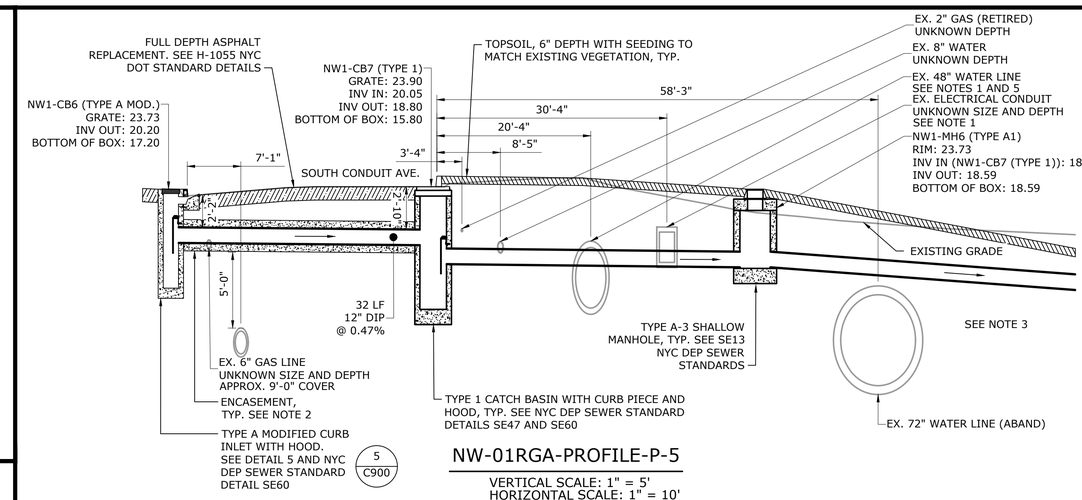
NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.
3. EXISTING UTILITIES TO BE REMOVED WHERE CROSSING PATH OF PROPOSED PIPE WITH LESS THAN 6 INCHES OF CLEARANCE, IF NECESSARY
4. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE)
5. DIP PIPE JOINTS SHALL BE SPACED TO AVOID POSITIONING THE PIPE BELL DIRECTLY OVERHEAD ANY EXISTING DEP 48-IN TRUCK WATER MAIN.



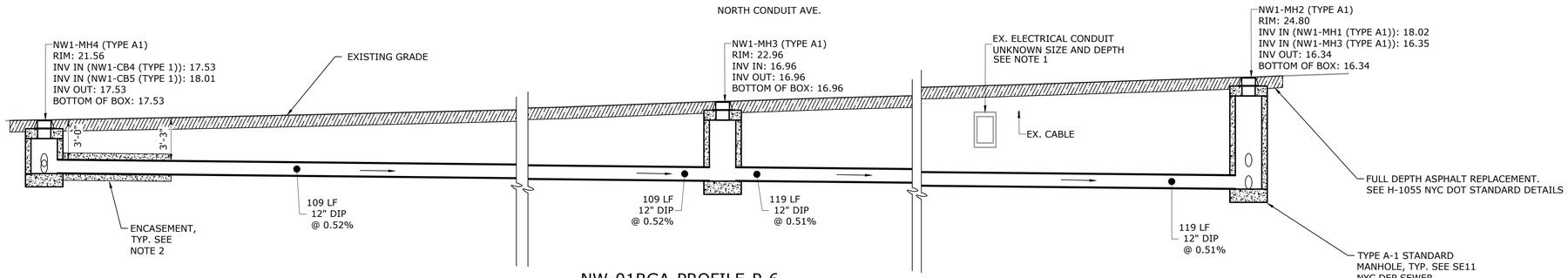
NW-01RGA-PROFILE-P-4

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NW-01RGA-PROFILE-P-5

VERTICAL SCALE: 1" = 5'
HORIZONTAL SCALE: 1" = 10'



NW-01RGA-PROFILE-P-6

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE
EXTERNAL PLANNER PROGRAM
11/7/2025 9:37:13 AM

1" = 5' 5 0 5'
1" = 10' 10 5 0 10'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

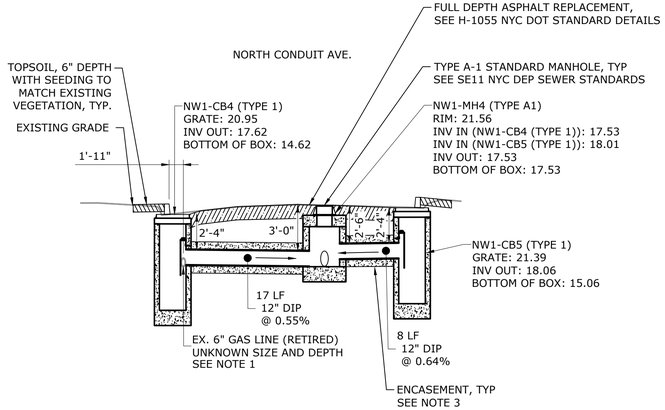
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NW-01RGa II

DATE JUL 2026
PAGE 116 OF 171
SHEET CS-11

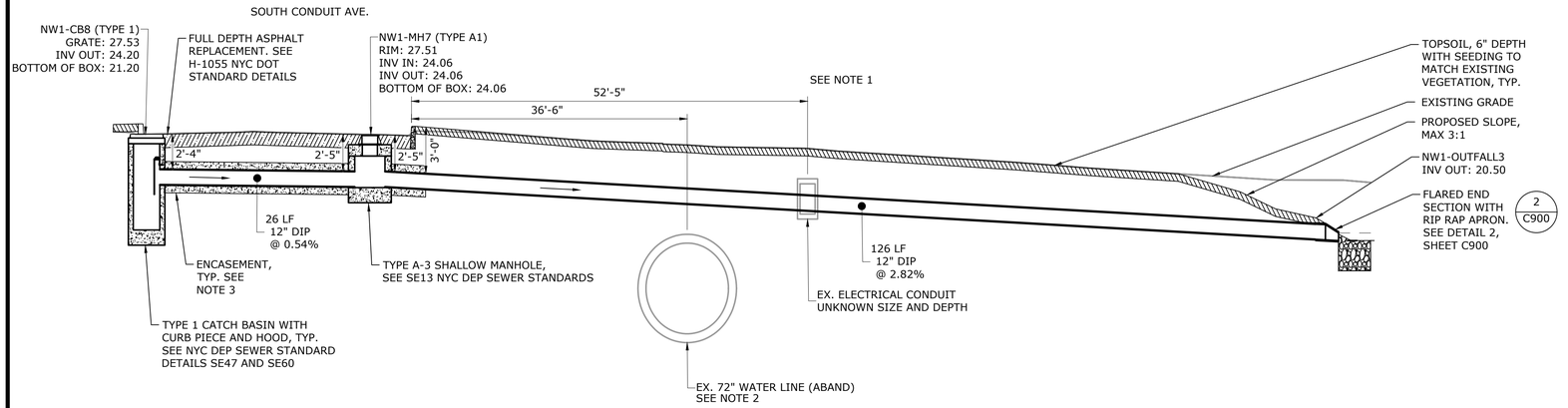
File = O:\90336-NYC\90336-010\CAD\CIVIL\PROFILE - AREA NW1 - CROSSING1 Saved by skaine Save date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:39 AM BY: TAUTH

XREFs= -_TBLOCK\90336-010_TB_HAZEN...\000_BASE\CN-3D-PIPES



NW-01RGA-PROFILE-P-7

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NW-01RGA-PROFILE-P-8

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. EXISTING UTILITIES TO BE REMOVED WITHIN PROPOSED GREEN INFRASTRUCTURE FOOTPRINT WHERE INDICATED IF CONFLICT EXISTS, IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.
3. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE, CP
EBA-2699-BK-NYCDEP-GICONY
7/7/2026, 3:57:53 PM
EXTERNAL PARTNER PROGRAM

1" = 5' 5 0 5'
1" = 10' 10 5 0 10'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

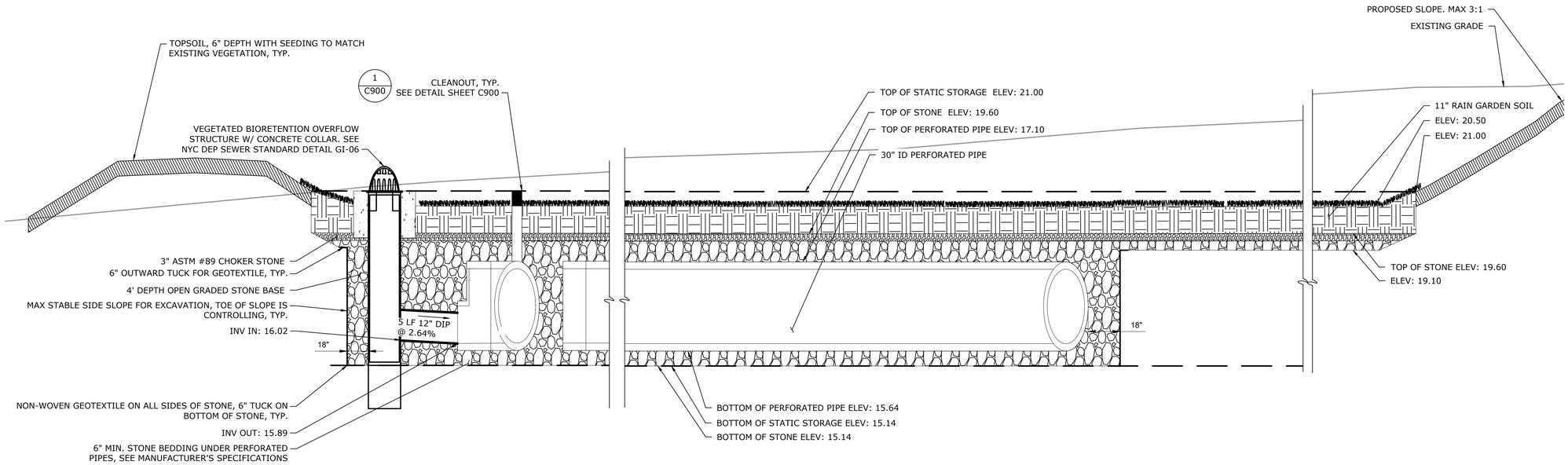
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROFILE - NW-01RGa III

DATE JUL 2026
PAGE 117 OF 171
SHEET CS-12

File = O:\90336-NYC\90336-010\CAD\CIVIL\PROFILE - AREA NW1 - CROSSING2 Saved by skaine Save date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:39 AM BY: TAUTH
XREFs= -_TBLOCK\90336-010_TB_HAZEN_-1000_BASE\CN-3D-PIPES

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 8,322 CF AND IS CALCULATED BETWEEN EL. 15.14 AND EL. 21.00.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES AND FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   - A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   - B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 5A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIL GARDEN SOIL AND STONE LAYERS.



NW-01RGa - SECTION CS-1

HORIZONTAL SCALE:1" = 4'
VERTICAL SCALE: 1" = 2'

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE
LOA-2699-BK-NYCDEP-GICONS
7/7/2026, 3:57:53 PM EDT
EXTERNAL PARTNER PROGRAM

1" = 2' (2 1 0 2')
1" = 4' (4 2 0 4')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
CROSS SECTION - NW-01RGa

DATE JUL 2026
PAGE 118 OF 171
SHEET CS-13

File = O:\90336-NYC\90336-010\CAD\CIVIL\CROSS SECTION - AREA.NW\ Saved by \Ashi Save date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:39 AM BY: \ASHI
XREFs= .._TBLOCK\90336-010_TB_HAZEN.C-\90336-NYC\90336-010\CAD\000_BASE\CN-3D-PIPES

NOTES:

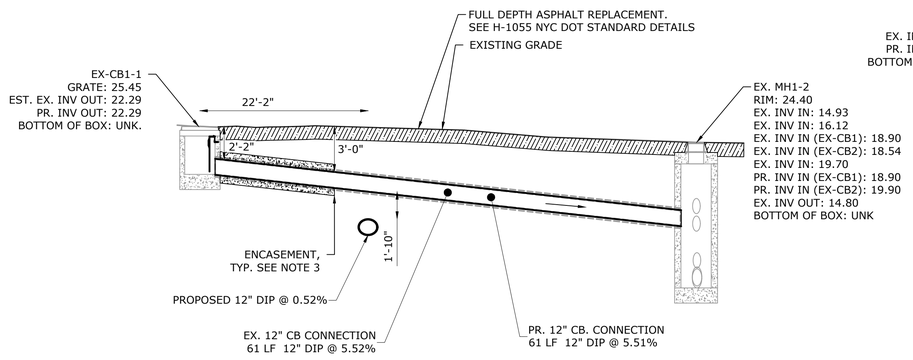
1. DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED VIA TEST PITS. CONTRACTOR SHALL SUBMIT FINDINGS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO SOURCING DRAINAGE STRUCTURES AND PRIOR TO BEGINNING EXCAVATION.

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE PIPE SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND ENGINEER'S REPRESENTATIVE SHALL COORDINATE WITH RESPECTIVE AGENCY.

   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE, ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.

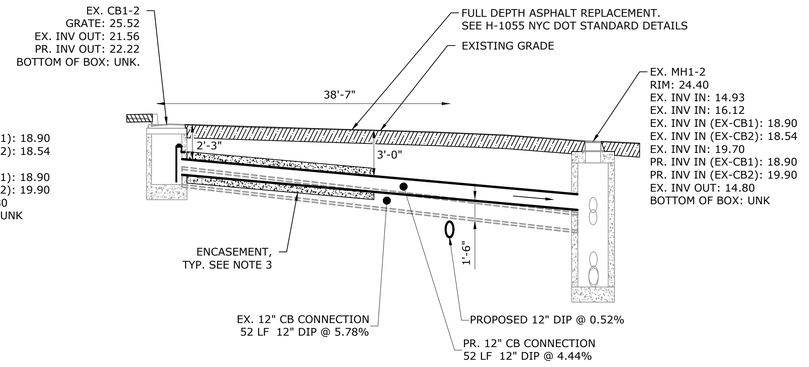
2. ALL PROPOSED CATCH BASIN CONNECTIONS SHALL BE CLASS 56 DIP.

3. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.



PROPOSED-CB-CONNECTION-25

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



PROPOSED-CB-CONNECTION-26

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

MTA Construction and Development
Reviewed as to Effect on NYCT Facilities Only
APPROVED
Hashim Muhammad-Graham
Senior Engineering Director, PE
License: 099-2899-BK-NYCDEP-GICONS
7/7/2026, 3:57:53 PM EDT
EXTERNAL PARTNER PROGRAM

1" = 5' 5 0 5'
1" = 10' 10 5 0 10'

VERTICAL SCALE: 1" = 5'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

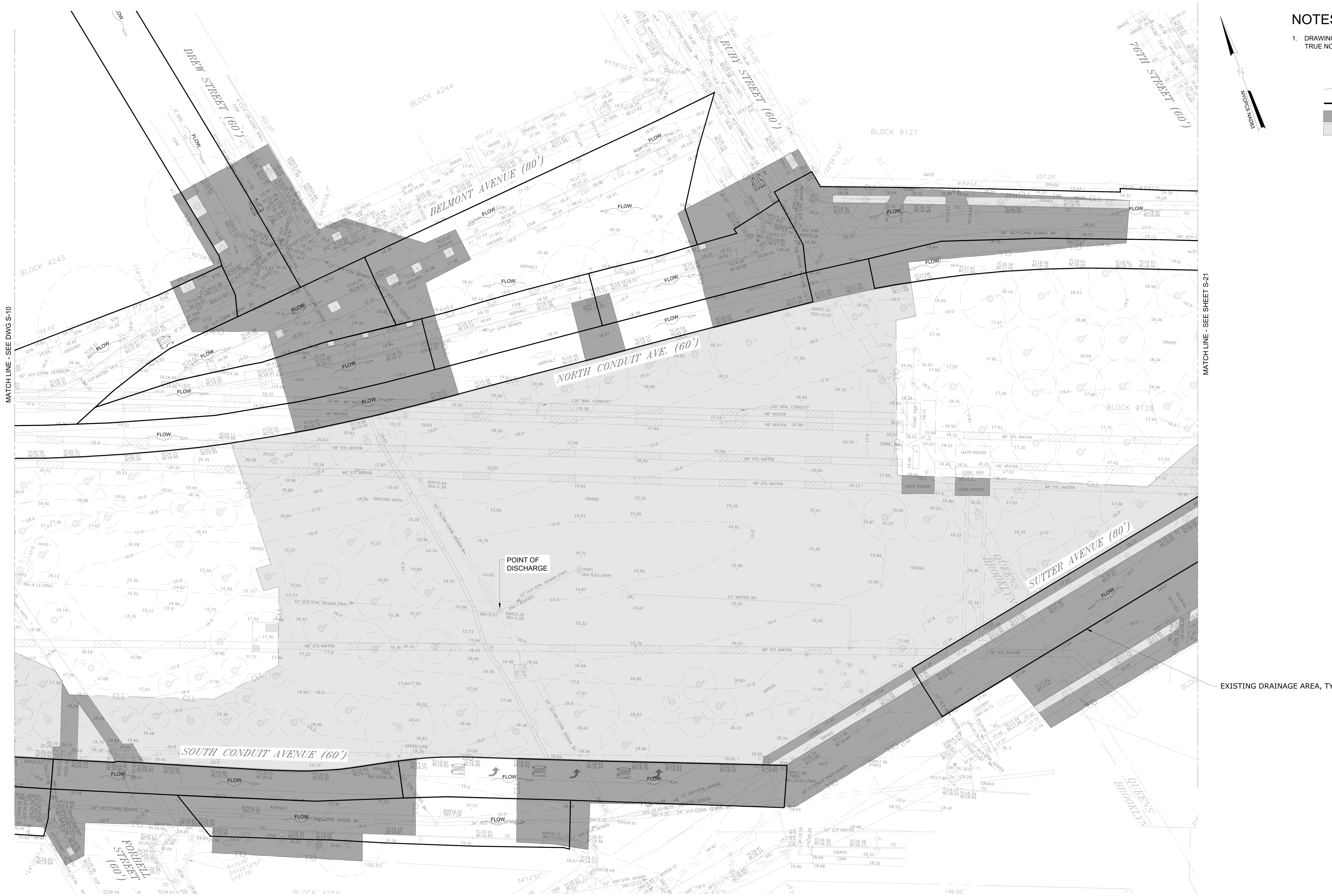
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS
PROPOSED CB CONNECTIONS - NW-01RGa

DATE JUL 2026
PAGE 119 OF 171
SHEET CS-14

File = O:\90336-NYC\90336-010\CAD\CIVIL\NW1_CBConnections Saved by TAuth Save date = 5/6/2026 8:36 AM
PLOT DATE: 5/6/2026 8:39 AM BY: TAUTH

XREFs= .._TBLOCK\90336-010_TB_HAZEN.O:\90336-NYC\90336-010\CAD\000_BASE\CN-3D-PIPES



PLAN

SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.

LEGEND

- FLOW — EXISTING FLOW DIRECTION
- EXISTING DRAINAGE AREA
- IMPERVIOUS AREA
- PERVIOUS AREA

30 15 0 30'

1" = 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — SANDEEP MEHROTRA — 073828-1 — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NW-02RGa I

DATE	JUL 2026
PAGE	120 OF 171
SHEET	S-20

CONSULTANT DESIGN

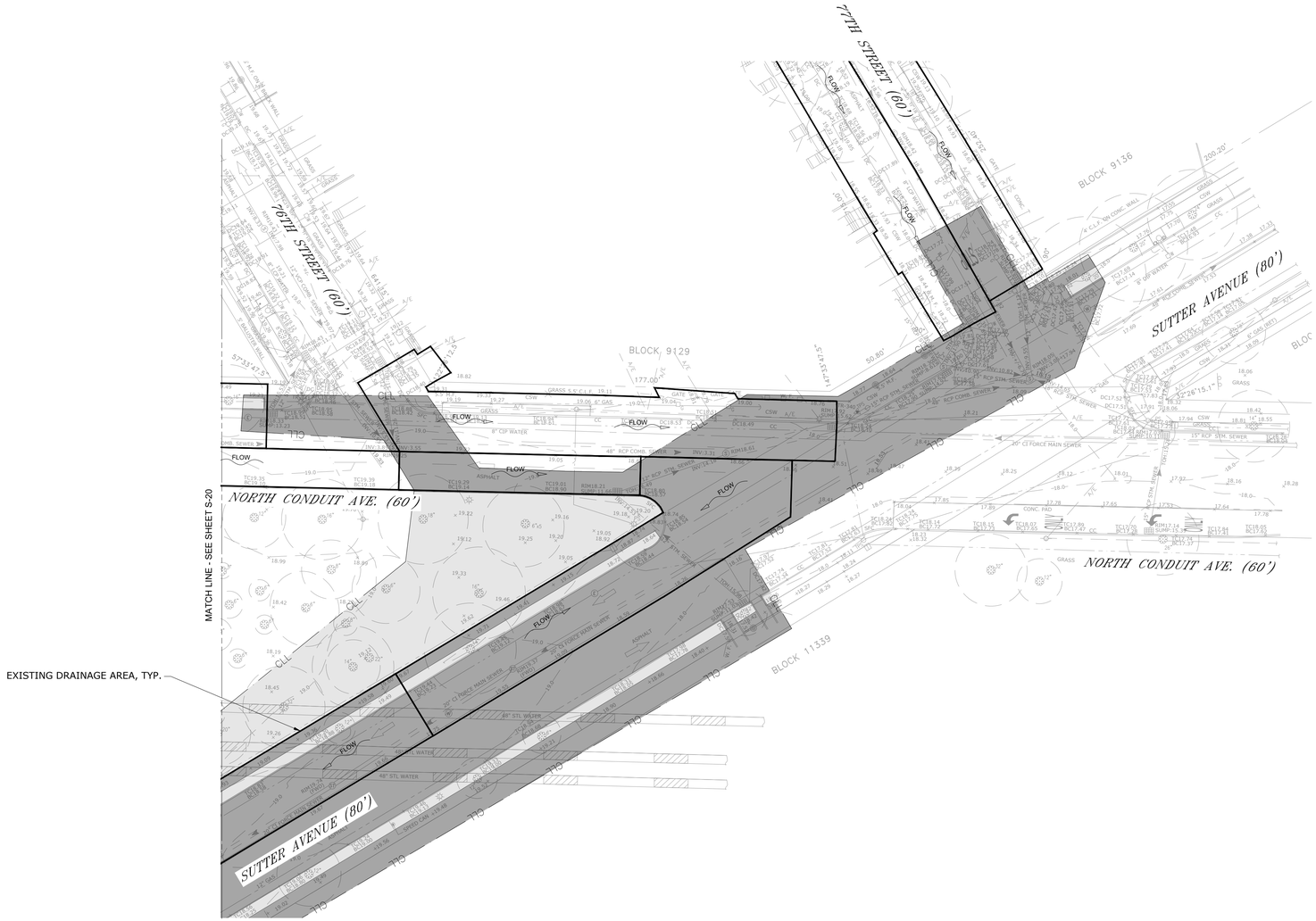
File: O:\90336-NYC\90336-010\CAD\CIVIL\EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - SHEET 2 Saved By TAUTH Save Date: 2026/07/30 3:59 PM
PLOT DATE: 2026/07/31 7:48:17 AM BY: TAUTH
XREFs= .._TBLOCK\90336-010_TB_HAZEN,..\000_BASE\CX-STRU,..\000_BASE\WORKING\CX-HATCHING-X,..\000_BASE\CN-DRAINAGE_EX,..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.

LEGEND

- EXISTING FLOW DIRECTION
- EXISTING DRAINAGE AREA
- IMPERVIOUS AREA
- PERVIOUS AREA



PLAN

SCALE: 1" = 30'

1" = 30'

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

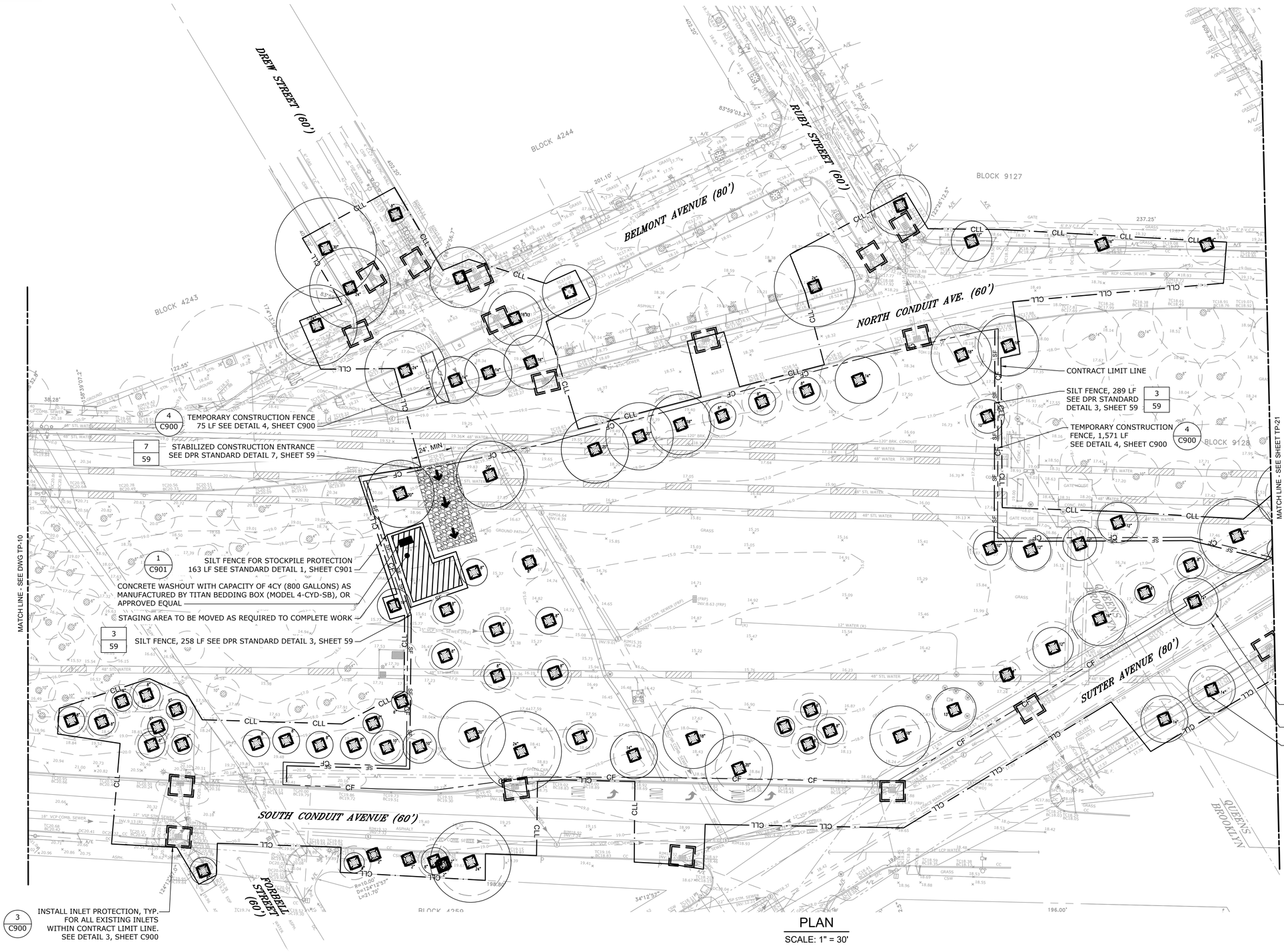
EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - NW-02RGa II

DATE	JUL 2026
PAGE	121 OF 171
SHEET	S-21

CONSULTANT DESIGN

File: O:\NY\336-NYC\336-010\CAD\CIVIL\EXISTING SITE, DRAINAGE UTILITY, AND COVER PLAN - SHEET 3 Saved By: FAUTH Save Date: 2026/07/20 3:59 PM
Plot Date: 2026/07/21 7:46:47 AM By: FAUTH

XREFs= ..._TBLOCK\[A336-010_TB_HAZEN...\000_BASE\CX-STRU...\000_BASE\WORKING\CX-HATCHING-X...\000_BASE\CN-DRAINAGE_EX...\...\...\Work Plan\0-Reference Material\502 CAD Templates\[Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

1" = 30'

30 15 0 30'

NOTES:

1. TREE CRZ DIAMETERS HAVE BEEN ESTIMATED BASED ON SURVEYED TRUNK DBH's. CRZ VALUES ARE CALCULATED AS 1' CRZ DIA. FOR EVERY DBH 1".
2. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
3. SEE DRAWING TP-10 FOR STAGE 1: TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC SEQUENCING TABLE.

LEGEND

- 12" - TREE TO BE PROTECTED
- TREE DRIPLINE
- TREE CRITICAL ROOT ZONE
- CONSTRUCTION ACCESS/ENTRANCE
- STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CLL - CONTRACT LIMIT LINE
- SF - SILT FENCE
- CF - TEMPORARY CONSTRUCTION FENCE
- INLET PROTECTION

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

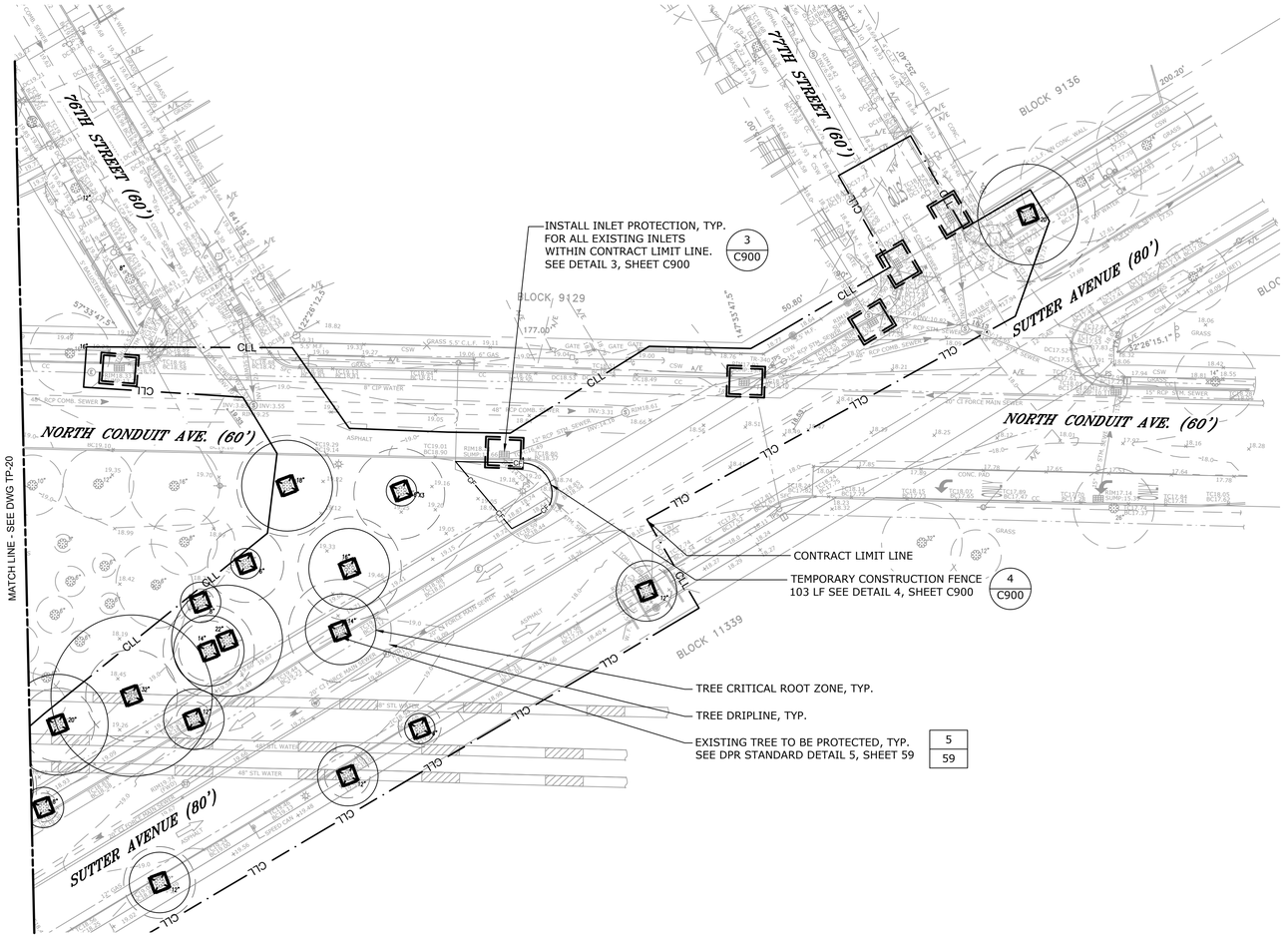
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 6

DATE JUL 2026
PAGE 122 OF 171
SHEET TP-20

CONSULTANT DESIGN

File: O:\WS08-NYC\WS08-001\CAD\CIVIL\TREE PROTECTION PLAN - AREA NW2 - SHEET 1 Saved By DTHOMAS Save Date: 2026/07/30 3:59 PM
PLOT DATE: 2026/07/31 1:42 PM BY: TMOHR
XREFs= ..\..\BLOCK\BI0336-010_TB_HAZEN...\000_BASE\CX-STRU...\000_BASE\CN-REMOVAL...\..\..\Work Plan\O-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



PLAN

SCALE: 1" = 30'

NOTES:

1. TREE CRZ DIAMETERS HAVE BEEN ESTIMATED BASED ON SURVEYED TRUNK DBH's. CRZ VALUES ARE CALCULATED AS 1' CRZ DIA. FOR EVERY DBH 1".
2. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
3. SEE DRAWING TP-10 FOR STAGE 1: TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC SEQUENCING TABLE.

LEGEND

- 12" - TREE TO BE PROTECTED
- TREE DRIPLINE
- TREE CRITICAL ROOT ZONE
- CONSTRUCTION ACCESS/ENTRANCE
- STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CLL - CONTRACT LIMIT LINE
- SF - SILT FENCE
- CF - TEMPORARY CONSTRUCTION FENCE
- INLET PROTECTION

1" = 30' 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

TREE PROTECTION, CONSTRUCTION SEQUENCING, AND ESC PLAN - PHASE 6

DATE JUL 2026
PAGE 123 OF 171
SHEET TP-21

CONSULTANT DESIGN

File: O:\WSSB-NYC\WS36-010\CAD\CIVIL\TREE PROTECTION PLAN - AREA NW2 - SHEET 2 Saved By DTHOMAS Save Date: 2026/07/30 3:59 PM
PLOT DATE: 2026/07/30 4:04:36 PM BY: Keith

XREFs= ..\..\BLOCK\B0336-010_TB_HAZEN...\000_BASE\CX-STRU...\000_BASE\CN-REMOVAL...\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   - A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   - B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. NO UTILITY SERVICE VALVES (WATER, GAS, ETC) MAY BE LOCATED WITHIN THE FOOTPRINTS OF PROPOSED INFRASTRUCTURE.
3. ALL EXCAVATION WITHIN AN EXISTING TREE CRITICAL ROOT ZONE (CRZ) SHALL BE DONE BY HAND OR PNEUMATIC MEANS.
4. EXISTING FIRE LINE TO BE REMOVED AND RELOCATED IN EXCAVATION AREA BETWEEN PROPOSED MH #8 AND MH#10 (SEE SHEET C-20). CONTRACTOR TO COORDINATE WITH BWSO TO REMOVE AND RELOCATE LINE.
5. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
6. SEE DRAWING R-10 FOR STAGE 2: REMOVAL PLAN CONSTRUCTION SEQUENCING TABLE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF EXISTING UTILITIES WHERE ENCOUNTERED DURING EXCAVATION. SEE G-2 FOR FURTHER INFORMATION.

DREW STREET (60')
RUBY STREET (60')
BELMONT AVENUE (80')
NORTH CONDUIT AVE. (60')
SOUTH CONDUIT AVENUE (60')
FORBELL STREET (60')
SUTTER AVENUE (80')
QUEENS BOROUGH LINE
BLOCK 9128
MATCH LINE - SEE DWG R-10
MATCH LINE - SEE DWG R-21
NYCDCP MAPPING

SUPPORT AND PROTECT 8" WATER LINE
DOT SIGN TO BE PROTECTED
LIMIT OF HAND/PNEUMATIC EXCAVATION, 16 SY
DOT SIGN TO BE PROTECTED
LIMIT OF EXCAVATION, 1 SY
REMOVE 10 LF OF CURB
LIMIT OF HAND/PNEUMATIC EXCAVATION, 76 SY
DOT SIGN TO BE PROTECTED
SAWCUT ASPHALT PAVEMENT, 424 LF
EXISTING 42" SEWER LINE TO BE PROTECTED DURING EXCAVATION
REMOVE 10 LF OF CURB
LIMIT OF HAND/PNEUMATIC EXCAVATION, 15 SY
REMOVE 4 LF OF CURB
REMOVE 4 LF OF CURB
LIMIT OF EXCAVATION, 16 SY
SAWCUT ASPHALT PAVEMENT, 76 LF
REMOVE 10 LF OF CURB
LIMIT OF HAND/PNEUMATIC EXCAVATION, 14 SY
LIMIT OF HAND/PNEUMATIC EXCAVATION, 1 SY
EXISTING 48" WATER LINE TO BE PROTECTED DURING EXCAVATION
LIMIT OF HAND/PNEUMATIC EXCAVATION, 4 SY
LIMIT OF HAND/PNEUMATIC EXCAVATION, 6 SY
REMOVE 10 LF OF CURB
REMOVE 29 LF OF CURB
LIMIT OF EXCAVATION, 79 SY
REMOVE 10 LF OF CURB
EXISTING SEWER LINE TO BE PROTECTED DURING EXCAVATION
SAWCUT ASPHALT PAVEMENT, 359 LF
REMOVE 10 LF OF CURB
EXISTING ADA RAMP TO BE PROTECTED DURING CONSTRUCTION
DOT SIGN TO BE PROTECTED
STRUCTURE SHALL BE LOCATED DURING CONSTRUCTION AND EVALUATED BY ENGINEER PRIOR TO FULL EXCAVATION
PLUG 15" CONNECTION TO EXISTING INLET
REMOVE EXISTING 15" STORM SEWER
REMOVE EXISTING INLET
REMOVE 10 LF OF CURB
LIMIT OF EXCAVATION, 193 SY
LIMIT OF HAND/PNEUMATIC EXCAVATION, 27 SY
LIMIT OF EXCAVATION, 3 SY
REMOVE 10 LF OF CURB
LIMIT OF HAND/PNEUMATIC EXCAVATION, 1 SY
SAWCUT SIDEWALK PAVEMENT, 20 LF
REMOVE 10 LF OF CURB
SAWCUT ASPHALT PAVEMENT, 30 LF
LIMIT OF HAND/PNEUMATIC EXCAVATION, 7 SY
SAWCUT ASPHALT PAVEMENT, 92 LF
LIMIT OF EXCAVATION, 18 SY
REMOVE 4 LF OF CURB
LIMIT OF HAND/PNEUMATIC EXCAVATION, 13 SY
LIMIT OF HAND/PNEUMATIC EXCAVATION, 4 SY
REMOVE 10 LF OF CURB
SAWCUT SIDEWALK PAVEMENT, 163 LF
SAWCUT ASPHALT PAVEMENT, 101 LF
REMOVE 10 LF OF CURB
REMOVE 27 LF OF CURB
EXISTING SEWER LINES WITHIN EXCAVATION EXTENT TO BE PROTECTED, TYP
LIMIT OF EXCAVATION, 224 SY
REMOVE 10 LF OF CURB
LIMIT OF EXCAVATION, 22 SY
SAWCUT ASPHALT PAVEMENT, 492 LF
REMOVE 10 LF OF CURB
REMOVE 127 LF OF CURB
LIMIT OF HAND/PNEUMATIC EXCAVATION, 18 SY
UTILITY POLE TO BE PROTECTED
REMOVE 10 LF OF CURB
DOT SIGN TO BE PROTECTED
DOT SIGN TO BE PROTECTED
LIGHT POLE TO BE PROTECTED
LIMIT OF HAND/PNEUMATIC EXCAVATION, 15 SY
REMOVE 10 LF OF CURB
TEMPORARY CONSTRUCTION FENCE 1,571 LF SEE DETAIL 4, SHEET C900 (4 / C900)
EXISTING 48" WATER LINE TO BE PROTECTED DURING EXCAVATION, TYP
APPROXIMATE LIMIT OF EXCAVATION IN MEDIAN, 2,387 SY
EXISTING 48" WATER LINE TO BE PROTECTED DURING EXCAVATION
EXISTING 42" SEWER LINE TO BE PROTECTED DURING EXCAVATION
LIMIT OF HAND/PNEUMATIC EXCAVATION, 1 SY
REMOVE 4 LF OF CURB
LIMIT OF EXCAVATION, 24 SY
SAWCUT ASPHALT PAVEMENT, 112 LF
EXISTING 24" SEWER TO BE PROTECTED DURING EXCAVATION
DOT SIGN TO BE PROTECTED
REMOVE 10 LF OF CURB
LIMIT OF EXCAVATION, 30 SY
SAWCUT SIDEWALK PAVEMENT, 37 LF
UTILITY POLE TO BE PROTECTED
REMOVE 10 LF OF CURB
LIMIT OF EXCAVATION, 6 SY
SAWCUT ASPHALT PAVEMENT, 30 LF
LIMIT OF HAND/PNEUMATIC EXCAVATION, 3 SY
LIMIT OF HAND/PNEUMATIC EXCAVATION, 2 SY
REMOVE 8 LF OF CURB
SAWCUT ASPHALT PAVEMENT, 1,433 LF
EXTENTS INCLUDE ALL SAWCUTTING ALONG SUTTER AVE, REMAINDER OF SAWCUTTING SHOWN ON SHEET R-21
LIMIT OF EXCAVATION, 79 SY
EXTENTS INCLUDE EXCAVATION ALONG SUTTER AVE, REMAINDER OF EXCAVATION SHOWN ON SHEET R-21
LIGHT POLE TO BE PROTECTED
LIMIT OF HAND/PNEUMATIC EXCAVATION, 1 SY
LIMIT OF HAND/PNEUMATIC EXCAVATION, 6 SY
REMOVE 10 LF OF CURB
LIMIT OF EXCAVATION, 6 SY
SAWCUT ASPHALT PAVEMENT, 31 LF

PLAN
SCALE: 1" = 30'

LEGEND

- FULL DEPTH EXCAVATION LIMIT
- FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT
- CLL - CONTRACT LIMIT LINE
- CF - TEMPORARY CONSTRUCTION FENCE

1" = 30' (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER _____ P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

REMOVAL PLAN - NW-02RGa I

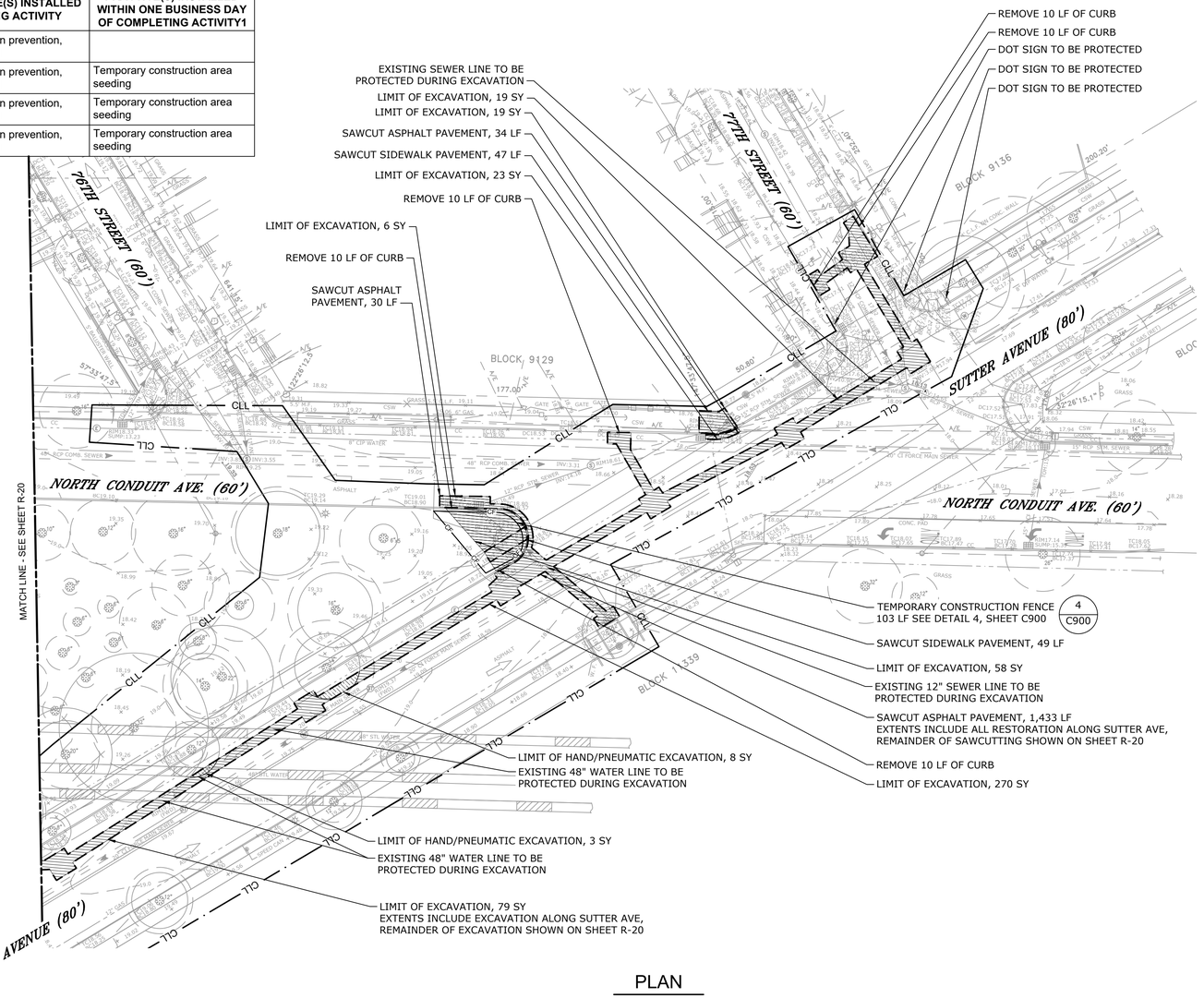
DATE JUL 2026
PAGE 124 OF 171
SHEET R-20

CONSULTANT DESIGN

File: O:\90336-NYC\90336-010\CAD\CIVIL\REMOVAL PLAN - AREA NW2 - SHEET 1 Saved By: TAUTH Save Date: 2026/07/30 3:59 PM
PLOT DATE: 2026/07/31 9:50:0 AM BY: TAUTH

XREFs= ..\...TBLOCK\90336-010_TB_HAZEN...\000_BASE\XREF-ROW...\000_BASE\CN-REMOVAL...\000_BASE\CX-STRU...\...\...\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

TABLE 4.6(b) - CONSTRUCTION SEQUENCING			
PHASE # N/A: *Phase identical w/ exceptions noted* **STAGE # 2: Removal Plan**			
CONSTRUCTION ACTIVITY (in sequential order)	**PRACTICE(S) INSTALLED PRIOR TO ACTIVITY1**	**PRACTICE(S) INSTALLED DURING ACTIVITY**	**PRACTICE(S) INSTALLED WITHIN ONE BUSINESS DAY OF COMPLETING ACTIVITY1**
Implement traffic maintenance & protection	Construction Entrance	Site pollution prevention, dust control	
Clearing and grubbing, remove debris offsite	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding
Pavement, sidewalk, curb, and guard rail removal	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding
Excavation and earthwork, rough grading	All Stage 1 measures	Site pollution prevention, dust control	Temporary construction area seeding



PLAN
SCALE: 1" = 30'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. NO UTILITY SERVICE VALVES (WATER, GAS, ETC) MAY BE LOCATED WITHIN THE FOOTPRINTS OF PROPOSED INFRASTRUCTURE.
3. ALL EXCAVATION WITHIN AN EXISTING TREE CRITICAL ROOT ZONE (CRZ) SHALL BE DONE BY HAND OR PNEUMATIC MEANS.
4. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
5. SEE DRAWING R-10 FOR STAGE 2: REMOVAL PLAN CONSTRUCTION SEQUENCING TABLE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SUPPORT OF EXISTING UTILITIES WHERE ENCOUNTERED DURING EXCAVATION. SEE G-2 FOR FURTHER INFORMATION.

LEGEND

- FULL DEPTH EXCAVATION LIMIT
- FULL DEPTH HAND/PNEUMATIC EXCAVATION LIMIT
- CLL - CONTRACT LIMIT LINE
- CF - TEMPORARY CONSTRUCTION FENCE

1" = 30' (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

REMOVAL PLAN - NW-02RGa II

DATE JUL 2026
PAGE 125 OF 171
SHEET R-21

CONSULTANT DESIGN

File: G:\WS336-NYC\WS336-010\CAD\CIVIL\REMOVAL PLAN - AREA NW2 - SHEET 2 Saved By TAUTH Save Date: 2026/07/20 3:59 PM
PLOT DATE: 2026/07/21 7:56:21 AM BY: TAUTH

XREFs= .._TBLOCK\WS336-010_TB_HAZEN,..\000_BASE\XREF-ROW,..\000_BASE\CN-REMOVAL,..\000_BASE\CN-STRU,..\000_BASE\CX-STRU,..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
2. SEE DRAWING C-10 FOR STAGE 3: INSTALL SITE, GRADING, AND PROPOSED DRAINAGE PLAN CONSTRUCTION SEQUENCING TABLE.

TEST PITS - NW-02RGa (1 of 2)

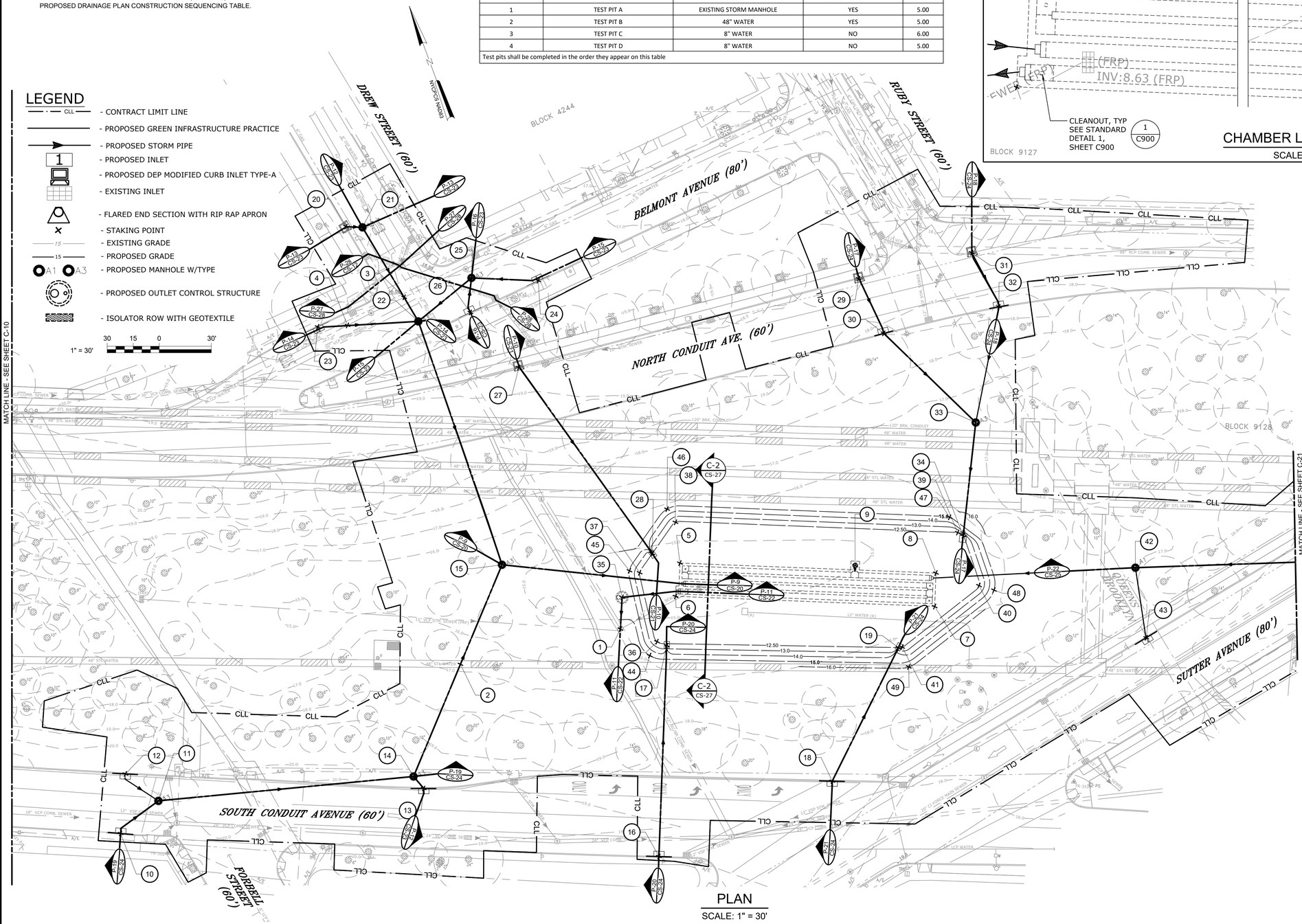
Point No.	Description	Existing Utility	Hand Excavation Required (yes/no)	Depth (ft)
1	TEST PIT A	EXISTING STORM MANHOLE	YES	5.00
2	TEST PIT B	48" WATER	YES	5.00
3	TEST PIT C	8" WATER	NO	6.00
4	TEST PIT D	8" WATER	NO	5.00

Test pits shall be completed in the order they appear on this table

LEGEND

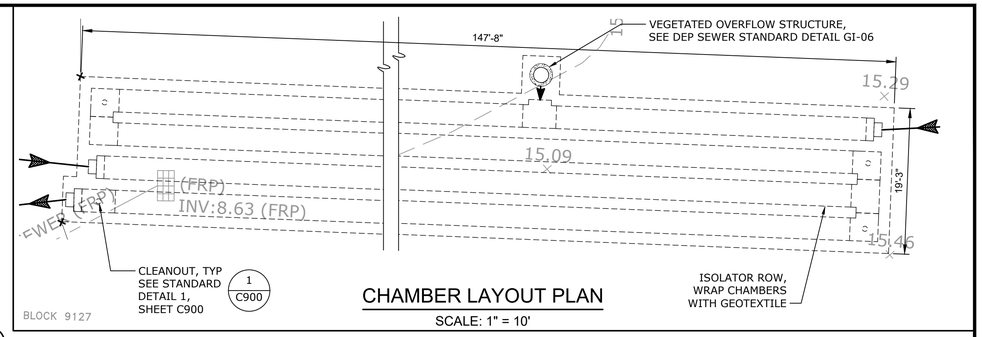
- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- STAKING POINT
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- ISOLATOR ROW WITH GEOTEXTILE

1" = 30'



PLAN

SCALE: 1" = 30'



CHAMBER LAYOUT PLAN

SCALE: 1" = 10'

STAKING TABLE

POINT #	NORTHING	EASTING	DESCRIPTION
1	185113.19	1022476.01	TEST PIT A
2	185126.16	1022382.54	TEST PIT B
3	185335.74	1022425.47	TEST PIT C
4	185331.90	1022389.24	TEST PIT D
5	185136.99	1022521.42	CORNER OF SUBSURFACE SYSTEM
6	185119.80	1022512.41	CORNER OF SUBSURFACE SYSTEM
7	185062.54	1022650.41	CORNER OF SUBSURFACE SYSTEM
8	185080.40	1022657.82	CORNER OF SUBSURFACE SYSTEM
9	185100.62	1022615.62	NW2-OF1
10	185102.66	1022165.04	NW2-CB11
11	185112.70	1022191.99	NW2-MH5
12	185133.87	1022179.55	NW2-CB10
13	185066.34	1022337.86	NW2-CB12
14	185074.89	1022334.77	NW2-MH6
15	185171.64	1022424.91	NW2-MH4
16	184982.57	1022451.40	NW2-CB13
17	185094.94	1022497.80	NW2-OUT5
18	184988.66	1022560.14	NW2-CB14
19	185047.62	1022622.64	NW2-OUT4
20	185385.66	1022408.22	NW2-CB1
21	185381.91	1022416.96	NW2-MH1
22	185319.91	1022428.33	NW2-MH3
23	185337.07	1022372.86	NW2-CB2
24	185317.94	1022501.31	NW2-CB4
25	185332.78	1022465.76	NW2-MH2
26	185314.34	1022458.24	NW2-CB3
27	185274.89	1022473.43	NW2-CB5
28	185147.65	1022508.37	NW2-OUT1
29	185254.96	1022674.87	NW2-CB6
30	185220.38	1022677.53	NW2-CB7
31	185246.42	1022741.21	NW2-CB8
32	185211.71	1022745.08	NW2-CB9
33	185153.81	1022709.40	NW2-MH7
34	185095.14	1022680.01	NW2-OUT3
35	185130.01	1022483.31	NW2-OCS
36	185099.08	1022493.33	CORNER OF 12.50 CONTOUR
37	185139.80	1022497.73	CORNER OF 12.50 CONTOUR
38	185159.91	1022527.16	CORNER OF 12.50 CONTOUR
39	185097.95	1022677.66	CORNER OF 12.50 CONTOUR
40	185065.02	1022678.56	CORNER OF 12.50 CONTOUR
41	185047.11	1022624.72	CORNER OF 12.50 CONTOUR
42	185043.43	1022766.69	NW2-MH15
43	185003.38	1022758.51	NW2-CB15
44	185093.01	1022486.61	15.0 CONTOUR
45	185142.91	1022492.60	15.0 CONTOUR
46	185168.72	1022525.23	15.0 CONTOUR
47	185107.80	1022676.33	15.0 CONTOUR
48	185059.61	1022685.76	15.0 CONTOUR
49	185035.11	1022624.35	15.0 CONTOUR

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

LAYOUT PLAN - NW-02RGa I

DATE JUL 2026
PAGE 126 OF 171
SHEET C-20

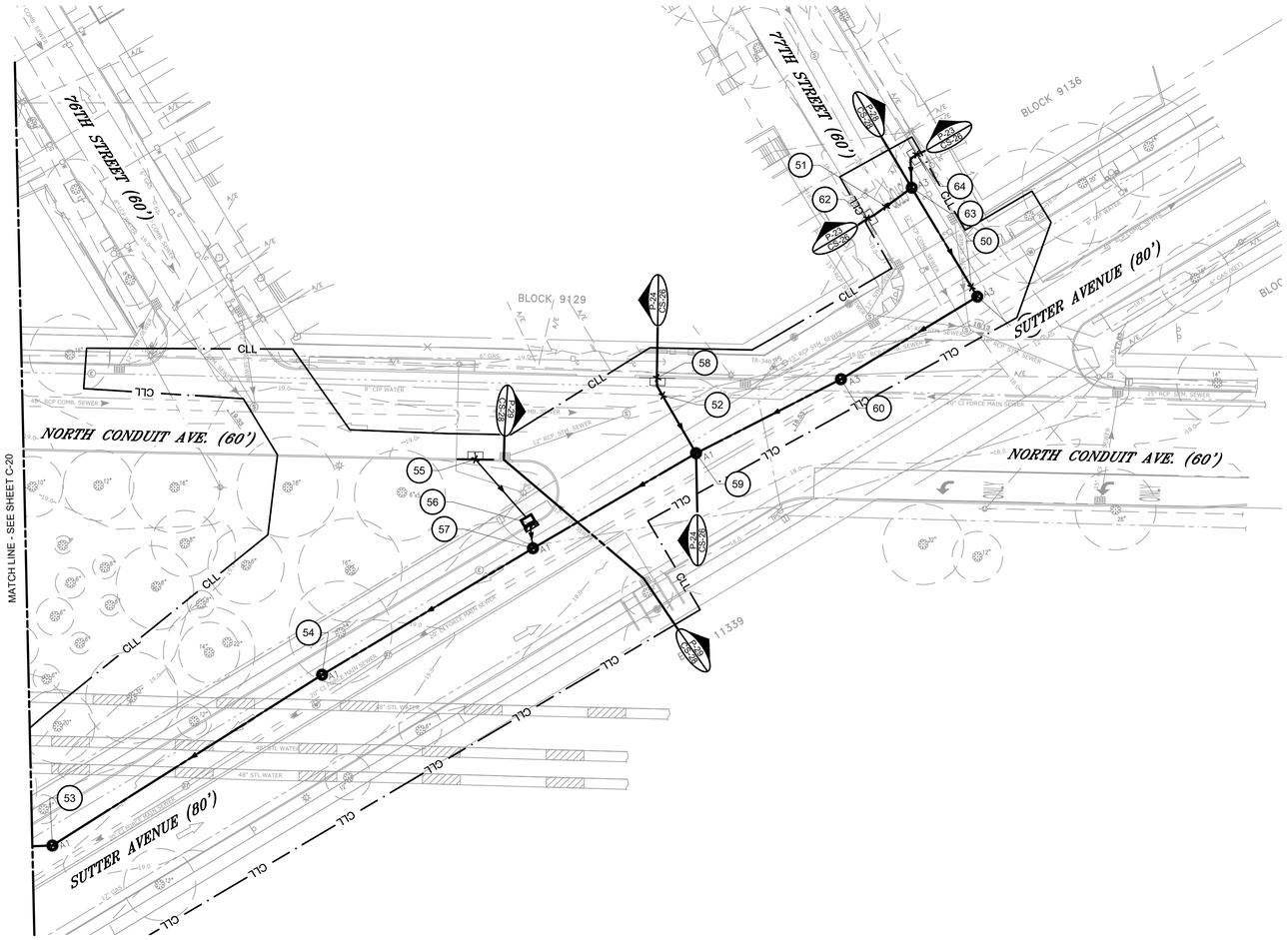
CONSULTANT DESIGN

File: Q:\MD336-NYC\MD336-RPT\CAD\CIVIL\STAKING PLAN - AREA NW1 - SHEET 1 Saved By: TAUTH Save Date: 2026/07/30 3:59 PM
PLOT DATE: 2026/07/31 7:51:12 AM By: TAUTH

XREFs= .._TBLOCK\MD336-010_TB_HAZEN...\000_BASE\XREF-ROW...\000_BASE\CN-REMOVAL...\000_BASE\CN-STRU...\000_BASE\CX-STRU...\000_BASE\CN-3D-PIPES...\000_BASE\CN-STAKING-NW2...\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
2. SEE DRAWING C-10 FOR STAGE 3: INSTALL SITE, GRADING, AND PROPOSED DRAINAGE PLAN CONSTRUCTION SEQUENCING TABLE.



PLAN

SCALE: 1" = 30'

STAKING TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
50	185093.04	1023280.42	TEST PIT E
51	185134.77	1023259.72	TEST PIT F
52	185095.18	1023150.74	TEST PIT G
53	185011.81	1022862.02	NW2-MH14
54	185038.22	1022985.73	NW2-MH13
55	185097.22	1023072.32	NW2-CB16
56	185065.23	1023084.74	NW2-CB17
57	185056.26	1023081.47	NW2-MH12
58	185102.48	1023151.08	NW2-CB18
59	185069.17	1023155.18	NW2-MH11
60	185076.76	1023219.21	NW2-MH10
61	185088.56	1023281.27	NW2-MH9
62	185132.81	1023251.14	NW2-CB19
63	185138.19	1023271.83	NW2-MH8
64	185149.87	1023278.26	NW2-CB20

TEST PITS - NW-02RGa (2 of 2)

Point No.	Description	Existing Utility	Hand Excavation Required (yes/no)	Depth (ft)
50	TEST PIT E	8" WATER	NO	5.00
51	TEST PIT F	8" WATER	NO	5.00
52	TEST PIT G	8" WATER	NO	6.00
Test pits shall be completed in the order they appear on this table				

LEGEND

- CLL — CLL — CONTRACT LIMIT LINE
- PROPOSED STORM PIPE
- 1 — PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- × — STAKING POINT
- A1 A3 — PROPOSED MANHOLE W/TYPE

1" = 30'

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

LAYOUT PLAN - NW-02RGa II

DATE JUL 2026
PAGE 127 OF 171
SHEET C-21

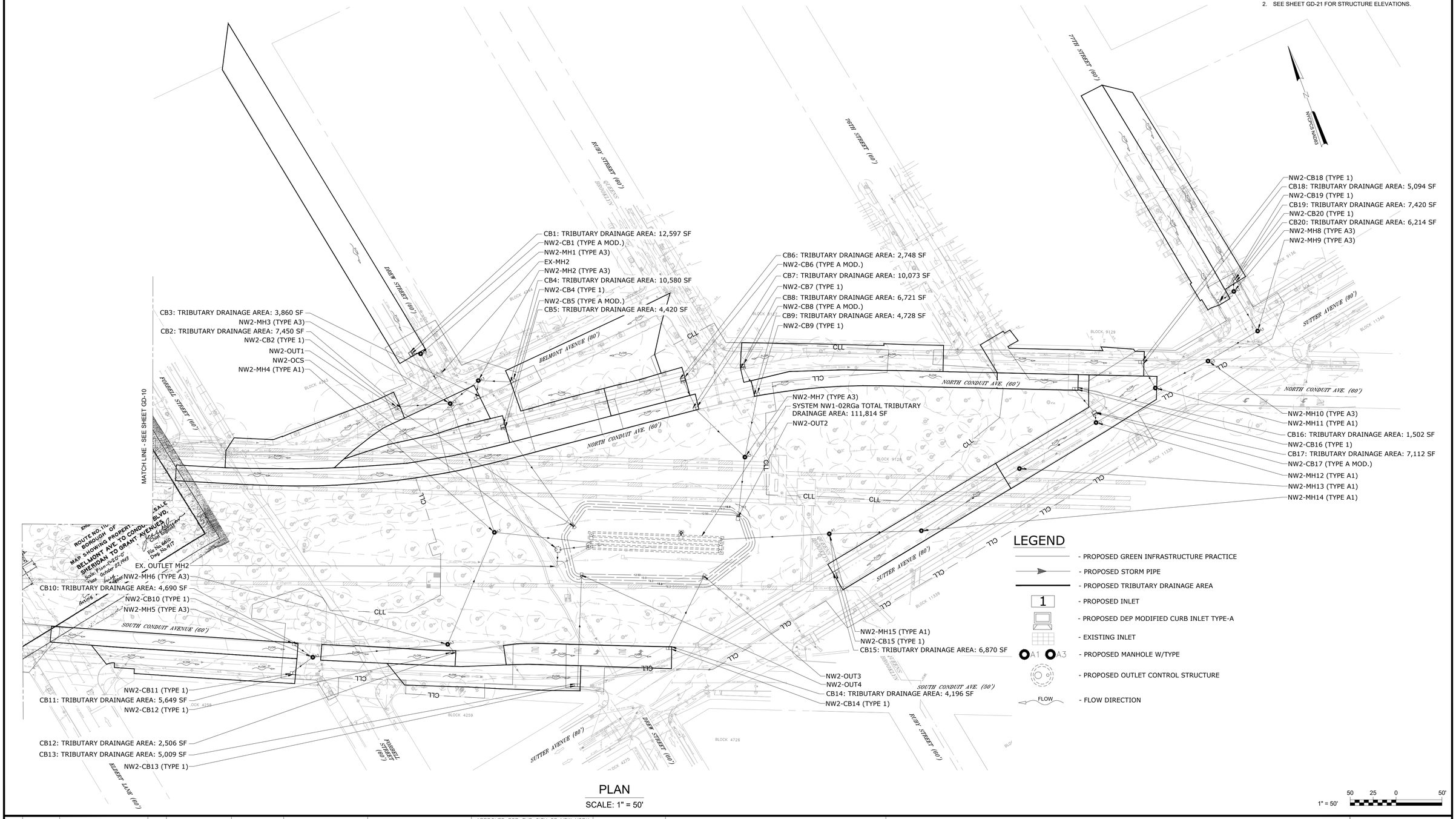
CONSULTANT DESIGN

File: D:\W336-NYC\W336-010\CAD\CAN\C-3 LAYOUT PLAN - AREA NW2 - SHEET 2 Saved By: JAUH Save Date: 2026/07/30 4:00 PM
PLOT DATE: 2026/07/31 7:52:24 AM By: JAUH

XREFs= .._TBLOCK\@0336-010_TB_HAZEN..\000_BASE\XREF-ROW..\000_BASE\CN-STRU..\000_BASE\CX-STRU..\000_BASE\CN-REMOVAL..\000_BASE\CN-3D-PIPES..\000_BASE\CN-STAKING-NW2..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
2. SEE SHEET GD-21 FOR STRUCTURE ELEVATIONS.



PLAN

SCALE: 1" = 50'

1" = 50' 50 25 0 50'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER
_____

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

TRIBUTARY DRAINAGE AREA - NW-02RGa

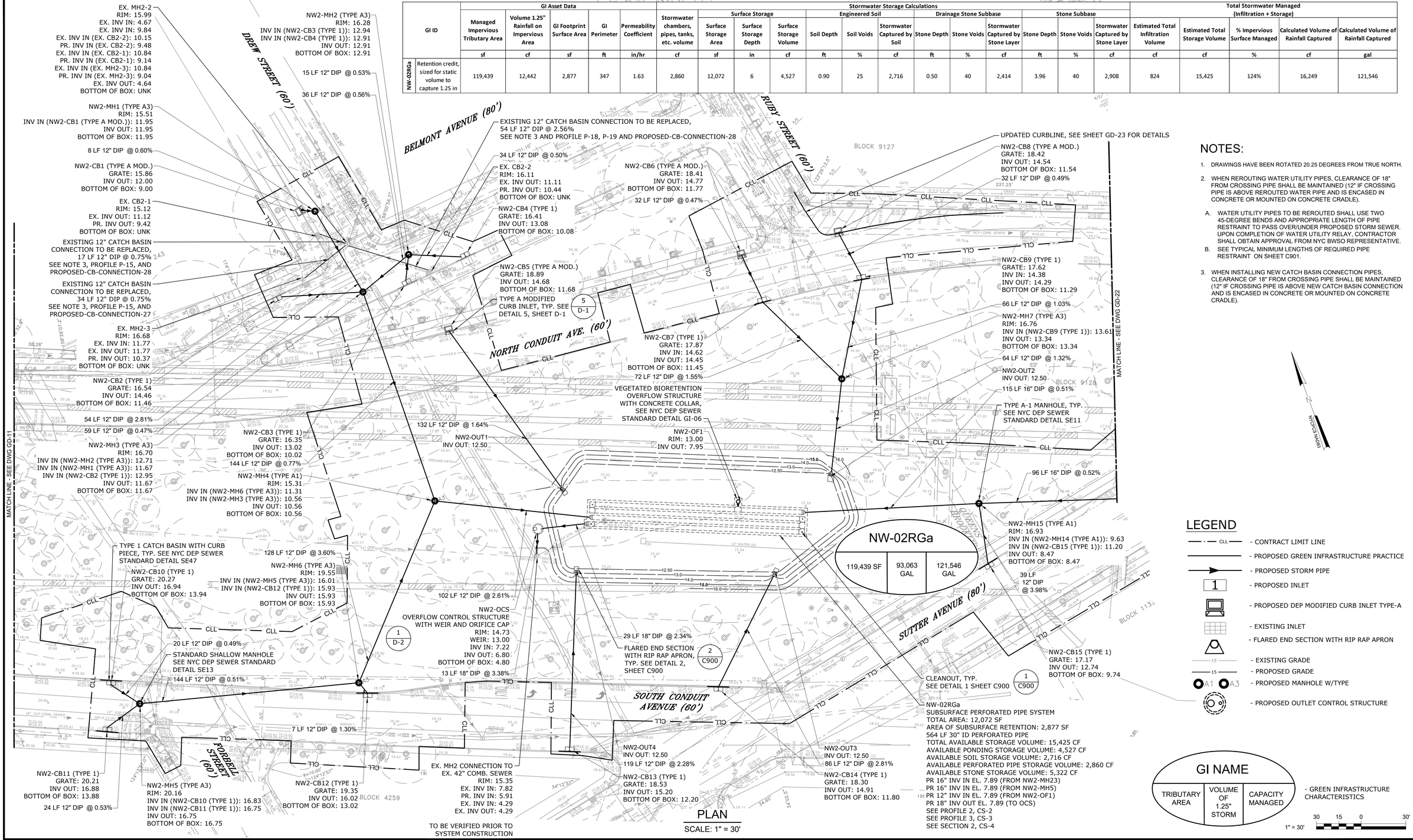
DATE	JUL 2026
PAGE	128 OF 171
SHEET	GD-20

CONSULTANT DESIGN

File: D:\90336-NYC\90336-010\CAD\CIVIL\TDA_PLAN-NW Saved By: JAuth Save Date: 2026/07/30 4:00 PM
Plot Date: 2026/07/31 7:43:53 AM By: JAuth

XREFs= ..._TBLOCK\90336-010_TBI_HAZEN...\000_BASE\CN-STRU...\000_BASE\CX-STRU.D\90336-NYC\90336-010\CAD\000_BASE\CN-DRAINAGE...\000_BASE\CN-3D-PIPES...\...\Work Plan\D-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

GI ID		GI Asset Data: Managed Impervious Tributary Area	GI Asset Data: Volume 1.25" Rainfall on Impervious Area	GI Asset Data: GI Footprint Surface Area	GI Asset Data: GI Perimeter	GI Asset Data: Permeability Coefficient	Stormwater Storage Calculations: Stormwater chambers, pipes, tanks, etc. volume	Stormwater Storage Calculations: Surface Storage: Surface Storage Area	Surface Storage: Surface Storage Depth	Surface Storage: Surface Storage Volume	Engineered Soil: Soil Depth	Engineered Soil: Soil Voids	Engineered Soil: Stormwater Captured by Soil	Drainage Stone Subbase: Stone Depth	Drainage Stone Subbase: Stone Voids	Drainage Stone Subbase: Stormwater Captured by Stone Layer	Stone Subbase: Stone Depth	Stone Subbase: Stone Voids	Stone Subbase: Stormwater Captured by Stone Layer	Total Stormwater Managed (Infiltration + Storage): Estimated Total Infiltration Volume	Estimated Total Storage Volume	% Impervious Surface Managed	Calculated Volume of Rainfall Captured	Calculated Volume of Rainfall Captured
		sf	cf	sf	ft	in/hr	cf	sf	in	cf	ft	%	cf	ft	%	cf	ft	%	cf	cf	cf	%	cf	gal
NW-02RGa	Retention credit, sized for static volume to capture 1.25 in	119,439	12,442	2,877	347	1.63	2,860	12,072	6	4,527	0.90	25	2,716	0.50	40	2,414	3.96	40	2,908	824	15,425	124%	16,249	121,546



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
2. WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).
   A. WATER UTILITY PIPES TO BE REROUTED SHALL USE TWO 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER UTILITY RELAY, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC BWSO REPRESENTATIVE.
   B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.
3. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- 15 - EXISTING GRADE
- 15 - PROPOSED GRADE
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE

GI NAME

TRIBUTARY AREA	VOLUME OF 1.25" STORM	CAPACITY MANAGED

- GREEN INFRASTRUCTURE CHARACTERISTICS

1" = 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER — Sandeep Mehrotra

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

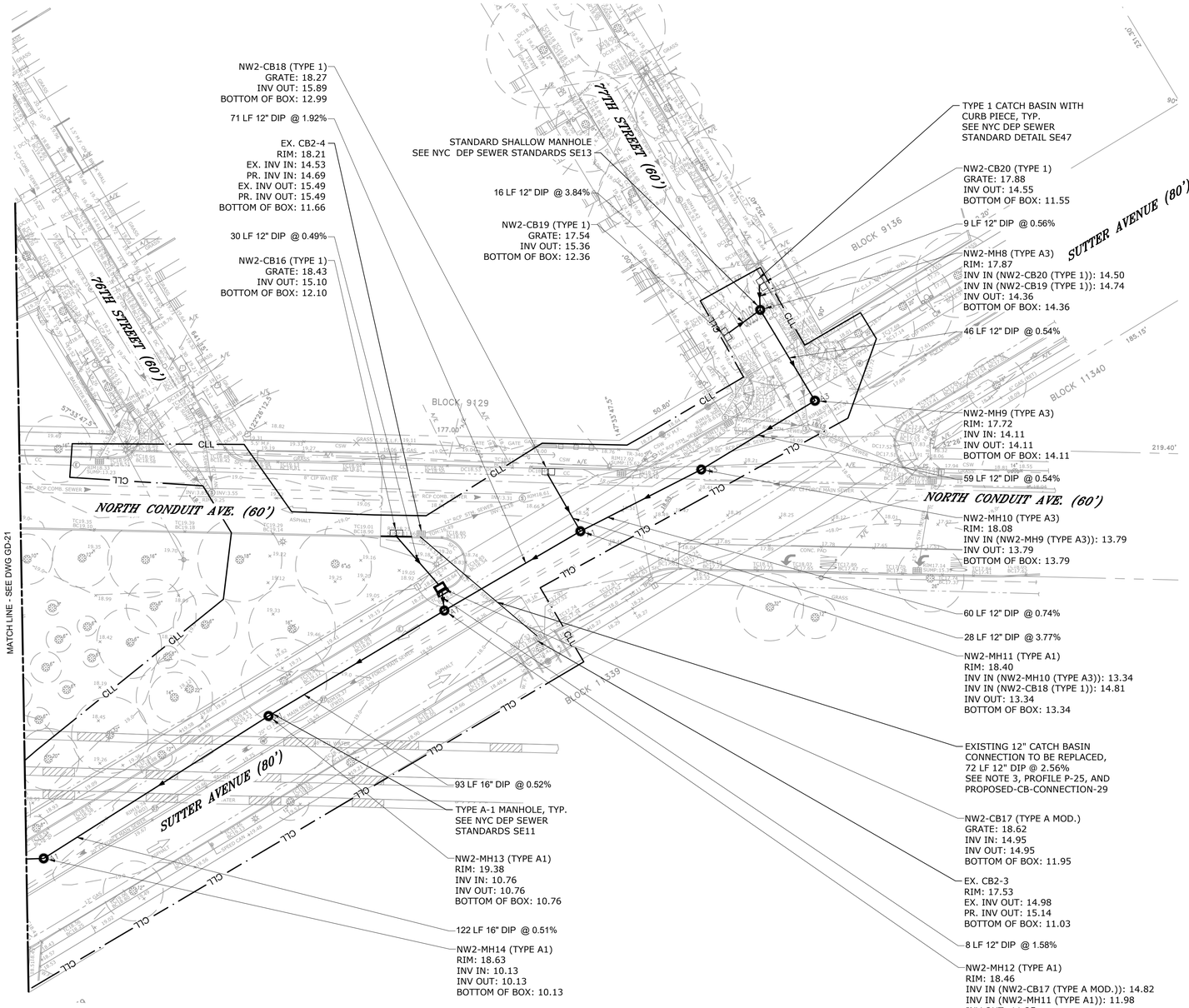
DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NW-02RGa I

DATE JUL 2026
PAGE 129 OF 171
SHEET GD-21

CONSULTANT DESIGN

File: O:\MS38-NYC\MS38-010\CAD\LOA\GD-2 DRAWAGE PLAN – AREA NW2 - SHEET 1 Saved By: TAUTH Save Date: 2026/07/20 4:00 PM
PLOT DATE: 2026/07/21 7:54:43 AM BY: TAUTH

XREFs= .._TBLOCK\90336-010_TB_HAZEN...\000_BASE\XREF-ROW...\000_BASE\CN-STRU...\000_BASE\CX-STRU...\000_BASE\CN-3D-PIPES...\000_BASE\EXISTING UTILITY REPLACEMENT...\..\..\Work Plan\O-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
2. WHEN REROUTING WATER UTILITY PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE REROUTED WATER PIPE AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).
   - A. WATER UTILITY PIPES TO BE REROUTED SHALL USE TWO 45-DEGREE BENDS AND APPROPRIATE LENGTH OF PIPE RESTRAINT TO PASS OVER/UNDER PROPOSED STORM SEWER. UPON COMPLETION OF WATER UTILITY RELAY, CONTRACTOR SHALL OBTAIN APPROVAL FROM NYC BWSO REPRESENTATIVE.
   - B. SEE TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT ON SHEET C901.
3. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).

LEGEND

- CLL — CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 — PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- FLARED END SECTION WITH RIP RAP APRON
- A1 A3 — PROPOSED MANHOLE W/TYPE

PLAN

SCALE: 1" = 30'

1" = 30' — 30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — 10/23/2026 — STATE OF NEW YORK — 090602 — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

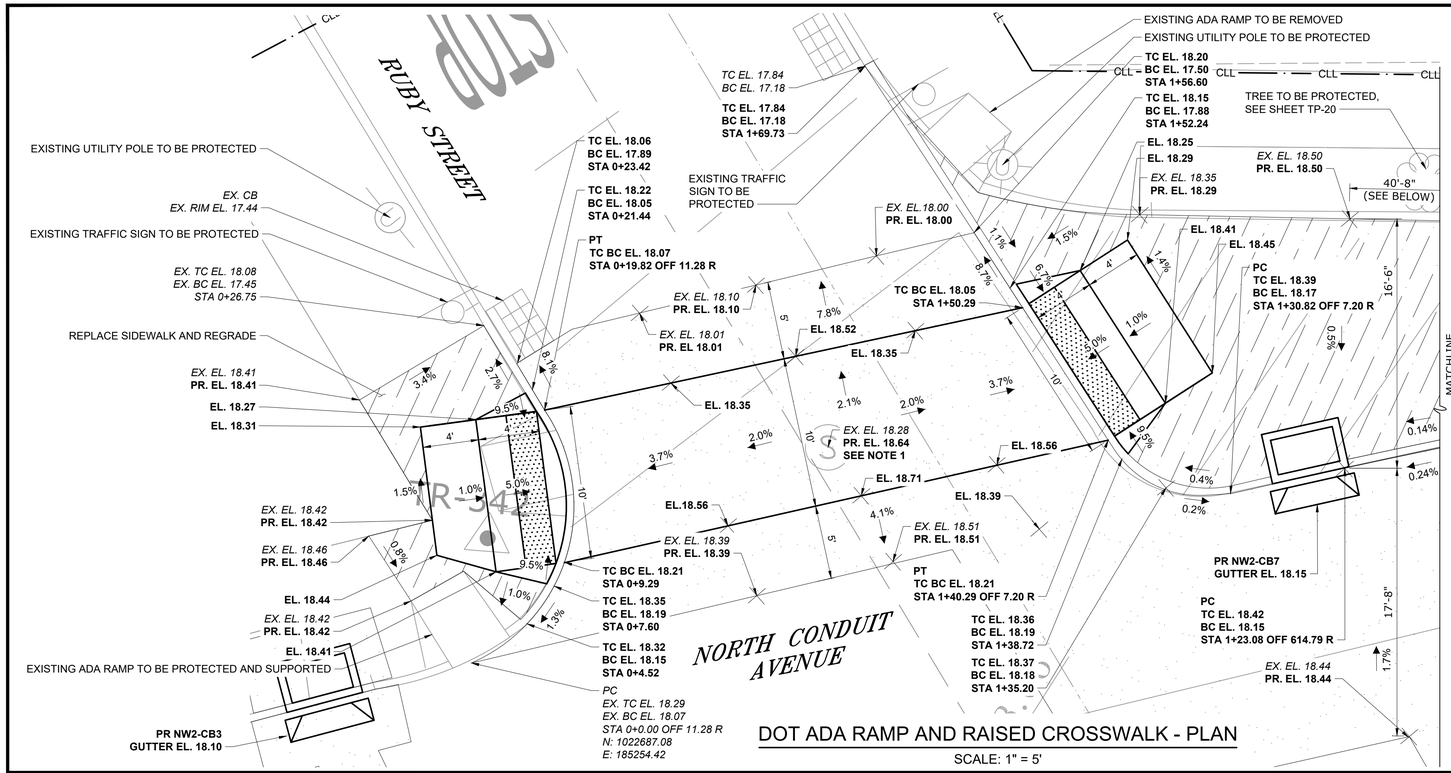
DRAINAGE PLAN AND PROPOSED FINAL SITE PLAN - NW-02RGa II

DATE JUL 2026
PAGE 130 OF 171
SHEET GD-22

CONSULTANT DESIGN

File: D:\W336-NYC\W336-010\CAD\CAA\GD-3 DRAINAGE PLAN - AREA NW2 - SHEET 2 Saved By: FAUTH Save Date: 2026/07/20 4:00 PM
PLOT DATE: 2026/07/21 7:15:51 AM BY: FAUTH

XREFs= .._TBLOCK\W336-010_TB_HAZEN...\000_BASE\XREF-ROW...\000_BASE\CN-STRU...\000_BASE\CX-STRU...\000_BASE\CN-3D-PIPES...\000_BASE\EXISTING UTILITY REPLACEMENT...\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

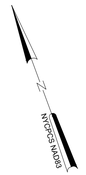


DOT ADA RAMP AND RAISED CROSSWALK - PLAN

SCALE: 1" = 5'

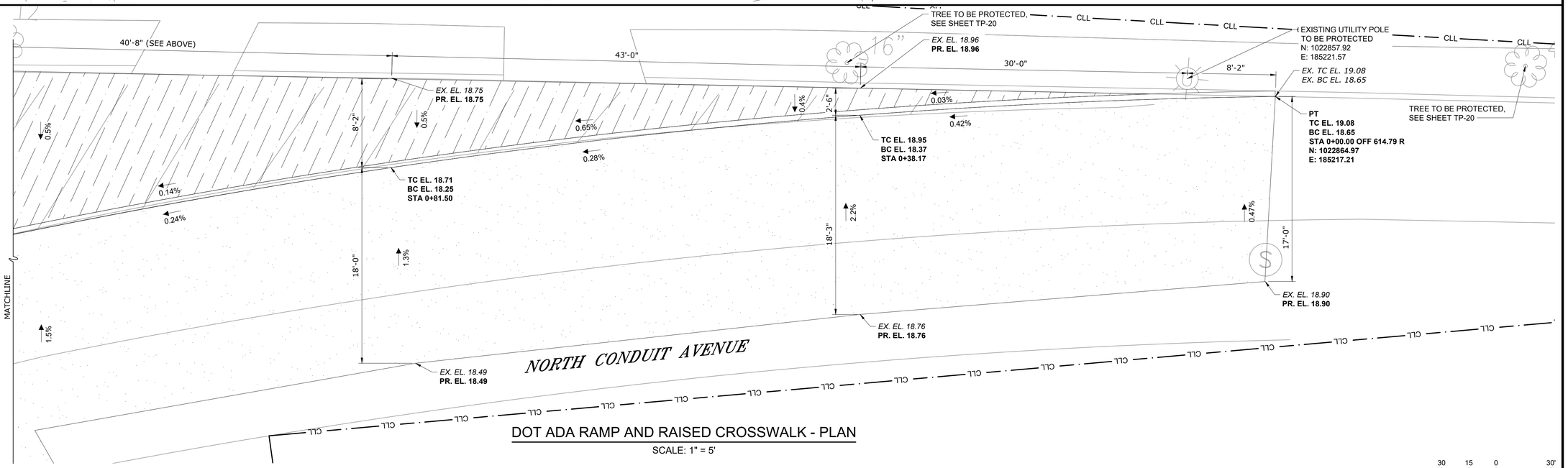
NOTES:

1. EXISTING MANHOLE WILL HAVE RIM ELEVATION RAISED FROM 18.28 TO 18.64 TO ENABLE ACCESS IN RAISED CROSSWALK AREA.
2. SLOPES OF RAISED CROSSWALK HAVE BEEN CALCULATED USING THE TRUE ELEVATIONS. THERE IS AN EXISTING RELATIVE SLOPE OF 1.9% IN THE NORTHERN DIRECTION, PROPOSED SLOPES HAVE BEEN CALCULATED TO MAINTAIN THIS SLOPE.
3. DRAWINGS HAVE BEEN ROTATED 20.25 FROM TRUE NORTH.



LEGEND

- 1 - PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- FULL DEPTH ASPHALT RESTORATION
- FULL DEPTH SIDEWALK RESTORATION



DOT ADA RAMP AND RAISED CROSSWALK - PLAN

SCALE: 1" = 5'

1" = 30'

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — STATE OF NEW YORK — 100563 — PROFESSIONAL ENGINEER

Hazen

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

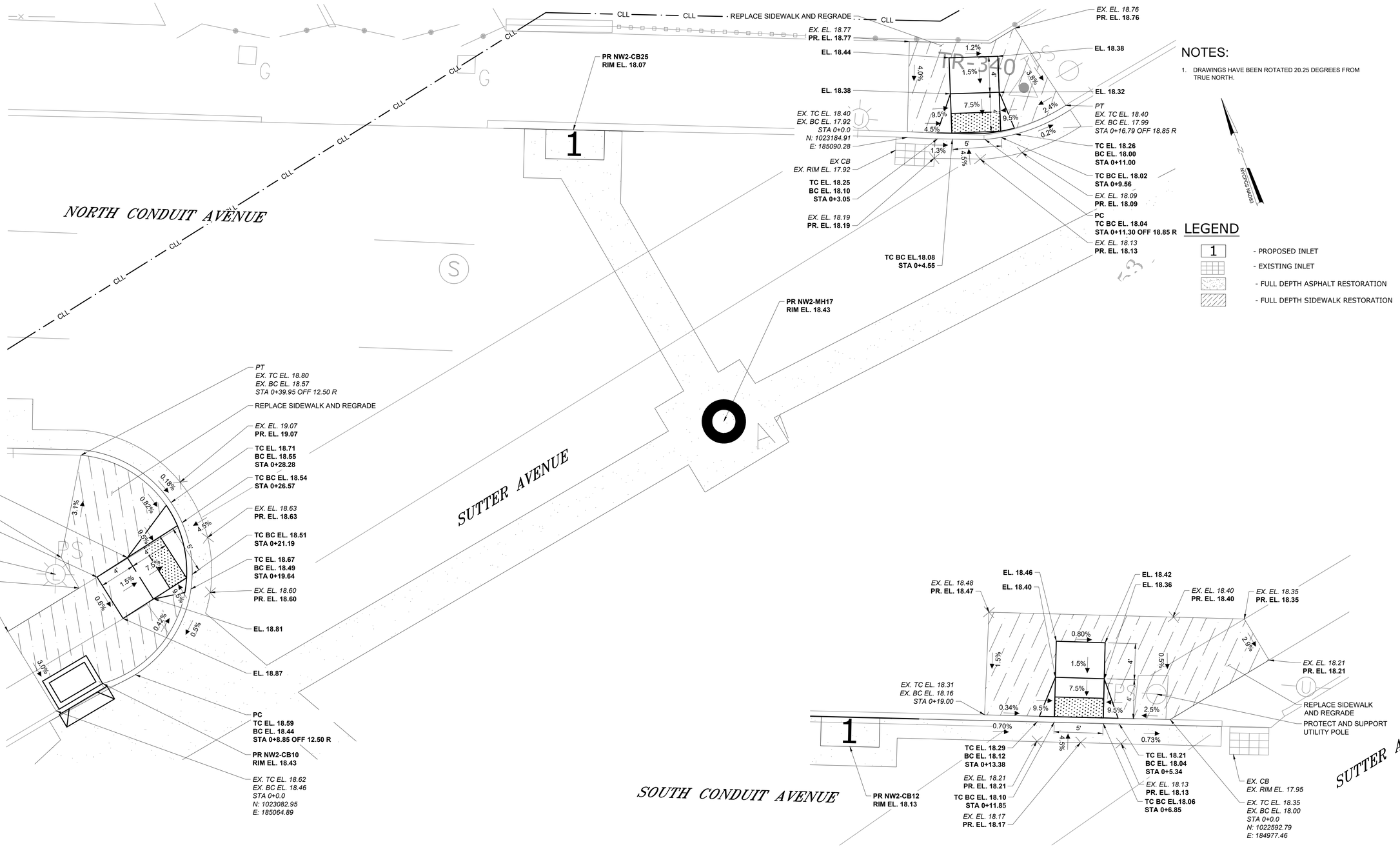
ADA RAMP GRADING PLANS - SUTTER AVENUE AND N. CONDUIT AVENUE - NW-02RGa I

DATE JUL 2026
PAGE 131 OF 171
SHEET GD-23

CONSULTANT DESIGN

File: D:\W336-NYC\W336-010\CAD\CIVIL\GD-4 GRADING PLAN Saved By: TAUTH Save Date: 2026/07/30 4:00 PM
Plot DATE: 2026/07/31 7:52:51 AM By: TAUTH

XREFs= ..\..\BLOCK\@0336-010_TB_HAZEN..\000_BASE\CN-STRU..\000_BASE\CX-STRU..\000_BASE\CN-MATERIALS..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.

NTOGCS N40W

LEGEND

- 1 - PROPOSED INLET
- - EXISTING INLET
- - FULL DEPTH ASPHALT RESTORATION
- - FULL DEPTH SIDEWALK RESTORATION

DOT ADA RAMP - PLAN

SCALE: 1" = 5'

DOT ADA RAMP - PLAN

SCALE: 1" = 5'

1" = 30' (30 15 0 30')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

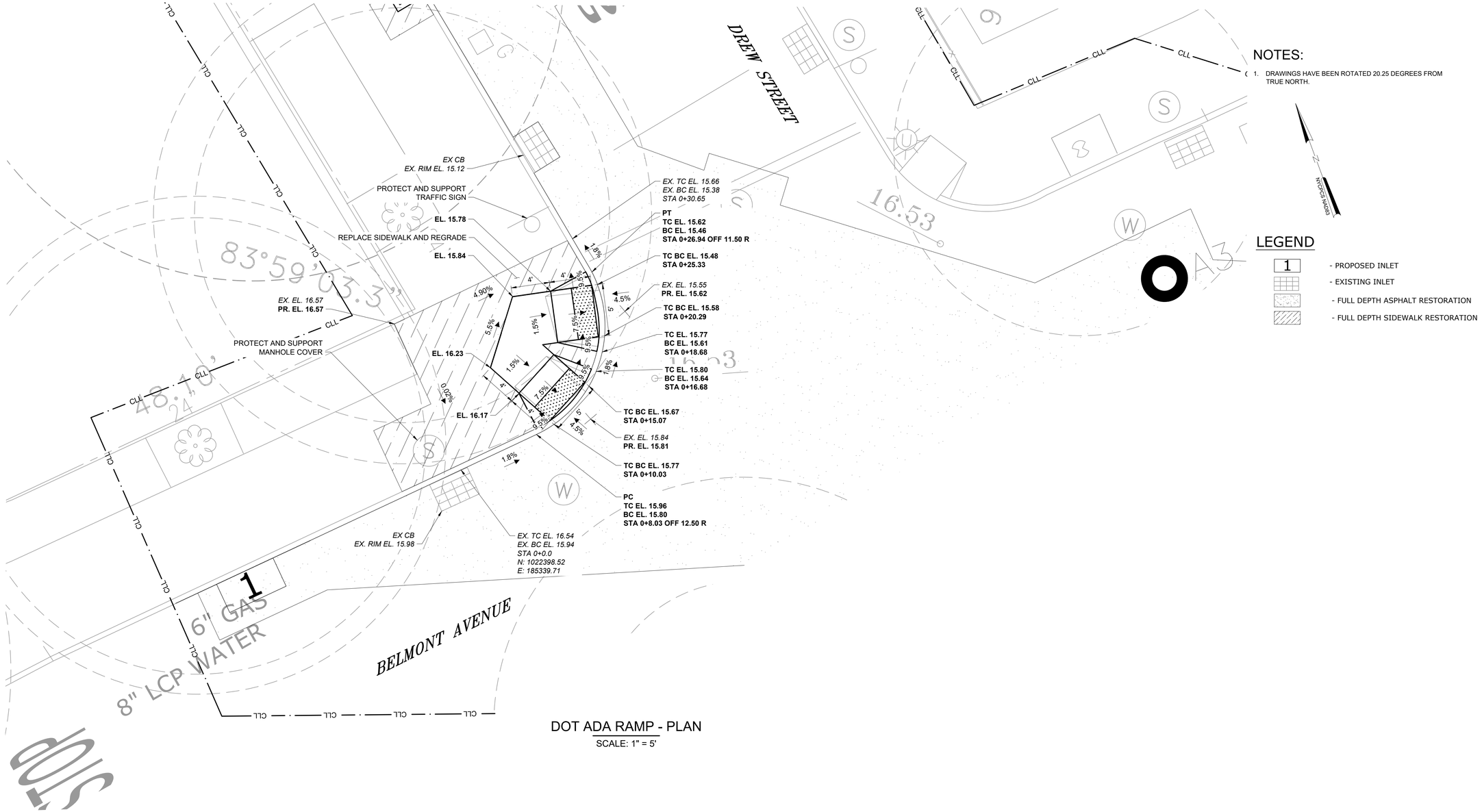
ADA RAMP GRADING PLANS - SUTTER AVENUE AND N. CONDUIT AVENUE - NW-02RGa II

DATE JUL 2026
PAGE 132 OF 171
SHEET GD-24

CONSULTANT DESIGN

File: G:\MG36-NYC\MG36-001\CAD\CIVIL\GD-4 GRADING PLAN_2 Saved By: TAUTH Save Date: 2026/07/20 4:00 PM
PLOT DATE: 2026/07/20 4:01 PM BY: TAUTH

XREFs= ..\..\BLOCK\@0336-010_TB_HAZEN...\000_BASE\XREF-ROW...\000_BASE\ON-REMOVAL...\000_BASE\ON-STRU...\000_BASE\CX-STRU...\000_BASE\ON-MATERIALS...\..\..\Work Plan\G-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010..\GD-4 GRADING PLAN



NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.

LEGEND

- 1 - PROPOSED INLET
- EXISTING INLET
- FULL DEPTH ASPHALT RESTORATION
- FULL DEPTH SIDEWALK RESTORATION

DOT ADA RAMP - PLAN

SCALE: 1" = 5'

1" = 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

ADA RAMP GRADING PLANS - SUTTER AVENUE AND N. CONDUIT AVENUE - NW-02RGa III

DATE JUL 2026
PAGE 133 OF 171
SHEET GD-25

CONSULTANT DESIGN

File: G:\M336-NYC\M336-001\CAD\CIVIL\GD-4 GRADING PLAN_3 Saved By: TAUTH Save Date: 2020/07/20 4:00 PM
PLOT DATE: 2020/07/21 10:17 AM BY: TAUTH
XREFs= .._TBLOCK\@0336-010_TB_HAZEN...\000_BASE\XREF-ROW...\000_BASE\CN-REMOVAL...\000_BASE\CN-STRU...\000_BASE\CX-STRU...\000_BASE\CN-MATERIALS...\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010..\GD-4 GRADING PLAN

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
2. GRASSED AND MULCHED AREAS WITHIN CONTRACT LIMIT LINE, BUT NOT DENOTED FOR RESTORATION SEED MIX, ARE NOT INTENDED TO BE DISTURBED. IF GRASSED OR MULCHED AREAS ARE DISTURBED, AREA SHALL BE STABILIZED WITH RESTORATION SEED MIX PER THE CONTRACT SPECIFICATIONS.
3. SEE DRAWING M-10 FOR STAGE 4: PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION CONSTRUCTIONS SEQUENCING TABLE.
4. TOP SOIL SHALL BE ADDED TO RESTORATION AREAS WHERE FULL DEPTH EXCAVATION HAS OCCURRED. ALL OTHER RESTORED AREAS SHALL USE RESTORATION SEED MIX ONLY.

LEGEND

- CLL - CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 - PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- A1 A3 - PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLARED END SECTION WITH RIP RAP APRON
- IMPERVIOUS AREA (UNDISTURBED)
- IMPERVIOUS AREA (FULL DEPTH ASPHALT RESTORATION)
- IMPERVIOUS AREA (FULL DEPTH SIDEWALK RESTORATION)
- PERVIOUS AREA (UNDISTURBED, SEE NOTE 2)
- PERVIOUS AREA (RESTORATION SEED MIX)
- PERVIOUS AREA (BIORETENTION SEED MIX)
- RIGHT OF WAY PAINTING

CONCRETE CURB REPLACEMENT (10 LF)
CONCRETE CURB REPLACEMENT (10 LF)
FULL DEPTH ASPHALT RESTORATION (331 SY)
CONCRETE CURB REPLACEMENT (10 LF)
5 / D-1 TYPE A MODIFIED CURB INLET, TYP. SEE DETAIL 5, SHEET D-1
CONCRETE SIDEWALK REPLACEMENT (5 SY)
DREW STREET (60')
CONCRETE SIDEWALK REPLACEMENT (9 SY)
NEW ADA RAMP, SEE SHEET GD-23
CONCRETE CURB REPLACEMENT (27 LF)
CONCRETE CURB REPLACEMENT (10 LF)
FULL DEPTH ASPHALT RESTORATION (22 SY)
BLOCK 4244
RUBY STREET (60')
FULL DEPTH ASPHALT REPLACEMENT, TYP. SEE NYC DOT STANDARD DETAIL H-1055
ADJUST MH RIM TO MATCH PROPOSED GRADE, SEE SHEET GD-23
NEW ADA RAMP, SEE SHEET GD-23
CONCRETE CURB REPLACEMENT (10 LF)
NEW DOT CURB, TYP SEE NYC DOT STANDARD DETAIL H-1044
CONCRETE SIDEWALK REPLACEMENT (107 SY)
FULL DEPTH ASPHALT RESTORATION (377 SY)
BELMONT AVENUE (80')
CONCRETE SIDEWALK REPLACEMENT (5 SY)
CONCRETE CURB REPLACEMENT (10 LF)
FULL DEPTH ASPHALT RESTORATION (18 SY)
CONCRETE CURB REPLACEMENT (4 LF)
NEW ADA RAMPS, SEE SHEET GD-23
CONCRETE SIDEWALK REPLACEMENT (22 SY)
CONCRETE CURB REPLACEMENT (10 LF)
NORTH CONDUIT AVE. (60')
CONCRETE CURB REPLACEMENT (10 LF)
CONCRETE CURB REPLACEMENT (10 LF)
TYPE A-3 SHALLOW MANHOLE, TYP. SEE NYC DEP SEWER STANDARD DETAIL SE13
NW-02RGa SUBSURFACE DETENTION 5,106 CF OF CHAMBER CAPACITY
FLARED END SECTION WITH RIP RAP APRON, TYP. SEE DETAIL 2, SHEET C900 (2 / C900)
NW-02RGa BIORETENTION AREA = 13,479 SF
CONCRETE CURB REPLACEMENT (4 LF)
CONCRETE SIDEWALK REPLACEMENT (7 SY)
FULL DEPTH ASPHALT RESTORATION (9 SY)
CONCRETE SIDEWALK REPLACEMENT (3 SY)
DISTURBED AREA SHALL BE PLANTED WITH RESTORATION SEED MIX AS PER GI-P SPECIFICATION (22 SY)
CONCRETE CURB REPLACEMENT (4 LF)
FULL DEPTH ASPHALT RESTORATION (15 SY)
CONCRETE CURB REPLACEMENT (4 LF)
DISTURBED AREA SHALL BE PLANTED WITH RESTORATION SEED MIX AS PER GI-P SPECIFICATION (10,419 SY). SEE NOTE 4.
FULL DEPTH ASPHALT RESTORATION (360 SY) EXTENTS INCLUDE ALL RESTORATION ALONG SUTTER AVE, REMAINDER OF RESTORATION SHOWN ON SHEET M-21
DISTURBED AREA SHALL BE PLANTED WITH RESTORATION SEED MIX AS PER GI-P SPECIFICATION (4 SY)
CONCRETE SIDEWALK REPLACEMENT (10 SY)
1 / D-3 OVERFLOW CONTROL STRUCTURE WITH WEIR AND ORIFICE CAP
1 / C900 CLEANOUT, TYP. SEE DETAIL SHEET C900
CONCRETE CURB REPLACEMENT (10 LF)
FULL DEPTH ASPHALT RESTORATION (6 SY)
CONCRETE CURB REPLACEMENT (29 LF)
SOUTH CONDUIT AVENUE (60')
SUTTER AVENUE (80')
TYPE A-1 STANDARD MANHOLE, TYP. SEE SE11 NYC DEP SEWER STANDARDS
FULL DEPTH ASPHALT RESTORATION (6 SY)
CONCRETE CURB REPLACEMENT (10 LF)
DISTURBED AREA SHALL BE PLANTED WITH RESTORATION SEED MIX AS PER GI-P SPECIFICATION (2 SY)
CONCRETE SIDEWALK REPLACEMENT (5 SY)
CONCRETE CURB REPLACEMENT (10 LF)
CONCRETE CURB REPLACEMENT (4 LF)
FULL DEPTH ASPHALT RESTORATION (24 SY)
TYPE 1 CATCH BASIN, TYP. SEE NYC DEP STANDARD DETAIL SE47
CONCRETE CURB REPLACEMENT (10 LF)
BIORETENTION SHALL BE SEEDED WITH BIORETENTION SEED MIX AS PER GI-P SPECIFICATION (1,498 SY)
VEGETATED BIORETENTION OVERFLOW STRUCTURE WITH CONCRETE COLLAR. SEE NYC DEP STANDARD DETAIL GI-06
CONCRETE SIDEWALK REPLACEMENT, TYP. SEE H-1045 NYC DOT STANDARD DETAILS
CONCRETE SIDEWALK REPLACEMENT (25 SY)
UTILITY POLE TO BE PROTECTED
NEW ADA RAMP, SEE SHEET GD-24
CONCRETE CURB REPLACEMENT (10 LF)
FULL DEPTH ASPHALT RESTORATION (6 SY)
FORBELL STREET (60')
MATCH LINE - SEE SHEET M-10
MATCH LINE - SEE SHEET M-21

PLAN
SCALE: 1" = 30'

1" = 30' 30 15 0 30'

PAINT CROSSWALK AND ROW (134 SY), SEE NYS DOT STANDARD DETAIL 685-01
SOUTH CONDUIT AVENUE (60')
SUTTER AVENUE (80')

PAINTING PLAN
SCALE: 1" = 30'

RUBY ST
PAINT RAISED CROSSWALK AND ROW (79 SY), SEE NYC DOT STANDARD DETAIL RCW-1 SEE NYS DOT STANDARD DETAIL 685-01
NORTH CONDUIT AVE. (60')

PAINTING PLAN
SCALE: 1" = 20'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

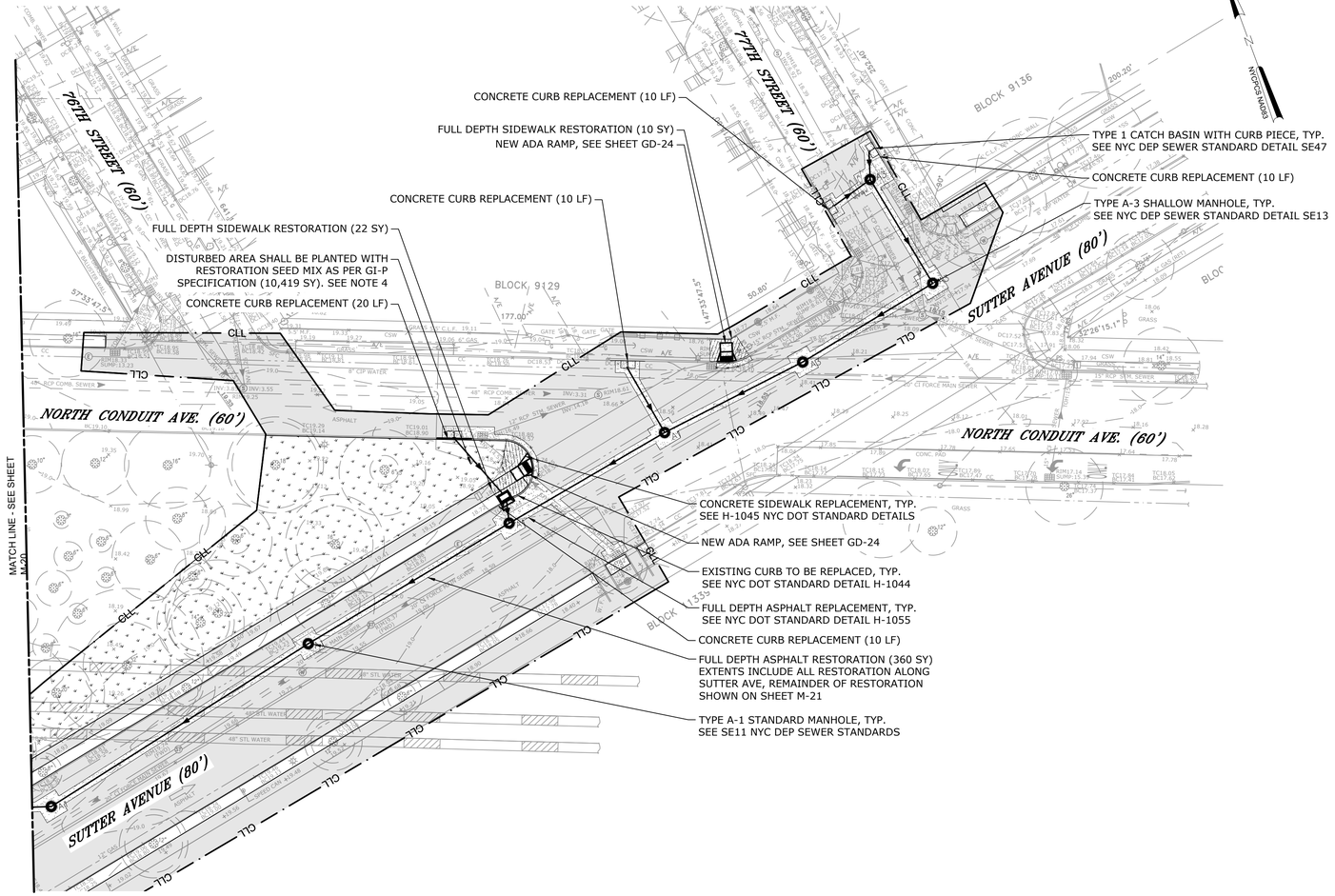
PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN - NW-02RGa I

DATE JUL 2026
PAGE 134 OF 171
SHEET M-20

CONSULTANT DESIGN

File: D:\M336-NYC\M336-010\CAD\CIVIL\MATERIAL PLAN - AREA_NW2 - SHEET 1 Saved By: FAUTH Save Date: 2026/07/20 4:01 PM
Plot Date: 2026/07/21 7:52:28 AM BY: FAUTH

XREFs= ..._TBLOCK\$0336-010_TBI_HAZEN...\000_BASE\XREF-ROW...\000_BASE\CN-REMOVAL...\000_BASE\CN-STRU...\000_BASE\CX-STRU...\000_BASE\CN-MATERIALS...\000_BASE\WORKING\CX-HATCHING-R...\..\Work Plan\0-Reference Material\$02 CAD Templates\Electronic Seal\Sandeep's Seal-2010...\GD-4 GRADING PLAN



PLAN

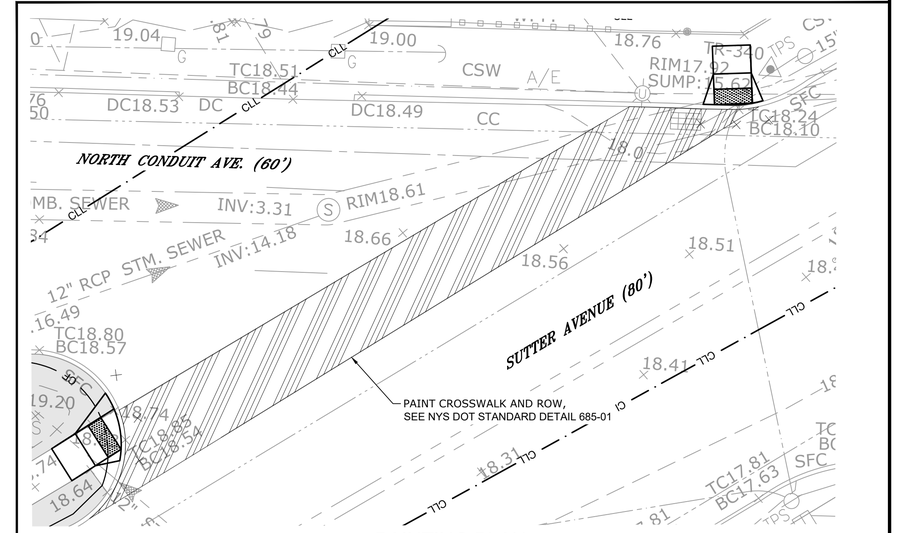
SCALE: 1" = 30'

NOTES:

1. DRAWINGS HAVE BEEN ROTATED 20.25 DEGREES FROM TRUE NORTH.
2. GRASSED AND MULCHED AREAS WITHIN CONTRACT LIMIT LINE, BUT NOT DENOTED FOR RESTORATION SEED MIX, ARE NOT INTENDED TO BE DISTURBED. IF GRASSED OR MULCHED AREAS ARE DISTURBED, AREA SHALL BE STABILIZED WITH RESTORATION SEED MIX PER THE CONTRACT SPECIFICATIONS.
3. SEE DRAWING M-10 FOR STAGE 4: PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION CONSTRUCTIONS SEQUENCING TABLE.

LEGEND

- CLL — CONTRACT LIMIT LINE
- PROPOSED GREEN INFRASTRUCTURE PRACTICE
- PROPOSED STORM PIPE
- 1 — PROPOSED INLET
- PROPOSED DEP MODIFIED CURB INLET TYPE-A
- EXISTING INLET
- A1 A3 — PROPOSED MANHOLE W/TYPE
- PROPOSED OUTLET CONTROL STRUCTURE
- FLARED END SECTION WITH RIP RAP APRON
- IMPERVIOUS AREA (UNDISTURBED)
- IMPERVIOUS AREA (FULL DEPTH ASPHALT RESTORATION)
- IMPERVIOUS AREA (FULL DEPTH SIDEWALK RESTORATION)
- PERVIOUS AREA (UNDISTURBED, SEE NOTE 2)
- PERVIOUS AREA (RESTORATION SEED MIX)
- PERVIOUS AREA (BIORETENTION SEED MIX)
- RIGHT OF WAY PAINTING



PAINTING PLAN

SCALE: 1" = 10'

1" = 30'

30 15 0 30'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

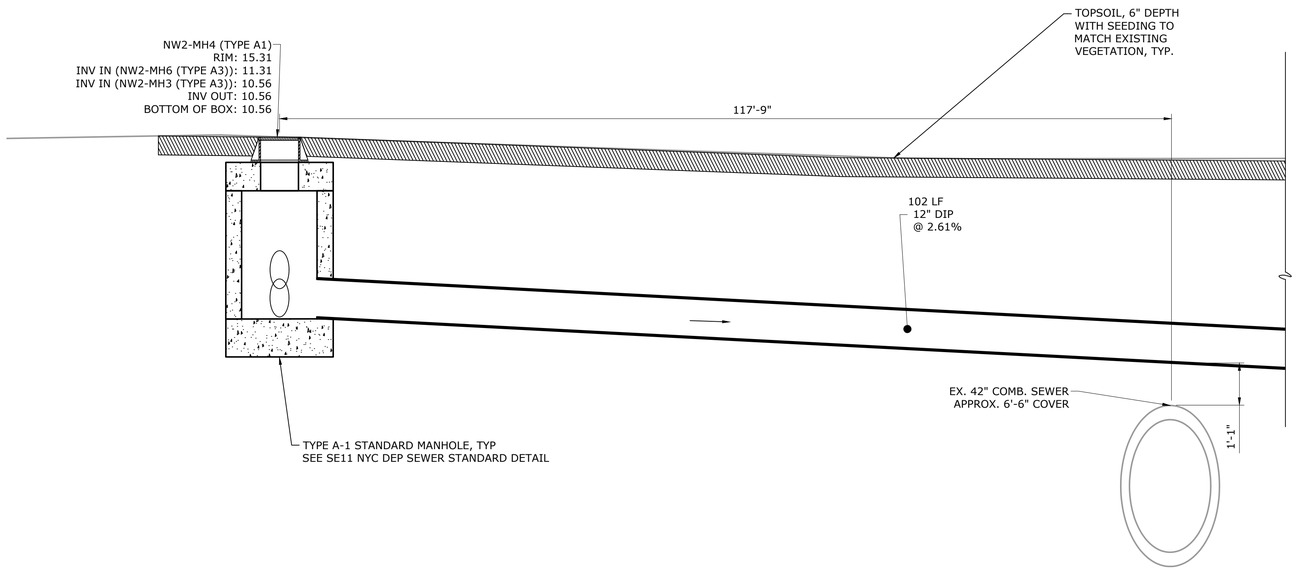
PROPOSED COVER, MATERIALS, AND FINAL STABILIZATION PLAN - NW-02RGa II

DATE	JUL 2026
PAGE	135 OF 171
SHEET	M-21

CONSULTANT DESIGN

File: G:\MS36-NYC\MS36-010\CAD\CIVIL\MATERIAL PLAN - AREA NW2 - SHEET 2 Saved By: RAUTH Save Date: 2026/07/20 4:01 PM
PLOT DATE: 2026/07/21 7:52:37 AM BY: RAUTH

XREFs= .._TBLOCK\@0336-010_TB_HAZEN...\000_BASE\XREF-ROW...\000_BASE\CN-REMOVAL...\000_BASE\CN-STRU...\000_BASE\CX-STRU...\000_BASE\CN-MATERIALS...\000_BASE\WORKING\CX-HATCHING-R...\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010,.\GD-4 GRADING PLAN

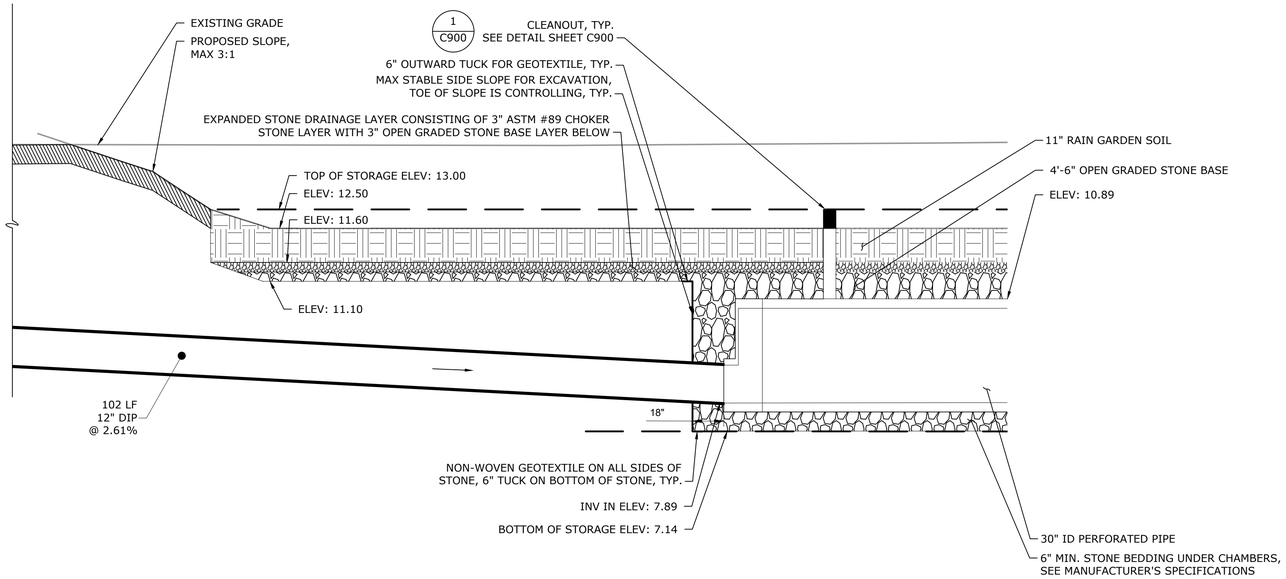


NW-02RGA-PROFILE-P-9

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 15,425 CF AND IS CALCULATED BETWEEN EL. 7.14 AND EL. 13.00.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES AND FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIL GARDEN SOIL AND STONE LAYERS.
6. EXISTING UTILITIES TO BE REMOVED WITHIN PROPOSED GREEN INFRASTRUCTURE FOOTPRINT WHERE INDICATED IF CONFLICT EXISTS, IN ACCORDANCE WITH CONTRACT SPECIFICATIONS.



NW-02RGA-PROFILE-P-9

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

1" = 2' (2 1 0 2')
1" = 4' (4 2 0 4')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

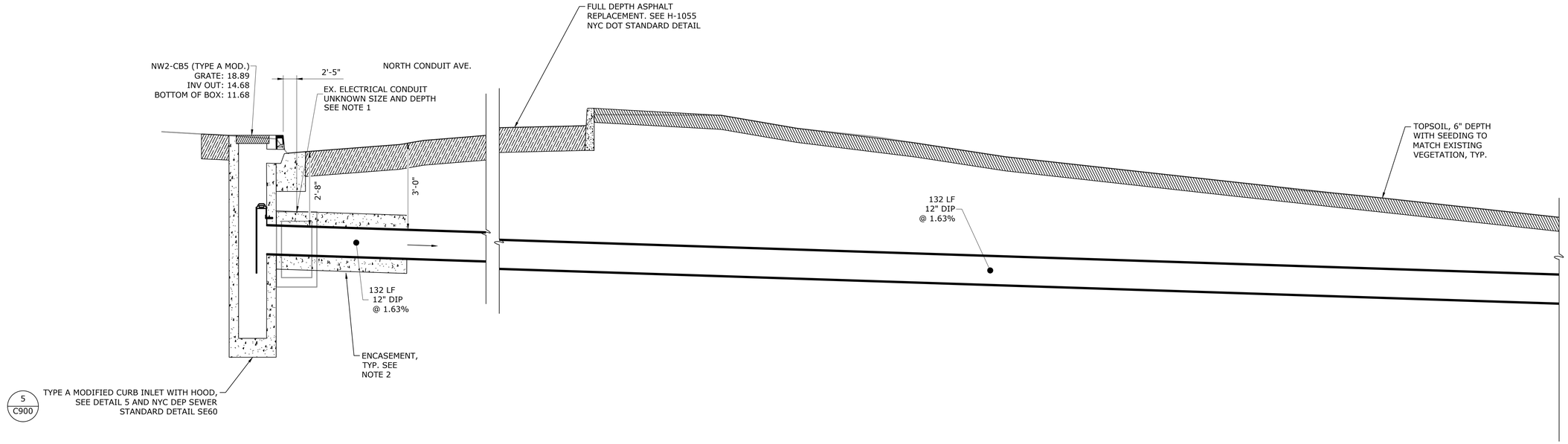
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

PROFILE - NW-02RGa I

DATE JUL 2026
PAGE 136 OF 171
SHEET CS-20

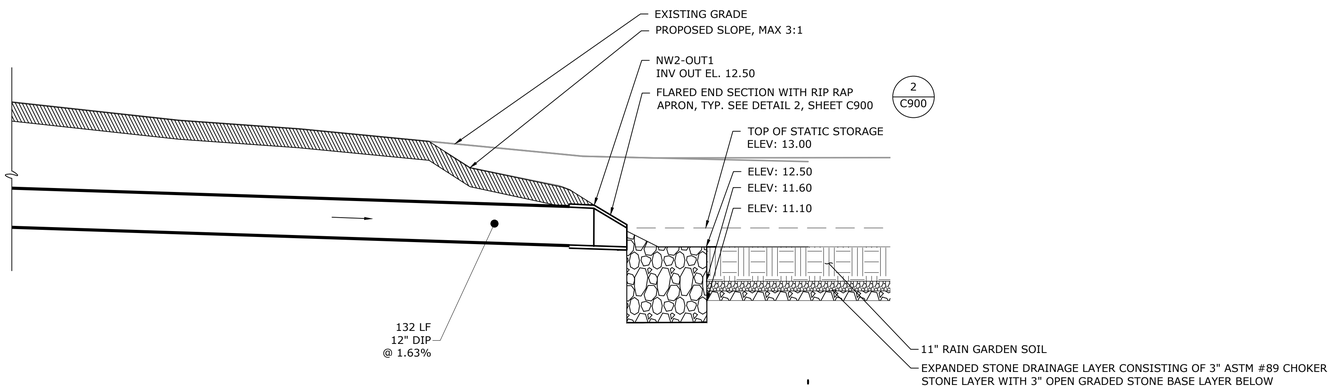
CONSULTANT DESIGN

File: O:\90336-NYC\90336-010\CAD\CIVIL\CS-3 PROFILE - AREA NW2 - SHEET 2 Saved By SKANE Save Date: 2026/07/20 4:01 PM
PLOT DATE: 2026/07/21 10:45 AM BY: PADH
XREFs= .._TBLOCK\90336-010_TB_HAZEN.D:\90336-NYC\90336-010\CAD\000_BASE\CN-3D-PIPES..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NW-02RGA-PROFILE-P-10

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'



NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF0WAY IS LESS THAN 36 INCHES.

NW-02RGA-PROFILE-P-10

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

1" = 5' — 5 0 5'
1" = 10' — 10 5 0 10'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

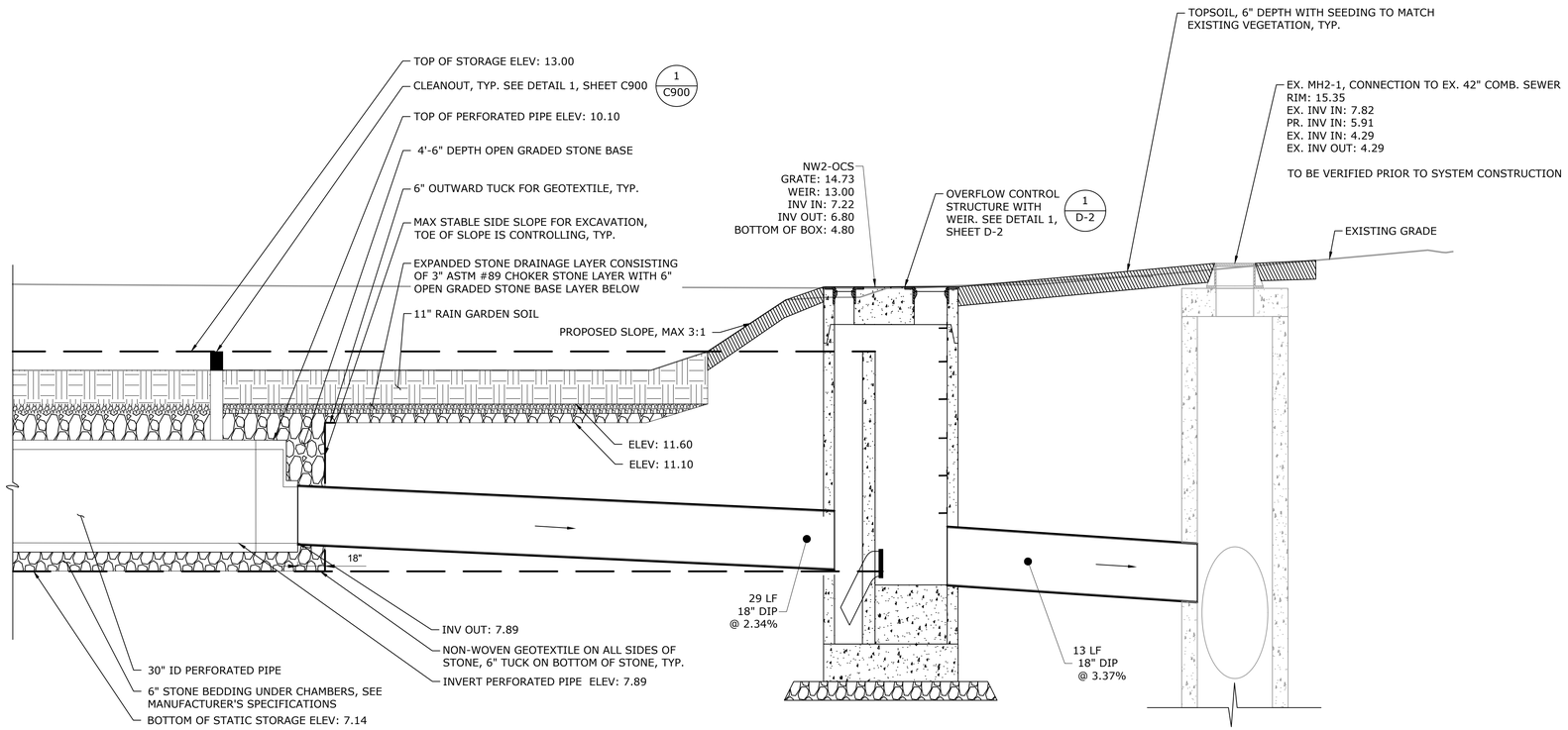
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

PROFILE - NW-02RGa II

DATE JUL 2026
PAGE 137 OF 171
SHEET CS-21

CONSULTANT DESIGN

File: D:\90336-NYC\90336-010\CAD\CIVIL\CS-2 PROFILE - AREA NW1 - SHEET 1 Saved By: SKANE Save Date: 2026/07/30 4:01 PM
PLOT DATE: 2026/07/31 7:52:52 AM BY: TMUH
XREFs= .._TBLOCK\90336-010_TBI_HAZENLG.T:\90336-NYC\90336-010\CAD\000_BASE\CN-3D-PIPES_\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NW-02RGA-PROFILE-P-11

HORIZONTAL SCALE: 1" = 4'
VERTICAL SCALE: 1" = 2'

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 15,425 CF AND IS CALCULATED BETWEEN EL. 7.14 AND EL. 13.00.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES AND FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 5A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIL GARDEN SOIL AND STONE LAYERS.

1" = 2' 2 1 0 2'
1" = 4' 4 2 0 4'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

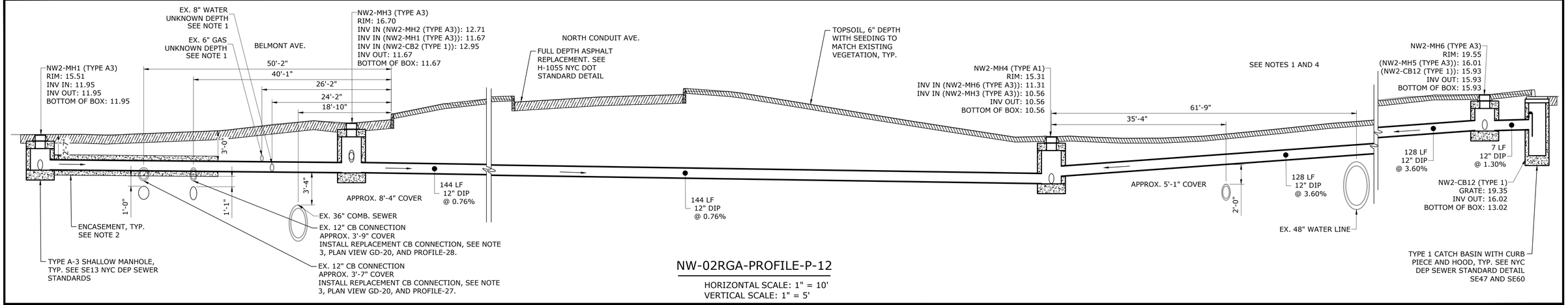
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

PROFILE - NW-02RGa III

DATE	JUL 2026
PAGE	138 OF 171
SHEET	CS-22

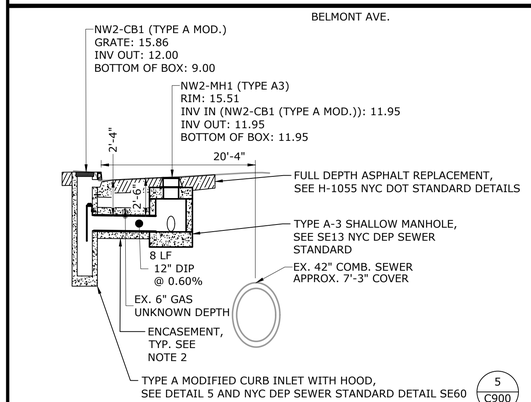
CONSULTANT DESIGN

File: G:\90336-NYC\90336-010\CAD\CIVIL\CS-2 PROF-NW2-SHEET 1.1 Saved By: TAUTH Save Date: 2026/07/30 4:01 PM
PLOT DATE: 2026/07/31 7:52:52 AM BY: TAUTH
XREFs= .._TBLOCK\90336-010_TB_HAZEN.D:\90336-NYC\90336-010\CAD\000_BASE\CN-30-PIPES..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



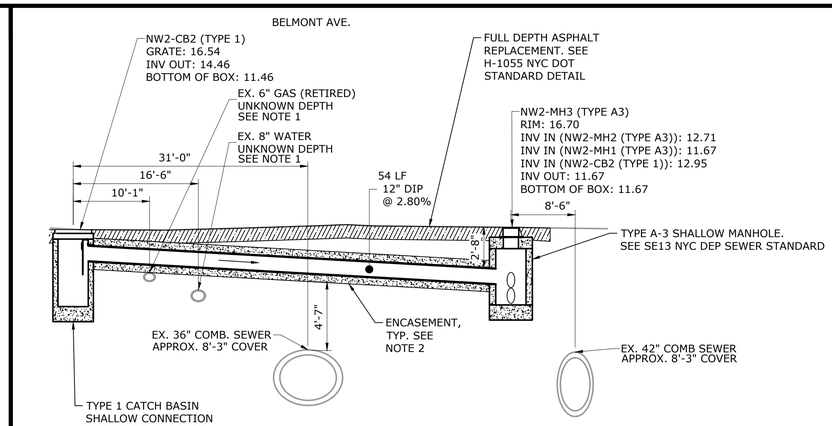
NW-02RGA-PROFILE-P-12

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



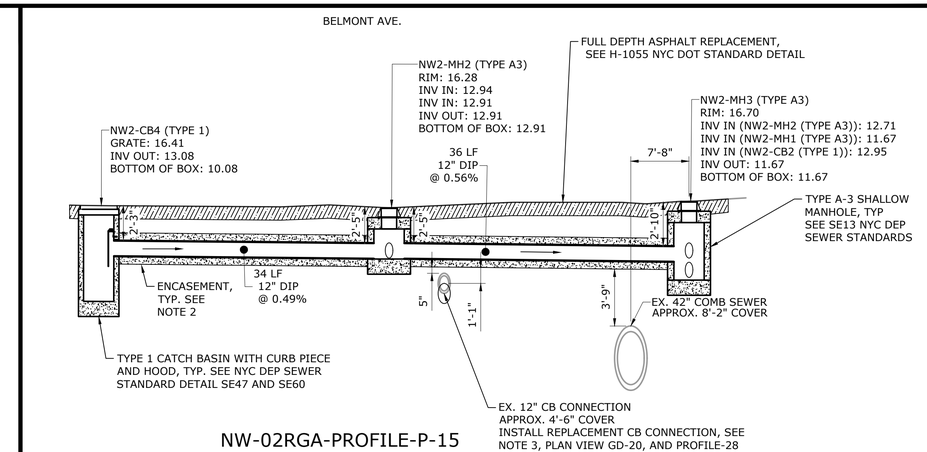
NW-02RGA-PROFILE-P-13

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



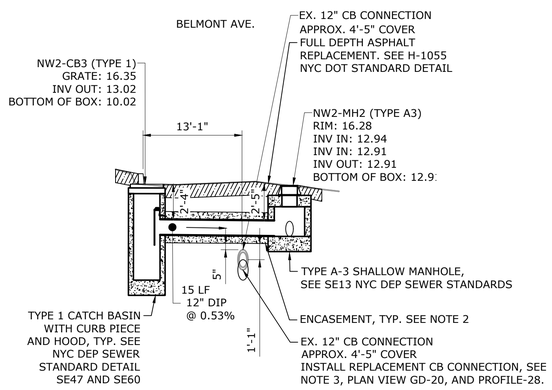
NW-02RGA-PROFILE-P-14

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NW-02RGA-PROFILE-P-15

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NW-02RGA-PROFILE-P-16

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.
3. WHEN LAYING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).
4. DIP PIPE JOINTS SHALL BE SPACED TO AVOID POSITIONING THE PIPE BELL DIRECTLY OVERHEAD ANY EXISTING DEP 48-IN TRUCK WATER MAIN.

1" = 5' 5 0 5'
1" = 10' 10 5 0 10'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

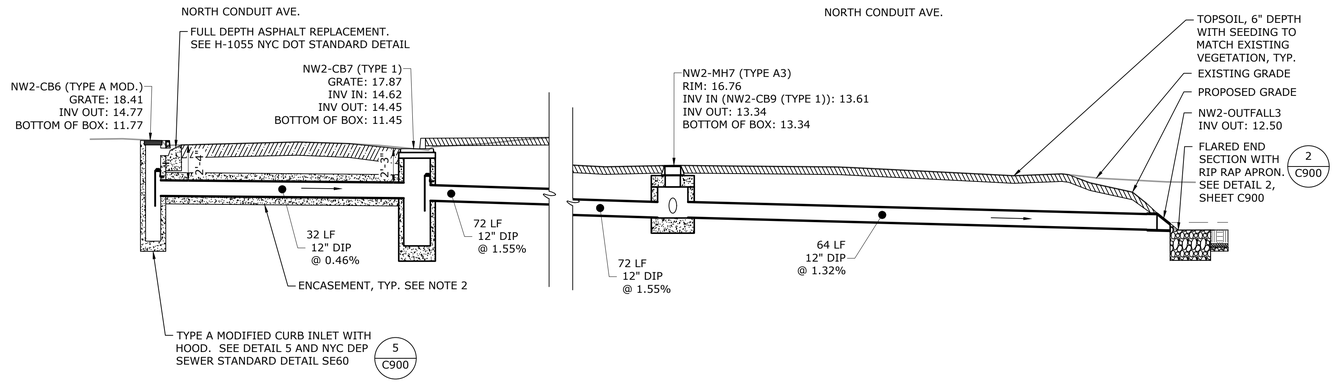
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

PROFILE - NW-02RGa IV

DATE JUL 2026
PAGE 139 OF 171
SHEET CS-23

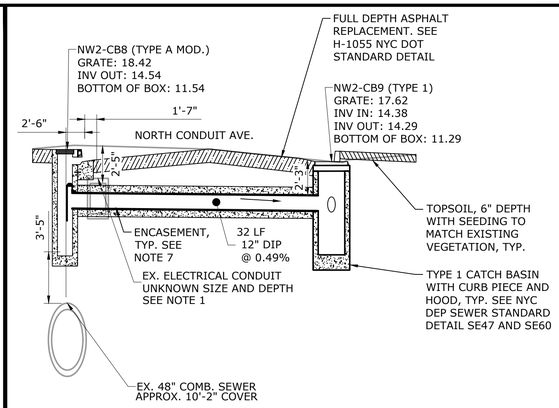
CONSULTANT DESIGN

File: D:\WO336-NYC\WO336-010\CAD\CIVIL\WC-DWG006.DWG Saved By: SKANE Save Date: 2026/07/30 4:01 PM
PLOT DATE: 2026/07/31 7:53:58 AM BY: HJOH
XREFs= ..\..\BLOCK\$0336-010_TB_HAZEN.D: \$0336-NYC\$0336-010\CAD\000_BASE\DN-3D-PIPES..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



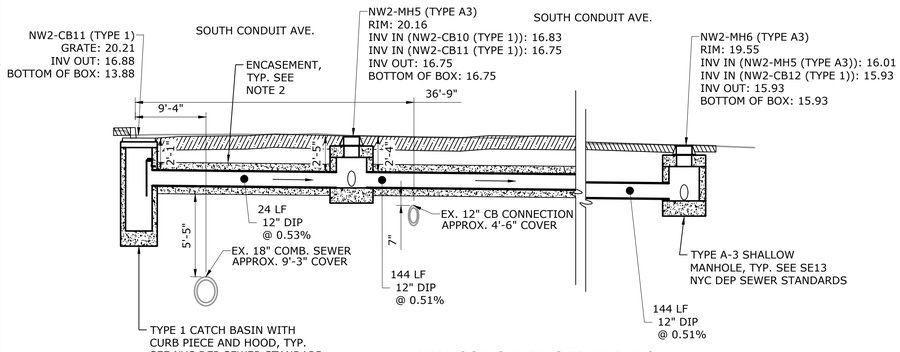
NW-02RGA-PROFILE-P-17

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



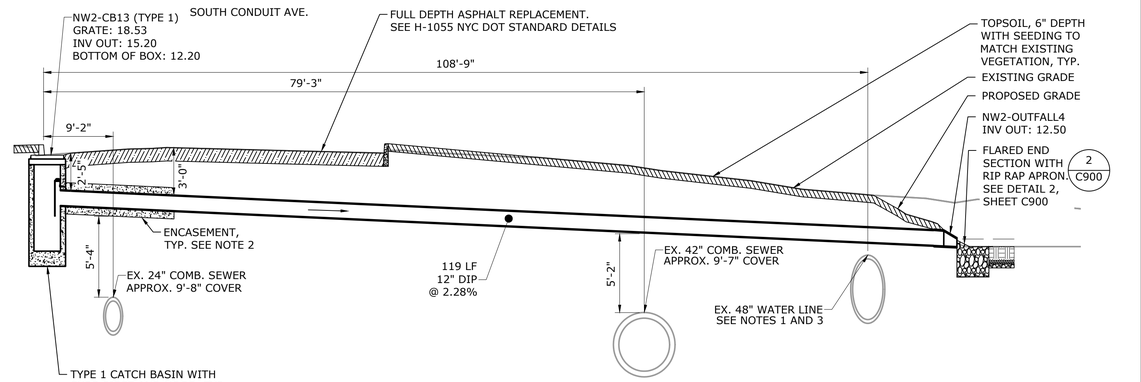
NW-02RGA-PROFILE-P-18

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NW-02RGA-PROFILE-P-19

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NW-02RGA-PROFILE-P-20

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

NOTES:

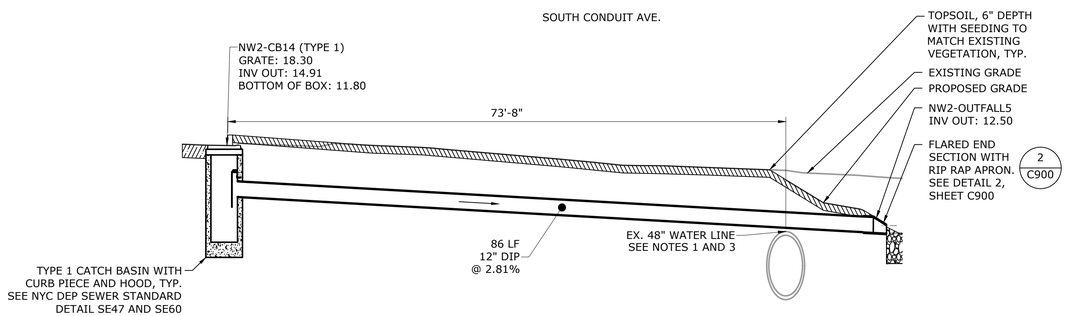
1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.

   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.

2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN THE RIGHT-OF-WAY IS LESS THAN 36 INCHES.

3. DIP PIPE JOINTS SHALL BE SPACED TO AVOID POSITIONING THE PIPE BELL DIRECTLY OVERHEAD ANY EXISTING DEP 48-IN TRUCK WATER MAIN.



NW-02RGA-PROFILE-P-21

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 5' (5 0 5')
1" = 10' (10 5 0 10')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

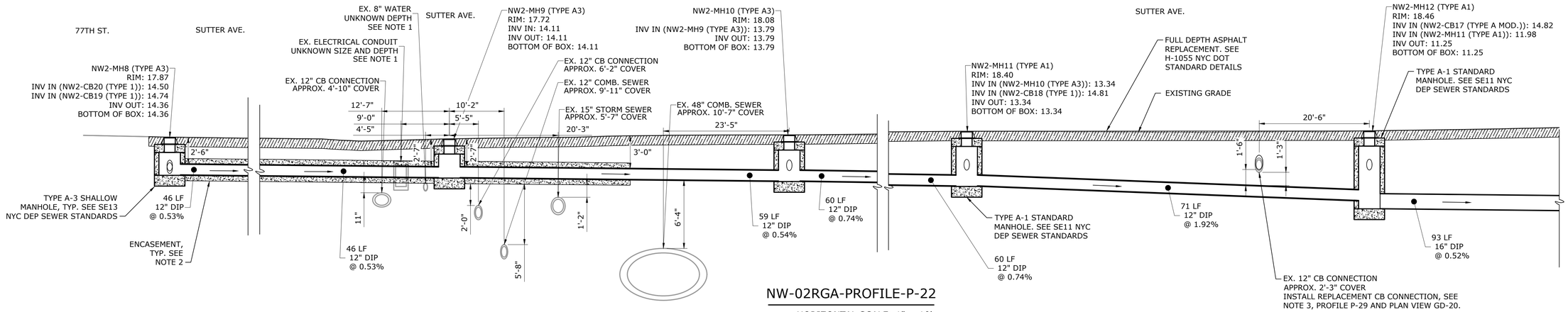
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

PROFILE - NW-02RGa V

DATE	JUL 2026
PAGE	140 OF 171
SHEET	CS-24

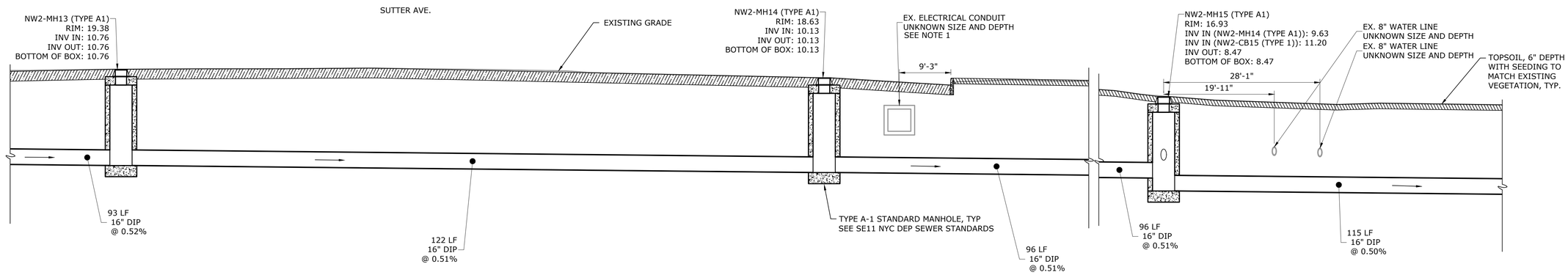
CONSULTANT DESIGN

File: O:\90336-NYC\90336-010\CAD\CON\NW2-CB5SW#2 Saved By SKANE Save Date: 2026/07/20 4:01 PM
PLOT DATE: 2026/07/21 7:53:8 AM BY YAVIN
XREFs= O:\90336-NYC\90336-010\CAD\000_BASE\CN-3D-PIPES,..\..TBLOCK\90336-010_TB_HAZEN,..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NW-02RGA-PROFILE-P-22

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



NW-02RGA-PROFILE-P-22

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.
2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.
3. WHEN INSTALLING NEW CATCH BASIN CONNECTION PIPES, CLEARANCE OF 18" FROM CROSSING PIPE SHALL BE MAINTAINED (12" IF CROSSING PIPE IS ABOVE NEW CATCH BASIN CONNECTION AND IS ENCASED IN CONCRETE OR MOUNTED ON CONCRETE CRADLE).

1" = 5' 5 0 5'
1" = 10' 10 5 0 10'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Sandeep Mehrotra — STATE OF NEW YORK — 100323 — REGISTERED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

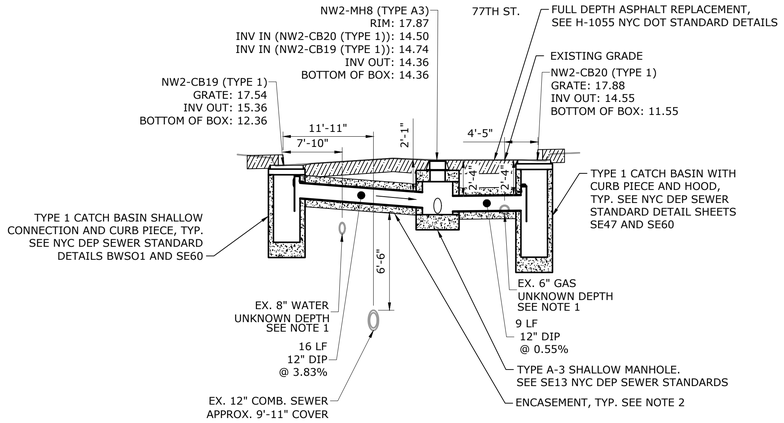
PROFILE - NW-02RGa VI

DATE JUL 2026
PAGE 141 OF 171
SHEET CS-25

CONSULTANT DESIGN

File: O:\90336-NYC\90336-010\CAD\CIVIL\WW2-CPROSING3 Saved By: SKANE Save Date: 2026/07/30 4:01 PM
Plot Date: 2026/07/27 7:53 AM BY: TAUTH

XREFs= ..\..\BLOCK\90336-010_TB_HAZEN.D:\90336-NYC\90336-010\CAD\000_BASE\CN-3D-PIPES..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



NW-02RGA-PROFILE-P-23

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

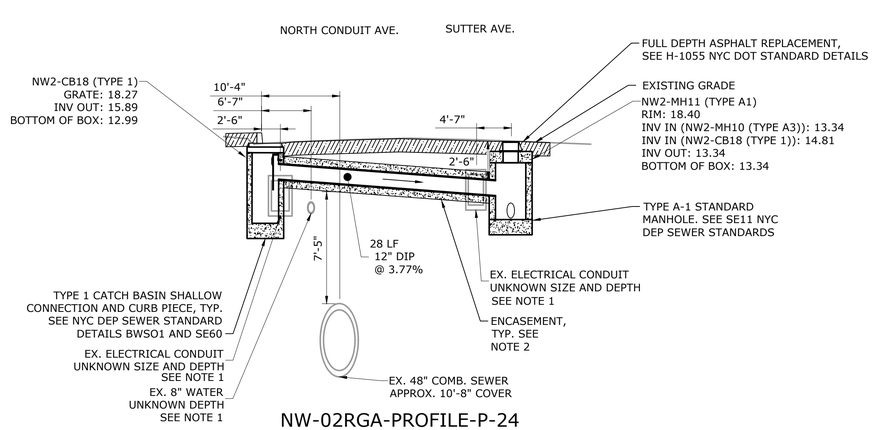
NOTES:

1. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.

   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 1A AS APPLICABLE.

2. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.



NW-02RGA-PROFILE-P-24

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 5' 5 0 5'
1" = 10' 10 5 0 10'

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

PROFILE - NW-02RGa VII

DATE JUL 2026
PAGE 142 OF 171
SHEET CS-26

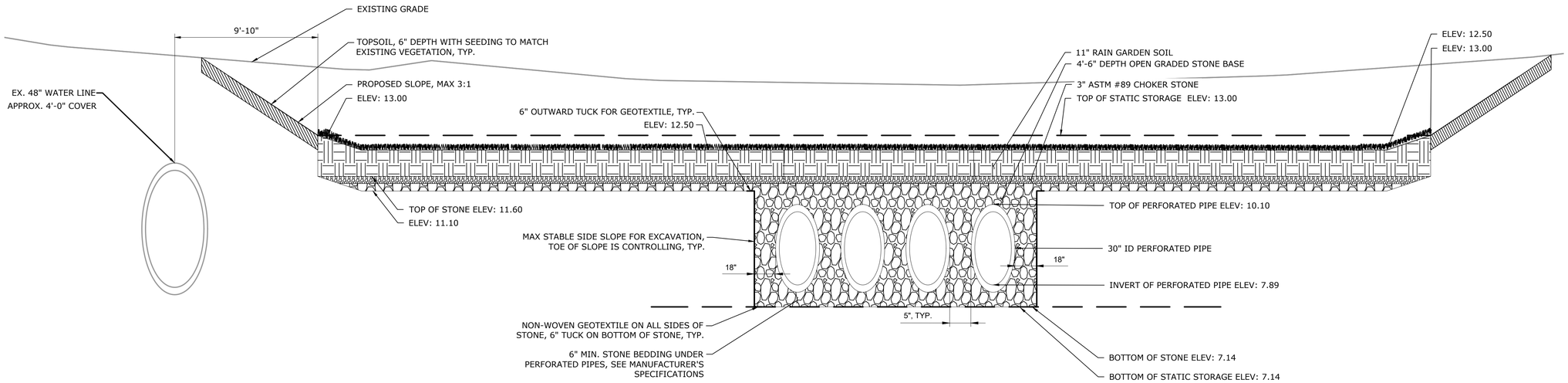
CONSULTANT DESIGN

File: D:\W0336-NYC\W0336-010\CAD\CWL\NW2-CDRSSNG4 Saved By SKANE Save Date: 2026/07/31 4:01 PM
PLOT DATE: 2026/07/31 4:01:35 AM BY: NATH

XREFs= .._TBLOCK\W0336-010_TB_HAZEN.D:\W0336-NYC\W0336-010\CAD\000_BASE\CN-3D-PIPES..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NOTES:

1. THE WORK SHOWN HERE IN ITS ENTIRETY IS TO PROVIDE A STATIC STORAGE OF 15,425 CF AND IS CALCULATED BETWEEN EL. 7.14 AND EL. 13.00.
2. OPEN GRADED STONE BASE SHALL BE A CLEAN WASHED COARSE AGGREGATE WITH A 40% VOID CONTENT.
3. INSTALL NON WOVEN GEOTEXTILE ON THE SIDES AND FOLD 6" UNDER BOTTOM OF OPEN GRADED STONE.
4. FOR UNDERGROUND UTILITIES WITH UNKNOWN OR ESTIMATED COVER, TEST PITS SHOULD BE DUG TO ASCERTAIN THE LOCATION OF THE UTILITY RELATIVE TO THE PROPOSED SEWER PIPING. ONCE THE UTILITY IS LOCATED, ONE OF THE FOLLOWING OPTIONS CAN BE CHOSEN:
   - A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE UTILITY SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND UTILITY OWNER AND CONTRACTOR SHALL COORDINATE WITH NYCDEP REPRESENTATIVE.
   - B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH UTILITY OWNER AND ENGINEER'S REPRESENTATIVE. ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 5A AS APPLICABLE.
5. BACKFILL TO ACHIEVE VERTICAL SIDE SLOPES FOR RAIL GARDEN SOIL AND STONE LAYERS.



NW-02RGa - SECTION CS-2

HORIZONTAL SCALE:1" = 4'
VERTICAL SCALE: 1" = 2'

1" = 2' (2 1 0 2')
1" = 4' (4 2 0 4')

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

CROSS SECTION - NW-02RGa

DATE JUL 2026
PAGE 143 OF 171
SHEET CS-27

CONSULTANT DESIGN

XREFs= .._TBLOCK\90336-010_TB_HAZEN.D:\90336-NYC\90336-010\CAD\000_BASE\DN-3D-PIPES..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

File: D:\90336-NYC\90336-010\CAD\CAA\CROSS SECTION - AREA NW2 Saved By: TAUTH Save Date: 2026/07/30 4:01 PM
PLOT DATE: 2026/07/31 7:54 AM BY: TAUTH

NOTES:

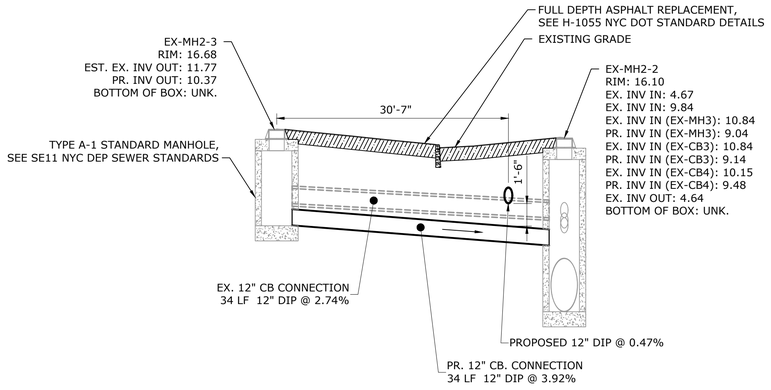
1. DEPTH, SIZE, AND LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED VIA TEST PITS. CONTRACTOR SHALL SUBMIT FINDINGS TO ENGINEER AND OWNER FOR REVIEW PRIOR TO SOURCING DRAINAGE STRUCTURES AND PRIOR TO BEGINNING EXCAVATION.

   A. IF THE UTILITY HAS LESS THAN 18" BUT 6" OR MORE VERTICAL CLEARANCE FROM THE PROPOSED PIPE, THE PIPE SHOULD BE SUPPORTED USING MEANS AND METHODS PRESCRIBED BY THE CONTRACTOR, AND ENGINEER'S REPRESENTATIVE SHALL COORDINATE WITH RESPECTIVE AGENCY.

   B. IF THE UTILITY HAS LESS THAN 6" OF VERTICAL CLEARANCE FROM THE PROPOSED PIPE, CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY WITH RESPECTIVE AGENCY AND ENGINEER'S REPRESENTATIVE, ONCE ADEQUATE CLEARANCE IS ACHIEVED, CONSTRUCTION SHALL PROCEED PER NOTE 4A AS APPLICABLE.

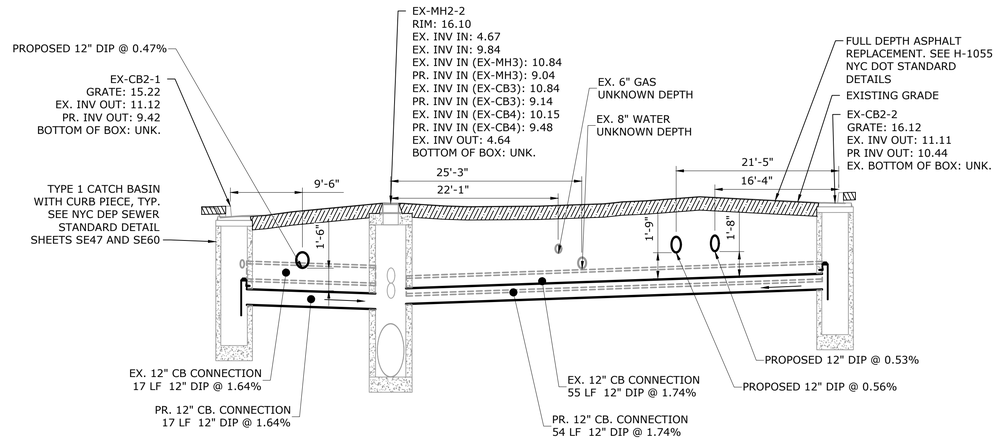
2. ALL PROPOSED CATCH BASIN CONNECTIONS SHALL BE CLASS 56 DIP.

3. ENCASE PIPES IN CONCRETE WHERE NOTED TO PROVIDE ADDITIONAL STABILITY WHEN COVER IN RIGHT-OF-WAY IS LESS THAN 36 INCHES.



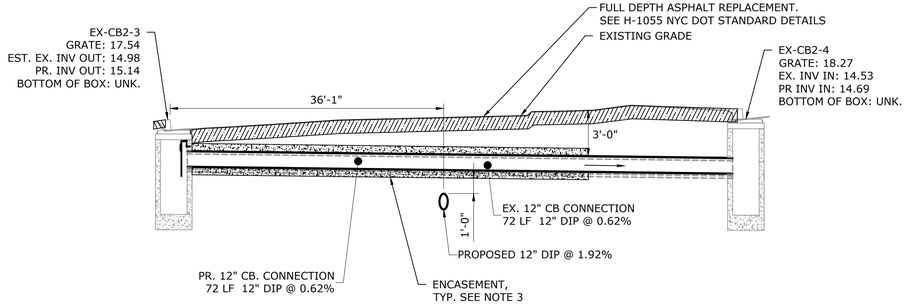
PROPOSED-CB-CONNECTION-27

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



PROPOSED-CB-CONNECTION-28

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



PROPOSED-CB-CONNECTION-29

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

1" = 5' (5 0 5')
1" = 10' (10 5 0 10')

NO.	DATE	ISSUED FOR	BY	DESIGNED JWB	THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.	HAZEN AND SAWYER 498 SEVENTH AVENUE, 11TH FLOOR NEW YORK, NY 10018	APPROVED FOR THE CITY OF NEW YORK P.E. PROJECT MANAGER
				DRAWN TLA			
				CHECKED DT			
				PROJ.ENGR. ACE			

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

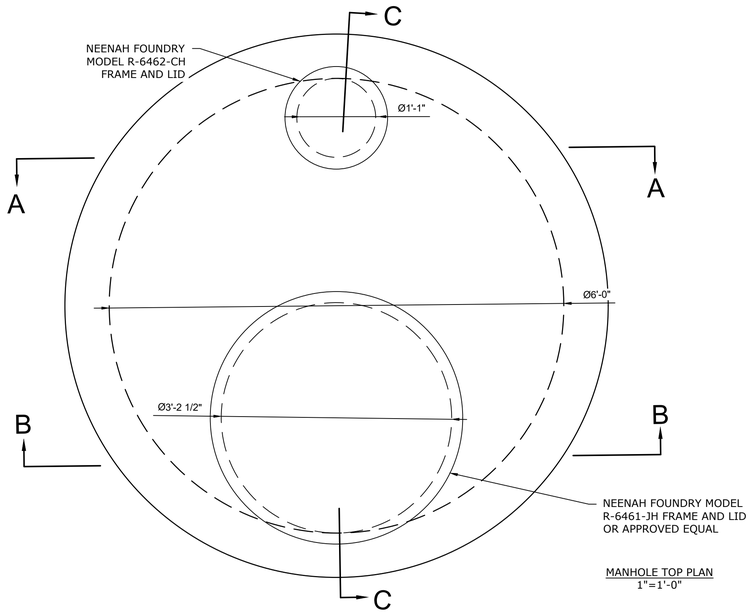
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

PROPOSED CB CONNECTIONS - NW-02RGa

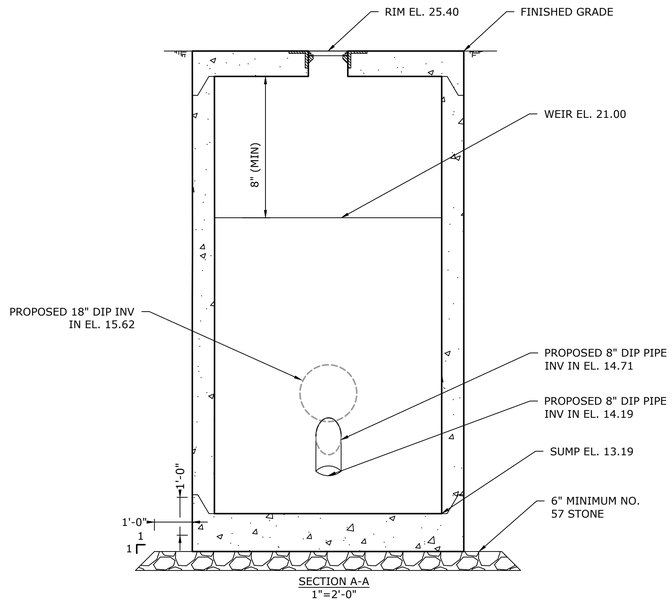
DATE JUL 2026
PAGE 144 OF 171
SHEET CS-28

CONSULTANT DESIGN

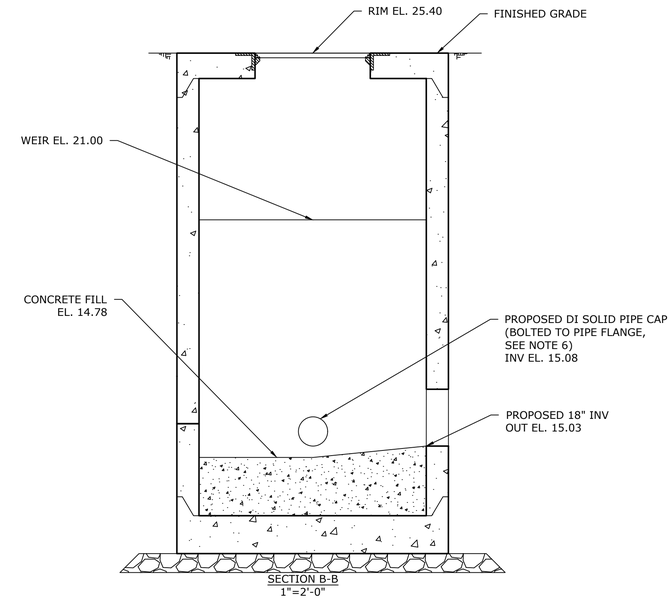
File: O:\WS336-NYC\WS336-010\CAD\CWL\WP_CBCONNECTIONS - NW-02RGA Saved By: TAUTH Save Date: 2026/07/30 4:03 PM
Plot Date: 2026/07/31 7:55:54 AM By: TAUTH
XREFs= .._TBLOCK\WS336-010_TB_HAZEN.D:\WS336-NYC\WS336-010\CAD\000_BASE\CN-3D-PIPES___\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



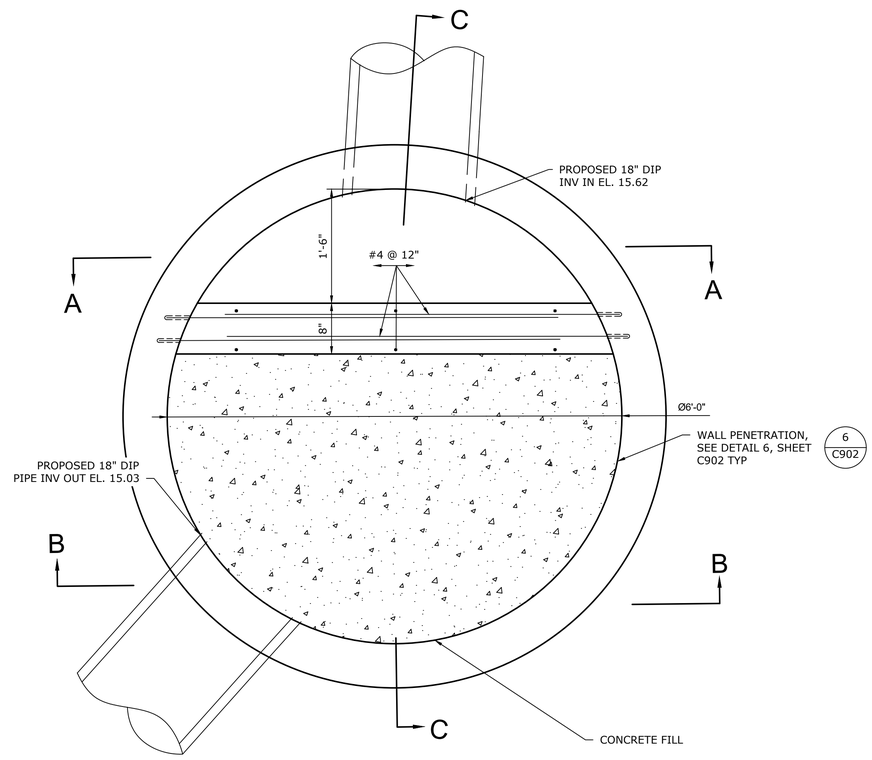
MANHOLE TOP PLAN
1"=1'-0"



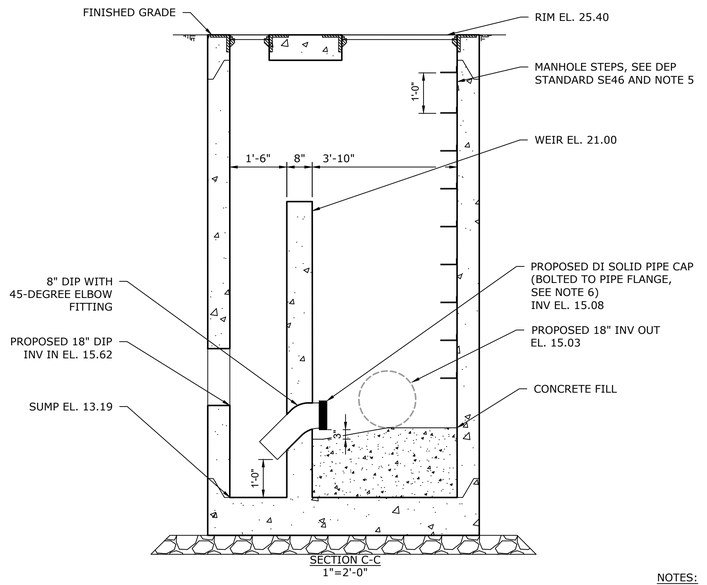
SECTION A-A
1"=2'-0"



SECTION B-B
1"=2'-0"

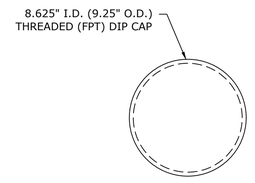


MANHOLE BOTTOM PLAN
1"=1'-0"

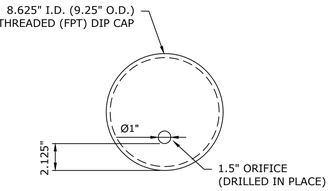


SECTION C-C
1"=2'-0"

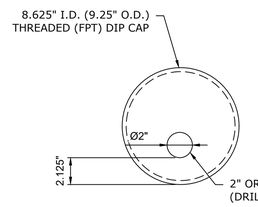
1 / D-1 OCS MH#1 - MANHOLE WITH WEIR AND ORIFICE CAP DETAILS
AS SHOWN



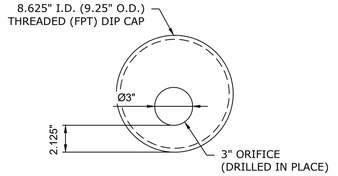
ORIFICE CAP
1"=0'-6"
FURNISH AND DELIVER 2 - SOLID ORIFICE CAPS
INSTALL 1 - SOLID ORIFICE CAP



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 1" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 2" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 3" ORIFICE CAP IF NEEDED

NOTES:

1. CONTRACTOR SHALL SUPPLY TWO(2) SOLID, THREADED ORIFICE CAPS FOR THE PROJECT. ONE (1) SOLID CAP SHALL BE INSTALLED IN THE FIELD. THE REMAINING SOLID CAP SHALL BE TURNED OVER TO NYCDEP FOR FUTURE USE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. REFER TO DETAILS 1-6 ON SHEET C902.
4. SEE GENERAL STRUCTURAL NOTES AND CONCRETE NOTES ON SHEET C902.
5. RUNGS SHOULD BE LOCATED 3" OFFSET FROM THE TOP SLAB OF THE MANHOLE, AND REPEAT EVERY 12".
6. BOLTS SHALL BE INSTALLED SO THAT THE BOLT HEAD IS ON THE WEIR SIDE WALL.

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

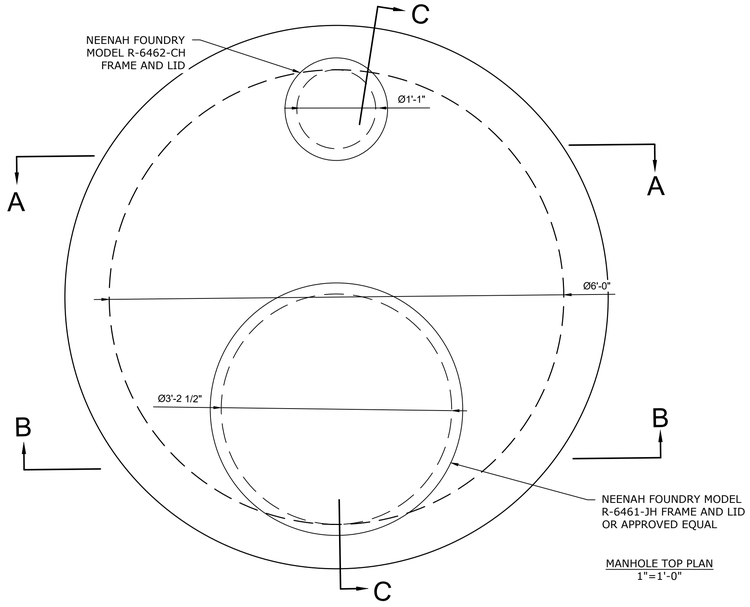
NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

DETAILS

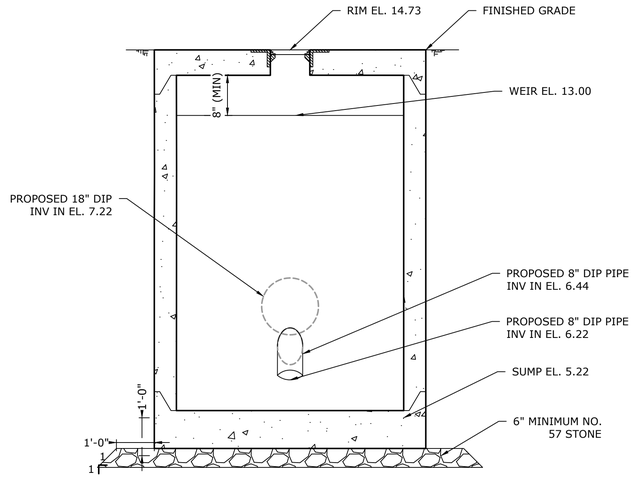
DATE JUL 2026
PAGE 145 OF 171
SHEET D-1

CONSULTANT DESIGN

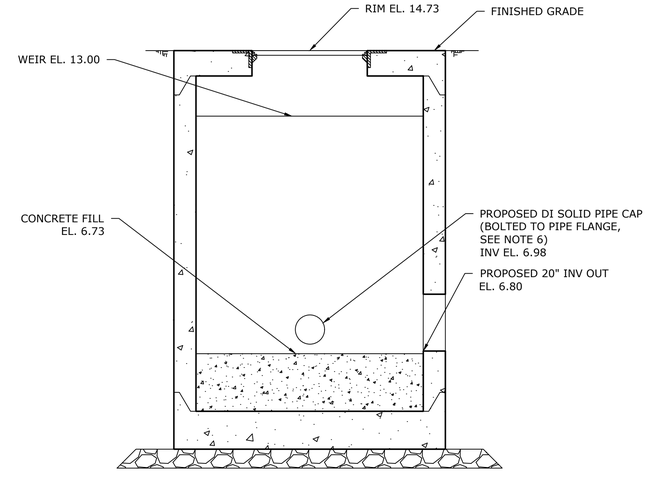
File: O:\90336-NYC\90336-010\CAD\Civil\MH1 DETAIL Saved By WCARRAWAY Save Date: 2026/07/20 4:03 PM
PLOT DATE: 2026/07/20 4:04 PM BY: WCARR
XREFs= ..\000_BASE\CN- CONTROL STRUCTURE MH1,..\..TBLOCK\90336-010_TB_HAZEN..\..\..\Work Plan\0-Reference Material\SD2 CAD Templates\[Electronic Seal\Sandeep's Seal-2010



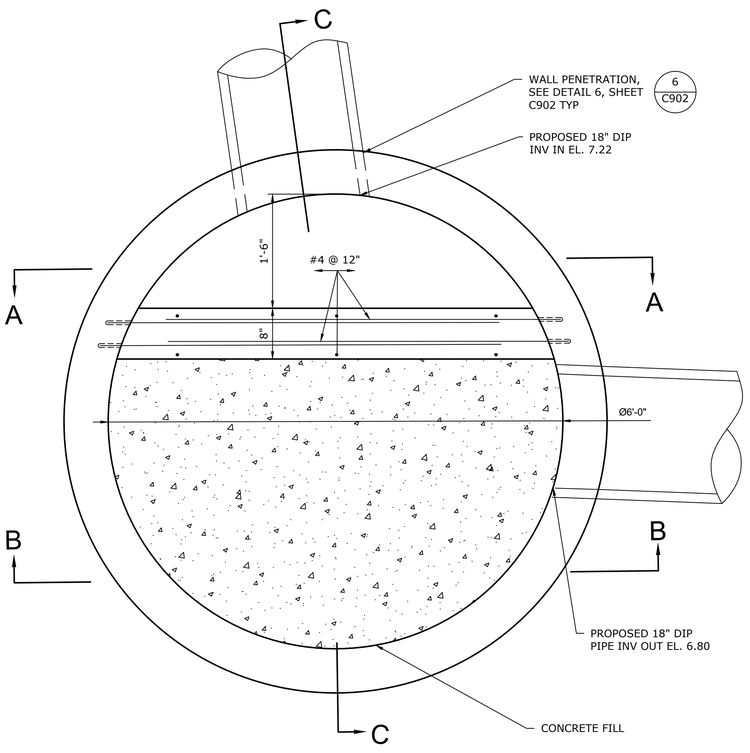
MANHOLE TOP PLAN
1"=1'-0"



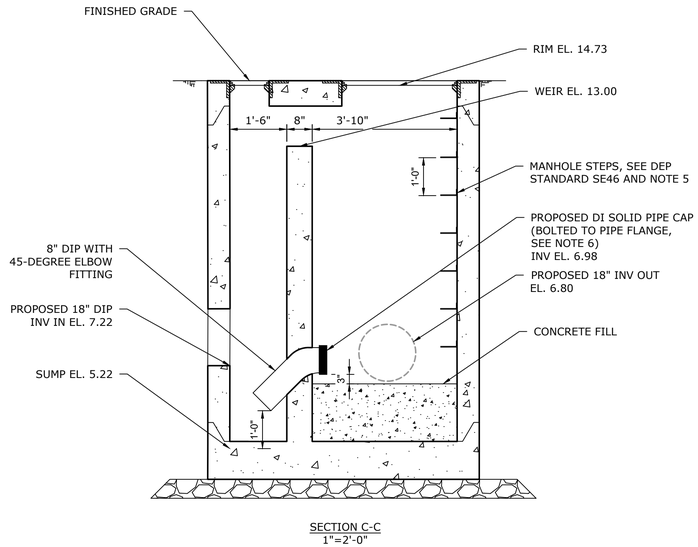
SECTION A-A
1"=2'-0"



SECTION B-B
1"=2'-0"



MANHOLE BOTTOM PLAN
1"=1'-0"

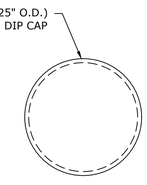


SECTION C-C
1"=2'-0"

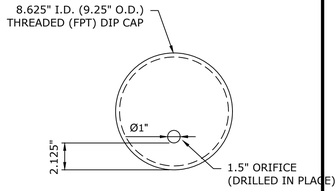
1
D-2

OCS MH#2 - MANHOLE WITH WEIR AND ORIFICE CAP DETAILS

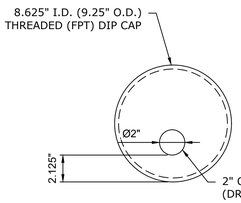
AS SHOWN



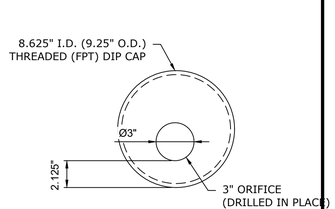
ORIFICE CAP
1"=0'-6"
FURNISH AND DELIVER 2 - SOLID ORIFICE CAPS
INSTALL 1 - SOLID ORIFICE CAP



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 1" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 2" ORIFICE CAP IF NEEDED



ORIFICE CAP
1"=0'-6"
PLACEMENT OF 1 - 3" ORIFICE CAP IF NEEDED

NOTES:

1. CONTRACTOR SHALL SUPPLY TWO(2) SOLID, THREADED ORIFICE CAPS FOR THE PROJECT. ONE (1) SOLID CAP SHALL BE INSTALLED IN THE FIELD. THE REMAINING SOLID CAP SHALL BE TURNED OVER TO NYCDEP FOR FUTURE USE.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. REFER TO DETAILS 1-6 ON SHEET C902.
4. SEE GENERAL STRUCTURAL NOTES AND CONCRETE NOTES ON SHEET C902.
5. RUNGS SHOULD BE LOCATED 3" OFFSET FROM THE TOP SLAB OF THE MANHOLE, AND REPEAT EVERY 12".
6. BOLTS SHALL BE INSTALLED SO THAT THE BOLT HEAD IS ON THE WEIR SIDE WALL.

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED DT
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NORTH AND SOUTH CONDUIT GRANT AVE TO SUTTER AVE MEDIAN GREEN INFRASTRUCTURE
BOROUGH OF QUEENS

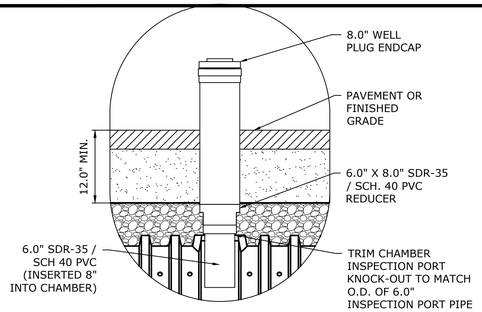
DETAILS

DATE JUL 2026
PAGE 146 OF 171
SHEET D-2

CONSULTANT DESIGN

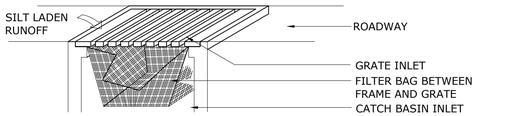
File: O:\WS36-NYC\WS36-010\CAD\Cnst\Mh2_DETAIL Saved By: TAUTH Save Date: 2026/07/30 4:03 PM
Plot DATE: 2026/07/31 7:42:42 AM BY: TAUTH

XREFs= ..\000_BASE\CN- CONTROL STRUCTURE MH2,.._TBLOCK\WS36-010_TB_HAZEN..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010



SITE NAME	CLEANOUT TOP ELEVATION (FT)
NSC-01RGa	10.00
NSC-02RGa	13.50
NSC-03RGa	12.00
NSC-04RGa	11.50
NW-01RGa	21.00
NW-02RGa	13.00

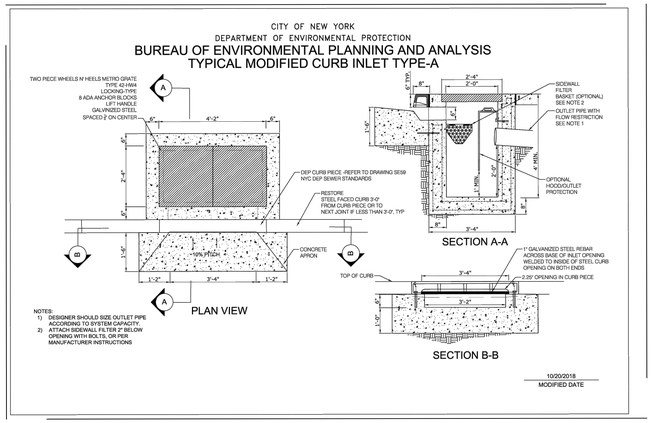
1 / C900 CLEANOUT DETAIL
N.T.S.



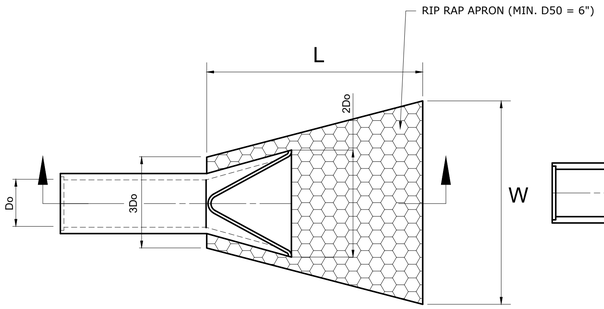
NOTE:
1. IN PAVED AREAS, USE FILTER BAG FOR INLET PROTECTION (NO MESH, BOX STONE REQUIRED).
2. FILTER BAG SHALL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE GEOTEXTILE AND SEWN BY A DOUBLE NEEDLE MACHINE USING A HIGH STRENGTH NYLON THREAD.
3. BAG SHALL BE DANDY SACK® BY DANDY PRODUCTS INC., OR EQUAL, AS APPROVED BY THE ENGINEER.
4. WHEN INSTALLED, FILTER BAG SHALL BE SUCH THAT A MINIMUM OF 50% OF THE OPEN, UNOBSTRUCTED DESIGN FLOW AREA OF THE STORM DRAIN INLET IS PRESERVED.
5. OUTFLOW PORTS ARE REQUIRED.

MAINTENANCE REQUIREMENTS:
1. INSPECT FILTER BAG ON A DAILY BASIS AND REMOVE ANY VISIBLE SEDIMENT OR DEBRIS. INLET PROTECTION SHALL BE MAINTAINED SUCH THAT A MINIMUM OF 50% OF THE OPEN, UNOBSTRUCTED DESIGN FLOW AREA OF THE STORM DRAIN INLET IS PRESERVED.
2. DAMAGE TO THE BAG SHALL BE REPAIRED IMMEDIATELY.
3. WHEN THE RESTRAINT CORD IS NO LONGER VISIBLE, THE BAG IS FULL AND SHOULD BE EMPTIED.
4. USE 1" DIAMETER REBAR TO SLIDE THROUGH THE LIFTING LOOPS/POCKETS ON EACH SIDE OF THE BAG TO FACILITATE LIFTING.
5. REMOVE SEDIMENT FROM BAG AND DISPOSE OF OFF-SITE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.

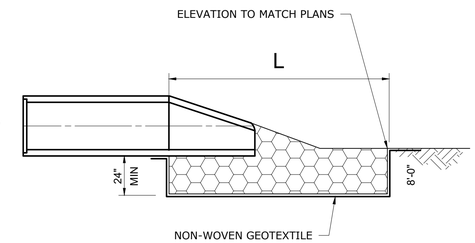
3 / C900 INLET PROTECTION
N.T.S.



5 / C900 MODIFIED CURB INLET TYPE-A
N.T.S.



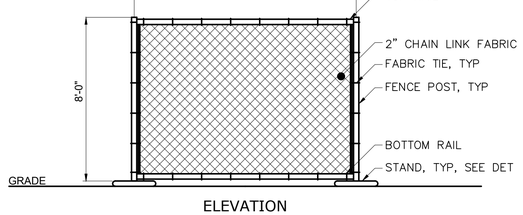
PLAN



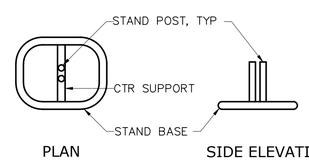
SECTION

SYSTEM NAME	OUTFALL NAME	Do (IN)	L (FT)	W (FT)
		PIPE SIZE	APRON LENGTH	APRON WIDTH
NSC-02RGa	NSC2-OUT1	12	4	3
NSC-03RGa	NSC3-OUT1	18	6	5
	NSC3-OUT2	12	4	3
NSC-04RGa	NSC4-OUT3	16	5.33	4
NW-01RGa	NW1-OUT1	12	4.00	3
	NW1-OUT2	12	4.00	3
	NW1-OUT3	12	4.00	3
	NW1-OUT4	10	3.33	3
NW-02RGa	NW2-OUT1	12	4.00	3
	NW2-OUT2	12	4.00	3
	NW2-OUT3	12	4.00	3
	NW2-OUT4	12	4.00	3
NSC-01RGa	NSC1-OUT1	12	4	3
	NSC1-OUT2	12	4	3
	NSC1-OUT3	12	4	3
	NSC1-OUT4	12	4	3

2 / C900 FLARED END SECTION WITH RIP-RAP APRON
N.T.S.



ELEVATION

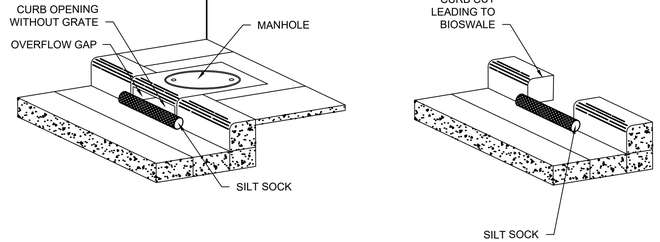


PLAN SIDE ELEVATION

STAND DETAIL

NOTES:
1. CONTRACTOR SHALL PROVIDE, AT A MINIMUM, TEMPORARY FENCE WITH DIMENSIONS AND APPURTENANCES AS SHOWN.
2. ALL OTHER DIMENSIONS, MATERIAL SIZES, MATERIAL TYPES, ACCESSORIES, ETC PER MANUFACTURER.
3. TEMPORARY FENCE SHALL REMAIN IN PLACE UNTIL CONCLUSION OF CONSTRUCTION.
4. SAND BAGS SHALL BE USED FOR POST SUPPORT IN ACCORDANCE WITH THE SPECIFICATIONS.

4 / C900 TEMPORARY CONSTRUCTION FENCE
N.T.S.



NOTES:

1. INSTALL SILT SOCKS AT ALL INLETS WITHOUT GRATES TO KEEP SILT, SEDIMENT AND CONSTRUCTION DEBRIS OUT OF THE STORM SYSTEM
2. THE SILT SOCK SHALL BE SILT SOCK AS MANUFACTURED BY SILT SOCK EROSION CONTROL PRODUCTS. SUBMIT SHOP A SHOP DRAWING FOR THE SILT SOCKS.
3. THE SILT SOCK SHALL BE IN THE FORM OF A CYLINDRICAL TUBE PLACED IN FRONT OF AND EXTENDING BEYOND THE INLET OPENING ON BOTH SIDES.
4. THE CURB FILTER SHALL BE HELD IN PLACE WITH SANDBAGS OR CEMENT BLOCKS TO PREVENT MOVEMENT.
5. THE CURB FILTER SHALL BE CONSTRUCTED OF A HIGH VISIBILITY MONOFILAMENT FABRIC.
6. FILL POUCH WITH #57 STONE AGGREGATE TO A LEVEL (AT LEAST HALF-FULL) THAT WILL KEEP UNIT IN PLACE DURING A RAIN EVENT AND CREATE A SEAL BETWEEN THE CURB FILTER AND THE SURFACE OF THE STREET.
7. CENTER THE SILT SOCK AGAINST CURB OR MEDIAN INLET OPENING. THERE WILL BE APPROXIMATELY TWELVE (12) INCHES OF SILT SOCK OVERHANGING ON EACH SIDE OF THE OPENING.
8. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH RAIN EVENT.

6 / C900 CURB CUT PROTECTION
N.T.S.

File: O:\9333\NYCCONTRACT MANAGEMENT\000-CONSTRUCTION\CONS\9 DOCUMENTS\C900 SHEETS\C900 Saved By: TAUTH Save Date: 2026/07/31 8:20 AM
PLOT DATE: 2026/07/31 8:28:40 AM BY: TAUTH
XREFs= ..\0-SHEET TITLEBLOCK\9033E_TB_HAZEN_with_logo-0SHEETS_\..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

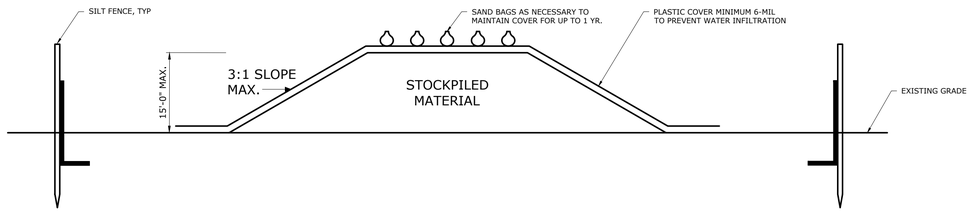
NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

STANDARD DETAILS 1

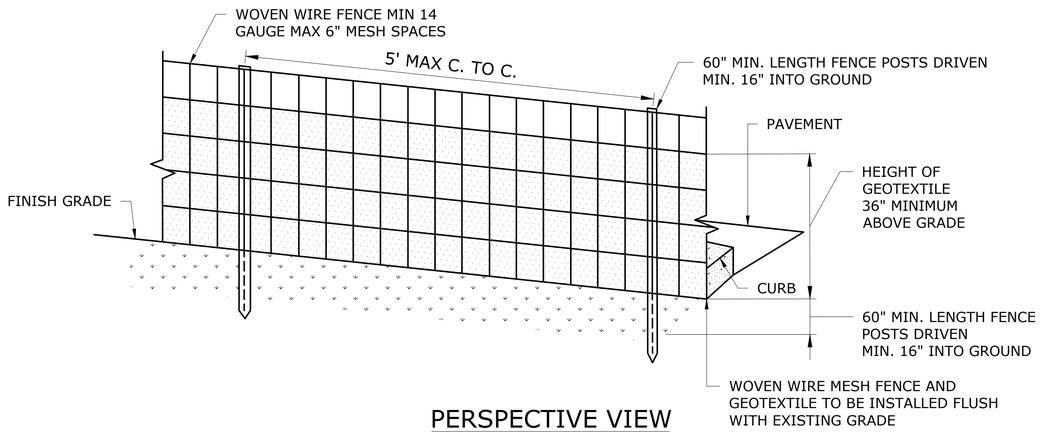
DATE JUL 2026
PAGE 147 OF 171
SHEET C900

CONSULTANT DESIGN

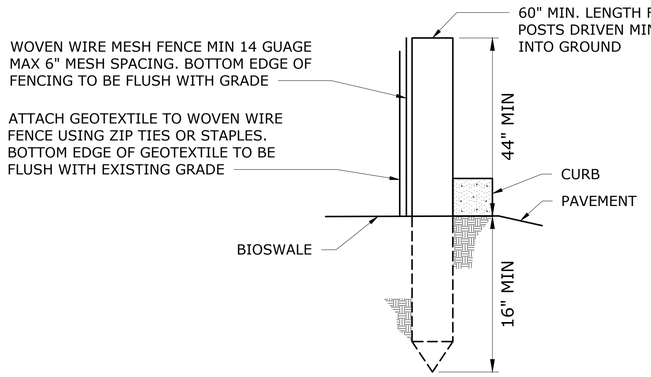


NOTES:
POLYETHYLENE SHEETING SHALL OVERLAP A MINIMUM OF 12-INCHES AND SHALL BE ANCHORED USING SANDBAGS OR EQUIVALENT (NON-PUNCTURING) WEIGHTS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING COVERS ESPECIALLY IN PREPARATION FOR WINDY OR STORMY WEATHER. CONTRACTOR MUST MAINTAIN COVER ON STOCKPILE MATERIALS UNTIL REMOVED FROM SITE.

1 / C901 SOIL STOCKPILE PROTECTION
N.T.S.



PERSPECTIVE VIEW



SECTION VIEW

2 / C901 BIOSWALE PROTECTION FENCE
N.T.S.

TABLE 60.12
TYPICAL MINIMUM LENGTHS OF REQUIRED PIPE RESTRAINT
LINEAR FEET FOR AVERAGE SOIL CONDITIONS (SAND) AND FOR TEST PRESSURE OF 150-PSI

DIA. (in)	COVER (ft)	HORIZONTAL BENDS				VERTICAL BENDS				VALVES AND CAPS	REDUCERS		TEES
		90°	45°	22-1/2°	11-1/4°	90°	45°	22-1/2°	11-1/4°		SIZE	LENGTH	
8	2	24	14	8	4	32	21	13	8	48	8x6 8x4	21 35	0
	4	12	7	4	2	16	12	7	4	24	8x6 8x4	11 18	0
	6	8	5	3	2	11	8	5	3	16	8x6 8x4	7 12	0
12	2	35	20	11	6	47	32	20	11	74	12x8 12x6	41 55	20
	4	19	11	6	3	25	18	11	6	37	12x8 12x6	20 28	0
	6	13	8	4	2	17	12	8	4	25	12x8 12x6	14 18	0
20	2	55	31	17	9	77	50	30	17	125	20x16 20x12	45 80	57
	4	30	18	10	5	42	30	18	10	63	20x16 20x12	23 40	10
	6	21	12	7	4	28	20	12	7	42	20x16 20x12	15 27	0
24	2	65	36	20	10	91	59	35	20	151	24x20 24x16	46 84	76
	4	36	21	12	6	49	36	21	12	75	24x20 24x16	23 42	19
	6	25	15	8	4	34	23	15	9	50	24x20 24x16	15 28	0
30	2	78	42	23	12	111	70	42	23	190	30x24 30x20	68 106	99
	4	44	25	14	8	61	45	25	14	95	30x24 30x20	34 53	32
	6	31	18	10	5	42	29	18	11	63	30x24 30x20	23 35	9
36	2	89	48	26	14	130	81	47	26	228	36x30 36x24 36x20	70 127 158	124
	4	52	29	16	9	72	54	29	17	114	36x30 36x24 36x20	35 64 80	45
	6	36	21	12	6	50	34	21	12	76	36x30 36x24 36x20	23 42 53	18
48	2	110	58	31	16	164	99	57	31	306	48x36 48x30	134 187	165
	4	66	36	20	11	94	72	37	21	153	48x36 48x30	67 93	69
	6	47	27	15	8	66	44	27	15	102	48x36 48x30	45 62	34

Revised: July 1, 2014; Purnima Dharia, William Patalano

3 / C901 RESTRAINT LENGTH TABLE

File: O:\80336\ACCONTRACT MANAGEMENT\00 - CONSTRUCTION\CONS\4 DOCUMENTS\C000 SHEETS\C001 Saved By: SKANE Save Date: 2026/07/13 8:20 AM
PLOT DATE: 2026/07/13 8:28:45 AM BY: TALITH

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

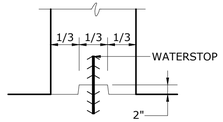
CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

STANDARD DETAILS 2

DATE JUL 2026
PAGE 148 OF 171
SHEET C901

XREFs= ..\0-SHEET TITLEBLOCK\80336_TB_HAZEN_with_logo-OSHEETS_..\..\..\..\Work Plan\0-Reference Material\S02 CAD Templates\Electronic Seal\Sandeep's Seal-2010

CONSULTANT DESIGN



1 / C902 TYPICAL KEYWAY
N.T.S.

BASIC DEVELOPMENT LENGTH AND SPLICE LENGTH
FOR UNCOATED BARS IN TENSION

** BASED ON MATERIALS AND CONDITIONS AS FOLLOWS:
fy = 60,000 psi fc' = 4000 psi OR GREATER
CLEAR COVER≥ 1.5 INCHES NORMAL WEIGHT CONCRETE

BASIC DEVELOPMENT LENGTH ℓd				BAR SIZE	CLASS B SPLICE LENGTH 1.3 x ℓd			
CLEAR SPACING≥ 3"		CLEAR SPACING <3"			CLEAR SPACING≥ 3"		CLEAR SPACING <3"	
BASIC	TOP *	BASIC	TOP *		BASIC	TOP *	BASIC	TOP *
1'-0"	1'-0"	1'-0"	1'-4"	# 3	1'-0"	1'-3"	1'-4"	1'-8"
1'-0"	1'-3"	1'-7"	2'-1"	# 4	1'-3"	1'-8"	2'-1"	2'-9"
1'-3"	1'-7"	2'-4"	3'-0"	# 5	1'-7"	2'-0"	3'-0"	3'-11"
1'-6"	1'-11"	3'-1"	4'-0"	# 6	1'-11"	2'-5"	4'-0"	5'-2"
2'-5"	3'-1"	4'-11"	6'-4"	# 7	3'-1"	4'-0"	6'-4"	8'-3"
3'-0"	3'-11"	6'-0"	7'-9"	# 8	3'-11"	5'-1"	7'-9"	10'-1"
3'-8"	4'-9"	6'-9"	8'-9"	# 9	4'-9"	6'-3"	8'-9"	11'-4"
4'-6"	5'-10"	7'-7"	9'-10"	# 10	5'-10"	7'-7"	9'-10"	12'-9"
5'-5"	7'-0"	8'-5"	10'-11"	# 11	7'-0"	9'-1"	10'-11"	14'-2"

* TOP REINFORCEMENT IS ANY HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.

** FOR MATERIALS OR CONDITIONS DIFFERENT FROM THOSE STATED, LENGTHS SHOWN IN CHART SHALL BE MODIFIED TO CONFORM TO THE PROVISIONS OF ACI 318-14, SECTION 25.3.

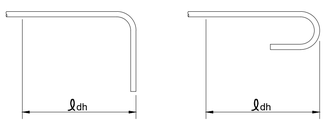
3 / C902 BASIC DEVELOPMENT LENGTH AND SPLICE LENGTH
N.T.S.

DEVELOPMENT LENGTH OF STANDARD HOOKS
FOR UNCOATED BARS IN TENSION

fy = 60,000 psi fc' = 4000 psi OR GREATER

BAR SIZE	DEVELOPMENT LENGTH, ℓdh	
	BASIC	W/ CONC COVER *
#3	8"	6"
#4	10"	7"
#5	1'-0"	9"
#6	1'-3"	11"
#7	1'-5"	1'-0"
#8	1'-7"	1'-2"
#9	1'-10"	1'-4"
#10	2'-1"	1'-6"
#11	2'-3"	1'-7"

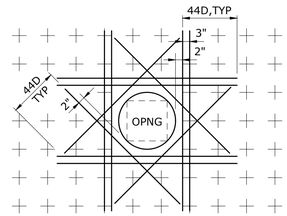
* SIDE COVER NORMAL TO PLANE OF HOOK AT LEAST 2 1/2"; AND FOR 90° HOOK, END COVER BEYOND OUTSIDE END OF HOOK AT LEAST 2".



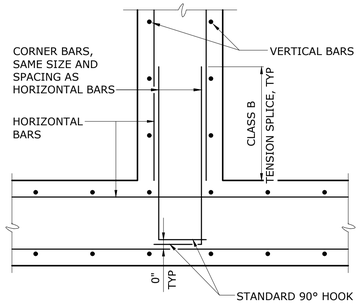
4 / C902 DEVELOPMENT LENGTH OF STANDARD HOOKS
N.T.S.

NOTES:

1. THIS DETAIL APPLIES FOR OPENINGS 8"Ø AND LARGER. FOR SMALLER OPENINGS, BEND BARS OR ADJUST SPACING OF REINFORCEMENT TO AVOID OPENING.
2. PLACE EXTRA BARS OF THE SAME SIZE AS THE INTERRUPTED BARS AT EACH SIDE OF OPENING. QUANTITY OF EXTRA BARS AT EACH SIDE SHALL EQUAL HALF THE QUANTITY OF INTERRUPTED BARS EXCEPT WHERE NOTED OTHERWISE.
3. PROVIDE ONE DIAGONAL BAR EACH SIDE OF OPENING WITH SIZE EQUAL TO MAIN REINFORCEMENT, TYPICAL EACH FACE.
4. WHERE INVERT OF OPENING IN WALL IS LESS THAN 44 BAR DIAMETERS FROM TOP OF SLAB, EXTRA REINFORCEMENT ON EACH SIDE SHALL INCLUDE DOWELS EMBEDDED INTO SLAB WITH STANDARD 90 DEGREE HOOKS TO SPLICE WITH EXTRA VERTICAL REINFORCEMENT. DOWELS SHALL ALSO STILL BE PROVIDED BELOW OPENING.
5. WHERE INVERT OF OPENING IN WALL OR SLAB IS CLOSER THAN 44 BAR DIAMETERS TO EDGE OF SLAB OR BOTTOM OF WALL, EXTRA DIAGONAL BARS MAY BE TERMINATED TWO INCHES FROM EDGE OF SLAB OR BOTTOM OF WALL. DOWELS DO NOT HAVE TO BE PROVIDED TO SPLICE WITH DIAGONAL BARS.

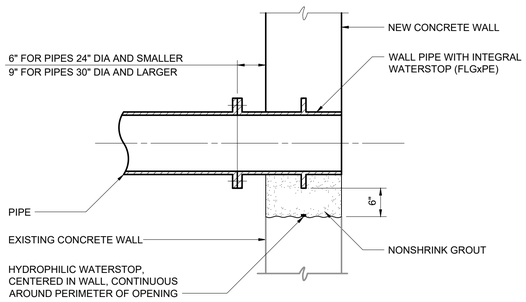


2 / C902 TYPICAL REINFORCEMENT AT OPENINGS
N.T.S.



* = STD 90° HOOK LENGTH

5 / C902 INTERSECTION TYPICAL WALL REINFORCING
N.T.S.



6 / C902 TYPICAL WALL PIPE
N.T.S.

GENERAL STRUCTURAL NOTES:

1. THESE NOTES ARE GENERAL AND SUPPLEMENT THE SPECIFICATIONS. THESE NOTES APPLY TO THE ENTIRE PROJECT UNLESS MODIFIED OR NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.
2. STANDARD DETAILS SHALL BE USED WHEN REFERRED TO OR WHEN NO MORE RESTRICTIVE OR DIFFERENT DETAILS ARE SHOWN ON THE DRAWINGS.
3. DESIGN SHALL BE ACCORDANCE WITH AND CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF NEW YORK CITY BUILDING CODE. THE DESIGN LOADS AND OTHER DESIGN VALUES GIVEN IN NOTES WERE USED FOR DESIGN OF STRUCTURES UNLESS NOTED OTHERWISE ON THE DRAWINGS.
4. LIVE LOAD:

STRUCTURE	ROOF
MANHOLE	HS-20

5. STRUCTURAL DIMENSIONS NOT SHOWN BUT CONTROLLED BY OR RELATED TO EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR WITH THE MANUFACTURER PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION IN THE FIELD AS REQUIRED FOR NEW WORK.
7. IF A CONFLICT IS FOUND BETWEEN DIFFERENT PORTIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. CONTINUED CONSTRUCTION OF THE AREA IN CONFLICT SHALL BE AT THE CONTRACTOR'S OWN RISK UNTIL THE CONFLICT IS RESOLVED.
8. EQUIPMENT ANCHOR BOLT SIZES, TYPES, EMBEDMENT AND PATTERNS SHALL BE VERIFIED WITH THE MANUFACTURER. ALL BOLT PATTERNS SHALL BE TEMPLATED TO INSURE ACCURACY OF PLACEMENT.
9. STRUCTURAL DRAWINGS SHALL BE USED IN COORDINATION WITH OTHER CONTRACT DRAWINGS AND MANUFACTURER'S SHOP DRAWINGS.
10. STRUCTURES SHALL BE DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND TEMPORARY SUPPORTS WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR. OVERSTRESSING ANY STRUCTURAL ELEMENT IS PROHIBITED.
11. IF CONTRACTOR DESIRES TO TEMPORARILY PLACE OR MOVE LOADS ON OR ADJACENT TO EXISTING STRUCTURES OR UTILITIES DURING CONSTRUCTION PROCESS, CONTRACTOR IS EXCLUSIVELY RESPONSIBLE FOR MAINTAINING STRUCTURAL INTEGRITY AND AVOIDING OVERSTRESSING AND DAMAGING EXISTING STRUCTURES AND UTILITIES. CONTRACTOR SHALL SUBMIT STRUCTURAL CALCULATIONS AND DRAWINGS VERIFYING PROPOSED CONSTRUCTION INCLUDING APPLICATION OF TEMPORARY CONSTRUCTION LOADS WILL NOT OVERSTRESS OR DAMAGE EXISTING STRUCTURES AND UTILITIES. DRAWINGS AND CALCULATIONS SHALL BE SEALED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF NEW YORK.
12. NO BACKFILL SHALL BE PLACED AGAINST ANY SUBSTRUCTURE WALLS UNLESS ALL ADJACENT SUPPORTING ELEMENTS HAVE ACHIEVED DESIGN STRENGTH, OR WALLS HAVE BEEN PROPERLY BRACED, AND IN ANY CASE NOT SOONER THAN 28 DAYS AFTER THE PLACING OF CONCRETE UNLESS APPROVED BY THE ENGINEER. SUPPORTING ELEMENTS SHALL INCLUDE ADJACENT WALLS, SLABS, BEAMS AND COLUMNS.
13. LEAKAGE TESTING OF HYDRAULIC STRUCTURES SHALL NOT BEGIN UNTIL ALL STRUCTURAL ELEMENTS HAVE REACHED THE SPECIFIED MINIMUM CONCRETE STRENGTH. BACKFILL SHALL NOT BE PLACED AROUND ANY HYDRAULIC STRUCTURE UNTIL THE LEAKAGE TEST HAS BEEN COMPLETED UNLESS APPROVED BY THE ENGINEER.

PRECAST CONCRETE:

1. PRECAST VAULTS AND MANHOLES SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK. STRUCTURAL DRAWINGS SHALL INDICATE DESIGN IS IN COMPLIANCE WITH THE NEW YORK CITY BUILDING CODE.
2. PRECAST CONCRETE STRUCTURES SHALL BE IN ACCORDANCE WITH THE CONTRACT SPECIFICATION 33 05 61, 03 04 00, 03 48 00, AND 33 46 16. ALL JOINTS SHALL BE SEALED IN ACCORDANCE TO SPECIFICATION.

CONCRETE

1. DESIGN OF CONCRETE ELEMENTS INCLUDING WALLS, FORMED SLABS, BEAMS, AND COLUMNS IS IN ACCORDANCE WITH ACI 318 (CODE REQUIREMENTS FOR STRUCTURAL CONCRETE) AND 350 (CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES).
2. FOR CONCRETE MIX DESIGN SEE SPECIFICATION SECTION 03300.
3. CONCRETE STRENGTH CLASSES (28-DAY COMPRESSIVE STRENGTH):
   A) CLASS 50 PRECAST (5,000 PSI) : ALL PRECAST ELEMENTS AND STRUCTURES.
   B) CLASS 25 CONCRETE (3000 PSI): NORMAL WEIGHT STRUCTURAL CONCRETE USED FOR CONCRETE FILL.
4. ALL BAR REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60. WHERE REINFORCEMENT IS TO BE WELDED IN ACCORDANCE WITH AWS D1.4, ASTM A706 GRADE 60 SHALL BE USED. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
5. CONCRETE COVER FOR REINFORCING (UNLESS NOTED OTHERWISE ON THE DRAWINGS):
   A) CONCRETE DEPOSITED DIRECTLY AGAINST SOIL: 3”
   B) ALL OTHER LOCATIONS: 2”
6. SPLICES SHALL B CLASS “B” CONFORMING TO THE PROVISIONS OF ACI 318 UNLESS NOTED OTHERWISE. SPLICE LENGTH FOR TWO DIFFERENT SIZED BARS TO BE LAP SPLICED TOGETHER SHALL BE THE LENGTH OF THE LARGER BAR UNLESS NOTED OTHERWISE.
7. CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. CONSTRUCTION JOINTS NOT SHOWN SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE APPROVAL OF THE ENGINEER PRIOR TO SUBMITTING REBAR SHOP DRAWINGS.
8. ALL JOINTS WHICH ARE IN MEMBERS IN CONTACT WITH LIQUID OR BELOW GRADE SHALL HAVE A WATERSTOP. CONSTRUCTION JOINTS SHALL HAVE A 6” PVC RIBBED WATERSTOP.
9. SLABS WITH SLOPING SURFACES SHALL HAVE THE INDICATED SLAB THICKNESS MAINTAINED AS THE MINIMUM SLAB BOTTOMS CAN EITHER SLOPE WITH THE TOP SURFACE OR BE LEVEL. REINFORCEMENT IN SLABS WITH SLOPING SURFACES SHALL BE PLACED AT THE REQUIRED CLEARANCE FROM THE SLAB SURFACE.
10. ALL EXPOSED CORNERS SHALL HAVE A ¾” CHAMFER OR A ½” RADIUS TOOLED CORNER.
11. EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DOCUMENTS, SHALL BE PROVIDED FOR PRIOR TO PLACING CONCRETE.
12. REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY MENTAL PIPE, PIPE FLANGE, METAL CONDUIT, OR OTHER METAL PARTS EMBEDDED IN CONCRETE. A MINIMUM CLEARANCE OF 2” SHALL BE PROVIDED.
13. DOWELS, ANCHOR BOLTS, PIPES, WATERSTOPS AND OTHER EMBEDDED ITEMS SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.
14. CONDUITS AND OTHER SIMILAR ITEMS EMBEDDED IN OR PENETRATING THROUGH CONCRETE SHALL BE SPACED ON CENTER NOT LESS THAN 3 TIMES THEIR OUTSIDE DIMENSION, NOT LESS THAN 2 ½” CLEAR. WHEN SUCK ITEMS ARE EMBEDDED IN WALLS OR SLABS, THEY SHALL NOT OCCUPY MORE THAN 1/3 OF THE MEMBER THICKNESS.
15. DRILLED ADHESIVE DOWELS AND CONCRETE ANCHORS (WHERE DOWELS OR ANCHORS ARE SHOWN TO BE PLACED INTO HARDENED CONCRETE):
   A) THE HOLE DIAMETER SHALL BE NO LARGER THAN 1/8” GREATER THAN THE DIAMETER OF THE REINFORCING BAR AT THE DEFORMATIONS FOR DOWELS. THE HOLE DIAMETER SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR ANCHORS.
   B) THE DEPTH OF EMBEDMENT SHALL BE 12 BAR DIAMETERS, UNLESS NOTED OTHERWISE.
   C) ADJUST THE DOWEL OR ANCHOR LOCATIONS AS NEEDED TO AVOID DRILLING THROUGH ANY REINFORCING BARS. IF THE LOCATION NEEDS TO BE MODIFIED, CONTACT THE ENGINEER. CONTRACTOR SHALL USE NON-DESTRUCTIVE MEANS TO FIELD LOCATE REINFORCEMENT PRIOR TO DRILLING HOLES FOR DOWELS OR ANCHORS.
16. CLEAR DISTANCE FROM ANCHOR RODS TO ANY CONCRETE EDGE SHALL BE 4” MINIMUM UNLESS NOTED OTHERWISE.
17. CONCRETE COMPRESSIVE STRENGTH TESTS SHALL BE AVAILABLE ON THE JOB SITE FOR REVIEW BY THE ENGINEER.

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

STATE OF NEW YORK — DEEP MEHTA — LICENSED PROFESSIONAL ENGINEER

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK
PROJECT MANAGER P.E.

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

STANDARD DETAILS 3

DATE JUL 2026
PAGE 149 OF 171
SHEET C902

CONSULTANT DESIGN

File: O:\0033N-NYCCONTRACT MANAGEMENT\000 - CONSTRUCTION\CONS-9 DOCUMENTS\C900 SHEETS\C902 Saved By: SHANE Save Date: 2026/07/31 8:20 AM
PLOT DATE: 2026/07/31 8:28:49 AM BY: TAUTH
XREFs= ..\000-BASE\DETAILS\DET-WATERSTOP,..\0-SHEET TITLEBLOCK\W0336_TB_HAZEN_with_logo-OSHEETS..\..\..\..\Work Plan\0-Reference Material\SO2 CAD Templates\Electronic Seal\Sandeep's Seal-2010

NYC Parks

THE FOLLOWING SHEETS ARE NYC PARKS STANDARD DETAILS, CURRENT AS OF DECEMBER 2025, AND INCLUDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL FOLLOW THE MOST CURRENT NYC PARKS STANDARD DETAILS AS APPLICABLE.

SHEET 1	CONSTRUCTION SIGN	DATED SEPTEMBER 1, 2020
SHEET 15	PAVEMENT DETAILS - NO. 1	DATED SEPTEMBER 1, 2020
SHEET 59	TREE PROTECTION & SEDIMENT CONTROL	DATED SEPTEMBER 1, 2020

File: O:\80336\4-PC\CONTRACT MANAGEMENT\00 - CONSTRUCTION\CONS\4-DOCUMENTS\CS00 SHEETS\O-7 Saved By: SKANE Save Date: 2026/07/31 8:19 AM
PLOT DATE: 2026/07/31 8:22:51 AM BY: TAUTH

NO.	DATE	ISSUED FOR	BY

DESIGNED JWB
DRAWN TLA
CHECKED ACE
PROJ.ENGR. ACE

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

Hazen
HAZEN AND SAWYER
498 SEVENTH AVENUE, 11TH FLOOR
NEW YORK, NY 10018

APPROVED FOR THE CITY OF NEW YORK

_____ P.E.
PROJECT MANAGER

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PLANNING AND ANALYSIS

NYC PARKS STANDARD DETAILS

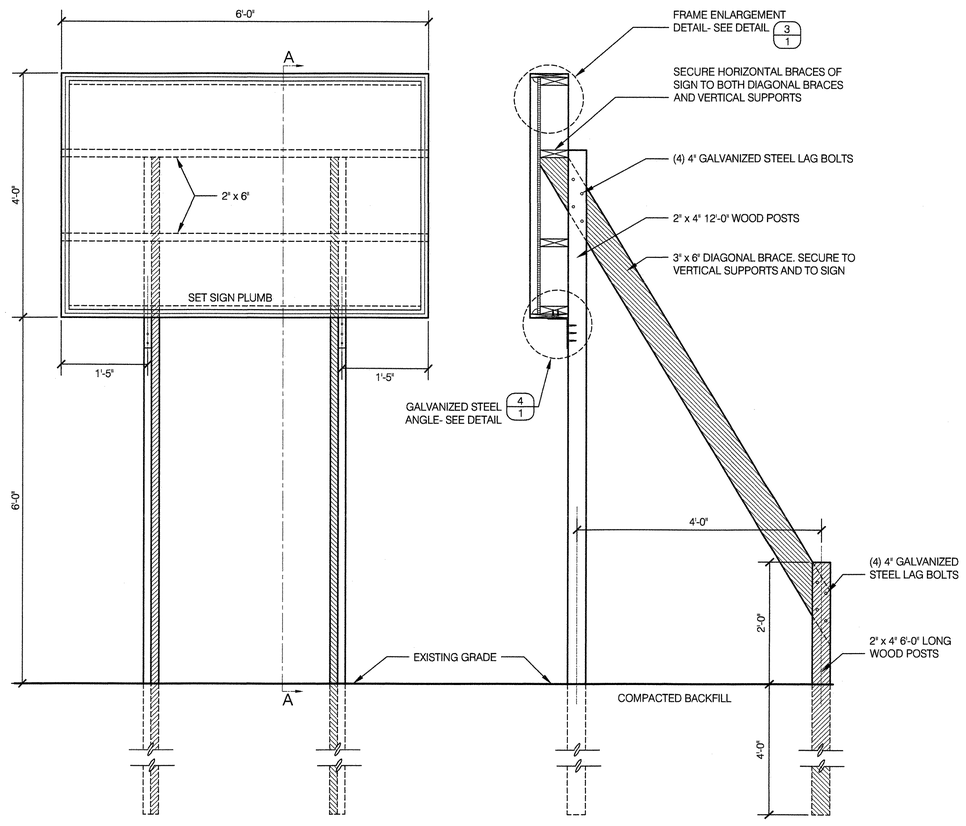
DATE	JUL 2026
PAGE	150 OF 171
SHEET	O-7

XREFs= ..\0-SHEET TITLEBLOCK\80336_TB_HAZEN_with_logo-OSHEETS_..\..\..\Work Plan\0-Reference Material\502 CAD Templates\Electronic Seal\Sandeep's Seal-2010

CONSULTANT DESIGN

1 CONSTRUCTION SIGN ON FRAME

0 1' 2'
SCALE 1"= 1'-0"

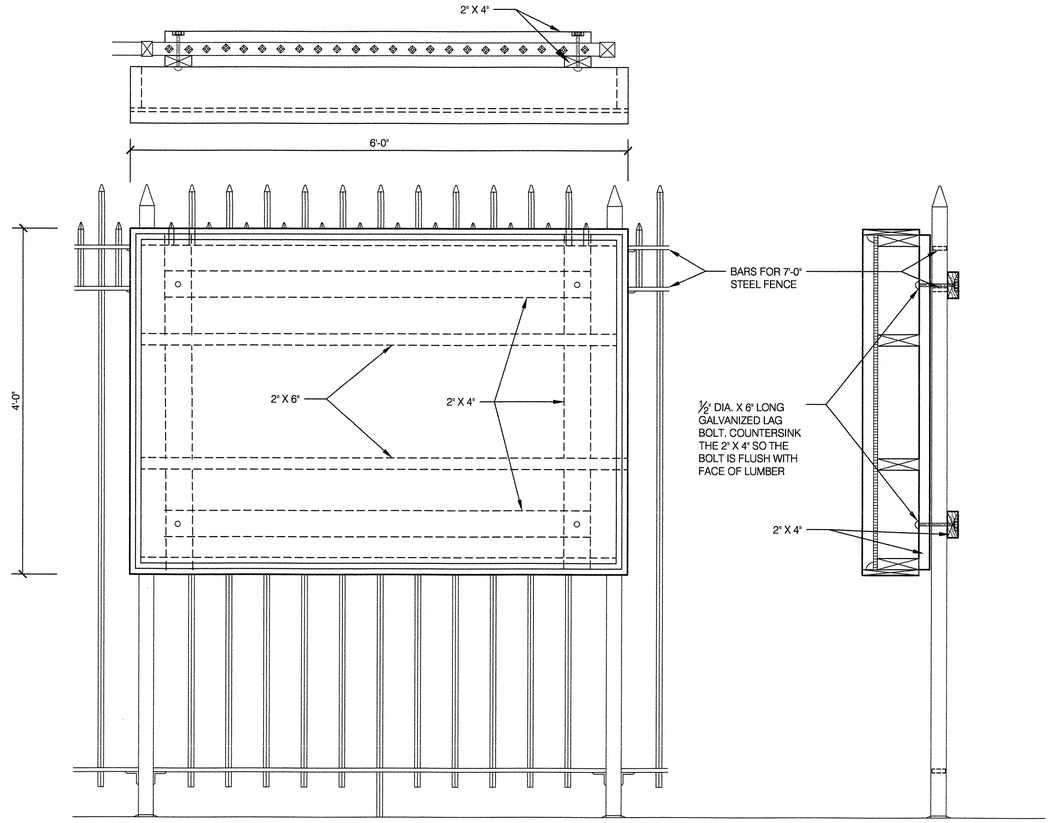


ELEVATION

SECTION A-A

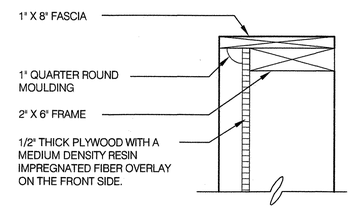
2 CONSTRUCTION SIGN ON FENCE

SCALE: NOT TO SCALE



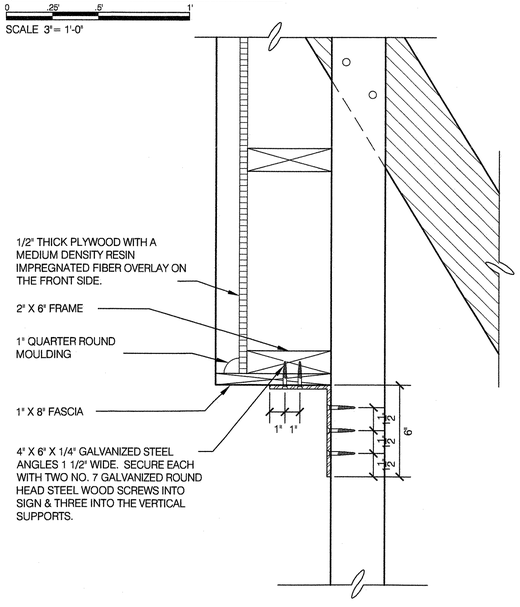
3 CONSTRUCTION SIGN FRAME ENLARGEMENT DETAIL

0 25' 5' 1'
SCALE 3"= 1'-0"



4 CONSTRUCTION SIGN STEEL ANGLE DETAIL

0 25' 5' 1'
SCALE 3"= 1'-0"



NOTES:

1. DPR WILL PROVIDE COMPACT DISC SHOWING TEXT AND OVERALL DIMENSIONS.

NYC Parks

CITY OF NEW YORK
PARKS & RECREATION
OLMSTED CENTER
FLUSHING MEADOWS CORONA PARK
FLUSHING, NEW YORK 11368

COPYRIGHT @ 2018 NYC PARKS & RECREATION

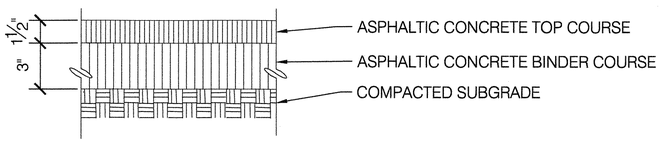
DRAWING TITLE
CONSTRUCTION SIGN

STATE OF NEW YORK · RUBY S WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: STAFF	CHECKED BY: RUBY WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY WEI, PE	SHEET NO.: 1
DATE: 09-01-2020	SCALE: AS SHOWN

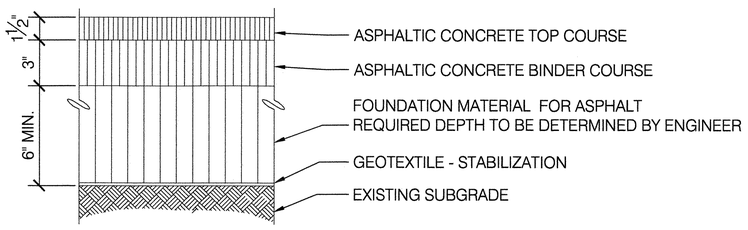
1 FULL DEPTH ASPHALT PAVEMENT

SCALE 3"= 1'-0"



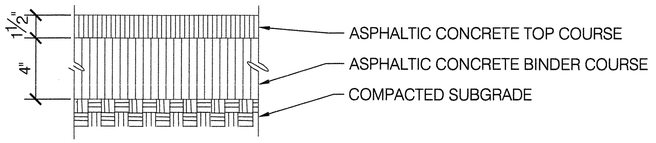
2 ASPHALT PAVEMENT ON POOR SUBGRADE

SCALE 3"= 1'-0"



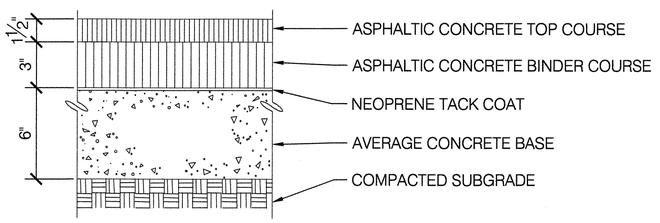
3 ASPHALT PAVEMENT FOR PARKING LOTS AND MINOR PAVED ROADS

SCALE 3"= 1'-0"



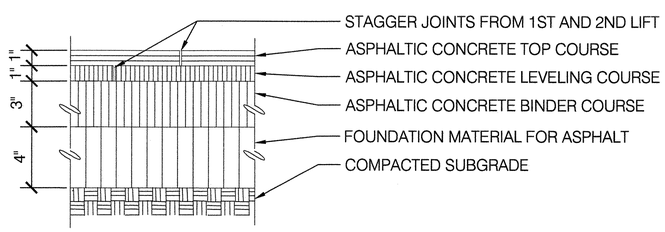
4 ASPHALT PAVEMENT FOR PARK ROADS AND PATHS

SCALE 3"= 1'-0"



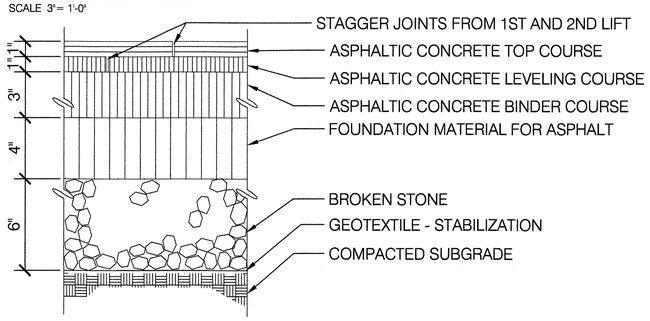
5 ASPHALT PAVEMENT FOR TENNIS COURTS & RUNNING TRACKS

SCALE 3"= 1'-0"



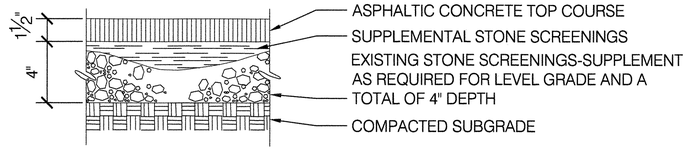
6 ASPHALT FOR TENNIS COURTS ON POOR SUBGRADE

SCALE 3"= 1'-0"



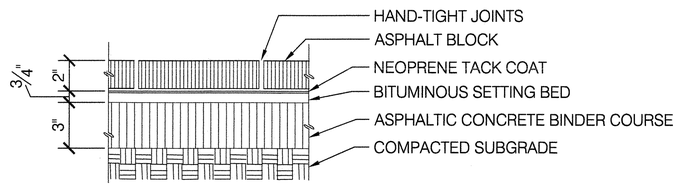
7 ASPHALT TOP COURSE ON EX. STONE SCREENINGS

SCALE 3"= 1'-0"



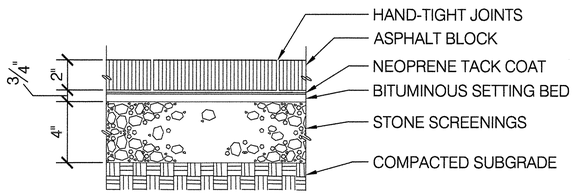
8 ASPHALT BLOCK ON ASPHALT CONCRETE BASE

SCALE 3"= 1'-0"



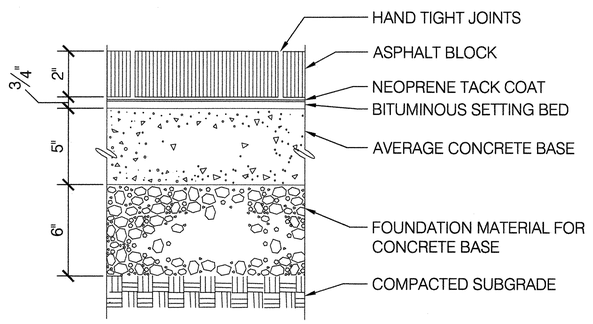
9 ASPHALT BLOCK ON STONE SCREENINGS

SCALE 3"= 1'-0"



10 ASPHALT BLOCK ON CONCRETE BASE

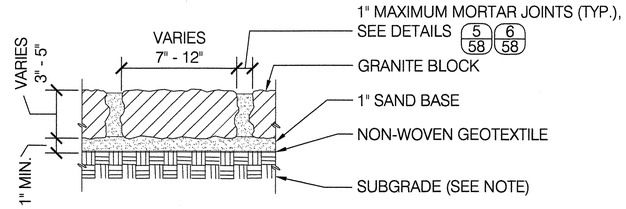
SCALE 3"= 1'-0"



NOTE: 3" THICK ASPHALT BLOCK REQUIRED FOR ROADS.

11 GRANITE BLOCK ON SAND FOR TREE PITS

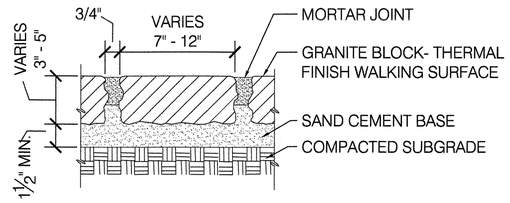
SCALE 3"= 1'-0"



NOTES:
1. FOR TREE PITS SEE STD. DETAIL SHEET "PLANTING DETAILS".
2. AROUND NEW TREES SUBGRADE TO BE COMPACTED.
3. AROUND EXISTING TREES; MIN. EXCAVATION. MIN. COMPACTION.
4. SEE SECTION C, ARTICLE 14.

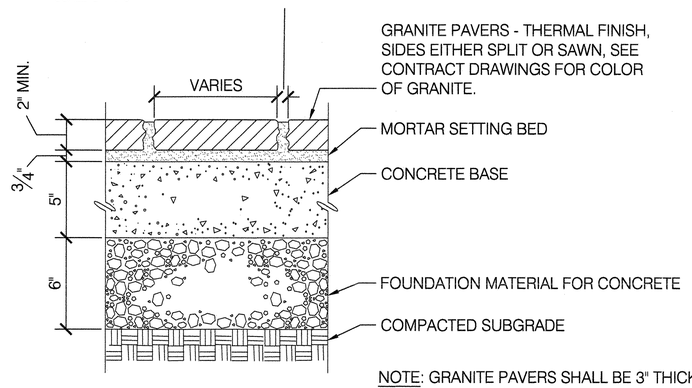
12 GRANITE BLOCK PAVEMENT ON SAND- ACCESSIBLE

SCALE 3"= 1'-0"



13 GRANITE PAVERS ON CONCRETE

SCALE 3"= 1'-0"



NOTE: GRANITE PAVERS SHALL BE 3" THICK MINIMUM FOR ROADS.

NYC Parks

CITY OF NEW YORK
PARKS & RECREATION
OLMSTED CENTER
FLUSHING MEADOWS CORONA PARK
FLUSHING, NEW YORK 11368

COPYRIGHT © 2020 NYC PARKS & RECREATION

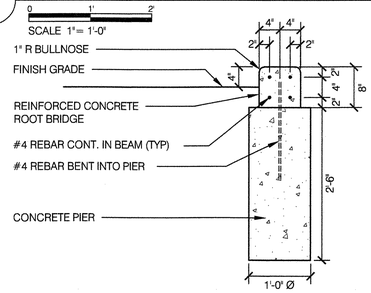
DRAWING TITLE
PAVEMENT DETAILS - NO.1

STATE OF NEW YORK · RUBY S WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: STAFF	CHECKED BY: RUBY WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY WEI, PE	SHEET NO.: 15
DATE: 09-01-2020	SCALE: AS SHOWN

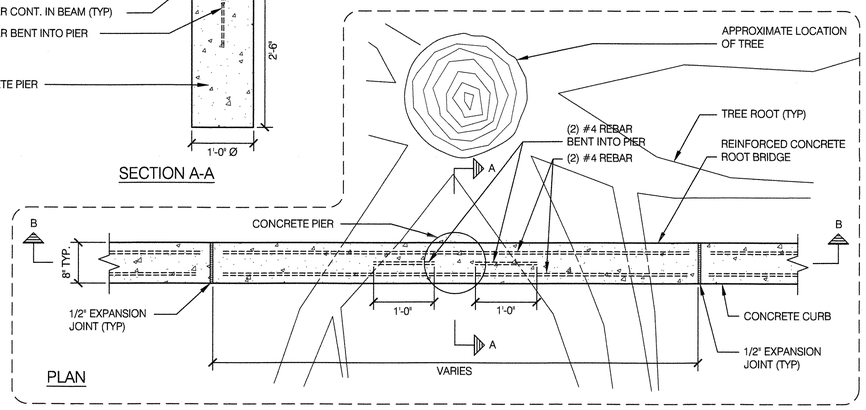
1 TREE ROOT BRIDGE

SCALE 1"= 1'-0"

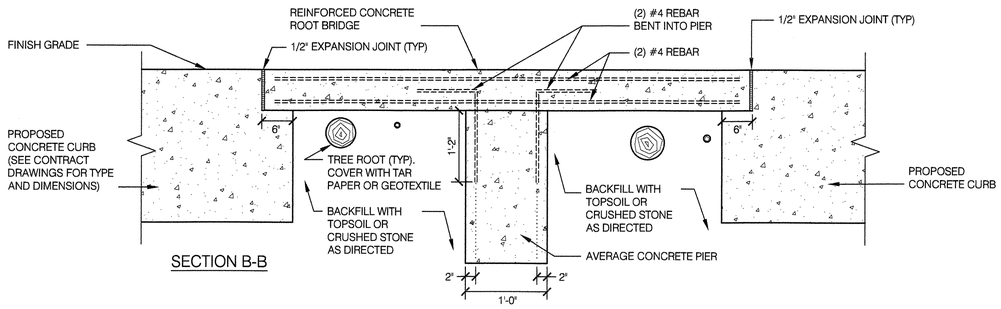


SECTION A-A

NOTE:
1. USE CONCRETE PIER INTERMEDIATE FOR SPANS OVER 12'; NO PIER FOR SPANS UNDER 12', LOCATE TO AVOID CUTTING MAJOR ROOTS.
2. SEE STANDARD DETAIL (1/17) FOR 6' WIDE CURBS



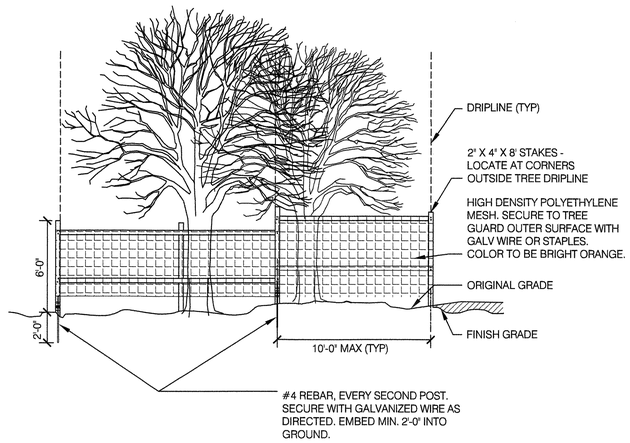
PLAN



SECTION B-B

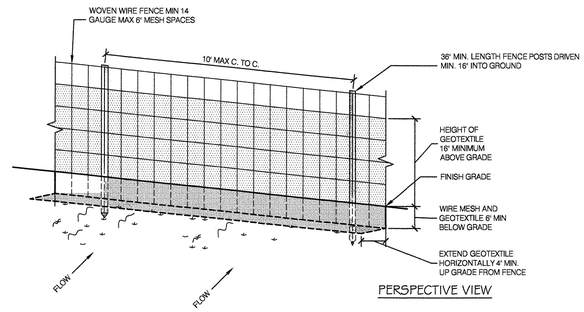
2 TREE GUARD FOR GROVES

SCALE ¼"= 1'-0"

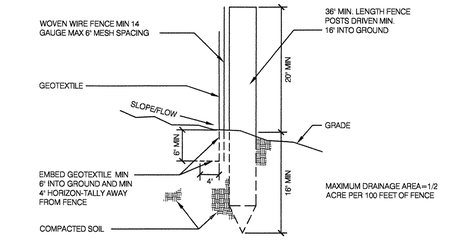


3 SILT FENCE DETAILS

SCALE: NOT TO SCALE



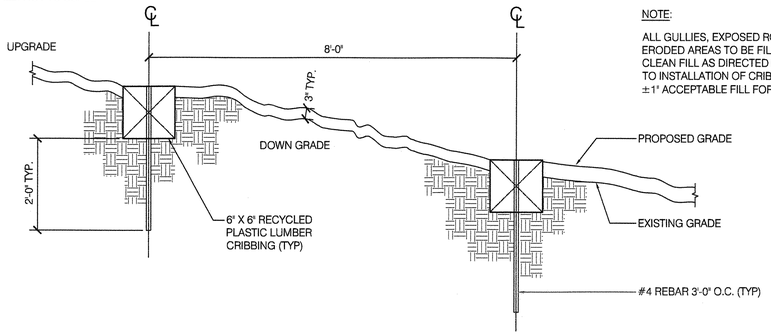
PERSPECTIVE VIEW



SECTION VIEW

4 TYPICAL CRIBBING

SCALE: NOT TO SCALE

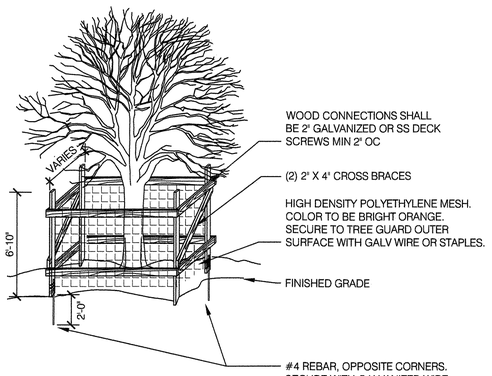


NOTE:

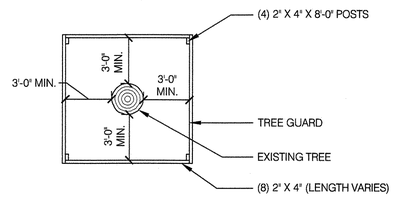
ALL GULLIES, EXPOSED ROOTS, AND SEVERELY ERODED AREAS TO BE FILLED WITH TOPSOIL OR CLEAN FILL AS DIRECTED BY THE ENGINEER PRIOR TO INSTALLATION OF CRIBBING: APPROXIMATELY 4" (±1" ACCEPTABLE FILL FOR PLANTING AREAS).

5 TREE GUARD

SCALE ¼"= 1'-0"



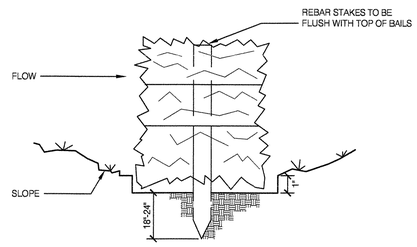
SECTION VIEW



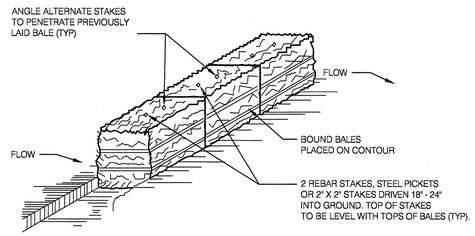
PLAN VIEW

6 STRAW BALE DIKE DETAILS

SCALE: NOT TO SCALE



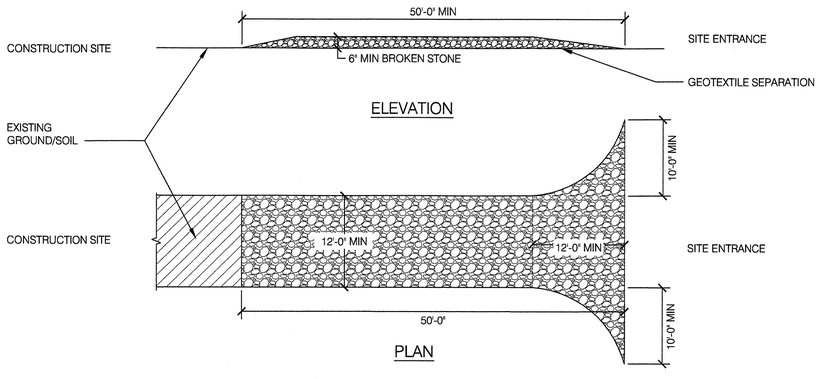
BEDDING DETAIL



ANCHORING DETAIL

7 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NOT TO SCALE



ELEVATION

PLAN

NYC Parks

CITY OF NEW YORK
PARKS & RECREATION
OLMSTED CENTER
FLUSHING MEADOWS CORONA PARK
FLUSHING, NEW YORK 11368

COPYRIGHT @ 2020 NYC PARKS & RECREATION

DRAWING TITLE
TREE PROTECTION AND SEDIMENT CONTROL

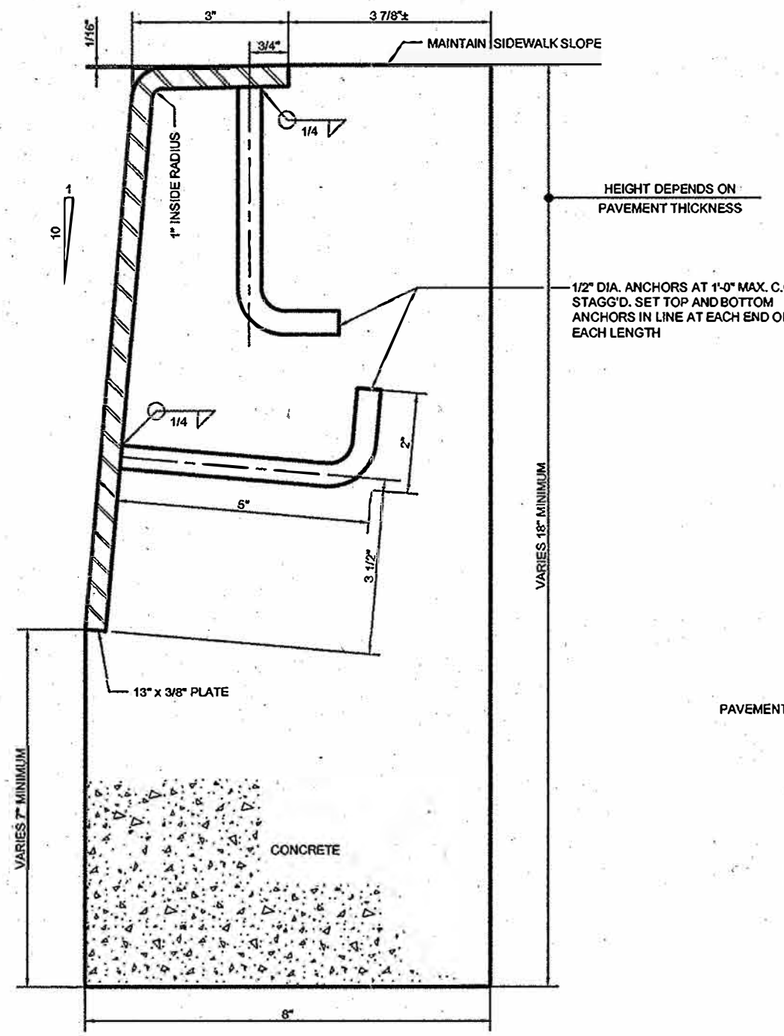
STATE OF NEW YORK · RUBY S. WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: STAFF	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY S. WEI, PE	SHEET NO.: 59
DATE: 09-01-2020	SCALE: AS SHOWN

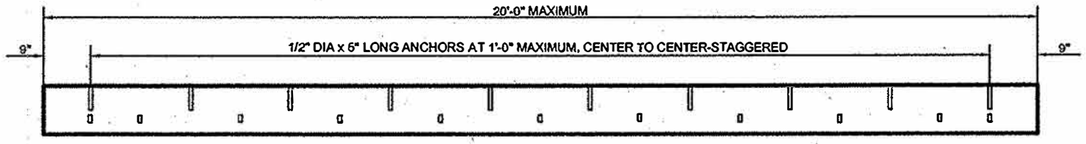
NEW YORK CITY DOT

THE FOLLOWING SHEETS ARE NYC DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, CURRENT AS OF DECEMBER 2025, AND INCLUDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL FOLLOW THE MOST CURRENT NYC DOT STANDARD DETAILS AS APPLICABLE.

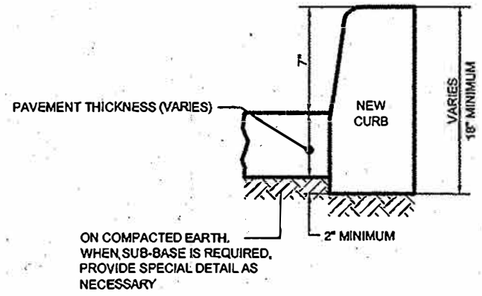
SHEET H-1010	STEEL FACED CONCRETE CURB	DATED JULY 1, 2010
SHEET H-1044	CONCRETE CURB	DATED JULY 1, 2010
SHEET H-1045	CONCRETE SIDEWALK	DATED JULY 1, 2010
SHEET H-1055	PAVEMENT KEY TYPE A, B-1, B-2, C	DATED JULY 1, 2010
SHEET RCW-1	RAISED CROSSWALK	DATED JULY 31, 2020



DETAIL
N.T.S.



ELEVATION-STEEL FACING
N.T.S.



TYPICAL SECTION
N.T.S.

NOTES:

1. EXPANSION JOINTS IN THE STEEL CURB FACING AND CONCRETE BACKING SHALL BE AT A MAXIMUM SPACING OF 24 FEET.
2. THE EXPANSION JOINTS OF THE CURB AND STEEL CURB FACING SHALL LINE UP WITH THE EXPANSION JOINTS OF THE CONCRETE SIDEWALKS, WHEREVER POSSIBLE.
3. NO PIECE OF STEEL CURB FACING HAVING LESS THAN TWO (2) WELDED DOWELS MAY BE INSTALLED UNLESS IT IS WELDED TO THE ADJACENT STEEL CURB FACING.
4. 1/2" DIA. x 6" HEADED ANCHOR STUDS (GRANULAR OR SOLID FLUX FILLED) MAY BE SUBSTITUTED.
5. STRUCTURAL STEEL (A.S.T.M. DESIGNATION A36).
6. SURFACE TO BE CLEANED AND PAINTED AS PER NYCDOT STANDARD HIGHWAY SPECIFICATIONS, SECTION 2.13. COLOR OF TOP COAT SHALL BE GRAY AS APPROVED BY THE ENGINEER.
7. WHERE TWO (2) PIECES OF STEEL CURB FACING ARE JOINED BUT NOT WELDED, TWO (2) ONE-HALF (1/2) INCH RODS, TWENTY FOUR (24) INCHES LONG SHALL BE INSERTED INTO THE CONCRETE BACKING, ONE-HALF (1/2) THE LENGTH AT EACH SIDE OF THE JOINT.
8. CONCRETE TO BE CLASS B-32, AIR-ENTRAINED.
9. CORNER CURB:-VERTICAL FACE WILL BE ACCEPTABLE FOR CORNER CURBS PROVIDING THE ENDS ARE WARPED TO FORM A TRANSITION WITH ADJACENT BATTERED FACE CURBS.

CHECKED BY: MZ

DWS-H1010

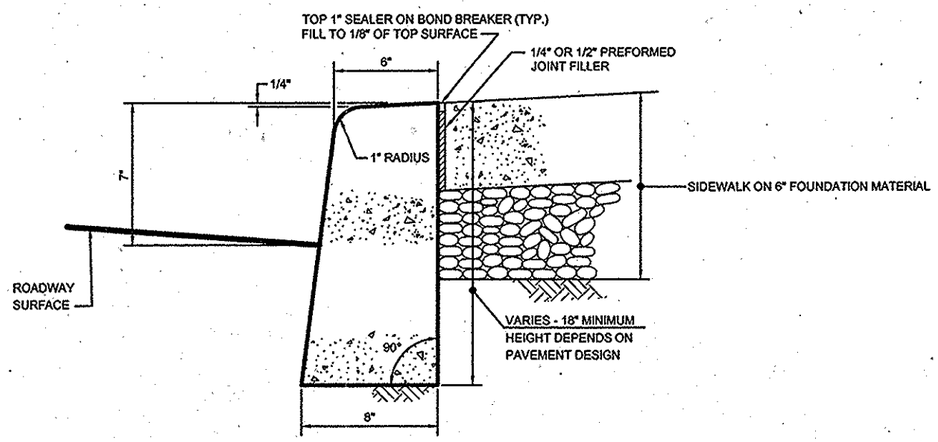
REVISION NO.	DESCRIPTION	DATE	APPROVED

NEW YORK CITY DOT

New York City
Department of Transportation

STEEL FACED CONCRETE CURB
STEEL FACING TYPE D

Approved:	Approved:
Chief Engineer Department of Transportation	Associate Commissioner Infrastructure/Design Department of Design + Construction
Date Issued: 7/1/10	Scale: None
	Drawing # H-1010



DETAIL
N.T.S.

NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTION #4.08 OF THE NYC DEPARTMENT OF TRANSPORTATION STANDARD HIGHWAY SPECIFICATIONS.

REVISION NO.	DESCRIPTION	DATE	APPROVED

CHECKED BY: MZ

HWS-H1044

NEW YORK CITY DOT

New York City
Department of Transportation

CONCRETE CURB

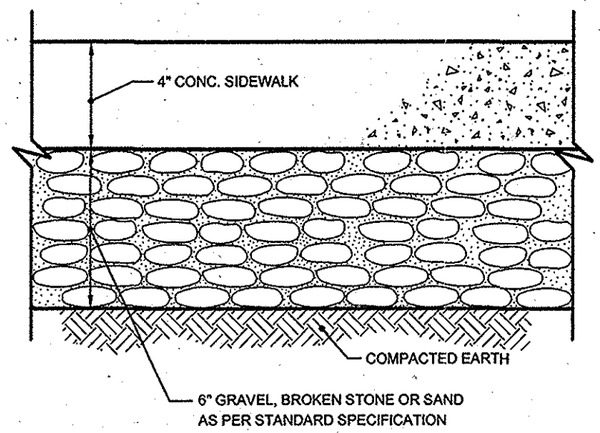
Approved:
Chief Engineer
Department of Transportation

Approved:
Associate Commissioner
Infrastructure/Design
Department of Design + Construction

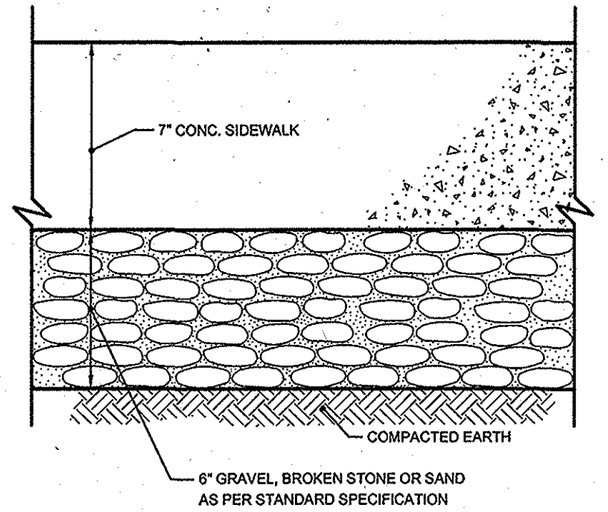
Date Issued: 7/1/10

Scale: None

Drawing # H-1044



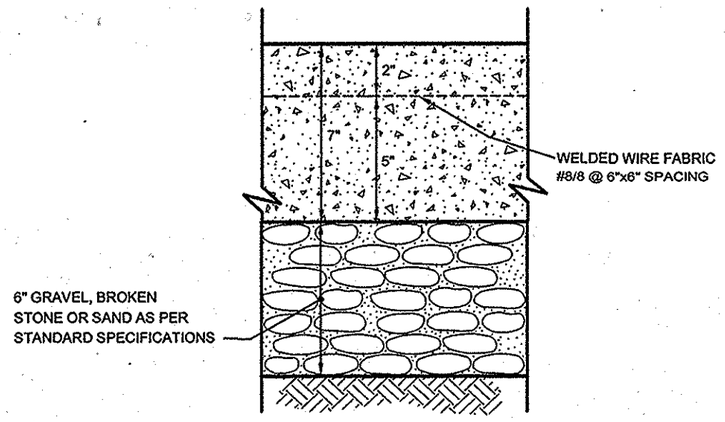
TYPE I - SIDEWALK, OUTSIDE DRIVEWAY AND CORNER QUADRANTS
N.T.S.



TYPE II - SIDEWALK, IN DRIVEWAY AND IN CORNER QUADRANTS
N.T.S.

NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTION #4.13 OF THE NYC DEPARTMENT OF TRANSPORTATION (DOT) STANDARD HIGHWAY SPECIFICATIONS.
2. WELDED WIRE FABRIC, WHERE SPECIFIED, SHALL BE ASTM DESIGNATION A-185, GAUGE # 8/8 AT 6"x6" SPACING, AND CONFORM TO SECTION # 2.25 OF THE NYCDOT STANDARD HIGHWAY SPECIFICATIONS.



TYPE III - SIDEWALK WITH WELDED WIRE FABRIC
N.T.S.

REVISION NO.	DESCRIPTION	DATE	APPROVED

CHECKED BY: MZ

DWS-H1045

NEW YORK CITY DOT

New York City
Department of Transportation

CONCRETE SIDEWALK

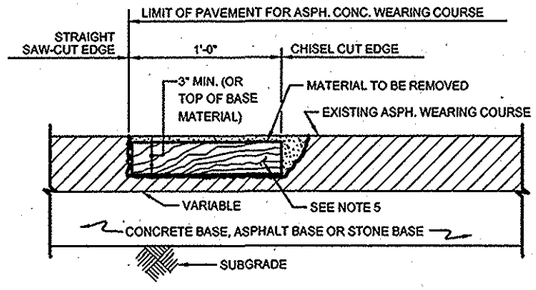
Approved:
Chief Engineer
Department of Transportation

Approved:
Associate Commissioner
Infrastructure/Design
Department of Design + Construction

Date Issued: 7/1/10

Scale: None

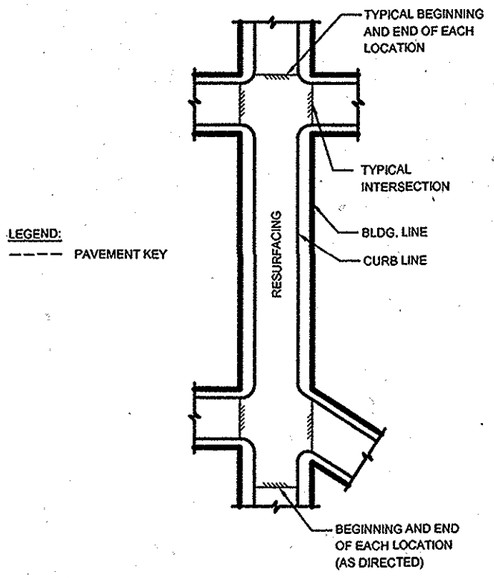
Drawing # H-1045



PAVEMENT KEY-TYPE A
ITEM 6.51A
N.T.S.

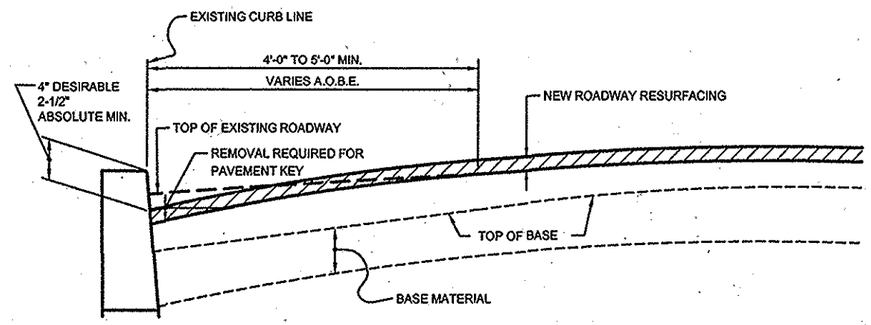
NOTES:

1. THICKNESS OF ASPHALTIC CONCRETE WEARING COURSE OVER SAW-CUT EDGE SHALL BE ZERO INCHES.
2. THICKNESS OF ASPHALTIC CONCRETE WEARING COURSE OVER CHISEL-CUT EDGE SHALL BE A MINIMUM OF ONE INCH.
3. MATERIAL USED TO FILL WITHIN LIMITS OF PAVEMENT KEY TYPE A SHALL BE PAID FOR UNDER ITEM 6.51A TYPE A KEY.
4. PAYMENT FOR FEATHERED ASPHALTIC CONCRETE WEARING COURSE ITEMS OVER PAVEMENT KEY. TYPE A SHALL BE FOR FULL THICKNESS OF ASPHALTIC CONCRETE WEARING COURSE AS ORDERED BY THE ENGINEER.
5. 2"x12" PLANK TO BE PLACED IN KEY WHEN STREET IS OPENED TO TRAFFIC. PLANK TO BE REMOVED PRIOR TO PAVING.



LEGEND:
---- PAVEMENT KEY

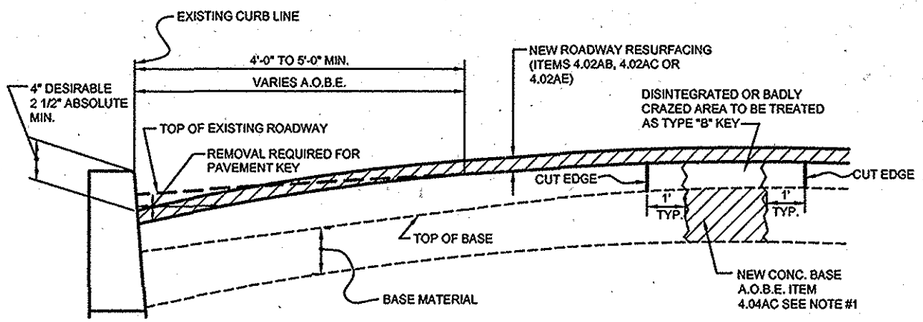
PLAN
TYPICAL LOCATION
N.T.S.



PAVEMENT KEY - TYPE B-1
ITEM 6.51 B-1
N.T.S.

NOTES:

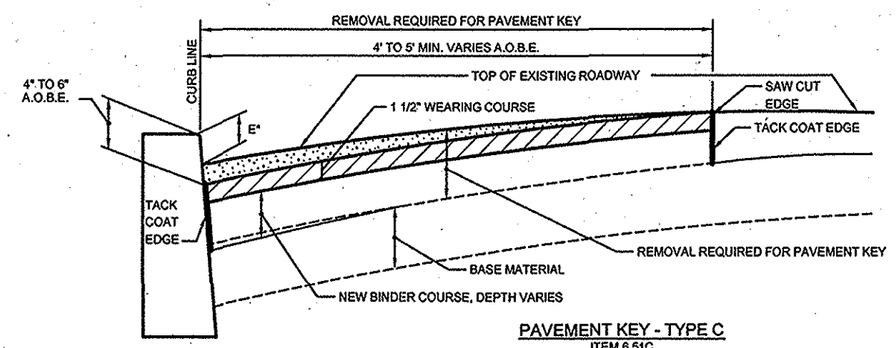
1. WHERE THERE IS NO CONCRETE BASE, OR WHERE IT IS NECESSARY TO REMOVE CONCRETE BASE SUBSEQUENT TO INSTALLING TYPE "B" PAVEMENT KEY, PAYMENT FOR DEPTHS GREATER THAN 3" WILL BE MADE UNDER ITEM 6.02AA, UNCLASSIFIED EXCAVATION.
2. CONTRACTOR MAY AT HIS OPTION, EITHER STRIP OR GRIND THE AREA TO THE REQUIRED DEPTH. IF THE CONTRACTOR CHOOSES TO STRIP THERE WILL BE NO ADDITIONAL PAYMENT FOR OVER-CUTTING OR ADDITIONAL BINDER.
3. THIS ITEM WHEN ORDERED BY THE ENGINEER WILL BE USED TO ELIMINATE HIGH POINTS IN THE EXISTING PAVEMENT PRIOR TO RESURFACING.
4. (A.O.B.E.) AS ORDERED BY ENGINEER.



PAVEMENT KEY - TYPE B-2
ITEM 6.51 B-2
N.T.S.

NOTES:

1. WHERE THERE IS NO CONCRETE BASE, OR WHERE IT IS NECESSARY TO REMOVE CONCRETE BASE SUBSEQUENT TO INSTALLING TYPE "B" PAVEMENT KEY, PAYMENT FOR DEPTHS GREATER THAN 3" WILL BE MADE UNDER THE UNCLASSIFIED EXCAVATION ITEM.
2. THE CONTRACTOR IS TO GRIND THE AREAS TO THE REQUIRED DEPTH USING AN ACCEPTABLE GRINDING METHOD.
3. THIS ITEM WHEN ORDERED BY THE ENGINEER WILL BE USED TO ELIMINATE HIGH POINTS IN THE EXISTING PAVEMENT PRIOR TO RESURFACING.
4. (A.O.B.E.) AS ORDERED BY ENGINEER.



PAVEMENT KEY - TYPE C
ITEM 6.51C
N.T.S.

NOTES:

1. IF THE EXISTING CURB REVEAL E* IS GREATER THAN 2-1/2" THIS PAVEMENT KEY WILL NOT BE REQUIRED.
2. PAYMENT FOR THIS ITEM SHALL BE THE NUMBER OF TONS OF BOTH THE WEARING COURSE AND BINDER MIXTURE INCORPORATED INTO THE WORK. PAYMENT SHALL INCLUDE, SAW CUTTING, EXCAVATION (INCLUDING CONCRETE BASE REMOVAL IF REQUIRED), TACK COATING AND PLACING OF THE NEW BINDER MIXTURE AND 1 1/2" WEARING COURSE.
3. (A.O.B.E.) AS ORDERED BY THE ENGINEER.
4. THE CONTRACTOR MAY AT HIS OPTION, EITHER STRIP, EXCAVATE OR GRIND THE AREA TO THE REQUIRED DEPTH.

REVISION NO.	DESCRIPTION	DATE	APPROVED

CHECKED BY: MS

HWS-H1055

NEW YORK CITY DOT

New York City
Department of Transportation

PAVEMENT KEY
TYPE A, B-1, B-2, C

Approved:
Chief Engineer
Department of Transportation

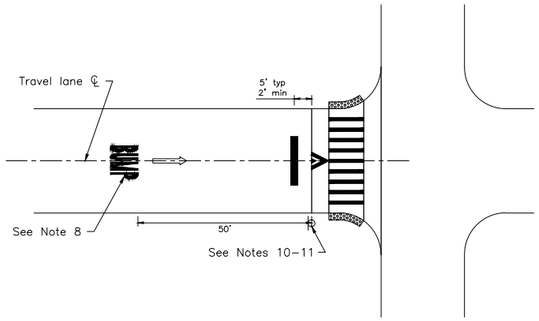
Approved:
Associate Commissioner
Infrastructure/Design
Department of Design + Construction

Date Issued: 7/1/10

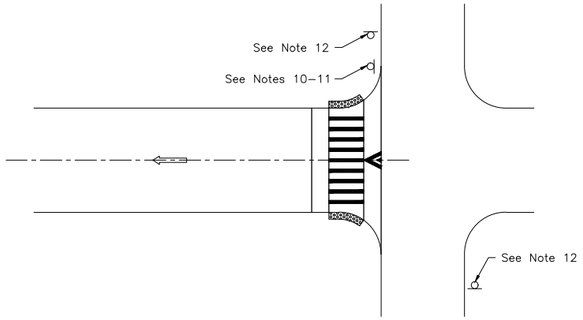
Scale: None

Drawing # H-1055

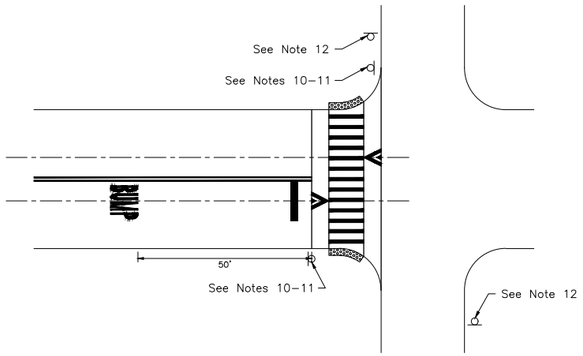
One–way Approaching



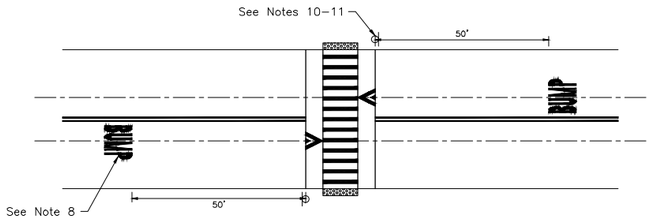
One–way Receiving



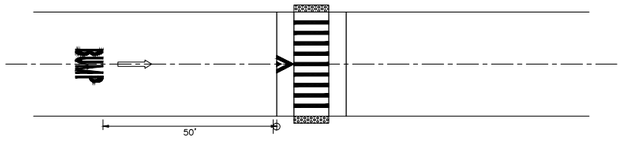
Two–way



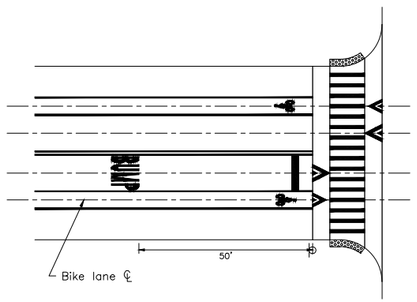
Two–way Midblock



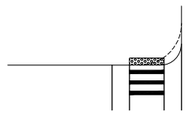
One–way Midblock



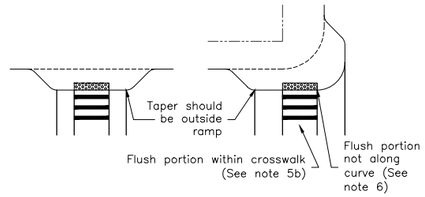
Example w/ Bike Lanes



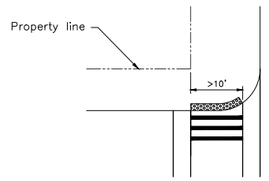
Reduced Radius (See Note 6)



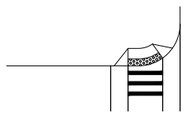
Bulbouts



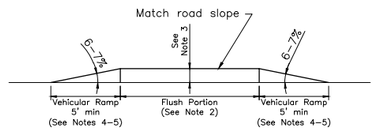
Wide Sidewalks (See Note 2)



Ped Ramp Transition (See Note 5c)



Section (N.T.S.)

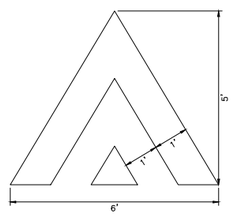


NOTES:

1. Raised crosswalks may be installed at approved marked crosswalk locations as long as positive drainage can be maintained. This applies to signalized, stop–controlled, yield–controlled, and uncontrolled locations.
2. The width of the flush portion of a raised crosswalk should be 10' or longer, and should extend as much of the width of the sidewalk as practicable. If constrained, it may be shortened to a minimum of 8'.
3. The flush portion of a raised crosswalk shall be between 3" and 7" above the existing roadway, and generally 4" to meet most sidewalks.
4. Vehicular ramps should be 5' long in most cases, but may be adjusted to achieve slopes between 6% and 7% relative to road grade.
5. In cases where extending vehicular ramps would significantly offset the alignment of the crosswalk from the alignment of the sidewalk or otherwise create an indirect pedestrian path of travel, such as where curb height exceeds 4", the alignment should be improved by: a.) grading the sidewalk to a lower curb height such that vehicular ramps need not be as long, b.) extending the curb parallel to the crosswalk such that the raised crosswalk can be realigned, or if (a) and (b) are not feasible then c.) a pedestrian ramp may be used per standard highway detail #H–1011.
6. To the extent practicable, the flush portion of the raised crosswalk should not be along the curve of the corner return. This may be achieved either by reducing the corner radius or adding a curb extension.
7. Detectable warning strips must be placed along the curbs adjacent to the raised crosswalk and must extend the full width of the flush curb and marked crosswalk. If a vertical obstruction prevents it from extending the full width along the curb line, the placement of the detectable warning strip must be adjusted to meet relevant ADA standards.
8. A "BUMP" message should be placed on a leg where traffic crosses the raised crosswalk without having first entered the intersection. A "BUMP" message is not required on other legs of the intersection.
9. For vehicular ramps less than 6' in length, the 5' tall chevron marking shown on this sheet shall be placed on center in each travel lane. For ramps 6' or longer, the chevron detailed in typical drawing TSB–1 shall be used. For bike lanes, the chevron detailed in typical drawing TSR–1 shall be placed on center in each bike lane.
10. A raised crosswalk warning sign (SW–867) should be placed to the right of approaching traffic at the start of the raised crosswalk. If that placement is not practicable, it may be located in advance of the raised crosswalk, or it may be located to the left side of approaching traffic on a one–way approach.
11. A SW–867 sign located on approach to the raised crosswalk should be supplemented with an advisory speed plaque (W13–1P).
12. A SW–867 sign located on an either signalized or uncontrolled leg with permitted turns across the raised crosswalk should be supplemented with the appropriate directional arrow plaque (W16–5P or W16–6P). A SW–867 sign on a stop controlled leg with permitted turns across the raised crosswalk should not be supplemented with a directional arrow plaque.
13. Signage shall ultimately be determined by Borough Engineer.



5' Tall Chevron (See Note 9)



NEW YORK CITY DOT

CITY OF NEW YORK DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING AND MANAGEMENT (TP&M)
28–11 Queens Plaza North L.I.C., N.Y. 11101

SCHEMATIC

RAISED CROSSWALK

STATE OF NEW YORK — ROGER KELVIN WILD — 075898 — LICENSED PROFESSIONAL ENGINEER

By _____ LD, P.E.

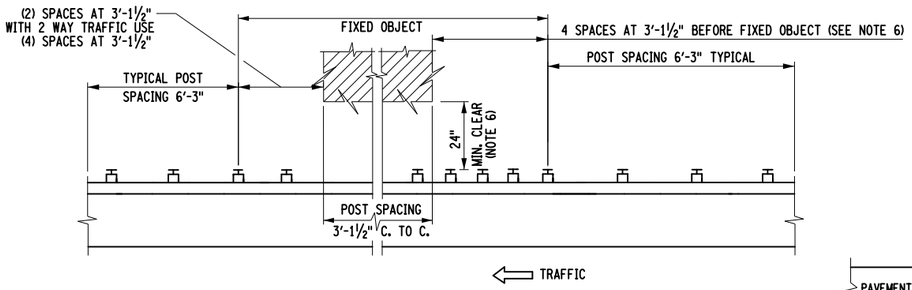
Drawn by	D. NELSON
Checked by	S. BARKHO
Borough	ALL
Scale	NOT TO SCALE
Effective Date	07/31/2020

SHEET 01 OF 01
DRAWING NO. RCW–1

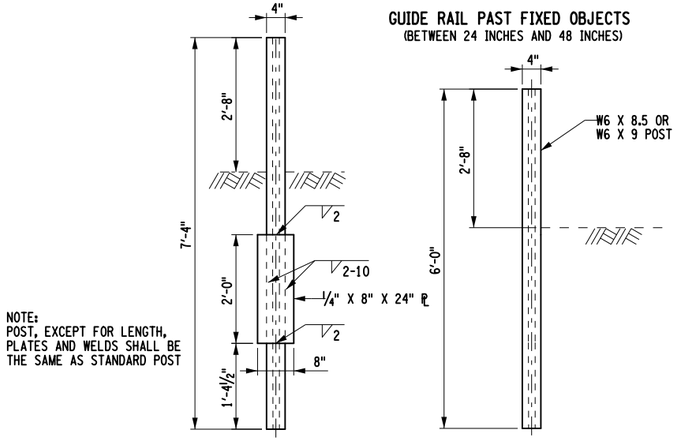
NEW YORK STATE | Department of Transportation

THE FOLLOWING SHEETS ARE NYS DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, CURRENT AS OF DECEMBER 2025, AND INCLUDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL FOLLOW THE MOST CURRENT NYS DOT STANDARD DETAILS AS APPLICABLE.

SHEET 606-09	HEAVY POST BLOCKED-OUT CORRUGATED BEAM GUIDE RAILING - SHEET 1	DATED SEPTEMBER 23, 2013
SHEET 606-09	HEAVY POST BLOCKED-OUT CORRUGATED BEAM GUIDE RAILING - SHEET 2	DATED JULY 28, 2014
SHEET 685-01	PAVEMENT MARKING DETAILS, SHEET 2 OF 9	DATED SEPTEMBER 24, 2012

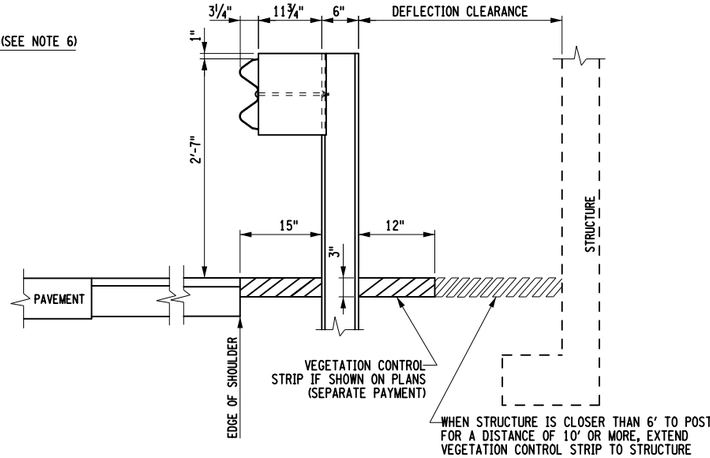


GUIDE RAIL PAST FIXED OBJECTS
(BETWEEN 24 INCHES AND 48 INCHES)



EXTRA LONG POST
SHOWN WITH SOIL PLATE

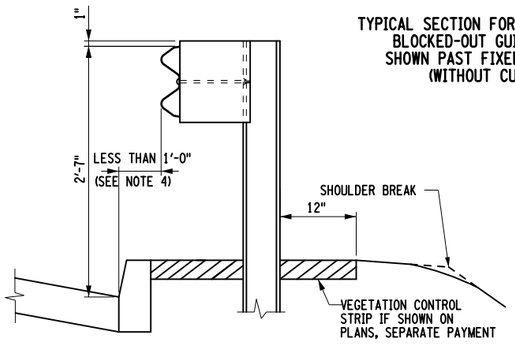
STANDARD POST



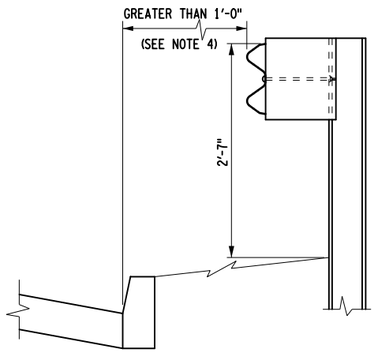
TYPICAL SECTION FOR CORRUGATED
BLOCKED-OUT GUIDE RAIL
SHOWN PAST FIXED OBJECT
(WITHOUT CURB)

NOTES:

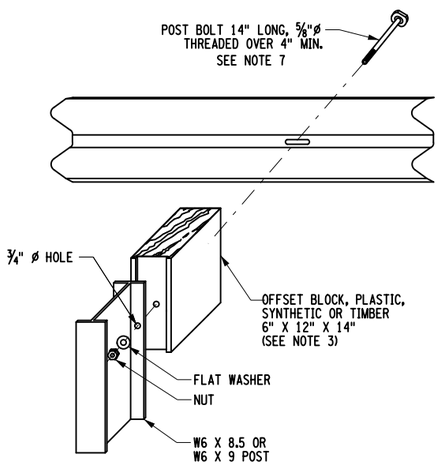
1. ALL RUNS OF GUIDE RAIL ARE TO BE ANCHORED AT BOTH ENDS.
2. IF THERE IS INSUFFICIENT DEPTH BETWEEN THE SURFACE OF THE GROUND AT THE GUIDE RAIL AND A CONCRETE FOOTING, ONE OF THE FOLLOWING METHODS SHALL BE EMPLOYED DEPENDING ON AVAILABLE DEPTHS:
   A. 2'-3" TO 4'-8" - SHORTEN THE POST TO REQUIRED DEPTH BY CUTTING THE BOTTOM OFF THE POST.
   B. 1'-6" TO 2'-3" - SHORTEN THE POST TO THE REQUIRED DEPTH BY CUTTING THE BOTTOM OFF THE POST AND PLACE THE POST IN A 1'Ø CONCRETE ENCASEMENT EXTENDING FROM THE TOP OF THE FOOTING TO THE GROUND SURFACE.
   C. LESS THAN 1'-6"- PREFABRICATE A POST WITH BASE PLATE AS SHOWN IN THE STANDARD HEAVY POST ON BASE PLATE DETAIL. EXCAVATE THE FOOTING. BOLT THE BASE TO THE FOOTING USING THE ANCHOR BOLT INSTALLATION DETAIL. CUT POST TO REQUIRED HEIGHT AND DRILL HOLES FOR THE RAIL INSTALLATION. ALL WELDS, CUTS AND DRILLED HOLES SHALL BE GALVANIZED. ATTACH POST AS SHOWN IN THE DETAILS ON THE HPBO (MOD) MEDIAN BARRIER STANDARD SHEET.
3. DIMENSIONS OF THE TIMBER BLOCKOUTS ARE NOMINAL. DIMENSIONS OF PLASTIC AND SYNTHETIC BLOCKOUTS ARE AS SHOWN.
4. THE OFFSET OF THE GUIDE RAIL OR MEDIAN BARRIER SHALL BE MEASURED FROM FACE OF CURB TO FACE OF RAIL. THE RAIL MOUNTING HEIGHT OF ALL GUIDE RAIL OR MEDIAN BARRIER PLACED BEHIND THE CURB (REGARDLESS OF CURB HEIGHT OR SPEED) SHALL BE MEASURED FROM THE PAVEMENT WHEN THE OFFSET IS 1'-0" OR LESS AND TO THE GROUND SURFACE UNDER THE FACE OF THE RAIL WHEN THE OFFSET IS GREATER THAN 1'-0".
5. BEAMS TO BE ERECTED ON A RADIUS OF 150'-0" OR LESS SHALL BE SHOP WORKED TO THE REQUIRED CURVATURE. PAYMENT WILL BE MADE UNDER THE APPROPRIATE ITEM.
6. IF POST SPACING IS REDUCED TO 18¾" MINIMUM CLEAR DISTANCE OF 18" MAY BE ASSUMED IF OBSTACLE IS < 5' TALL.
7. DIMENSIONS FOR BEAM SPLICE & BOLT HARDWARE ARE LOCATED ON THE STANDARD SHEET FOR WEAK POST CORRUGATED-BEAM GUIDE RAILING.



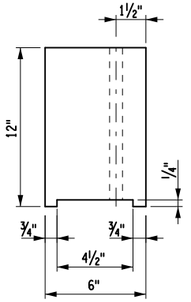
RAIL HEIGHT DETERMINATION
NEXT TO CURB



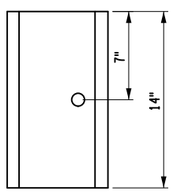
RAIL HEIGHT DETERMINATION
WHEN SET BACK FROM CURB



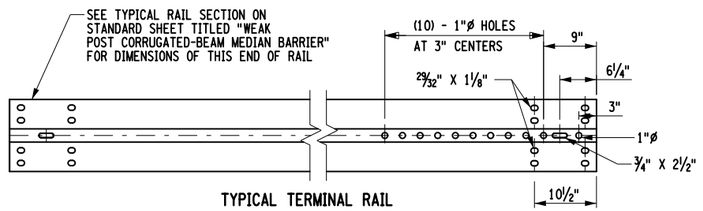
GUIDE RAIL POST
ASSEMBLY DETAIL



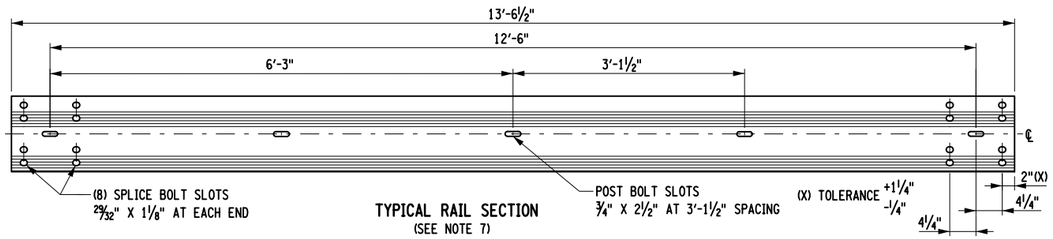
TOP VIEW OF
OFFSET BLOCK



ELEVATION OF
OFFSET BLOCK



TYPICAL TERMINAL RAIL



TYPICAL RAIL SECTION
(SEE NOTE 7)

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

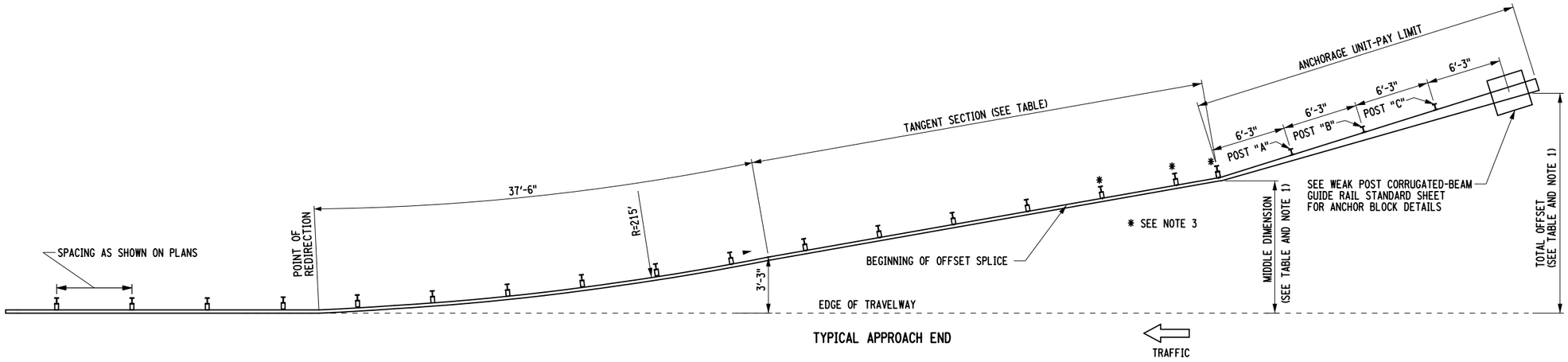
U.S. CUSTOMARY STANDARD SHEET

HEAVY POST BLOCKED-OUT (MOD.) CORRUGATED-BEAM GUIDE RAILING (SHEET 1 OF 2)

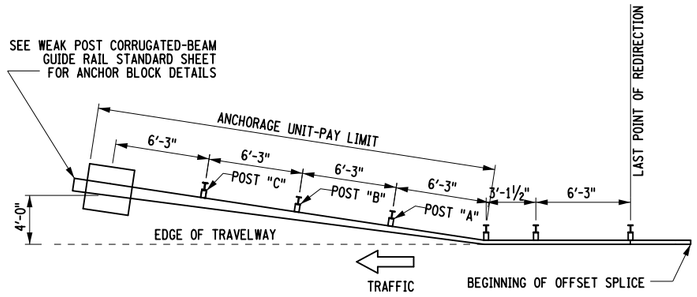
ERRATA 2 EFF. LETTING BEGINNING: 05/01/16 ISSUED WITH EB 16-008	
ERRATA 1 EFF. LETTING BEGINNING: 09/04/14 ISSUED WITH EB 14-025	
EFF. LETTING BEGINNING: 05/08/14	APPROVED SEPTEMBER 23, 2013 /S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER DESIGN
	ISSUED UNDER EB 13-028 606-09

FILE NAME = errata606-0901_050814e1.dgn
DATE/TIME = 04-FEB-2016 10:51
USER = lmontgomery

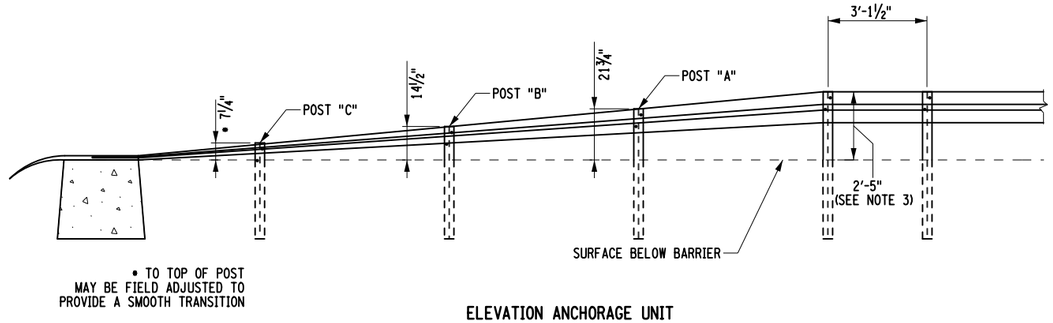
TANGENT SECTION	MIDDLE DIMENSION	TOTAL OFFSET	REMARKS
0'-0"	3'-3"	11'-6"	NOTE 1
37'-6"	9'-9"	18'-0"	NOTE 1+2
50'-0"	11'-11"	20'-2"	NOTE 2
62'-6"	14'-1"	22'-4"	NOTE 2
75'-0"	16'-3"	24'-6"	NOTE 2
87'-6"	18'-5"	26'-8"	NOTE 2
100'-0"	20'-7"	28'-10"	NOTE 2
112'-6"	22'-9"	31'-0"	NOTE 2



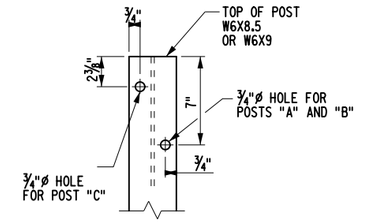
TYPICAL APPROACH END



TYPICAL DEPARTURE END



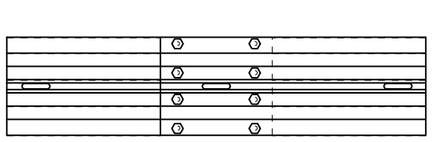
ELEVATION ANCHORAGE UNIT



ANCHOR UNIT POST DETAIL
POSTS "A", "B", AND "C"

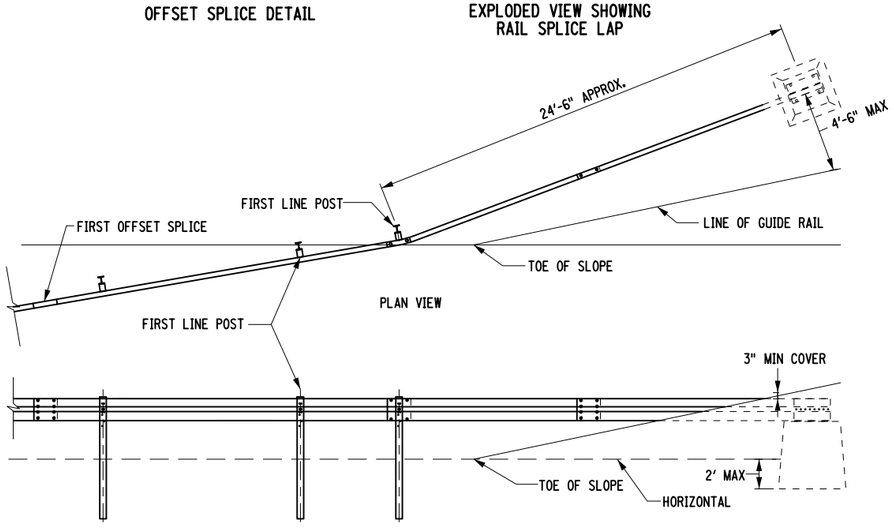
NOTES:

1. WHEN FIELD CONDITIONS WILL NOT PERMIT A TOTAL OFFSET OF 18'-0", INCREASE THE APPROACH RADIUS TO FIT THE CONDITIONS.
2. TO BE USED WHEN FIELD CONDITIONS WARRANT THIS TOTAL OFFSET.
3. THE ELEVATION INCREASE FROM 29" TO 31" SHALL BE ACHEIVED IN THE FIRST FULL RAIL SECTION FOLLOWING POST "A".

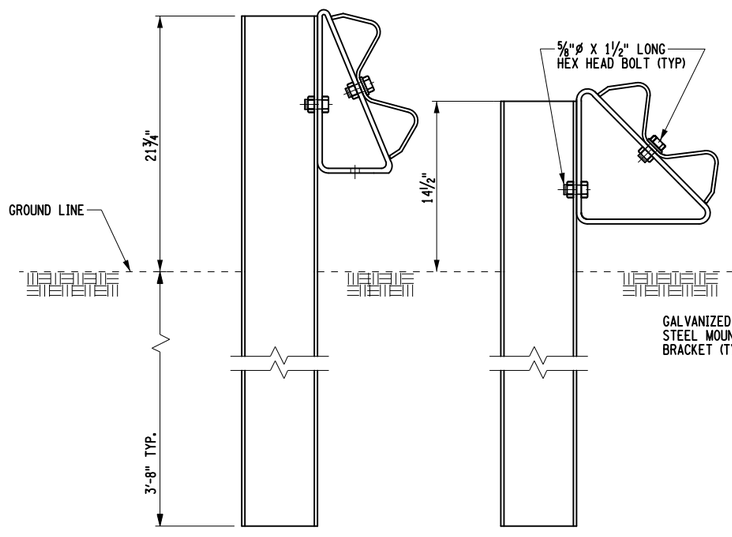


OFFSET SPLICE DETAIL

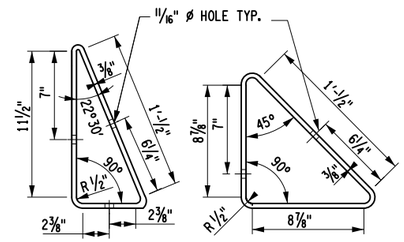
EXPLODED VIEW SHOWING RAIL SPLICE LAP



ANCHORAGE UNIT FOR CORRUGATED BEAM GUIDE RAILING IN EARTH CUT SLOPE
(SEE WEAK POST (MOD) CORRUGATED-BEAM GUIDE RAIL STANDARD SHEET FOR DETAILS)



ANCHORAGE UNIT POST ASSEMBLY
FOR HOLE LOCATIONS SEE ANCHOR UNIT POST DETAIL



MOUNTING BRACKETS
4" WIDE TYPICAL

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

HEAVY POST BLOCKED-OUT (MOD.)
CORRUGATED-BEAM GUIDE RAILING
(SHEET 2 OF 2)

ERRATA 1 EFF. 09/04/2014
ISSUED WITH EB 14-025

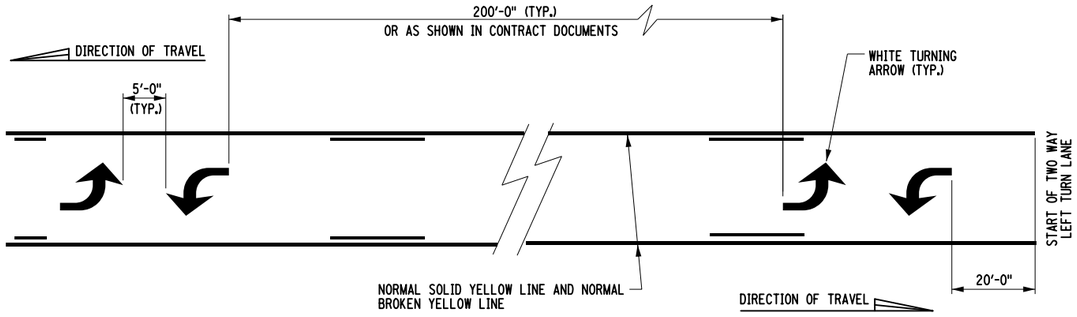
EFFECTIVE DATE: 05/08/2014

APPROVED JULY 28, 2014
/S/ RICHARD W. LEE, P.E.
DEPUTY CHIEF ENGINEER DESIGN

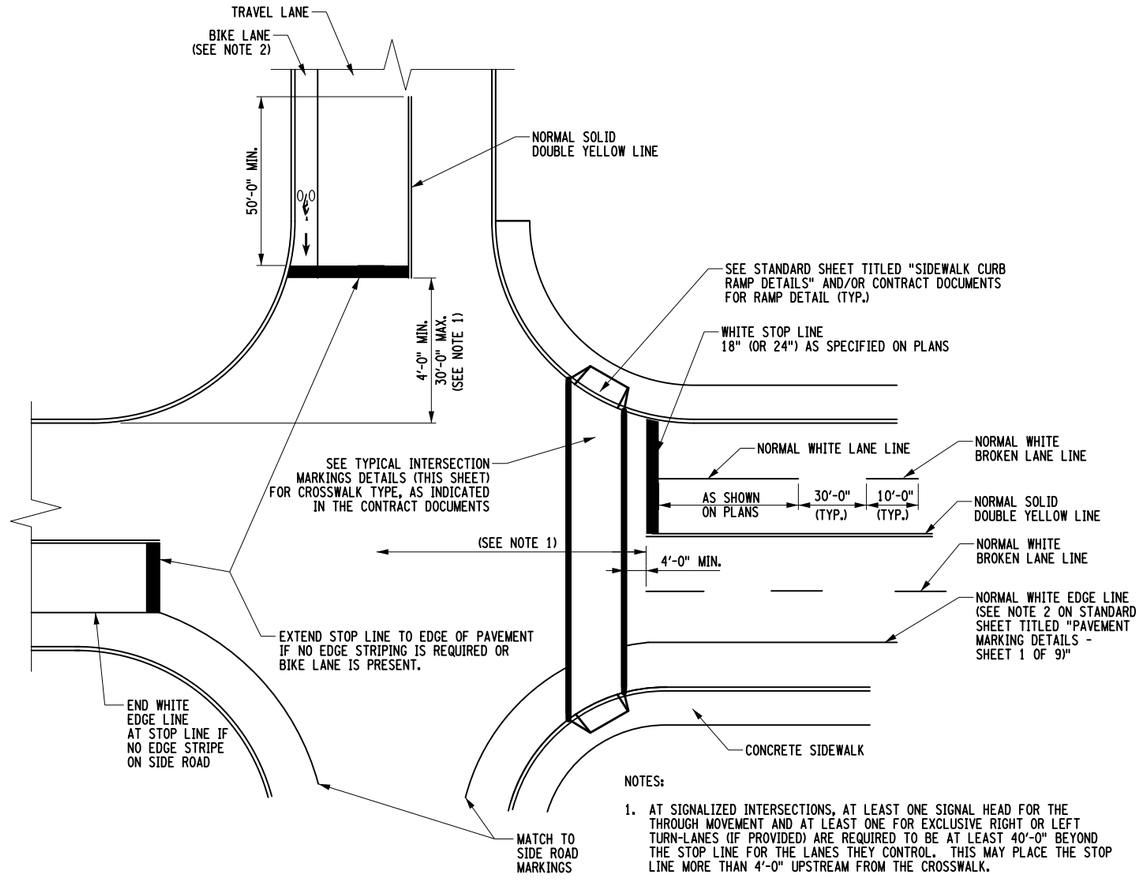
ISSUED UNDER EB 13-028

606-09

FILE NAME = 606-0902_050814e1.dgn
DATE/TIME = 07-MAR-2016 11:45
USER = lmontgomery



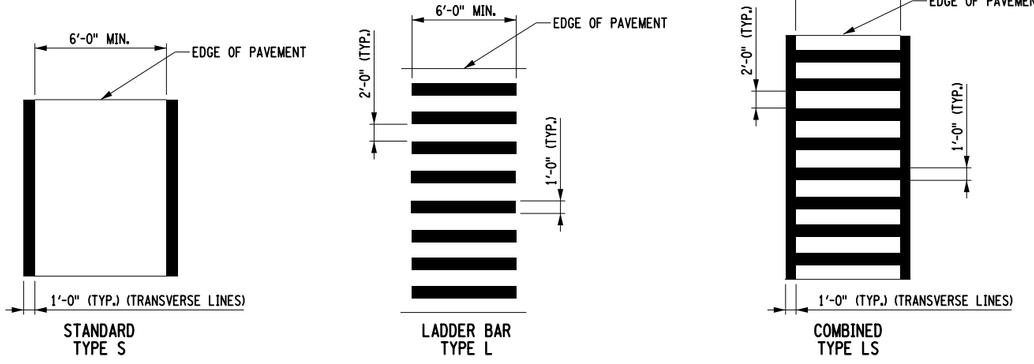
TWO-WAY LEFT TURN LANE DETAIL



TYPICAL INTERSECTION MARKINGS

NOTES:

1. AT SIGNALIZED INTERSECTIONS, AT LEAST ONE SIGNAL HEAD FOR THE THROUGH MOVEMENT AND AT LEAST ONE FOR EXCLUSIVE RIGHT OR LEFT TURN-LANES (IF PROVIDED) ARE REQUIRED TO BE AT LEAST 40'-0" BEYOND THE STOP LINE FOR THE LANES THEY CONTROL. THIS MAY PLACE THE STOP LINE MORE THAN 4'-0" UPSTREAM FROM THE CROSSWALK.
2. DISCONTINUE BIKE LANE MARKINGS AT LEAST 100'-0" BEFORE INTERSECTION IF NO MARKED BIKE LANE IS PRESENT DOWNSTREAM.



TYPICAL CROSSWALK DETAILS

NOTES:

1. ALL CROSSWALK MARKINGS SHALL BE WHITE.
2. TYPE "L" AND TYPE "LS" CROSSWALKS SHALL HAVE THE LONGITUDINAL LINES PARALLEL TO THE LANE LINES.

1. SEE STANDARD SHEET 685-01 (SHEET 1 OF 9) FOR LINE LAYOUT AND DIMENSIONS (EXCEPT AS NOTED).
2. REFER TO STANDARD SHEET 685-01 (SHEET 1 OF 9) FOR GENERAL NOTES.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS (SHEET 2 OF 9)

APPROVED SEPTEMBER 24, 2012	ISSUED UNDER EB 12-036
/S/ TODD B. WESTHUIS, P.E. ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	685-01

ERRATA 1 EFF. 05-01-2021
ISSUED WITH EB 21-006

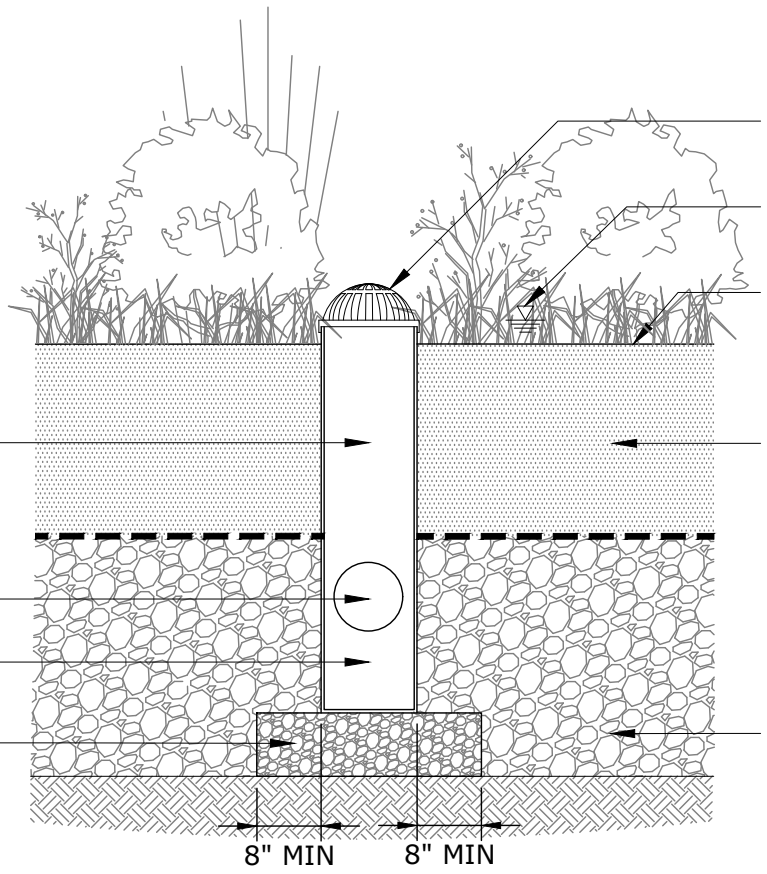
STANDARD SHEETS , September 01, 2022

FILE NAME = 685-0102_012321.dgn
DATE/TIME = 02-FEB-2021 07:57
USER = rfoote

Environmental Protection

THE FOLLOWING SHEETS ARE NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD DETAILS, CURRENT AS OF DECEMBER 2025, AND INCLUDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL FOLLOW THE MOST CURRENT NYC DEP STANDARD DETAILS AS APPLICABLE.

SHEET GI-06	VEGETATED BIORETENTION OVERFLOW STRUCTURE	DATED MAY 2019
SHEET SE11	STANDARD FOR MANHOLE ON 8" DIA. TO 30" DIA. PIPE SEWERS IN DRY LOCATION	DATED AUGUST 14, 2018
SHEET SE13	STANDARD FOR SHALLOW MANHOLE ON 8" DIA. TO 30" DIA. PIPE SEWERS	DATED AUGUST 14, 2018
SHEET SE47	STANDARD FOR TYPE 1 CATCH BASIN	DATED AUGUST 14, 2018
SHEET SE48	STANDARD FOR TYPE 2 CATCH BASIN	DATED AUGUST 14, 2018
SHEET SE60	STANDARD FOR CAST IRON HOOD AND HOOKS FOR CATCH BASINS	DATED AUGUST 14, 2018
SHEET BWSO1	CATCH BASIN WITH SHALLOW BASIN CONNECTION	DATED APRIL 7, 2000



SECTION A

VEGETATED BIORETENTION OVERFLOW STRUCTURE

DETAIL	6
NTS	

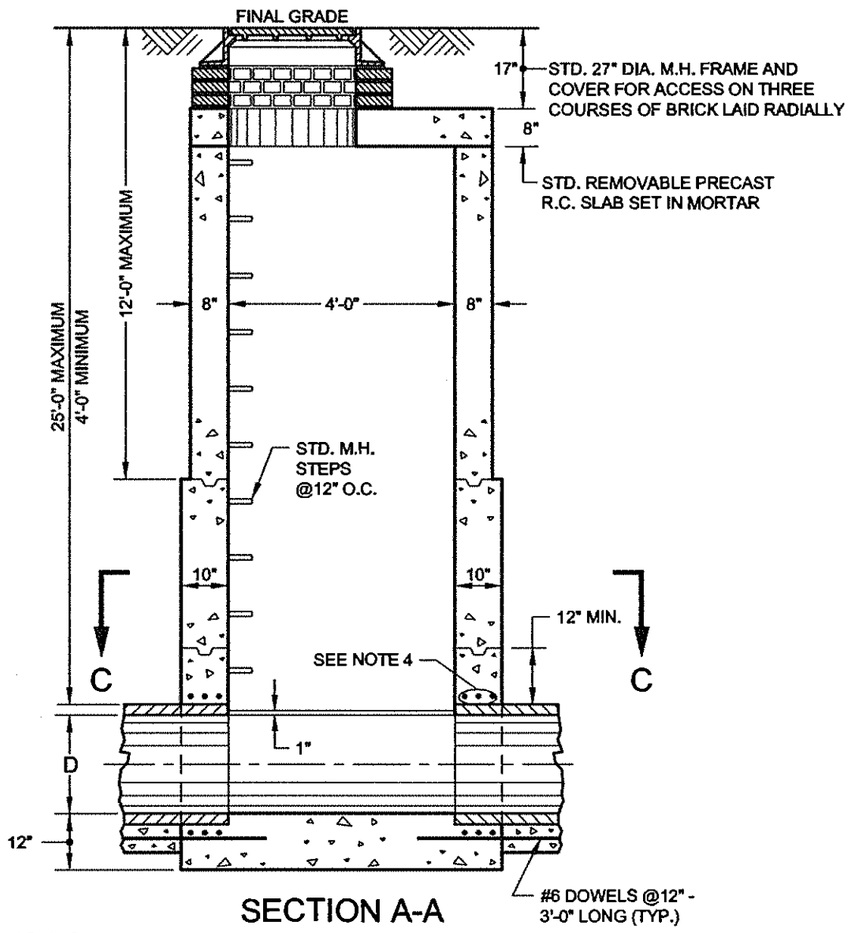
SE11

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

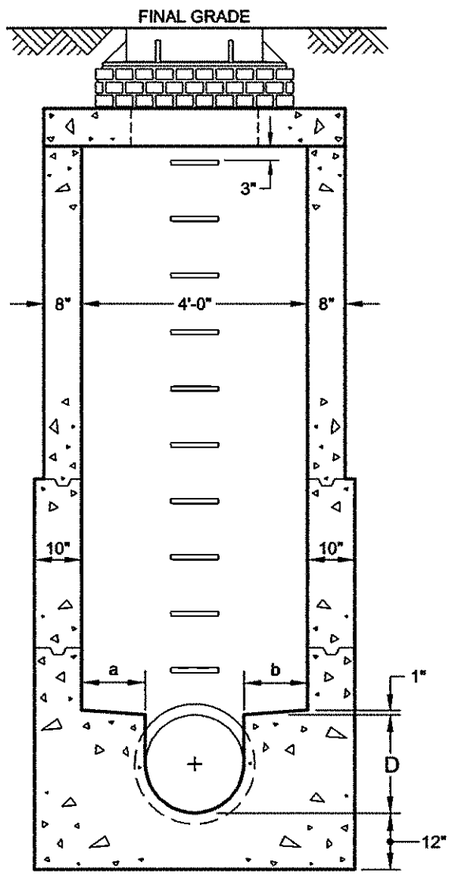
SE11

STANDARD FOR MANHOLE ON 8" DIA. TO 30" DIA. PIPE SEWERS IN DRY LOCATION

TYPE A-1 (12' MAX. COVER) AND TYPE A-2 (25' MAX. COVER)

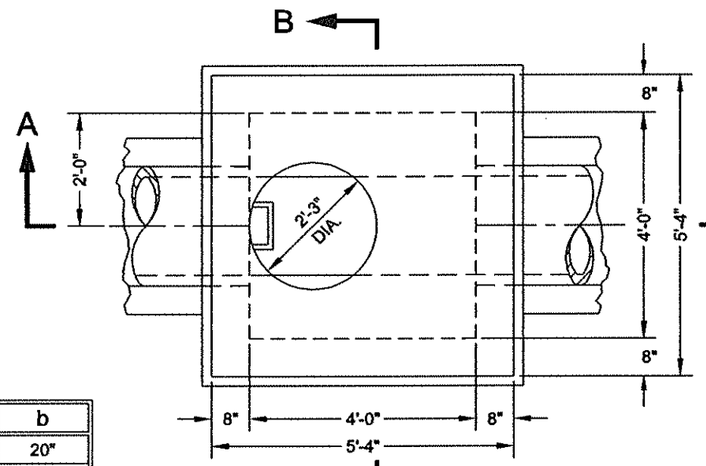


SECTION A-A

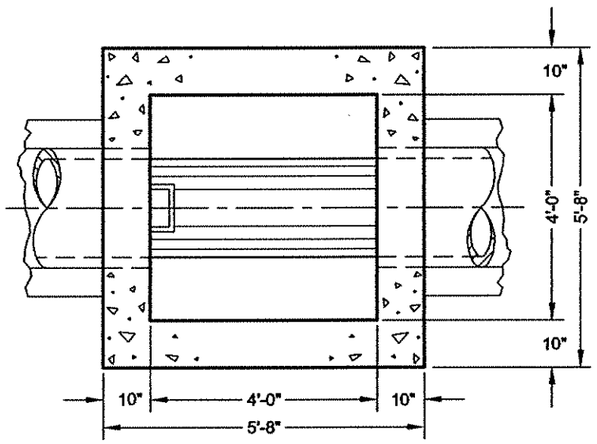


SECTION B-B

D	a	b
8"	20"	20"
10"	19"	19"
12"	18"	18"
15"	16 1/2"	16 1/2"
18"	15"	15"
24"	12"	12"
30"	12"	6"



ROOF PLAN



SECTION C-C

NOTES:

(1) WHEN LEGAL GRADE IS BELOW FINAL GRADE SEE SEWER STANDARD NO. 38.

(2) KEYED CONSTRUCTION JOINTS ARE REQUIRED BETWEEN ANY SUCCESSIVE POURS.

(3) CONCRETE IS TO BE CLASS 40. REBARS-GRADE 60.

(4) FOR ALL PIPE SEWERS EIGHTEEN (18) INCHES IN DIAMETER AND GREATER, ADD 3-#6@3" ABOVE AND BELOW THE PIPE.

Sandip S. Saini P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

REVISED DECEMBER 2017: P. LEUNG
W. PATALANO/P. MOY

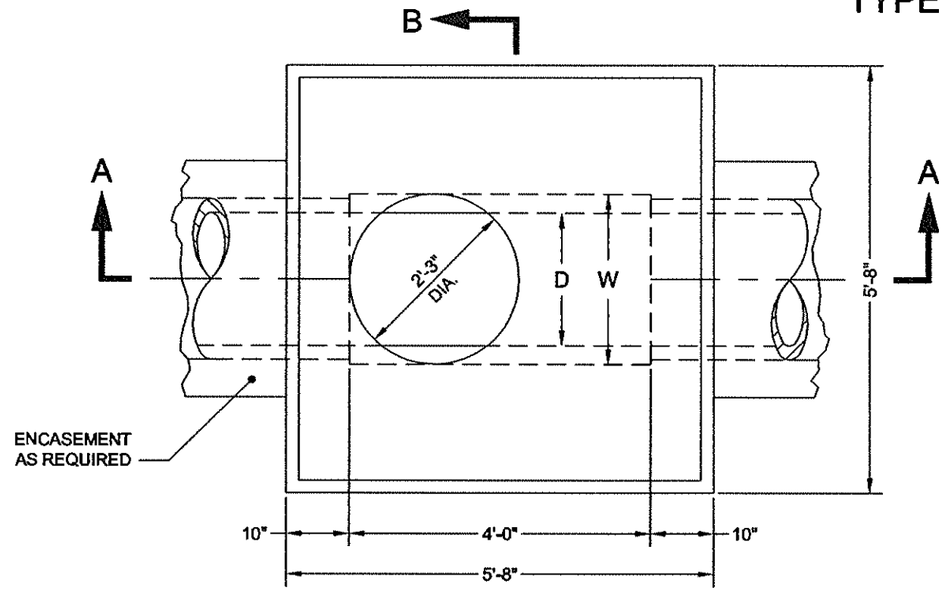
SE13

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

SE13

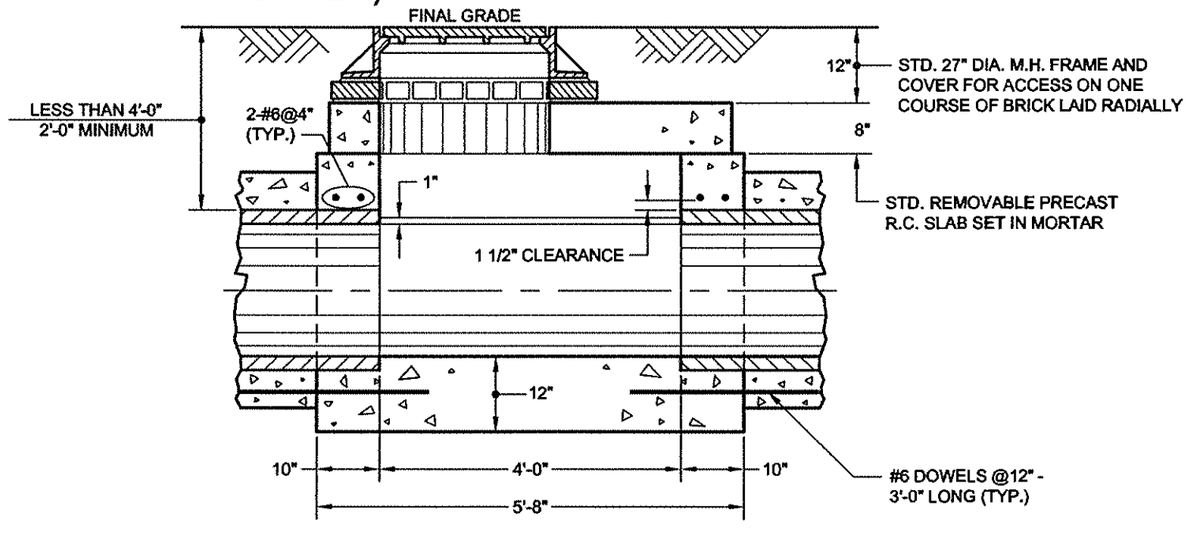
STANDARD FOR SHALLOW MANHOLE ON 8" DIA. TO 30" DIA. PIPE SEWERS

TYPE A-3 (LESS THAN 4'-0" COVER)

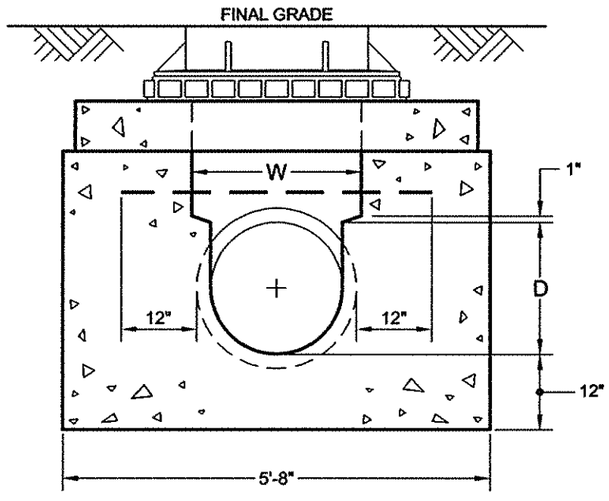


ROOF PLAN

D	W
8"-24"	27"
30"	30"



SECTION A-A



SECTION B-B

NOTES:

(1) WHEN PILES ARE REQUIRED, REFER TO STANDARD MANHOLE TYPE A-2 FOR PILE DETAILS.

(2) CONCRETE IS TO BE CLASS 40. REBARS-GRADE 60.

Swdip S. Saini P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

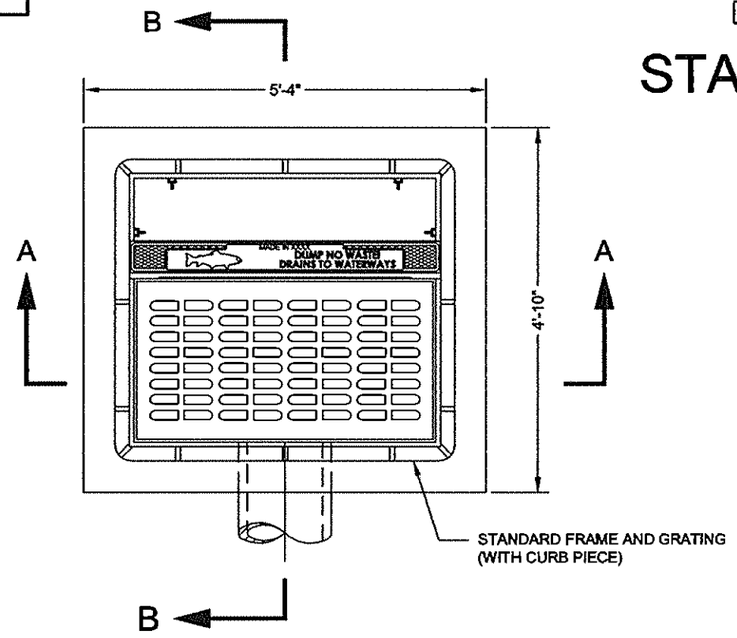
REVISED DECEMBER 2017: P. LEUNG
W. PATALANO/P. MOY

SE47

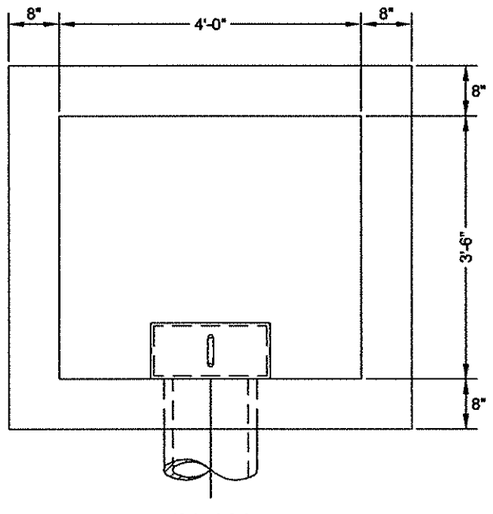
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

STANDARD FOR TYPE 1 CATCH BASIN

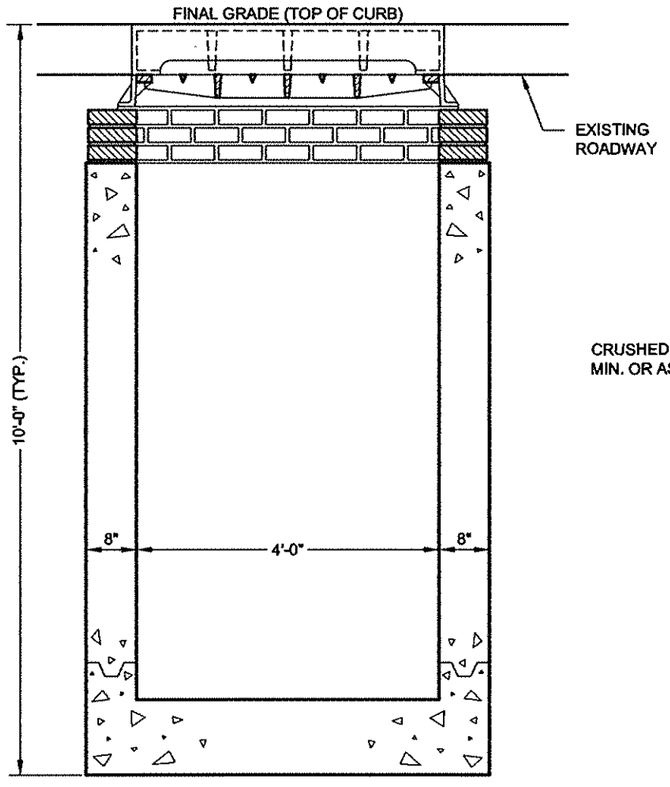
(WITH CURB PIECE)



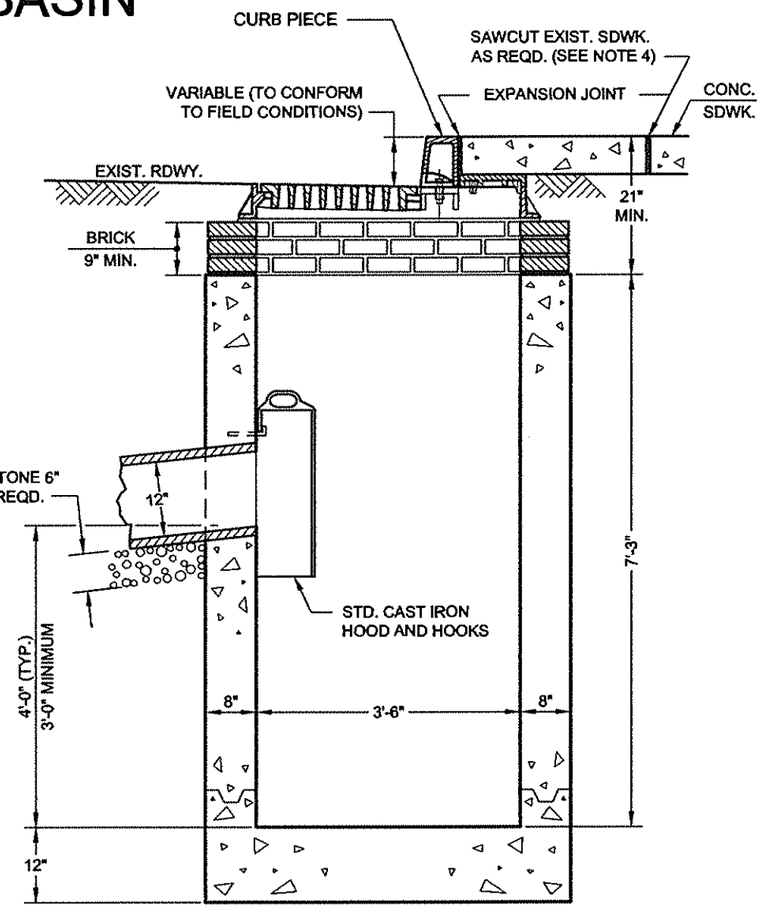
PLAN
(WITH CASTING)



PLAN
(WITHOUT CASTING)



SECTION A-A



SECTION B-B

NOTES:

(1) LOCATION AND ANGLE OF BASIN CONNECTION MAY BE VARIED TO SUIT FIELD CONDITIONS.

(2) KEYED CONSTRUCTION JOINTS ARE REQUIRED BETWEEN ANY SUCCESSIVE POURS.

(3) THE MINIMUM DROP FROM BASIN TO SEWER SHALL BE 6".

(4) EXPANSION JOINTS ARE REQUIRED IN THE CONCRETE SIDEWALK AREA AT A DISTANCE OF 1'-0" AROUND THE PERIMETER OF THE BASIN.

(5) CONCRETE IS TO BE CLASS 40. REBARS-GRADE 60.

Surdip S. Saini — P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne — P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

REVISED DECEMBER 2017: P. LEUNG
W. PATALANO/P. MOY

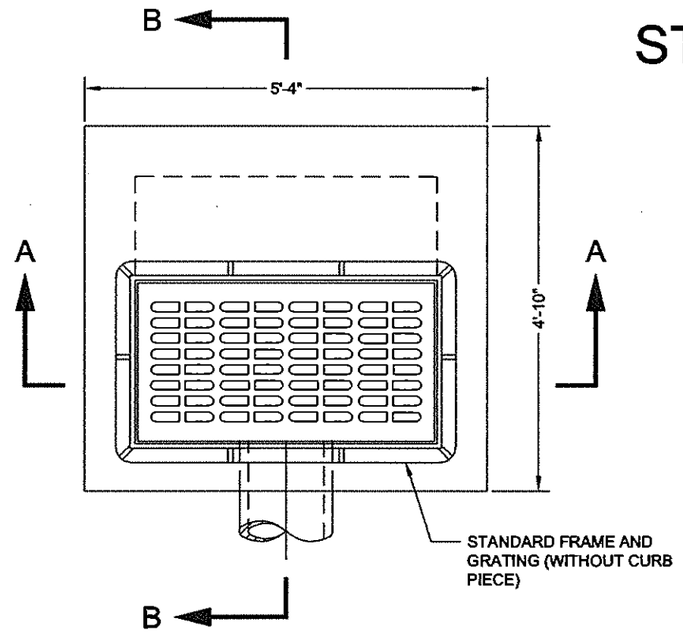
SE47

SE48

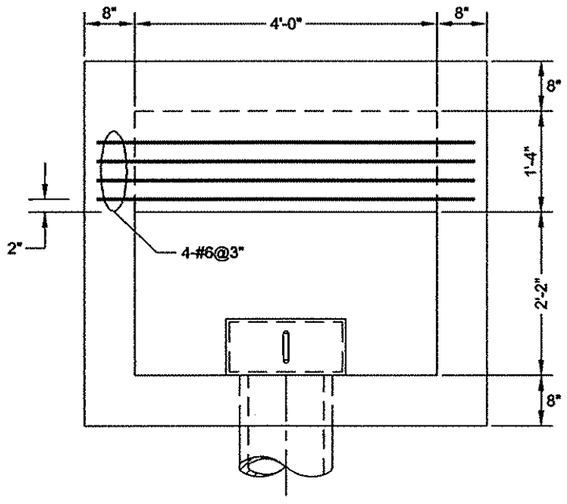
CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

SE48

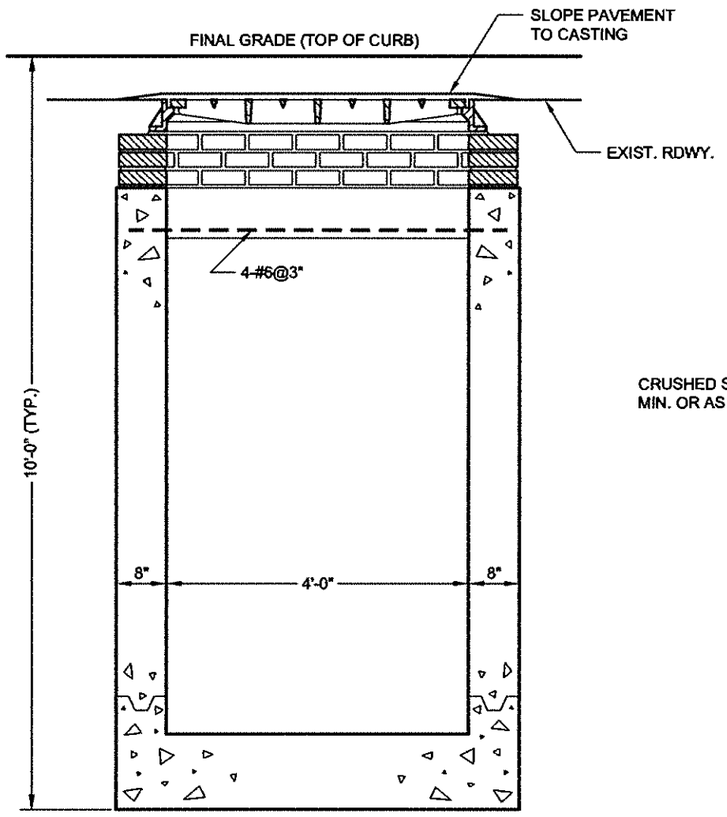
STANDARD FOR TYPE 2 CATCH BASIN
(WITHOUT CURB PIECE)



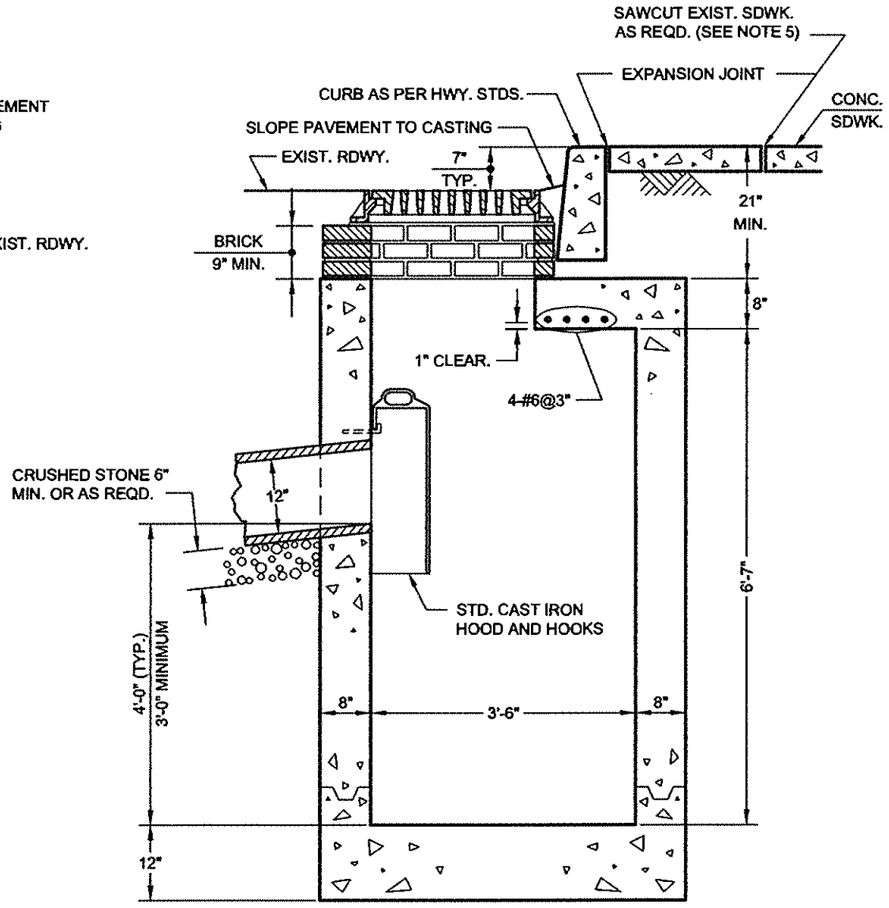
PLAN
(WITH CASTING)



PLAN
(WITHOUT CASTING)



SECTION A-A



SECTION B-B

NOTES:

(1) LOCATION OF CURB SHALL BE AS SHOWN UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

(2) LOCATION AND ANGLE OF BASIN CONNECTION MAY BE VARIED TO SUIT FIELD CONDITIONS.

(3) KEYED CONSTRUCTION JOINTS ARE REQUIRED BETWEEN ANY SUCCESSIVE POURS.

(4) THE MINIMUM DROP FROM BASIN TO SEWER SHALL BE 6".

(5) EXPANSION JOINTS ARE REQUIRED IN THE CONCRETE SIDEWALK AREA AT A DISTANCE OF 1'-0" AROUND THE PERIMETER OF THE BASIN.

(6) CONCRETE IS TO BE CLASS 40. REBARS-GRADE 60.

(7) COVER FOR ALL REINFORCEMENT IS 2" CLEARANCE UNLESS OTHERWISE SPECIFIED.

Sandhya S. Saini P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

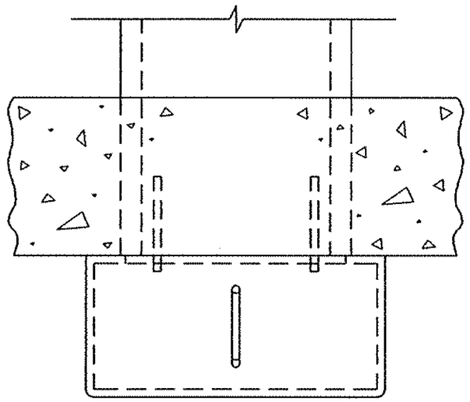
REVISED DECEMBER 2017: P. LEUNG
W. PATALANO/P. MOY

SE60

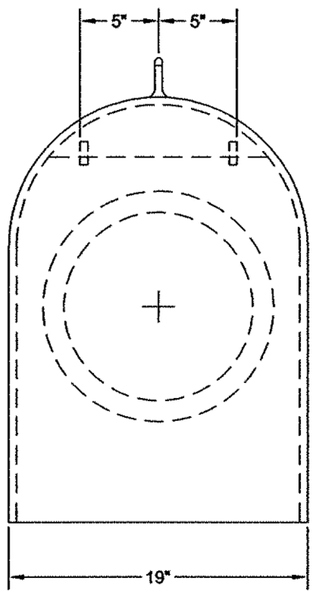
SE60

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

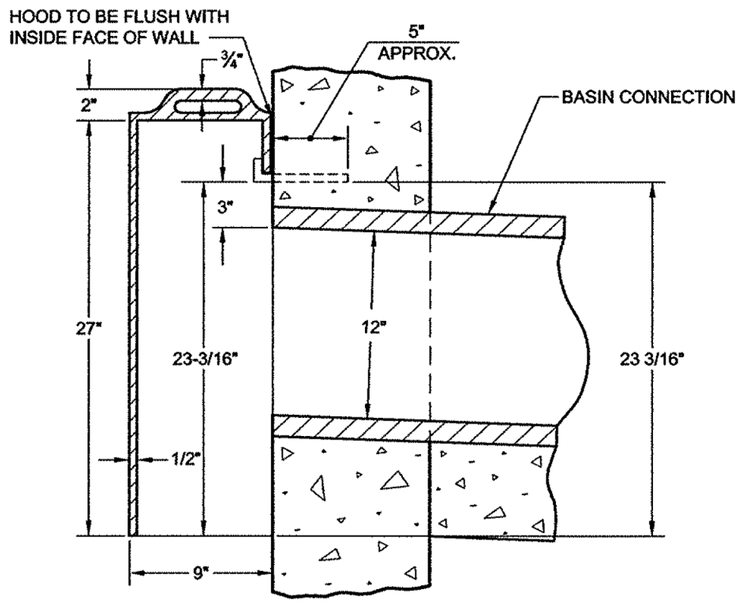
STANDARD FOR CAST IRON HOOD AND HOOKS FOR CATCH BASINS



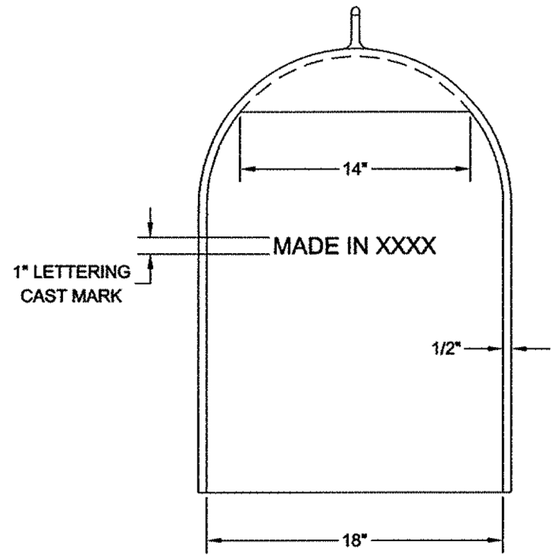
PLAN OF HOOD IN PLACE



REAR ELEVATION OF HOOD IN PLACE



SECTION OF HOOD IN PLACE



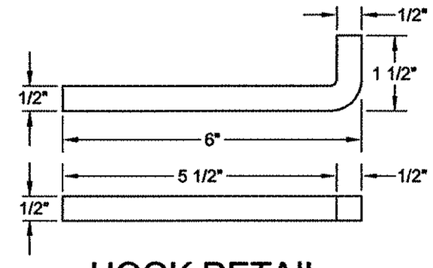
FRONT ELEVATION OF HOOD

NOTES:

(1) MATERIAL FOR HOOD: GRAY CAST IRON ASTM A-48 CLASS 35B. MINIMUM WEIGHT OF HOOD IS 140 LBS.

(2) MATERIAL FOR HOOK: 18-8 STAINLESS STEEL 1/2" SQUARE BAR STOCK TYPE 303 ASTM A-582.

(3) ALL CATCH BASIN HOODS SHALL HAVE THE MANUFACTURER'S IDENTIFICATION, CAST DATE OR HEAT NUMBER AND COUNTRY OF ORIGIN INTEGRALLY CAST ON INDIVIDUAL PIECES AT THE TIME OF MANUFACTURE IN ACCORDANCE WITH THE DEP SPECIFICATION.



HOOK DETAIL
(2 REQUIRED)

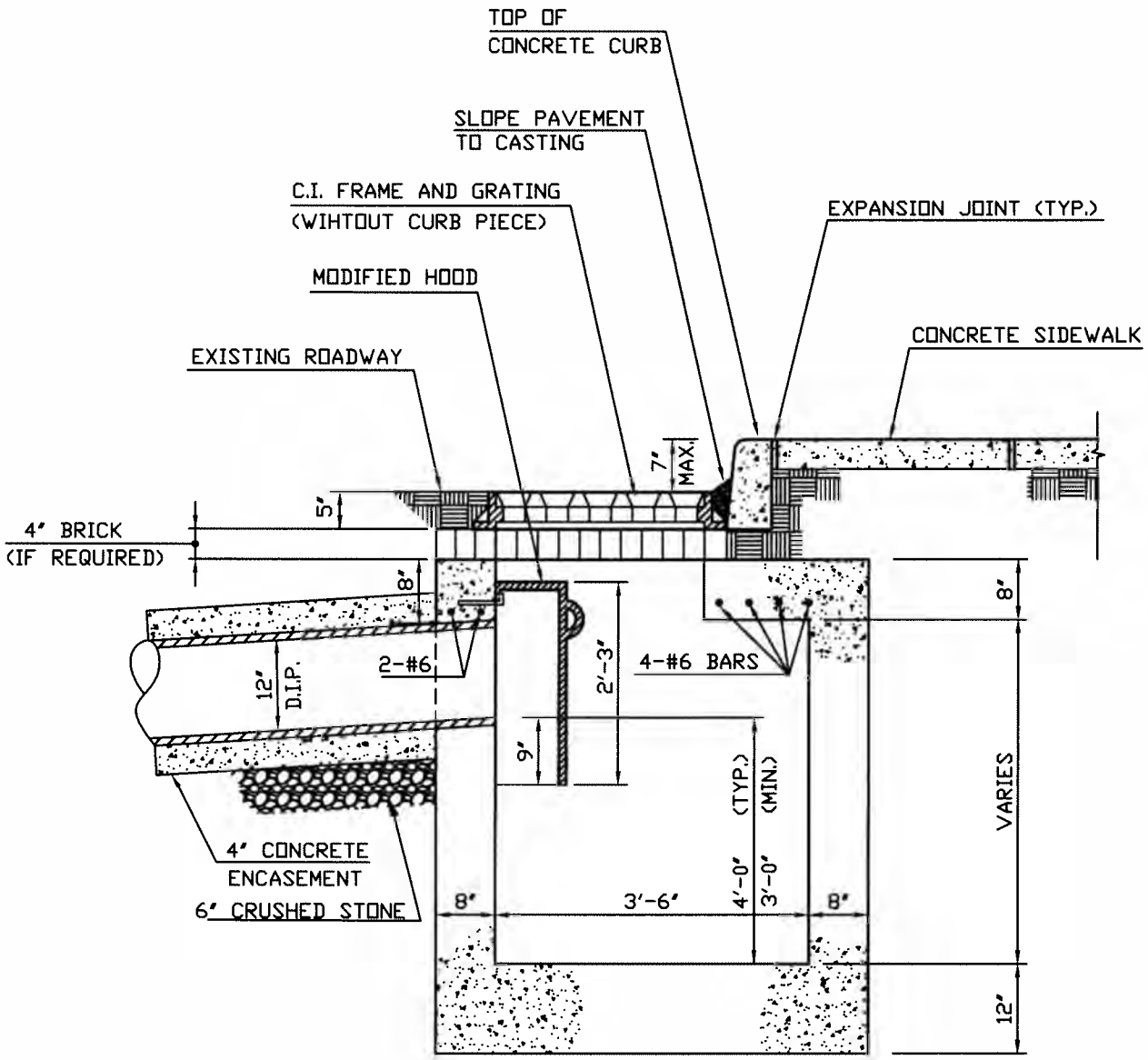
Sandeep S. Saini — P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne — P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

REVISED DECEMBER 2017: P. LEUNG
W. PATALANO/P. MOY



CATCH BASIN WITH SHALLOW BASIN CONNECTION

SCALE : NTS

APRIL 7, 2000 (VERSION 2)