



# TOWN OF NEEDHAM, MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS

# DRAFT

## MILLS FIELD PARKING IMPROVEMENTS CONTRACT NO. 16DPW001C NOVEMBER 2014

### PLAN INDEX

| SHEET NO. | DESCRIPTION                       |
|-----------|-----------------------------------|
|           | COVER SHEET                       |
| L-1       | EXISTING CONDITIONS AND SITE PREP |
| L-2       | LAYOUT & MATERIALS                |
| L-3       | GRADING & DRAINAGE                |
| L-4       | PLANTING                          |

### BOARD OF SELECTMEN

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KATHLEEN P. FITZPATRICK

### DEPARTMENT OF PUBLIC WORKS

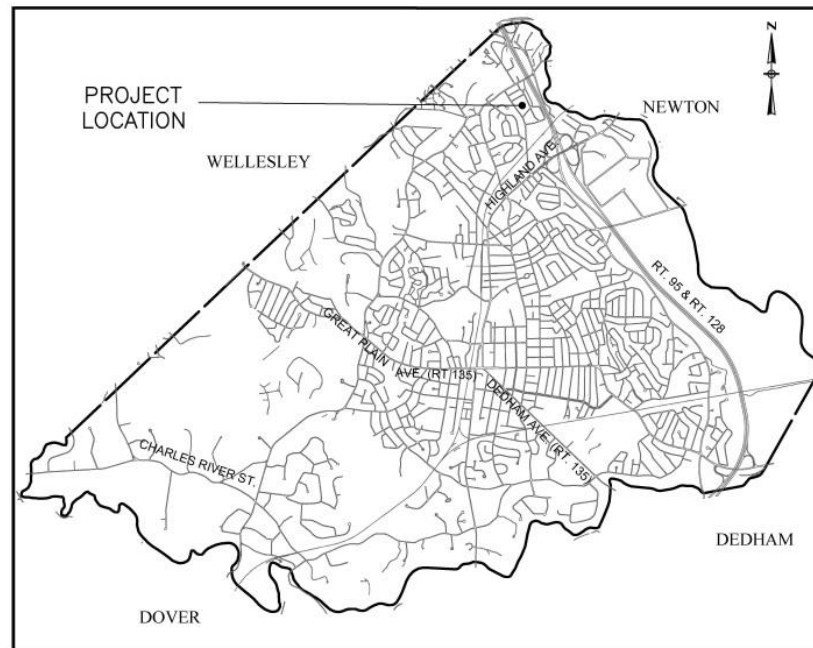
RICHARD P. MERSON, DIRECTOR  
ROBERT A. LEWIS, ASSISTANT DIRECTOR  
ANTHONY L. DEL GAIZO, P.E., TOWN ENGINEER

### PARK AND RECREATION

PATRICIA CAREY, CPRP, DIRECTOR

### PARKS AND FORESTRY

EDWARD OLSEN, SUPERINTENDENT



LOCATION MAP  
NOT TO SCALE

**BETA Group, Inc.**  
Engineers • Planners • Landscape Architects  
Lincoln, RI - Norwood, MA - Hartford, CT

### ZONING TABLES

SEE ZONING BOUNDARY DESIGNATIONS ON SHEET L-1

#### ELLIS STREET

| ZONING TABLE - SECTION 5.3 |                                                                                                              |                           |           |
|----------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------|-----------|
| ITEM                       | REQUIREMENT                                                                                                  | SITE CONDITION            | COMPLIANT |
| PARKING LOT INFORMATION    | AVERAGE 1 FOOT CANALS WITH LOTTERY PAVEMENT                                                                  | N/A                       | N/A       |
| LOADING REQUIREMENTS       | ADJACENT OFF STREET LOADING FACILITIES                                                                       | N/A                       | N/A       |
| LANDSCAPED PARKING         | PARKING SPACES FOR LANDSCAPED AREAS AS REQUIRED BY LAW                                                       | 2.5% SPACE                | YES       |
| CONVEYANCE OPENING         | MINIMUM 10 FEET TO MINIMUM 12 FEET WITH TRAFFIC ON STREET                                                    | N/A                       | N/A       |
| CONTRACT CARDS             | OFF STREET PARKING MAY BE DESIGNATED FOR MAXIMUM 10% CONTRACT CARDS                                          | NO CONTRACT CARDS         | YES       |
| PARKING SPACE SIZE         | EACH SPACE MUST MEASURE 10' BY 18' IF 10' WIDE OVERHANGS MAY BE INCLUDED                                     | PARKING SPACES 10' BY 18' | YES       |
| WALKER OVERHANGS           | PARKING SPACE SIZE MAY INCLUDE 2' AREA BEYOND THE CURB IN FRONT OF REAR OF SPACE                             | N/A                       | N/A       |
| PARKING SPACE LAYOUT       | SPACES SHALL BE DESIGNATED TO ALLOW MOVEMENT TO AND FROM SPACE WITHOUT REQUIRING MOVEMENT OF ANOTHER VEHICLE | YES                       | YES       |
| WIDTH OF MANEUVERING SPACE | REQUIRE PARKING SPACES HAVE A MINIMUM 20' ASIDE WIDTH                                                        | 20' ASIDE WIDTH           | YES       |
| PARKING SETBACKS           | SETBACKS FROM THE STREET LOT LINE ON STREET SIDE                                                             | YES                       | YES       |
| LANDSCAPED AREAS           | SETBACKS SHALL BE MAINTAINED AS LANDSCAPED AREAS                                                             | MAINTAINING EXISTING      | YES       |
| TREES                      | 1 TREE EVERY 20 SPACES, 1 REQUIRED                                                                           | N/A                       | N/A       |
| LOCATION                   | OFF STREET PARKING ON SAME LOT AS PRINCIPLE USE                                                              | N/A                       | N/A       |
| BICYCLE RACKS              | ACCOMMODATE 1 BICYCLE PER 20 SPACES                                                                          | 2 BIKES "HOOKS"           | YES       |

| PARKING SPACE INVENTORY |          |                                  |          |
|-------------------------|----------|----------------------------------|----------|
| TYPE OF SPACE           | EXISTING | REQUIRED                         | PROPOSED |
| OFF STREET              | 0        | N/A                              | 0        |
| LANDSCAPED              | 0        | 1                                | 0        |
| ON STREET               | 38       | N/A                              | 38       |
| TOTAL                   | 38       | 1 (SEE EXISTING 38 SPACES COUNT) | 38       |

| PROPOSED LANDSCAPE AREAS |        |     |     |
|--------------------------|--------|-----|-----|
| TOTAL LOT AREA           | 50,750 |     |     |
| TOTAL LANDSCAPED AREA    | 1,250  | N/A | 250 |

#### HAMPTON AVENUE LOT

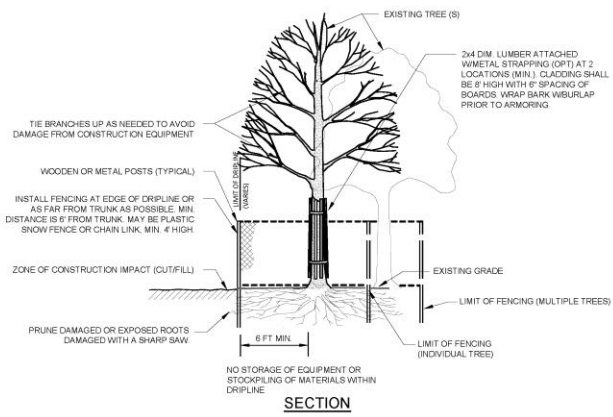
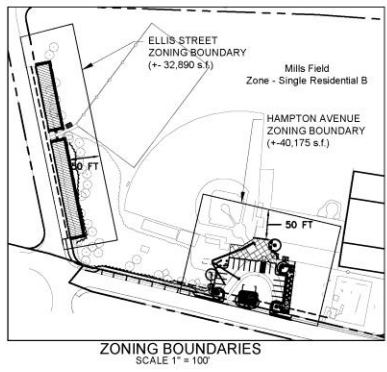
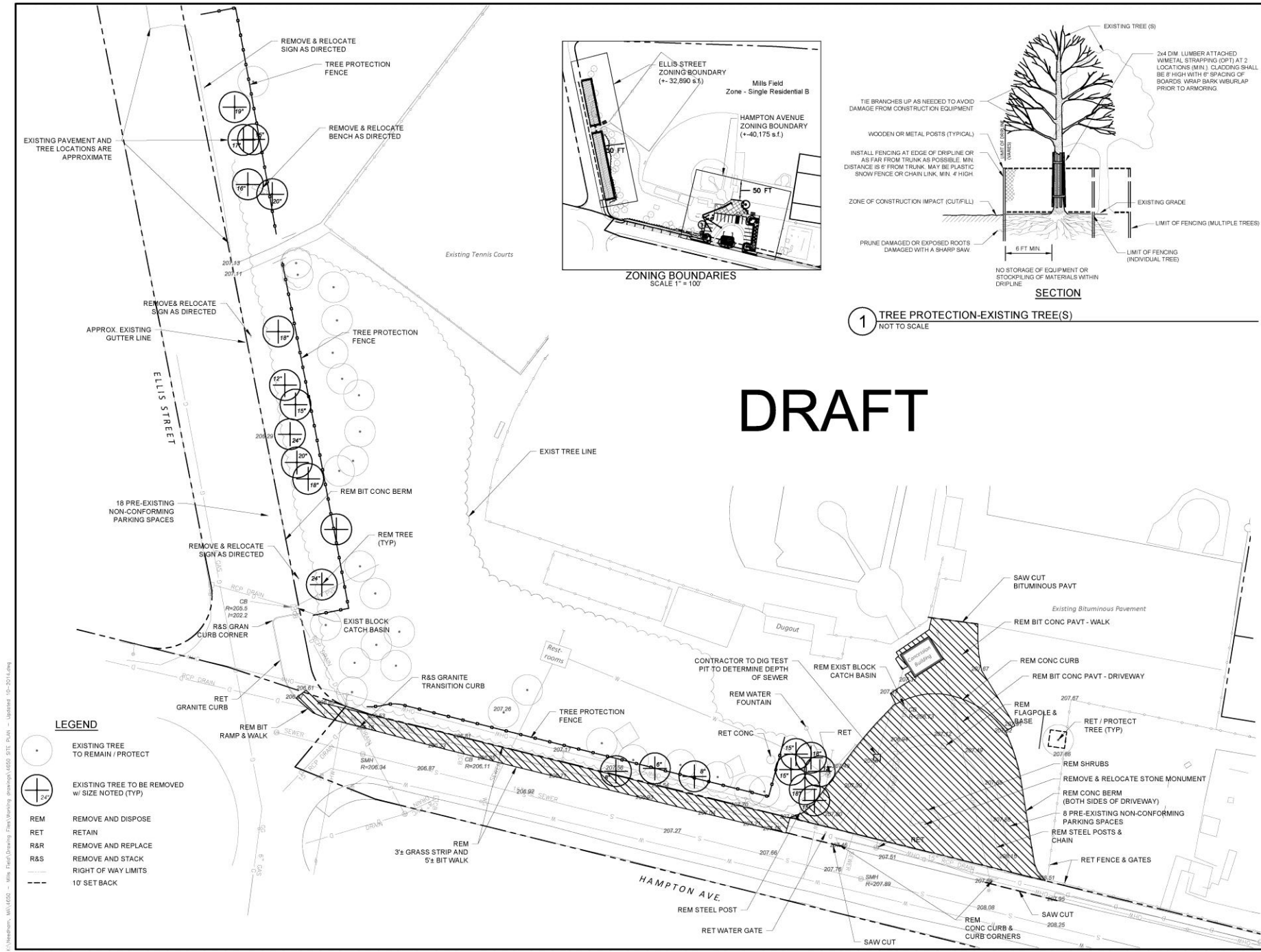
| ZONING TABLE - SECTION 5.3 |                                                                                                              |                           |           |
|----------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------|-----------|
| ITEM                       | REQUIREMENT                                                                                                  | SITE CONDITION            | COMPLIANT |
| PARKING LOT INFORMATION    | AVERAGE 1 FOOT CANALS WITH LOTTERY PAVEMENT                                                                  | N/A                       | N/A       |
| LOADING REQUIREMENTS       | ADJACENT OFF STREET LOADING FACILITIES                                                                       | N/A                       | N/A       |
| LANDSCAPED PARKING         | PARKING SPACES FOR LANDSCAPED AREAS AS REQUIRED BY LAW                                                       | 1.5% SPACE                | YES       |
| CONVEYANCE OPENING         | MINIMUM 10 FEET TO MINIMUM 12 FEET WITH TRAFFIC ON STREET                                                    | N/A                       | YES       |
| CONTRACT CARDS             | OFF STREET PARKING MAY BE DESIGNATED FOR MAXIMUM 10% CONTRACT CARDS                                          | NO CONTRACT CARDS         | YES       |
| PARKING SPACE SIZE         | EACH SPACE MUST MEASURE 10' BY 18' IF 10' WIDE OVERHANGS MAY BE INCLUDED                                     | PARKING SPACES 10' BY 18' | YES       |
| WALKER OVERHANGS           | PARKING SPACE SIZE MAY INCLUDE 2' AREA BEYOND THE CURB IN FRONT OF REAR OF SPACE                             | N/A                       | N/A       |
| PARKING SPACE LAYOUT       | SPACES SHALL BE DESIGNATED TO ALLOW MOVEMENT TO AND FROM SPACE WITHOUT REQUIRING MOVEMENT OF ANOTHER VEHICLE | YES                       | YES       |
| WIDTH OF MANEUVERING SPACE | REQUIRE PARKING SPACES HAVE A MINIMUM 20' ASIDE WIDTH                                                        | 20' ASIDE WIDTH           | YES       |
| PARKING SETBACKS           | SETBACKS FROM THE STREET LOT LINE ON STREET SIDE                                                             | YES                       | YES       |
| LANDSCAPED AREAS           | SETBACKS SHALL BE MAINTAINED AS LANDSCAPED AREAS                                                             | 20' SETBACK               | YES       |
| TREES                      | 1 TREE EVERY 20 SPACES, 1 REQUIRED                                                                           | 1 PROVIDED                | YES       |
| LOCATION                   | OFF STREET PARKING ON SAME LOT AS PRINCIPLE USE                                                              | N/A                       | N/A       |
| BICYCLE RACKS              | ACCOMMODATE 1 BICYCLE PER 20 SPACES                                                                          | 2 BIKES "HOOKS"           | YES       |

| PARKING SPACE INVENTORY |          |                                  |          |
|-------------------------|----------|----------------------------------|----------|
| TYPE OF SPACE           | EXISTING | REQUIRED                         | PROPOSED |
| OFF STREET              | 0        | N/A                              | 30       |
| LANDSCAPED              | 0        | 1                                | 0        |
| ON STREET               | 0        | N/A                              | 0        |
| TOTAL                   | 0        | 1 (SEE EXISTING 38 SPACES COUNT) | 30       |

| PROPOSED LANDSCAPE AREAS |        |     |     |
|--------------------------|--------|-----|-----|
| TOTAL LOT AREA           | 46,170 |     |     |
| TOTAL LANDSCAPED AREA    | 11,500 | N/A | 400 |

REGISTERED PROFESSIONAL ENGINEER DATE



1 TREE PROTECTION-EXISTING TREE(S)  
NOT TO SCALE

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P.E. Stamp: \_\_\_\_\_

Subconsultant: \_\_\_\_\_

Project  
**Mills Field Parking Improvements**  
Needham, Massachusetts

Title  
**Existing Conditions & Site Prep**

| Revisions |               |          |
|-----------|---------------|----------|
| No.       | Description   | Date     |
| 1         | TOWN COMMENTS | 10/21/14 |
| 2         | TOWN COMMENTS | 11/10/14 |
|           |               |          |
|           |               |          |

File: \_\_\_\_\_

Drawn By: SR/BLB

Designed By: SR

Checked By: KC

Job No: 4650 Date: NOVEMBER 2014

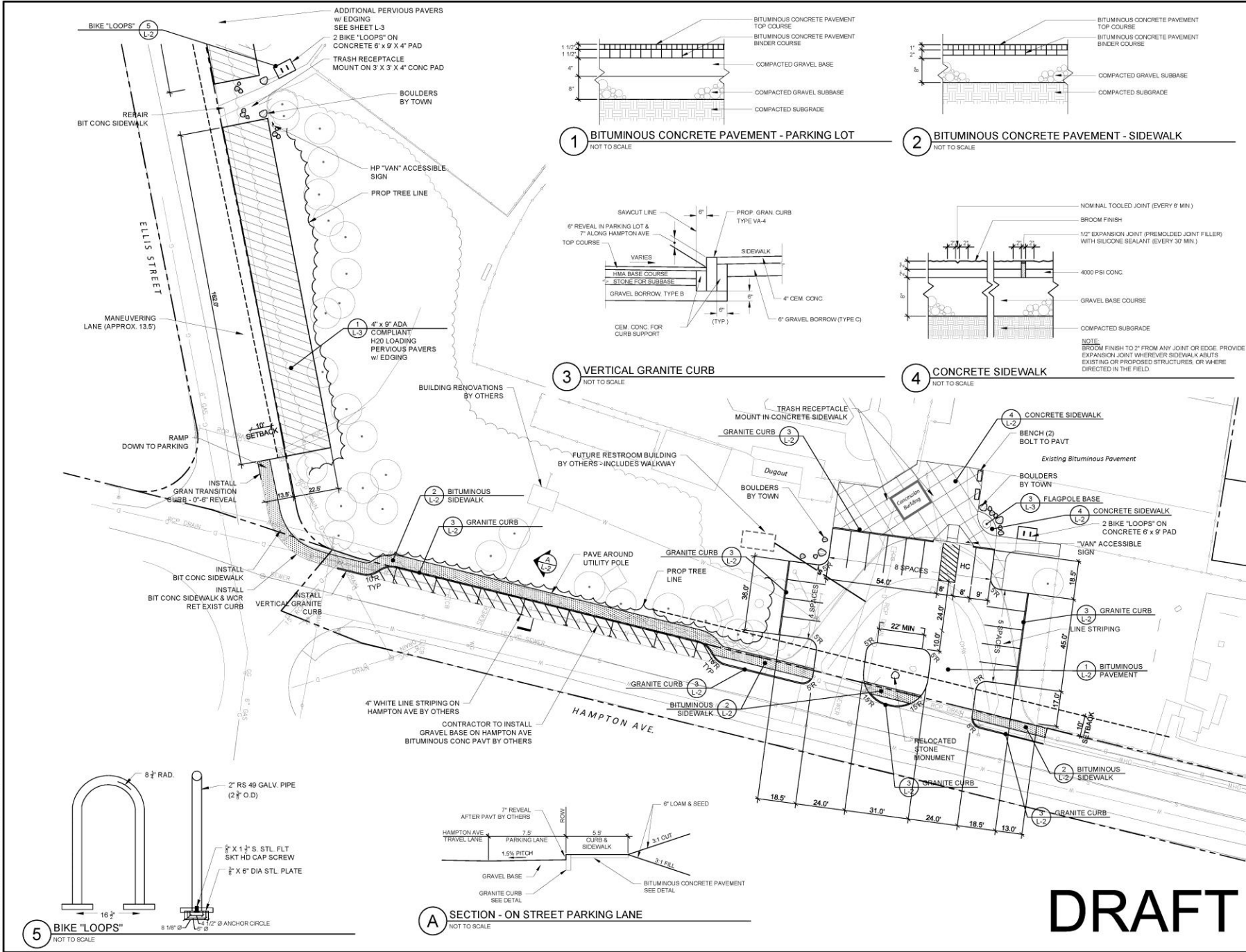
North Arrow  
↑

Scale  
20 0 20 40  
SCALE IN FEET: 1"=20'

UNLESS OTHERWISE NOTED OR CHANGED BY REVISION

Sheet No.: **L-1**

Plot Date: Nov 24, 2014 4:49pm



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Project  
**Mills Field Parking Improvements**  
 Needham, Massachusetts

Title  
**Layout & Materials**

| Revisions |               |          |
|-----------|---------------|----------|
| No.       | Description   | Date     |
| 1         | TOWN COMMENTS | 10/21/14 |
| 2         | TOWN COMMENTS | 11/10/14 |

File: \_\_\_\_\_

Drawn By: SR/BLB

Designed By: SR

Checked By: KC

Job No: 4650 Date: NOVEMBER 2014

North Arrow

Scale  
 20' 0' 20' 40'  
 SCALE IN FEET: 1"=20'

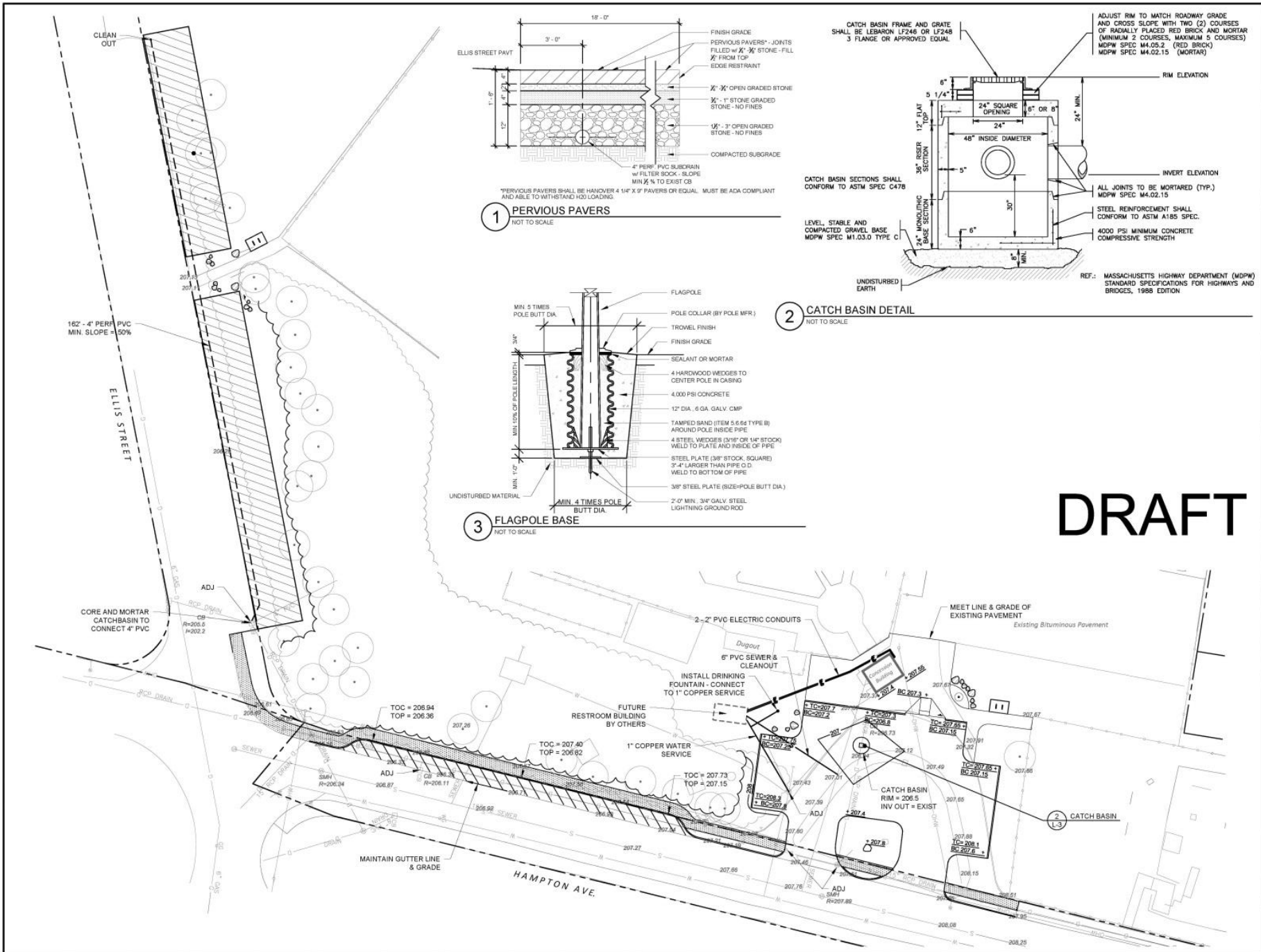
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Sheet No.: \_\_\_\_\_

L-2

Plot Date: Nov 24, 2014 5:06pm

**DRAFT**



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P.E. Stamp: \_\_\_\_\_

Subconsultant: \_\_\_\_\_

Project: \_\_\_\_\_

**Mills Field Parking Improvements**

**Norham, Massachusetts**

Title: \_\_\_\_\_

**Grading & Drainage**

| Revisions |               |          |
|-----------|---------------|----------|
| No.       | Description   | Date     |
| 1         | TOWN COMMENTS | 10/21/14 |
| 2         | TOWN COMMENTS | 11/10/14 |
|           |               |          |
|           |               |          |

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Drawn By: SR/BLB

Designed By: SR

Checked By: KC

Job No: 4650 Date: NOVEMBER 2014

North Arrow: \_\_\_\_\_

Scale: \_\_\_\_\_

20 0 20 40  
SCALE IN FEET: 1"=20'

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Sheet No.: \_\_\_\_\_

**L-3**

Plot Date: Nov 24, 2014 4:53pm

## LANDSCAPE NOTES:

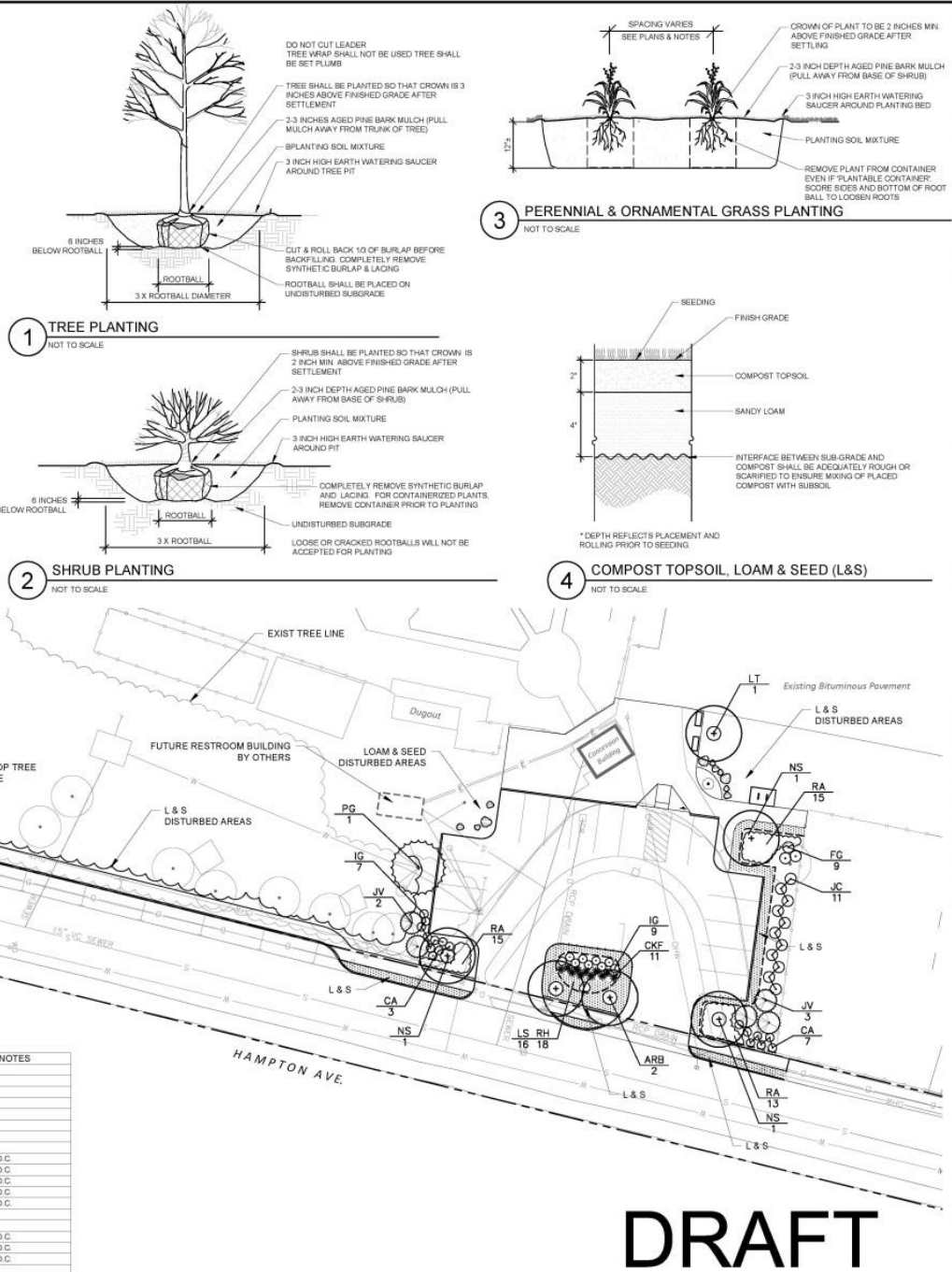
1. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
2. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED, OR APPROVED BY THE ENGINEER.
3. EXCAVATE TO REQUIRED DEPTH FOR ROOTBALL OR AS SHOWN ON THE DETAILS AND BACKFILL WITH PLANTING MIX.
4. 3" DEEP PINE BARK MULCH SHALL BE INSTALLED UNDER ALL NEW TREES, SHRUBS, AND VINES, AS SHOWN ON THE PLANS, OR AS REQUIRED BY ENGINEER.
5. RAISE AND REPLANT TREE OR SHRUB THAT SETTLES MORE THAN 3 INCHES AFTER PLANTING AND WATERING IN.
6. WATER, BY FLOODING, TWICE IN THE FIRST TWO HOURS AFTER PLANTING.
7. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN.
8. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO THE START OF WORK.
9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
10. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY SHOW FENCE AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THE PLANS. ERECT SHOW FENCE AT THE Drip Line OF THE TREE. CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS WITHIN THE LANDSCAPE AREAS. ANY DAMAGE TO EXISTING TREES, SHRUBS, OR LAWNS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE DEPARTMENT.

## PLANT MAINTENANCE NOTES:

1. CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE OF THE NEWLY INSTALLED SEEDING AREAS AND PLANTINGS.
2. NO IRRIGATION IS PROPOSED FOR THIS SITE. THE CONTRACTOR SHALL SUPPLY SUPPLEMENTAL WATERING/IRRIGATION BAGS FOR NEW SEEDING AREAS AND PLANTINGS DURING THE ONE YEAR PLANT GUARANTEE PERIOD.
3. CONTRACTOR SHALL PROVIDE A WATERING SCHEDULE AND BI-WEEKLY WATERING REPORTS TO THE ENGINEER.
4. CONTRACTOR MAY USE WATERING BAGS BUT IS RESPONSIBLE FOR MAINTAINING, HANDLING, MONTHLY INSPECTIONS OF TREE TRUNK DAMAGE, AND REMOVAL AT THE END OF THE GUARANTEE PERIOD.
5. CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE LANDSCAPE MAINTENANCE WORK.
6. WATERING SHALL OCCUR ON A WEEKLY BASIS DURING THE GROWING SEASON TO ENSURE THAT ALL PLANTS RECEIVE THE EQUIVALENT OF 1 INCH OF RAINFALL PER WEEK.
7. WATER SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY SATURATE THE SOIL IN THE ROOT ZONE OF EACH PLANT.
8. CONTRACTOR SHALL REPLACE DEAD OR DYING PLANTS AT THE END OF THE ONE YEAR GUARANTEE PERIOD. CONTRACTOR SHALL TURN OVER MAINTENANCE TO THE FACILITY MAINTENANCE STAFF AT THAT TIME.
9. PLANTS SHALL BE WATERED WITHIN 24 HOURS OF INSTALLATION.

## PLANT LIST

| KEY                           | QU. | BOTANICAL NAME                  | COMMON NAME                      | SIZE       | ROOT  | NOTES   |
|-------------------------------|-----|---------------------------------|----------------------------------|------------|-------|---------|
| <b>TREES</b>                  |     |                                 |                                  |            |       |         |
| AR                            | 2   | ACER RUBRUM 'BONHALL'           | ROXBALL RED MAPLE                | 2-3" CAL   | B&B   |         |
| JV                            | 5   | JUNIPERUS VIRGINIANA            | EASTERN RED CEDAR                | 5-6" HGT   | B&B   |         |
| LT                            | 1   | LIRIODENDRON TULIPIFERA         | TULIP TREE                       | 2-2.5" CAL | B&B   |         |
| NS                            | 3   | NYSSA SYLVATICA                 | BLACK TUPELO                     | 2-2.5" CAL | B&B   |         |
| PG                            | 1   | PICEA GLAUCA                    | WHITE SPRUCE                     | 6-7" HGT   | B&B   |         |
| <b>SHRUBS</b>                 |     |                                 |                                  |            |       |         |
| CA                            | 10  | CLETHRA ALNIFOLIA 'HUMMINGBIRD' | SUMMERSWEET SHRUB - HUMMINGBIRD  | 24 - 30"   | CONT. | 3" O.C. |
| PG                            | 3   | FOTHERGILLA GARDENII            | DWARF FOTHERGILLA                | 24 - 30"   | CONT. | 4" O.C. |
| JC                            | 11  | JUNIPERUS CHINENSIS SARGENTII   | GREEN SARGENT JUNIPER            | 18 - 24"   | CONT. | 4" O.C. |
| IG                            | 16  | ILEX GLABRA NIGRA               | NIGRA INKBERY                    | 24 - 30"   | CONT. | 3" O.C. |
| RA                            | 43  | RHUS AROMATICA 'GRO-LOW'        | GRO-LOW SUMAC                    | 18 - 24"   | CONT. | 3" O.C. |
| <b>PERENNIALS AND GRASSES</b> |     |                                 |                                  |            |       |         |
| CKF                           | 11  | CALAMAGROSTIS A. KARL FOERSTER  | KARL FOERSTER FEATHER REED GRASS | #3 POT     | CONT. | 3" O.C. |
| LS                            | 16  | Liatris spicata                 | BLAZING STAR                     | #1 POT     | CONT. | 2" O.C. |
| RH                            | 16  | Rudbeckia hirta                 | BLACK-EYED SUSAN                 | #1 POT     | CONT. | 2" O.C. |



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Subconsultant:

Project

**Mills Field Parking Improvements**

Norham, Massachusetts

Title

**Planting**

## Revisions

| No. | Description   | Date     |
|-----|---------------|----------|
| 1   | TOWN COMMENTS | 10/21/14 |
| 2   | TOWN COMMENTS | 11/10/14 |

File:

Drawn By: SR/BLB

Designed By: SR

Checked By: KC

Job No: 4650 Date: NOVEMBER 2014

North Arrow



Scale



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Sheet No.:

L-4

Plot Date: Nov 24, 2014 4:54pm

**DRAFT**