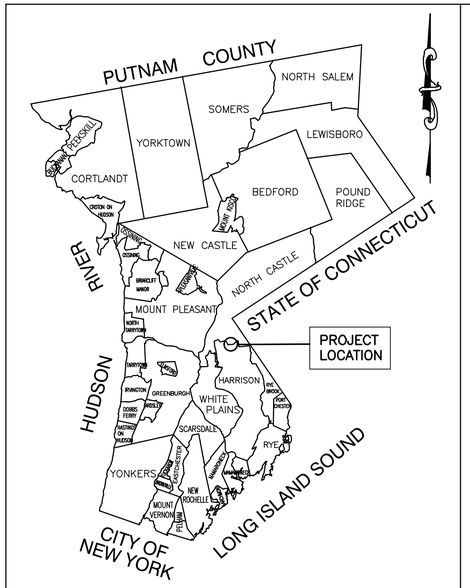

WESTCHESTER COUNTY

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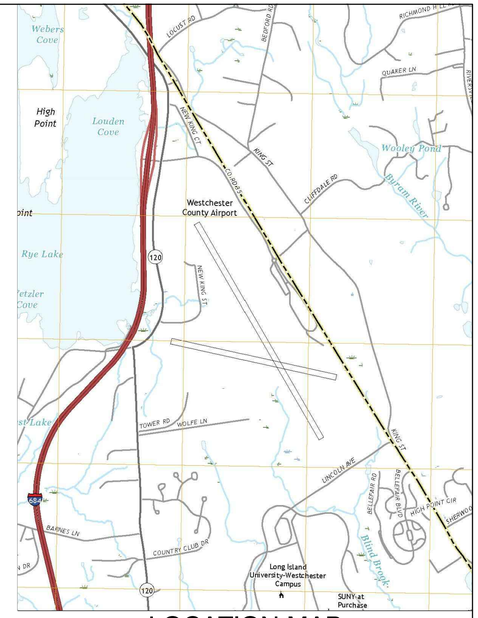
WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

CONTRACT No. 20-802
SPDES OUTFALL NO. 7
STORM DRAIN REPLACEMENT PROJECT
TOWN/VILLAGE OF HARRISON, TOWN OF NORTH CASTLE AND VILLAGE OF RYE BROOK



LOCATION MAP
SCALE: N.T.S.

SHEET NO.	SHEET TITLE	DPW FILE NO.
C-01	TITLE SHEET	XXX-XX-G-1
C-10	GENERAL NOTES AND LEGEND	XXX-XX-A-9
C-11	CONSTRUCTION SPECIFICATION NOTES	XXX-XX-A-9
C-12	CONSTRUCTION STAGING PLAN	XXX-XX-A-9
C-201	CONSTRUCTION PLAN (SHEET 1 OF 4)	XXX-XX-A-9
C-202	CONSTRUCTION PLAN (SHEET 2 OF 4)	XXX-XX-A-9
C-203	CONSTRUCTION PLAN (SHEET 3 OF 4)	XXX-XX-A-9
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C-205	DRAINAGE TABLE	XXX-XX-A-9
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C-302	DETAILS (SHEET 2 OF 3)	XXX-XX-A-9
C-303	DETAILS (SHEET 3 OF 3)	XXX-XX-A-9

RECOMMENDED FOR DESIGN — DATE	RECOMMENDED FOR CONSTRUCTION — DATE	RECOMMENDED FOR CONSTRUCTION — DATE	APPROVED FOR CONSTRUCTION — DATE
ANTHONY J. VENTAROLA, P.E. ASSOCIATE ENGINEER DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION	ROBERT S. DONNELLY, P.E. DIRECTOR OF DESIGN COORDINATION DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION	GAYLE M. KATZMAN, P.E. FIRST DEPUTY COMMISSIONER DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION	HUGH J. GREECHAN, JR., P.E. COMMISSIONER DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

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UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THIS LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION
☐ AS BUILT – CHANGES AS NOTED
☐ AS BUILT – NO CHANGES

CONTRACTOR
NAME
SIGNATURE
TITLE DATE

PROJECT COORDINATOR
NAME
SIGNATURE
TITLE DATE

WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO.7
STORM DRAIN REPLACEMENT
TITLE SHEET

CONTRACT NUMBER	SHEET NUMBER
20-802	C-01
SHEET NO. 1 OF 12	
SCALE: AS SHOWN DATE: 08/14/20	
DPW FILE NO. ##-##-X-###	REV. NO. #

GENERAL NOTES

1. EXISTING FIELD CONDITIONS INFORMATION WAS OBTAINED FROM GROUND SURVEYS PERFORMED BY SHUMAKER CONSULTING ENGINEERING & LAND SURVEYING, P.C., DATED DECEMBER 2012, AND APRIL 2013, AND WARD CARPENTER ENGINEERS DATED MAY 15, 2020. RIGHTS-OF-WAY AND PROPERTY LINES ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AND ARE NOT WARRANTED TO BE ACCURATE.

2. THE PLANS SHOW ABOVE-GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORK AREA. EXACT LOCATION OF THESE STRUCTURES MAY VARY FROM THE LOCATIONS INDICATED. THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE PROJECT AREA ARE NOT WARRANTED TO BE ACCURATE. THE CONTRACTOR SHALL LOCATE ALL UTILITIES WITHIN THE PROJECT AREA PRIOR TO COMMENCING WORK. CONTRACTOR SHALL RE-LOCATE UTILITIES EACH AND EVERY TIME WORK OCCURS IN A SPECIFIC AREA.

3. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY EXISTING CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE RESIDENT ENGINEER. CALL UFPO (1-800-962-7962) 48 HOURS BEFORE DIGGING, DRILLING OR BLASTING.

4. ALL TRENCH EXCAVATION AND ANY REQUIRED SHEETING AND SHORING SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS FOR CONSTRUCTION.

5. THE CONTRACTOR SHALL COMPLY WITH FAA ADVISORY CIRCULAR (AC) 150/5370-2F, THE PROJECT SPECIFICATIONS, AND THE PLANS FOR GUIDANCE ON OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION. ALL DEBRIS DEPOSITED ON ANY AIRPORT PAVEMENT SHALL BE REMOVED CONTINUOUSLY DURING THE COURSE OF WORK. THE CONTRACTOR MUST HAVE ONE (1) VACUUM SWEEPER ON SITE AT ALL TIMES IN ACCORDANCE WITH THE SPECIFICATIONS TO ASSIST IN THE DEBRIS REMOVAL FROM ANCILLARY AREAS DISTURBED BY CONSTRUCTION. ALL DEBRIS COLLECTED BY THE VACUUM SWEEPERS SHALL BE DUMPED INTO A CONSTRUCTION DUMPSTER AND DISPOSED OF OFF-SITE BY THE CONTRACTOR. IN ADDITION, THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO PREVENT MATERIAL FROM ESCAPING FROM THE WORK AND/OR STOCKPILE AREAS. THIS WORK SHALL BE PAID FOR UNDER ITEM M-200, BASIC MAINTENANCE AND PROTECTION OF TRAFFIC.

6. THE CONTRACTOR WILL BE PROVIDED ACCESS TO THE SITE BY THE AIRPORT DIRECTOR WITH WHOM THE CONTRACTOR SHALL FULLY COOPERATE. THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS WITH RESPECT TO AIRPORT SECURITY, AND ANY OTHER SECURITY REQUIREMENTS ESTABLISHED BY THE AIRPORT MANAGER. IN ADDITION, THE CONTRACTOR IS TO MAN ALL GATES USED FOR ACCESS OF CONSTRUCTION EQUIPMENT AND/OR PERSONNEL UNLESS LOCKED BY AN APPROVED CHAIN AND PAD LOCK.

7. THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE WORK AREAS SHOWN ON THE PLANS AND SHALL LIMIT HIS TRAVEL TO AND FROM THE WORK SITE TO THE HAUL ROUTE(S) SHOWN ON DRAWING _____. ALL CONSTRUCTION VEHICLE ACTIVITY IN THE AIR OPERATIONS AREA (AOA) SHALL BE CONTROLLED BY RADIO CONTACT WITH AIR TRAFFIC CONTROL. SPECIAL RESTRICTIONS APPLY IN AREAS WITHIN THE RUNWAY AND TAXIWAY SAFETY AREAS, GLIDE SLOPE CRITICAL AREAS AND ILS CRITICAL AREAS. NO WORK SHALL PROCEED WITHOUT THE APPROVAL OF THE ENGINEER AND NOTIFICATION OF THE CONTROL TOWER. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ESCORTS AS IT RELATES TO THE CONSTRUCTION ACTIVITIES. THE PERSONNEL ASSIGNED TO ESCORT DUTIES SHALL BE EXCLUSIVE TO THIS OPERATIONAL DUTY. THE ESCORT PERSONNEL SHALL BE TRAINED AND QUALIFIED BY THE AIRPORT AT NO COST TO THE CONTRACTOR. ALL WORK CREWS SHALL BE ACCOMPANIED BY A VEHICLE EQUIPPED WITH TWO RADIOS THAT ARE CAPABLE OF COMMUNICATING WITH FAA GROUND CONTROL AND THE AIRPORT OPERATIONS DEPARTMENT. WHEN WORK ZONES IN A STAGING AREA ARE SEPARATED BY AN ACTIVE RUNWAY, CROSSING OF THE RUNWAY TO TRAVEL BETWEEN WORK ZONES WILL NOT BE PERMITTED. ANY EMPLOYEE THAT LEAVES THE WORK SITE AND ENTERS AN UNAUTHORIZED OR RESTRICTED AREA WILL BE PERMANENTLY REMOVED FROM THE WORK SITE AND MAY BE PROSECUTED. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TOILET FACILITIES AT THE WORK SITE AND AT THE STAGING AREAS. ALL FOREIGN OBJECT DEBRIS (FOD) SHALL BE CONTROLLED BY THE CONTRACTOR, AS THIS CREATES A HAZARD TO AIRCRAFT OPERATIONS. THIS DOES NOT MEAN THE DISPOSAL OF GARBAGE INTO OPEN EXCAVATIONS.

8. AS NEEDED, THE CONTRACTOR SHALL PROVIDE QUALIFIED FLAGGERS WHO ARE RESPONSIBLE FOR THE CONTROL OF MOVEMENT OF THE CONTRACTOR'S EQUIPMENT AND PERSONNEL ACROSS ACTIVE RUNWAYS AND TAXIWAYS, ILS CRITICAL AREAS AND GLIDE SLOPE CRITICAL AREAS. BETWEEN THE HOURS OF 6 AM AND 11 PM EDT, THE FLAGGERS SHALL MAINTAIN CONTACT WITH GROUND CONTROL VIA TWO-WAY RADIO. BETWEEN THE HOURS OF 11 PM AND 7 AM EDT, THEY SHALL MONITOR CTAF VIA TWO-WAY RADIO. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM M-200, BASIC MAINTENANCE AND PROTECTION OF TRAFFIC. ANY CLEARANCE GRANTED BY THE TOWER (GROUND CONTROL) MUST BE CONFIRMED BY THE DRIVER'S PERSONAL OBSERVATION THAT NO AIRCRAFT IS APPROACHING HIS POSITION. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH A MINIMUM OF TWO (2) ESCORT VEHICLES FOR LEADING THE CONTRACTOR'S EQUIPMENT AND VEHICLES ACROSS ACTIVE RUNWAYS, TAXIWAYS AND ILS CRITICAL AREAS. VEHICLES ARE TO BE EQUIPPED WITH RADIOS CAPABLE OF COMMUNICATIONS WITH THE AIR TRAFFIC CONTROL TOWER ON THE GROUND CONTROL FREQUENCY AND SHALL BE OTHERWISE FURNISHED WITH LIGHTS AND MARKINGS AS DESCRIBED IN ITEM M-200, BASIC MAINTENANCE AND PROTECTION OF TRAFFIC. COST OF FURNISHING ESCORT VEHICLES SHALL BE INCLUDED IN ITEM M-200, BASIC MAINTENANCE AND PROTECTION OF TRAFFIC.

9. THE ENGINEER AND INSPECTORS SHALL BE TRAINED AND QUALIFIED BY THE AIRPORT AS IT RELATES TO COMMUNICATION AND DRIVING TO/FROM THE CONSTRUCTION SITE. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH A MINIMUM OF 3 RADIOS (1 FOR THE ENGINEER AND 2 FOR THE INSPECTORS) FOR THE LIFE OF THE CONTRACT. THESE RADIOS SHALL BE PORTABLE, HAND-HELD WITH RECHARGEABLE BATTERIES AND BE CAPABLE OF SWITCHING FREQUENCIES TO MONITOR BOTH AIRPORT OPERATIONS AND GROUND CONTROL FREQUENCIES. THE RADIOS SHALL BECOME PROPERTY OF THE AIRPORT AT THE COMPLETION OF THE CONTRACT. THE CONTRACTOR SHALL FURNISH ANY ADDITIONAL RADIOS REQUIRED FOR HIS OWN USE. THE COST OF THE RADIOS SHALL BE INCLUDED IN ITEM M-200, BASIC MAINTENANCE AND PROTECTION OF TRAFFIC.

10. CONSTRUCTION EQUIPMENT AND PERSONNEL SHALL YIELD TO TAXIING AIRCRAFT AT ALL TIMES.

11. CONSTRUCTION WORK WITHIN 200 FEET OF THE CENTERLINE OF RUNWAY 16-34 AND 200 FEET OF THE CENTERLINE OF RUNWAY 11-29 WILL REQUIRE THEIR RESPECTIVE CLOSURES. THIS CLOSURE MAY BE EITHER DAYTIME OR NIGHTTIME AND SHALL BE AT THE DISCRETION OF THE AIRPORT. NIGHTTIME CLOSURES OF THE RUNWAY WILL OCCUR FROM MIDNIGHT TO 6 AM.

12. ALL CONSTRUCTION ACTIVITIES MUST BE COMPLETED EACH WORK PERIOD ALLOWING ALL DESIGNATED AIRPORT FACILITIES TO BE OPEN FOR AIRPORT OPERATIONS AT THE SCHEDULED TIME OF COMPLETION. THE CONTRACTOR MUST COORDINATE ALL OF HIS ACTIVITIES AND ALSO ANY OF HIS SUBCONTRACTOR'S ACTIVITIES TO MEET THIS DEADLINE. IN ORDER TO COMPLY WITH THIS REQUIREMENT, AND UNLESS OTHERWISE DIRECTED BY THE ENGINEER, ALL PAVEMENT SURFACES MUST BE CAPABLE OF SUPPORTING AIRCRAFT LOADINGS, ALL SPECIFIED TEMPORARY OR FINAL MARKINGS MUST BE PLACED, ALL PAVEMENT SURFACES MUST BE COMPLETELY SWEPT AND FREE FROM DEBRIS, ALL SPECIFIED ELECTRICAL SYSTEMS MUST BE OPERATIONAL, AND ALL APPROPRIATE BARRICADES MUST BE REMOVED. THE TEMPORARY OR FINAL MARKINGS ARE TO BE PLACED AS SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER. ALL CONTRACTOR EQUIPMENT AND MATERIALS SHALL BE STORED WITHIN THE STAGING AREA.

13. ALL CONSTRUCTION BARRICADES SHALL BE PLACED AS SHOWN ON THE CONSTRUCTION PHASING PLAN OR AS OTHERWISE DIRECTED BY THE ENGINEER. THE COST OF MANIPULATING AND STORING THESE BARRICADES SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM M-200, BASIC MAINTENANCE AND PROTECTION OF TRAFFIC.

14. ACTIVITIES PERFORMED BY THE CONTRACTOR REQUIRING THE USE OF CONSTRUCTION EQUIPMENT WITH A HEIGHT GREATER THAN 10 FEET SHALL BE COORDINATED WITH THE ENGINEER. STOCKPILED MATERIAL SHALL BE LOCATED WITHIN THE DESIGNATED STAGING AREAS AND ITS HEIGHT SHALL NOT EXCEED 10 FEET.

15. NOTICE TO AIRMEN (NOTAM) ON ALL CONSTRUCTION ACTIVITY WILL BE DIRECTED THROUGH THE ENGINEER AND ISSUED BY THE AIRPORT ADMINISTRATION. ALL CLOSURES OF ANY PORTION OF A RUNWAY OR TAXIWAY WILL REQUIRE A MINIMUM OF 72 HOURS NOTICE PRIOR TO THE REQUESTED CLOSURE. REQUESTS FOR CLOSURE MUST BE MADE THROUGH THE ENGINEER AND WILL BE COORDINATED WITH THE AIRPORT ADMINISTRATION. THE AUTHORITY TO CLOSE ANY AIRPORT FACILITY RESTS ENTIRELY WITH THE AIRPORT ADMINISTRATION.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVELOPMENT AND MAINTENANCE OF THE HAUL ROUTE(S) TO THE STAGING, WORK, OR STOCKPILE AREAS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

17. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO GRADE AND PREPARE THE STAGING AREAS TO BE SUITABLE FOR STORING HIS EQUIPMENT AND MATERIALS. NO EQUIPMENT SHALL BE LEFT ON THE AIRPORT UNATTENDED UNLESS IT IS IN THE APPROPRIATE STAGING AREA, OR THE CONTRACTOR RECEIVES PRIOR APPROVAL FROM THE ENGINEER. COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE FOR MOBILIZATION, ITEM M-100.

18. ALL UTILITY CONNECTIONS TO THE STAGING AREA ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS WORK SHALL BE PAID FOR UNDER ITEM M-100, MOBILIZATION.

19. ALL CONSTRUCTION VEHICLES AUTHORIZED TO OPERATE ON THE AIRPORT DURING THE COURSE OF CONSTRUCTION SHALL BE CLEARLY IDENTIFIED BY EITHER ASSIGNED INITIALS OR NUMBERS PROMINENTLY DISPLAYED ON EACH SIDE OF THE VEHICLE. THE IDENTIFYING SYMBOLS SHALL BE 8-INCH MINIMUM BLOCK-TYPE CHARACTERS OF A COLOR EASILY READ. THESE MAY BE APPLIED WITH TAPE, WATER SOLUBLE PAINT OR MAY CONSIST OF A VINYL MAGNETIC-BACKED FLEXIBLE MATERIAL TO FACILITATE REMOVAL. ALL OTHER VEHICLES OPERATING ON THE AIRPORT MUST BE ESCORTED BY AN AUTHORIZED AND APPROPRIATELY MARKED VEHICLE. ALL CONSTRUCTION VEHICLES OPERATING ON AIRPORT PROPERTY MUST BE PROVIDED WITH AN FAA APPROVED FLAG ON A STAFF ATTACHED TO THE VEHICLE SO THAT THE FLAG WILL BE READILY VISIBLE. THE FLAG SHALL NOT BE LESS THAN THREE FEET SQUARE CONSISTING OF AVIATION ORANGE AND WHITE SQUARES OF NO LESS THAN ONE FOOT ON EACH SIDE. THIS WORK SHALL BE PAID FOR UNDER ITEM M-200, BASIC MAINTENANCE AND PROTECTION OF TRAFFIC.

20. ALL CONSTRUCTION VEHICLES SHALL UTILIZE A PROPYLENE GLYCOL BASED ANTIFREEZE IN THEIR RADIATOR COOLANT SYSTEM AND HAVE AN "OVERHEAT" COOLANT COLLECTION SYSTEM. ALL VEHICLES SHALL BE PROPERLY MAINTAINED FOR THE DURATION OF THIS CONTRACT TO ELIMINATE THE POTENTIAL SPILLAGE OF LUBRICANTS, OILS, AND TRANSMISSION OR TRANSAXLE FLUIDS ON THE AIRPORT FACILITY. SPILLAGE OF ANY PETROLEUM PRODUCTS OR CHEMICALS SHALL BE IMMEDIATELY CLEANED UP AND PROPERLY DISPOSED OF BY THE CONTRACTOR. ALL SPILLS SHALL BE REPORTED TO AIRPORT OPERATIONS FOR PROPER NOTIFICATION TO THE NYSDEC SPILL HOT LINE. CONTRACTOR IS RESPONSIBLE FOR CLEANUP COSTS AND ANY FINES OR PENALTIES ASSOCIATED WITH THE CONTRACTOR'S ENVIRONMENTAL NON-COMPLIANCE.

21. ALL CONSTRUCTION EQUIPMENT MUST MAINTAIN A DISTANCE GREATER THAN 25 FEET FROM THE WING TIPS OF ANY PARKED AIRCRAFT.

22. WITH A MINIMUM OF TWO (2) HOURS ADVANCE NOTICE, START OF A SCHEDULED WORK PERIOD MAY BE POSTPONED OR CANCELED BY THE AIRPORT ADMINISTRATION IF IT IS DETERMINED TO BE IN THE BEST INTERESTS OF AIRPORT OPERATIONS OR SAFETY. IF NECESSARY, EXTENSIONS IN CONTRACT TIME WILL BE GRANTED OR A STOP WORK ORDER WILL BE ISSUED DUE TO THESE DELAYS. HOWEVER, THERE WILL BE NO ADJUSTMENTS IN CONTRACT PRICE DUE TO THESE DELAYS.

23. UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER, CONSTRUCTION WORK IS TO BE ACCOMPLISHED IN THE STAGES AS SHOWN ON THE PLANS AND AS DESCRIBED IN THE SPECIFICATIONS.

24. ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF OFF-SITE AT A SUITABLE LOCATION WITHIN 15 DAYS. DURING THE PERIOD OF STORAGE, THE STOCKPILED MATERIAL SHALL HAVE SOIL AND EROSION PROTECTION IN PLACE AT ALL TIMES. ANY EXCAVATED MATERIAL THAT IS DETERMINED TO BE CONTAMINATED SHALL BE REMOVED FROM THE AIRPORT IMMEDIATELY AND SHALL NOT BE STORED OR STOCKPILED ON AIRPORT PREMISES.

25. AT THE COMPLETION OF WORK IN ANY CONSTRUCTION PERIOD, AND ONE (1) HOUR PRIOR TO THE SCHEDULED OPENING OF THE DESIGNATED AIRFIELD FACILITIES, AN INSPECTION TO DETERMINE WHETHER THE RESPECTIVE AIRPORT FACILITIES. ARE IN THE APPROPRIATE CONDITION TO BE OPENED WILL BE PERFORMED BY THE ENGINEER AND A REPRESENTATIVE OF THE AIRPORT. THE CONTRACTOR'S CONSTRUCTION SUPERVISOR MUST BE PRESENT DURING THIS INSPECTION.

26. ANY FINES ASSESSED TO WESTCHESTER COUNTY AIRPORT DUE TO VIOLATIONS BY THE CONTRACTOR OF FAA SECURITY REGULATIONS; NYSDEC, DEP, USEPA, POLLUTION REGULATION OR SAFETY REQUIREMENTS WILL BE PASSED ON TO THE CONTRACTOR.

27. CONTRACTOR SHALL DESIGNATE A PERSON AND TWO BACKUP PEOPLE WHO CAN BE CONTACTED 24 HOURS A DAY IN THE EVENT OF AN EMERGENCY. THESE PEOPLE SHALL BE AUTHORIZED TO MAKE FIELD DECISIONS ON THE COMPANY'S BEHALF AND RESPOND WITHIN TWO HOURS.

28. ALL CONTACT BETWEEN THE CONTRACTOR AND AIRPORT IS TO BE ROUTED THROUGH THE ENGINEER EXCEPT FOR OPERATIONAL CONTROL OF CONTRACTOR'S VEHICLES.

29. THE ENGINEER MAY CALL A JOB MEETING WITH THE CONTRACTOR UPON 24 HOURS (1 WORKING DAY) NOTICE. THE CONTRACTOR SHALL BE PREPARED TO DISCUSS THE SCHEDULE, QUALITY AND THE COST OF ALL WORK PERFORMED ON THE PROJECT. IN THE CASE OF SUBCONTRACTED WORK, THE SUBCONTRACTOR(S) SHALL ATTEND THE MEETINGS ALONG WITH THE CONTRACTOR. THE CONTRACTOR SHALL REMAIN KNOWLEDGEABLE AND RESPONSIBLE FOR ALL SUBCONTRACTED ACTIVITIES.

30. ALL INCIDENTAL AREAS DISTURBED BY THE CONTRACTOR ARE TO BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT.

31. THE LOCATION OF HAUL ROUTES SHOWN IS APPROXIMATE. THE EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR IN COORDINATION WITH THE ENGINEER.

32. THE CONTRACTOR MUST SUBMIT A PLAN FOR CONSTRUCTION SEQUENCING TO THE ENGINEER FOR REVIEW 15 DAYS PRIOR TO PERFORMING THE WORK. THE PLAN MUST INCLUDE ALL ACTIVITIES TO BE PERFORMED BY THE PRIME CONTRACTOR AND ALL SUBCONTRACTORS.

33. IN CLOSING AIRFIELD FACILITIES AS SPECIFIED ON THE PLANS, THE CONTRACTOR WILL BE REQUIRED TO COVER THE APPROPRIATE AIRFIELD SIGNS SO THAT THEY CANNOT BE VIEWED BY AIRCRAFT. THE ACTUAL SIGNS TO BE COVERED ARE TO BE DETERMINED BY THE ENGINEER. THE CONTRACTOR MUST SUBMIT HIS PLAN FOR COVERING THESE SIGNS TO THE ENGINEER FOR APPROVAL PRIOR TO CLOSING ANY AIRFIELD FACILITIES. COST OF THIS WORK TO BE INCLUDED IN BASIC MAINTENANCE AND PROTECTION OF TRAFFIC, ITEM M-200.

34. THE CONTRACTOR SHALL SUPPLY A MATERIALS LIST OF CHEMICALS TO BE USED OR STORED ON THE JOB SITE. THIS SHALL INCLUDE MSDS SHEETS AND DOCUMENTATION OF WORKER TRAINING. STORAGE OF FUEL OR CHEMICALS WITHOUT AN APPROVED CONTAINER WITH SECONDARY CONTAINMENT WILL NOT BE ALLOWED. ALL SPILLS ARE THE RESPONSIBILITY OF THE CONTRACTOR, AND MUST BE REPORTED IMMEDIATELY.

35. ACCESS FOR AIRCRAFT RESCUE AND FIREFIGHTING (ARFF) EQUIPMENT AND PERSONNEL SHALL BE MAINTAINED AT ALL TIMES. THE CRASH-FIRE-RESCUE OPERATIONS SHALL HAVE RIGHT-OF-WAY OVER ALL CONTRACTOR'S OPERATIONS AT ALL TIMES.

36. A FOUR-HOUR TRAINING SESSION BY THE AIRPORT MANAGER WILL FOLLOW THE PRE-CONSTRUCTION MEETING AND BE REQUIRED FOR ALL FLAGGERS, PROJECT SUPERINTENDENT, ESCORT VEHICLE OPERATORS, PROJECT MANAGER & RESPONSIBLE FOREMEN FOR CONTRACTORS AND SUBCONTRACTORS. ALL CONTRACTOR'S AND SUBCONTRACTOR'S PERSONNEL SHALL BE TRAINED REGARDING THE IMPORTANCE OF FOLLOWING THE SPECIAL PROCEDURES OUTLINED IN THE SPECIAL NOTES, INSPECTION OF THE WORK AREA FOR COMPLIANCE WITH THE SPECIAL PROCEDURES, AND THE SAFE DISPOSAL OF TRASH. FLAGGERS SHALL BE TRAINED IN THE PROPER USE OF GROUND CONTROL RADIOS AND TERMINOLOGY. THE TRAINING WILL ALSO COVER ESCORT VEHICLES WITH VEHICLE MOUNTED RADIOS.

37. DURING THE CONSTRUCTION PERIOD, THE OWNER MAY PERFORM WORK WITH ITS OWN FORCES OR THOSE OF ANOTHER CONTRACTOR. IN THE EVENT THAT CONFLICTS IN SCHEDULING OR ACCESS OCCUR BETWEEN CONTRACTORS OR BETWEEN THE OWNER AND CONTRACTOR, THE OWNER SHALL BE THE SOLE JUDGE IN RESOLVING THE CONFLICT AND THE OWNER'S DECISION SHALL BE FINAL.

38. THE CONTRACTOR SHALL WORK ONLY WITHIN THE DESIGNATED CONSTRUCTION WORK AREAS. THE NORMAL WORK HOURS AT THE JOB SITE SHALL BE DURING THE DAY TIME FROM 7AM – 4PM MONDAY THROUGH FRIDAY. ANY WORK DURING NON-REGULAR HOURS SHALL BE APPROVED AND COORDINATED WITH THE RPR AND AIRPORT.

39. DURING INCLEMENT WEATHER, RESTRICTIONS OR PROHIBITIONS OF WORK IN THE VICINITY OF THE LOCALIZER ANTENNA MAY BE ENFORCED BY THE AIRPORT. AS A RESULT, WORK IN THIS VICINITY SHOULD BE PLANNED ACCORDINGLY.

40. THE CONTRACTOR IS TO MEET WITH THE RESIDENT PROJECT REPRESENTATIVE AT THE START OF EACH DAY TO COORDINATE DAILY CONSTRUCTION ACTIVITIES.

41. ALL CONSTRUCTION EQUIPMENT SHALL BE KEPT WITHIN THE CONSTRUCTION AREA LIMITS WHEN IN USE.

42. THE CONTRACTOR IS TO INSTRUCT HIS PERSONNEL OF THE SAFETY ISSUES AND SEVERITY OF VIOLATIONS TO SAFETY ON THE OPERATIONAL AIRFIELD. REPEAT VIOLATIONS WILL BE GROUNDS FOR REFUSING ACCESS ON THE AIRFIELD TO SPECIFIC INDIVIDUALS.

43. ALL ACCESS TO THE MARSHALLING AREA AND/OR WORK AREAS ARE TO BE PROPERLY MAINTAINED BY THE CONTRACTOR. THESE ROADS ARE TO BE RETURNED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF THE PROJECT.

44. THESE NOTES ARE SUPPLEMENTARY TO FAA ADVISORY CIRCULAR 150/5370-2F, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION;" AND THE DIRECTION PROVIDED THEREIN MUST BE ADHERED TO BY THE CONTRACTOR AT ALL TIMES.

LEGEND

- RUNWAY SAFETY AREA
- TAXIWAY SAFETY AREA
- SHOULDER
- 210 — PROPOSED CONTOUR LINE
- + 210.5 — PROPOSED SPOT ELEVATION
- SF — SILT FENCE/SEDIMENT BARRIER (ITEM NO. P-156-5.1e)
- HAUL ROUTE
- CONSTRUCTION FENCE
- SS — SOIL STOCKPILE (ITEM NO. P-152-4.6)
- PROPOSED MANHOLE
- PROPOSED DRAIN INLET
- PROPOSED STORM DRAIN
- A-1 — BORING NUMBER & LOCATION
  T=372 — TOP ELEVATION
  B=362 — BOTTOM ELEVATION
- STABILIZED CONSTRUCTION ENTRANCE
- INLET PROTECTION

SURVEY LEGEND

- DRAINAGE INVERT
- LIGHT POLE
- DRAINAGE STORM MANHOLE
- RECTANGULAR CATCH BASIN
- DRAIN
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- WATER VALVE
- DECIDUOUS TREE
- CONIFEROUS TREE
- BASELINE POINT
- BENCHMARK
- WETLAND LINE
- ST — STORM LINE
- FENCE LINE
- WOODS LINE
- 1134 — MAJOR CONTOUR
- MINOR CONTOUR

CONSULTANT SEAL

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IN CHARGE OF RPP
CHECKED BY CSH
MADE BY CSH

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

☐ AS BUILT – CHANGES AS NOTED
☐ AS BUILT – NO CHANGES

CONTRACTOR
NAME _____
SIGNATURE _____
TITLE _____ DATE _____

PROJECT COORDINATOR
NAME _____
SIGNATURE _____
TITLE _____ DATE _____

WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO. 7
STORM DRAIN REPLACEMENT
GENERAL NOTES AND LEGEND

CONTRACT NUMBER	SHEET NUMBER
20-802	C-10

SHEET NO. 2 OF 11

SCALE: AS SHOWN
DATE: 08/14/20

DPW FILE NO. ##-##-X-###

REV. NO. #

DRAINAGE SYSTEM INSTALLATION

PART 1 – PRODUCTS

1. PIPE
   A. PIPE SHALL BE HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPING SYSTEM, DUCTILE IRON OUTSIDE DIAMETER PRESSURE PIPE, STANDARD DIMENSION RATIO (DR) 21 – 100 PSI, CONFORMING TO THE REQUIREMENTS OF ANSI/AWWA C906, ASTM F714, AND ASTM D3035, AS MANUFACTURER BY JM EAGLE OR APPROVED EQUAL.
   B. POURED IN PLACE CONCRETE ANTI–SEEP COLLARS SHALL INCORPORATE THE USE OF A WEDGE STYLE WATER STOP CONNECTOR AS MANUFACTURED BY A–LOK PRODUCTS, INC. CONFORMING TO ASTM D1478, "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE STORM SEWER STRUCTURES, PIPES AND LATERALS."

2. DRAINAGE STRUCTURES
   A. PRECAST REINFORCED CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS," ASTM C478 AND AASHTO M199, LATEST REVISIONS. MANHOLES SHALL BE TRAFFIC BEARING AND DESIGNED TO MEET THE REQUIREMENTS OF AASHTO H–20 LOADING.
   B. PRECAST CONCRETE DRAINAGE STRUCTURES (CATCH BASINS AND DRAIN INLETS) SHALL CONFORM TO THE REQUIREMENTS OF "PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES," ASTM C913, LATEST REVISION.
   C. JOINTS BETWEEN RISER SECTIONS SHALL BE SEALED USING A VERTITE®/ SINGLE OFFSET JOINT SEAL AS MANUFACTURED BY VERTEX ELASTOMERIC SEALS CONFORMING TO THE REQUIREMENTS OF ASTM C443, "STANDARD SPECIFICATION FOR JOINTS FOR CONCRETE PIPE AND MANHOLES, USING RUBBER GASKETS," OR APPROVED EQUAL.
   D. PIPE TO MANHOLE/DRAINAGE STRUCTURE CONNECTIONS SHALL BE SEALED USING RESILIENT CONNECTORS FOR CONNECTIONS BETWEEN THE PRECAST MANHOLE/DRAINAGE STRUCTURE AND PIPES CONFORMING TO ASTM C923/C1478, "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE MANHOLES/STORM SEWER STRUCTURES, PIPES AND LATERALS".
   E. POLYPROPYLENE STEPS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478 AND AASHTO M199. POLYPROPYLENE SHALL CONFORM TO ASTM D4101. THE 1/2" DIAMETER, GRADE 60 DEFORMED REINFORCING BAR SHALL CONFORM TO ASTM A615.
   F. THE EXTERIOR SURFACES OF ALL MANHOLES AND DRAINAGE STRUCTURES SHALL BE COATED WITH AN ASPHALTIC WATERPROOFING MATERIAL CONFORMING TO THE LATEST REQUIREMENTS OF ASTM DESIGNATION D449, "STANDARD SPECIFICATION FOR ASPHALT USED IN DAMPPROOFING AND WATERPROOFING, TYPE I OR TYPE II." PRIOR TO APPLYING THE ASPHALT WATERPROOFING MATERIAL, THE SURFACE SHALL BE COATED WITH A PRIMER CONFORMING TO THE LATEST REQUIREMENTS OF ASTM DESIGNATION D 41.2.6.1.
   G. THE INTERIOR SURFACES OF ALL MANHOLES AND DRAINAGE STRUCTURES SHALL BE SEALED WITH A CRYSTALLINE WATERPROOFING PRODUCT(S) OBTAINED FROM A SINGLE SOURCE. THE CRYSTALLINE WATERPROOFING PRODUCT(S) SHALL BE AS MANUFACTURED BY XYPEX CHEMICAL CORP. OR APPROVED EQUAL.
   H. BRICK ADJUSTMENT FOR MANHOLE AND DRAINAGE STRUCTURE CASTINGS SHALL CONFORM TO THE "SPECIFICATIONS FOR SEWER AND MANHOLE BRICK (MADE FROM CLAY OR SHALE)," AASHTO DESIGNATION M91, LATEST REVISION, GRADE MS.
   I. MANHOLE FRAMES AND COVERS SHALL BE GRAY CAST IRON CASTINGS, CONFORMING TO THE REQUIREMENTS OF AASHTO DESIGNATION M105, LATEST REVISION, CLASS 30. THE CASTINGS SHALL BE TRUE TO PATTERN IN FORM AND DIMENSIONS AS SPECIFIED, AND SHALL BE FREE FROM POURING FAULTS, SPONGINESS, CRACKS, BLOWHOLES AND OTHER DEFECTS THAT AFFECT THEIR STRENGTH AND OTHER CHARACTERISTICS FOR THE INTENDED USE. ALL SURFACES SHALL HAVE A WORKMANLIKE FINISH.
   J. DRAINAGE STRUCTURE FRAMES AND GRATES SHALL BE GRAY CAST IRON CASTINGS CONFORMING TO THE REQUIREMENTS OF AASHTO DESIGNATION M105 LATEST REVISION, CLASS 30. ALL REQUIREMENTS OF WORKMANSHIP AND MATERIAL AS SPECIFIED FOR MANHOLE CASTINGS SHALL APPLY HEREIN.
   K. PRECAST "KNOCKOUT" TYPE STRUCTURES SHALL NOT BE PERMITTED.

3. BEDDING AND INITIAL BACKFILL
   A. PIPE BEDDING AND INITIAL BACKFILL MATERIAL SHALL BE NYS DOT ITEM 304.14 SUBBASE COURSE TYPE 4, EXCEPT THAT THE MAXIMUM PARTICLE SIZE SHALL BE 1.25 IN.

4. SUBMITTALS
   A. THE CONTRACTOR SHALL SUBMIT DATA SHEETS FOR PIPE MATERIAL; MANHOLE/DRAINAGE STRUCTURE JOINT SEAL; MANHOLE/DRAINAGE STRUCTURE TO PIPE RESILIENT CONNECTORS, AND; MANHOLE/DRAINAGE STRUCTURE EXTERIOR ASPHALT WATERPROOFING MATERIAL AND INTERIOR CRYSTALLINE WATERPROOFING FOR REVIEW AND APPROVAL PRIOR TO MATERIALS BEING DELIVERED TO THE SITE.
   B. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR PRECAST MANHOLES, CATCH BASINS AND DRAIN INLETS; MANHOLE FRAMES AND COVERS; CATCH BASIN AND DRAIN INLET FRAMES AND GRATES AND LADDER RUNGS PRIOR TO MATERIALS BEING DELIVERED TO THE SITE.

PART 2 – INSTALLATION

1. PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY–FLOW APPLICATIONS," AND/OR ASTM D2774, "STANDARD RECOMMENDED PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING."
2. PIPE SHALL BE SUPPORTED ON A MINIMUM OF SIX (6) INCHES OF BEDDING MATERIAL. NO PIPE OR FITTING SHALL BE PERMANENTLY SUPPORTED ON SADDLES, BLOCKING, OR STONES. PIPE BEDDING AND BACKFILL MATERIAL SHALL BE INSTALLED IN LAYERS NOT EXCEEDING 6 INCHES IN DEPTH. BACKFILL MATERIAL SHALL BE PLACED WITHIN ONE (1) FOOT HORIZONTALLY AND ONE (1) FOOT ABOVE THE CROWN OF THE PIPE BY HAND. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM DENSITY OF NINETY–FIVE (95) PERCENT OF MAXIMUM DENSITY OF THE SOIL AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO DESIGNATION T99. COMPACTION OF PIPE BEDDING AND BACKFILL MATERIAL TO ONE (1) FOOT ABOVE THE CROWN OF THE PIPE SHALL BE PERFORMED USING HANDHELD MACHINERY.
3. PIPE SHALL BE JOINED BY THE BUTT FUSION PROCESS INTO CONTINUOUS LENGTHS AT THE JOB SITE. THE JOINTING METHOD SHALL BE BY THE HEAT FUSION METHOD AND SHALL BE PERFORMED IN STRICT CONFORMANCE TO THE PIPE MANUFACTURERS RECOMMENDATIONS.

PART 3 – TESTING

1. LOW_PRESSURE AIR EXFILTRATION TESTING
   A. THE AIR TEST SHALL CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM F1417, "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW–PRESSURE AIR." THE TEST LENGTH SHALL NOT EXCEED ONE (1) INTERVAL OF PIPE BETWEEN TWO (2) MANHOLES/DRAINAGE STRUCTURES.
   B. THE CONTRACTOR SHALL FURNISH ALL NECESSARY EQUIPMENT AND IS RESPONSIBLE FOR CONDUCTING THE TESTS. THE CONTRACTOR MAY PERFORM A PRESUMPTIVE TEST TO DETERMINE THE CONDITION OF THE INSTALLED LINE PRIOR TO BACKFILLING; HOWEVER, ONLY LINES TESTED AFTER BACKFILLING TO FINISHED SUBGRADE SHALL BE CONSIDERED FOR ACCEPTANCE. THE WESTCHESTER COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION (WCDPWT) OR ITS AGENT/REPRESENTATIVE SHALL WITNESS ALL TESTING AND VERIFY THE ACCURACY AND ACCEPTABILITY OF THE EQUIPMENT AND METHODS USED.
   C. AFTER THE PIPE HAS BEEN BACKFILLED AND CLEANED, PNEUMATIC PLUGS SHALL BE PLACED IN THE LINE AT EACH MANHOLE/DRAINAGE STRUCTURE AND INFLATED TO 25 PSI. LOW_PRESSURE AIR SHALL BE INTRODUCED INTO THIS SEALED LINE UNTIL THE INTERNAL AIR PRESSURE REACHES 4 PSIG GREATER THAN THE AVERAGE BACK PRESSURE OF ANY GROUND WATER THAT MAY BE OVER THE PIPE. AT LEAST TWO (2) MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE.
   D. AFTER THE STABILIZATION PERIOD (3.5 PSIG MINIMUM PRESSURE IN THE PIPE) IS COMPLETE, THE PORTION OF LINE BEING TESTED SHALL BE DEEMED ACCEPTABLE AND SHALL BE PRESUMED TO BE FREE OF DEFECTS IF THE TIME TEST SHOWN IN THE TABLE BELOW ELAPSES BEFORE THE AIR PRESSURE DECREASES 0.5 PSIG. IF THE PRESSURE DROP IS MORE THAN 0.5 PSIG BEFORE THE TIME SHOWN BELOW HAS ELAPSED, THE AIR LOSS RATE IS CONSIDERED EXCESSIVE AND THE SECTION OF PIPE HAS FAILED THE TEST.

ACCEPTANCE TESTING FOR SEWERS
LOW PRESSURE AIR TEST
MINIMUM TIME ALLOWED FOR 0.5 PSIG PRESSURE LOSS

PIPE DIA. (IN.)	SPECIFICATION TIME FOR LENGTHS BELOW (MIN:SEC)						TIME FOR LONGER LENGTH (SEC)
	100 FT.	150 FT.	200 FT.	250 FT.	300 FT.	350 FT.	
6	2:50	2:50	2:50	2:50	2:50	2:50	0.427 L
8	3:47	3:47	3:47	3:47	3:48	4:26	0.760 L
10	4:43	4:43	4:43	4:57	5:56	6:55	1.187 L
12	5:40	5:40	5:42	7:08	8:33	9:58	1.709 L
15	7:05	7:05	8:54	11:08	13:21	15:35	2.671 L
18	8:30	9:37	12:49	16:01	19:14	22:26	3.846 L
21	9:55	13:05	17:27	21:49	26:11	30:32	5.235 L
24	11:24	17:57	22:48	28:30	34:11	39:53	6.837 L
27	14:25	21:38	28:51	36:04	43:16	50:30	8.653 L
30	17:48	****	35:37	44:31	53:25	62:19	10.683 L

   E. THE CONTRACTOR SHALL PERFORM ANY NECESSARY REPAIR WORK ON PIPE SEGMENTS THAT DO NOT PASS ANY OR ALL THE TESTS, AT NO ADDITIONAL COST TO WCDPWT.

2. VACUUM TESTING OF MANHOLES
   A. THE TESTING PROCEDURE SHALL CONFORM TO ASTM C1244, "TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE (VACUUM) TEST PRIOR TO BACKFILL."
   B. ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED AND POINTED WITH AN APPROVED NON–SHRINKING MORTAR.
   C. MANHOLES ARE TO BE TESTED AFTER PLACEMENT OF BACKFILL TO SUBGRADE AND PRIOR TO THE PLACEMENT OF THE PAVEMENT SECTION.
   D. ALL PIPES AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED IN SUCH A MANNER AS TO PREVENT DISPLACEMENT OF THE PLUGS WHILE THE VACUUM IS DRAWN.
   E. INSTALLATION AND OPERATION OF VACUUM EQUIPMENT AND INDICATING DEVICES SHALL BE IN ACCORDANCE WITH EQUIPMENT SPECIFICATIONS AND INSTRUCTIONS PROVIDED BY THE MANUFACTURER.
   F. THE TEST HEAD SHALL BE PLACED IN THE PRECAST OPENING OF THE CONE/TOP SLAB SECTION OF THE MANHOLE. THE CASTING–CONE/TOP SLAB JOINT SHALL NOT BE TESTED.
   G. A VACUUM OF 10 INCHES OF MERCURY SHALL BE DRAWN. THE TIME FOR THE VACUUM TO DROP TO 9 INCHES OF MERCURY SHALL BE RECORDED.
   H. ACCEPTANCE FOR 4 FT. DIAMETER MANHOLES SHALL BE DEFINED AS WHEN THE TIME TO DROP TO 9 INCHES OF MERCURY MEETS OR EXCEEDS THE FOLLOWING:

MANHOLE DEPTH	DIAMETER	TIME TO DROP 1" HG
10 FT. OR LESS	4 FEET	60 SECONDS
10 FT. TO 15 FT.	4 FEET	75 SECONDS
15 FT. TO 25 FT.	4 FEET	90 SECONDS

   I. FOR MANHOLES 5 FT. IN DIAMETER ADD AN ADDITIONAL 15 SECONDS, AND FOR MANHOLES 6 FT. IN DIAMETER ADD AN ADDITIONAL 30 SECONDS TO THE TIME REQUIREMENTS FOR FOUR–FOOT DIAMETER MANHOLES.
   J. IF THE MANHOLE FAILS THE TEST, NECESSARY REPAIRS SHALL BE PERFORMED, AND THE VACUUM TEST REPEATED UNTIL THE MANHOLE PASSES THE TEST. AS AN ALTERNATE METHOD OF ACCEPTANCE, AND ONLY WITH THE APPROVAL OF THE ENGINEER, THE FAILED MANHOLE MAY BE TESTED IN ACCORDANCE WITH THE STANDARD INFILTRATION/EXFILTRATION TEST AND RATED ACCORDINGLY.
   K. IF THE MANHOLE GASKET IS DISPLACED DURING THE VACUUM TEST, THE MANHOLE SHALL BE DISASSEMBLED, AND THE SEAL REPLACED.

3. DRAINAGE STRUCTURE LEAKAGE TESTING
   A. TESTING OF DRAIN INLETS AND CATCH BASINS SHALL BE PERFORMED USING THE EXFILTRATION WATER METHOD. PIPES SHALL BE PLUGGED, AND THE STRUCTURE SHALL BE FILLED WITH WATER TO A DEPTH OF FIVE (5) FEET ABOVE THE LOWEST PIPE INVERT. THE STRUCTURE SHALL BE FILLED WITH WATER FOR A MINIMUM OF 24 HOURS PRIOR TO TAKING MEASUREMENTS.
   B. THE TOTAL LEAKAGE OF ANY SECTION TESTED SHALL NOT EXCEED THE RATE OF 100 GALLONS PER DAY PER MILE PER INCH OF EQUIVALENT NOMINAL ROUND PIPE DIAMETER. FOR PURPOSES OF DETERMINING THE MAXIMUM ALLOWABLE LEAKAGE, DRAIN INLETS AND CATCH BASINS SHALL BE CONSIDERED AS SECTIONS OF EQUIVALENT 42–INCH DIAMETER ROUND PIPE, FIVE (5) FEET LONG. THE EQUIVALENT LEAKAGE ALLOWANCE SHALL BE NO MORE THAN 4.00 GALLONS (5/8" DROP IN WATER LEVEL) PER STRUCTURE PER 24 HOURS.

EXISTING PIPE ABANDONMENT

1. TEN INCH (10") AND SMALLER PIPES TO BE ABANDONED IN PLACE SHALL BE PLUGGED AT BOTH ENDS WITH A NON–SHRINK MORTAR GROUT NOT LESS THAN 2'–0" THICK.
2. TWELVE (12) INCH AND LARGER PIPES TO BE ABANDONED IN PLACE SHALL BE PLUGGED AND FILLED WITH A CEMENT–BASED GROUT–SLURRY MIXTURE.
3. NON–SHRINK MORTAR GROUT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1107 AND SHALL A CEMENT–BASED, FLOWABLE, NON–SHRINK GROUT THAT DEVELOPS EXTREMELY HIGH COMPRESSIVE STRENGTH IN A SHORT PERIOD OF TIME. THE GROUT MATERIAL SHALL HAVE A MINIMUM STRENGTH OF 100 PSI AND SHALL HAVE FLOW CHARACTERISTICS APPROPRIATE FOR FILLING AN EXISTING PIPE. THE GROUT MIX DESIGN AND METHOD OF INSTALLATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE START OF OPERATIONS.
4. FILLING OF THE PIPE WITH THE CEMENT GROUT–SLURRY SHALL BE ACCOMPLISHED BY PUMPING OR GRAVITY AND QUANTITY OF FILL SHALL BE VERIFIED BY COMPARING THE VOLUME OF THE PIPE WITH THE VOLUME OF GROUT–SLURRY MATERIAL USED. IF THE VOLUME OF THE PIPE IS TEN (10) PERCENT GREATER THAN THE ACTUAL VOLUME OF GROUT–SLURRY USED, THE CONTRACTOR SHALL EXCAVATE TWO OR MORE INTERMEDIATE EXPLORATORY HOLES WHERE DIRECTED BY THE ENGINEER AND SHALL PERFORM ALL WORK NECESSARY TO SATISFACTORILY FILL ANY VOIDS ENCOUNTERED. THE ABANDONMENT METHOD SHALL PROVIDE FOR THE RELEASE OF TRAPPED AIR. WHEN INTERMEDIATE EXPLORATORY HOLES ARE REQUIRED FOR THE ABANDONMENT OF THE SYSTEM, THEY SHALL BE FILLED AS PART OF THE ABANDONMENT PROCESS.
5. THE ABANDONMENT METHOD SHALL ADEQUATELY PROVIDE FOR THE REMOVAL AND LEGAL DISPOSAL OF ALL EXISTING PIPE MATERIALS, OF WHATEVER NATURE, REMOVED FROM THE SYSTEM.
6. MEASUREMENT AND PAYMENT:
   A. GROUTING OF ABANDONED STORM DRAIN SHALL BE MEASURED BY THE VOLUME OF GROUT PLACED IN CUBIC FEET (CF OR FT^3).
   B. PAYMENT FOR ABANDONING SEWER LINES SHALL BE MADE ON THE CONTRACT UNIT PRICE PER CUBIC FOOT, COMPLETE IN PLACE. SAID PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

SPECIAL CONDITIONS

1. THE CONTRACTOR SHALL VERIFY THAT ALL MATERIALS USED IN THE CONSTRUCTION OF THE STORMWATER SYSTEM WILL NOT CONTAIN PFAS THAT CAN LEACH INTO THE STORM WATER RUNOFF ONCE CONSTRUCTED. THE VERFICATION SHALL BE THROUGH SUBMISSION OF MATERIAL SAFETY DATA SHEETS (MSDS) OR OTHER DOCUMENTATIONS DESCRIBING THE CHEMICAL COMPOSITIONS OF THE MATERIALS USED.

CONTRACT NO. 20–802 – WESTCHESTER COUNTY AIRPORT SPDES OUTFALL NO. 7 DRAINAGE – PAY ITEM LIST

ITEM NO.	ITEM DESCRIPTION	UNIT	EST. QUAN.
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	295
203.06	SELECT FILL	CY	2875
203.01920007	WETLAND RESTORATION	CY	25
205.0502	DISPOSAL OF CONTAMINATED NON–HAZARDOUS WASTE SOIL	TON	7300
206.0201	TRENCH AND CULVERT EXCAVATION	CY	4350
209.11010011	TEMPORARY CATCH BASIN INSERTS FOR DRAINAGE STRUCTURES, TRASH SEDIMENT AND DEBRIS REMOVAL	EA	24
209.13	SILT FENCE–TEMPORARY	LF	2445
209.31000010	PORTABLE SEDIMENT TANK	EA	1
304.14	SUBBASE COURSE, TYPE 4	CY	667
W304.14	SUBBASE COURSE, TYPE 4, MAXIMUM PARTICLE SIZE 1–1/4"	CY	1200
402.196903	19 F9 BINDER COURSE HMA, 60 SERIES COMPACTION	TON	901
402.126103	12.3 F1 TOP COURSE HMA, 60 SERIES COMPACTION	TON	450
407.0102	TACK COAT (DILUTED)	GAL	80
555.0105	CONCRETE FOR STRUCTURES, CLASS A	CY	20
555.1000006	ABANDON EXISTING CULVERT	CY	315
556.0203	GALVANIZED BAR REINFORCEMENT FOR STRUCTURES	LB	1200
W603.7712	CONCRETE COLLARS (ANTI–SEEP COLLAR)	EA	1
W603.7714	CONCRETE COLLARS (ANTI–SEEP COLLAR)	EA	2
W603.7724	CONCRETE COLLARS (ANTI–SEEP COLLAR)	EA	5
W603.7730	CONCRETE COLLARS (ANTI–SEEP COLLAR)	EA	1
W603.9806	HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPE, DUCTILE IRON PIPE SIZE, DR 21, 6–INCH	LF	68
W603.9810	HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPE, DUCTILE IRON PIPE SIZE, DR 21, 10–INCH	LF	20
W603.9812	HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPE, DUCTILE IRON PIPE SIZE, DR 21, 12–INCH	LF	1092
W603.9814	HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPE, DUCTILE IRON PIPE SIZE, DR 21, 14–INCH	LF	341
W603.9816	HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPE, DUCTILE IRON PIPE SIZE, DR 21, 16–INCH	LF	380
W603.9818	HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPE, DUCTILE IRON PIPE SIZE, DR 21, 18–INCH	LF	433
W603.9820	HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPE, DUCTILE IRON PIPE SIZE, DR 21, 20–INCH	LF	521
W603.9824	HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPE, DUCTILE IRON PIPE SIZE, DR 21, 24–INCH	LF	1140
W603.9830	HIGH–DENSITY POLYETHYLENE (HDPE) WATER/SEWER PIPE, DUCTILE IRON PIPE SIZE, DR 21, 30–INCH	LF	372
604.07260011	CONNECTION TO EXISTING DRAINAGE FACILITIES	EA	5
W604.303048	RECTANGULAR DRAINAGE STRUCTURES, 30" X 48"	LF	58
W604.304548	RECTANGULAR DRAINAGE STRUCTURES, 45" X 48"	LF	47
W604.4048	ROUND PRECAST MANHOLE – 48 INCH	LF	130
W604.4060	ROUND PRECAST MANHOLE – 60 INCH	LF	67
W604.4072	ROUND PRECAST MANHOLE – 72 INCH	LF	6
607.61000010	REMOVE AND RESET CHAIN–LINK FENCING	LF	20
610.1401	TOPSOIL – 4", REUSE ON–SITE MATERIALS	CY	197
610.1602	TURF ESTABLISHMENT – LAWNS	SY	1791
627.50140008	CUTTING PAVEMENT	LF	5860
W655.121000	MANHOLE FRAME & COVER: CAMPBELL NO 1000	EA	2
W655.121204	MANHOLE FRAME & COVER: CAMPBELL NO 1204	EA	35
W655.073408	FRAME AMD GRATE: CAMPBELL NO. 3408	EA	14
W655.073425	FRAME AMD GRATE: CAMPBELL NO. 3425	EA	10
663.0108	DUCTILE IRON CEMENT LINED WATER PIPE, 8 INCH	LF	40
663.0110	DUCTILE IRON CEMENT LINED WATER PIPE, 10 INCH	LF	40
663.0112	DUCTILE IRON CEMENT LINED WATER PIPE, 12 INCH	LF	40
663.1008	RESILIENT WEDGE VALVE INSERTION VALVE AND VALVE BOX, 8–INCH	EA	3
663.1010	RESILIENT WEDGE VALVE INSERTION VALVE AND VALVE BOX, 10–INCH	EA	3
663.1012	RESILIENT WEDGE VALVE INSERTION VALVE AND VALVE BOX, 12–INCH	EA	3
663.1708	LINE STOP FITTING, 8"	EA	3
663.1710	LINE STOP FITTING, 10"	EA	3
663.1712	LINE STOP FITTING, 12"	EA	3
663.2108	WEDGE TYPE MECHANICAL RESTRAINT GLANDS (8 INCH DIAMETER)	EA	8
663.2110	WEDGE TYPE MECHANICAL RESTRAINT GLANDS (10 INCH DIAMETER)	EA	8
663.2112	WEDGE TYPE MECHANICAL RESTRAINT GLANDS (12 INCH DIAMETER)	EA	8

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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

☐ AS BUILT – CHANGES AS NOTED
☐ AS BUILT – NO CHANGES

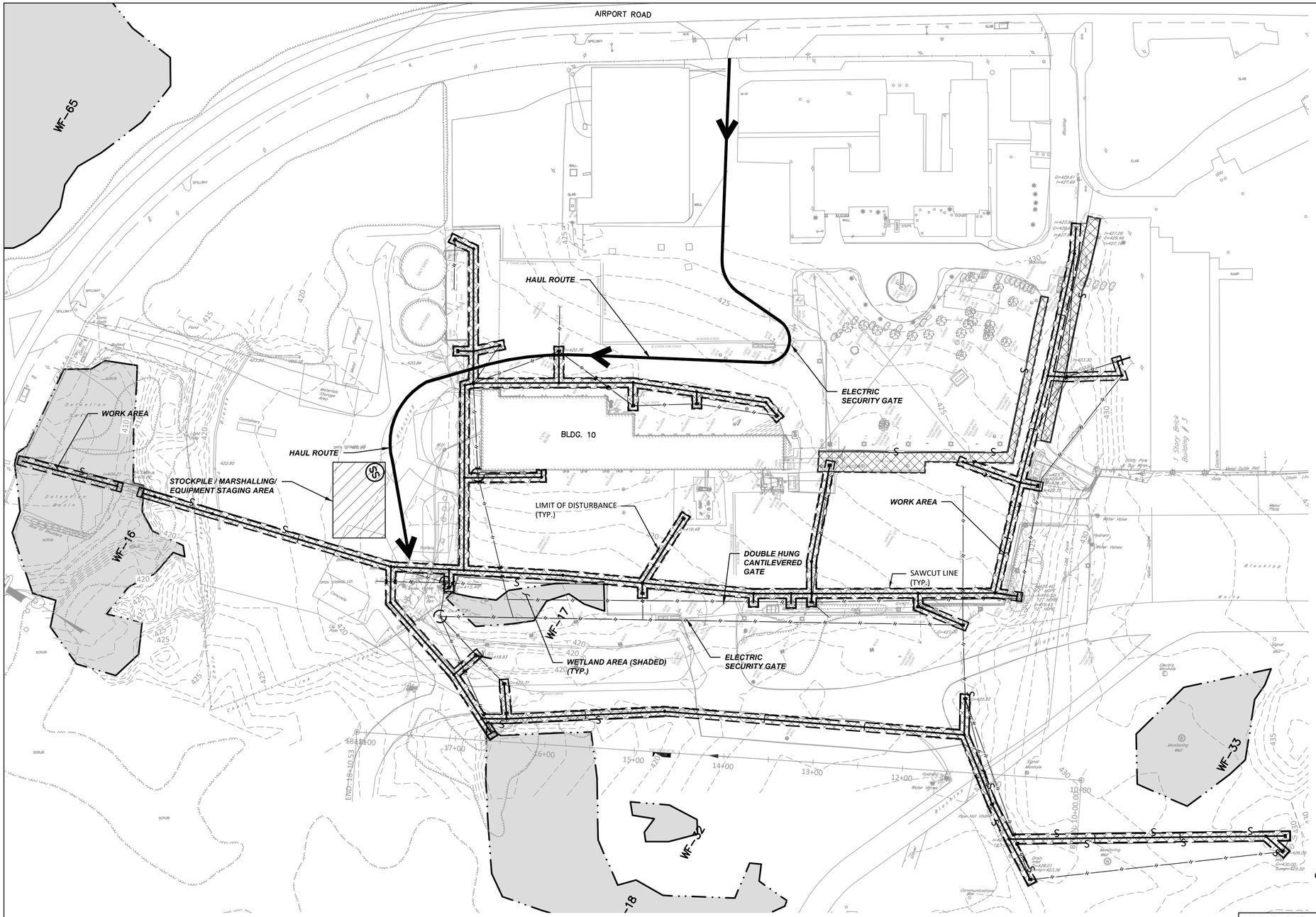
CONTRACTOR
NAME
SIGNATURE
TITLE DATE

PROJECT COORDINATOR
NAME
SIGNATURE
TITLE DATE

WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO. 7
STORM DRAIN REPLACEMENT
CONSTRUCTION SPECIFICATION NOTES

CONTRACT NUMBER 20–802
SHEET NUMBER C–11
SHEET NO. 3 OF 11
SCALE: AS SHOWN
DATE: 08/14/20
DPW FILE NO. ##–##–X–###
REV. NO. #



NOTES:

WORK INCLUDES:

- EXCAVATION AND ABANDONMENT/REMOVAL OF EXISTING STORM PIPES;
- EXCAVATION AND REMOVAL OF EXISTING STORM STRUCTURES;
- STOCKPILE, REMOVAL, AND PROPER DISPOSAL OF CONTAMINATED EXCAVATED MATERIAL;
- INSTALLATION OF NEW MANHOLES, DRAIN INLETS, AND STORM PIPES;
- RECONNECTION OF EXISTING STRUCTURES TO REMAIN;
- EXCAVATION AND REMOVAL OF EXISTING BRICK PAVERS, AND INSTALLATION OF FULL-DEPTH PARKING LOT PAVEMENT;
- PAVEMENT RESTORATION;
- TURF RESTORATION, AND;
- WETLAND RESTORATION.

1. EXCAVATIONS AND OPEN TRENCHES MAY BE PERMITTED UP TO THE EDGE OF A STRUCTURAL TAXIWAY AND APRON PAVEMENT PROVIDED THE DROP-OFF IS MARKED AND LIGHTED PER ADVISORY CIRCULAR (AC) 150/5370-2G, PARAGRAPH 3-9, "HAZARD MARKING AREAS".

2. PERSONNEL, MATERIAL, AND/OR EQUIPMENT SHALL NOT PENETRATE THE OBSTACLE FREE ZONE (OFZ), AS DEFINED IN AC 150/5300-13A, PARAGRAPH 306.

3. CONSTRUCTION ACTIVITY SHALL BE COORDINATED WITH THE AIRPORT TRAFFIC CONTROL TOWER (ATCT) AND FAA REGIONAL AIRPORTS DIVISION OFFICE OR AIRPORTS DISTRICT OFFICE, AND THROUGH THE AIRPORT OPERATOR, AN APPROPRIATE NOTAM SHALL BE ISSUED.

4. THE RUNWAY SAFETY AREA (RSA) FROM THE RUNWAY THRESHOLD TO A POINT AT LEAST 250 FEET FROM THE RUNWAY THRESHOLD SHOULD BE MAINTAINED--UNLESS THE RUNWAY IS CLOSED OR RESTRICTED TO AIRCRAFT OPERATIONS, THIS MAY INVOLVE THE USE OF DECLARED DISTANCES AND PARTIAL RUNWAY CLOSURES.

5. ALL PERSONNEL, MATERIALS, AND/OR EQUIPMENT SHALL REMAIN CLEAR OF THE APPLICABLE THRESHOLD SITING CRITERIA SURFACE, AS DEFINED IN APPENDIX 2, "THRESHOLD SITING REQUIREMENTS," OF AC 150/5300-13A.

6. THE CONTRACTOR MUST ENSURE ADEQUATE DISTANCE FOR BLAST PROTECTION IS PROVIDED, AS NEEDED.

7. THE CONTRACTOR MUST PROMINENTLY MARK OPEN TRENCHES AND EXCAVATIONS WITH RED OR ORANGE FLAGS, AS APPROVED BY THE AIRPORT OPERATOR, AND LIGHT THEM WITH RED LIGHTS DURING HOURS OF LOW VISIBILITY OR DARKNESS.

8. OPEN UTILITY TRENCHES OR EXCAVATIONS ARE NOT PERMITTED WITHIN 200 FEET OF THE RUNWAY CENTERLINE WHILE THE RUNWAY IS OPEN. IF THE RUNWAY MUST BE OPENED BEFORE TRENCHES ARE BACKFILLED, PROVIDE TEMPORARY CONNECTIONS, AND COVER THE EXCAVATIONS APPROPRIATELY. COVERINGS FOR OPEN TRENCHES MUST BE OF SUFFICIENT STRENGTH TO SUPPORT THE WEIGHT OF THE HEAVIEST AIRCRAFT OPERATING ON THE RUNWAY. NO SEPARATE PAYMENT WILL BE ALLOWED FOR WORK.

9. HAZARDOUS AREAS, ON THE MOVEMENT AREA, WILL BE MARKED WITH BARRICADES, FLAGS, AND FLASHERS. DURING PERIODS OF LOW VISIBILITY AND AT NIGHT, IDENTIFY HAZARDOUS AREAS WITH RED FLASHING LIGHTS. THE HAZARDOUS AREA MARKING AND LIGHTING WILL BE SUPPLIED BY THE CONTRACTOR, AS SPECIFIED IN THE CONTRACT, AND WILL BE AS DEPICTED ON THE PLANS. MAINTAIN ALL CIRCUITS AS NECESSARY. PROVIDE TEMPORARY CONNECTIONS BEHIND BARRICADES, PROTECT IN CONDUIT. NO SEPARATE PAYMENT WILL BE ALLOWED FOR ELECTRICAL WORK.

LEGEND

WORK AREA

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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

☐ AS BUILT – CHANGES AS NOTED
☐ AS BUILT – NO CHANGES

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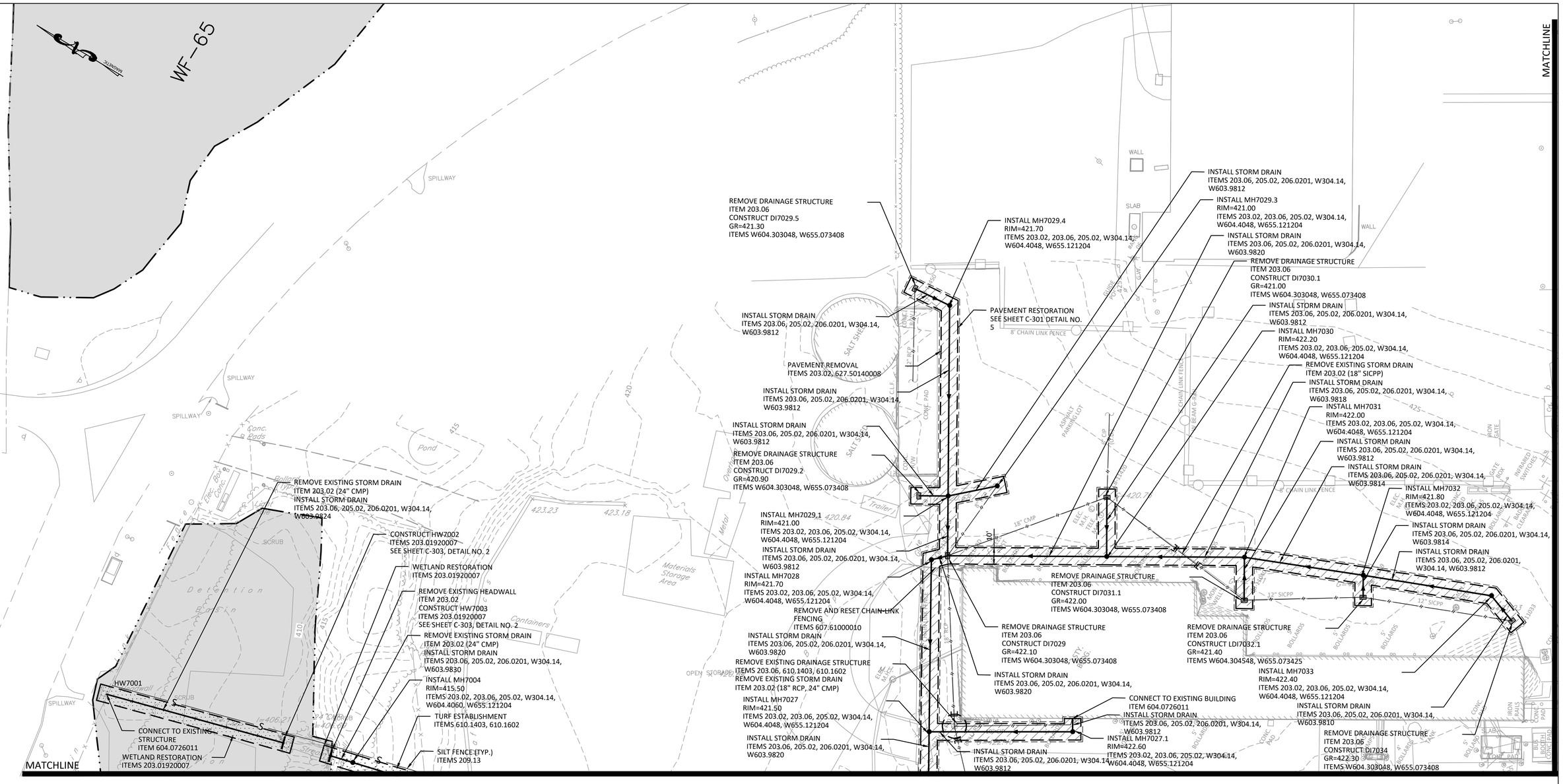
WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO.7
STORM DRAIN REPLACEMENT
CONSTRUCTION STAGING PLAN

CONTRACT NUMBER 20–802
SHEET NUMBER C–12
SHEET NO. 4 OF 12
SCALE: AS SHOWN
DATE: 08/14/20
DPW FILE NO. ##–##–X–###
REV. NO. #



LEGEND

- PAVEMENT SAWCUT LINE (ITEM 627.50140008)
- PAVEMENT REMOVAL (ITEMS 203.02, 627.50140008)
- TURF REMOVAL (ITEMS 203.02, 610.1403, 610.1602)
- EXISTING STORM DRAIN TO BE ABANDONED (ITEM 555.10000006)

30 20 10 0 30 60

SCALE IN FEET

CONSULTANT SEAL

STATE OF NEW YORK
RALPH P. PERAGINE
No. 064202
LICENSED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION

Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

IN CHARGE OF RPP
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WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO. 7
STORM DRAIN REPLACEMENT
CONSTRUCTION PLAN (SHEET 1 OF 4)

CONTRACT NUMBER	SHEET NUMBER
20-802	C-201

SHEET NO. 5 OF 12

SCALE: AS SHOWN
DATE: 08/14/20

DPW FILE NO. ##-##-X-### REV. NO. #

MATCHLINE

CONNECT TO EXISTING STRUCTURE
ITEM 604.0726011

REMOVE EXISTING STORM DRAIN
ITEM 203.02 (10" HDPE)
INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201,
W304.14, W603.9810

INSTALL MH7018
RIM=429.10
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4048, W655.121204

PAVEMENT REMOVAL
ITEMS 203.02, 627.50140008

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201,
W304.14, W603.9812

ANTI-SEEP COLLAR
ITEM W603.7712

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201,
W304.14, W603.9814

PAVEMENT RESTORATION
SEE SHEET C-301 DETAIL NO. 5

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT DI7017.1
GR=426.10
ITEMS W604.303048, W655.073408

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201,
W304.14, W603.9812

INSTALL MH7017
RIM=426.50
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4048, W655.121204

INSTALL CO7017.3
RIM=432.00
ITEMS 203.02, 203.06, 205.02, W304.14,
655.121000

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201,
W304.14, W603.9814

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201,
W304.14, W603.9812

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT LDI7013.3
GR=423.10
ITEMS W604.304548, W655.073425

SILT FENCE (TYP.)
ITEMS 209.13

INSTALL MH7017.2
RIM=432.70
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4048, W655.121204

REMOVE BRICK PAVERS
ITEM 203.02
CONSTRUCT NEW PARKING AREA PAVEMENT SEE
SHEET C-301, DETAIL NO. 6

TURF ESTABLISHMENT (TYP.)
ITEMS 610.1403, 610.1602

WATER MAIN CROSSING
SEE SHEET C-303, DETAIL NO. 3

ANTI-SEEP COLLAR
ITEM W603.7714

INSTALL CO7016.2
RIM=425.00
ITEMS 203.02, 203.06, 205.02, W304.14,
655.121000

INSTALL MH7016
RIM=424.60
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201,
W304.14, W603.9812

INSTALL STORM DRAIN
ITEMS 203.06, 205.02,
206.0201, W304.14,
W603.9812

INSTALL STORM DRAIN
ITEMS 203.06, 205.02,
206.0201, W304.14,
W603.9806

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT DI7016.1
GR=425.30
ITEMS W604.303048, W655.073408

PARKING AREA MATCHLINE

LEGEND

- PAVEMENT SAWCUT LINE (ITEM 627.50140008)
- PAVEMENT REMOVAL (ITEMS 203.02, 627.50140008)
- TURF REMOVAL (ITEMS 203.02, 610.1403, 610.1602)
- EXISTING STORM DRAIN TO BE ABANDONED (ITEM 555.10000006)

30 20 10 0 30 60
SCALE IN FEET

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LICENSED PROFESSIONAL ENGINEER

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WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO. 7
STORM DRAIN REPLACEMENT
CONSTRUCTION PLAN (SHEET 2 OF 4)

CONTRACT NUMBER	SHEET NUMBER
20–802	C–202
SHEET NO. 6 OF 12	
SCALE: AS SHOWN	
DATE: 08/14/20	
DPW FILE NO. ##-##-X-###	REV. NO. #

MATCHLINE

REMOVE EXISTING STORM DRAIN
ITEM 203.02 (24" CMP)
INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9824

INSTALL MANHOLE 7005
RIM=422.00
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4060, W655.121204

REMOVE EXISTING STORM DRAIN
ITEM 203.02 (24" CMP)
INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9830

TURF ESTABLISHMENT (TYP.)
ITEMS 610.1403, 610.1602

ANTI-SEEP COLLAR (TYP.)
ITEM W603.7730

INSTALL MH7006
RIM=419.00
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4060, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9830

REMOVE EXISTING STORM DRAIN
ITEM 203.02 (24" CMP)

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9824

INSTALL MH7019
RIM=419.50
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4060, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9824

REMOVE EXISTING DRAIN INLET
ITEMS 203.06, 610.1403, 610.1602
REMOVE EXISTING STORM DRAIN
ITEM 203.02 (24" CMP)

REMOVE AND RESET
CHAIN-LINK FENCING
ITEMS 607.61000010

INSTALL LDI7007.1
GR=415.7
ITEMS W604.304548, W655.073425

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9830

INSTALL MH7007
RIM=417.20
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4060, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9818

PAVEMENT
REMOVAL (TYP.)
ITEMS 203.02,
627.50140008

INSTALL MH7020
RIM=422.10
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4060, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9824

INSTALL MH7021
RIM=421.20
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4060, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9820

REMOVE EXISTING END SECTION
ITEM 203.02
CONSTRUCT HW7021.1
ITEMS 203.01920007
SEE SHEET C-303, DETAIL NO. 2

WETLAND RESTORATION
ITEMS 203.01920007

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9824

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9812

INSTALL MH7008
RIM=417.30
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4060, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9824

PAVEMENT RESTORATION
SEE SHEET C-301 DETAIL NO.
5

REMOVE EXISTING
DRAINAGE STRUCTURE
ITEMS 203.06, 610.1403,
610.1602

REMOVE EXISTING
STORM DRAIN
ITEM 203.02
(24" CMP)

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201,
W304.14, W603.9812

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9820

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT DI7020.1
GR=418.93
ITEMS W604.303048, W655.073408

CONNECT TO EXISTING UNDERDRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9806

REMOVE EXISTING STORM DRAIN
ITEM 203.02 (18" SICPP)

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT DI7022.2
GR=422.50
ITEMS W604.303048, W655.073408

REMOVE EXISTING STORM DRAIN
ITEM 203.02 (18" SICPP)

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9812

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT DI7022.1
GR=421.9
ITEMS W604.303048, W655.073408

REMOVE EXISTING STORM DRAIN
ITEM 203.02 (18" SICPP)
INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9812

INSTALL MH7022
RIM=421.40
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4060, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9812

INSTALL MH7009
RIM=418.30
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02,
206.0201, W304.14,
W603.9824

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT DI7010.2
GR=419.70
ITEMS W604.303048, W655.073408

INSTALL MH7012
RIM=420.00
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4048, W655.121204

INSTALL MH7010
RIM=418.70
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9820

CONSTRUCT LDI7010.1
GR=418.90
W604.304548,
W655.073425

INSTALL MH7011
RIM=419.90
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9816
CONNECT TO EXISTING STRUCTURE
ITEM 604.0726011

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9820

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9816
CONNECT TO EXISTING STRUCTURE
ITEM 604.0726011

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9820

ANTI-SEEP COLLAR (TYP.)
ITEM W603.7724

SILT FENCE (TYP.)
ITEMS 209.13

INSTALL MH7023
RIM=421.00
ITEMS 203.02, 203.06, 205.02, W304.14,
W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9824

ANTI-SEEP COLLAR (TYP.)
ITEM W603.7724

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14,
W603.9824

MATCHLINE

LEGEND

- PAVEMENT SAWCUT LINE (ITEM 627.50140008)
- PAVEMENT REMOVAL (ITEMS 203.02, 627.50140008)
- TURF REMOVAL (ITEMS 203.02, 610.1403, 610.1602)
- EXISTING STORM DRAIN TO BE ABANDONED (ITEM 555.10000006)

30 20 10 0 30 60
SCALE IN FEET

CONSULTANT SEAL
STATE OF NEW YORK
RALPH P. PERAGINE
No. 064262
LICENSED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION
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WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO. 7
STORM DRAIN REPLACEMENT
CONSTRUCTION PLAN (SHEET 3 OF 4)

CONTRACT NUMBER	SHEET NUMBER
20-802	C-203

SHEET NO. 7 OF 12

SCALE: AS SHOWN
DATE: 08/14/20

DPW FILE NO. ##-##-X-###
REV. NO. #

MATCHLINE

MATCHLINE

INSTALL MH7013.2
RIM=421.20
ITEMS 203.02, 203.06, 205.02, W304.14, W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9812

INSTALL MH7013
RIM=420.10
ITEMS 203.02, 203.06, 205.02, W304.14, W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9818

PAVEMENT RESTORATION
SEE SHEET C-301 DETAIL NO. 5

PAVEMENT REMOVAL
ITEMS 203.02, 627.50140008

WATER MAIN CROSSING
SEE SHEET C-303, DETAIL NO. 3

REMOVE AND RESET CHAIN-LINK FENCING
ITEMS 607.61000010

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9816

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT LDI7013.1
GR=419.30
ITEMS W604.304548, W655.073425

INSTALL MH7014
RIM=421.10
ITEMS 203.02, 203.06, 205.02, W304.14, W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9814

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT DI7014.1
GR=422.00
ITEMS W604.303048, W655.073408

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9824

ANTI-SEEP COLLAR
ITEM W603.7724

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9814

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT LDI7024.1
GR=422.20
ITEMS W604.304548, W655.073425

INSTALL MH7024
RIM=424.20
ITEMS 203.02, 203.06, 205.02, W304.14, W604.4060, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9824

WATER MAIN CROSSING
SEE SHEET C-303, DETAIL NO. 3

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT LDI7024.2
GR=424.00
ITEMS W604.304548, W655.073425

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9818

INSTALL MH7025
RIM=426.10
ITEMS 203.02, 203.06, 205.02, W304.14, W604.4048, W655.121204

REMOVE EXISTING STORM DRAIN
ITEM 203.02 (14" CMP)

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9818

ANTI-SEEP COLLAR
ITEM W603.7714

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9816

INSTALL MH7015
RIM=422.70
ITEMS 203.02, 203.06, 205.02, W304.14, W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9812

REMOVE EXISTING HEADWALL
ITEM 203.02
CONSTRUCT HW7015.1
ITEMS 203.01920007
SEE SHEET C-303, DETAIL NO. 2

REMOVE AND RESET CHAIN-LINK FENCING
ITEMS 607.61000010

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT LDI7014.2
GR=421.70
ITEMS W604.304548, W655.073425

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9814

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9818

INSTALL MH7026
RIM=429.80
ITEMS 203.02, 203.06, 205.02, W304.14, W604.4048, W655.121204

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9816

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT LDI7026.1
GR=428.50
ITEMS W604.304548, W655.073425

ANTI-SEEP COLLAR
ITEM W603.7724

SILT FENCE (TYP.)
ITEMS 209.13

TURF ESTABLISHMENT (TYP.)
ITEMS 610.1403, 610.1602

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9812

INSTALL STORM DRAIN
ITEMS 203.06, 205.02, 206.0201, W304.14, W603.9816

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT LDI7026.2
GR=430.00
ITEMS W604.304548, W655.073425

REMOVE DRAINAGE STRUCTURE
ITEM 203.06
CONSTRUCT DI7025.1
GR=428.00

WF-33

LEGEND

- PAVEMENT SAWCUT LINE (ITEM 627.50140008)
- PAVEMENT REMOVAL (ITEMS 203.02, 627.50140008)
- TURF REMOVAL (ITEMS 203.02, 610.1403, 610.1602)
- EXISTING STORM DRAIN TO BE ABANDONED (ITEM 555.10000006)

30 20 10 0 30 60
SCALE IN FEET

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DIVISION OF ENGINEERING

WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO. 7
STORM DRAIN REPLACEMENT
CONSTRUCTION PLAN (SHEET 4 OF 4)

CONTRACT NUMBER 20–802
SHEET NUMBER C–204
SHEET NO. 8 OF 12
SCALE: AS SHOWN
DATE: 08/14/20
DPW FILE NO. ##-##-X-###
REV. NO. #

TABLE OF PROPOSED DRAINAGE

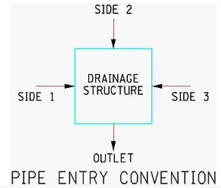
DS #	STATION/ OFFSET	DESCRIPTION OF WORK	PROP T.G. ELEV.	SIDE/ SIZE/ IN ELEV.	SIDE/ SIZE/ IN ELEV.	SIDE/SIZE/ IN ELEV.	SIDE/SIZE /OUT ELEV.
7034		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 20 FT 10" FUSION WELDED PE @ 0.72% AND CONNECT TO MH 7033.	422.3				OUTLET 10" 418.40
7033		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 78 FT 12" FUSION WELDED PE @ 0.59% AND CONNECT TO MH 7032.	422.4		2 10" 418.26		OUTLET 12" 418.26
7032.1		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 13 FT 14" FUSION WELDED PE @ 0.61% AND CONNECT TO MH 7032.	421.4				OUTLET 14" 417.88
7032		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 78 FT 14" FUSION WELDED PE @ 0.61% AND CONNECT TO MH 7031.	421.8		2 12" 417.80	3 14" 417.80	OUTLET 14" 417.80
7031.1		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 26 FT 12" FUSION WELDED PE @ 1.01% AND CONNECT TO MH 7031.	422.0				OUTLET 12" 417.62
7031		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 83 FT 18" FUSION WELDED PE @ 0.50% AND CONNECT TO MH 7030.	422.0		2 14" 417.36	3 12" 417.36	OUTLET 18" 417.36
7030.1		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 36 FT 12" FUSION WELDED PE @ 0.39% AND CONNECT TO MH 7030.	421.0				OUTLET 12" 419.01
7030		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 95 FT 20" FUSION WELDED PE @ 0.50% AND CONNECT TO MH 7029.	422.2	1 12" 417.09	2 18" 416.95		OUTLET 20" 416.95
7029.5		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 23 FT 12" FUSION WELDED PE @ 0.90% AND CONNECT TO MH 7029.4.	421.3				OUTLET 12" 418.29
7029.4		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 114 FT 12" FUSION WELDED PE @ 0.90% AND CONNECT TO MH 7029.1.	421.7		2 12" 418.08		OUTLET 12" 418.08
7029.3		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 30 FT 12" FUSION WELDED PE @ 0.40% AND CONNECT TO MH 7029.1.	421.0				OUTLET 12" 417.17
7029.2		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 17 FT 12" FUSION WELDED PE @ 0.52% AND CONNECT TO MH 7029.1.	420.9				OUTLET 12" 417.14
7029.1		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 36 FT 12" FUSION WELDED PE @ 0.89% AND CONNECT TO MH 7029.	421.0	1 12" 417.05	2 12" 417.05	3 12" 417.05	OUTLET 12" 417.05
7029		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 10 FT 20" FUSION WELDED PE @ 0.50% AND CONNECT TO MH 7029.	422.1	1 12" 416.73	2 20" 416.47		OUTLET 20" 416.47
7028		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 103 FT 20" FUSION WELDED PE @ 0.49% AND CONNECT TO MH 7027.	421.7		2 20" 416.42		OUTLET 20" 416.42
7027.2		INSTALL BUILDING CONNECTION. INSTALL 8 FT 12" FUSION WELDED PE @ 0.50% AND CONNECT TO MH 7027.1.	422.8				OUTLET 12" 416.38
7027.1		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 86 FT 12" FUSION WELDED PE @ 0.50% AND CONNECT TO MH 7027.	422.6	1 12" 416.34			OUTLET 12" 416.34
7027		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 103 FT 20" FUSION WELDED PE @ 3.12% AND CONNECT TO MH 7008.	421.5		2 20" 415.91	3 12" 415.91	OUTLET 20" 415.91
7026.2		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 26 FT 16" FUSION WELDED PE @ 2.29% AND CONNECT TO MH 7026.	430.0				OUTLET 16" 425.70
7026.1		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 22 FT 16" FUSION WELDED PE @ 0.50% AND CONNECT TO MH 7026.	428.5				OUTLET 16" 423.79
7026		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 286 FT 18" FUSION WELDED PE @ 0.91% AND CONNECT TO MH 7025.	429.8		2 16" 423.86	3 16" 425.11	OUTLET 18" 423.86
7025.1		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 51 FT 12" FUSION WELDED PE @ 3.99% AND CONNECT TO MH 7025.	428.0				OUTLET 12" 423.80
7025		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 44 FT 18" FUSION WELDED PE @ 4.80% AND CONNECT TO DI 7024.2.	426.1	1 18" 421.27	2 12" 421.78		OUTLET 18" 421.27
7024.2		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 84 FT 24" FUSION WELDED PE @ 2.00% AND CONNECT TO MH 7024.	424.0		2 18" 419.18		OUTLET 24" 419.18
7024.1		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 40 FT 12" FUSION WELDED PE @ 0.79% AND CONNECT TO MH 7024.	428.0				OUTLET 12" 418.28
7024		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 336 FT 24" FUSION WELDED PE @ 0.45% AND CONNECT TO MH 7023.	424.2	1 12" 417.96		3 24" 417.46	OUTLET 24" 417.46
7023		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 177 FT 24" FUSION WELDED PE @ 0.40% AND CONNECT TO MH 7022.	421.0		2 24" 415.95		OUTLET 24" 415.95
7022.2		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 33 FT 12" FUSION WELDED PE @ 1.21% AND CONNECT TO MH 7022.1.	422.5				OUTLET 12" 417.70
7022.1		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 6 FT 12" FUSION WELDED PE @ 1.63% AND CONNECT TO MH 7022.	421.9	1 12" 417.30			OUTLET 12" 417.30
7022		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 28 FT 24" FUSION WELDED PE @ 0.51% AND CONNECT TO MH 7021.	421.4	1 12" 417.20	2 24" 415.25		OUTLET 24" 415.25

TABLE OF PROPOSED DRAINAGE

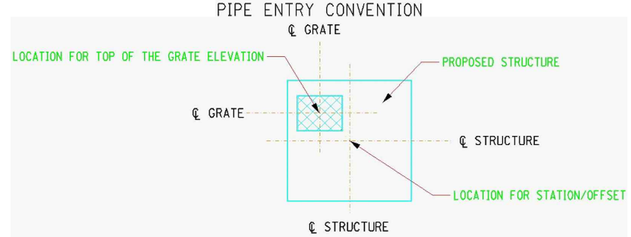
DS #	STATION/ OFFSET	DESCRIPTION OF WORK	PROP T.G. ELEV.	SIDE/ SIZE/ IN ELEV.	SIDE/ SIZE/ IN ELEV.	SIDE/SIZE/ IN ELEV.	SIDE/SIZE /OUT ELEV.
7021.1		INSTALL ENDWALL. INSTALL 20 FT 20" FUSION WELDED PE @ 0.31% AND CONNECT TO MH 7021.	418.0				OUTLET 20" 414.96
7021		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 58 FT 24" FUSION WELDED PE @ 0.60% AND CONNECT TO MH 7020.	421.2	1 24" 415.11	2 20" 414.90		OUTLET 24" 414.90
7020.1		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 33 FT 14" FUSION WELDED PE @ 0.24% AND CONNECT TO MH 7020.	418.9				OUTLET 14" 415.00
7020		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 107 FT 24" FUSION WELDED PE @ 0.60% AND CONNECT TO MH 7019.	422.1	1 14" 414.92	2 24" 414.55		OUTLET 24" 414.55
7019		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 40 FT 24" FUSION WELDED PE @ 0.60% AND CONNECT TO MH 7006.	419.5		2 24" 413.91		OUTLET 24" 413.91
7018		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 139 FT 12" FUSION WELDED PE @ 1.90% AND CONNECT TO MH 7017.	429.1		2 10" 425.21		OUTLET 12" 425.05
7017.3		INSTALL 6" CLEAN OUT WITH COVER. INSTALL 17 FT 12" FUSION WELDED PE @ 0.41% AND CONNECT TO MH 7017.2.	429.5				OUTLET 12" 428.49
7017.2		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 62 FT 12" FUSION WELDED PE @ 9.58% AND CONNECT TO MH 7017.1.	428.7	1 12" 428.42			OUTLET 12" 428.42
7017.1		INSTALL TYPE 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 21 FT 14" FUSION WELDED PE @ 1.20% AND CONNECT TO MH 7017.	426.1		2 12" 422.48		OUTLET 12" 422.48
7017		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 123 FT 14" FUSION WELDED PE @ 2.00% AND CONNECT TO MH 7016.	426.5		2 12" 422.40	3 12" 422.23	OUTLET 14" 420.57
7016.2		INSTALL 6" CLEAN OUT WITH COVER. INSTALL 68 FT 6" FUSION WELDED PE @ 0.48% AND CONNECT TO CO 7016.	424.9				OUTLET 6" 420.59
7016.1		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 20 FT 12" FUSION WELDED PE @ 0.40% AND CONNECT TO MH 7016.	425.3				OUTLET 12" 420.34
7016		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 127 FT 16" FUSION WELDED PE @ 1.60% AND CONNECT TO MH 7015.	424.6	1 6" 420.26	2 14" 420.26	3 12" 420.26	OUTLET 16" 420.26
7015.1		INSTALL ENDWALL. INSTALL 26 FT 12" FUSION WELDED PE @ 1.01% AND CONNECT TO MH 7015.	422.0				OUTLET 12" 419.72
7015		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 86 FT 18" FUSION WELDED PE @ 0.50% AND CONNECT TO MH 7014.	422.7	1 16" 418.23	2 12" 419.46		OUTLET 16" 418.23
7014.2		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 54 FT 14" FUSION WELDED PE @ 1.21% AND CONNECT TO MH 7014.1.	421.7				OUTLET 14" 417.69
7014.1		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 15 FT 14" FUSION WELDED PE @ 1.20% AND CONNECT TO MH 7014.	422.0	1 14" 417.04			OUTLET 14" 417.04
7014		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 119 FT 16" FUSION WELDED PE @ 1.56% AND CONNECT TO MH 7013.	421.1		2 16" 416.86	3 14" 416.86	OUTLET 16" 416.86
7013.3		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 110 FT 12" FUSION WELDED PE @ 0.39% AND CONNECT TO MH 7013.2.	423.1				OUTLET 12" 417.70
7013.2		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 36 FT 12" FUSION WELDED PE @ 0.36% AND CONNECT TO MH 7013.	421.2		1 12" 417.27		OUTLET 12" 416.23
7013.1		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 10 FT 14" FUSION WELDED PE @ 2.10% AND CONNECT TO MH 7013.	419.1				OUTLET 14" 415.71
7013		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 23 FT 20" FUSION WELDED PE @ 0.52% AND CONNECT TO MH 7012.	420.1	1 12" 416.10	2 16" 415.01	3 14" 415.51	OUTLET 20" 415.01
7012		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 42 FT 20" FUSION WELDED PE @ 0.48% AND CONNECT TO MH 7011.	420.0		2 20" 414.89	3 16" 415.39	OUTLET 20" 414.89
7011		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 125 FT 20" FUSION WELDED PE @ 0.80% AND CONNECT TO MH 7010.	419.9		2 20" 414.69	3 16" 414.97	OUTLET 20" 414.69
7010.2		INSTALL 4' x 2.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 86 FT 12" FUSION WELDED PE @ 1.00% AND CONNECT TO MH 7010.	419.7				OUTLET 12" 415.50
7010.1		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 12 FT 12" FUSION WELDED PE @ 1.21% AND CONNECT TO MH 7010.	418.9				OUTLET 12" 414.78
7010		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 89 FT 24" FUSION WELDED PE @ 0.50% AND CONNECT TO MH 7009.	418.7	1 12" 414.64	2 20" 413.69	3 12" 414.64	OUTLET 24" 413.69
7009		INSTALL MH 48" DRAINAGE STRUCTURE WITH COVER. INSTALL 111 FT 24" FUSION WELDED PE @ 0.80% AND CONNECT TO MH 7008.	418.3		2 24" 413.24		OUTLET 24" 413.24
7008		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 17 FT 30" FUSION WELDED PE @ 1.44% AND CONNECT TO MH 7032.	417.3	1 20" 412.69	2 24" 412.36		OUTLET 30" 412.11
7007.1		INSTALL 4' x 3.5' RECTANGULAR DRAINAGE STRUCTURE WITH FRAME AND GRATE. INSTALL 20 FT 18" FUSION WELDED PE @ 0.30% AND CONNECT TO MH 7007.	415.7				OUTLET 18" 411.93

TABLE OF PROPOSED DRAINAGE

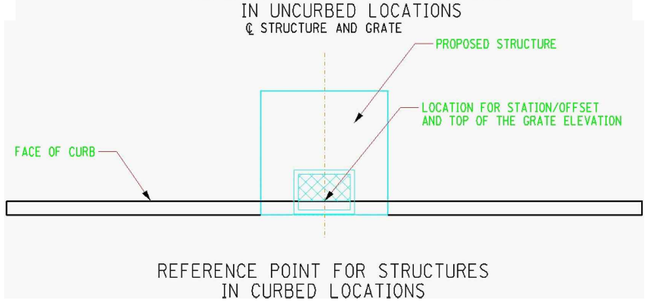
DS #	STATION/ OFFSET	DESCRIPTION OF WORK	PROP T.G. ELEV.	SIDE/ SIZE/ IN ELEV.	SIDE/ SIZE/ IN ELEV.	SIDE/SIZE/ IN ELEV.	SIDE/SIZE /OUT ELEV.
7007		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 65 FT 30" FUSION WELDED PE @ 1.41% AND CONNECT TO MH 7006.	417.2		2 30" 411.87	3 18" 411.87	OUTLET 30" 411.87
7006		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 208 FT 30" FUSION WELDED PE @ 1.40% AND CONNECT TO MH 7005.	419.0		2 30" 410.96	3 24" 413.67	OUTLET 30" 410.96
7005		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 67 FT 30" FUSION WELDED PE @ 1.40% AND CONNECT TO MH 7004.	422.0		2 30" 408.04		OUTLET 30" 408.04
7004		INSTALL MH 60" DRAINAGE STRUCTURE WITH COVER. INSTALL 15 FT 30" FUSION WELDED PE @ 1.41% AND CONNECT TO HEADWALL 7003.	415.5		2 30" 407.10		OUTLET 30" 407.10
7003		INSTALL ENDWALL.	413.0		2 30" 406.89		
7002		INSTALL ENDWALL. INSTALL 110 FT 24" FUSION WELDED PE @ 0.87% AND CONNECT TO HEADWALL 7001.	409.0				OUTLET 24" 406.96
7001		CONNECT TO EXISTING HEADWALL	410.1		2 24" 406.00		



PIPE ENTRY CONVENTION



REFERENCE POINT FOR STRUCTURES IN UNCURBED LOCATIONS



REFERENCE POINT FOR STRUCTURES IN CURBED LOCATIONS

IN CHARGE OF RPP
CHECKED BY CSH
MADE BY JLM

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

☐ AS BUILT – CHANGES AS NOTED
☐ AS BUILT – NO CHANGES

CONTRACTOR
NAME
SIGNATURE
TITLE DATE

PROJECT COORDINATOR
NAME
SIGNATURE
TITLE DATE

CONSULTANT SEAL
STATE OF NEW YORK · RALPH P. PERAGINE · No. 064262 · LICENSED PROFESSIONAL ENGINEER

CONSULTANT INFORMATION
Provident design engineering
7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
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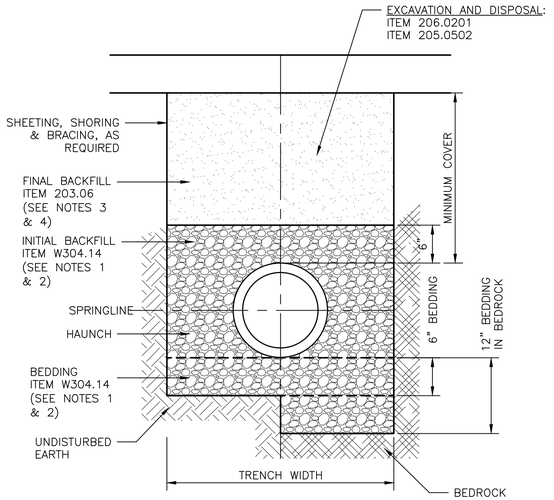
WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO. 7
STORM DRAIN REPLACEMENT
DRAINAGE TABLE

CONTRACT NUMBER 20-802
SHEET NUMBER C-205
SHEET NO. 9 OF 12
SCALE: AS SHOWN
DATE: 08/14/20
DPW FILE NO. ##-##-X-###
REV. NO. #



SECTION

TRENCH	
PIPE DIA.	WIDTH
4" TO 8"	3'–0"
12"	3'–0"
14"	3'–3"
16"	3'–6"
18"	3'–9"
20"	3'–9"
24"	4'–0"
30"	4'–6"
36"	5'–0"

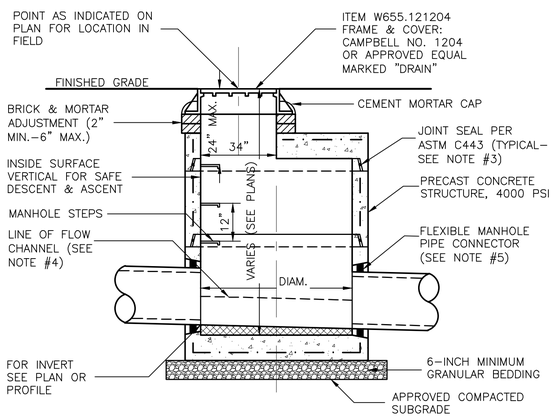
NOTES:

1. BEDDING AND INITIAL BACKFILL MATERIAL SHALL BE NYSDOT ITEM 304.14 TYPE 4 SUBBASE, EXCEPT THAT THE MAXIMUM PARTICLE SIZE SHALL NOT EXCEED 1¼ (1.25) INCHES. COPIES OF MATERIAL GRADATION REPORTS SHALL BE PROVIDED TO THE COUNTY, PROJECT ENGINEER, AND PROJECT ENVIRONMENTAL CONSULTANT FOR APPROVAL PRIOR TO USE.
2. PIPE BEDDING AND BACKFILL MATERIAL SHALL BE PLACED BY HAND/MANUAL METHODS IN LAYERS/LIFTS NOT EXCEEDING 6 INCHES IN DEPTH. COMPACTION OF MATERIAL SHALL BE DONE TO A MINIMUM OF 95% OF MAXIMUM DENSITY PER AASHTO T99 USING HANDHELD MACHINERY.
3. FINAL BACKFILL MATERIAL SHALL BE NYSDOT ITEM NO. 203.06, SELECT FILL, CONFORMING TO THE GRADATION REQUIREMENTS IN SECTION 733.10 OF THE NYSDOT STANDARD SPECIFICATIONS, AND BE IMPORTED FROM AN OFFSITE SOURCE. THE MATERIAL SHALL BE TESTED AND CERTIFIED BY AN APPROVED LABORATORY TO BE FREE OF ANY CONTAMINANTS. COPIES OF MATERIAL GRADATION AND TEST CERTIFICATION REPORTS SHALL BE PROVIDED TO THE COUNTY, PROJECT ENGINEER, AND PROJECT ENVIRONMENTAL CONSULTANT FOR APPROVAL PRIOR TO USE.
4. FINAL BACKFILL MATERIAL SHALL BE PLACED IN LAYERS/LIFTS NOT EXCEEDING 12 INCHES IN DEPTH. COMPACTION OF MATERIAL SHALL BE DONE TO A MINIMUM OF 95% OF MAXIMUM DENSITY PER AASHTO T99.

PIPE TRENCH DETAIL
NOT TO SCALE

1

PIPE SIZE	DIAMETER
UP TO 24"	48"
30" – 36"	60"



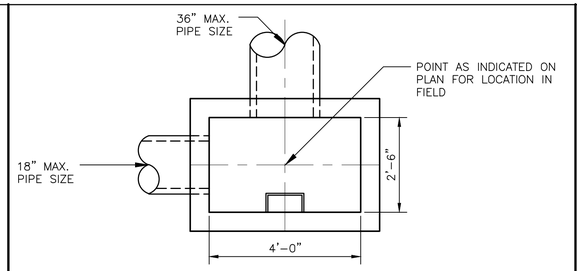
SECTION
W604.4048 (48" DIAMETER)
W604.4060 (60" DIAMETER)
W604.4072 (72" DIAMETER)

NOTES:

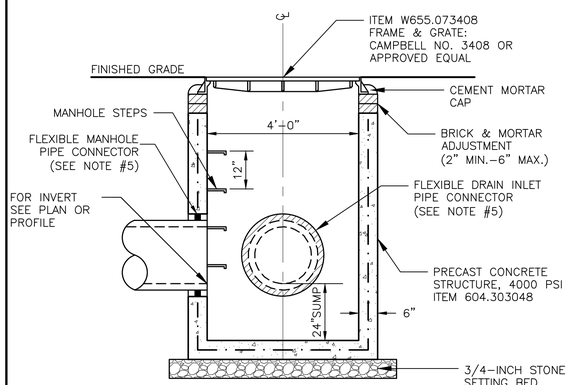
1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF EACH MANHOLE FOR THE ENGINEERS APPROVAL PRIOR TO FABRICATION.
2. PRECAST MANHOLE SHALL BE CERTIFIED AS CONFORMING TO ASTM C478 AMD AASHTO M199, LATEST REVISIONS. MANHOLE SHALL BE TRAFFIC BEARING AND BE DESIGNED FOR HS–20 LOADING.
3. JOINTS BETWEEN RISER SECTIONS SHALL BE SEALED USING A "VERTITE" SINGLE OFFSET JOINT SEAL AS MANUFACTURED BY VERTEX ELASTOMERIC SEALS, OR APPROVED EQUAL.
4. PROVIDE CONCRETE OR BRICK PAVED FLOW CHANNEL CONNECTING INFLOW AND OUTFLOW PIPES.
5. PIPE CONNECTIONS TO MANHOLE SHALL CONFORM TO ASTM C923, "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE MANHOLES, PIPES, AND LATERALS".
6. THE ENTIRE EXTERIOR SURFACE OF ALL MANHOLES SHALL BE COATED WITH AN ASPHALTIC WATERPROOFING MATERIAL CONFORMING TO THE LATEST REQUIREMENTS OF ASTM D449, "STANDARD SPECIFICATION FOR ASPHALT USED IN DAMPPROOFING AND WATERPROOFING, TYPE I OR TYPE II." PRIOR TO APPLICATION, THE EXTERIOR SURFACE SHALL BE COATED WITH A PRIMER CONFORMING TO THE LATEST REQUIREMENTS OF ASTM D41.2.6.1.
7. THE INTERIOR SURFACES OF ALL MANHOLES SHALL BE SEALED WITH A CRYSTALLINE WATERPROOFING PRODUCT OBTAINED FROM AS SINGLE SOURCE, AS MANUFACTURED BY XYPEX CHEMICAL CORP. OR APPROVED EQUAL.
8. "KNOCKOUT" TYPE MANHOLE STRUCTURES SHALL NOT BE PERMITTED.

PRECAST DRAIN MANHOLE (MH)
NOT TO SCALE

2



PLAN BELOW GRATE



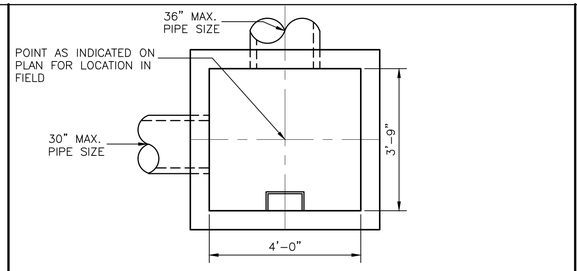
SECTION

NOTES:

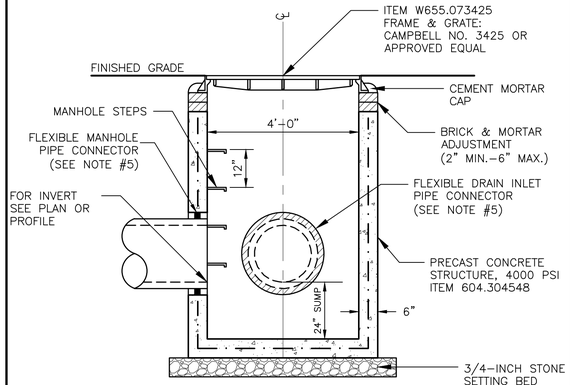
1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF EACH DRAIN INLET FOR THE ENGINEERS APPROVAL PRIOR TO FABRICATION.
2. PRECAST DRAIN INLET SHALL BE CERTIFIED AS CONFORMING TO ASTM C913 AMD AASHTO M199, LATEST REVISIONS. DRAIN INLET SHALL BE TRAFFIC BEARING AND BE DESIGNED FOR HS–20 LOADING.
3. WHERE REQUIRED, JOINTS BETWEEN RISER SECTIONS SHALL BE SEALED USING A "VERTITE" SINGLE OFFSET JOINT SEAL AS MANUFACTURED BY VERTEX ELASTOMERIC SEALS, OR APPROVED EQUAL.
4. PROVIDE CONCRETE OR BRICK PAVED FLOW CHANNEL CONNECTING INFLOW AND OUTFLOW PIPES.
5. PIPE CONNECTIONS TO DRAIN INLET SHALL CONFORM TO ASTM C923, "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE DRAIN INLET, PIPES, AND LATERALS".
6. THE ENTIRE EXTERIOR SURFACE OF ALL DRAIN INLET SHALL BE COATED WITH AN ASPHALTIC WATERPROOFING MATERIAL CONFORMING TO THE LATEST REQUIREMENTS OF ASTM D449, "STANDARD SPECIFICATION FOR ASPHALT USED IN DAMPPROOFING AND WATERPROOFING, TYPE I OR TYPE II." PRIOR TO APPLICATION, THE EXTERIOR SURFACE SHALL BE COATED WITH A PRIMER CONFORMING TO THE LATEST REQUIREMENTS OF ASTM D41.2.6.1.
7. THE INTERIOR SURFACES OF ALL DRAIN INLET SHALL BE SEALED WITH A CRYSTALLINE WATERPROOFING PRODUCT OBTAINED FROM AS SINGLE SOURCE, AS MANUFACTURED BY XYPEX CHEMICAL CORP. OR APPROVED EQUAL.
8. "KNOCKOUT" TYPE DRAIN INLET STRUCTURES SHALL NOT BE PERMITTED.

DRAIN INLET (DI) – ITEM W604.303048
NOT TO SCALE

3



PLAN BELOW GRATE



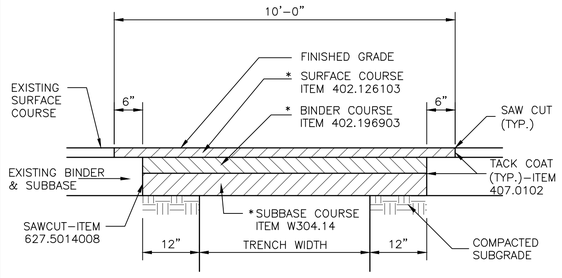
SECTION

NOTES:

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF EACH DRAIN INLET FOR THE ENGINEERS APPROVAL PRIOR TO FABRICATION.
2. PRECAST DRAIN INLET SHALL BE CERTIFIED AS CONFORMING TO ASTM C913 AMD AASHTO M199, LATEST REVISIONS. DRAIN INLET SHALL BE TRAFFIC BEARING AND BE DESIGNED FOR HS–20 LOADING.
3. WHERE REQUIRED, JOINTS BETWEEN RISER SECTIONS SHALL BE SEALED USING A "VERTITE" SINGLE OFFSET JOINT SEAL AS MANUFACTURED BY VERTEX ELASTOMERIC SEALS, OR APPROVED EQUAL.
4. PROVIDE CONCRETE OR BRICK PAVED FLOW CHANNEL CONNECTING INFLOW AND OUTFLOW PIPES.
5. PIPE CONNECTIONS TO DRAIN INLET SHALL CONFORM TO ASTM C923, "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE DRAIN INLET, PIPES, AND LATERALS".
6. THE ENTIRE EXTERIOR SURFACE OF ALL DRAIN INLET SHALL BE COATED WITH AN ASPHALTIC WATERPROOFING MATERIAL CONFORMING TO THE LATEST REQUIREMENTS OF ASTM D449, "STANDARD SPECIFICATION FOR ASPHALT USED IN DAMPPROOFING AND WATERPROOFING, TYPE I OR TYPE II." PRIOR TO APPLICATION, THE EXTERIOR SURFACE SHALL BE COATED WITH A PRIMER CONFORMING TO THE LATEST REQUIREMENTS OF ASTM D41.2.6.1.
7. THE INTERIOR SURFACES OF ALL DRAIN INLET SHALL BE SEALED WITH A CRYSTALLINE WATERPROOFING PRODUCT OBTAINED FROM AS SINGLE SOURCE, AS MANUFACTURED BY XYPEX CHEMICAL CORP. OR APPROVED EQUAL.
8. "KNOCKOUT" TYPE DRAIN INLET STRUCTURES SHALL NOT BE PERMITTED.

LARGE DRAIN INLET (LDI) – ITEM W604.304548
NOT TO SCALE

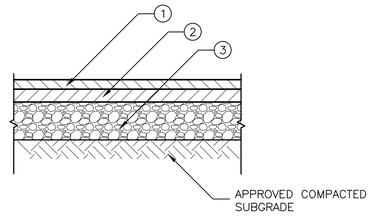
4



* SURFACE AND BASE COURSES SHALL BE REPLACED IN KIND AND TO THE EXISTING THICKNESS.

BITUMINOUS PAVEMENT REPLACEMENT
NOT TO SCALE

5



PAVEMENT SECTION LEGEND:

1. 2" BITUMINOUS TOP COURSE, ITEM 402.126103
2. 4" BITUMINOUS BINDER COURSE, ITEM 402.196903
3. 6" TYPE 4 SUBBASE COURSE, ITEM 304.14

NEW PARKING AREA PAVEMENT
NOT TO SCALE

6

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WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

WESTCHESTER COUNTY AIRPORT
SPDES OUTFALL NO. 7
STORM DRAIN REPLACEMENT
DETAILS (SHEET 1 OF 3)

CONTRACT NUMBER 20–802
SHEET NUMBER C–301
SHEET NO. 10 OF 12
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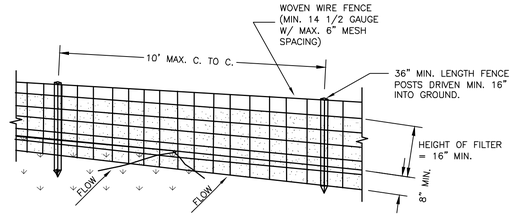
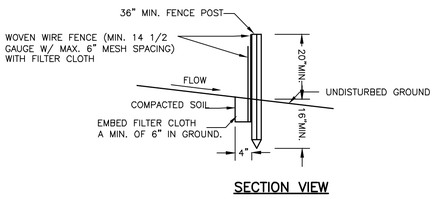
DPW FILE NO. ##–##–X–###
REV. NO. #



PERSPECTIVE VIEW

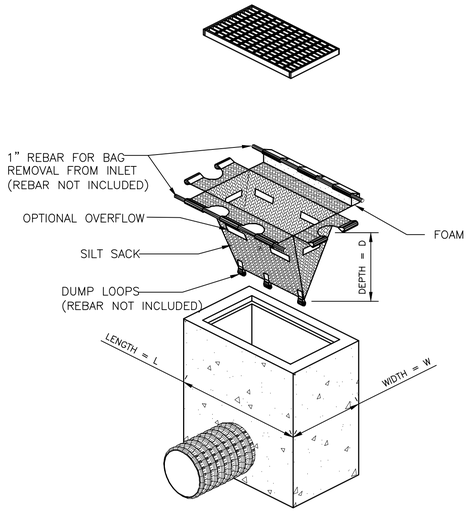


SECTION VIEW

CONSTRUCTION SPECIFICATIONS

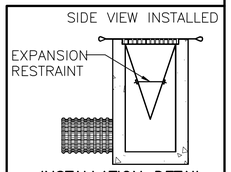
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED, WITH MATERIAL REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE-THIRD OF THE FENCE HEIGHT AND/OR WHEN "BULGES" AND/OR TEARS DEVELOP IN THE SILT FENCE FABRIC.

SILT FENCE – ITEM 209.13
NOT TO SCALE | 1



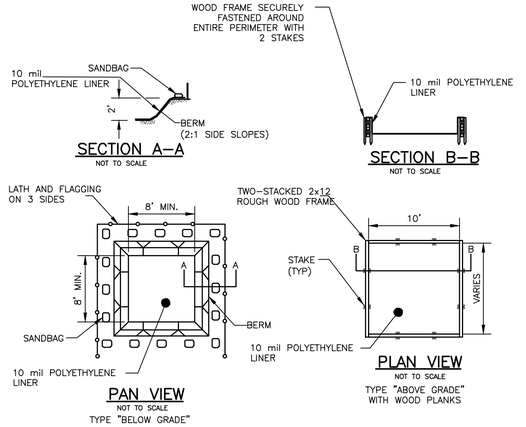
NOTE:

THE SILT SACK SHALL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC. SEE SPECIFICATIONS.



INSTALLATION DETAIL

CATCH BASIN SILT SACK – ITEM 209.11010011
NOT TO SCALE | 2

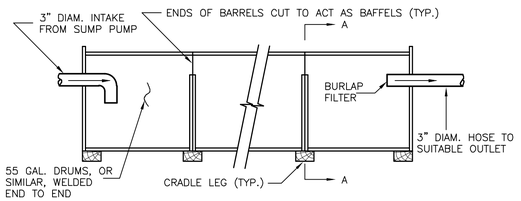


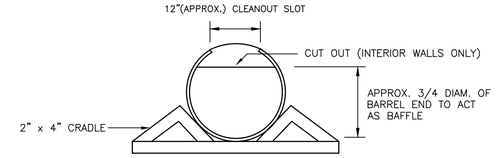
INSTALLATION NOTES

1. LOCATE THE WASHOUT STRUCTURE A MINIMUM OF 50 FEET FROM DRAINAGE SWALES, STORM DRAIN INLETS, OR WATER RESOURCES.
2. PREVENT SURFACE RUNOFF FROM ENTERING THE STRUCTURE.
3. PROVIDE APPROPRIATE ACCESS WITH A GRAVEL ACCESS ROAD SLOPED DOWNWARD TO THE STRUCTURE AT THE PARKED LOCATION FOR WASHOUT.
4. THE LINER (OR REPLACEMENT AFTER CLEANOUT) SHALL BE FREE OF HOLES, TEARS, OR ANY DEFECT THAT COULD ALLOW ESCAPE OF THE CONTAINED MATERIAL PRIOR TO SOLIDIFYING.
5. IF PRE-FABRICATED WASHOUTS ARE USED THEY MUST ENSURE THE CAPTURE AND CONTAINMENT OF THE CONCRETE WASH AND BE SIZED BASED ON THE EXPECTED FREQUENCY OF CONCRETE POURS. THEY SHALL BE SITED AS NOTED ABOVE.
6. EXCAVATION REQUIRED TO CREATE WASHOUT AREAS SHALL BE PAID UNDER ITEM 203.02.

NYS CONCRETE TRUCK WASHOUT
NOT TO SCALE | 3

SYMBOL



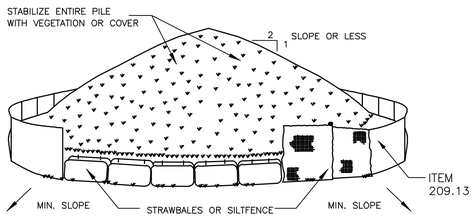


SECTION A–A

CONSTRUCTION SPECIFICATIONS

1. CLEAN OUT THE SEDIMENT TANK WHEN ONE THIRD (1/3) FILLED WITH SILT.
2. STEEL DRUMS ARE USED AS AN EXAMPLE DUE TO THEIR READY AVAILABILITY. ANY TANKS MAY BE USED, PROVIDING THAT THE VOLUME REQUIREMENTS ARE MET.
3. ALL SEDIMENT COLLECTED IN THE TANK SHALL BE DISPOSED OF AND PAID UNDER ITEM 205.0502, OR AS APPROVED BY THE INSPECTOR.

PORTABLE SEDIMENT TANK – ITEM 209.31000010
NOT TO SCALE | 4



INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING AND/OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE DETAIL AND SPECIFICATIONS (THIS SHEET) FOR INSTALLATION OF SILT FENCE.

SOIL STOCKPILING
NOT TO SCALE | 5

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SHEET NUMBER C–302
SHEET NO. 11 OF 12
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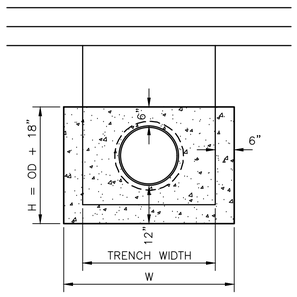
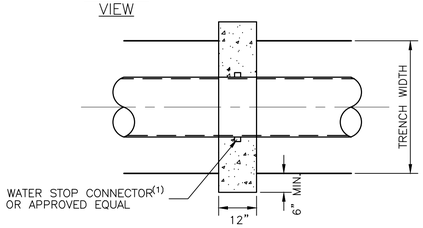


SECTION VIEW



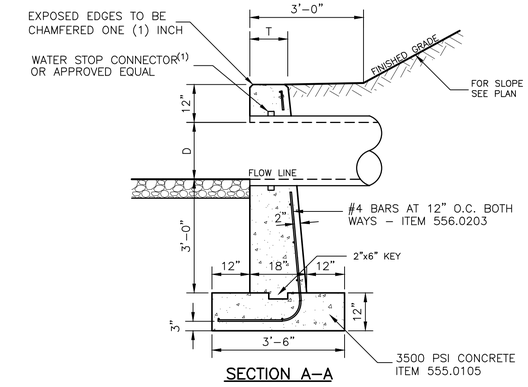
PLAN VIEW

PIPE DIA.	TRENCH WIDTH	H	W	VOL, CY
4" TO 8"	3'–0"	2'–3"	4'–0"	0.32
12"	3'–0"	2'–7"	4'–0"	0.35
14"	3'–3"	2'–9"	4'–3"	0.39
16"	3'–6"	3'–0"	4'–6"	0.45
18"	3'–9"	3'–3"	4'–9"	0.51
20"	3'–9"	3'–6"	4'–9"	0.53
24"	4'–0"	3'–9"	5'–0"	0.58
30"	4'–6"	4'–3"	5'–6"	0.68
36"	5'–0"	4'–9"	6'–0"	0.79

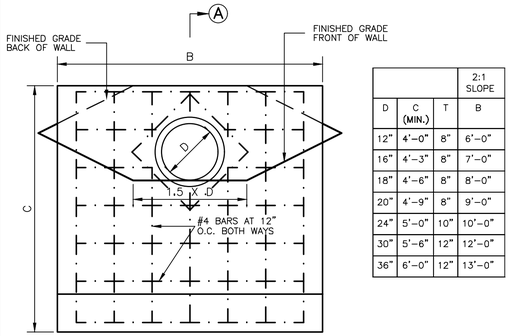
1. POURED IN PLACE CONCRETE ANTI–SEEP COLLARS SHALL INCORPORATE THE USE OF A WEDGE STYLE WATER STOP CONNECTOR AS MANUFACTURED BY A–LOK PRODUCTS, INC. OR APPROVED EQUAL CONFORMING TO ASTM D1478, "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE STORM SEWER STRUCTURES, PIPES AND LATERALS."

CONCRETE ANTI–SEEP COLLAR – ITEM W603.77XX
NOT TO SCALE

1



SECTION A–A



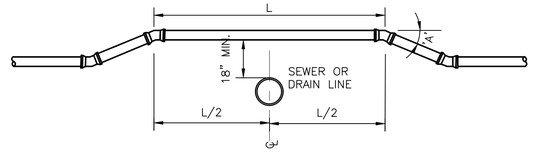
			2:1 SLOPE
D	C (MIN.)	T	B
12"	4'–0"	8"	6'–0"
16"	4'–3"	8"	7'–0"
18"	4'–6"	8"	8'–0"
20"	4'–9"	8"	9'–0"
24"	5'–0"	10"	10'–0"
30"	5'–6"	12"	12'–0"
36"	6'–0"	12"	13'–0"

ELEVATION

CONCRETE END WALL
NOT TO SCALE

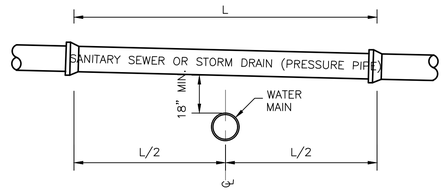
2

ANGLE "A" IS TO BE 45 DEGREES FOR WATER PIPES UP TO 12 INCHES IN DIAMETER AND 22 1/2 DEGREES FOR WATER PIPES LARGER THAN 12 INCHES IN DIAMETER.



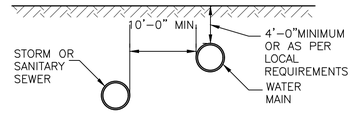
WHERE THE VERTICAL SEPARATION BETWEEN THE WATER LINE AND SEWER OR STORM LINE IS LESS THAN 18". THE JOINTS OF THE PIPE SHALL BE A MIN. OF 10' FROM THE POINT OF CROSSING AND THE SANITARY SEWER SHALL BE CLASS 150 PRESSURE PIPE & THE STORM DRAIN SHALL BE LOCK–JOINT PRESSURE PIPE.

CROSSING OF WATER LINE ABOVE SEWER OR STORM DRAIN



WHERE THE VERTICAL SEPARATION BETWEEN THE WATER LINE AND SEWER OR STORM LINE IS LESS THAN 18". THE JOINTS OF THE PIPE SHALL BE A MIN. OF 10' FROM THE POINT OF CROSSING AND THE SANITARY SEWER SHALL BE CLASS 150 PRESSURE PIPE & THE STORM DRAIN SHALL BE LOCK–JOINT PRESSURE PIPE.

CROSSING OF WATER LINE BENEATH SEWER OR STORM DRAIN

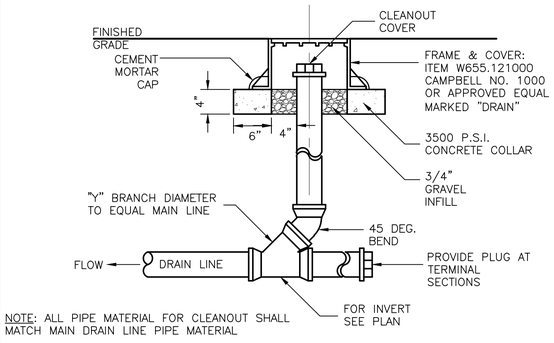


REQUIREMENTS AS STATED IN THE ABOVE TWO CONDITIONS WILL ALSO APPLY WHEN HORIZONTAL SEPARATION BETWEEN THE SEWER AND THE WATER LINES IS LESS THAN 10 FEET.

PARALLEL SEPARATION OF WATER MAINS AND SEWERS

WATER MAIN SEPARATION
NOT TO SCALE

3



NOTE: ALL PIPE MATERIAL FOR CLEANOUT SHALL MATCH MAIN DRAIN LINE PIPE MATERIAL

DRAIN CLEANOUT
NOT TO SCALE

4

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