

EXISTING

Scale: 1 in = 20 feet

LEGEND

	Deep Hole		NTS		NOT TO SCALE SIGN
	DRAIN MANHOLE		DRILL HOLE		STONE BOUND W/DH
	SEWER MANHOLE		SB/DH		EDGE OF RIGHT OF WAY
	CATCH BASIN		R/W		EXIST. CONTOUR
	HYDRANT		55		OVERHEAD WIRES
	WATER GATE		STONE WALL		EXISTING TREES AND SHRUBS
	WATER SERVICE		TREELINE/LANDSCAPE		WETLAND BUFFER ZONE
	UTILITY POLE		WETLAND LINE		GAS LINE BURIED
	LIGHT		FIBER OPTIC LINE BURIED		Runoff Direction
	YARD LIGHTING				
	GAS VALVE				
	POST				
	UND. ELEC. CONDUIT				

SITE DATA

Assessor's Parcel ID: 285-217
 Property Owner:
 James A. Colace/Abbruzzi Realty Trust
 55 Court Street
 Franklin, MA 02038

Deed Reference: Book 32674 Page 212

Site Elevations based on NAVD88 datum.

Deep Hole Logs

Performed by: Stephen Dunbar, PE (SE647)
 Perc tests performed using MADEP Perc Test Form 12

Deep Hole 1 (DH-1) Surface Elevation: 308.1

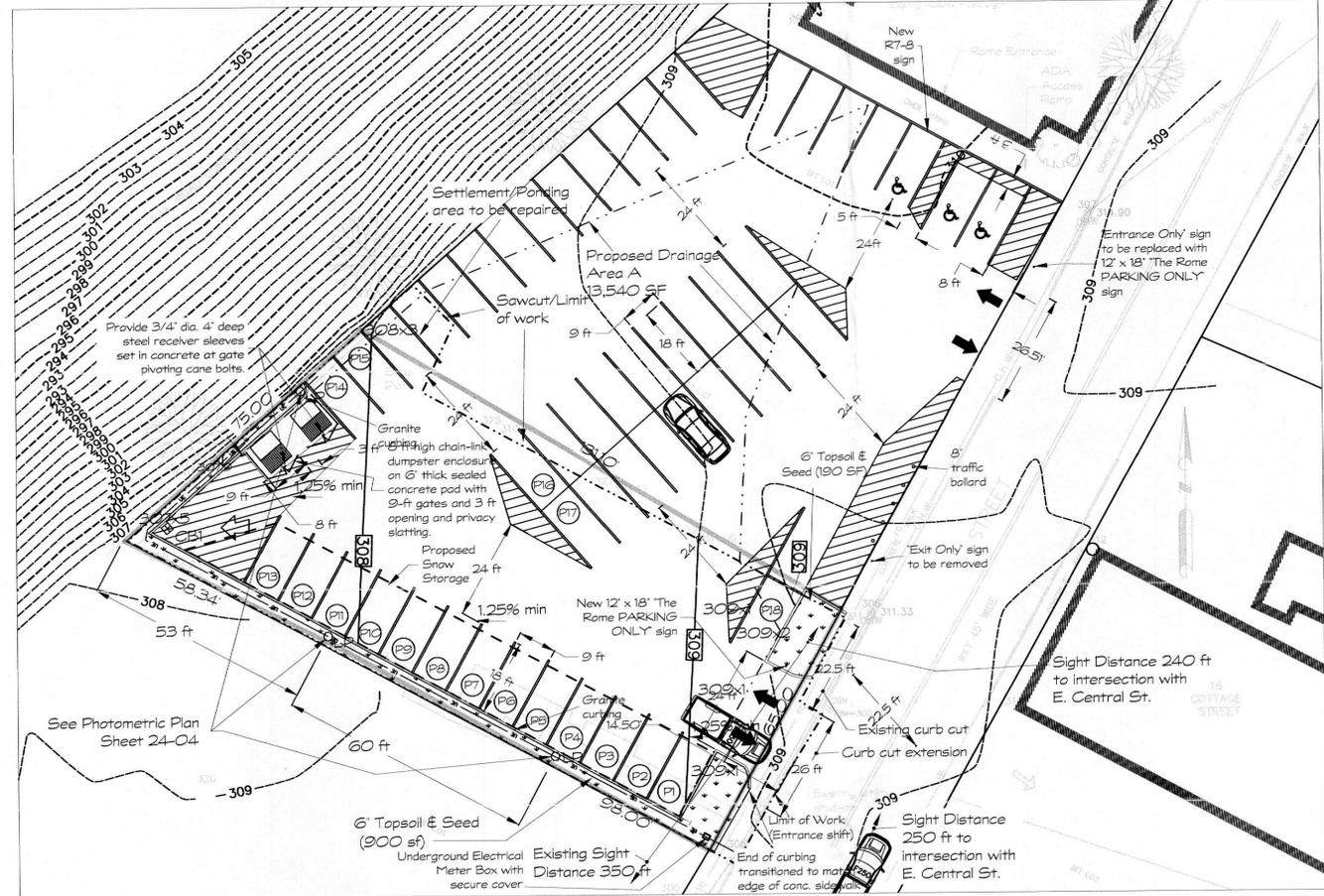
Horizon	Depth	Soil	Color	Description
Pvmt/Fill	0-8"	Gravel	N/A	
B	8-40"	SAND w/Gravel	7.5 YR 5/6	Fine-Medium SAND w/ 5-10% Gravel
C	40-114"	Gravelly SAND	2.5 Y 6/2	Med-Course SAND w/30-40% Gravel and 5-10% Cobblestones

Mottles: None
 Water: None
 Percolation Depth: 58 in.
 Percolation Rate: < 2 min/inch

Deep Hole 2 (DH-2) Surface Elevation: 308.5

Horizon	Depth	Soil	Color	Description
Pvmt/Fill	0-8"	Gravel	N/A	
B	8-45"	SAND w/Gravel	7.5 YR 5/6	Fine-Medium SAND w/ 5-10% Gravel
C	45-108"	Gravelly SAND	2.5 Y 6/2	Med-Course SAND w/30-40% Gravel and 5-10% Cobblestones

Mottles: None
 Water: None
 Percolation Depth: 63 in.
 Percolation Rate: < 2 min/inch



PROPOSED

Scale: 1 in = 20 feet

PARKING LEGEND

Proposed new full parking space (18 total)

Existing Parking on Lot 17 (ANR Plan):
 33 parking spaces 9 ft wide x 15 ft or 16 ft long
 2 Accessible parking spaces, one non-compliant

Result of combining Lots 217 and 17 with new parking layout:
 18 new parking spaces on Lot 217
 32 re-painted spaces 9 ft wide x 18 ft long on Lot 17
 3 Accessible/ADA-compliant spaces, one van accessible.
 Total spaces: 53 Net Increase: 18

NOTES

- Parcel ID 286-217-000, Quitclaim Deed recorded 8/7/2008 (Bk 25965 p572) referencing Lots 3 & 4 on 'Plan of House Lots, Cottage Street, Franklin, Property of Jennie L. Greene, March 1923, D.L. Chilson, Eng.', recorded with the Norfolk County Registry of Deeds as Plan No. 370 of 1946 in Bk 2601, p423. Parcel 'A' portion of Lot 4 sold via Quitclaim Deed recorded 11/5/2014 (Bk 32674 p212) with the Norfolk County Registry of Deeds referencing Plan Bk 635 p21.
- Property is located in Zone X (area of minimal flood hazard) on Norfolk county Flood Insurance Rate Map panel 25021C0309E (i.e., not Zone II or Interim Wellhead Protection Area or public eater supply).
- Property is located in the Downtown Commercial District.
- Property survey performed by Moran Surveying Inc., 14 William Avenue, Pembroke, MA 02359, (781) 293-5601.
- All underground utility locations shown are based on field evidence and records provided. The locations should be considered approximate. Other utilities may exist which are not evident or for which record information was not found. The contractor must contact all utility companies and 'Dig Safe' before excavation begins. Dunbar Engineering and Management assumes no responsibility for damages incurred as a result of utilities omitted or inaccurately shown.
- It is the responsibility of the contractor to review all of the drawings and specifications associated with this project prior to the initiation of construction.
- Should the contractor identify a conflict within the documents relative to the specifications or applicable codes, it is the contractor's responsibility to notify the design engineer in writing prior to the start of construction. Failure by the contractor to notify the project engineer shall constitute acceptance of full responsibility by the contractor to complete the scope of work as defined by the drawings and in full conformance with local regulations and codes.
- All work shall conform to Town of Franklin requirements and Massachusetts Highway Department construction standards as applicable. All work shall be performed in conformance with all applicable Local and State building codes. Applications that may need to be filed with the Franklin Department of Public Works include (but are not necessarily limited to) a Right-of-Way Excavation Permit, a Public Way Access Permit, and a Trench Permit.
- All materials installed shall follow Buy American requirements. Material substitutions must be approved by the design engineer.
- All erosion mitigation measures shall be in place prior to major construction or soil disturbance commencing on the site.
- The contractor shall limit on site storage of materials to that needed to maintain construction progress and shall clean the site of any loose debris at the end of each work day. In the event that debris is carried onto any public way, the Contractor shall clean up that debris within 24 hrs of notification. Failure to meet this requirement after formal notification by the Planning Board may result in suspension of construction.
- Special Permit for this project was approved by the Franklin Planning Board with standard and special conditions documented in a Certificate of Vote dated May 21, 2024 and received by the Town Clerk on May 23, 2024. Special conditions are as follows:
 - The dumpster pad is to be put on a concrete slab with fence enclosure.
 - The construction of the new parking area is to commence within 1 year of the Special Permit decision.
 - Snow will be removed off-site as needed.

AREA	REQUIRED	EXISTING	PROPOSED
FRONTAGE	50 ft	65 ft	65 ft
FRONT YARD	5 ft	N/A	N/A
SIDE YARD	0 ft	N/A	N/A
REAR YARD	15 ft	N/A	N/A
LOT WIDTH	45 ft	65 ft	65 ft
LOT DEPTH	50 ft	131.10 ft	131.10 ft
HEIGHT	40 ft	N/A	N/A
STRUCT. COV.	80%	0%	0%
STRUCT. & PAV.	90%	90%	89.8%

Notes:
 N/A - Requirement not applicable, no structures remain on this property.

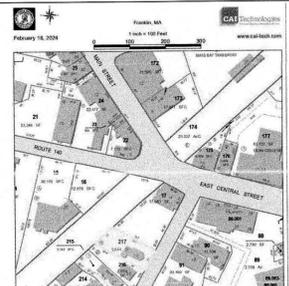


1 in. = 20 feet

REVISIONS

NO.	DATE	DESCRIPTION
3	5/29/24	Special Permit/conditions added, conc. pad for dumpster enclosure added.
2	5/19/24	Space P19 removed, 24-foot 2-way traffic.
1	5/9/24	New pkg layout Lots 217 & 17; Changes in response to BETA/Town of Franklin on Plan Set dtd 3/15/24.

SITE LOCATION MAP



PREPARED BY:



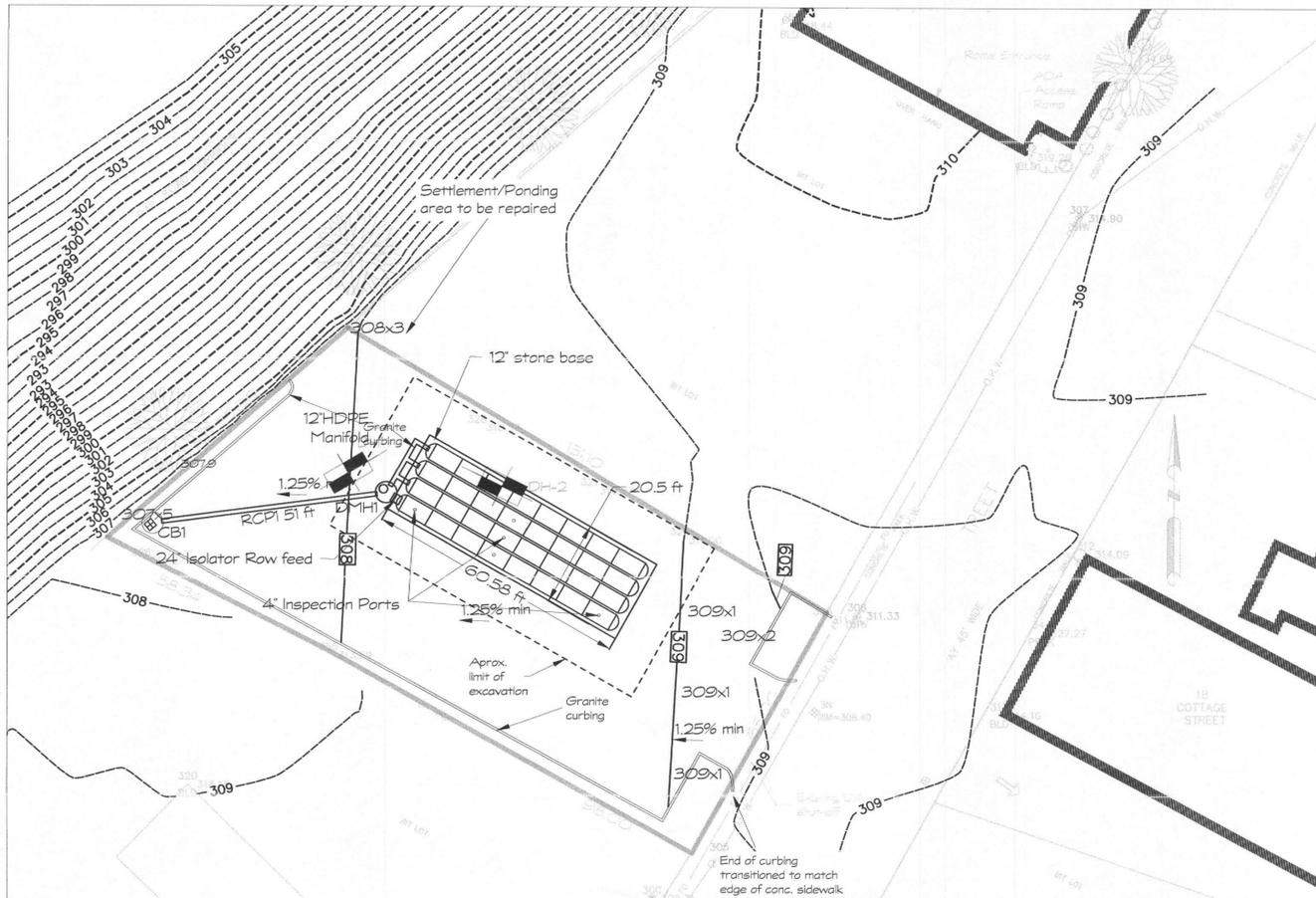
stephendunbar@dunbarem.com (774) 737-4301

DEVELOPMENT PLAN
 PROPOSED PARKING LOT
 19 Cottage Street
 FOR
 James A. Colace/Abbruzzi Realty Trust
 55 Court Street
 Franklin, MA 02038

DATE: March 15, 2024

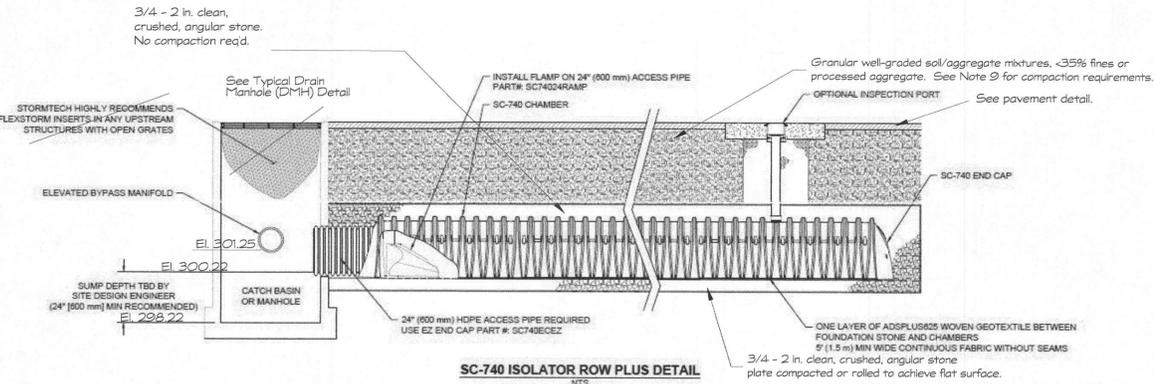
DRAWN BY: S. Dunbar

PLAN NO. 24-01



PROPOSED STORMWATER MANAGEMENT

Scale: 1 in = 20 feet

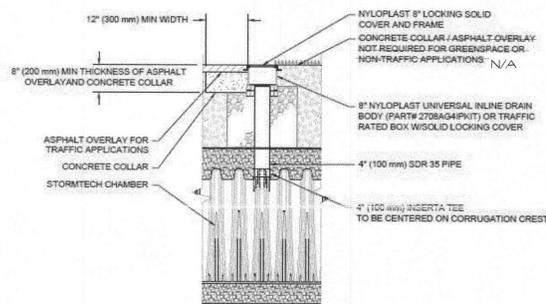


INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
 - REMOVE OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXISTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLOWISH WATER IS CLEAR
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS. RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.
- Parking area should be cleaned annually to reduce sediment runoff into storage system.
- Sump catch basins should be inspected 4 times per year and cleaned as necessary to maintain clear 48 in. sump depth. Sump cleaning via vacuum truck is preferred.

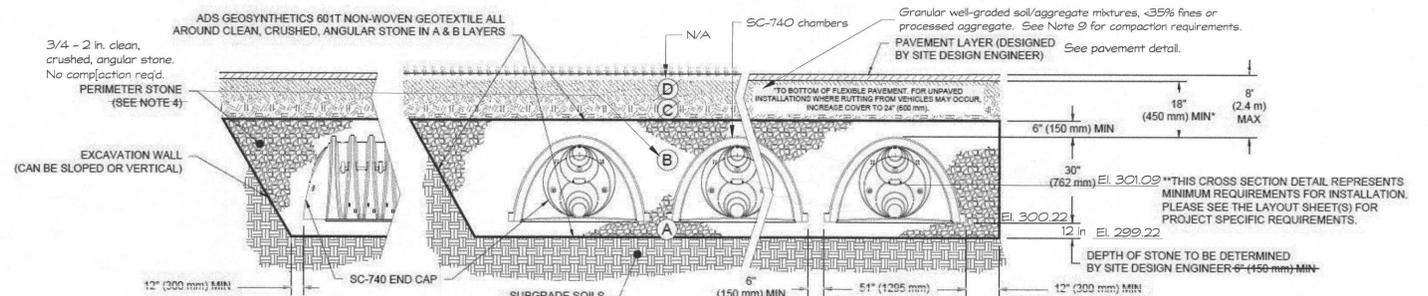
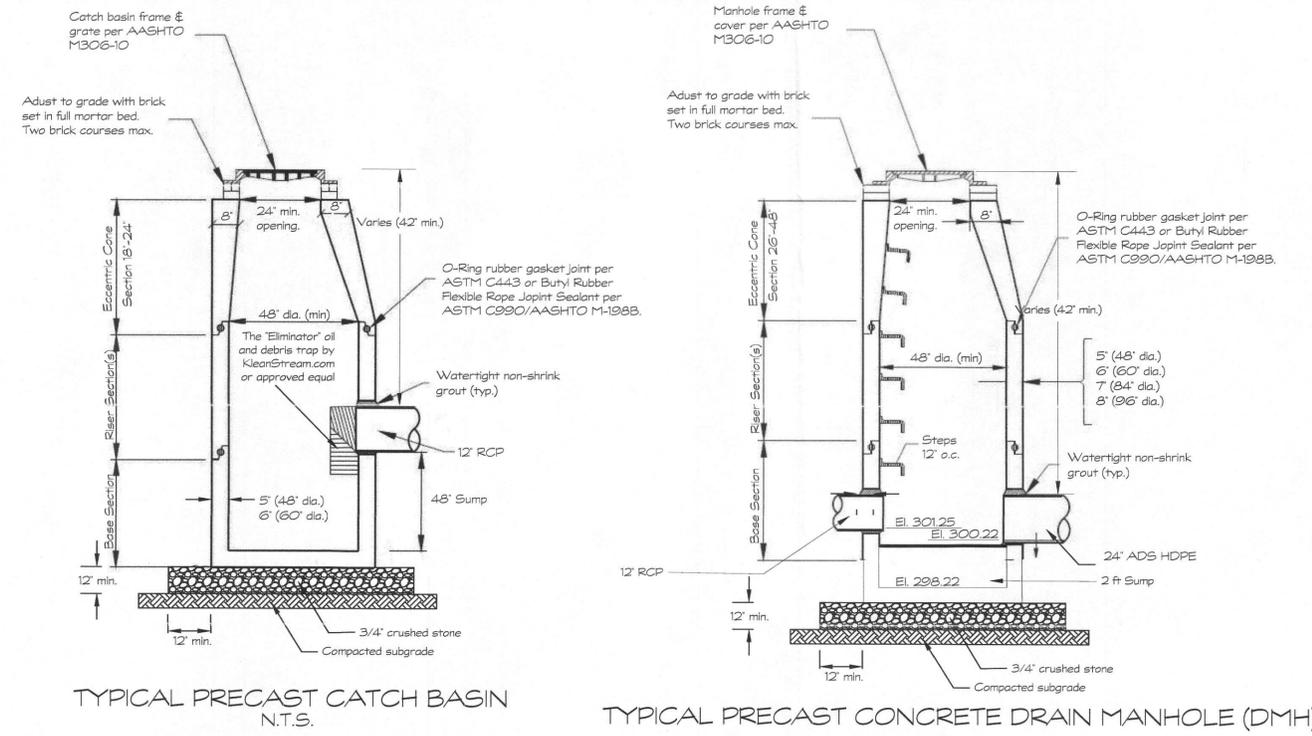


NOTES

- Drainage pipe between catch basins and drain manholes shall be reinforced concrete, with bell and spigot gasketed joints. The pipe shall be Class III in accordance with ASTM C-76. The gaskets shall be O-ring type in accordance with ASTM C-443. The minimum diameter shall be 12 inches. The pipe shall be laid in undisturbed trenches below the grade of pipes, starting with the downstream end on a firm bedding. All bells shall be facing upstream. Reference bench marks shall be clearly marked to enable the Department of Public Works Director to check the grade and invert elevations. The joints of all concrete pipes shall include a pre-molded neoprene continuous O-ring flexible compression gasket. No backfilling of pipes or culverts shall be done until the installation has been inspected and approved by the Department of Public Works Director. Backfilling shall be in layers not exceeding 12 inches, with each layer compacted by an appropriately sized plate vibrator, regardless of the method of final compaction at the subbase or gravel base level. The minimum cover is 42 inches above the top of the pipe.
- Catch basins and manholes shall be precast reinforced concrete per ASTM C478.
- All flows into a manhole shall be in the same direction (no reverse flows allowed), with a maximum angle between the main and any connecting line of 90°.
- Frames shall be at least 265 pounds. Covers or grates shall be no less than 210 pounds. The word "drain" shall be cast into the solid cover in letters at least three inches in height.
- Manhole casting shall be set flush with the designed finish grade of the pavement. Catch basin grates shall be set one inch below the finished gutter grade and shall be of the eggbox variety (square openings). Manhole castings and catch basin grates shall not be raised until thirty days prior to final paving. If paving does not occur within said thirty days, they shall be lowered immediately. Ramping is prohibited.
- Chambers shall meet the requirements of ASTM F2418, "standard specification for polypropylene (pp) corrugated wall stormwater collection chambers".
- SC-740 chambers shall be designed in accordance with ASTM F2787 "standard practice for structural design of thermoplastic corrugated wall stormwater collection chambers".
- Perimeter stone must be extended horizontally to the excavation wall for both vertical and sloped excavation walls.
- Begin compactions after 12" of material over the chambers is reached. compact additional layers in 6" max lifts to a min. 95% proctor density for well graded material and 95% relative density for processed aggregate materials. Roller gross vehicle weight not to exceed 12,000 lbs, dynamic force not to exceed 20,000 lbs.
- Chamber substitution is not permitted without approval by the site design engineer.
- Stormtech SC-740 chambers shall not be installed until the manufacturer's representative has completed a pre-construction meeting with the installers.
- Stormtech SC-740 chambers shall be installed in accordance with the "stormtech SC-310/SC-740/SC-780 construction guide".
- Chambers are not to be backfilled with a dozer or an excavator situated over the chambers. Stormtech recommends 3 backfill methods: 1) stoneshooter located off the chamber bed; 2) backfill as rows are built using an excavator on the foundation stone or subgrade; 3) backfill from outside the excavation using a long boom hoer or excavator.
- The foundation stone shall be leveled and compacted prior to placing chambers.
- Joints between chambers shall be properly seated prior to placing stone.
- Maintain minimum - 6" spacing between the chamber rows.
- The contractor must report any discrepancies with chamber foundation materials bearing capacities to the site design engineer.
- The contractor shall install "Flexistorm Catch It" inserts or approved equal during construction for all inlets to protect the subsurface stormwater management system from construction site runoff.
- The use of construction equipment over SC-740 chambers is limited: 1) No equipment is allowed on bare chambers; 2) No rubber tired loaders, dump trucks, or excavators are allowed until proper fill depths are reached in accordance with the referenced Stormtech construction guide; 3) Weight limits for construction equipment can be found in the Stormtech construction guide.
- Full 36" (900 mm) of stabilized cover materials over the chambers is required for dump truck travel or dumping.
- Use of a dozer to push embedment stone between the rows of chambers may cause damage to the chambers and is not an acceptable backfill method. Any chambers damaged by the "dump and push" method are not covered under the Stormtech standard warranty.
- Contact Stormtech at 1-888-892-2694 with any questions on installation requirements or weight limits for construction equipment.
- HydroCAD@10.20-4b was used to model both pre- and post-construction conditions. Lot 217 is 9,644 sf but it receives runoff from adjacent Lot 17 for a total contributing area of 14,750 sf. A NRCC 10-yr storm (4.86"/24 hrs) and a pre-construction impervious area of 14,750 sf resulted in 0.130 acre-feet of runoff which currently flows into existing catch basins on Cottage Street, infiltrates through bare ground at the NW end of the lot, or overtops the berm along that edge and flows onto MBTA property. The proposed project reduces impervious area by 10% and captures the remaining runoff into the subsurface Stormtech chambers. On site perc tests indicated a rapid infiltration rate (<2min/in). Using the same 10-yr storm and a conservative exfiltration rate of 8.27 in/hr indicated a peak storage elevation in the chambers of 301.14, slightly more than 1/2 full. These results are supported by the fact that the exact sized system was installed on the adjacent Lot 216 in 2014 and there have been no issues reported.

Pipe	From	To	Length	Slope	Diam.	Description
RCP1	CB-1	DMH-1	51 ft	1%	12 in	RCP
Isolator Feed	DMH-1	Infiltration	2 ft	0%	24 in.	HDPE
Manifold	DMH-1	Infiltration	16 ft (max.)	1%	12 in	HDPE

Structure	Location	Rim	Inlet			Outlet			Description
			Pipe	Diam.	Elev.	Pipe	Diam.	Elev.	
CB-1	See plan	307.45				RCP1	12 in.	302.75	Precast concrete catch basin
DMH-1	See plan	308.20	RCP1	12 in.	302.24	Iso Fdr/Man	24 in/12 in	300.22/301.25	Precast concrete drain manhole
Isolator Row	See plan		Iso. Feed	24 in.	300.22				Stormtech Infiltration chambers (isolator Row)
Rows 2-4	See plan		Manifold	12 in.	301.09				Stormtech Infiltration chambers



System with 3 rows of 8 Stormtech SC-740 chambers and 1 Isolator Row of 8 Stormtech SC-740 chambers 6 inches apart and centered within a 19 ft x 60.6 ft crushed stone field.

SPECIAL PERMIT & SITE PLAN APPROVAL (REQUIRED) FRANKLIN PLANNING BOARD

7/8/24 DATE

[Signatures]

REVISIONS

1	5/9/24	Grassed area at front of lot increase to meet 10-foot offset, front CB, M and manifold eliminated - all runoff to back of lot.
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PREPARED BY: *[Signature]*

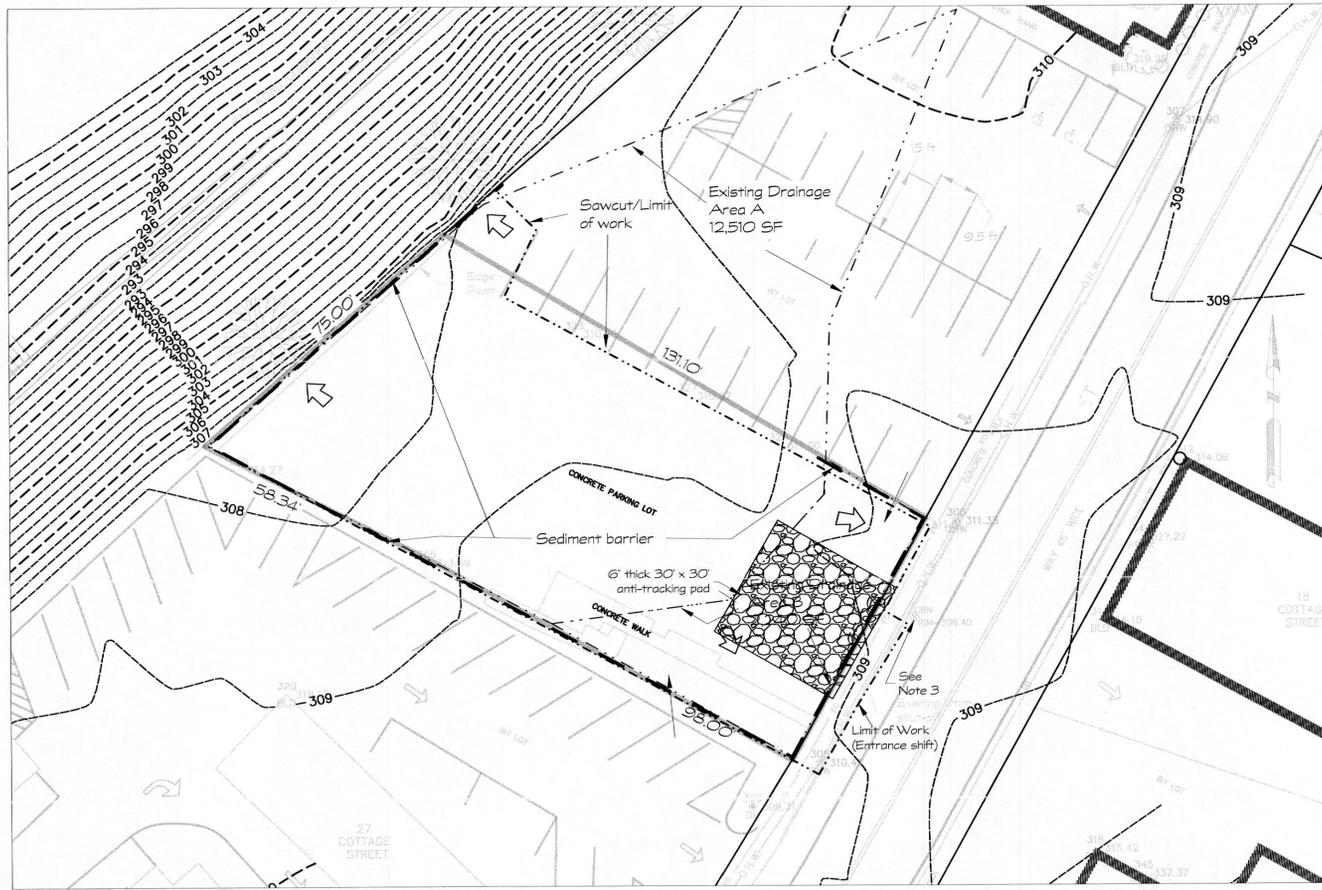
Dunbar
ENGINEERING & MANAGEMENT

stedundbar@dunbare.com (774) 737-4301

STORMWATER MANAGEMENT PLAN
PROPOSED PARKING LOT
19 Cottage Street
FOR
James A. Colace/Abbruzzi Realty Trust
55 Court Street
Franklin, MA 02038

DATE: March 15, 2024
DRAWN BY: S. Dunbar
PLAN NO: 24-02

REGISTERED PROFESSIONAL ENGINEER
STATE OF MASSACHUSETTS
NUMBER 9194



SEDIMENT & EROSION CONTROL PLAN

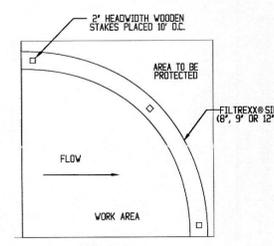
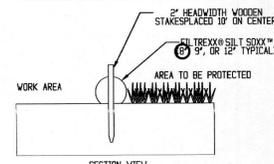
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EROSION & SEDIMENT CONTROL NOTES:

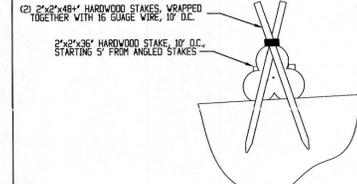
- The contractor and all sub-contractors are to be made aware that this project is subject to the requirements of the Franklin Best Development Practices Guidebook.
- Sediment barrier shall be Siltsoxx® by Filtrexx or approved equal.
- The contractor shall install UltraTech 2217 Ultra-Drain Guard® or approved equal in all catch basin/drain grates within and adjacent to the limit of work. Drain guards shall be inspected and maintained according to manufacturer's specifications.
- Anti-tracking pad at construction entrance shall be constructed with 2' stone MADOT M2.01.1 or approved equal underlain by MIRAFI 140N filter fabric or approved equal.
- Sediment barriers are to be installed where shown on this plan. The contractor is responsible for the proper maintenance of the sediment barriers and to identify and correct all sources of erosion.
- Extra sediment barrier materials are to be stored on site in order to quickly repair erosion prone areas. Periodic maintenance of the erosion control structures is required in order to insure the proper protection of the resource areas.
- Rough grading and pavement construction are to be confined to areas as shown on these plans. Any stockpiled material that is subject to erosion shall be protected at its base on the down-slope side with a silt fence.
- Temporary stabilization of disturbed areas is required to limit erosion toward abutting properties and public ways. All graded slopes are to be stabilized on a daily basis with special care taken to avoid routing rainfall through gullies toward the resource areas. Areas of erosion are to be repaired on a daily basis.
- The contractor shall increase inspections and carefully monitor construction impacts during adverse weather conditions or periods of high groundwater. Inspection is required after more than 1/2" of rainfall in 24 hours.
- All graded areas are to be loamed and seeded as soon as possible in order to insure the rapid stabilization of the erosion prone areas. A grass seed mixture of 20% Red Top, 60% Chewings Fescue and 20% Kentucky Bluegrass is recommended.
- The sediment barriers shall remain in place until all upgradient areas have been stabilized.

FILTREXX® SILT SOXX™

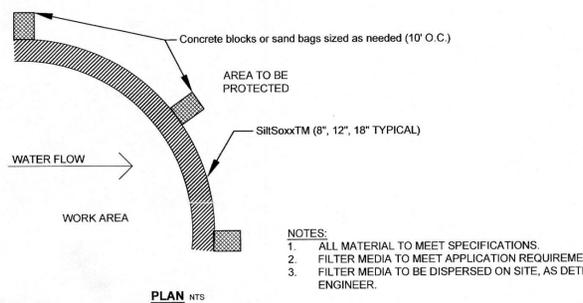
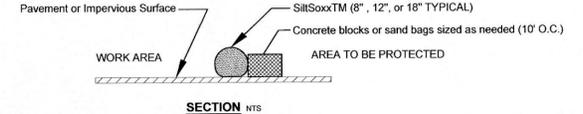
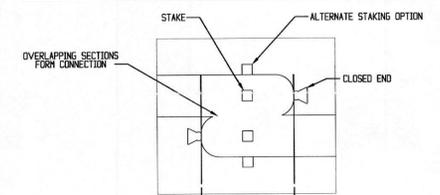


- NOTES:
 1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
 2. SILT SOXX™ FILL TO MEET APPLICATION REQUIREMENTS.

FILTREXX® PYRAMID STAKING DETAIL



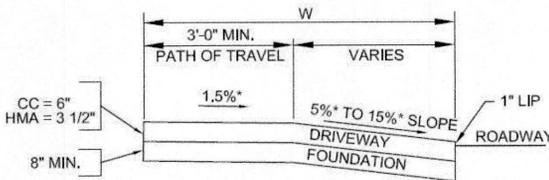
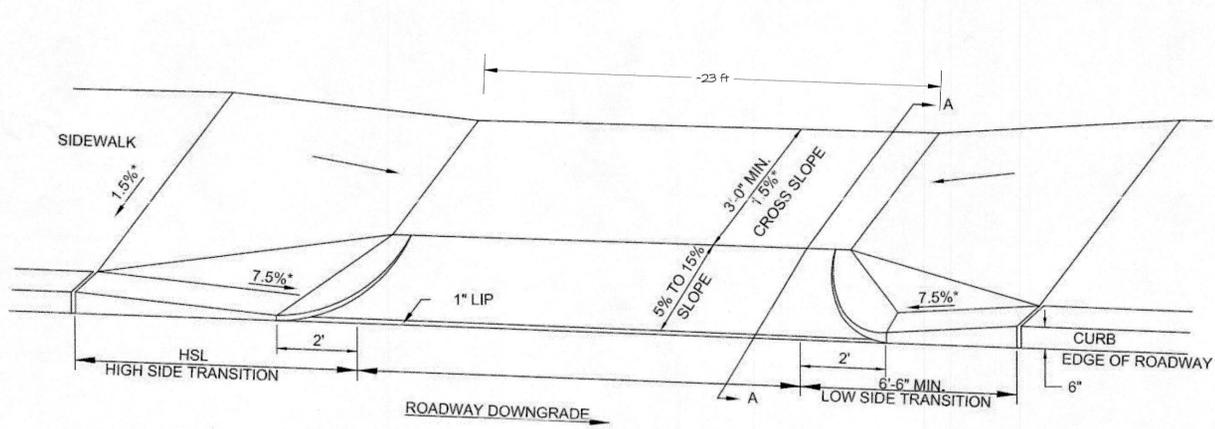
COMPOST SOCK CONNECTION/ATTACHMENT DETAIL



- NOTES:
 1. ALL MATERIAL TO MEET SPECIFICATIONS.
 2. FILTER MEDIA TO MEET APPLICATION REQUIREMENTS.
 3. FILTER MEDIA TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

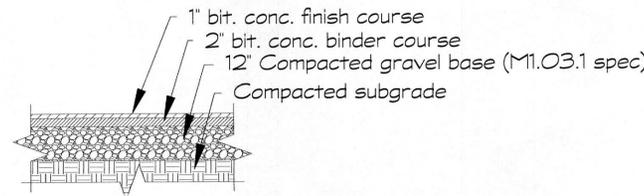
SiltSoxx™ for Sediment Control on Pavement

NTS

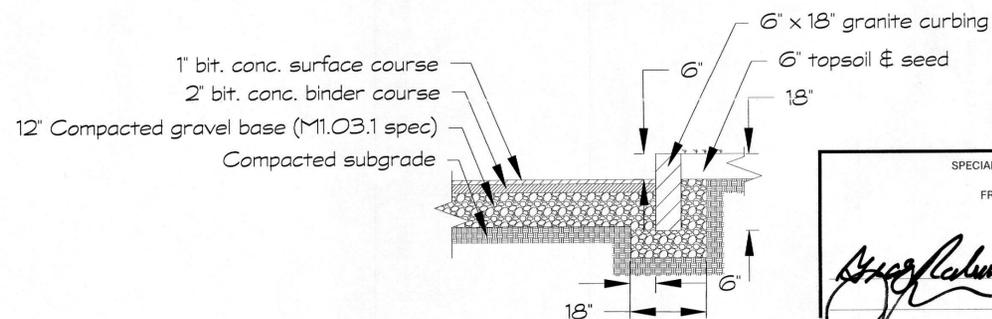


SECTION A-A

MADOT E107.8.0 SIDEWALK THROUGH DRIVEWAY DETAIL



PAVEMENT DETAIL
NTS



GRANITE CURB DETAIL
NTS

NOTES

- Vertical granite curbing shall be type W4 (Massachusetts Department of Public Works Specification M9.04.1) vertical granite, four-foot-minimum lengths, finished side facing the traveled way, with a reveal of six inches, installed in accordance with the specifications of the Massachusetts Department of Public Works (Section 501).
- Placement and compaction of materials shall meet Town of Franklin Construction Standards 300-10 F.(2) through (4) for pavement and 300-13 A.(2) for sidewalks.



12" x 18" MUTCD R7-8
NTS

LEGEND

- HSL = HIGH SIDE TRANSITION LENGTH. SEE E 107.9.0
- W = SIDEWALK WIDTH
- * = TOLERANCE FOR CONSTRUCTION ±0.5%
- CC = CEMENT CONCRETE
- HMA = HOT MIX ASPHALT

SPECIAL PERMIT & SITE PLAN APPROVAL REQUIRED
 FRANKLIN PLANNING BOARD
 DATE: 7/15/24
 [Signature]



REVISIONS	
1	5/9/24 Added anti-tracking pad and proposed material storage areas based on comments on the 3/15 submission.

PREPARED BY:

 stevedunbar@dunbarem.com (774) 737-4301

SED. & EROSION CONTROL & DETAILS
 PROPOSED PARKING LOT
 19 Cottage Street
 FOR
 James A. Colace/Abbruzzi Realty Trust
 55 Court Street
 Franklin, MA 02038

DATE: March 15, 2024
 DRAWN BY: S. Dunbar
 PLAN NO: 24-03

NOTES

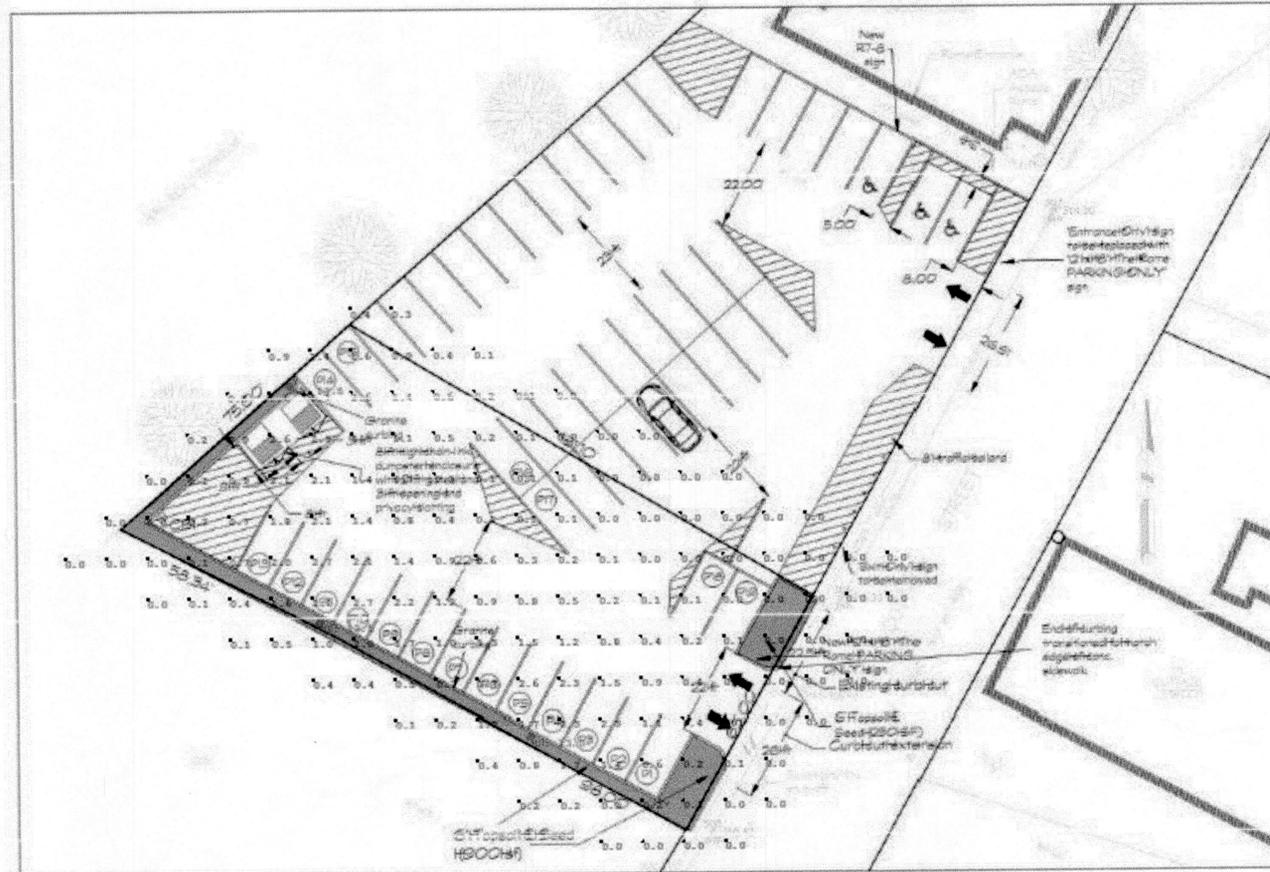
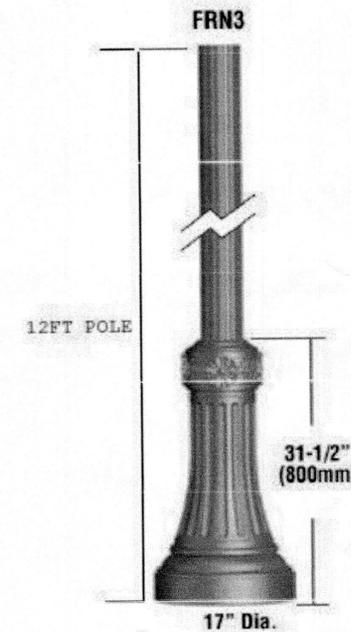
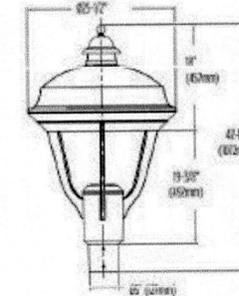
- Contractor shall provide 120V/15A service from existing power pole on Cottage Street to secure underground meter box then to 3 light poles via 2" conduit buried a minimum of 24 inches and marked with underground, detectable/metal core tape.
- Light post to be installed on concrete pedestal with anchor bolts according to manufacturer's recommendations.

EXPOSURE
LIGHTING — CONTROLS — ELECTRICAL

Lexington (LXM4)

Have questions? Call us at (800) 456-7800

PRODUCT DIMENSIONS



#	Date	Comments
Revisions		

Drawn By: CL
Checked By: [Signature]
Date: 5/9/2024
Scale: NTS

Colace Rome Parking Lot
Franklin, MA

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	[MANUFAC]
[Symbol]	3	Luminaire and Pole	Single	Luminaire: LXM4 PT FT LED 5L 50 UNV BRZ IMSBT1 IL / Pole: 4FRN3 (mat) 12' 4N BRZ	0.900	3987	39	117	LSI INDUSTRIES, INC.

Ching Ling
Exposure Lighting
cling@exposure2lighting.com
(401)523-9623

PHOTOMETRIC PLAN
NTS

SPECIAL PERMIT & SITE PLAN APPROVAL REQUIRED
FRANKLIN PLANNING BOARD
DATE: 7/9/24
[Signatures]



REVISIONS

1	5/9/24	New pkg layout Lots 217 & 17; Luminaire height changed to 13.5 ft.
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PREPARED BY:
Dunbar
ENGINEERING & MANAGEMENT
stevedunbar@dunbarem.com (774) 737-4301

PHOTOMETRIC PLAN
PROPOSED PARKING LOT
19 Cottage Street
FOR
James A. Colace/Abbruzzi Realty Trust
55 Coutu Street
Franklin, MA 02038

DATE: March 15, 2024
DRAWN BY: S. Dunbar
PLAN NO. 24-04