

EXISTING

LEGEND

	Deep Hole	NTS	NOT TO SCALE SIGN
○ DMH	DRAIN MANHOLE	DH	DRILL HOLE
	SEWER MANHOLE	□ SB/DH	STONE BOUND W/DH
☐ CBN	CATCH BASIN	R/W	EDGE OF RIGHT OF WAY
ф-HYD	HYDRANT	55	EXIST. CONTOUR
₩G	WATER GATE	_ · _ · _ _	OVERHEAD WIRES
⊗ WS	WATER SERVICE	000000000	STONE WALL
ф UP	UTILITY POLE		EXISTING TREES AND SHRUBS
☆ LP	LIGHT	······	TREELINE/LANDSCAPE
A AD	YARD LIGHTING		WETLAND BUFFER ZONE
O GV	GAS VALVE		WETLAND LINE
O UE	POST - UND. ELEC. CONDUIT	— G — G — FO —	GAS LINE BURIED FIBER OPTIC LINE BURIED
\Diamond	Runoff Direction		

Deed Reference: Book 32674 Page 212

James A. Colace/Abbruzzi Realty Trust

Assessor's Parcel ID: 285-217

Site Elevations based on NAVD88 datum.

Deep Hole Logs

SITE DATA

Property Owner:

55 Coutu Street

Franklin, MA 02038

Performed by: Stephen Dunbar, PE (SE647)

Perc tests performed using MADEP Perc Test Form 12

Deep Hole 1 (DH-1) Surface Flevation: 3081

Deep Hole	- 1 (1)	Jul lace Lievation. Jo	JO.1	
Horizon	Depth	Soil	Color	Description
Pvmt/Fill	0-8"	Gravel	N/A	
В	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% Cobblesones

Mottles: None Water: None

Percolation Depth: 58 in.

Percoaltion 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	
В	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% Cobblesones

Mottles: None

Water: None

Percolation Depth: 63 in. Percoaltion Rate: < 2 min/inch Scale: 1 in = 20 feet

NOTES 1. 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

PARKING LEGEND

P2 Proposed new full parking space (19 total)

33 parking spaces 9 ft wide x 15 ft or 16 ft long

2 Accessible parking spaces, one non-coimpliant

Result of combining Lots 217 and 17 with new parking layout:

3 Accessible/ADA-compliant spaces, one van accessible.

32 re-painted spaces 9 ft wide x 18 ft long on Lot 17

Exisiting Parking on Lot 17 (ANR Plan):

19 new parking spaces on Lot 217

Total spaces: 54 Net increase: 19

2. Property is located in Zone X (area of minimal flood hazard) on Norfolk country Flood Insurance Rate Map panel 25021C0309E (i.e., not Zone II or Interim Wellhead Protection Area or public eater supply).

3. Property is located in the Downtown Commercial District.

4. Property survey performed by Moran Surveying Inc., 14 William Avenue, Pembroke, MA 02359, (781) 293-5601. 5. 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.

6. 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.

7. 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.

8. 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.

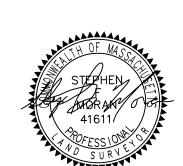
9. All materials installed shall follow Buy American requirements. Material substitutions must be approved by the design

10. All erosion mitigation measures shall be in place prior to major construction or soil disturbance commencing on the site. 11. 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.

12. Special Permit conditions certified by the Franklin Planning Board on XX/XX/XXXX are as follows:

b. No alteration of the Special Permit and the plans associated with it shall be made or affected other than by an affirmative vote of the members of the Planning Board at a duly posted meeting and upon the issuance of a written amended decision.

		REQUIRED	EXISTING	PROPOSED		
AREA		5,000 sf	9,644 sf	9,644 sf		
FRONTAGE		50 ft	65 ft	65 ft		
_:	FRONT YARD	5 ft	N/A	N/A N/A		
Ē.	SIDE YARD	O ft	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		
Н В Х	STRUCT. COV.	80%	0%	0%		
_	STRUCT. & PAV.	90%	90%	89.8%		





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REVISIONS

5/9/24 New pkg layout Lots 217 & 17; Changes in response to BETA/Town of Franklin on Plan

SITE LOCATION MAP

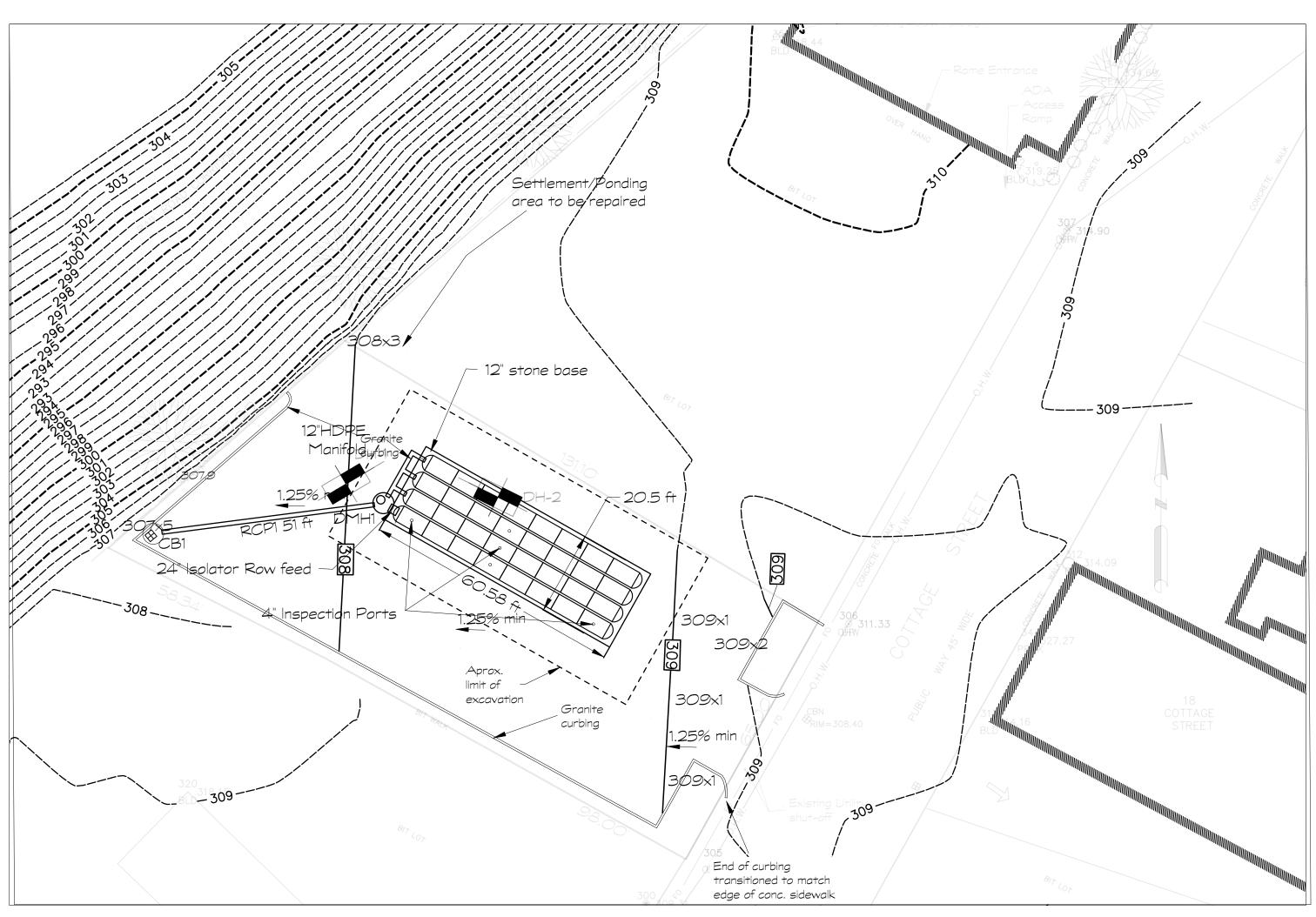
PROPOSED PARKING LOT

19 Cottage Street James A. Colace/Abbruzzi Realty Trust

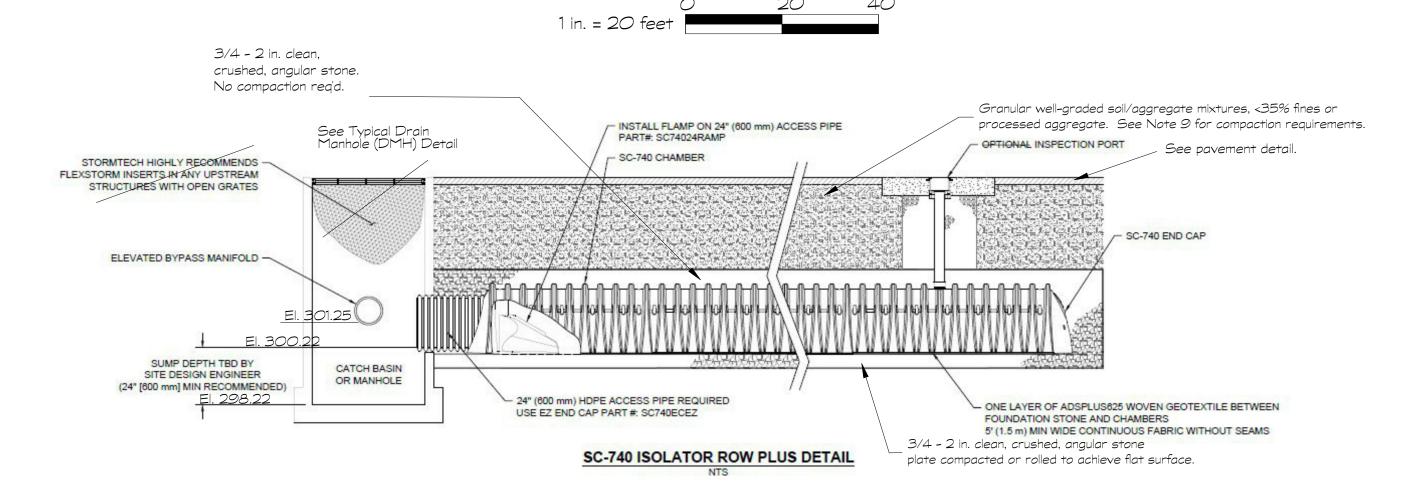
55 Coutu Street Franklin, MA 02038

DATE: March 15, 2024

DRAWN BY: S. Dunbar PLAN NO: 24-01



PROPOSED STORMWATER MANAGEMENT



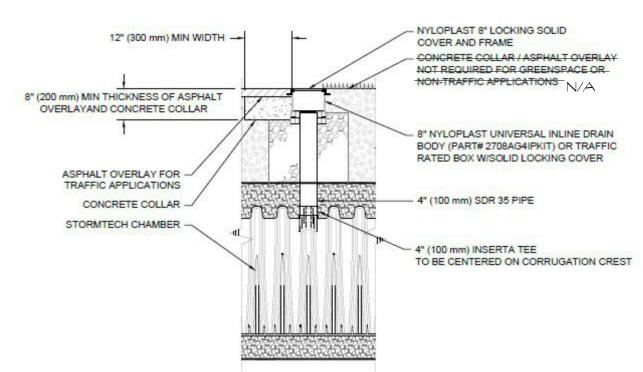
INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
 - A. INSPECTION PORTS (IF PRESENT) A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3. B. ALL ISOLATOR PLUS ROWS
 - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS B.2. 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 ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
 A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN

B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

- . 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.

- 1. 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.
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.
- 3. Parking area should be cleaned annually to reduce sediment runoff into storage system.
- 4. 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.



INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

4" PVC INSPECTION PORT DETAIL

1. Drainage pipe betwen catch basins and drin 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.

3/4 - 2 in. clean, crushed, angular stone. No comp[action req'd.

(CAN BE SLOPED OR VERTICAL)

PERIMETER STONE (SEE NOTE 4)

Catch basin frame &

grate per AASHTO

Varies (42" min.)

O-Ring rubber gasket joint per ASTM C443 or Butyl Rubber Flexible Rope Jopint Sealant per ASTM *C990/*AASHT*0* M-198E

Watertight non-shrink

opening.

and debris trap by KleanStream.com

or approved equal

6" (60" dia.)

ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE AL

Adust to grade with brick

set in full mortar bed.

Two brick courses max.

- 2. Catch basins and manholes shall be precast reinforced concrete per ASTM C478. 3. 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°. 4. 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

5. Manhole casting shall be set flush with the designed finish grade of the pavement.

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.

Catch basin grates shall be set one inch below the finished gutter grade and shall be

- 6. Chambers shall meet the requirements of ASTM F2418, "standard specification for
- 7. SC-740 chambers shall be designed in accordance with ASTM F2787 "standard practice for structural design of thermoplastic corrugated wall stormwater collection

polypropylene (pp) corrugated wall stormwater collection chambers".

8. Perimeter stone must be extended horizontally to the excavation wall for both vertical and sloped excavation walls.

	DRAINAGE PIPE SCHEDULE								
Pipe	From	То	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			
			` ,						

				D	RAINAGE S	STRUCTUR	RE SCHEI	DULE		
			Inlet			Outlet				
Structure	Location	Rim	Pipe	Diam.	Elev.	Pipe	Diam.	Elev.	Description	
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	

INFILTRATION SYSTEM CROSS SECTION (NTS)

SUBGRADE SOILS

12" RCP —

Manhole frame &

Adust to grade with brick

Two brick courses max.

set in full mortar bed.

cover per AASHTO

- 9. 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. 10. Chamber substitution is not pemitted without approval by the site design engineer. 11. Stormtech SC-740 chambers shall not be installed until the manufacturer's
- representative has completed a pre-construction meeting with the installers. 12. Stormtech SC-740 chambers shall be installed in accordance with the "stormtech SC-310/SC-740/SC-780 construction guide".
- 13. 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 hoe or excavator.
- 14. The foundation stone shall be leveled and compacted prior to placing chambers. 15. Joints between chambers shall be properly seated prior to placing stone.
- 16. Maintain minimum 6" spacing between the chamber rows. 17. The contractor must report any discrepancies with chamber foundation materials
- bearing capacities to the site design engineer. 18. The contrcator shall install "Flexstorm Catch It" inserts or approved equal during
- from construction site runoff. 19. 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.

construction for all inlets to protect the subsurface stormwater management system

- 20. Full 36" (900 mm) of stabilized cover materials over the chambers is required for dump truck travel or dumping.
- 21. 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

'TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR (450 mm) MIN* 6" (150 mm) MIN (762 mm) El. 301.09 **THIS CROSS SECTION DETAIL REPRESENTS

(150 mm) MIN - 51" (1295 mm) ----→ 12" (300 mm) MIN 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 \times 60.6 ft crushed stone field.

and there have been no issues reported.

- 22. Contact Stormtech at 1-888-892-2694 with any questions on installation

DEPTH OF STONE TO BE DETERMINED BY SITE DESIGN ENGINEER 6" (150 mm) MIN-

O-Ring rubber gasket joint per

ASTM C443 or Butyl Rubber Flexible Rope Jopint Sealant per ASTM C990/AASHTO M-198B

6" (60" dia.)

8" (96" dia.)

grout (typ.)

 \longrightarrow 3/4" crushed stone

Granular well-graded soil/aggregate mixtures, <35% fines or

processed aggregate. See Note 9 for compaction requirements.

TYPICAL PRECAST CONCRETE DRAIN MANHOLE (DMH)

requirements or weight limits for construction equipment. 23. 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

PROJECT SPECIFIC REQUIREMENTS.

REVISIONS

5/9/24 Grassed area at front of lot increase to meet 10-foot offset, front CB, MH and manifold eliminated - all runoff to back of lot.

PREPARED BY:



STORMWATER MANAGEMENT PLAN PROPOSED PARKING LOT 19 Cottage Street

> James A. Colace/Abbruzzi Realty Trust 55 Coutu Street Franklin, MA 02038

DATE: March 15, 2024

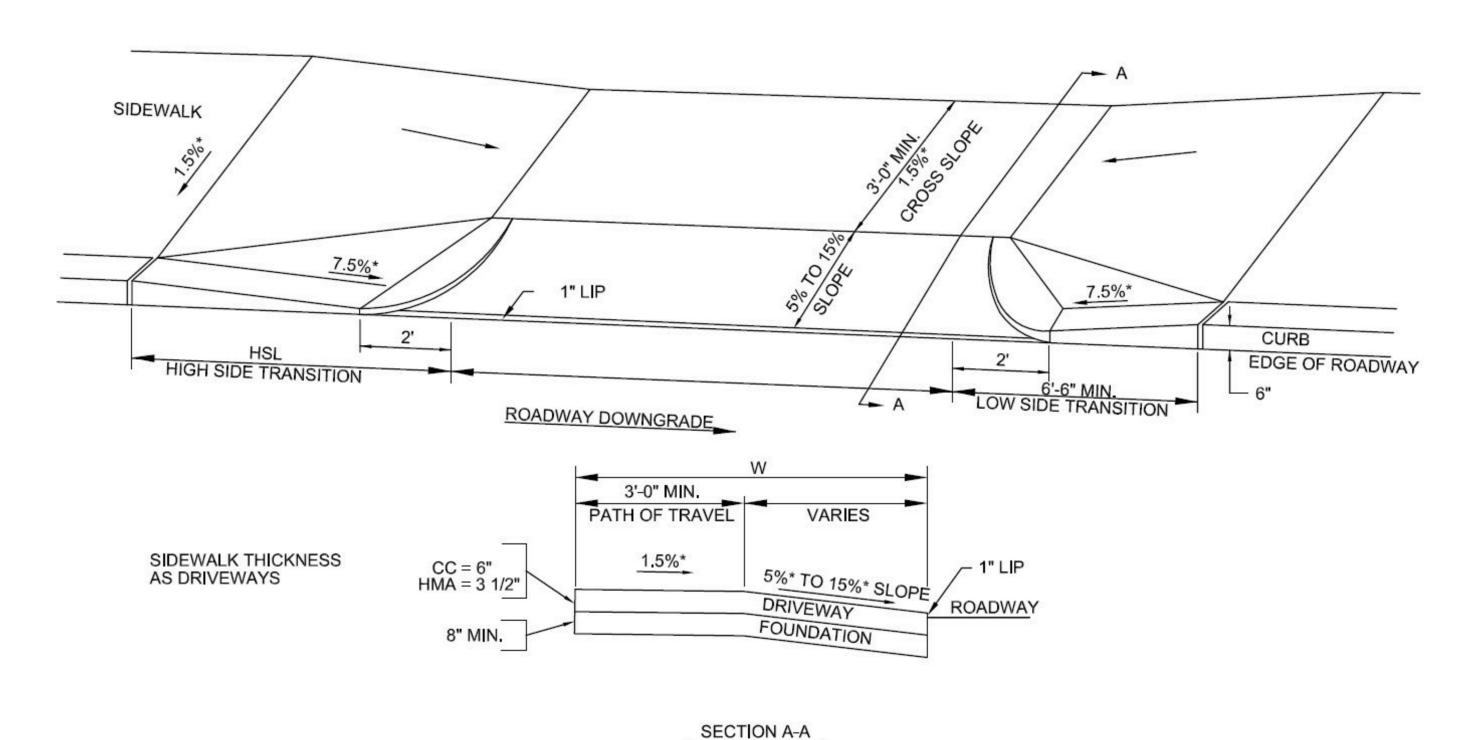
DRAWN BY: S. Dunbar PLAN NO: 24-02





SEDIMENT & EROSION CONTROL PLAN

SCALES 1 in. = 20 feet



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

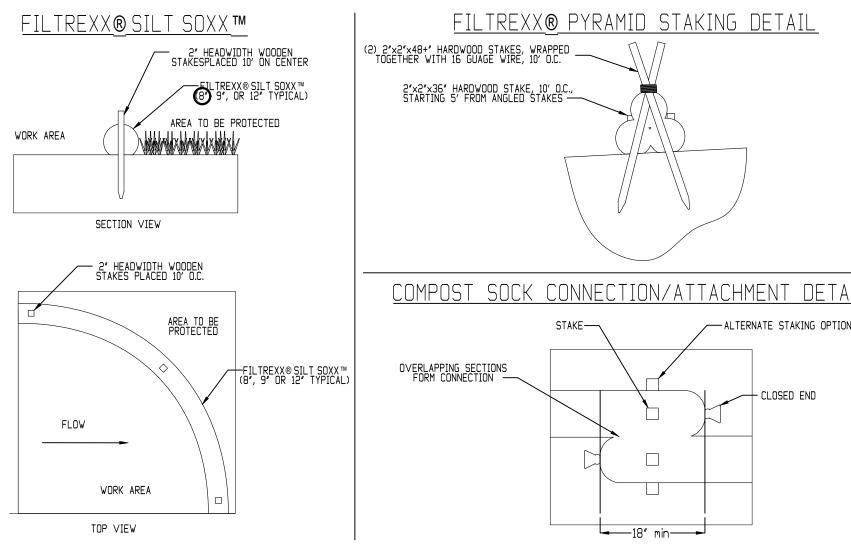
MADOT E107.8.0 SIDEWALK THROUGH DRIVEWAY DETAIL

EROSION & SEDIMENT CONTROL NOTES:

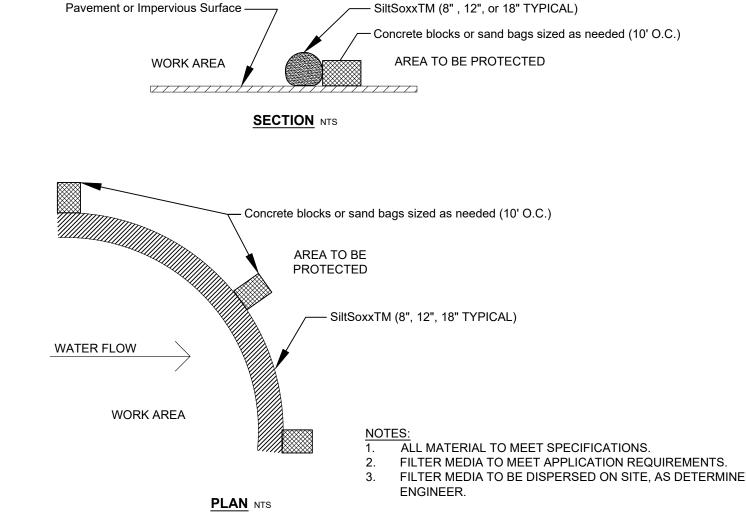
- 1. The contractor and all sub-contractors are to be made aware that this project is subject to the requirments of the Franklin Best Development Practices Guidebook.
- 2. Sediment barrier shall be Siltsoxx® by Filtrexx or approved equal.
- 3. The contractor shall install UltraTech 9217 Ultra-Drain Guard® 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.
- 4. 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.
- 5. 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.
- 6. 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. 7. 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. 8. Temporary stabilization of disturbed areas is required to limit erosion toward abutting properties and public ways. All graded slopes
- of erosion are to be repaired on a dally basis. 9. 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.

are to be stabilized on a daily basis with special care taken to avoid routing rainfall through gullies toward the resource areas. Areas

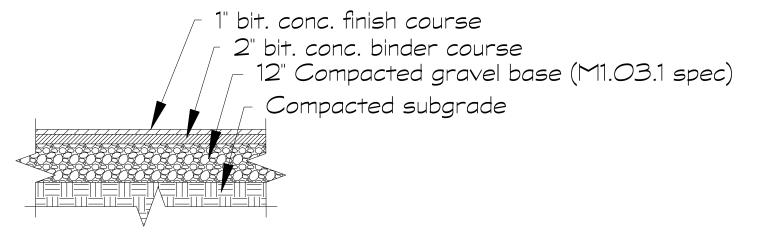
- 10. All graded areas are to be loamed and seeded as soon as possible in order to insure the rapid stabilization of the erosion prone
- areas. A grass seed mixture of 20% Red Top, 60% Chewlngs Fescue and 20% Kentucky Bluegrass is recommended.
- 11. The sediment barriers shell remain in place until all upgradient areas have been stabilized.



COMPOST SOCK CONNECTION/ATTACHMENT DETAIL

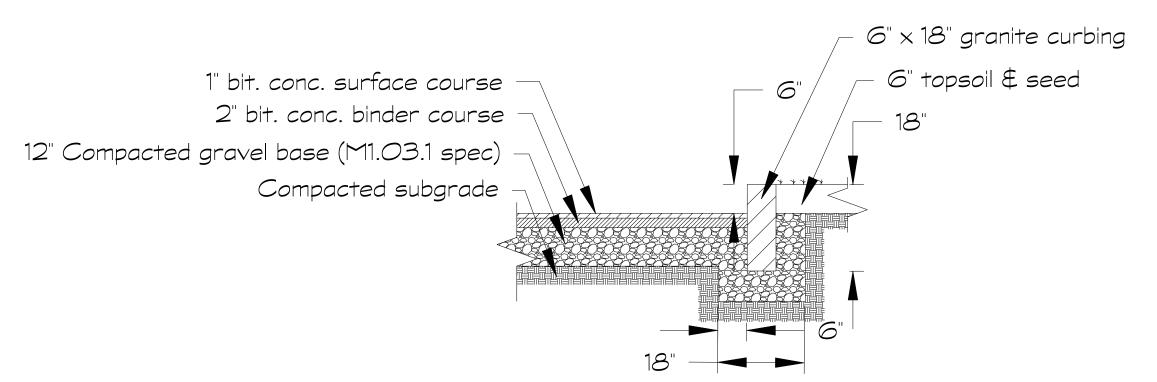


SiltSoxxTM for Sediment Control on Pavement



PAVEMENT DETAIL NTS

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





NOTES

- 1. 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).
- 2. 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.





PREPARED BY:



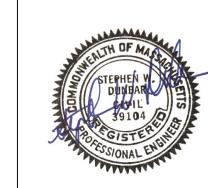
SED. & EROSION CONTROL & DETAILS PROPOSED PARKING LOT 19 Cottage Street

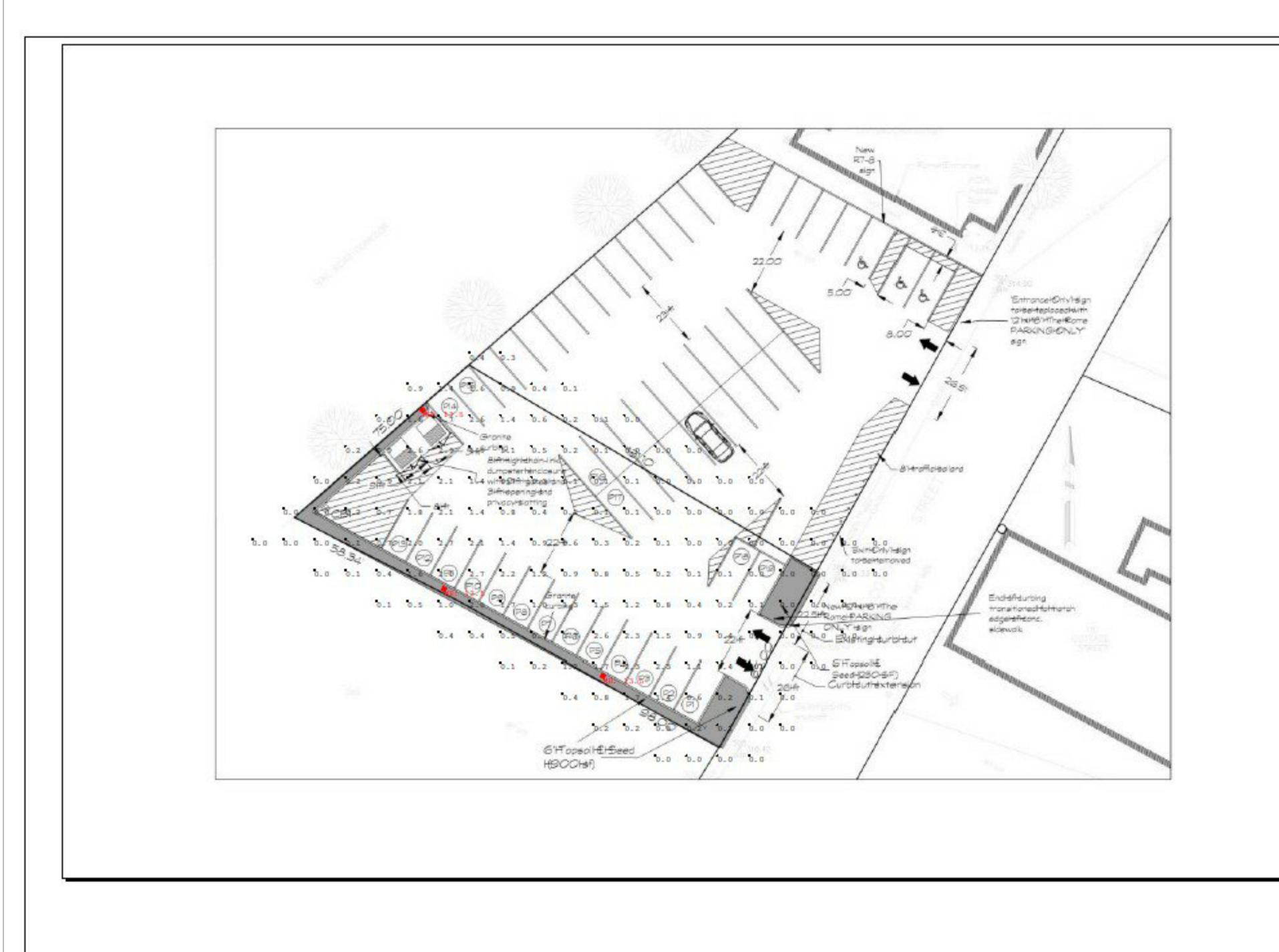
James A. Colace/Abbruzzi Realty Trust 55 Coutu Street

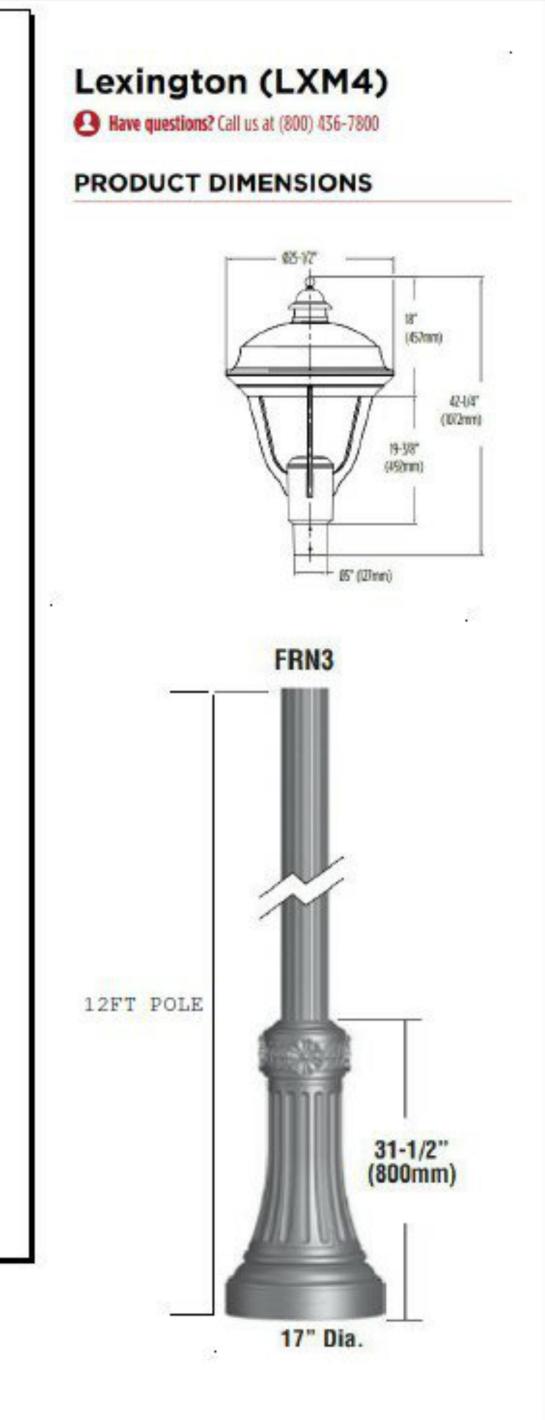
Franklin, MA 02038

DATE: March 15, 2024

DRAWN BY: S. Dunbar PLAN NO: 24-03







Luminaire S	chedule				1900	100000000000000000000000000000000000000			E1980847273233110
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	[MANUFAC]
	3	Luminaire and Pole	Single	Luminaire: LXM4 PT FT LED 5L 50 UNV BRZ IMSBT1 IL / Pole: 4FRN3 (mat1) 12' 4N BRZ	0.900	3987	39	117	INDUSTRIES, INC.

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

NOTES

Revisions

Colace Rome

Franklin,

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



5/9/24 New pkg layout Lots 217 & 17; Luminaire height changed to 13.5 ft.

PREPARED BY:



PHOTOMETRIC PLAN

PROPOSED PARKING LOT 19 Cottage Street

James A. Colace/Abbruzzi Realty Trust 55 Coutu Street Franklin, MA 02038

DATE: March 15, 2024

DRAWN BY: S. Dunbar

PLAN NO: 24-04

