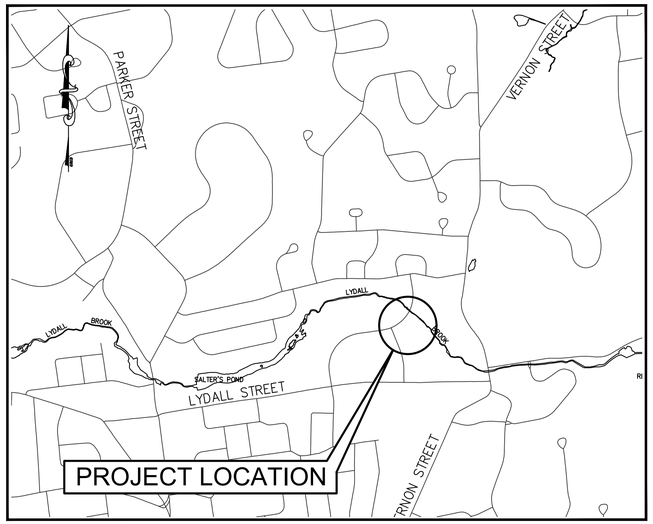
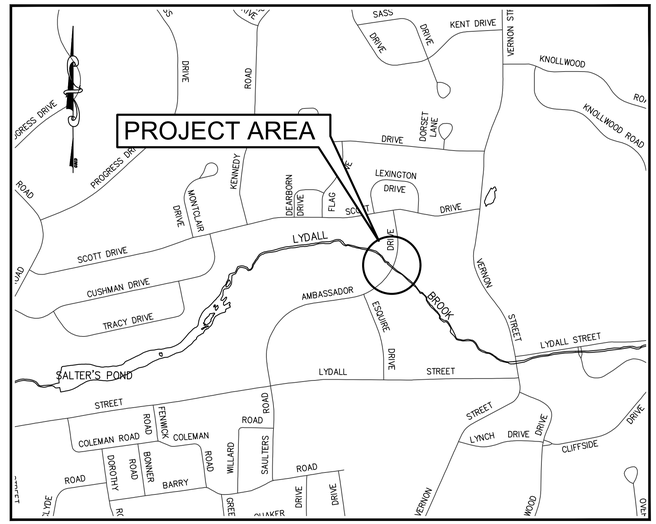


LOCATION MAP
1" = 1500'

TOWN OF MANCHESTER

PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION



SITE MAP
1" = 600'

CULVERT REPLACEMENT
LYDALL BROOK AT AMBASSADOR DRIVE

OCTOBER 2021

DESIGN STANDARD : TOWN OF MANCHESTER PUBLIC IMPROVEMENT STANDARDS, EFFECTIVE DATE OCTOBER 31, 2020, AS AMENDED

DATUMS : ALL ELEVATIONS ON THIS PROJECT BASED ON THE TOWN OF MANCHESTER CONTROL NETWORK.

HORIZONTAL CONTROL BASED ON THE TOWN OF MANCHESTER CONTROL NETWORK.

STANDARD SPECIFICATIONS : SEE CONTRACT DOCUMENTS

DESIGN SCALES : PLAN: 1" = 20'
OTHER SCALES AS NOTED

LIST OF DRAWINGS

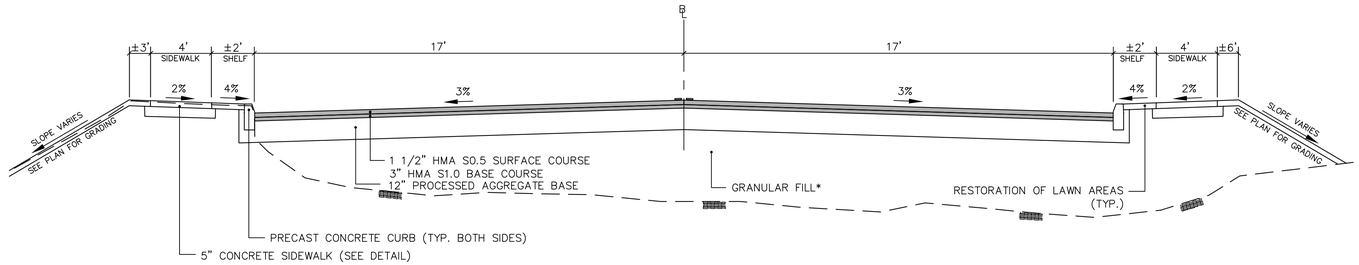
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	NOTES AND TYPICAL SECTION
3	GENERAL LOCATION SURVEY - EXISTING CONDITIONS PLAN
4	PROPOSED IMPROVEMENTS
5	CULVERT PLAN AND PROFILE
6	WATER HANDLING PLAN
7-8	DETAILS

DESIGNED BY:
TOWN OF MANCHESTER
ENGINEERING DIVISION

JEFF LAMALVA, P.E.
TOWN ENGINEER
P.E. NO. 20967

GENERAL NOTES:

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "MANCHESTER PUBLIC IMPROVEMENT STANDARDS", EFFECTIVE OCTOBER 31, 2020, AS AMENDED AND THE STATE OF CONN. DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 818, DATED 2020, INCLUDING ANY SUPPLEMENTS.
2. ALL ELEVATIONS ARE BASED ON THE TOWN OF MANCHESTER CONTROL NETWORK.
3. IMPLEMENTING WORKER SAFETY AND HEALTH PROTOCOLS THAT ADDRESS COMPLIANCE WITH ALL RULES, LAWS AND REGULATIONS REGARDING SAFETY AND RISK OF EXPOSURE TO PHYSICAL AND CHEMICAL HAZARDS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ALL EMPLOYEES OF THE CONTRACTOR AND SUBCONTRACTORS ARE TO WEAR REFLECTIVE VESTS AND HARD HATS AT ALL TIMES WHEN ON THE PROJECT SITE.
4. A PRECONSTRUCTION MEETING WITH TOWN STAFF IS REQUIRED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION ACTIVITY.
6. THE CONTRACTOR SHALL CONFINE ALL OPERATIONS AND ACTIVITIES FOR CONSTRUCTION PURPOSES WITHIN THE LIMITS SHOWN ON THE PLAN UNLESS OTHERWISE APPROVED BY THE ENGINEER.
7. THE CONTRACTOR SHALL COMMIT SUFFICIENT RESOURCES TO THE PROJECT TO ENSURE THE PROJECT IS COMPLETED WITHIN THE ALLOTTED CONTRACT TIME. ONCE MOBILIZED, THE CONTRACTOR SHALL WORK CONTINUOUSLY ON THE PROJECT UNTIL COMPLETION. ANY UNAUTHORIZED VACATING OF THE JOBSITE IS SUBJECT TO PENALTIES DESCRIBED UNDER THE "LIQUIDATED DAMAGES" SECTION OF THE CONTRACT SPECIFICATIONS.
8. CONSTRUCTION ENTRANCES ARE NOT SHOWN ON THE PLAN; HOWEVER, THEY SHALL BE INSTALLED WHERE DIRECTED BY THE ENGINEER DURING CONSTRUCTION FOR EGRESS FROM TEMPORARY STOCKPILE AREAS. THE PROPOSED LOCATION OF STOCKPILE AREAS SHALL BE IDENTIFIED BY THE CONTRACTOR.
9. NO WORK SHALL COMMENCE UNTIL ALL CONSTRUCTION AREA SIGNS ARE IN PLACE.
10. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR SHALL BE REPLACED WITH TOPSOIL, FERTILIZED AND SEEDED AS PER THE SPECIFICATIONS. CONTRACTOR SHALL MAKE ALL EFFORTS TO MINIMIZE THE LIMITS OF DISTURBANCE AND ASSOCIATED RESTORATION THAT IS REQUIRED.
11. ANY DRIVEWAYS, SIDEWALKS, CURB AND LAWN AREAS LOCATED ON PRIVATE PROPERTY OR WITHIN THE RIGHT-OF-WAY THAT ARE IMPACTED DURING CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS AS IDENTIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE REQUIRED LIMITS OF SUCH RESTORATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. RESTORATION ON PRIVATE PROPERTY SHALL BE COMPLETED AS PROMPTLY AS PRACTICAL WITHIN THIRTY (30) CALENDAR DAYS OF COMPLETING WORK ON THE PROPERTY.
12. ACTUAL LIMITS OF CURB INSTALLATION AND SIDEWALK RECONSTRUCTION SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
13. ALL SEDIMENT CONTROL SYSTEMS SHALL MEET THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" AS PREPARED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION, LATEST REVISION. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND REPAIR OF EROSION CONTROLS REQUIRED FOR THE PROJECT. ADDITIONAL EROSION CONTROLS SHALL BE INSTALLED BY THE CONTRACTOR FOR TEMPORARY STOCKPILING OF EXCAVATED MATERIAL AND WHERE DEEMED NECESSARY BY THE ENGINEER. EROSION CONTROLS SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL THE SITE IS STABILIZED AND THE ENGINEER APPROVES THEIR REMOVAL.
14. SILT SACKS SHALL BE INSTALLED IN ALL EXISTING CATCH BASINS WITHIN THE PROJECT AREA AND WHERE DIRECTED BY THE ENGINEER. SILT SACKS SHALL BE THE APPROPRIATE TYPE FOR CATCH BASINS WITH AND WITHOUT CURB INLETS.
15. HORIZONTAL AND VERTICAL LOCATIONS OF PROPOSED WORK MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS WITH THE APPROVAL OF THE ENGINEER.
16. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IF CONDITIONS ENCOUNTERED IN THE FIELD ARE DIFFERENT THAN INFORMATION SHOWN ON THE PLANS.
17. THE EXISTENCE OF UTILITIES AND APPURTENANCES AS SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. THE EXACT SIZE, LOCATION, TYPE, AND ELEVATION OF ALL UTILITIES WITHIN ALL WORK AREAS SHALL BE THOROUGHLY INVESTIGATED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 AND MUST HAVE ALL UTILITIES MARKED ON THE GROUND PRIOR TO THE START OF CONSTRUCTION.
18. THE QUANTITIES AS INDICATED IN THE CONTRACT DOCUMENTS ARE APPROXIMATE AND MAY NOT INDICATE THE ACTUAL QUANTITIES OF WORK REQUIRED. THE CONTRACTOR MUST VERIFY ALL QUANTITIES.
19. SURPLUS EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL DISPOSE OF SURPLUS EXCAVATED MATERIAL IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY HANDLING OF ALL STORMWATER RUNOFF DURING CONSTRUCTION. METHODS OF HANDLING RUNOFF SHALL BE APPROVED BY THE ENGINEER.
21. FINAL LOCATION OF ALL PROPOSED UNDERGROUND UTILITIES SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
22. RECORD DRAWINGS SHALL BE SUBMITTED TO THE ENGINEERING DIVISION UPON COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCURING ALL INFORMATION NECESSARY TO GENERATE THE DRAWINGS. A REDLINED PROGRESS SET OF DRAWINGS SHALL BE MAINTAINED DAILY AND BE AVAILABLE TO THE ENGINEER AT ALL TIMES.
23. WETLAND LIMITS SHOWN ON THE PLANS WERE FIELD LOCATED BY HIGHLAND SOILS IN AUGUST 2021.
24. ALL WORK WITHIN LYDALL BROOK SHALL BE CONDUCTED DURING DRY WEATHER CONDITIONS, WHEN DRY WEATHER IS FORECASTED AND WITH MINIMAL FLOW IN THE BROOK. ONCE STORMWATER BYPASS MEASURES ARE INSTALLED AND OPERATIONAL). ONLY WORK REQUIRED TO INSTALL AND REMOVE FLOW DIVERSION MEASURES, TEMPORARY RIPRAP OR OTHER ITEMS REQUIRED FOR STORMWATER BYPASS SHALL BE DONE IN "WET" CONDITIONS.
25. THE CONSTRUCTION SCHEDULE FOR ALL PROPOSED WORK WITHIN THE BROOK SHALL BE EXPEDITED TO MINIMIZE THE DURATION OF DISTURBANCE.
26. THE TIME DURATION THAT HEAVY EQUIPMENT OPERATES WITHIN THE LIMITS OF THE BROOK WILL BE KEPT TO A MINIMUM AND NO EQUIPMENT SHALL BE STORED, MAINTAINED OR REPAIRED WITHIN WETLAND AREAS.
27. THE CONTRACTOR SHALL CONTINUOUSLY MONITOR WEATHER FORECASTS DURING CONSTRUCTION. IF THE ENGINEER DETERMINES A SIGNIFICANT WEATHER EVENT IS FORECASTED THAT MAY EXCEED THE CAPACITY OF THE FLOW BYPASS SYSTEM, THE CONTRACTOR SHALL IMMEDIATELY REMOVE THE DIVERSION MEASURES, PUMP AND SETTLING BASIN AND TEMPORARILY RE-STABILIZE THE BROOK UNTIL THE INCREASED FLOWS SUBSIDE.
28. THE CONTRACTOR SHALL SUBMIT A PLAN TO THE ENGINEER FOR PROPOSED METHODS TO DEWATER THE WORK AREA. SUCH PLAN SHALL INCLUDE THE INSTALLATION OF SILT BAGS AT PUMP DISCHARGES WITH SILT FENCE/HAYBALES FOR EROSION CONTROL. PROPOSED DISCHARGE LOCATIONS AND ALL EROSION CONTROLS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY TEMPORARY THRUST RESTRAINT THAT IS REQUIRED.



TYPICAL ROAD SECTION - AMBASSADOR DRIVE

NOT TO SCALE

* STRUCTURAL BACKFILL WITHIN CULVERT LIMITS (SEE DETAIL)

TOWN OF MANCHESTER
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
494 MAIN STREET – P.O. BOX 191
MANCHESTER, CT 06045-0191

LEGEND

WETLANDS BOUNDARY	LIGHT POLE
RETAINING WALL	CONIFEROUS TREE
GUIDE RAIL	DECIDUOUS TREE
STONE WALL	SANITARY MANHOLE
STOCKADE FENCE	DRAINAGE MANHOLE
WIRE FENCE	CATCH BASIN
CHAIN LINK FENCE	CULVERT END
PROPERTY LINE	HYDRANT
RAILROAD TRACKS	CURB STOP
SILT FENCE	WATER VALVE
CONCRETE MONUMENT	BUTTERFLY VALVE
GRANITE MONUMENT	BLOW OFF
IRON PIPE	SIGN
IRON ROD	DOUBLE POST SIGN
CONTROL POINT	MAIL BOX
DRILL HOLE	BOLLARD
UTILITY POLE	CONTROLLER CABINET
UTILITY POLE WITH LIGHT	GAS GATE
TRAFFIC SPAN POLE	TELEPHONE BOX
ELECTRIC BOX	CATV TUBE
WETLAND FLAG	

PROJECT NUMBER
2021099

FILENAME
2021099-PLAN.DWG

NO.	DATE	FILE
–	10/15/21	BID DOCUMENTS

DRAWN BY: JL
CHECKED BY: JL
RELEASED BY: TB

DRAWING SCALE
HORIZONTAL: 1" = 20' VERTICAL: ---
OR AS NOTED
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GRAPHIC SCALE

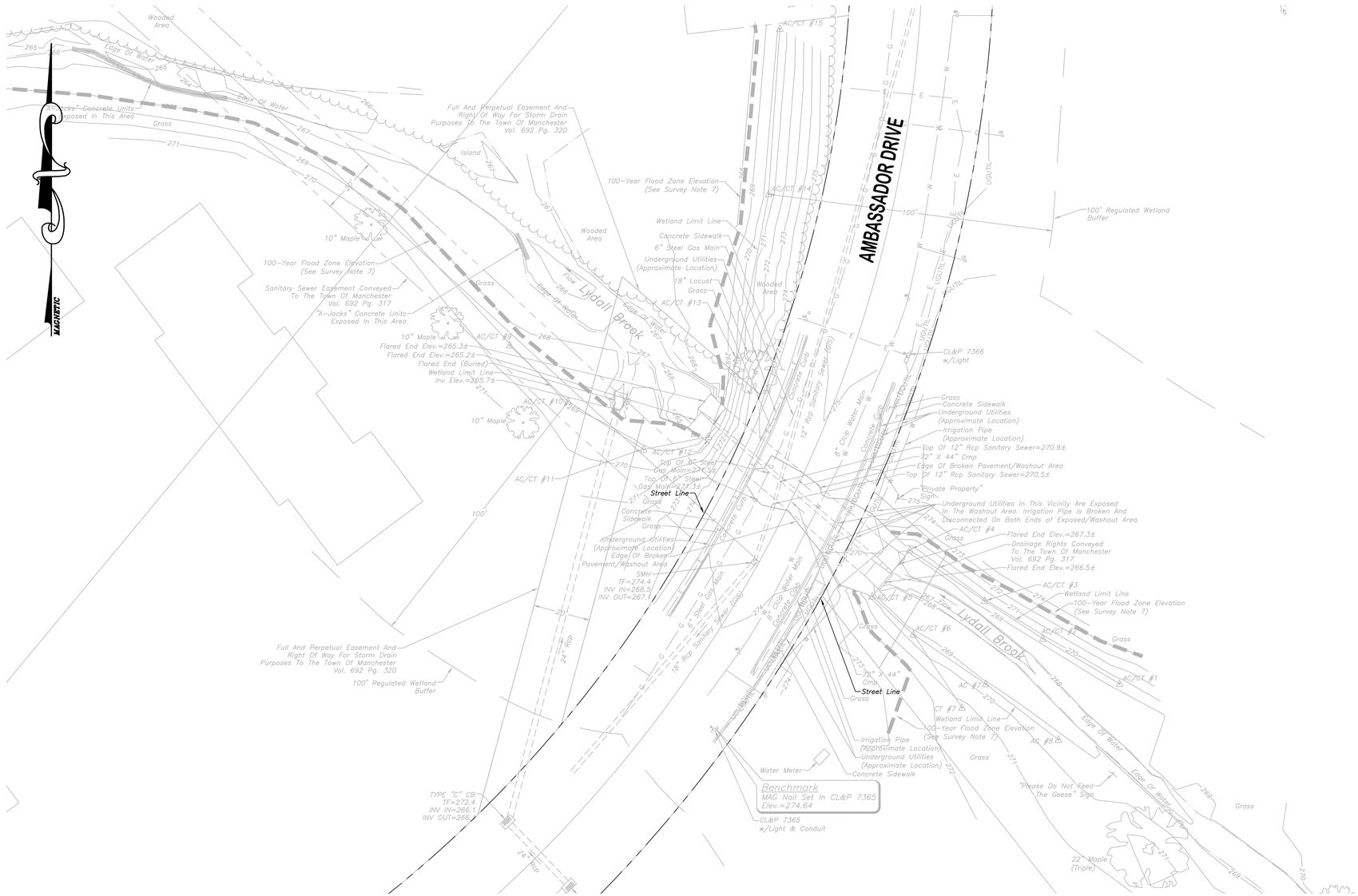
DATUM
HORIZONTAL: NAD83 VERTICAL: NAVD88

PROJECT LOCATION
AMBASSADOR DRIVE MANCHESTER, CT

PROJECT TITLE
CULVERT REPLACEMENT LYDALL BROOK AT AMBASSADOR DRIVE

SHEET TITLE
NOTES AND TYPICAL SECTION

SHEET NUMBER
2 of 8



TOWN of MANCHESTER CONNECTICUT SEAL

TOWN OF MANCHESTER
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
494 MAIN STREET – P.O. BOX 191
MANCHESTER, CT 06045-0191

LEGEND

WETLANDS BOUNDARY	LIGHT POLE
RETAINING WALL	CONIFEROUS TREE
GUIDE RAIL	DECIDUOUS TREE
STONE WALL	SANITARY MANHOLE
STOCKADE FENCE	DRAINAGE MANHOLE
WIRE FENCE	CATCH BASIN
CHAIN LINK FENCE	CULVERT END
PROPERTY LINE	HYDRANT
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CONTROL POINT	MAIL BOX
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UTILITY POLE	CONTROLLER CABINET
UTILITY POLE WITH LIGHT	GAS GATE
TRAFFIC SPAN POLE	TELEPHONE BOX
ELECTRIC BOX	CATV TUBE
WETLAND FLAG	

PROJECT NUMBER
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DATUM
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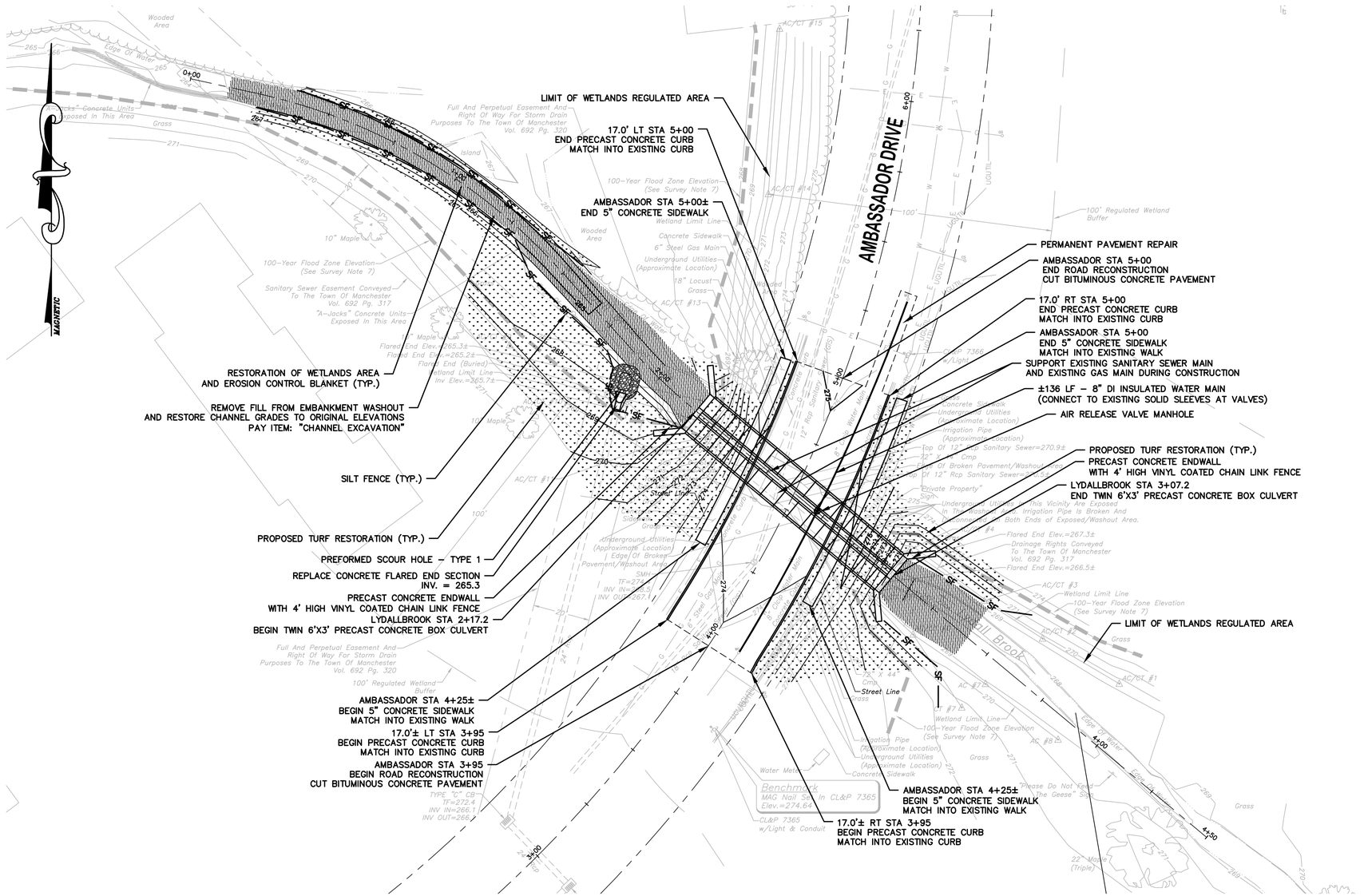
PROJECT LOCATION
AMBASSADOR DRIVE MANCHESTER, CT

PROJECT TITLE
CULVERT REPLACEMENT LYDALL BROOK AT AMBASSADOR DRIVE

SHEET TITLE
EXISTING CONDITIONS PLAN

SHEET NUMBER
3 of 8



TOWN OF MANCHESTER
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
494 MAIN STREET – P.O. BOX 191
MANCHESTER, CT 06045-0191

LEGEND

WETLANDS BOUNDARY	LIGHT POLE
RETAINING WALL	CONIFEROUS TREE
GUIDE RAIL	DECIDUOUS TREE
STONE WALL	SANITARY MANHOLE
STOCKADE FENCE	DRAINAGE MANHOLE
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UTILITY POLE WITH LIGHT	GAS GATE
TRAFFIC SPAN POLE	TELEPHONE BOX
ELECTRIC BOX	CATV TUBE
WETLAND FLAG	

PROJECT NUMBER
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DATUM
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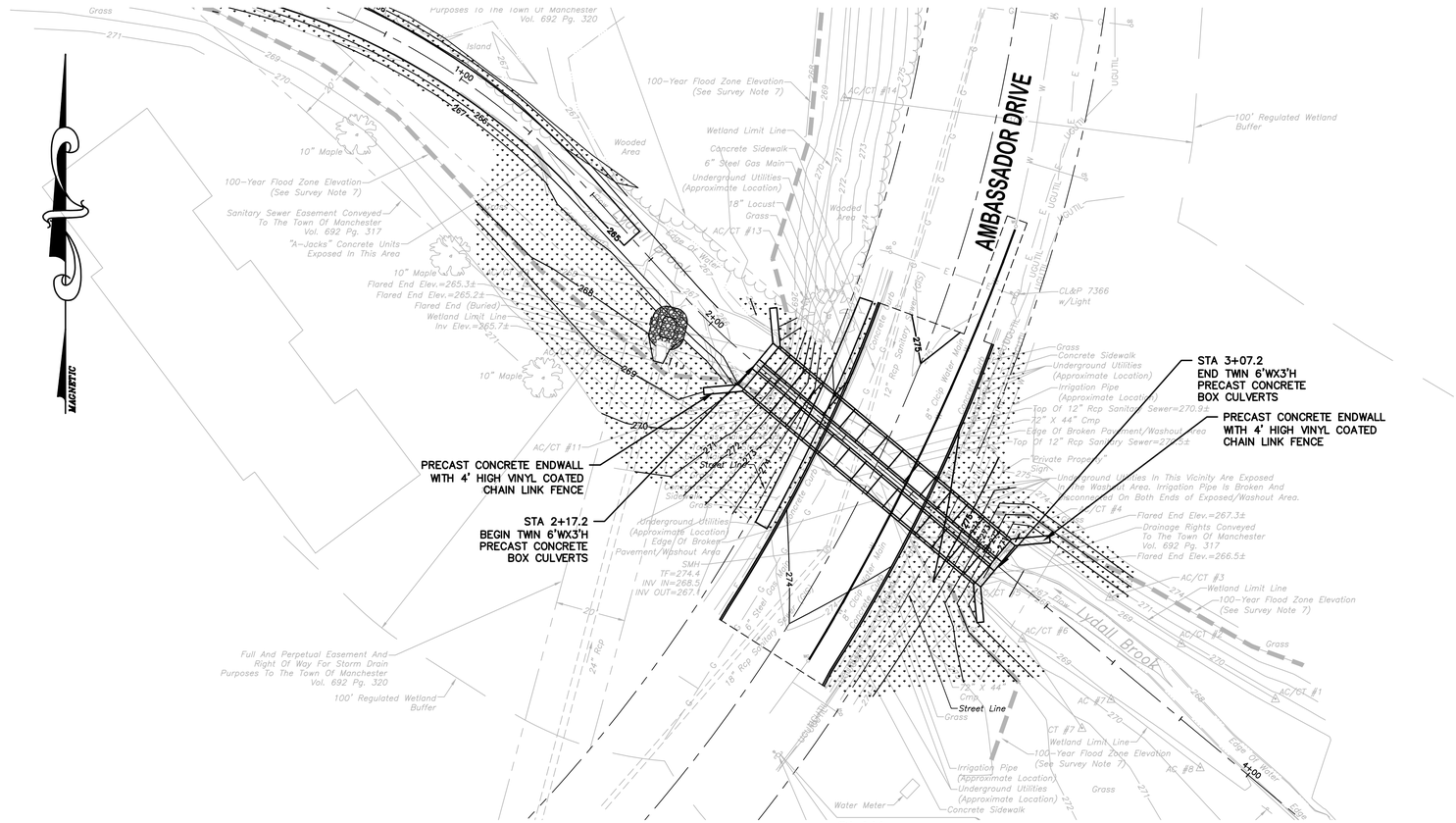
PROJECT LOCATION
AMBASSADOR DRIVE MANCHESTER, CT

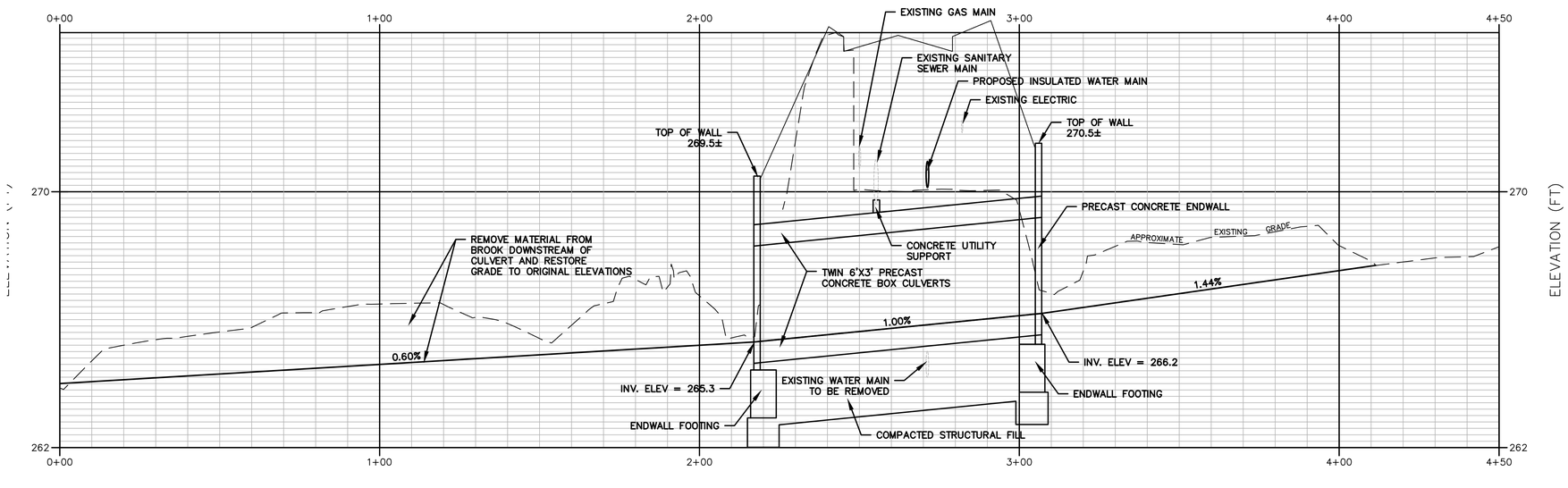
PROJECT TITLE
CULVERT REPLACEMENT LYDALL BROOK AT AMBASSADOR DRIVE

SHEET TITLE
PROPOSED IMPROVEMENTS

SHEET NUMBER
4 of 8



PLAN



PROFILE

TOWN OF MANCHESTER
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
494 MAIN STREET – P.O. BOX 191
MANCHESTER, CT 06045-0191

LEGEND

WETLANDS BOUNDARY	LIGHT POLE
RETAINING WALL	CONIFEROUS TREE
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WETLAND FLAG	

PROJECT NUMBER
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OR AS NOTED
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GRAPHIC SCALE

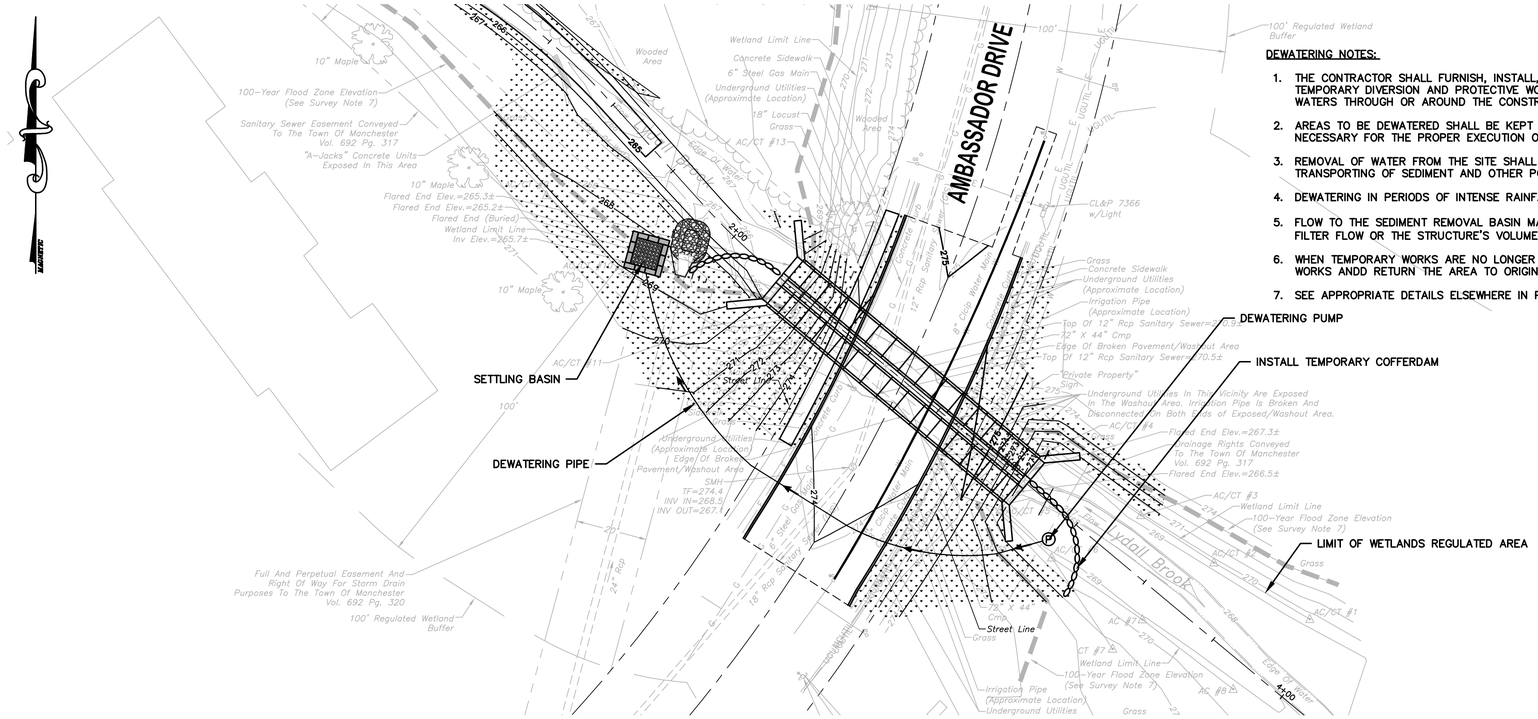
DATUM
HORIZONTAL: NAD83 VERTICAL: NAVD88

PROJECT LOCATION
AMBASSADOR DRIVE MANCHESTER, CT

PROJECT TITLE
CULVERT REPLACEMENT LYDALL BROOK AT AMBASSADOR DRIVE

SHEET TITLE
CULVERT PLAN AND PROFILE

SHEET NUMBER
5 of 8



DEWATERING NOTES:

1. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND OPERATE ALL CHANNELS, SUMPS AND OTHER TEMPORARY DIVERSION AND PROTECTIVE WORKS NEEDED TO DIVERT STREAM WATER AND OTHER SURFACE WATERS THROUGH OR AROUND THE CONSTRUCTION SITE.
2. AREAS TO BE DEWATERED SHALL BE KEPT FREE OF STANDING WATER AND MUDDY CONDITIONS AS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
3. REMOVAL OF WATER FROM THE SITE SHALL BE ACCOMPLISHED SO THAT EROSION AND THE TRANSPORTING OF SEDIMENT AND OTHER POLLUTANTS ARE MINIMIZED.
4. DEWATERING IN PERIODS OF INTENSE RAINFALL SHALL BE AVOIDED.
5. FLOW TO THE SEDIMENT REMOVAL BASIN MAY NOT EXCEED THE STRUCTURE'S CAPACITY TO SETTLE AND FILTER FLOW OR THE STRUCTURE'S VOLUME CAPACITY.
6. WHEN TEMPORARY WORKS ARE NO LONGER NEEDED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY WORKS ANDD RETURN THE AREA TO ORIGINAL CONDITION.
7. SEE APPROPRIATE DETAILS ELSEWHERE IN PLANS.

TOWN OF MANCHESTER
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
494 MAIN STREET – P.O. BOX 191
MANCHESTER, CT 06045-0191

LEGEND

WETLANDS BOUNDARY	LIGHT POLE
RETAINING WALL	CONIFEROUS TREE
GUIDE RAIL	DECIDUOUS TREE
STONE WALL	SANITARY MANHOLE
STOCKADE FENCE	DRAINAGE MANHOLE
WIRE FENCE	CATCH BASIN
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UTILITY POLE WITH LIGHT	GAS GATE
TRAFFIC SPAN POLE	TELEPHONE BOX
ELECTRIC BOX	CATV TUBE
WETLAND FLAG	

PROJECT NUMBER
2021099

FILENAME
2021099-PLAN.DWG

NO.	DATE	FILE
–	10/15/21	BID DOCUMENTS

DRAWN BY: JL
CHECKED BY: JL
RELEASED BY: TB

DRAWING SCALE
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OR AS NOTED
20 10 0 20
GRAPHIC SCALE

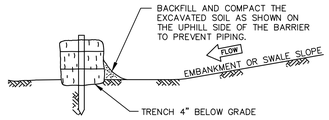
DATUM
HORIZONTAL: NAD83 VERTICAL: NAVD88

PROJECT LOCATION
AMBASSADOR DRIVE MANCHESTER, CT

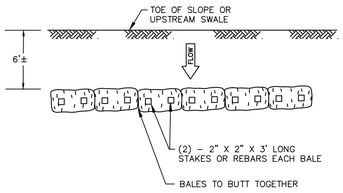
PROJECT TITLE
CULVERT REPLACEMENT LYDALL BROOK AT AMBASSADOR DRIVE

SHEET TITLE
WATER HANDLING PLAN

SHEET NUMBER
6 of 8



SECTION

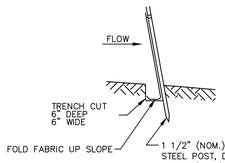


PLAN

NOTES:
1. HAYBALES SHALL BE MAINTAINED AND/OR REPLACED AS REQUIRED OR AS DIRECTED BY THE TOWN.
2. PLACE HAYBALES SUCH THAT TWINE OR BINDING WIRE IS PARALLEL TO THE EXISTING GROUND.

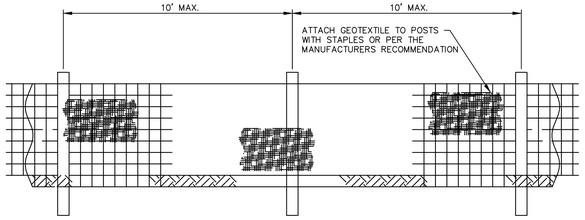
HAYBALE INSTALLATION

NOT TO SCALE



SECTION

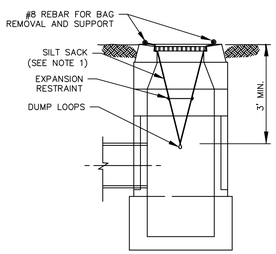
NOTES:
1. SEDIMENT CONTROL FABRIC TO BE A GEOTEXTILE MATERIAL TREATED TO RESIST DEGRADATION FROM EXPOSURE TO SUNLIGHT.
2. FOR EACH SPECIFIC USE, ONLY GEOTEXTILES ON THE CONNECTICUT DEPARTMENT OF TRANSPORTATION APPROVED LIST ARE TO BE USED.
3. AFTER FOLDING FABRIC EDGE, BACKFILL TRENCH WITH ORIGINAL SOIL AND BUTTRESS THE SPLAY WITH MULCH OR LEAF LITTER.



ELEVATION

SILT FENCE

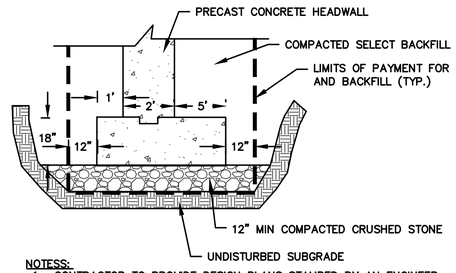
NOT TO SCALE



NOTES:
1. SILT SACKS SHALL BE HI-FLOW SILTSACK® 'TYPE A' FOR TYPE "C-L" CB TOPS AND 'TYPE B' WITH CURB DEFLECTORS FOR TYPE "C" CB TOPS OR OTHER STRUCTURES WITH CURB INLETS AS MANUFACTURED BY ACF ENVIRONMENTAL, INC OR APPROVED EQUAL.
2. SILT SACKS SHALL BE PROVIDED WITH INTERNAL OVERFLOWS.
3. SILT SACKS SHALL BE EMPTIED WHEN THEY HAVE COLLECTED 6" TO 12" OF SEDIMENT. INSPECT EVERY 1 TO 2 WEEKS AND AFTER EVERY MAJOR RAINFALL EVENT.

SILT SACK

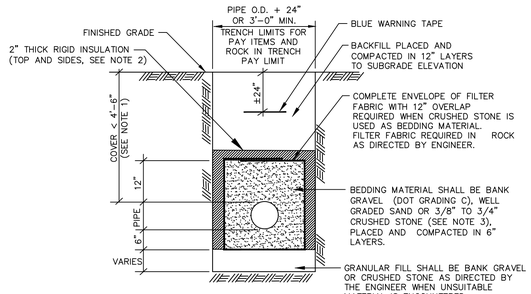
NOT TO SCALE



NOTESS:
1. CONTRACTOR TO PROVIDE DESIGN PLANS STAMPED BY AN ENGINEER LICENSED IN THE STATE OF CONNECTICUT.

TYPICAL HEADWALL FOOTING DETAIL

NOT TO SCALE

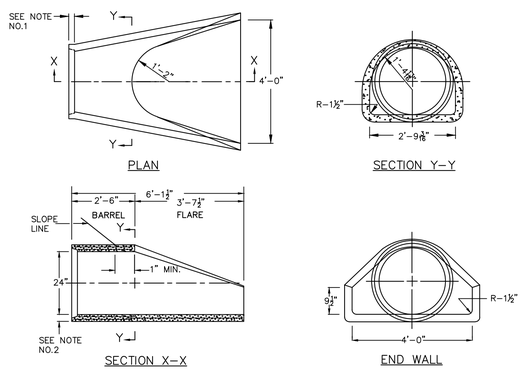


NOTES:
1. ALL WATER MAIN WITH LESS THAN 4'-6" OF COVER SHALL BE INSULATED UNLESS APPROVED OTHERWISE BY THE ENGINEER. MINIMUM COVER OF 2'-6" SHALL BE PROVIDED OVER ALL INSULATED WATER MAIN.
2. INSTALLATION OF RIGID INSULATION IS SHOWN; HOWEVER, CELLULAR GLASS PIPE INSULATION OR APPROVED EQUAL MAY ALSO BE USED WITH THE APPROVAL OF THE ENGINEER. THE COST OF INSULATION SHALL BE INCLUDED IN THE BID PRICE FOR "WATER MAIN" OF THE SIZE AND TYPE SPECIFIED.
3. CRUSHED STONE SHALL ONLY BE USED IN HIGH GROUNDWATER CONDITIONS AS DIRECTED BY THE ENGINEER.

TYPICAL TRENCH DETAIL

(INSULATED WATER)

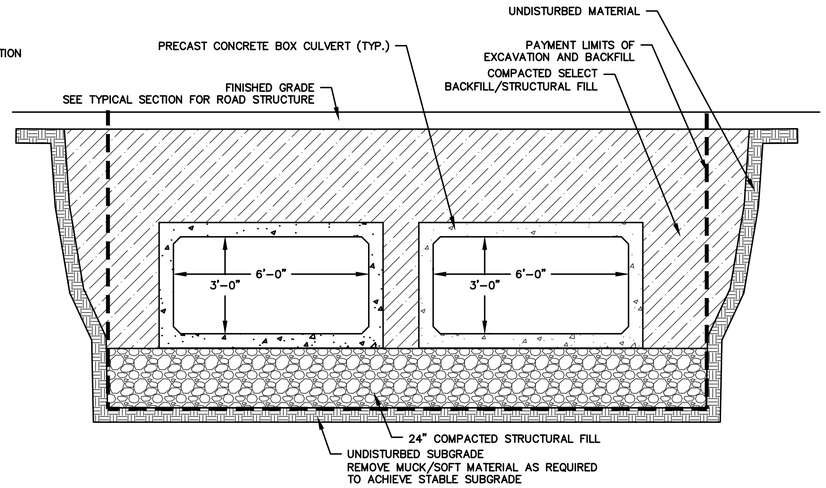
NOT TO SCALE



NOTES:
1. JOINTS SHALL BE TONGUE AND GROOVE OR BELL AND SPIGOT AS REQUIRED TO CONFORM TO PIPE INSTALLED.
2. WALL THICKNESS SHALL CONFORM TO PIPE THICKNESS.
3. FLARE REINFORCEMENT BASED ON ONE LAYER ONLY IN CENTER OF WALL.
4. MINIMUM AREA OF LONGITUDINAL STEEL AND TRANSVERSE STEEL REINFORCEMENT SHALL BE 0.072 SQ. IN. PER FT FOR EACH.

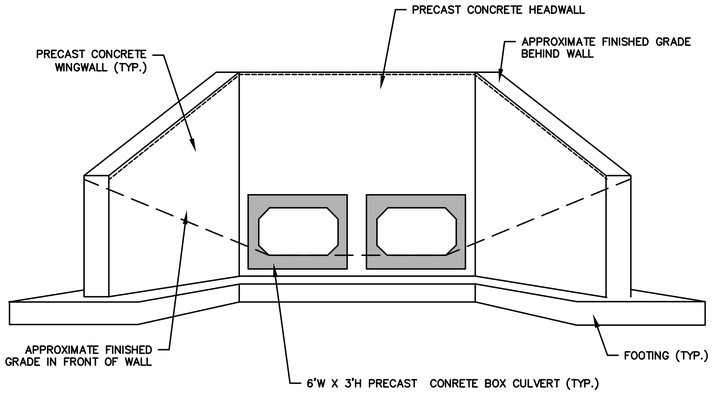
24" REINFORCED CONCRETE CULVERT END

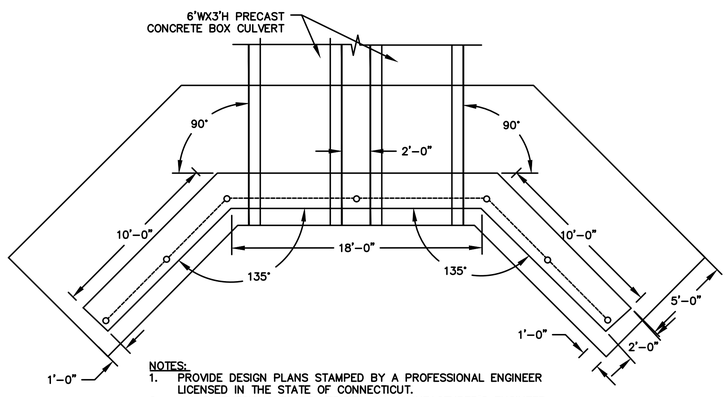
NOT TO SCALE



TYPICAL SECTION - BOX CULVERT

NOT TO SCALE





NOTES:
1. PROVIDE DESIGN PLANS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT.
2. ALL DIMENTSIONS TO BE VERIFIED BY MANUFACTURER'S ENGINEER.
3. MANUFACTURER OF HEADWALL AND WINGWALLS TO BE SAME AS MANUFACTURER OF BOX CULVERT.

PRECAST CONCRETE HEADWALL AND WINGWALL

(SCHEMATIC)

NOT TO SCALE

TOWN OF MANCHESTER
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
494 MAIN STREET – P.O. BOX 191
MANCHESTER, CT 06045-0191

LEGEND

WETLANDS BOUNDARY	LIGHT POLE
RETAINING WALL	CONIFEROUS TREE
GUIDE RAIL	DECIDUOUS TREE
STONE WALL	SANITARY MANHOLE
STOCKADE FENCE	DRAINAGE MANHOLE
WIRE FENCE	CATCH BASIN
CHAIN LINK FENCE	CULVERT END
PROPERTY LINE	HYDRANT
RAILROAD TRACKS	CURB STOP
SILT FENCE	WATER VALVE
CONCRETE MONUMENT	BUTTERFLY VALVE
GRANITE MONUMENT	BLOW OFF
IRON PIPE	SIGN
IRON ROD	DOUBLE POST SIGN
CONTROL POINT	MAIL BOX
DRILL HOLE	BOLLARD
UTILITY POLE	CONTROLLER CABINET
UTILITY POLE WITH LIGHT	GAS GATE
TRAFFIC SPAN POLE	TELEPHONE BOX
ELECTRIC BOX	CATV TUBE
WETLAND FLAG	

PROJECT NUMBER
2021099

FILENAME
2021099-PLAN.DWG

NO.	DATE	FILE
–	10/15/21	BID DOCUMENTS

DRAWN BY: JL
CHECKED BY: JL
RELEASED BY: TB

DRAWING SCALE
HORIZONTAL: 1" = 20' VERTICAL: ---
OR AS NOTED
20 10 0 20
GRAPHIC SCALE

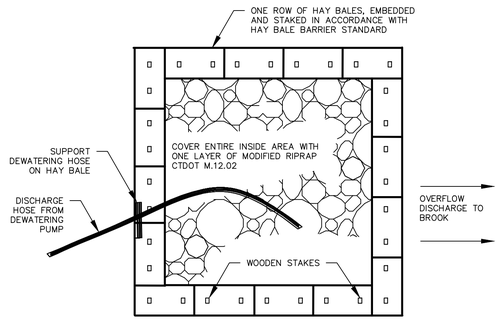
DATUM
HORIZONTAL: NAD83 VERTICAL: NAVD88

PROJECT LOCATION
AMBASSADOR DRIVE MANCHESTER, CT

PROJECT TITLE
CULVERT REPLACEMENT LYDALL BROOK AT AMBASSADOR DRIVE

SHEET TITLE
DETAILS

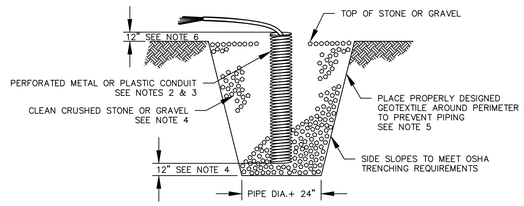
SHEET NUMBER
7 of 8



PLAN

NOTE:
THE CONTRACTOR SHALL SIZE THE SETTLING BASIN BASED ON THE SELECTED PUMP DISCHARGE FLOWS AND ENLARGE AS NECESSARY AT NO ADDITIONAL COST.

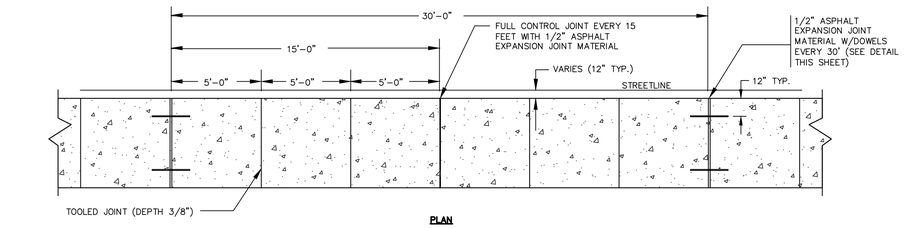
PUMP SETTLING BASIN - TYPE 1
(PAY ITEM: "HANDLING WATER")
NOT TO SCALE



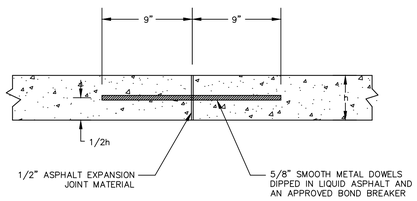
TYPICAL SECTION OF SUMP PIT

NOTES:
1. OVERALL SUMP PIT DIMENSIONS SHALL BE COMPATIBLE WITH ANTICIPATED SEEPAGE RATES AND PUMP SIZE TO BE USED.
2. THE STANDPIPE DIAMETER AND NUMBER OF PERFORATIONS SHALL BE COMPATIBLE WITH THE PUMP SIZE BEING USED.
3. PERFORATIONS IN THE STANDPIPE SHALL BE EITHER CIRCULAR OR SLOTS. PERFORATION SIZE SHALL NOT EXCEED 1/2" IN DIAMETER.
4. CRUSHED STONE OR GRAVEL SHALL BE NO SMALLER THAN CTDOT #67 SIZE NOR LARGER THAN CTDOT #3 SIZE. CRUSHED STONE SHALL EXTEND A MINIMUM OF 12" BELOW THE BOTTOM OF THE STANDPIPE.
5. IF EXCESSIVE MOVEMENT OF THE FINE SOIL PARTICLES FROM THE SURROUNDING EXISTING SOILS IS ANTICIPATED, A PROPERLY DESIGNED GEOTEXTILE SHALL BE PLACED BETWEEN THE EXISTING SOILS AND THE CRUSHED STONE OR GRAVEL BACKFILL.
6. THE STANDPIPE SHALL EXTEND A MINIMUM OF 12" ABOVE THE SURROUNDING GROUND.

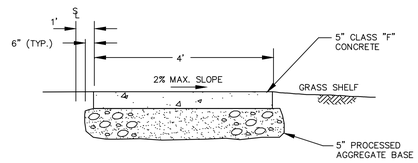
PUMP INTAKE
(PAY ITEM: "HANDLING WATER")
NOT TO SCALE



PLAN



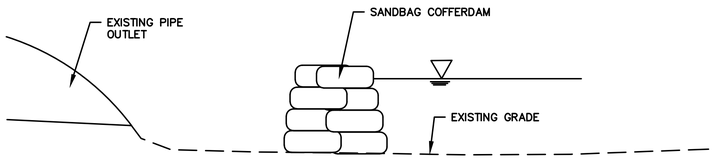
EXPANSION JOINT – DETAIL



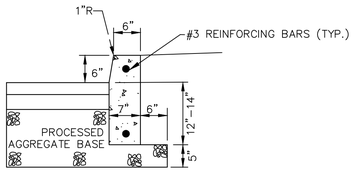
SECTION

NOTES:
1. A MINIMUM 36" CLEAR WIDTH SHALL BE MAINTAINED BETWEEN THE EDGES OF THE SIDEWALK AND ANY OBSTRUCTIONS WITHIN THE SIDEWALK LIMITS.
2. AT THE END OF THE DAILY POUR OF CONCRETE, METAL DOWELS ARE TO BE INSERTED IN THE LAST SLAB FOR THE EXTENSION OF THE SIDEWALK.
3. INSTALL APPROVED BOND BREAKER BETWEEN GRANITE CURB AND SIDEWALK.

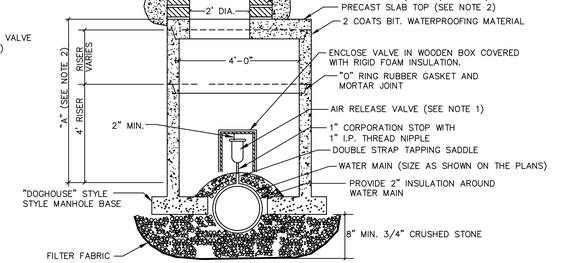
5" CONCRETE SIDEWALK
NOT TO SCALE



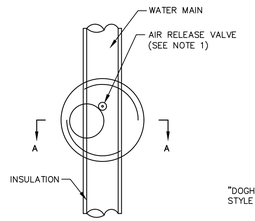
TEMPORARY COFFERDAM
(PAY ITEM: "HANDLING WATER")
NOT TO SCALE



PRECAST CONCRETE CURB
NOT TO SCALE



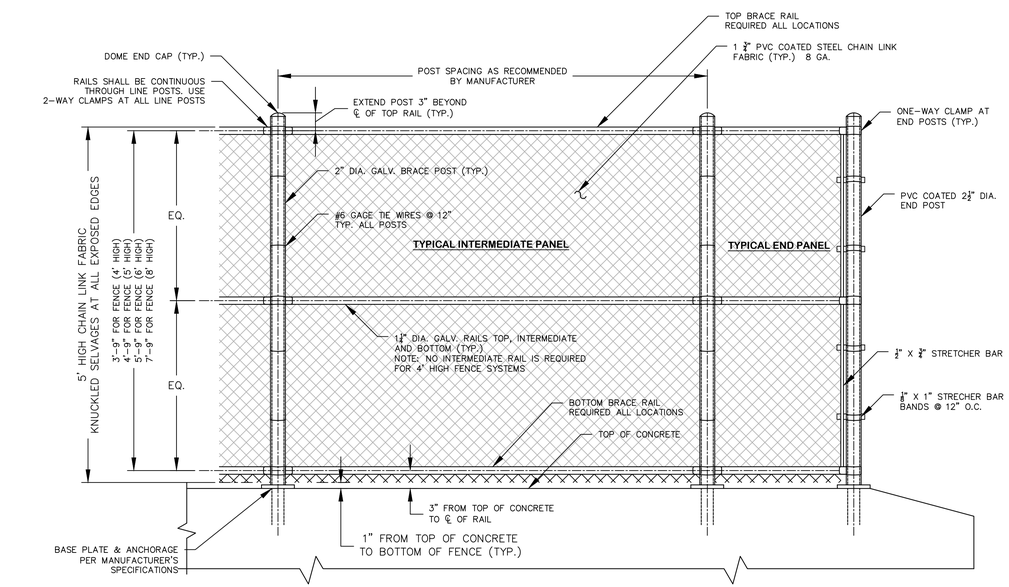
SECTION A–A



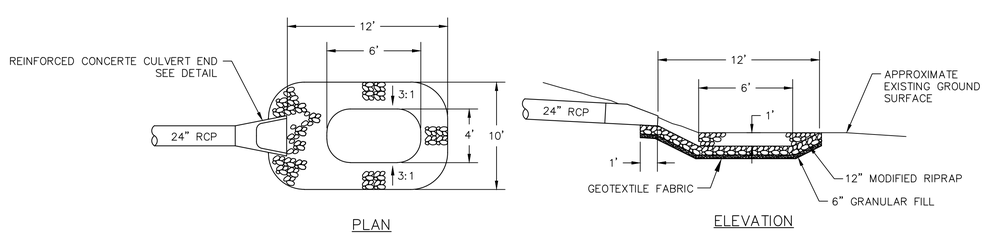
PLAN

NOTES:
1. AIR RELEASE VALVE SHALL BE GOLDEN ANDERSON FIGURE NO. 910 (1" INLET, 3/8" OUTLET, 1/16" ORIFICE).
2. FLAT TOP MANHOLE TO BE USED WHERE "A" IS LESS THAN 6 FEET. USE CONCENTRIC FLAT TOP WHEN "A" IS LESS THAN 3 FEET. IF "A" IS GREATER THAN 3 FEET USE ECCENTRIC FLAT TOP.
3. PIPE BEDDING AND VALVE CONNECTION MUST BE OF SUFFICIENT DEPTH AND LENGTH TO RESPECTIVELY ASSURE THAT THE TOP OF BEDDING AND AIR RELEASE VALVE ARE ABOVE HIGH GROUNDWATER LEVEL. INSULATE AS DIRECTED BY ENGINEER.

AIR RELEASE VALVE MANHOLE
NOT TO SCALE



CHAIN LINK FENCE (STRUCTURE MOUNTED)
NOT TO SCALE



PREFORMED SCOUR HOLE - TYPE 1
(PAY ITEM: "MODIFIED RIPRAP")
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