

SCALE: 1" = 40' (HOR.)

(2) 5/8" GALV. CARRIAGE BOLTS COUNTERSINK NUTS AND PEEN BOLT ENDS -CHAMFERED TOP 4" X 10" X 16' PRESSURE TREATED WOOD - RAIL. ALL SIDES PLANED SMOOTH _ 6 IN. LAYER CRUSHED STONE 8-FT TYP. EXCEPT WHERE NOTED CARRAGE BOLT - FLUSH MOUNTED -TAMPED SCREENED GRAVEL IN 6" LIFTS ALL AROUND FINISH GRADE 6" X 8" X 6'-0" PRESSURE TREATED WOOD POST ALL SIDES PLANED SMOOTH

ELEVATION

WOOD GUARDRAIL DETAIL (NOT TO SCALE)

PLAN NOTES:

- 1. WETLAND RESOURCES FLAGGED BY WILLIAMS AND SPARAGES, LLC ON APRIL 10, 2018.
- 2. WETLAND RESOURCE FLAGS AND FEMA ZONE AE (EL=73) LOCATED BY AN ACTUAL FIELD SURVEY
- SPARAGES, LLC BETWEEN APRIL 24, 2018 AND MAY 11, 2018 UNLESS OTHERWISE NOTED.
- 4. ELEVATIONS SHOWN ARE ON NORTH AMERICAN VERTICAL DATUM OF 1988.
- 6. ABUTTING STRUCTURES AND UNDERGROUND UTILITIES SHOWN COMPILED FROM INFORMATION
- OF RECORD AT THE ESSEX SOUTH REGISTRY OF DEEDS.
- 8. EXISTING UNDERGROUND UTILITIES TO BE CUT AND CAPPED.
- 9. ALL HARDWOOD TREES 24-INCHES (DBH) AND GREATER AND ALL SOFTWOOD TREES 36-INCHES THE PLAN. TREES TO BE REMOVED ARE INDICATED AS SHOWN IN THE TREE IDENTIFICATION
- 10. ORANGE CONSTRUCTION FENCING WILL BE USED TO CORDON OFF EXISTING TREES TO REMAIN.
- 7.5 AND 8.2.1. 12. REFER TO GENERAL NOTES SHOWN ON THE COVER SHEET.
- 13. SEE ALSO HOMEOWNERS ASSOCIATION (HOA) DOCUMENT INCORPORATED AS PART OF THE PLANNING BOARD DECISION.

1. SECTION 6.4.D.(1) WAIVE REQUIREMENT TO SHOW THE ROADWAY AND SIDEWALK LOCATIONS DESIGNATED WITH WIDTHS AND RADIUS AS THE THE ROADWAY RADIUS ARE SHOWN IN PLAN VIEW AND THE SIDEWALK IS SHOWN ON THE ROADWAY SECTION DETAIL SHOWN ON THE DEFINITIVE PROFILE SHEET 4 OF 11.

BENCHMARKS: (N.A.V.D. 88)

STREET (LOT 9) - ELEV=105.53

STREET (LOT 1) - ELEV=110.37

REQUESTED SHEET WAIVERS;

#1) TOP OF STONE BOUND DRILL HOLE FRONT OF #6 CRANBERRY LANE - ELEV=93.80

#2) TOP OF MAG NAIL IN SIDEWALK SUMMER

#3) TOP OF MAG NAIL IN SIDEWALK SUMMER

- 2. SECTION 6.4.D.(2) WAIVE REQUIREMENT TO SHOW CONTOURS AT 1' INTERVALS AS 2' INTERVALS WITH INDEX CONTOURS ARE SHOWN.
- 3. SECTION 6.4.B.(4) WAIVE THE REQUIREMENT TO SHOW THE SPECIES OF TREES. THE LOCATIONS, CALIPERS AND CLASSIFICATION (I.E. CONIFER OR DECIDUOUS) ARE SHOWN.
- 4. SECTION 6.4.D.(8) WAIVE REQUIREMENT TO SHOW TOP AND BOTTOM OF CURB GRADES AND RETAINING WALLS.

<u>OWNERS:</u>

JANET M. TOBIN & ANNMARIE

PENDOLA, TRUSTEES OF THE

DEGIOVANNI FAMILY TRUST

333 SUMMER STREET

LYNNFIELD, MA 01940

BOOK 32543 PAGE 434

ASSESSOR'S REFERENCE:

STEPHEN C. WALLACE &

339 SUMMER STREET

LYNNFIELD, MA 01940

BOOK 32841 PAGE 114

ASSESSOR'S REFERENCE:

DEED REFERENCE:

JANE W. COONROD

MAP 34 LOT 2055

349 SUMMER STREET

BOOK 6466 PAGE 334

ASSESSOR'S REFERENCE:

DATE:

LAURA SINGLETON WALLACE

DEED REFERENCE:

MAP 34 LOT 2015

5. SECTION 6.4.D.(11) WAIVE REQUIREMENT TO SHOW INSERT OF THE DETENTION BASIN AS THE INSERT IS SHOWN ON DETAIL SHEET 3 OF 3. I CERTIFY THAT I HAVE CONFORMED WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS IN PREPARING THIS PLAN.

WILLIAMS & SPARAGES LLC

CLERKS CERTIFICATION ON THE PLAN

DATE:

CLERK OF THE TOWN OF LYNNFIELD, DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT NO APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK

LYNNFIELD PLANNING BOARD

ZONING DISTRICT: RB

MINIMUM LOT AREA = 30,000 S.F. MINIMUM LOT FRONTAGE = 150 FEET FRONT YARD SETBACK = 40 FEET (OR 60 FROM STREET CENTER LINE) SIDE YARD SETBACK = 20 FEET REAR YARD SETBACK = 20 FEET

PORTIONS OF LOT 5 LIE WITHIN THE FLOOD PLAIN DISTRICT AND WETLAND BUFFER ZONE DISTRICT

■ - DENOTES A GRANITE STONE BOUND WITH A DRILL HOLE TO BE SET.

| 6 | 는 사용하는 경험 사용하는 것이 되었다. 그런 사용하는 것이 되었다는 것이 되었다는 것이 되었다. 그런 그런 그런 그런 그런 그런 그런 그런 것이 되었다. 그렇게 되었다는 것이 되었다면 하는 것이 그런 것이 되었다면 하는 것이 되었다. 그런 | |
|---|---|-----------|
| 5 | TOWN COMMENTS | 8/12/2019 |
| 4 | TOWN COMMENTS | 7/29/2019 |
| 3 | TOWN COMMENTS/PEER REVIEW | 7/2/2019 |
| 2 | TOWN COMMENTS/PEER REVIEW | 6/10/2019 |
| 1 | TOWN COMMENTS/PEER REVIEW | 5/9/2019 |

DEFINITIVE TOPOGRAPHIC PLAN **TUTTLE LANE**

LYNNFIELD, MA

APPLICANT/SUBDIVIDER: PL MASS RE DEVELOPMENT, LLC 23 STILES ROAD - SUITE 104 SALEM, NH 03079

OWNER: SEE ABOVE

SSESSOR'S REFERENCE: MAP 34 LOTS 2015, 2027, & 2055

20' 40' SCALE: 1"=40' NOVEMBER 21, 2018

SPARAGES 189 NORTH MAIN STREET MIDDLETON, MA 01949 PHONE: (978) 539-8088 FAX: (978) 539-8200 WSENGINEERS.COM TOPO SHEET 2 OF 2

SHEET 6 OF 12

PERFORMED BY WILLIAMS & SPARAGES, LLC ON APRIL 23, 2018. 3. TOPOGRAPHIC INFORMATION SHOWN IS FROM AN ACTUAL FIELD SURVEY BY WILLIAMS AND

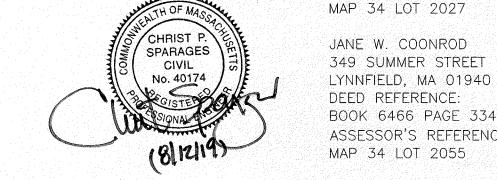
5. THIS PLAN IS BASED UPON AN ACTUAL FIELD SURVEY BY WILLIAMS AND SPARAGES BETWEEN APRIL 23, 2018 AND MAY 11, 2018.

PROVIDED BY THE TOWN OF LYNNFIELD WATER DEPARTMENT, THE BOARD OF HEALTH AND PLANS

7. EXISTING STRUCTURES ARE TO BE RAZED.

(DBH) AND GREATER THROUGHOUT THE ENTIRE PROPERTY HAVE BEEN LOCATED AND SHOWN ON TABLE. ALL OTHER TREES WILL BE FURTHER EVALUATED AT THE TIME OF HOUSE CONSTRUCTION TO DETERMINE IF THEY CAN BE SAVED. ONLY THE 62 INCH AND 64 INCH SILVER MAPLE TREES LOCATED IN FRONT OF #339 SUMMER STREET HAVE BEEN IDENTIFIED AS TREES TO BE SAVED.

11. ALL CLEARING, EXCAVATING AND FILLING WILL BE IN ACCORDANCE WITH CHAPTER 375 SECTION



ACTION

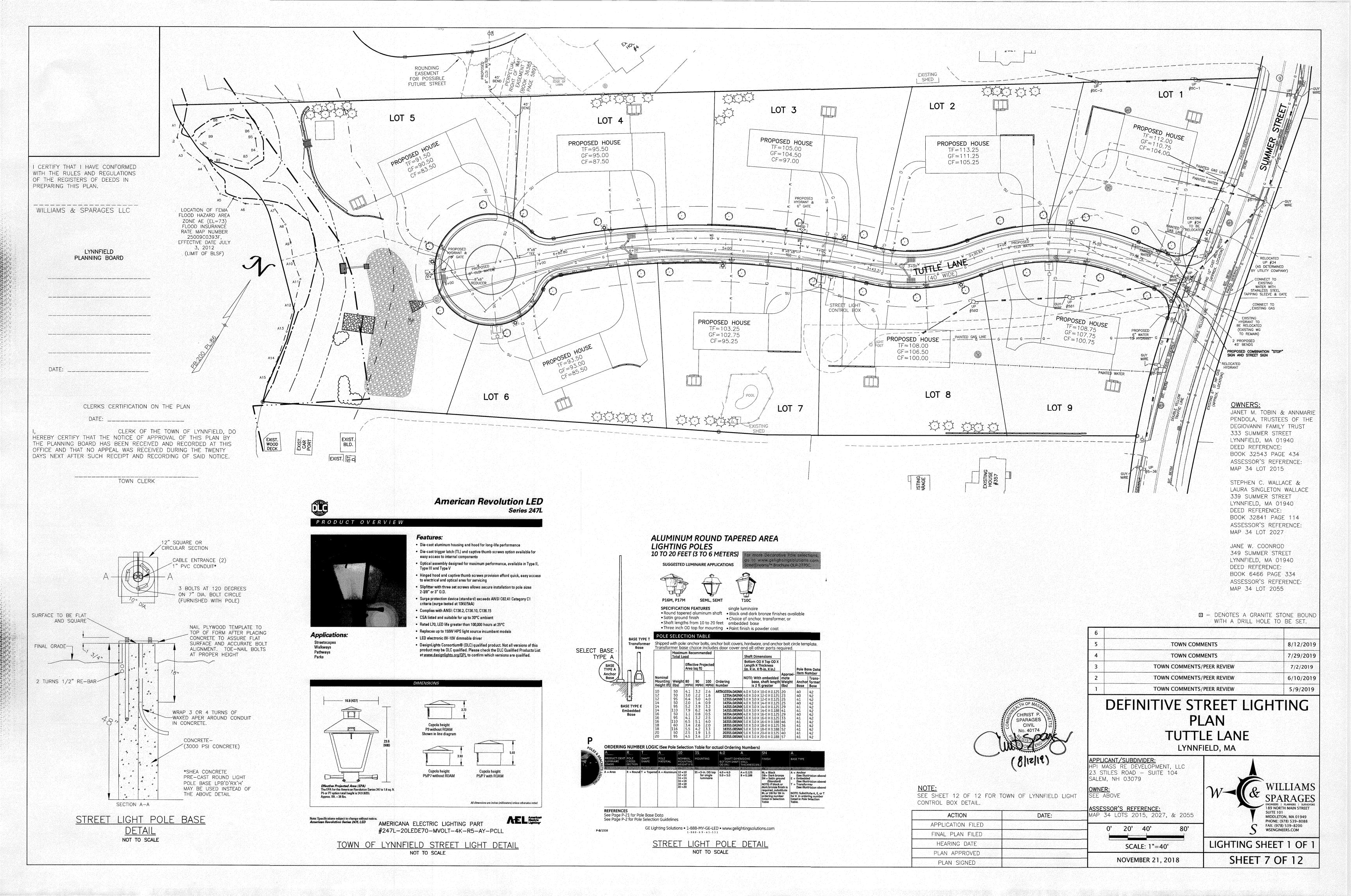
APPLICATION FILED

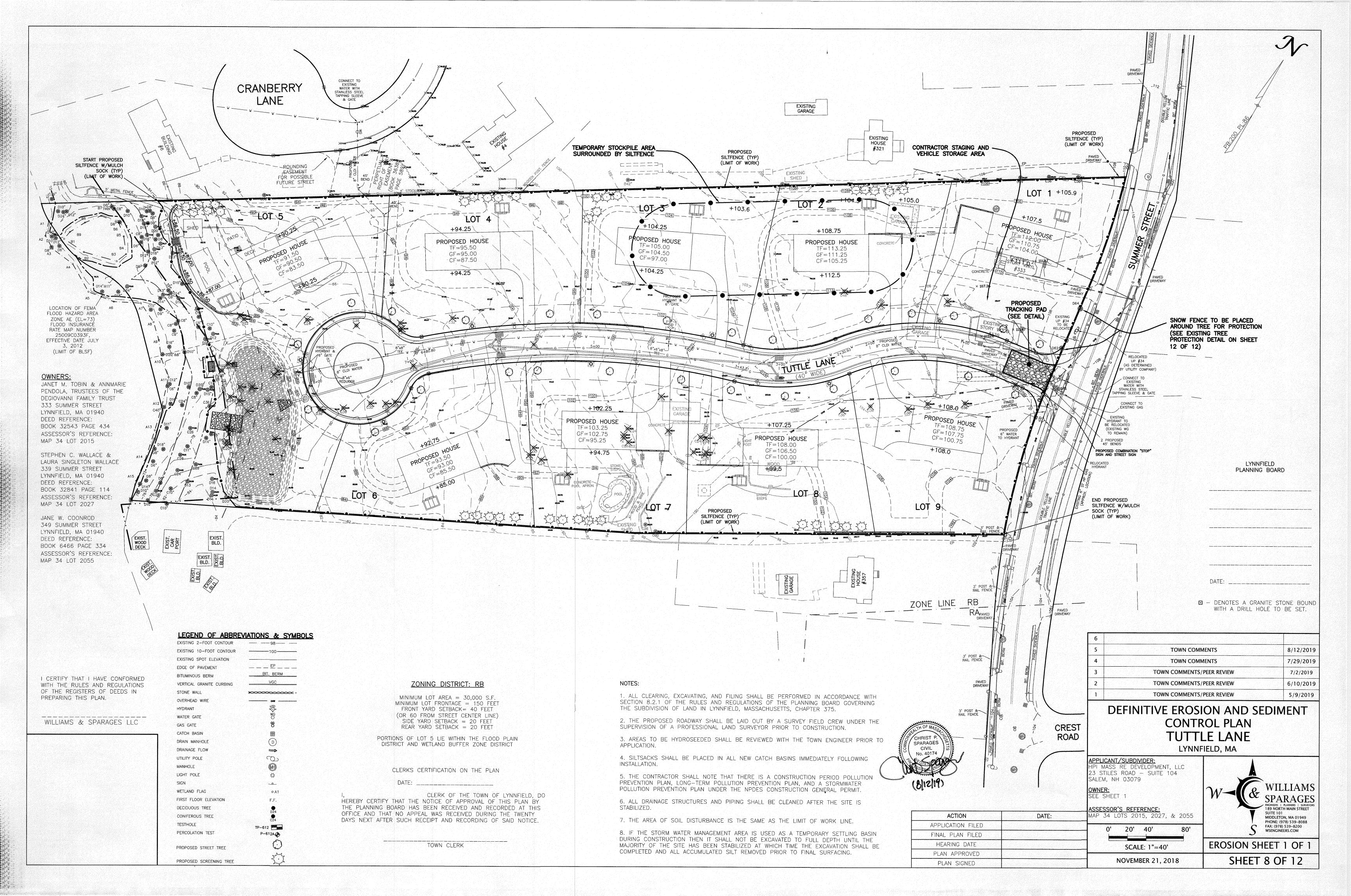
FINAL PLAN FILED

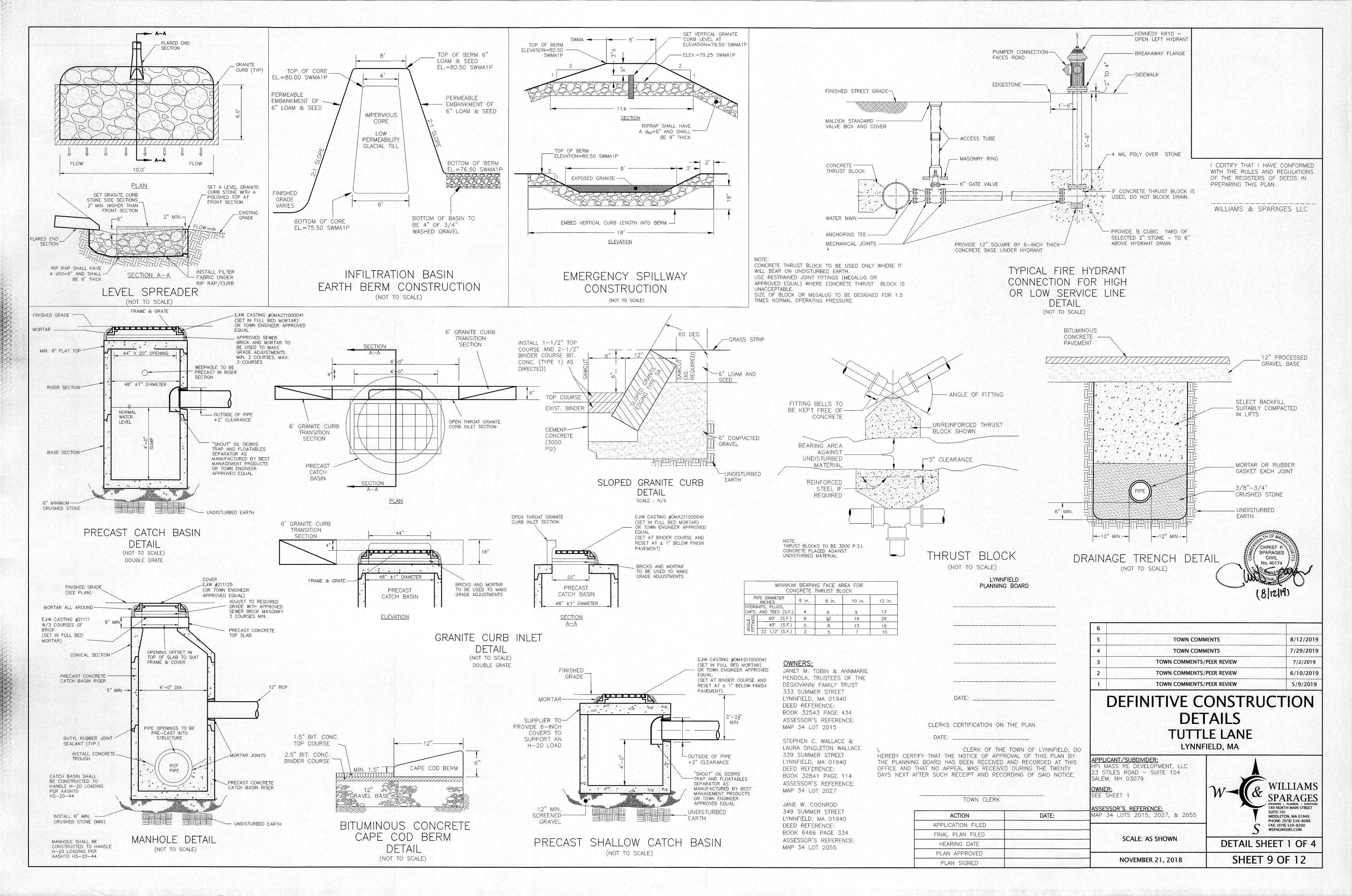
HEARING DATE

PLAN APPROVED

PLAN SIGNED







ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

| | MATERIAL LOCATION | DESCRIPTION | AASHTO MATERIAL CLASSIFICATIONS | COMPACTION / DENSITY REQUIREMENT |
|---|--|--|--|--|
| D | FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER | ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS. | N/A | PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS. |
| C | INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER. | GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER. | ÓR | BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) 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 (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN). |
| В | EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE. | CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm) | AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57 | NO COMPACTION REQUIRED. |
| Α | FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER. | CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm) | AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57 | PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. 23 |

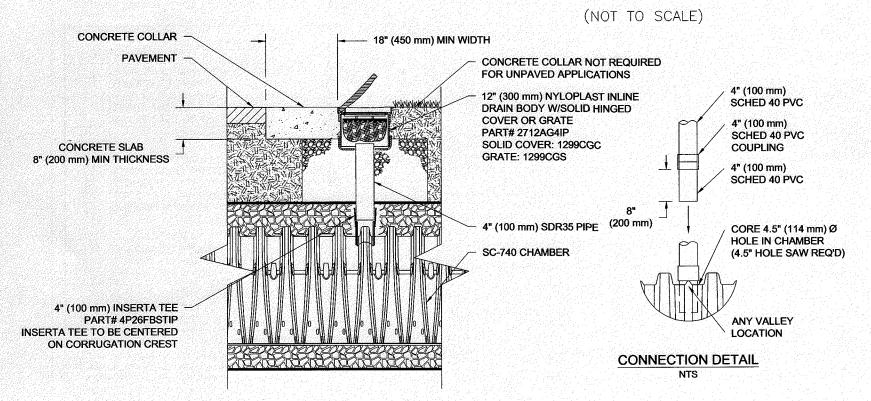
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE". 2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

| | 01T NON-WOVEN GEOTEXTILE ALL ANGULAR STONE IN A & B LAYERS | PAVEMENT LAYER (I BY SITE DESIGN ENC | |
|--|---|--|---|
| PERIMETER STONE (SEE NOTE 6) | 2011 2011 2011 2011 2011 2011 2011 2011 | TO BOTTOM OF FLEXIBLE PAVEMENT, FOR UNPAVED INSTALLATIONS WHERE BUTTURG FROM VEHICLES MAY OCCUR. | 18" (2.4 m) (450 mm) MIN* MAX |
| EXCAVATION WALL (CAN BE SLOPED OR VERTICAL) | B | | 6" (150 mm) MIN |
| 12" (300 mm) MIN ——————————————————————————————————— | SC-740 END CAP SUBGRADE SOILS (SEE NOTE 5) | 6" (150 mm) MIN - 51" (1295 mm) - | DEPTH OF STONE TO BE DETERMINED BY DESIGN ENGINEER 6" (150 mm) MIN 12" (300 mm) TYP |

NOTES:

- 1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION
- 3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL 4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
- 5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- 6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL

STORMTECH SC-740 CROSS SECTION

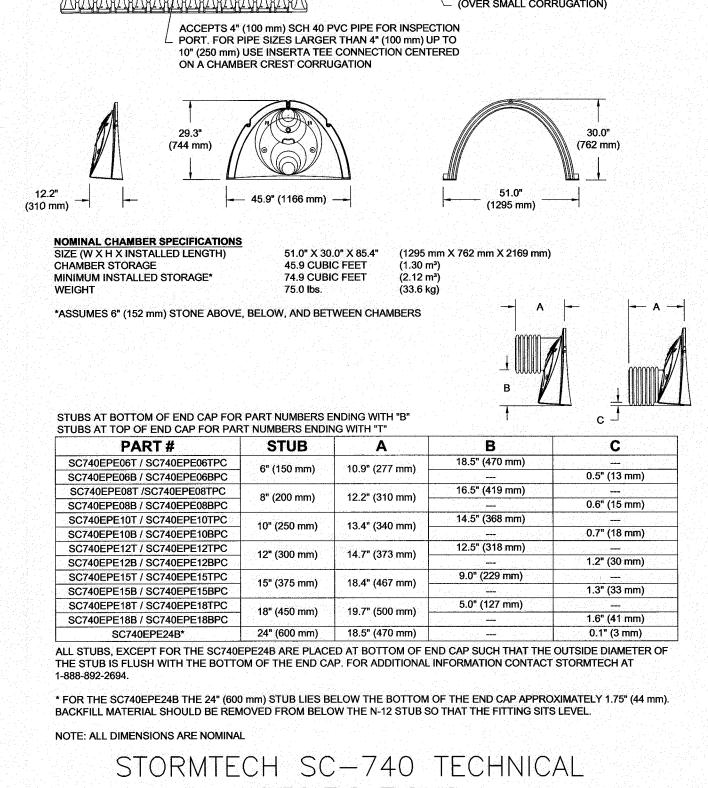


INSPECTION PORT (NOT TO SCALE)

REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

STORMTECH INSTALLATION NOTES FOR ROOF TOP RUNOFF:

- 1. NO CONSTRUCTION EQUIPMENT TO BE DRIVEN OVER BOTTOM OF CHAMBER EXCAVATION. 2. EXCAVATION TO BE FREE OF SILT AND SHALL BE INSPECTED BY DESIGN ENGINEER. 3. CARE SHALL BE TAKEN TO PROTECT THE STONE FROM SILT AND OTHER CONTAMINANTS UNTIL THE
- INSTALLATION IS COMPLETE. 4. BASE STONE WITH CHAMBERS AND FILTER FABRIC TO BE INSPECTED BY DESIGN ENGINEER PRIOR TO BACKFILL.
- 5. PHOTOGRAPHS OF EACH STEP OF THE INSTALLATION TO BE PROVIDED AFTER THE INSTALLATION IS COMPLETE.



—— 90.7" (2304 mm) ACTUAL LENGTH — -

- 85.4" (2169 mm) INSTALLED LENGTH --

<= BUILD ROW IN THIS DIRECTION

OVERLAP NEXT CHAMBER HERE (OVER SMALL CORRUGATION)

DO NOT INSTALL

INSERTA-TEE AT

CHAMBER JOINTS

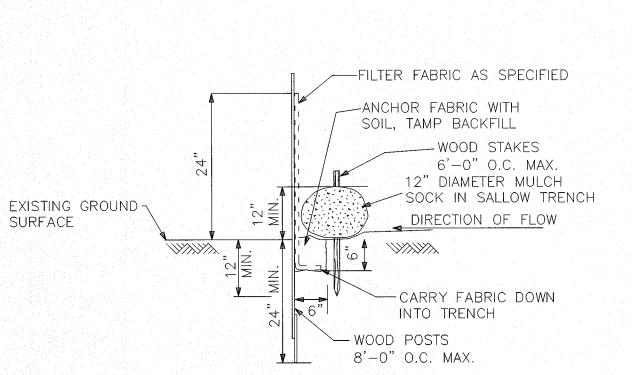
SPECIFICATIONS (NOT TO SCALE)

CONVEYANCE PIPE MATERIAL MAY VARY (PVC, HDPE, ETC.) INSERTA TEE CONNECTION INSERTA TEE TO BE (X) -INSTALLED, CENTERED OVER CORRUGATION PLACE ADS GEOSYNTHETICS 315 WOVEN

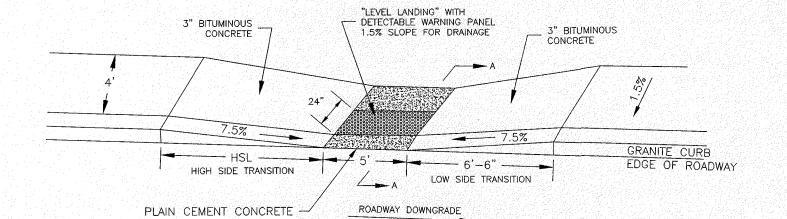
| GEOTEXTILE (CENTERED ON INSERTA-TEE INLET) OVER BEDDING STONE FOR SCOUR | SECTION A-A | | SIDE VIEW | |
|--|-------------|--|------------------------------------|--|
| PROTECTION AT SIDE INLET CONNECTIONS. GEOTEXTILE MUST EXTEND 6" (150 mm) PAST CHAMBER FOOT | CHAMBER | MAX DIAMETER OF INSERTA TEE | HEIGHT FROM BASE OF CHAMBER (X) | |
| | SC-310 | 6" (150 mm) | 4" (100 mm) | |
| | SC-740 | 10" (250 mm) | 4" (100 mm) | |
| | DC-780 | 10" (250 mm) | 4" (100 mm) | |
| | MC-3500 | 12" (300 mm) | 6" (150 mm) | |
| | MC-4500 | 12" (300 mm) | 8" (200 mm) | |
| | | GS AVAILABLE FOR SDR WELD, N-12, HP STORM | | |

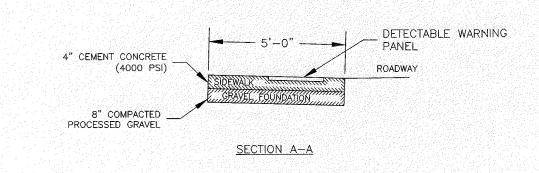
PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.

INSERTA TEE DETAIL (NOT TO SCALE)



SILTFENCE WITH MULCH SOCK DETAIL (NOT TO SCALE)



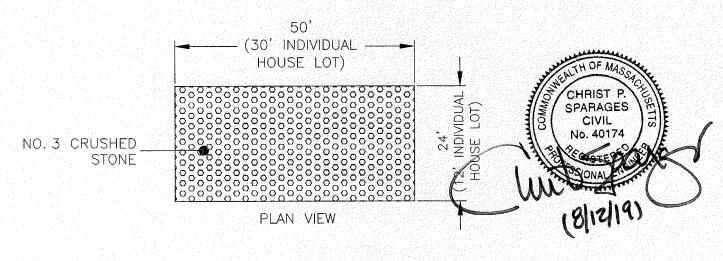


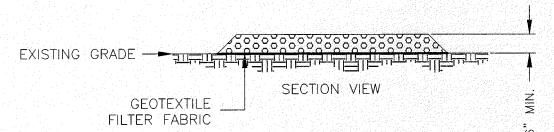
NOTES: 1. HSL = HIGH SIDE TRANSITION LENGTH(SEE M/E 107.9.0)

3. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9", A HEIGHT OF NOMINAL 0.2" AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35" AND SHALL BE BRICK RED.

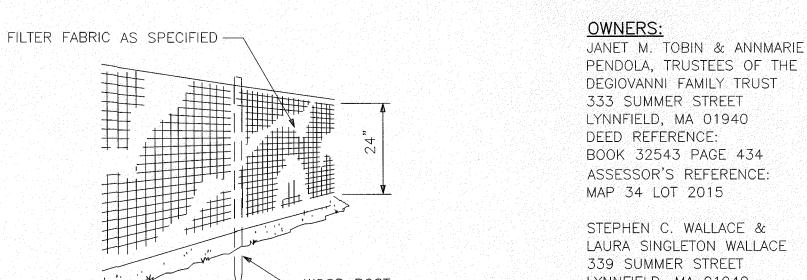
2. TOLERANCE FOR CONSTRUCTION IS +/- 0.5%

4. ALL WHEEL-CHAIR RAMPS SHALL COMPLY WITH JULY 1 1994 ADA STANDARDS FOR ACCESSIBLE DESIGN OR MOST RECENT EDITION, MASS HIGHWAY ENGINEERING DIRECTIVE M/E 107.2.1R AND M/E 107.6.5R, AND SECTION 701 OF THE 1995 MASS HIGHWAY STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES(OR MOST RECENT EDITION).





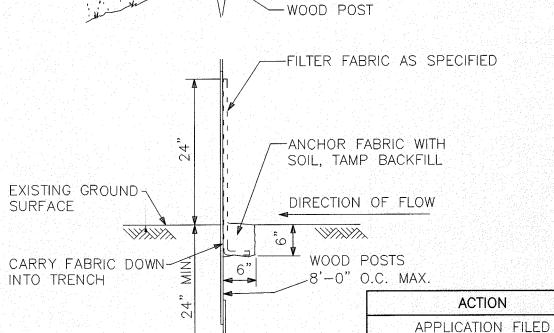
TRACKING PAD (NOT TO SCALE)



HEARING DATE

PLAN APPROVED

PLAN SIGNED



LAURA SINGLETON WALLACE LYNNFIELD, MA 01940 DEED REFERENCE: BOOK 32841 PAGE 114

JANE W. COONROD 349 SUMMER STREET LYNNFIELD, MA 01940 DEED REFERENCE: BOOK 6466 PAGE 334 ASSESSOR'S REFERENCE

ASSESSOR'S REFERENCE:

MAP 34 LOT 2027

MAP 34 LOT 2055 DATE: FINAL PLAN FILED

OF THE REGISTERS OF DEEDS IN PREPARING THIS PLAN.

WILLIAMS & SPARAGES LLC

I CERTIFY THAT I HAVE CONFORMED WITH THE RULES AND REGULATIONS

> LYNNFIELD PLANNING BOARD

CLERKS CERTIFICATION ON THE PLAN

DATE:

CLERK OF THE TOWN OF LYNNFIELD, DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT NO APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK

8/12/2019 **TOWN COMMENTS** 7/29/2019 **TOWN COMMENTS TOWN COMMENTS/PEER REVIEW** 7/2/2019 6/10/2019 **TOWN COMMENTS/PEER REVIEW** 5/9/2019 **TOWN COMMENTS/PEER REVIEW**

DEFINITIVE CONSTRUCTION DETAILS **TUTTLE LANE**

LYNNFIELD, MA

APPLICANT/SUBDIVIDER: PI MASS RE DEVELOPMENT, LLC 3 STILES ROAD - SUITE 104 SALEM, NH 03079 SEE ABOVE

SSESSOR'S REFERENCE:

MAP 34 LOTS 2015, 2027, & 2055

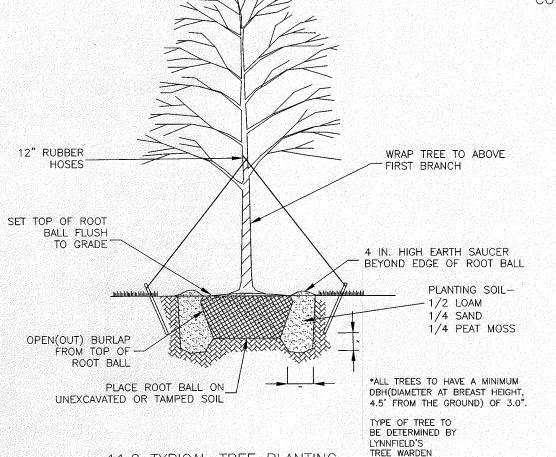
NOVEMBER 21, 2018

 $^{oldsymbol{\alpha}}$ SPARAGES ENGINEERS | PLANNERS | SURVEY 189 NORTH MAIN STREET MIDDLETON, MA 01949 PHONE: (978) 539-8088 FAX: (978) 539-8200 WSENGINEERS.COM

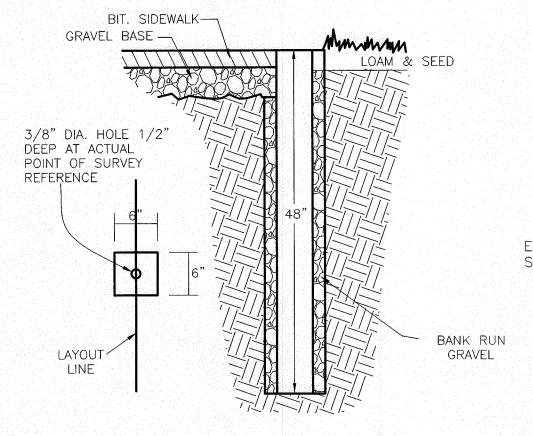
WILLIAMS

SCALE: AS SHOWN **DETAIL SHEET 2 OF 4**

SHEET 10 OF 12

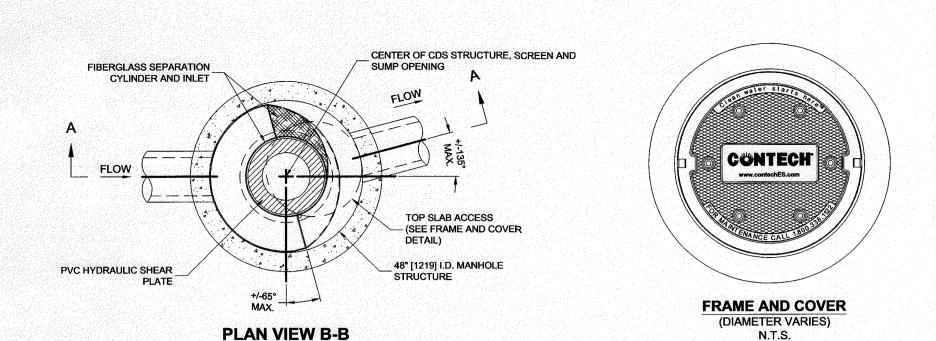


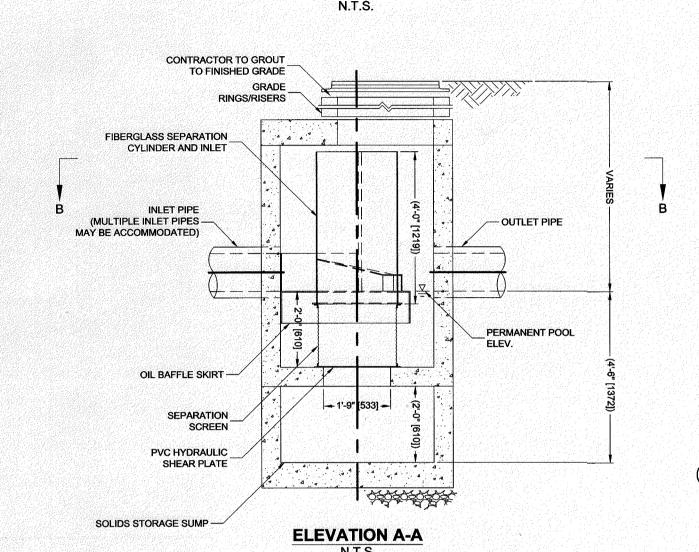
PROPOSED STREET TREES TO BE APPROVED BY THE TOWN OF LYNNFIELD TREE ALL TREES TO HAVE A MINIMUM DBH (DIAMETER AT BREAST HEIGHT) OF 3'. TYPE OF TREE TO BE DETERMINED BY LYNNFIELD'S TREE WARDEN. THERE ARE TO BE THREE STREET TREES PER LOT.



GRANITE BOUND DETAIL (NOT TO SCALE)

SILTFENCE (NOT TO SCALE)





CDS2015-4-C INLINE CDS (NOT TO SCALE)

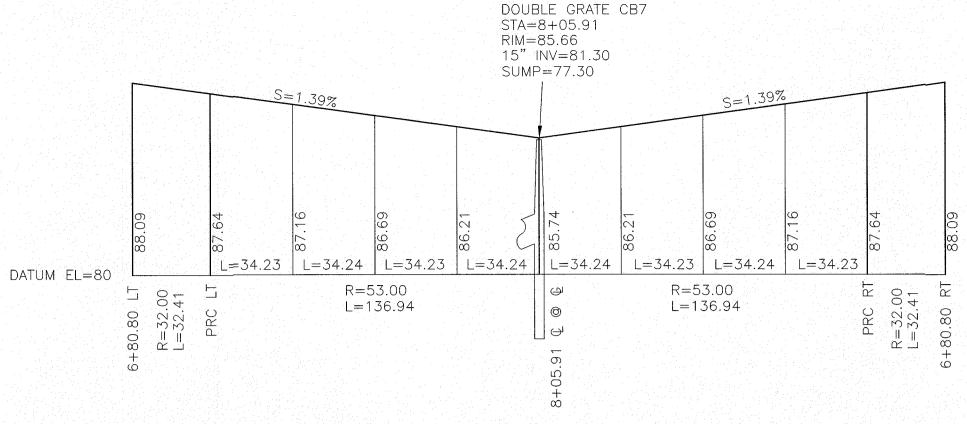
- 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE
- 2 DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY. 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS. PLEASE CONTACT YOUR CONTECH ENGINEERED
- SOLUTIONS LLC REPRESENTATIVE. www.contechES.com 4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- 6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS
- SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

PROPRIETARY TREATMENT DEVICE:

IF THE APPLICANT WISHES TO SUBSTITUTE ANOTHER STORMWATER TREATMENT UNIT FOR THE CDS UNIT SPECIFIED ON THE PLANS THEN HE MUST SUBMIT A REQUEST FOR THIS SUBSTITUTION TO THE LYNNFIELD TOWN ENGINEER IN WRITING, INCLUDING ALL NECESSARY CALCULATIONS FOR THE SIZING OF THE UNIT, NJCAT DATA FOR THE UNIT AND A STATEMENT BY A MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER THAT THE UNIT IS EQUIVALENT TO THE CDS UNIT SHOWN ON THE PLANS. THE PROPOSED ALTERNATIVE MUST HAVE THE SAME (OR MORE) HYDROCARBON STORAGE, SEDIMENT STORAGE, STORMWATER TREATMENT FLOW AND TREATMENT EFFICIENCY AS THE CDS UNIT SHOWN. THE TOWN ENGINEER SHALL ACT ON THE REQUEST AND THE REQUEST MUST BE APPROVED PRIOR TO THE SHIPMENT OF THE ALTERNATIVE TREATMENT UNIT TO THE SITE.



GUTTERLINE PROFILE CUL-DE-SAC SCALE: 1" = 40' (HOR.)

1" = 4' (VER.)

GUTTERLINE PROFILE LEFT AT ENTRANCE SCALE: 1" = 40' (HOR.)

DATUM EL=100

1" = 4' (VER.)

GUTTERLINE PROFILE RIGHT AT ENTRANCE

SCALE: 1" = 40' (HOR.)

1" = 4' (VER.)

DATUM EL=100

I CERTIFY THAT I HAVE CONFORMED WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS IN PREPARING THIS PLAN.

WILLIAMS & SPARAGES LLC

JANET M. TOBIN & ANNMARIE PENDOLA, TRUSTEES OF THE DEGIOVANNI FAMILY TRUST 333 SUMMER STREET LYNNFIELD, MA 01940 DEED REFERENCE: BOOK 32543 PAGE 434 ASSESSOR'S REFERENCE: MAP 34 LOT 2015

STEPHEN C. WALLACE & LAURA SINGLETON WALLACE 339 SUMMER STREET LYNNFIELD, MA 01940 DEED REFERENCE: BOOK 32841 PAGE 114 ASSESSOR'S REFERENCE: MAP 34 LOT 2027

JANE W. COONROD 349 SUMMER STREET LYNNFIELD, MA 01940 DEED REFERENCE: BOOK 6466 PAGE 334 ASSESSOR'S REFERENCE: MAP 34 LOT 2055

CLERKS CERTIFICATION ON THE PLAN

CLERK OF THE TOWN OF LYNNFIELD, DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT NO APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK

| 6 | | |
|---|---------------------------|-----------|
| 5 | TOWN COMMENTS | 8/12/2019 |
| 4 | TOWN COMMENTS | 7/29/2019 |
| 3 | TOWN COMMENTS/PEER REVIEW | 7/2/2019 |
| 2 | TOWN COMMENTS/PEER REVIEW | 6/10/2019 |
| | TOWN COMMENTS/PEER REVIEW | 5/9/2019 |

DEFINITIVE CONSTRUCTION **DETAILS TUTTLE LANE** LYNNFIELD, MA

APPLICANT/SUBDIVIDER: PI MASS RE DEVELOPMENT, LLC 23 STILES ROAD - SUITE 104 SALEM, NH 03079 OWNER: SEE ABOVE

ASSESSOR'S REFERENCE: MAP 34 LOTS 2015, 2027, & 2055

SCALE: AS SHOWN

FAX: (978) 539-8200 WSENGINEERS.COM **DETAIL SHEET 3 OF 4**

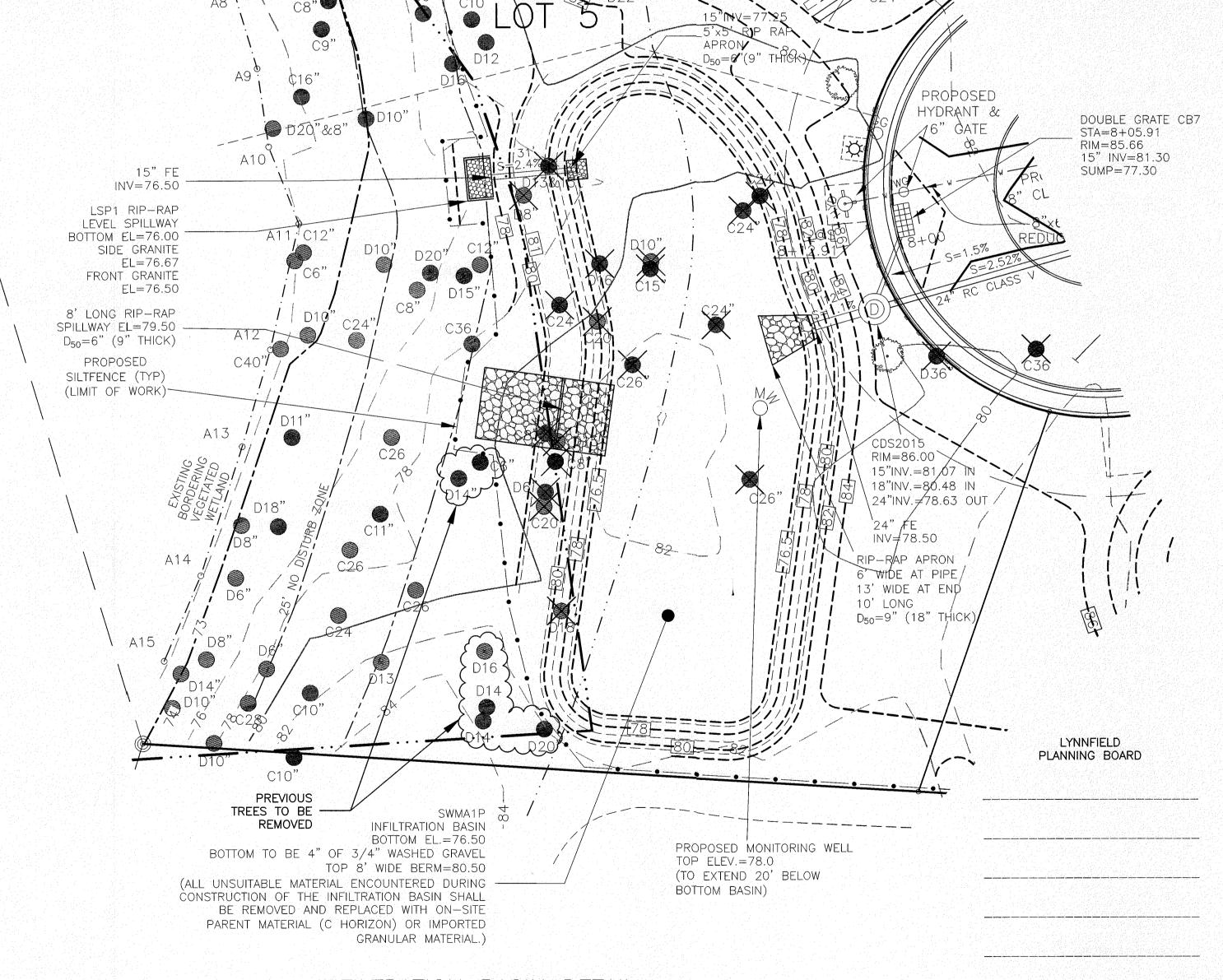
SPARAGES

ENGINEERS | PLANNERS | SURVEY 189 NORTH MAIN STREET

SUITE 101 MIDDLETON, MA 01949

PHONE: (978) 539-8088

SHEET 11 OF 12



TREE IDENTIFICATION TREE LEGEND TREE CODE -> C24 - TREE DIAMETER AT BREAST HEIGHT TREE CODE TREE SPECIES (DBH) (INCHES) -TREE LOCATION CONIFER (SOFTWOOD)

TREE TO BE REMOVED

DECIDUOUS (HARDWOOD)

INFILTRATION BASIN DETAIL SCALE: 1" = 20' (HOR.)

SPARAGES

ACTION APPLICATION FILED FINAL PLAN FILED HEARING DATE

DATE: PLAN APPROVED

PLAN SIGNED

MARCH 26, 2019



Lynnfield Center Water District 83 Phillips Road Lynnfield, Massachusetts 01940

Installation of New Mains

All mains, fire hydrants, valves, and fittings are to be American made

No work is to be commenced until all appropriate permits are obtained, required bond is set, and all fees are paid

New water main:

All new water main is to be American made Class 52 pipe or better

All new water main is to be zinc coated cement lined ductile iron pipe

Installation of new water main is to be bedded in sand or suitable material

All new water main must be inspected by the Lynnfield Center Water District during installation

There must be a minimum of 5 feet of cover to prevent freezing

Upon completion, new mains must be chlorinated and pressure tested to AWWA standards and a bacteria test completed by a state certified lab

All new valves must be AWWA approved and American made

All new valves must be open left resilient wedge gate valves

New valves must have the appropriate gate box set to grade

All new hydrants must be Kennedy K81D factory painted with appropriate color scheme (Des Moines Green Upper Barrel with White Caps and Bonnet) - open left

All new hydrants must have a minimum of a 5.5 foot bury and be set to the appropriate grade with hydrant

All new hydrants must be installed using the appropriate thrust block and the base of the hydrant is to be backfilled with crushed stone or other suitable material to allow for proper drainage

Mechanical joints:

All mechanical joints must be restrained using a mechanical joint restraint kit (eg. Mega lug or equivalent)

All taps must be installed by a District approved contractor

All taps are to be installed using a stainless steel tapping sleeve and gate



Lynnfield Center Water District 83 Phillips Road Lynnfield, Massachusetts 01940

New Service Installation Information

All new service taps must be done with a minimum of 1" double banded stainless saddle tap with an open-left corporation valve. Service lines from the water mains to the curb stop will be 1" Type K Copper

All new services installed are to use 200 p.s.i. blue P.V.C. plastic pipe and have a minimum size of 1"

All new services are required to have RedHed or American-made equivalent lead free open-left curb stop without a drain with an Eries Box with Stainless Steel Rod (curb stop box with rod) connected and set to grade. All compression connections made to the curb stop are required to have a stainless steel insert.

All services are to be **ONE CONTINUOUS PIECE** and have no fittings between the curb stop and kornerhorn (meter bar)

All new services are required to have a minimum of 5 feet of cover to prevent freezing and must be sleeved if within 10 feet of any septic system

All installations are to be inspected by the District prior to being back filled

All services must be backfilled with sand or other suitable material

All services must be sleeved when installed under the footing and when installed through a foundation wall and cannot be within 3 feet of electrical panels

All service lines must extend a MINIMUM OF 6 FEET beyond all walls and floors. Prior to a kornerhorn (meter bar) being installed the service line must be restrained or staked off of the wall in a vertical manner as not to kink or impede the flow of water. **DO NOT CUT SERVICE LINE!** Once the line has been secured the District will work with the plumber to make appropriate connections.

All new services will have meters installed within a kornerhorn assembly and will have a dual cartridge check valve included in the assembly installed by the District. This requires a **POTABLE WATER EXPANSION TANK** to be installed after the meter to protect household plumbing from thermal expansion. All cross connections must be inspected and eliminated before the water will be turned on.

Connections to household plumbing after the kornerhorn assembly are to be made with a minimum 1" copper. Connections on both sides of the kornerhorn are compression and require no soldering or gluing.

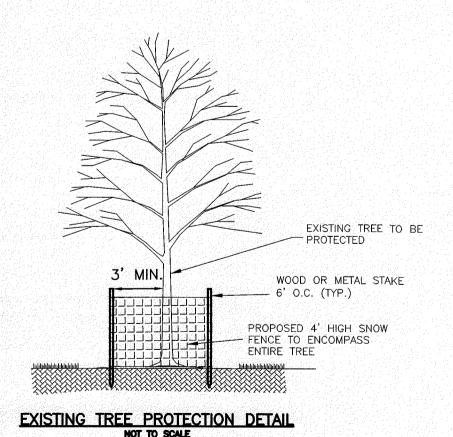
No electrical connections or grounding can be made to service lines

All meters and kornerhorn assemblies must remain accessible for service and change outs

CABINET SHALL BE PAINTED GREEN AS

DRAWING NOT TO SCALE

Kornerhorns and meters will not be installed until all fees and applicable service charges have been paid



ARBORIST NOTES FOR PROTECTION OF EXISTING 62 AND 64 INCH SILVER MAPLE TREES:

IRECOMMENDATIONS OF THE TOWN'S ARBORIST CONSULTANT IN A LETTER DATED APRIL 16. 2019 SHALL BE FOLLOWED FOR WORK NEAR THE EXISTING 62 INCH AND 64 INCH SILVER MAPLE TREES.

- a. ALL EXISTING ASPHALT AND STONE WITHIN 20 FEET OF THE TREE SHALL BE REMOVED BY HAND, IF POSSIBLE. IF EQUIPMENT MUST BE USED, IT WOULD BE PREFERABLE TO LIGHTLY SCRAPE UP THE EXISTING DRIVEWAYS AND STONE WITHIN THIS ZONE. b. ONCE EXISTING ASPHALT AND STONE IS REMOVED THE NEXT STEP IS TO TOP DRESS THE
- ENTIRE ROOT ZONE WITH WOOD CHIPS. THE WOOD CHIPS SHOULD BE SPREAD AT A DEPTH OF 2 TO 3 INCHES FROM THE TRUNK OF THE TREE AND OUT TO THE DRIP LINE. c. NEXT, INSTALL ORANGE SNOW FENCING AS A VISUAL BARRIER TO PREVENT MECHANICAL INJURIES TO THE TRUNKS OF THE TREES.
- d. THIS FENCED OFF AREA SHOULD BE LOOKED AT AS A NO ZONE FOR STACKING MATERIALS, CLEANING EQUIPMENT AND PARKING.
- e. AN APPLICATION OF LIQUID COMPOST-MYCORRHIZAL SHALL BE MADE TO THE TWO TREES PRIOR TO CONSTRUCTION ACTIVITIES AND AFTER THE PROJECT IS FINISHED. THESE APPLICATIONS SHALL BE MADE BY AN ISA CERTIFIED ARBORIST AND WILL BE COORDINATED WITH THE TOWN OF LYNNFIELD TREE WARDEN.



DRINKING WATER DISTRIBUTION SYSTEM NOTES: CORPORATION STOP. ROADWAY.

DATE

18 ———

1. PADLOCKABLE HANDLE WITH THREE POINT CATCH PROVIDED. 2. OPEN BOTTOM.
3. VENTILATION PROVIDED UNDER DRIP EDGE ON STEEL BOXES ONLY.
4. MATERIAL: FOR BOXES WITH A & B DIMENSIONS BOTH 48"

5. LOUVERS PROVIDED IN DOORS FOR ADDITIONAL VENTILATION 6. ALUMINUM ENCLOSURES WILL HAVE DOORS, HINGES,

OR GREATER, MATERIAL TO BE 12 GA. SMALLER BOXES TO BE 14 GA.

BARBER ELECTRIC MFG. CO. INC.

DRAWN BY: M.YIDIARIS DATE: 7/29/99 CUSTOMER:

MATERIAL: CODE GA GALVANNEAL

FINISH: GREEN

AND OTHER HARDWARE SCREWED IN PLACE.

STEEL AND STAINLESS STEEL ENCLOSURES SHALL HAVE THESE SAME FEATURES WELDED IN PLACE. 7. (4) .437 DIA HOLES PROVIDED IN BOTTOM

8. STEEL OR WOOD BACK PANELS SUPPLIED ON REQUEST.

TRAFFIC CONTROL PEDESTAL

CAD FILE NO. TCP-SD SHEET 1 OF 1

- 1. EXISTING SERVICE CONNECTIONS TO HOMES 333, 339 AND 343 SUMMER STREET TO BE TERMINATED AND TURNED OFF AT THE EXISTING
- 2. THE HYDRANT EXISTING ON SUMMER STREET THAT IS SLATED TO BE RELOCATED WILL REQUIRE AN EASEMENT IF MOVED OUTSIDE OF THE PUBLIC
- 3. A MINIMUM OF 36 INCHES OF CLEARANCE FOR ALL WATER PIPES IS TO BE MAINTAINED TO OTHER UTILITIES.
- 4. SERVICES BOXES ARE TO BE "ERIE" STYLE WITH WELDED STAINLESS STEEL ROD AND PLUG STYLE COVER.

I CERTIFY THAT I HAVE CONFORMED WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS IN PREPARING THIS PLAN.

WILLIAMS & SPARAGES LLC

OWNERS:

JANET M. TOBIN & ANNMARIE PENDOLA, TRUSTEES OF THE DEGIOVANNI FAMILY TRUST 333 SUMMER STREET LYNNFIELD. MA 01940 DEED REFERENCE: BOOK 32543 PAGE 434 ASSESSOR'S REFERENCE: MAP 34 LOT 2015

STEPHEN C. WALLACE & LAURA SINGLETON WALLACE 339 SUMMER STREET LYNNFIELD, MA 01940 DEED REFERENCE: BOOK 32841 PAGE 114 ASSESSOR'S REFERENCE: MAP 34 LOT 2027

JANE W. COONROD 349 SUMMER STREET LYNNFIELD, MA 01940 DEED REFERENCE: BOOK 6466 PAGE 334 ASSESSOR'S REFERENCE: MAP 34 LOT 2055

CLERKS CERTIFICATION ON THE PLAN

CLERK OF THE TOWN OF LYNNFIELD. DO HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND THAT NO APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

TOWN CLERK

| 6 | | |
|---|---------------------------|-----------|
| 5 | TOWN COMMENTS | 8/12/2019 |
| 4 | TOWN COMMENTS | 7/29/2019 |
| 3 | TOWN COMMENTS/PEER REVIEW | 7/2/2019 |
| 2 | TOWN COMMENTS/PEER REVIEW | 6/10/2019 |
| | TOWN COMMENTS/PEER REVIEW | 5/9/2019 |

DEFINITIVE CONSTRUCTION DETAILS **TUTTLE LANE**

LYNNFIELD, MA

APPLICANT/SUBDIVIDER: HPI MASS RE DEVELOPMENT, LLC 23 STILES ROAD - SUITE 104 SALEM, NH 03079 OWNER: SEE ABOVE

<u> ASSESSOR'S REFERENCE:</u> MAP 34 LOTS 2015, 2027, & 2055

JULY 2, 2019



SCALE: NONE

DETAIL SHEET 4 OF 4

SHEET 12 OF 12



LYNNFIELD

PLANNING BOARD

DATE:

ACTION

APPLICATION FILED

FINAL PLAN FILED

HEARING DATE

PLAN APPROVED

PLAN SIGNED