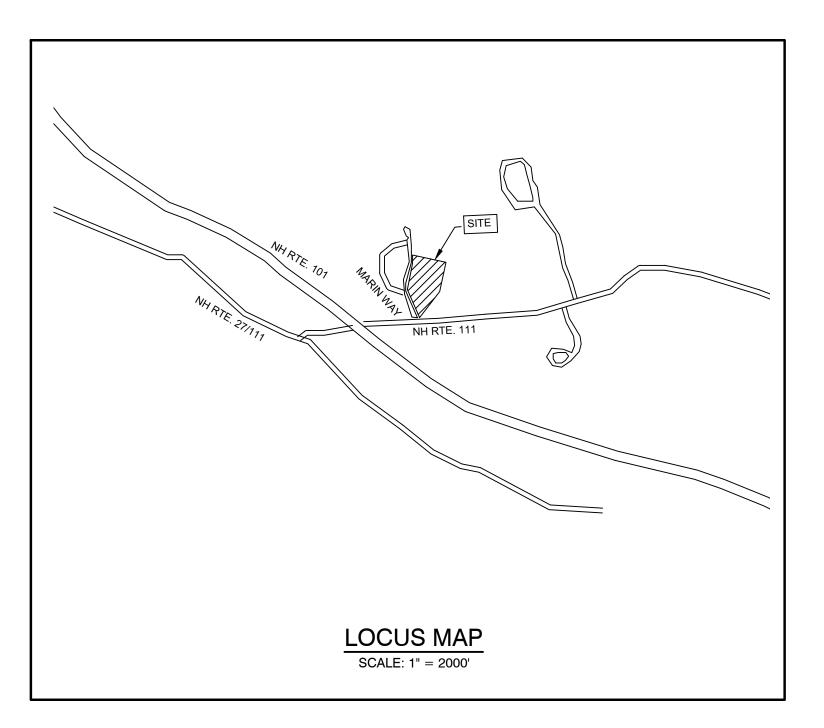
# EDGE OF PAVEMENT VERTICAL GRANITE CURB SLOPE GRANITE CURB CAPE COD BERM POURED CONCRETE CURB SILT FENCE — ======= DRAINAGE LINE SEWER LINE SEWER FORCE MAIN UNDERGROUND ELECTRIC **UNDERDRAIN** FIRE PROTECTION LINE THRUST BLOCK IRON PIPE/IRON ROD DRILL HOLE STONE/GRANITE BOUND 100x0 SPOT GRADE PAVEMENT SPOT GRADE CURB SPOT GRADE DOUBLE POST SIGN 0 0 SINGLE POST SIGN TEST PIT FAILED TEST PIT MONITORING WELL PERC TEST PHOTO LOCATION TREES AND BUSHES UTILITY POLE LIGHT POLES DRAIN MANHOLE SEWER MANHOLE HYDRANT $-\dot{\bowtie}$ WATER GATE WATER SHUT OFF DOUBLE GRATE CATCH BASIN TRANSFORMER CULVERT W/WINGWALLS **□===** CULVERT W/FLARED END SECTION CULVERT W/STRAIGHT HEADWALL —D — **|====** STONE CHECK DAM ~**~**→ DRAINAGE FLOW DIRECTION 4K SEPTIC AREA WETLAND IMPACT VEGETATED FILTER STRIP RIPRAP OPEN WATER **4 4 4** FRESHWATER WETLANDS . . . . TIDAL WETLANDS STABILIZED CONSTRUCTION **ENTRANCE** CONCRETE GRAVEL SNOW STORAGE RETAINING WALL

GENERAL LEGEND

# SITE PLAN PARKING LOT EXPANSION 2 & 8 MARIN WAY, STRATHAM, NH TAX MAP 1, LOTS 9 & 10



CIVIL ENGINEER
JONES & BEACH ENGINEERS, INC.
85 PORTSMOUTH AVENUE
PO BOX 219
STRATHAM, NH 03885
(603) 772-4746
CONTACT: JOSEPH CORONATI

# SHEET INDEX

CS COVER SHEET

A1-A2 EASEMENT PLAN

DM1 DEMOLITION PLAN

2 SITE PLAN

C3 GRADING AND DRAINAGE PLAN

C4 UTILITY PLAN

L1 LANDSCAPE PLAN

L2 LIGHTING PLAN

D1-D2 DETAIL SHEET

E1 EROSION AND SEDIMENT CONTROL DETAILS

# ABUTTERS LIST:

EXETER ABUTTER:

88/5
100 DOMAIN DRIVE DD LLC 88.98%
100 DOMAIN DRIVE EI LLC 11.02 %
BOULOS ASSEST MANAGEMENT
ONE CANAL PLAZA
PORTLAND, ME 04101
5903/1301 (04/05/18)

88/7
POWER REALTY TRUST
DIANA CORMIER — TRUSTEE
8 AULSON RD
SALEM, NH 03079
4449/2488 (03/14/05)

STRATHAM ABUTTERS: 1/2

1/2
100 DOMAIN DRIVE DD LLC 88.98%
100 DOMAIN DRIVE EI LLC 11.02 %
BOULOS ASSEST MANAGEMENT
ONE CANAL PLAZA
PORTLAND, ME 04101
5903/1301 (04/05/18)

1/3 ALBANY ROAD - 200 DOMAIN LLC 10 HIGH ST, STE 700 BOSTON, MA 02110 5690/1565 (02/05/16)

1/8
MARIN WAY INVESTMENT CORP
PO BOX 432
STRATHAM, NH 03885
3265/568 (01/29/98)

1/11
WELLS FARGO BANK, N.A.
C/O OCWEN LOAN SERVICING, LLC
1661 WORTHINGTON RD, STE 100
WEST PALM BEACH, FL 33409
5671/2393 (11/20/15)

1/12 POWER REALTY TRUST DIANA CORMIER — TRUSTEE 8 AULSON RD SALEM, NH 03079 4449/2488 (03/14/05)

TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885

NORTH HAMPTON ABUTTERS: 10/3 & 5 KENDALL W. & EUGENIE CHEVALIER 287 ATLANTIC AVE NORTH HAMPTON, NH 03862

10/4 TOWN OF NORTH HAMPTON 233 ATLANTIC AVE NORTH HAMPTON, NH 03862 2939/0589 (08/17/92)

10/8 FOUR FIELDS, LLC 71 EXETER RD NORTH HAMPTON, NH 03862 5916/1213 (05/25/18)

HAMPTON ABUTTERS: 7/3 HAMPTON CONSERVATION COMMISSION 100 WINNACUNNET RD HAMPTON, NH 03842 5624/2364 (06/09/15)

FOUR FIELDS, LLC
71 EXETER RD
NORTH HAMPTON, NH 03862
5916/1213 (05/25/18)
NHDOT

NHDOT 7 HAZEN DR CONCORD, NH 03302 PROJECT PARCEL
TOWN OF STRATHAM, NH
TAX MAP 1, LOTS 9 & 10

TOTAL LOT AREA 690,978 SQ. FT. 15.86 ACRES

APPROVED - STRATHAM, NH PLANNING BOARD

Design: JAC Draft: DJM Date: 4/23/20

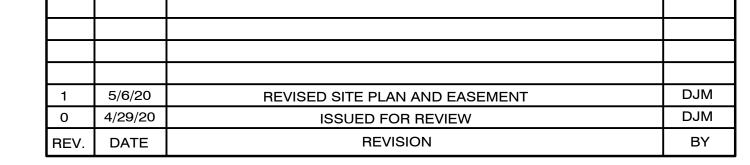
Checked: JAC Scale: AS SHOWN Project No.:19226

Drawing Name: 19226-PLAN.dwg

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PO Box 219

Stratham, NH 03885

L Diigiiio	<u> </u>	Dr
Q ·	603-772-4746	
Services	FAX: 603-772-0227	
E-MAIL: JBE@JONI	ESANDBEACH.COM	Cli

Plan Name:	COVER SHEET
Project:	H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH
	S.I.P. LOT 3, LLC

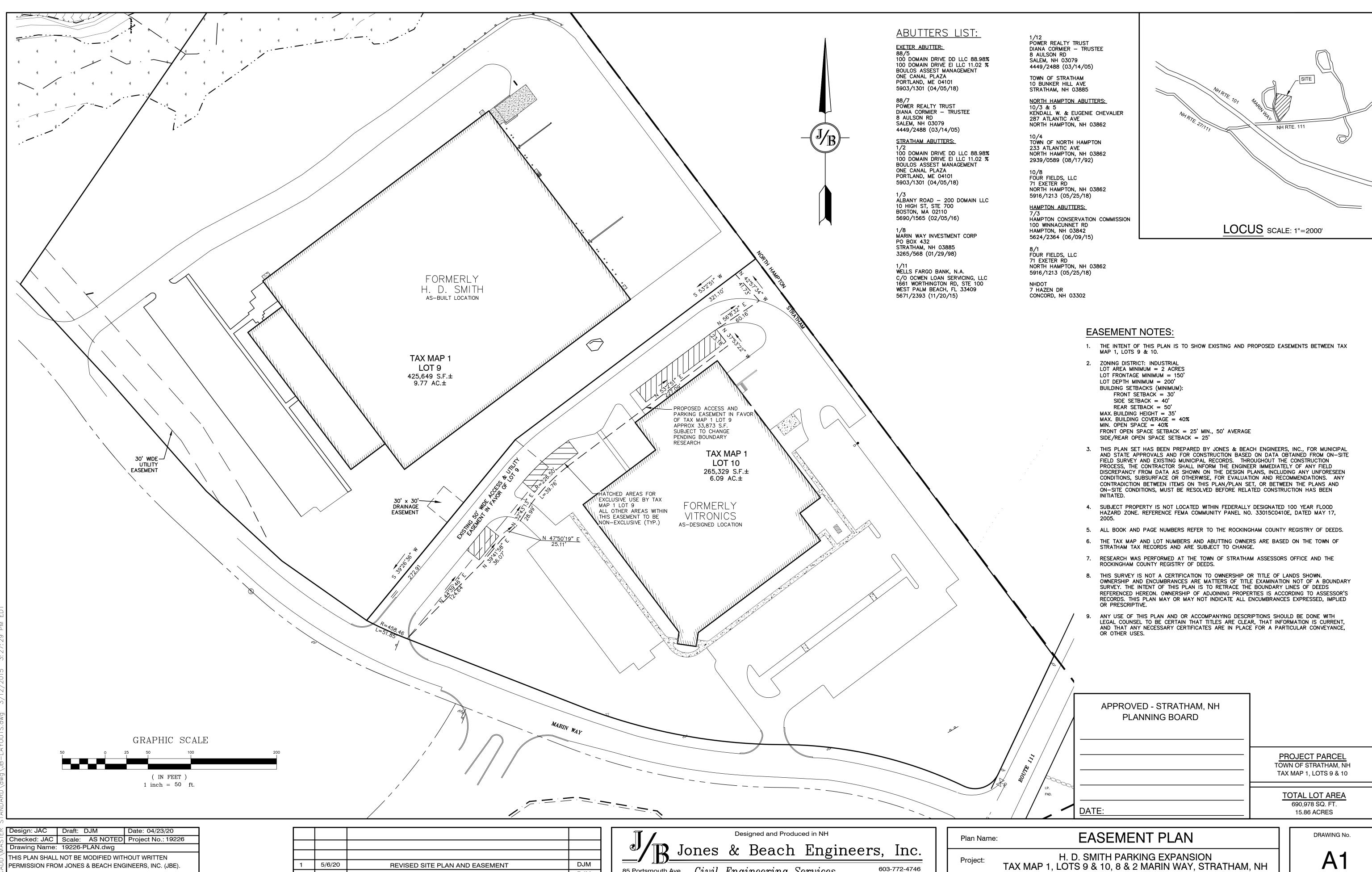
P.O. BOX 432, STRATHAM, NH 03885

DRAWING No.

CS

SHEET 1 OF 12

JBE PROJECT NO. 19226



DJM

BY

PO Box 219

Stratham, NH 03885

4/29/20

DATE

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REVISION

603-772-4746

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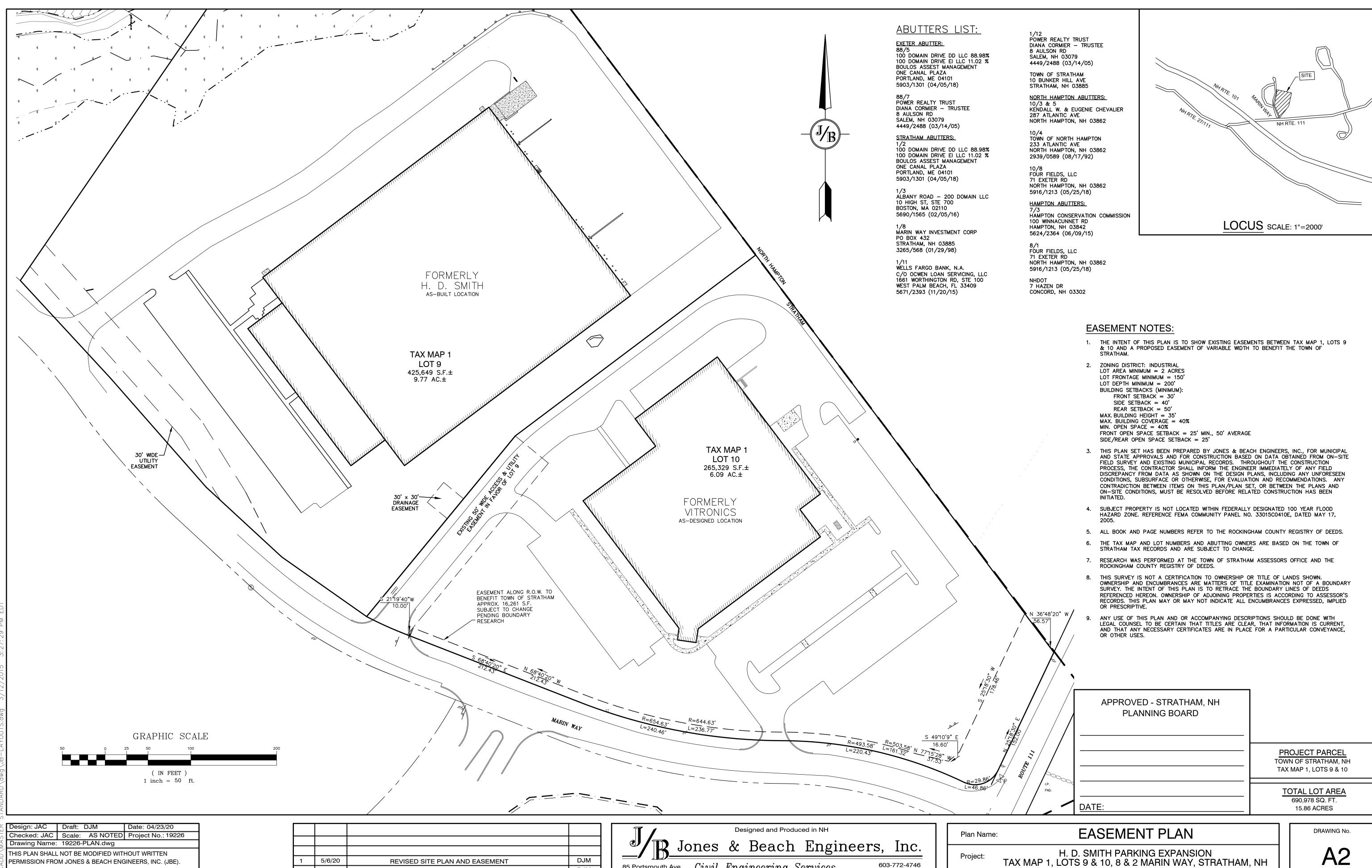
FAX: 603-772-0227

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SHEET 2 OF 12 JBE PROJECT NO. 19226

S.I.P. LOT 3, LLC

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E-MAIL: JBE@JONESANDBEACH.COM

DJM

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BY

PO Box 219

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5/6/20

4/29/20

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**REVISED SITE PLAN AND EASEMENT** 

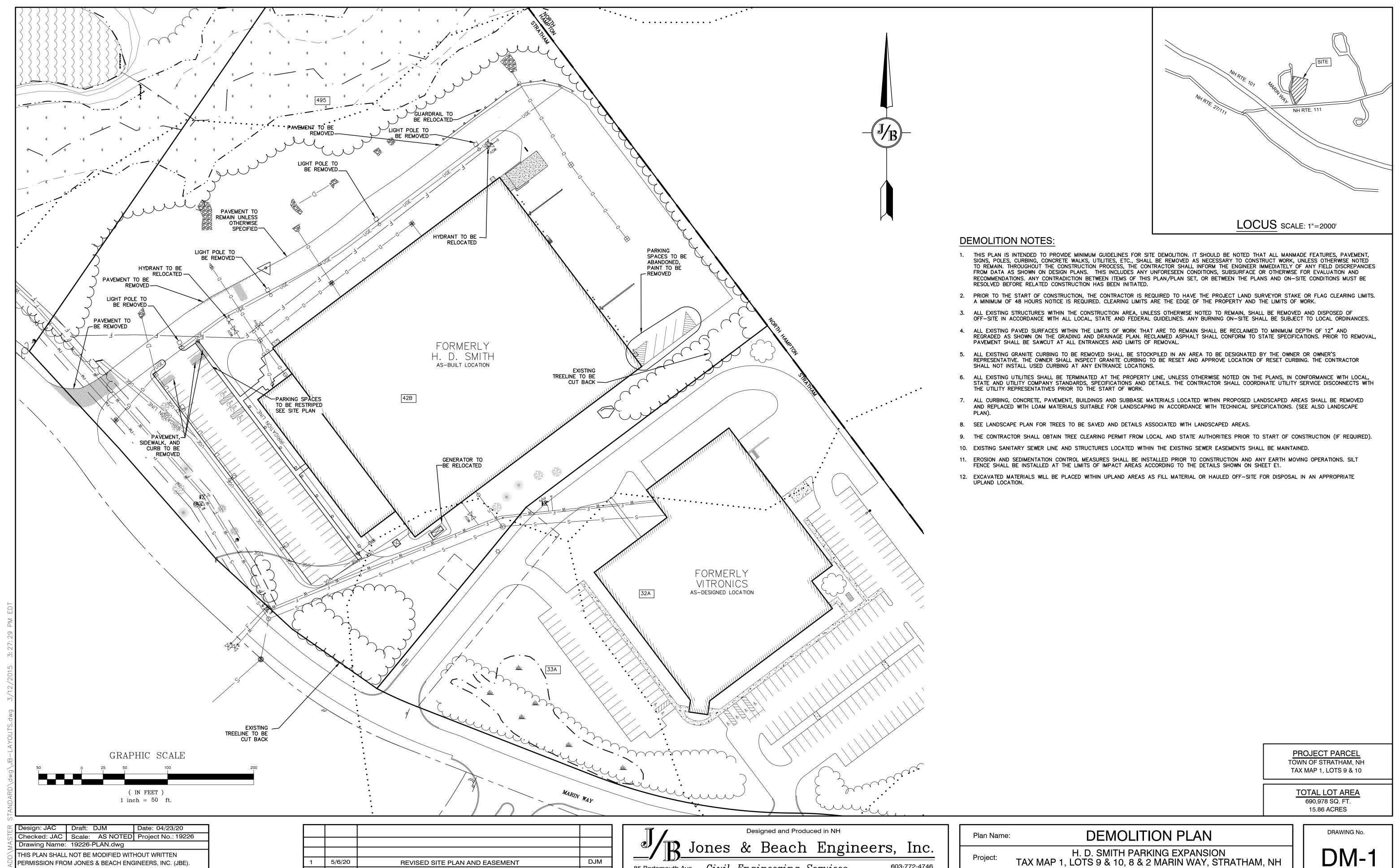
**ISSUED FOR REVIEW** 

REVISION

SHEET 3 OF 12 JBE PROJECT NO. 19226

S.I.P. LOT 3, LLC

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603-772-4746

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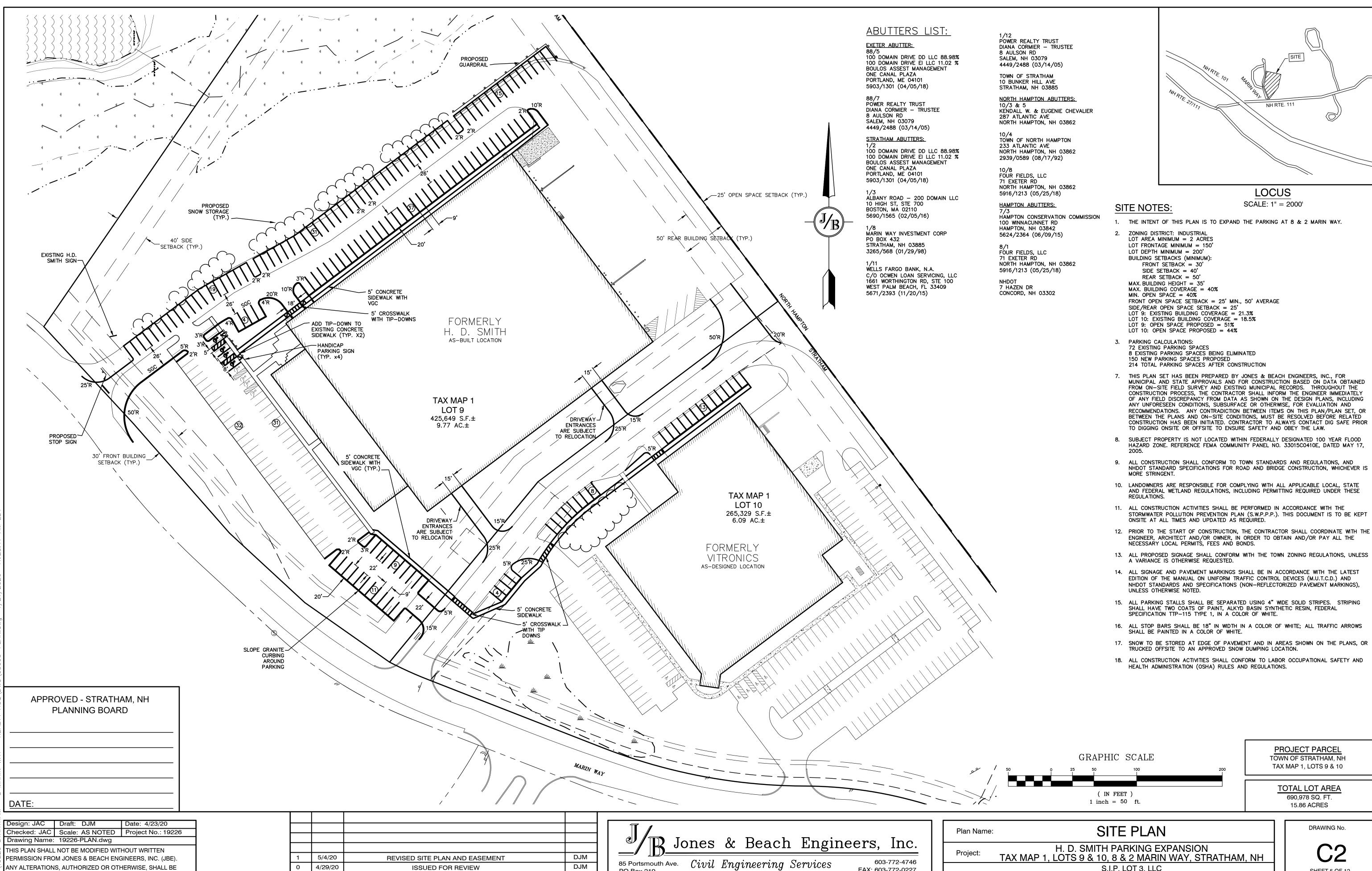
REVISED SITE PLAN AND EASEMENT

ISSUED FOR REVIEW

REVISION

DM-1 JBE PROJECT NO. 19226

S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885



DJM

BY

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Stratham, NH 03885

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**REVISION** 

SHEET 5 OF 12 JBE PROJECT NO. 19226

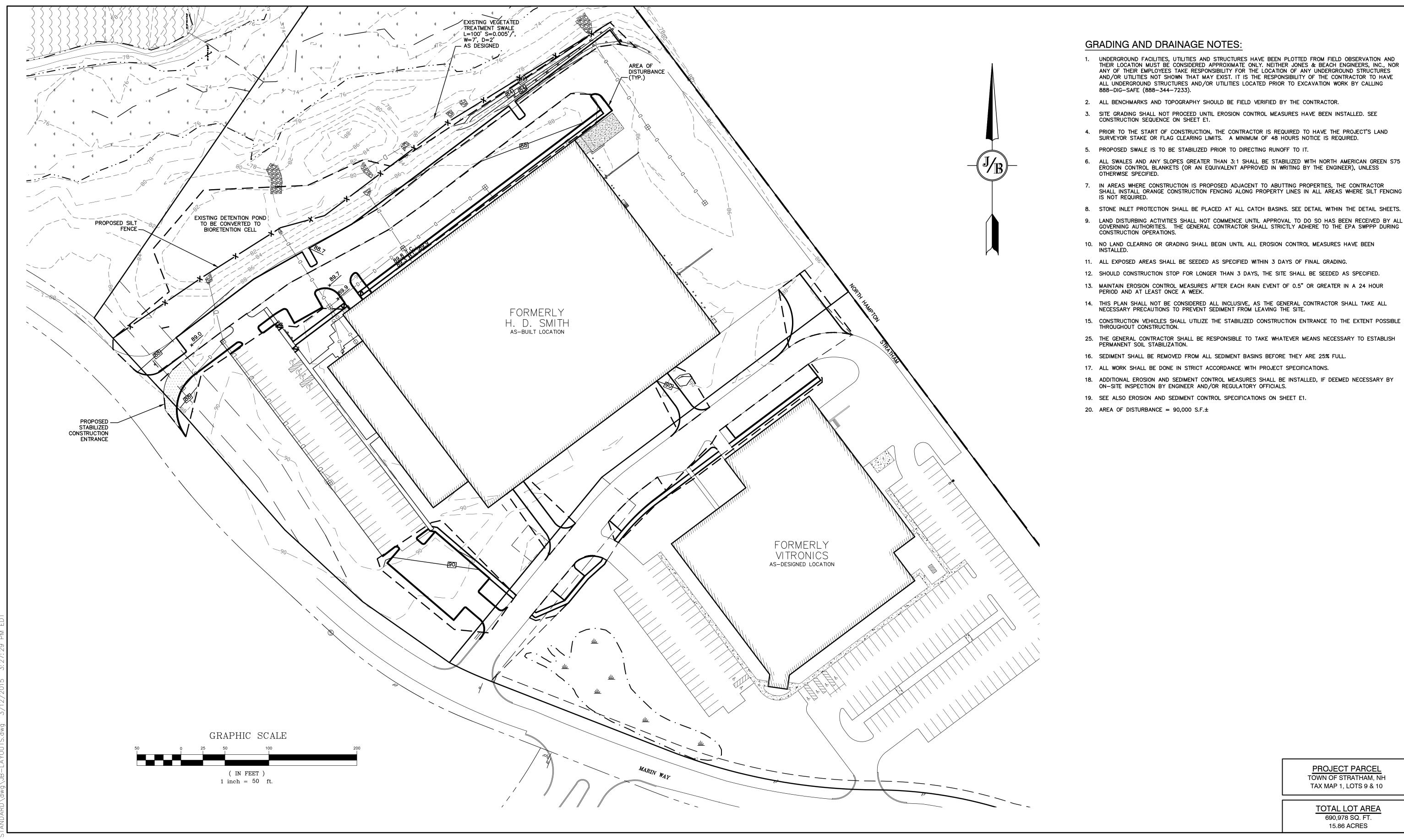
S.I.P. LOT 3, LLC

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FAX: 603-772-0227

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Design: JACDraft:DJMDate: 04/23/20Checked: JACScale:AS NOTEDProject No.: 19226 Drawing Name: 19226-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE T THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

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Name:	GRADING AND DRAINAGE PLAN

H. D. SMITH PARKING EXPANSION Project: TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 Owner of Record:

SHEET 6 OF 12 JBE PROJECT NO. 19226

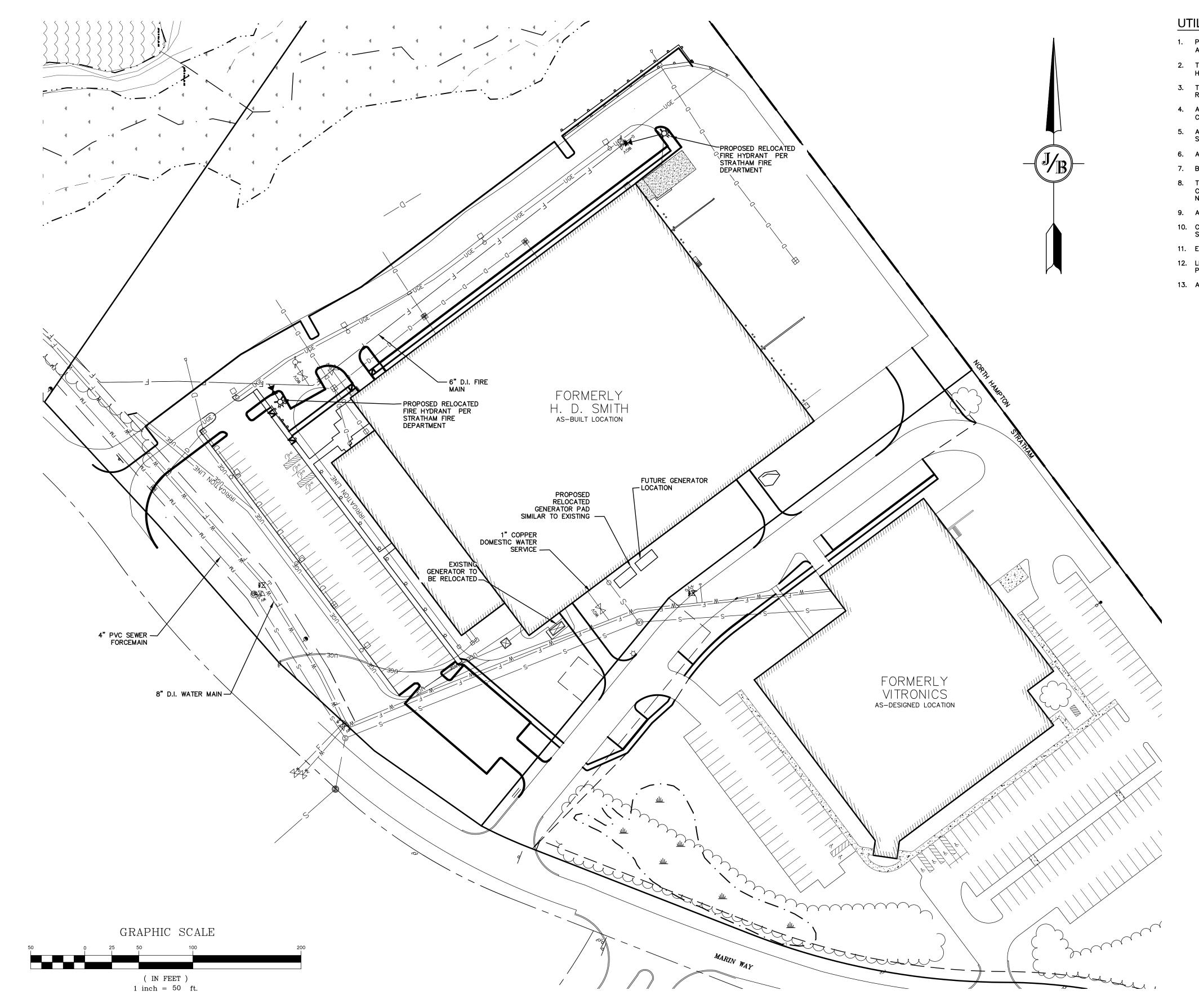
DRAWING No.

PROJECT PARCEL

TOWN OF STRATHAM, NH

TAX MAP 1, LOTS 9 & 10

TOTAL LOT AREA 690,978 SQ. FT. 15.86 ACRES



#### **UTILITY NOTES:**

- 1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, CONNECTION FEES AND BONDS.
- 2. THE CONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF FOURTEEN (14) DAYS TO ALL CORPORATIONS, COMPANIES AND/OR LOCAL AUTHORITIES OWNING OF HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
- 3. THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY.
- 4. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER, ENGINEER, ARCHITECT, CONTRACTOR, LOCAL OFFICIALS, AND ALL PROJECT-RELATED UTILITY COMPANIES (PUBLIC AND PRIVATE) PRIOR TO START OF CONSTRUCTION.
- 5. ALL CONSTRUCTION SHALL CONFORM TO THE TOWN STANDARDS AND REGULATIONS, AND NHDES STANDARDS AND SPECIFICATIONS, WHICHEVER ARE MORE
- 6. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
- 7. BUILDING TO BE SERVICED BY UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED.
- 8. THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS. ENGINEER TO BE
- 9. AS-BUILT PLANS SHALL BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS.
- 10. CONTRACTOR TO FURNISH SHOP DRAWINGS FOR UTILITY RELATED ITEMS TO ENSURE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SHOULD BE SENT IN TRIPLICATE TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 11. EXISTING UTILITIES SHALL BE DIGSAFED BEFORE CONSTRUCTION.
- 12. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRIC CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
- 13. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.

PROJECT PARCEL TOWN OF STRATHAM, NH TAX MAP 1, LOTS 9 & 10

TOTAL LOT AREA 690,978 SQ. FT. 15.86 ACRES

Design: JACDraft:DJMDate: 04/23/20Checked: JACScale:AS NOTEDProject No.: 19226 Drawing Name: 19226-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE T THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

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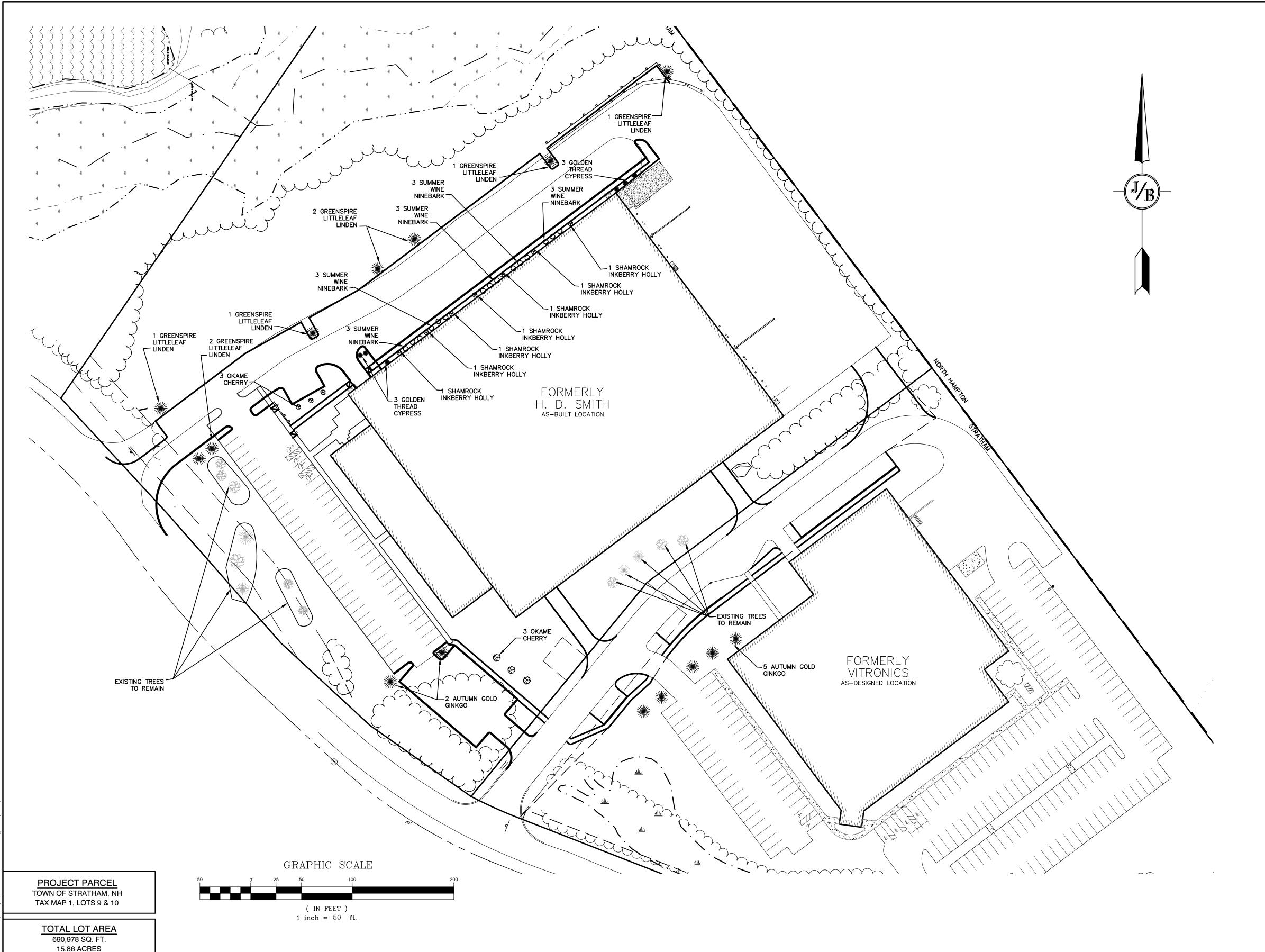
85 Portsmouth Ave. Civil Engineering Services 603-772-4746 FAX: 603-772-0227 PO Box 219 E-MAIL: JBE@JONESANDBEACH.COM Stratham, NH 03885

**UTILITY PLAN** Plan Name:

Owner of Record:

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885

JBE PROJECT NO. 19226



#### LANDSCAPE NOTES:

- THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO
- 2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS.
- 3. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 4. ALL PLANT SUBSTITUTIONS MUST BE APPROVED.
- 5. ALL PLANT MATERIALS SHALL BE EXACTLY AS SPECIFIED OR SUBSTITUTIONS MUST BE APPROVED
- 6. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ON-GOING FOR CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
- 7. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT-BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
- 8. NO PLANT SHALL BE PUT IN THE GROUND BEFORE GRADING HAS BEEN FINISHED.
- 9. ALL WORK AND PLANTS SHALL BE DONE, INSTALLED AND DETAILED IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
- 10. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN IF NECESSARY, DURING THE FIRST GROWING SEASON.
- 11. BY THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAS DIED, LOST NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESSIVE PRUNING OR INADEQUATE OR IMPROPER CARE, OR THAT IS IN UNHEALTHY OR UNSIGHTLY CONDITION.
- 12. ALL LANDSCAPE AREAS TO BE GRASS COMMON TO REGION, EXCEPT FOR INTERIOR LANDSCAPED ISLANDS OR WHERE OTHER PLANT MATERIAL IS SPECIFIED.
- 13. ALL TREES AND SHRUBS SHALL BE PLANTED IN MULCH BEDS WITH EDGE STRIPS TO SEPARATE TURF GRASS AREAS.
- 14. THE CONTRACTOR SHALL REMOVE WEEDS, ROCKS, CONSTRUCTION ITEMS, ETC. FROM ANY LANDSCAPE AREA SO DESIGNATED TO REMAIN, WHETHER ON OR OFF-SITE.
- 15. FINISHED GRADES IN LANDSCAPED ISLANDS SHALL BE INSTALLED SO THAT THEY ARE 1" HIGHER THAN THE TOP OF THE SURROUNDING CURB.
- 16. ALL LANDSCAPING SHALL MEET THE TOWN STANDARDS AND REGULATIONS.
- 17. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY SNOW FENCING AT THE DRIPLINE OF THE TREE. THE CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS WITHIN THE LANDSCAPED AREAS. ANY DAMAGE TO EXISTING TREES, SHRUBS OR LAWN SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 18. ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER A 10 MIL WEED MAT EQUAL TO 'WEEDBLOCK' BY EASY GARDENER OR DEWITT WEED BARRIER.
- 19. ALL LANDSCAPED AREAS SHALL HAVE SELECT MATERIALS REMOVED TO A DEPTH OF AT LEAST 9" BELOW FINISH GRADE. THE RESULTING VOID IS TO BE FILLED WITH A MINIMUM OF 9" HIGH-QUALITY SCREENED LOAM AMENDED WITH 3" OF AGED ORGANIC COMPOST.
- 20. THIS PLAN IS INTENDED FOR LANDSCAPING PURPOSES ONLY. REFER TO CIVIL/SITE DRAWINGS FOR OTHER SITE CONSTRUCTION INFORMATION.

Design: JAC Draft: DJM Date: 04/23/20 Checked: JAC Scale: AS NOTED Project No.: 19226 Drawing Name: 19226-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE T THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

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0	4/29/20	ISSUED FOR REVIEW	DJM
REV.	DATE	REVISION	BY

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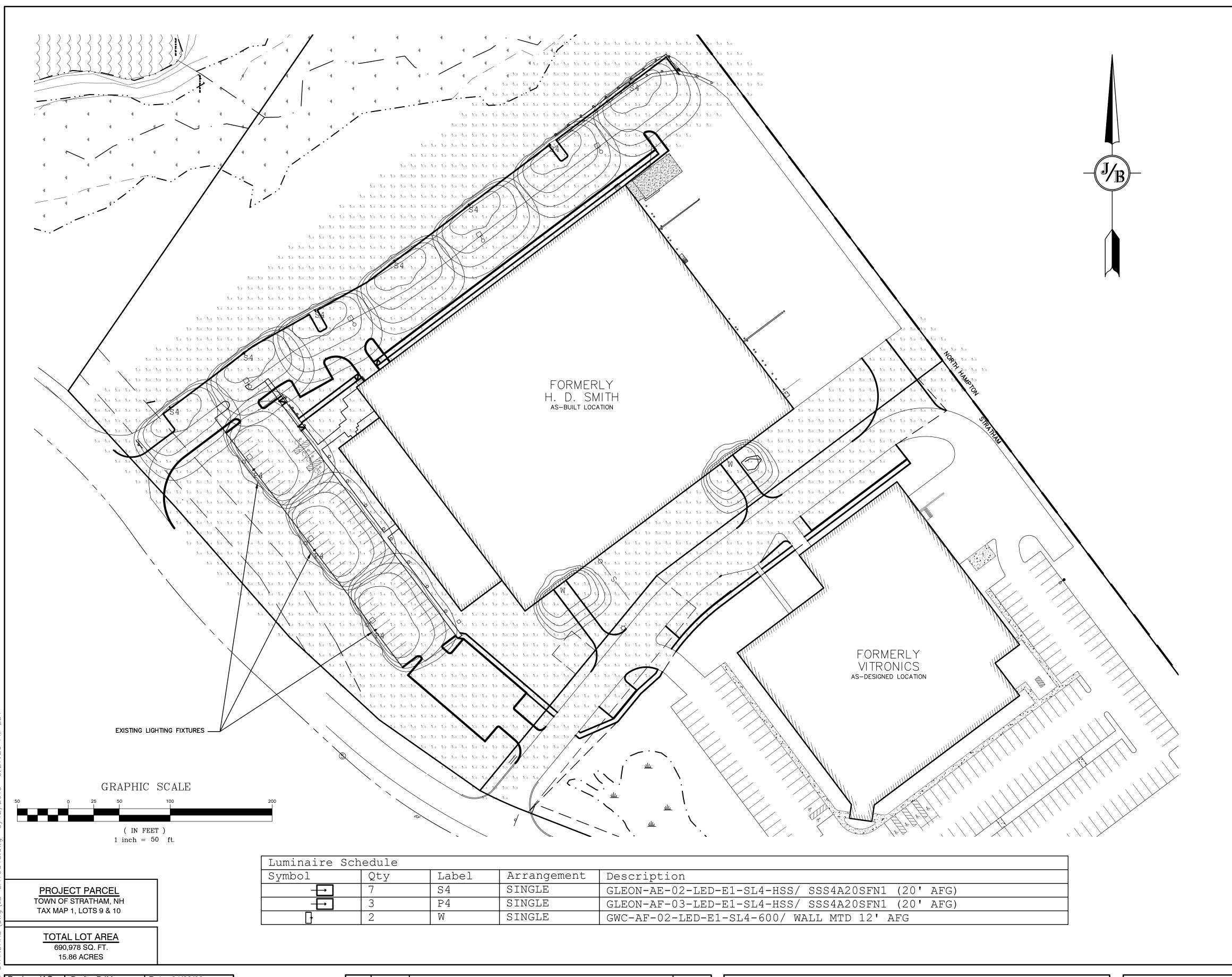
85 Portsmouth Ave. Civil Engineering Services 603-772-4746 FAX: 603-772-0227 PO Box 219 Stratham, NH 03885 E-MAIL: JBE@JONESANDBEACH.COM

LANDSCAPE PLAN Plan Name:

Owner of Record:

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885

SHEET 8 OF 12 JBE PROJECT NO. 19226



# LIGHTING AND ELECTRICAL NOTES:

- SITE ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
- 2. CONTRACTOR SHALL INSTALL PROPOSED LIGHT POLES ACCORDING TO TOWN REGULATIONS.
- 3. ALL OUTDOOR LIGHTING SYSTEMS SHALL BE EQUIPPED WITH TIMERS TO REDUCE ILLUMINATION LEVELS TO NON-OPERATIONAL VALUES PER TOWN REGULATIONS.
- 4. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
- 5. ILLUMINATION READINGS SHOWN ARE BASED ON A TOTAL LLF OF 0.75 AT GRADE. ILLUMINATION READINGS SHOWN ARE IN UNITS OF FOOT—CANDLES.
- LIGHTING CALCULATIONS SHOWN ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM AND SAFETY.
- 7. ALL LIGHTING FIXTURES SHALL BE FULL CUT-OFF DARK-SKY COMPLIANT, UNLESS OTHERWISE NOTED.
- 8. THE PROPOSED LIGHTING CALCULATIONS AND DESIGN WAS PERFORMED BY CHARRON, INC., P.O. BOX 4550, MANCHESTER, NH 03108, ATTENTION KEN SWEENEY. ALL LIGHTS SHOULD BE PURCHASED FROM THIS COMPANY OR ONE OF THEIR SUPPLIERS, OR AN EQUAL LIGHTING DESIGN SHOULD BE SUBMITTED FOR REVIEW IF EQUAL SUBSTITUTIONS ARE PROPOSED BY THE CONTRACTOR OR OWNER.

Design: JAC Draft: DJM Date: 04/23/20
Checked: JAC Scale: AS NOTED Project No.: 19226
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Jones & Beach Engineers, Inc.

85 Portsmouth Ave. PO Box 219
Stratham, NH 03885

Civil Engineering Services

FAX: 603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	LIGHTING PLAN

H. D. SMITH PARKING EXPANSION
TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

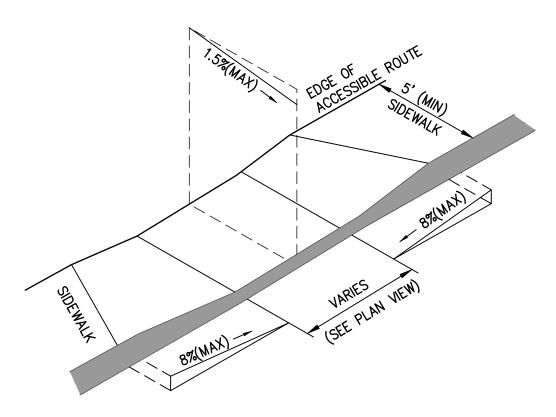
S.I.P. LOT 3, LLC
Owner of Record: P.O. BOX 432, STRATHAM, NH 03885

DRAWING No.

L2

SHEET 9 OF 12

JBE PROJECT NO. 19226

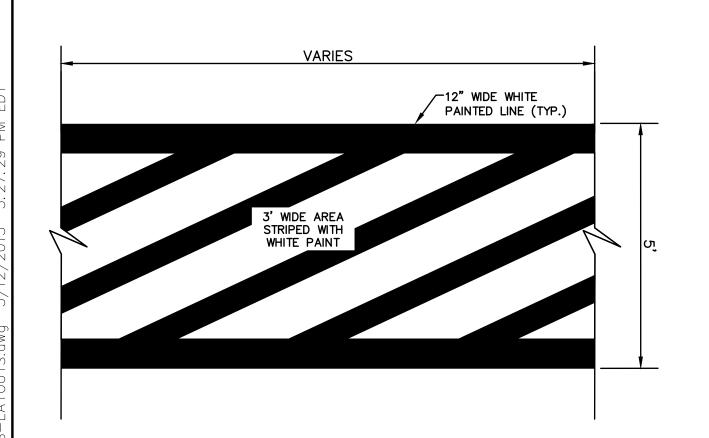


- NOTES:

  1. THE MAXIMUM ALLOWABLE CROSS SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) AND CURB SHALL BE 1.5%.
- 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL
- 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) CURB RAMPS SHALL BE 8%,
- 4. A MINIMUM OF 4 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (i.e., HYDRANTS, UTLITY POLES, TREE WELLS, SIGNS, ETC.).
- 5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE. 6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING
- SEE TYPICAL SECTION FOR RAMP CONSTRUCTION.

# ACCESSIBLE CURB RAMP (TYPE `A')

# NOT TO SCALE



Date: 04/23/20

# PAINTED CROSSWALK DETAIL

Checked: JAC | Scale: AS NOTED | Project No.: 19226

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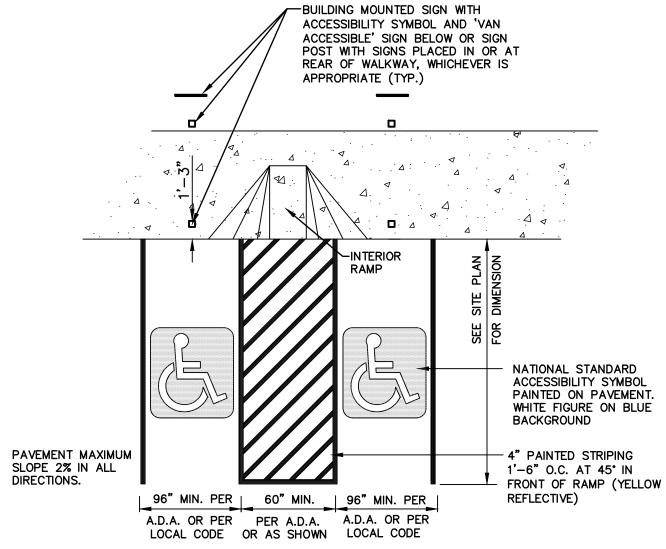
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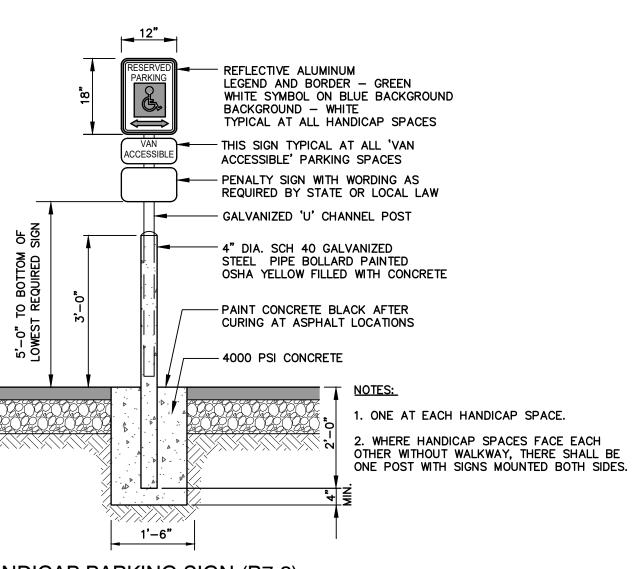
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NOT TO SCALE

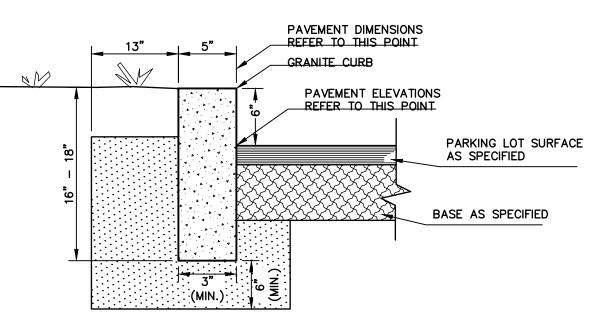


# HANDICAP PARKING LAYOUT

#### NOT TO SCALE



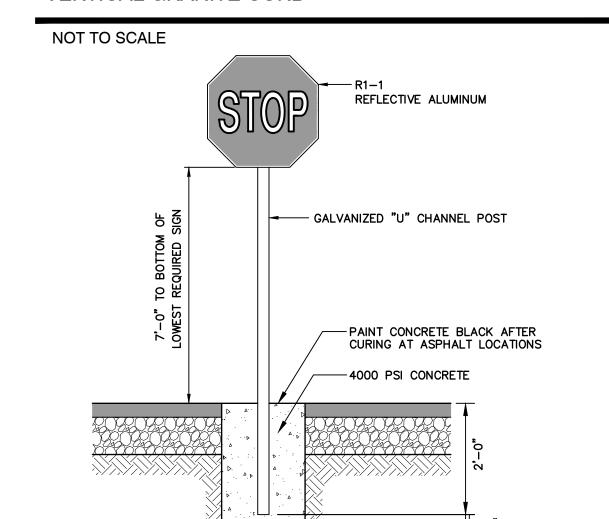
# HANDICAP PARKING SIGN (R7-8)



#### NOTES:

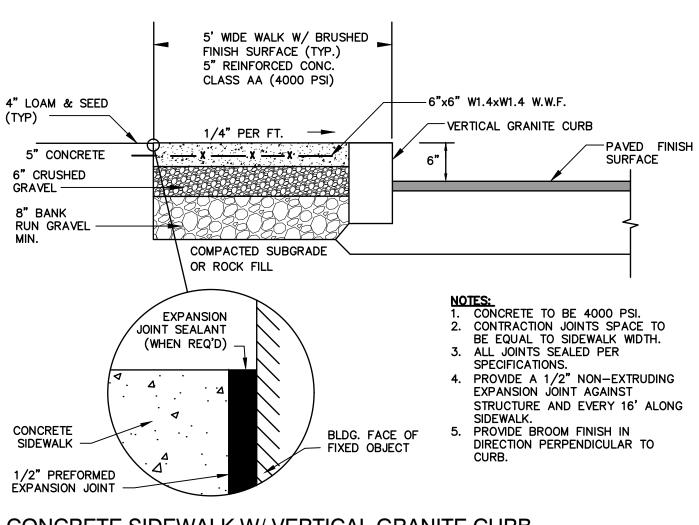
- 1. EDGING TO BE PLACED PRIOR TO PLACING TOP SURFACE COURSE.
- 2. JOINTS BETWEEN STONES SHALL BE MORTARED.

#### VERTICAL GRANITE CURB



# STOP SIGN (R1-1)

NOT TO SCALE



E-MAIL: JBE@JONESANDBEACH.COM

1'-6"

#### CONCRETE SIDEWALK W/ VERTICAL GRANITE CURB

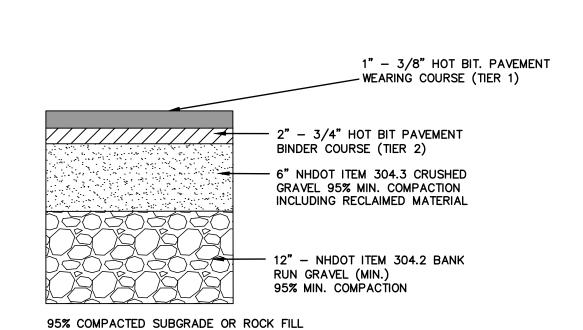
NOT TO SCALE

Stratham, NH 03885

DJM

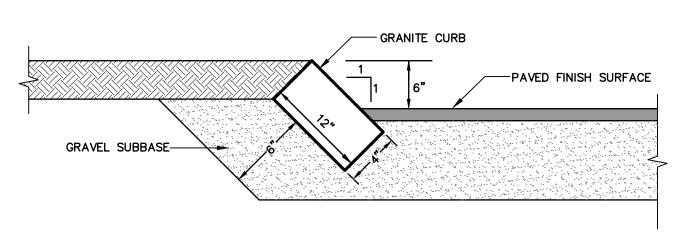
DJM

BY



#### TYPICAL BITUMINOUS PAVEMENT

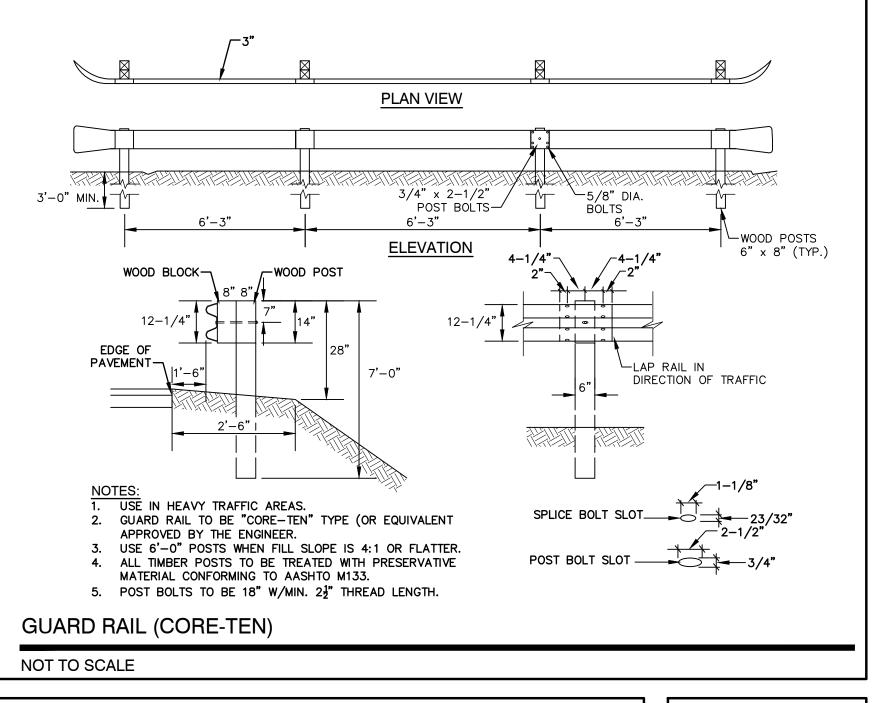
#### NOT TO SCALE



- 1. EDGING TO BE PLACED PRIOR TO PLACING TOP SURFACE COURSE.
- 2. JOINTS BETWEEN STONES SHALL BE MORTARED. 3. SALVAGE GRANITE CURBS ON-SITE AND RESET TO THE EXTENT POSSIBLE.

#### SLOPED GRANITE CURB

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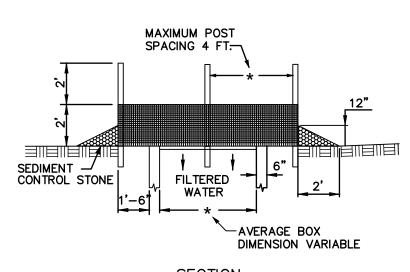


1	5/6/20	REVISED SITE PLAN AND EASEMENT
0	4/29/20	ISSUED FOR REVIEW
REV.	DATE	REVISION

Designed and Produced in NH Jones & Beach Engineers, Inc. 85 Portsmouth Ave. Civil Engineering Services 603-772-4746 FAX: 603-772-0227 PO Box 219

**DETAIL SHEET** Plan Name: H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 Owner of Record:

DRAWING No. SHEET 10 OF 12 JBE PROJECT NO. 19226



<u>SECTION</u> MULTI-DIRECTIONAL FLOW

1. SEDIMENT CONTROL STONE SHALL BE 3/4" WASHED STONE.
2. WIRE MESH SHALL BE HARDWARE CLOTH 23 GAUGE MIN. AND SHALL HAVE 1/4 INCH MESH OPENINGS.

INCH MESH OPENINGS.

3. TOP OF WIRE MESH SHALL BE A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.

4. STEEL POST SHALL BE 5 FT. IN HEIGHT, BE INSTALLED 1.5 FT. DEEP MINIMUM, AND BE OF THE SELF—FASTENER ANGLE STEEL TYPE.

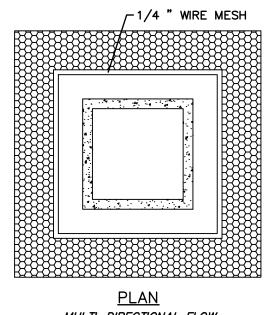
5. WOOD POST SHALL BE 6 FT. IN HEIGHT, BE INSTALLED TO 1.5 FT. DEEP MINIMUM, AND BE 3 INCLUSE IN DIAMETER. AND BE 3 INCHES IN DIAMETER.

6. POST SPACING SHALL BE A MAXIMUM OF 4 FT.

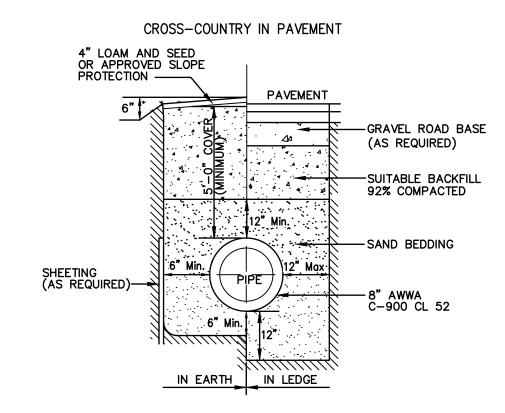


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NOTES:

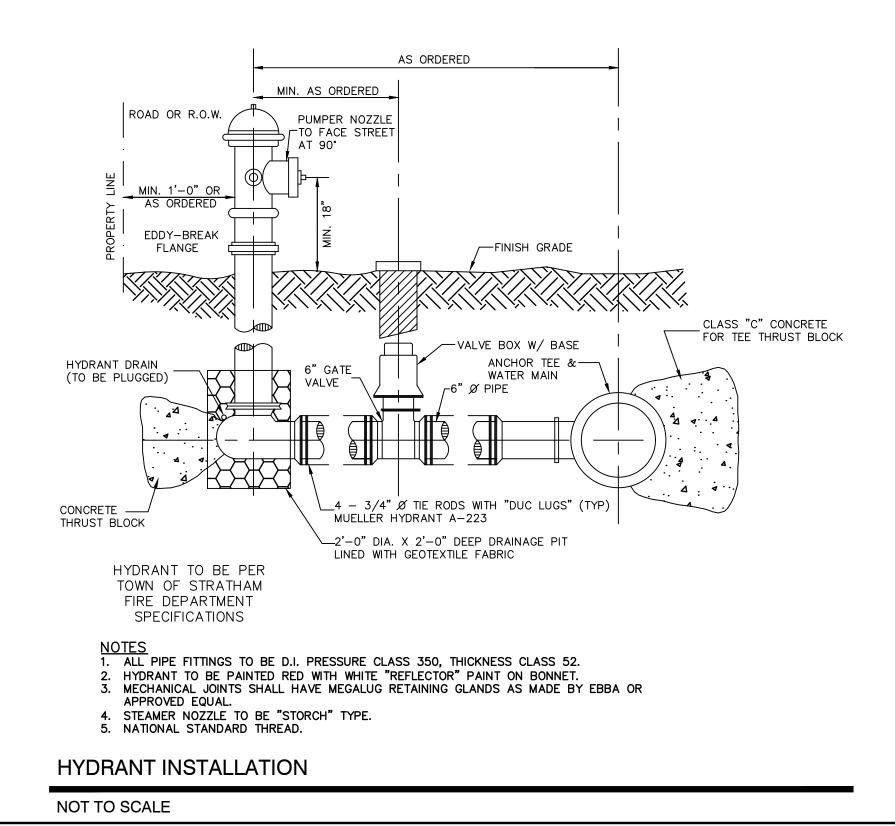


MULTI-DIRECTIONAL FLOW



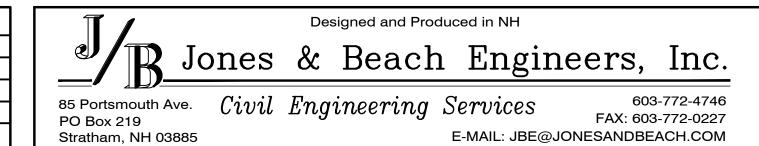
#### WATER SYTEM TRENCH

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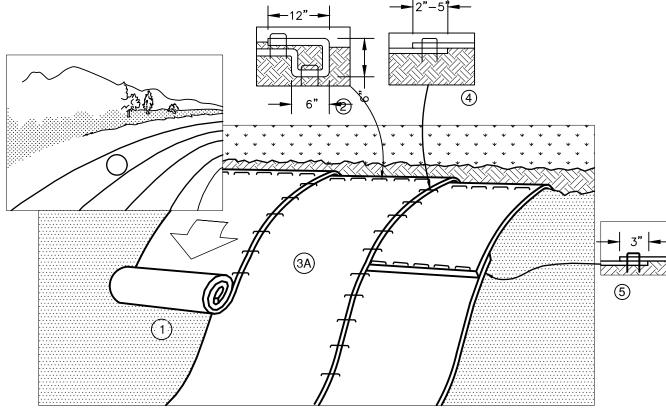


Plan Name:	DETAIL SHEET
Project:	H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH
Owner of Re	S.I.P. LOT 3, LLC cord: P.O. BOX 432, STRATHAM, NH 03885

DRAWING No. SHEET 11 OF 12 JBE PROJECT NO. 19226

#### TEMPORARY EROSION CONTROL NOTES

- . THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. AT NO TIME SHALL AN AREA IN EXCESS OF 5 ACRES BE EXPOSED AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED
- EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
- ALL DISTURBED AREAS (INCLUDING POND AREAS BELOW THE PROPOSED WATERLINE) SHALL BE RETURNED TO PROPOSED GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 6" OF SCREENED ORGANIC LOAM AND SEEDED WITH SEED MIXTURE 'C' AT A RATE NOT LESS THAN 1.10 POUNDS OF SEED PER 1,000 S.F. OF AREA (48 LBS. / ACRE).
- SILT FENCES AND OTHER BARRIERS SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR GREATER. ALL DAMAGED AREAS SHALL BE REPAIRED, AND SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
- AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
- AREAS MUST BE SEEDED AND MULCHED OR OTHERWISE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING. OR TEMPORARILY STABILIZED WITHIN 14 DAYS OF THE INITIAL DISTURBANCE OF SOIL. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING NORTH AMERICAN GREEN S75 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER) ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- 8. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM
- 10. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
  - a. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
  - b. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  - c. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED; OR
  - d. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- FUGITIVE DUST CONTROL IS REQUIRED TO BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000, AND THE PROJECT IS TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO



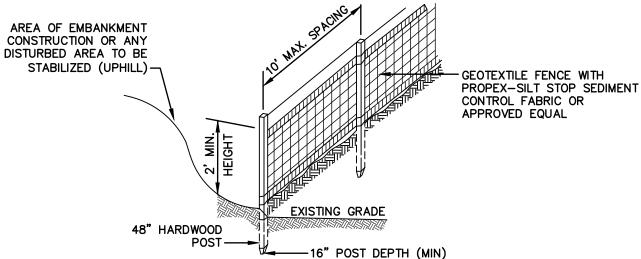
- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEMTM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED
- 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.



NORTH AMERICAN GREEN 14649 HIGHWAY 41 NORTH EVANSVILLE, INDIANA 47725 1-800-772-2040

EROSION CONTROL BLANKET SLOPE INSTALLATION (North American Green)

NOT TO SCALE



#### **CONSTRUCTION SPECIFICATIONS:**

- WOVEN FABRIC FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP, MID AND BOTTOM AND EMBEDDED IN THE GROUND A MINIMUM OF 8" AND THEN COVERED WITH SOIL.
- . THE FENCE POSTS SHALL BE A MINIMUM OF 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.

4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED AND PROPERLY DISPOSED OF

. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED 6", FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.

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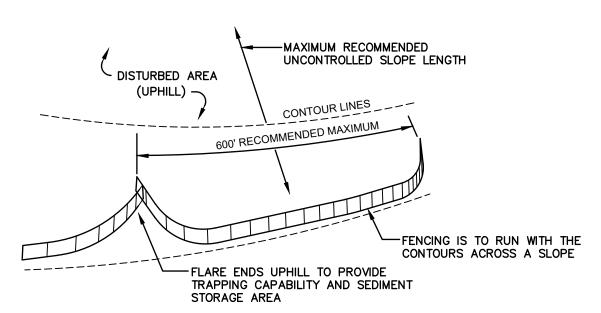
- WHEN IT IS 6" DEEP OR VISIBLE 'BULGES' DEVELOP IN THE SILT FENCE.
- 5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE. 6. SILT FENCE SHALL REMAIN IN PLACE FOR 24 MONTHS.

# SILT FENCE

NOT TO SCALE

Design: JAC | Draft: DJM

Drawing Name: 19226-PLAN.dwg



7. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND REVEGETATED.

- 1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE DONE IMMEDIATELY.
- 2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
- 4. SEDIMENT DEPOSITS THAT ARE REMOVED, OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED, SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

#### SEEDING SPECIFICATIONS

#### 1. GRADING AND SHAPING

- A. SLOPES SHALL NOT BE STEEPER THAN 2:1 WITHOUT APPROPRIATE EROSION CONTROL MEASURES AS SPECIFIED ON THE PLANS (3:1 SLOPES OR FLATTER ARE PREFERRED).
- B. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

#### 2. <u>SEEDBED PREPARATION</u>

- A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING
- OR WINTER KILLING OF THE PLANTS. B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND FERTILIZER AND LIME MIXED INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

#### 3. ESTABLISHING A STAND

- A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. TYPES AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE
- AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ.FT. NITROGEN(N), 50 LBS. PER ACRE OR 1.1 LBS. PER 1,000 SQ.FT. PHOSPHATE(P205), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
- POTASH(K20), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT. (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10.)
- B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING, WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
- MIXTURES AND RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT, TREFOIL AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT PRIOR TO THEIR INTRODUCTION TO THE SITE. D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER.

C. REFER TO THE 'SEEDING GUIDE' AND 'SEEDING RATES' TABLES ON THIS SHEET FOR APPROPRIATE SEED

WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20th OR FROM AUGUST 10th TO SEPTEMBER 1st.

A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING. B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 S.F.

#### 5. MAINTENANCE TO ESTABLISH A STAND A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED

- B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS
- USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED.
- C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, ANNUAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

<u>USE</u>	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A B C	FAIR POOR POOR	GOOD GOOD GOOD	GOOD FAIR EXCELLENT	FAIR FAIR GOOD
WATERWAYS, EMERGENC'SPILLWAYS, AND OTHER CHANNELS WITH	D Y A C	GOOD GOOD	GOOD EXCELLENT	GOOD EXCELLENT	FAIR FAIR
FLOWING WATER.  LIGHTLY USED PARKING LOTS, ODD AREAS, JNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A B C	GOOD GOOD GOOD	GOOD GOOD EXCELLENT	GOOD FAIR EXCELLENT	FAIR POOR FAIR
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	E F	FAIR FAIR	EXCELLENT EXCELLENT	EXCELLENT EXCELLENT	<u>2/</u> <u>2/</u>

GRAVEL PIT, SEE NH-PM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND / REFER TO SEEDING MIXTURES AND RATES IN TABLE BELOW.

NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCTOBER 15th, IF PERMANENT SEEDING NOT YET COMPLETE.

2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

# **SEEDING GUIDE**

MIXTURE	POUNDS PER ACRE	POUNDS PE 1.000 Sq. F
A. TALL FESCUE CREEPING RED FESCUE RED TOP TOTAL	20 20 2 42	0.45 0.45 <u>0.05</u> 0.95
B. TALL FESCUE CREEPING RED FESCUE CROWN VETCH OR	15 10 15	0.35 0.25 0.35
FLAT PEA TOTAL	30 40 OR 55	0.75 0.95 OR 1.35
C. TALL FESCUE CREEPING RED FESCUE BIRDS FOOT TREFOIL TOTAL	20 20 <u>8</u> 48	0.45 0.45 <u>0.20</u> 1.10
D. TALL FESCUE FLAT PEA TOTAL	20 30 50	0.45 <u>0.75</u> 1.20
E. CREEPING RED FESCUE 1/ KENTUCKY BLUEGRASS 1/ TOTAL	50 <u>50</u> 100	1.15 1.15 2.30
F. TALL FESCUE 1	150	3.60
1/ FOR HEAVY USE ATHLETIC FIEL NEW HAMPSHIRE COOPERATIVE EXCURRENT VARIETIES AND SEEDING	DS CONSULT THE TENSION TURF SPE	UNIVERSITY C

## **SEEDING RATES**

# $\leftarrow$ 50' MINIMUM (75 WITHOUT MOUNTABLE BERM) $\rightarrow$ EXISTING PAVEMENT -MOUNTABLE EXISTING GROUND BERM (OPTIONAL) **WOVEN GEOTEXTILE PROFILE** FILTER FABRIC— ⊷50'MINIMUMȚ(75'WITHOUT MOUNTABLE BERM)⊣ PAVEMENT-PLAN VIEW

- 1. STONE FOR STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR
- RECYCLED CONCRETE EQUIVALENT. 2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, 75' WITHOUT A MOUNTABLE BERM, AND EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH
- 3. THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES. 4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE
- INGRESS OR EGRESS OCCURS, OR 10 FEET, WHICHEVER IS GREATER.
- 5. GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT.
- 6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A STONE BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- 7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

#### STABILIZED CONSTRUCTION ENTRANCE

#### NOT TO SCALE

# CONSTRUCTION SEQUENCE

- 1. PRIOR TO THE START OF ANY ACTIVITY, IT IS THE RESPONSIBILITY OF THE SITE'S SITE DEVELOPER (OR OWNER) TO FILE A NOTICE OF INTENT (NOI) FORM WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) IN ORDER TO GAIN COVERAGE UNDER THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. A PRE CONSTRUCTION MEETING IS TO BE HELD WITH ALL DEPARTMENT HEADS PRIOR TO THE START OF CONSTRUCTION
- 2. WETLAND BOUNDARIES ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.
- CUT AND REMOVE TREES IN CONSTRUCTION AREA AS REQUIRED OR DIRECTED.
- 4. INSTALL SILT FENCING, HAY BALES AND CONSTRUCTION ENTRANCES PRIOR TO THE START OF CONSTRUCTION. THESE ARE TO BE
- 5. CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. THIS INCLUDES ANY REQUIRED DEMOLITION OF EXISTING STRUCTURES, UTILITIES, ETC.
- 6. CONSTRUCT AND/OR INSTALL TEMPORARY OR PERMANENT SEDIMENT AND/OR DETENTION BASIN(S) AS REQUIRED. THESE FACILITIES SHALL BE INSTALLED AND STABILIZED PRIOR TO DIRECTING RUN-OFF TO THEM.
- 7. STRIP LOAM AND PAVEMENT, OR RECLAIM EXISTING PAVEMENT WITHIN LIMITS OF WORK PER THE RECOMMENDATIONS OF THE PROJECT ENGINEER AND STOCKPILE EXCESS MATERIAL. STABILIZE STOCKPILE AS NECESSARY.
- 8. PERFORM PRELIMINARY SITE GRADING IN ACCORDANCE WITH THE PLANS, INCLUDING THE CONSTRUCTION OF ANY RETAINING WALLS
- 9. INSTALL UTILITIES IN ACCORDANCE WITH THE PLAN AND DETAILS. ANY CONFLICTS BETWEEN UTILITIES ARE TO BE RESOLVED WITH THE INVOLVEMENT AND APPROVAL OF THE ENGINEER.
- 10. INSTALL INLET PROTECTION AT ALL CATCH BASINS AS THEY ARE CONSTRUCTED IN ACCORDANCE WITH DETAILS.
- 11. ALL SWALES AND DRAINAGE STRUCTURES ARE TO BE CONSTRUCTED AND STABILIZED PRIOR TO HAVING RUN-OFF DIRECTED TO THEM.
- 12. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINAGE DITCHES, CHECK DAMS, SEDIMENT TRAPS, ETC., TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ABUTTING WATERS AND/OR PROPERTY.
- 13. PERFORM FINAL FINE GRADING, INCLUDING PLACEMENT OF 'SELECT' SUBGRADE MATERIALS.
- 14. PAVE ALL PARKING LOT AND DRIVEWAY WITH INITIAL 'BASE COURSE'.
- 15. PERFORM ALL REMAINING SITE CONSTRUCTION (i.e. BUILDING, CURBING, UTILITY CONNECTIONS, ETC.).
- 16. LOAM AND SEED ALL DISTURBED AREAS AND INSTALL ANY REQUIRED SEDIMENT AND EROSION CONTROL FACILITIES (i.e. RIP RAP, EROSION CONTROL BLANKETS, ETC.).
- 17. FINISH PAVING ALL ROADWAYS AND PARKING AREAS WITH 'FINISH' COURSE.
- 18. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 19. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 20. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- 21. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE BEEN 75%-85% ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND RE-VEGETATE ALL DISTURBED AREAS.
- 22. CLEAN SITE AND ALL DRAINAGE STRUCTURES, PIPES AND SUMPS OF ALL SILT AND DEBRIS.
- 23. INSTALL ALL PAINTED PAVEMENT MARKINGS AND SIGNAGE PER THE PLANS AND DETAILS.
- 24. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.
- 25. UPON COMPLETION OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ANY RELEVANT PERMITTING AGENCIES THAT THE CONSTRUCTION HAS BEEN FINISHED IN A SATISFACTORY MANNER.

# Designed and Produced in NH

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Stratham, NH 03885

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**EROSION AND SEDIMENT CONTROL DETAILS** H. D. SMITH PARKING EXPANSION

JBE PROJECT NO. 19226

DRAWING No.

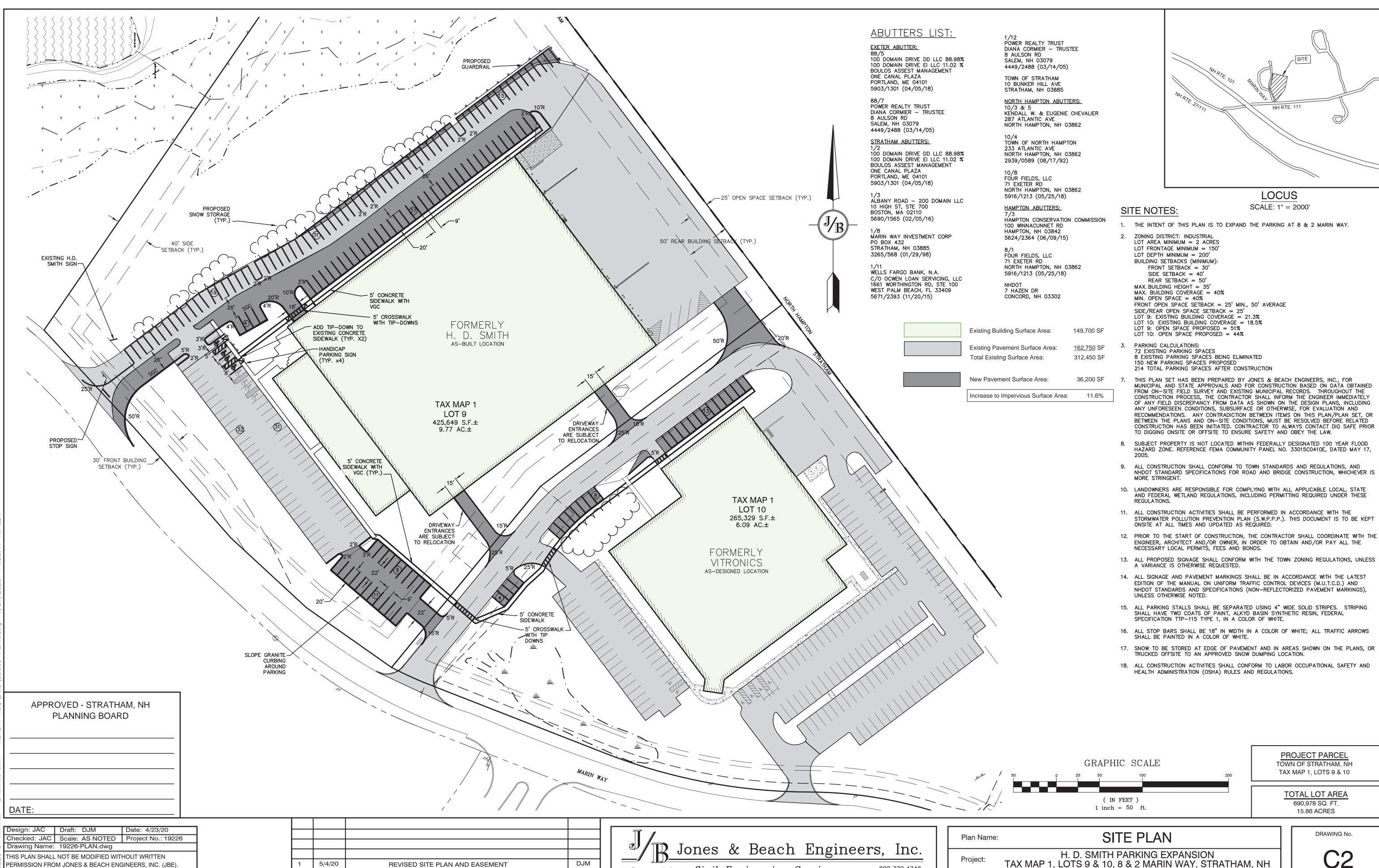
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Checked: JAC | Scale: AS NOTED | Project No.: 19226

DJM 5/6/20 REVISED SITE PLAN AND EASEMENT DJM 4/29/20 **ISSUED FOR REVIEW** REV. DATE REVISION BY

Project: TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH Owner of Record:

S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885



DJM

BY

PO Box 219

Stratham, NH 03885

ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE

T THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

4/29/20

DATE

REV.

**ISSUED FOR REVIEW** 

**REVISION** 

603-772-4746

Owner of record:

FAX: 603-772-0227

E-MAIL: JBE@JONESANDBEACH.COM

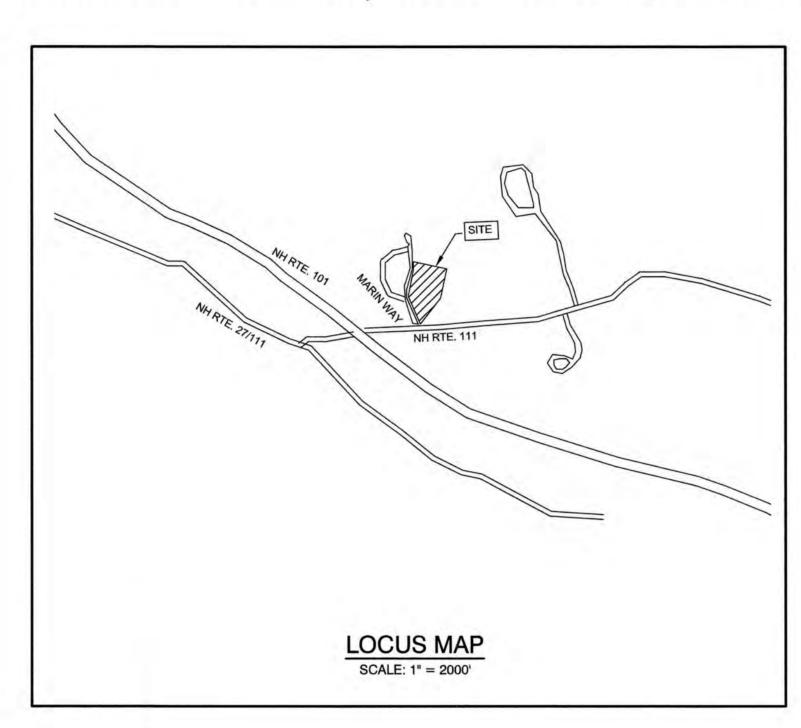
SHEET 5 OF 12 JBE PROJECT NO. 19226

S.I.P. LOT 3, LLC

P.O. BOX 432, STRATHAM, NH 03885

# GENERAL LEGEND DESCRIPTION MINOR CONTOUR DRAINAGE LINE GUARDRAIL FIRE PROTECTION LINE THRUST BLOCK IRON PIPE/IRON ROD DRILL HOLE STONE/GRANITE BOUND SPOT GRADE PAVEMENT SPOT GRADE CURB SPOT GRADE DOUBLE POST SIGN 00 SINGLE POST SIGN TEST PIT FAILED TEST PIT MONITORING WELL PERC TEST PHOTO LOCATION TREES AND BUSHES UTILITY POLE LIGHT POLES DRAIN MANHOLE SEWER MANHOLE WATER GATE WATER SHUT OFF REDUCER CULVERT W/WINGWALLS )===== )—D— CULVERT W/FLARED END SECTION **├**D ─ **====** CULVERT W/STRAIGHT HEADWALL STONE CHECK DAM DRAINAGE FLOW DIRECTION 4K SEPTIC AREA WETLAND IMPACT (XXXXX) VEGETATED FILTER STRIP OPEN WATER • • • FRESHWATER WETLANDS . . . . . TIDAL WETLANDS STABILIZED CONSTRUCTION ENTRANCE CONCRETE GRAVEL SNOW STORAGE RETAINING WALL

# SITE PLAN PARKING LOT EXPANSION 2 & 8 MARIN WAY, STRATHAM, NH TAX MAP 1, LOTS 9 & 10



# SHEET INDEX

**COVER SHEET** 

EASEMENT PLAN

DEMOLITION PLAN

SITE PLAN

GRADING AND DRAINAGE PLAN

UTILITY PLAN

LANDSCAPE PLAN

LIGHTING PLAN

DETAIL SHEET

EROSION AND SEDIMENT CONTROL DETAILS

ABUTTERS LIST:

EXETER ABUTTER:

100 DOMAIN DRIVE DD LLC 88.98% 100 DOMAIN DRIVE EI LLC 11.02 % BOULOS ASSEST MANAGEMENT ONE CANAL PLAZA PORTLAND, ME 04101 5903/1301 (04/05/18)

POWER REALTY TRUST DIANA CORMIER - TRUSTEE **SALEM, NH 03079** 4449/2488 (03/14/05)

STRATHAM ABUTTERS:

100 DOMAIN DRIVE DD LLC 88.98% 100 DOMAIN DRIVE EI LLC 11.02 % BOULOS ASSEST MANAGEMENT ONE CANAL PLAZA PORTLAND, ME 04101 5903/1301 (04/05/18)

1/3 ALBANY ROAD - 200 DOMAIN LLC 10 HIGH ST, STE 700 BOSTON, MA 02110 5690/1565 (02/05/16)

MARIN WAY INVESTMENT CORP PO BOX 432 STRATHAM, NH 03885 3265/568 (01/29/98)

WELLS FARGO BANK, N.A. C/O OCWEN LOAN SERVICING, LLC 1661 WORTHINGTON RD, STE 100 WEST PALM BEACH, FL 33409 5671/2393 (11/20/15)

Client:

1/12 POWER REALTY TRUST DIANA CORMIER - TRUSTEE 8 AULSON RD SALEM, NH 03079

4449/2488 (03/14/05) TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885

NORTH HAMPTON ABUTTERS: KENDALL W. & EUGENIE CHEVALIER 287 ATLANTIC AVE NORTH HAMPTON, NH 03862

10/4 TOWN OF NORTH HAMPTON 233 ATLANTIC AVE NORTH HAMPTON, NH 03862 2939/0589 (08/17/92)

FOUR FIELDS, LLC 71 EXETER RD NORTH HAMPTON, NH 03862 5916/1213 (05/25/18)

HAMPTON ABUTTERS: 7/3 HAMPTON CONSERVATION COMMISSION 100 WINNACUNNET RD HAMPTON, NH 03842 5624/2364 (06/09/15)

8/1 FOUR FIELDS, LLC 71 EXETER RD NORTH HAMPTON, NH 03862 5916/1213 (05/25/18)

7 HAZEN DR CONCORD, NH 03302

PROJECT PARCEL TOWN OF STRATHAM, NH TAX MAP 1, LOTS 9 & 10

> TOTAL LOT AREA 690,978 SQ. FT. **15.86 ACRES**

APPROVED - STRATHAM, NH PLANNING BOARD

DATE:

Design: JAC Draft: DJM Checked: JAC | Scale: AS SHOWN | Project No.:19226 Drawing Name: 19226-PLAN.dwg

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REV.	DATE	REVISION	BY

**CIVIL ENGINEER** 

STRATHAM, NH 03885

PO BOX 219

(603) 772-4746

JONES & BEACH ENGINEERS, INC.

85 PORTSMOUTH AVENUE

CONTACT: JOSEPH CORONATI



Stratham, NH 03885

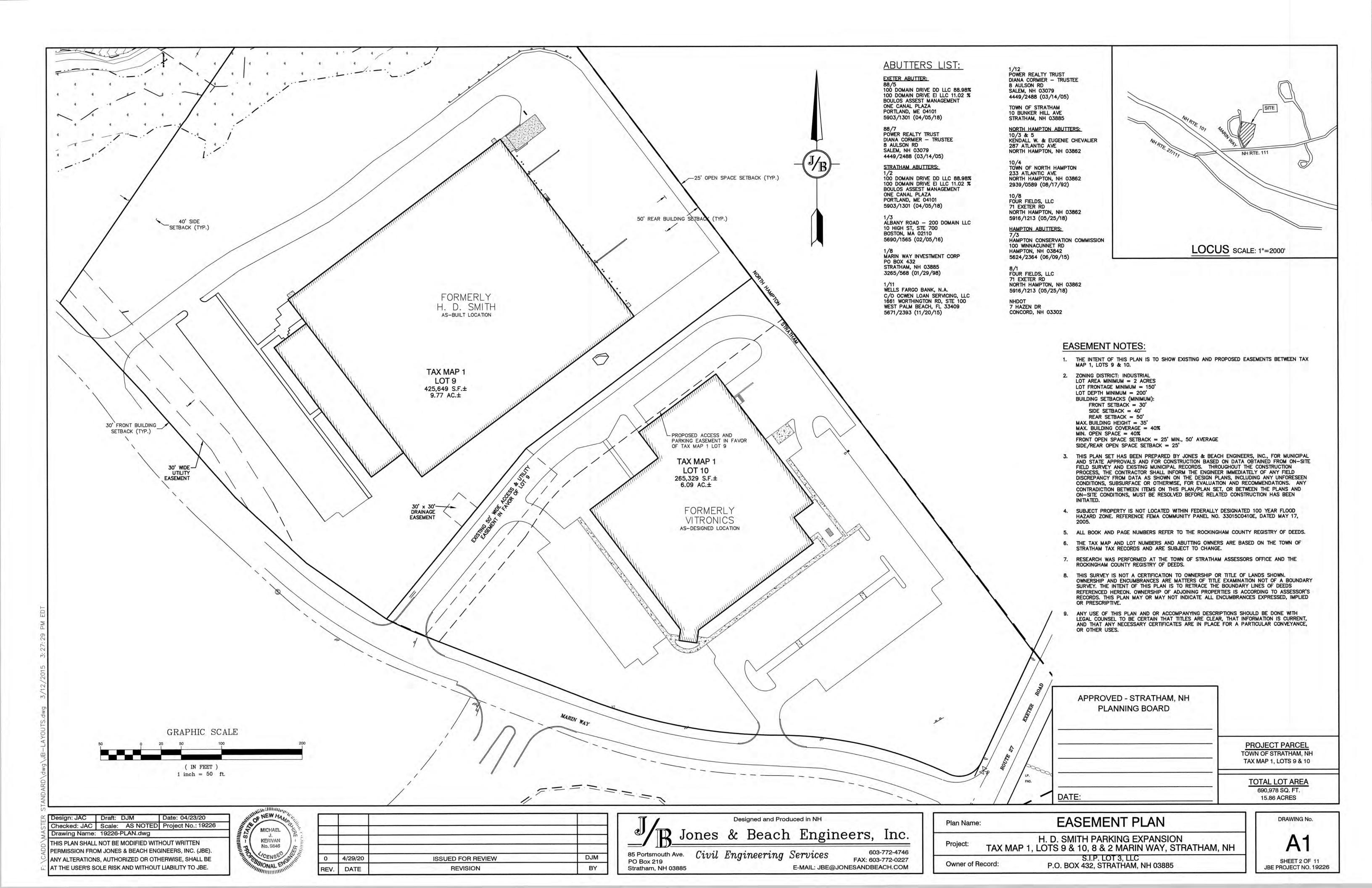
E-MAIL: JBE@JONESANDBEACH.COM

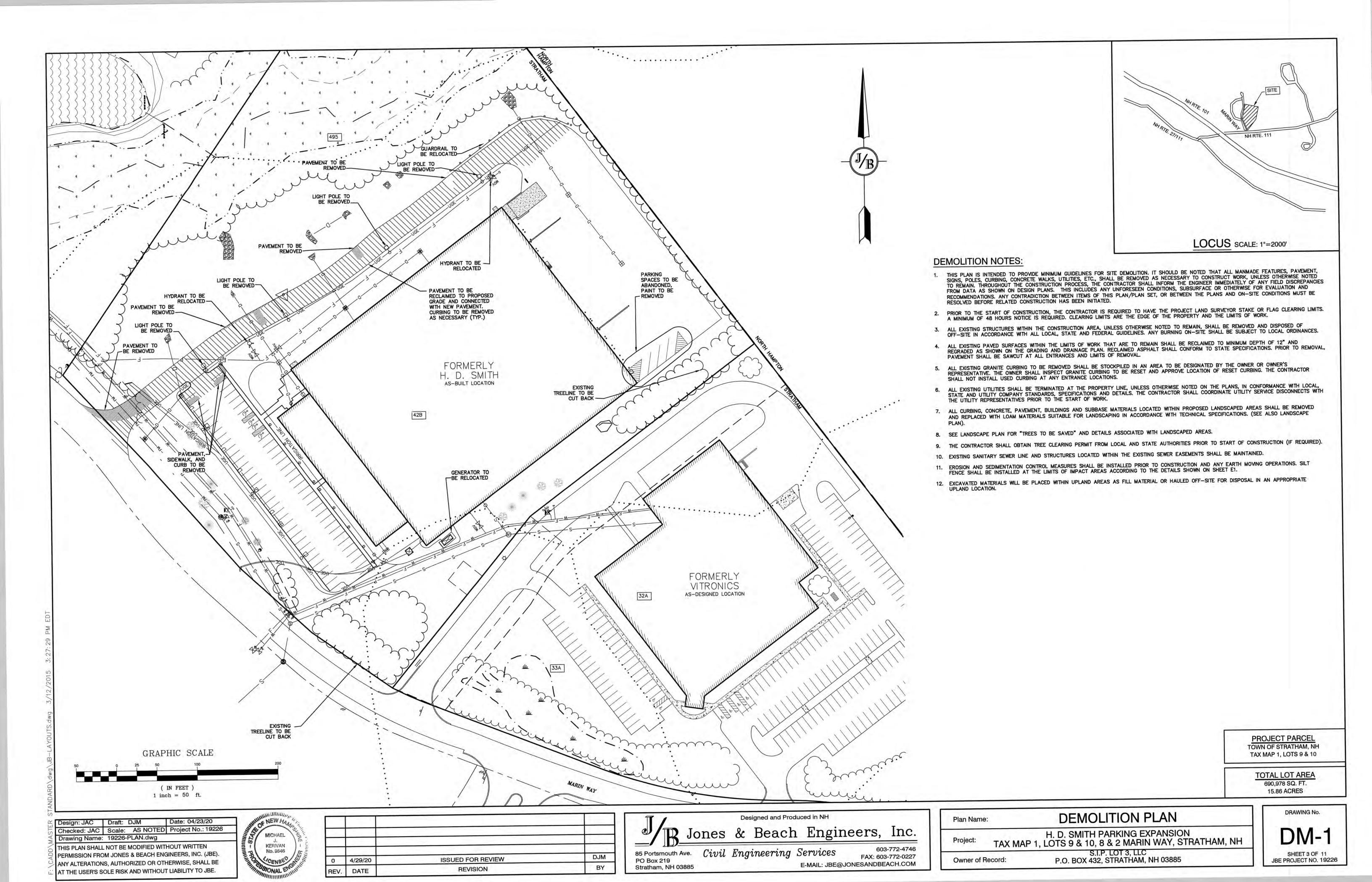
**COVER SHEET** Plan Name: H. D. SMITH PARKING EXPANSION Project: TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

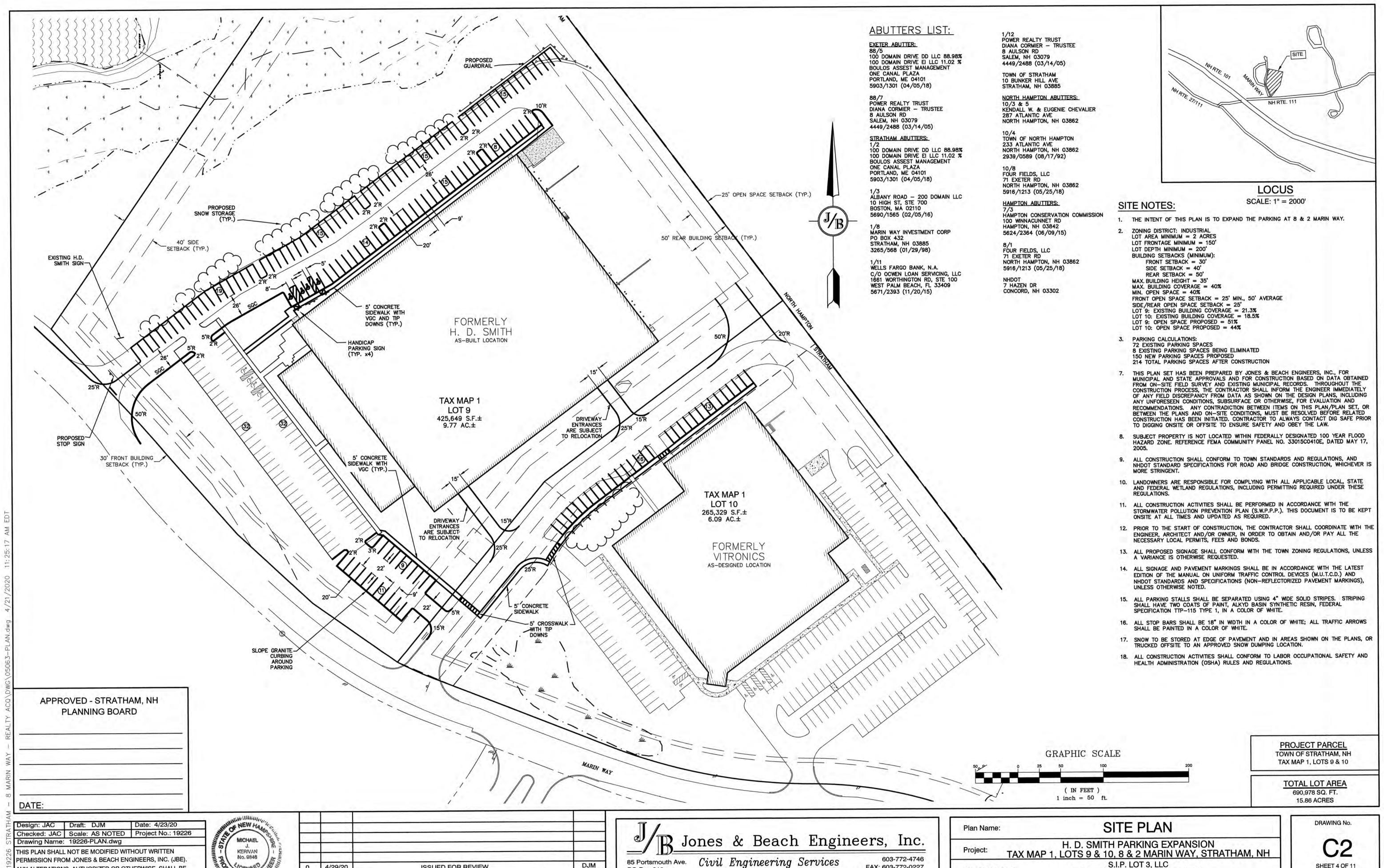
S.I.P. LOT 3, LLC

P.O. BOX 432, STRATHAM, NH 03885

SHEET 1 OF 11 JBE PROJECT NO. 19226







DJM

BY

PO Box 219

Stratham, NH 03885

4/29/20

DATE

REV.

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ISSUED FOR REVIEW

REVISION

SHEET 4 OF 11 JBE PROJECT NO. 19226

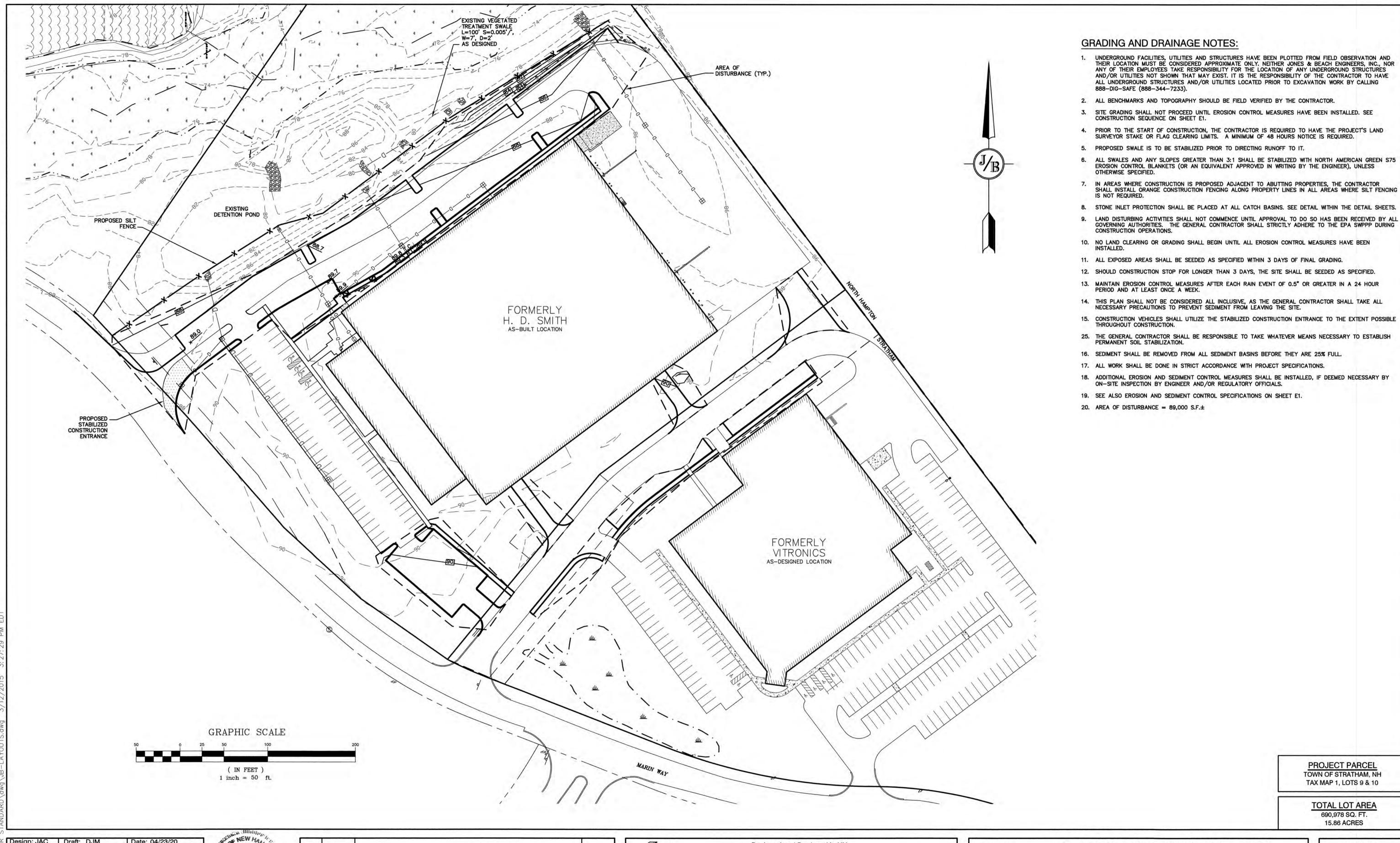
S.I.P. LOT 3, LLC

P.O. BOX 432, STRATHAM, NH 03885

FAX: 603-772-0227

E-MAIL: JBE@JONESANDBEACH.COM

Owner of record:



Design: JAC Draft: DJM Date: 04/23/20
Checked: JAC Scale: AS NOTED Project No.: 19226 Designed and Produced in NH Plan Name: MICHAEL Jones & Beach Engineers, Inc. Drawing Name: 19226-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN No. 9846 PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). 85 Portsmouth Ave. Civil Engineering Services 603-772-4746 DJM 0 4/29/20 ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE ISSUED FOR REVIEW S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 FAX: 603-772-0227 PO Box 219 Owner of Record: AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE E-MAIL: JBE@JONESANDBEACH.COM REV. DATE REVISION Stratham, NH 03885

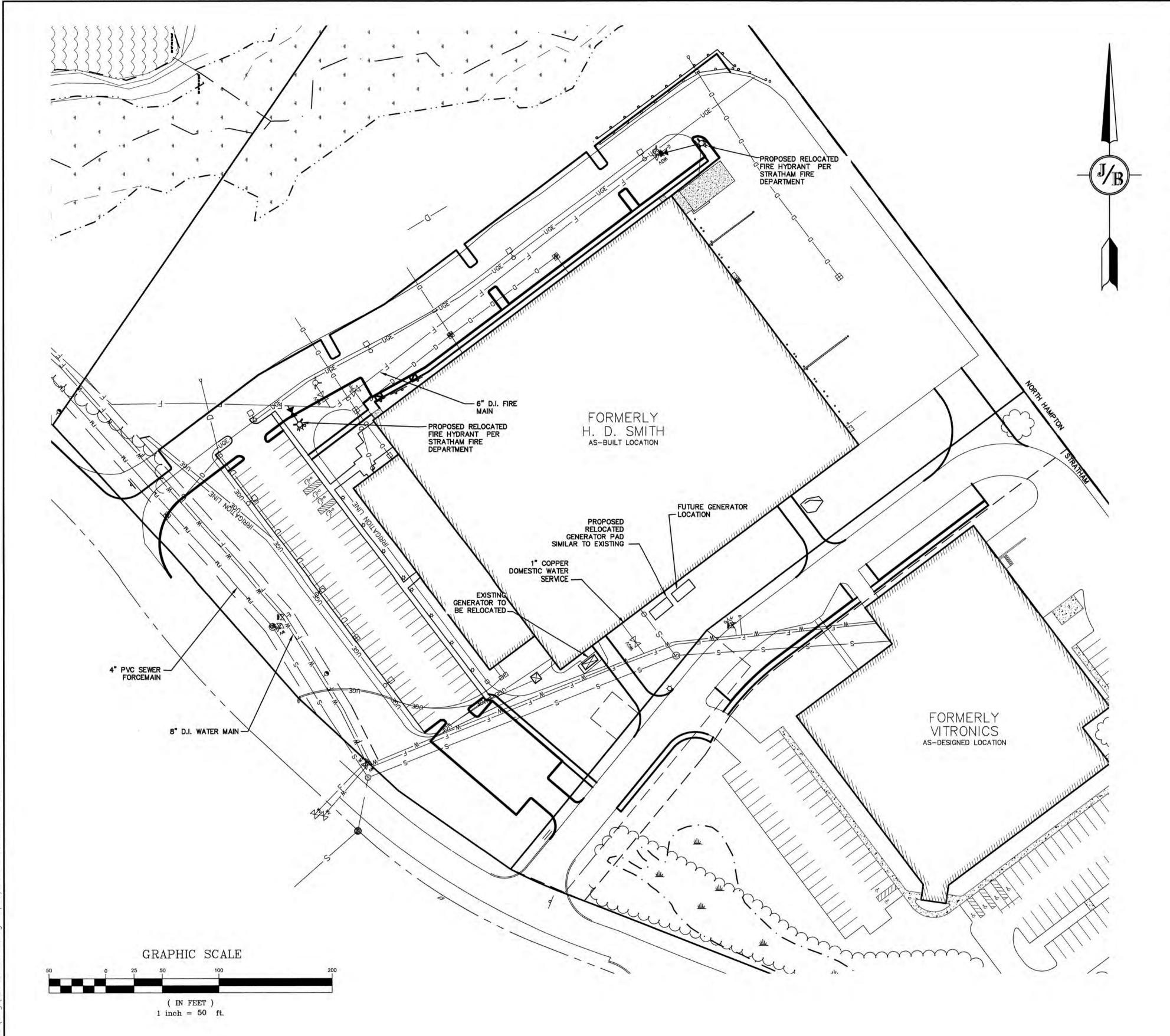
GRADING AND DRAINAGE PLAN

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

SHEET 5 OF 11 JBE PROJECT NO. 19226

DRAWING No.

690,978 SQ. FT. 15.86 ACRES



#### **UTILITY NOTES:**

- 1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, CONNECTION FEES AND BONDS.
- 2. THE CONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF FOURTEEN (14) DAYS TO ALL CORPORATIONS, COMPANIES AND/OR LOCAL AUTHORITIES OWNING OR HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
- 3. THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY.
- 4. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER, ENGINEER, ARCHITECT, CONTRACTOR, LOCAL OFFICIALS, AND ALL PROJECT-RELATED UTILITY COMPANIES (PUBLIC AND PRIVATE) PRIOR TO START OF CONSTRUCTION.
- 5. ALL CONSTRUCTION SHALL CONFORM TO THE TOWN STANDARDS AND REGULATIONS, AND NHDES STANDARDS AND SPECIFICATIONS, WHICHEVER ARE MORE
- 6. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
- 7. BUILDING TO BE SERVICED BY UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED.
- 8. THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS. ENGINEER TO BE
- 9. AS-BUILT PLANS SHALL BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS.
- 10. CONTRACTOR TO FURNISH SHOP DRAWINGS FOR UTILITY RELATED ITEMS TO ENSURE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SHOULD BE SENT IN TRIPLICATE TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 11. EXISTING UTILITIES SHALL BE DIGSAFED BEFORE CONSTRUCTION.
- 12. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRIC CODE. CONTRACTOR SHALL
- 13. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.

PROJECT PARCEL TOWN OF STRATHAM, NH TAX MAP 1, LOTS 9 & 10

> **TOTAL LOT AREA** 690,978 SQ. FT. 15.86 ACRES

Design: JAC Draft: DJM Date: 04/23/20
Checked: JAC Scale: AS NOTED Project No.: 19226 Drawing Name: 19226-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN

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MICHAEL KERIVAN No. 9848

0	4/29/20	ISSUED FOR REVIEW	DJM
REV.	DATE	REVISION	BY

Designed and Produced in NH

85 Portsmouth Ave. Civil Engineering Services
PO Box 219 Stratham, NH 03885

603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

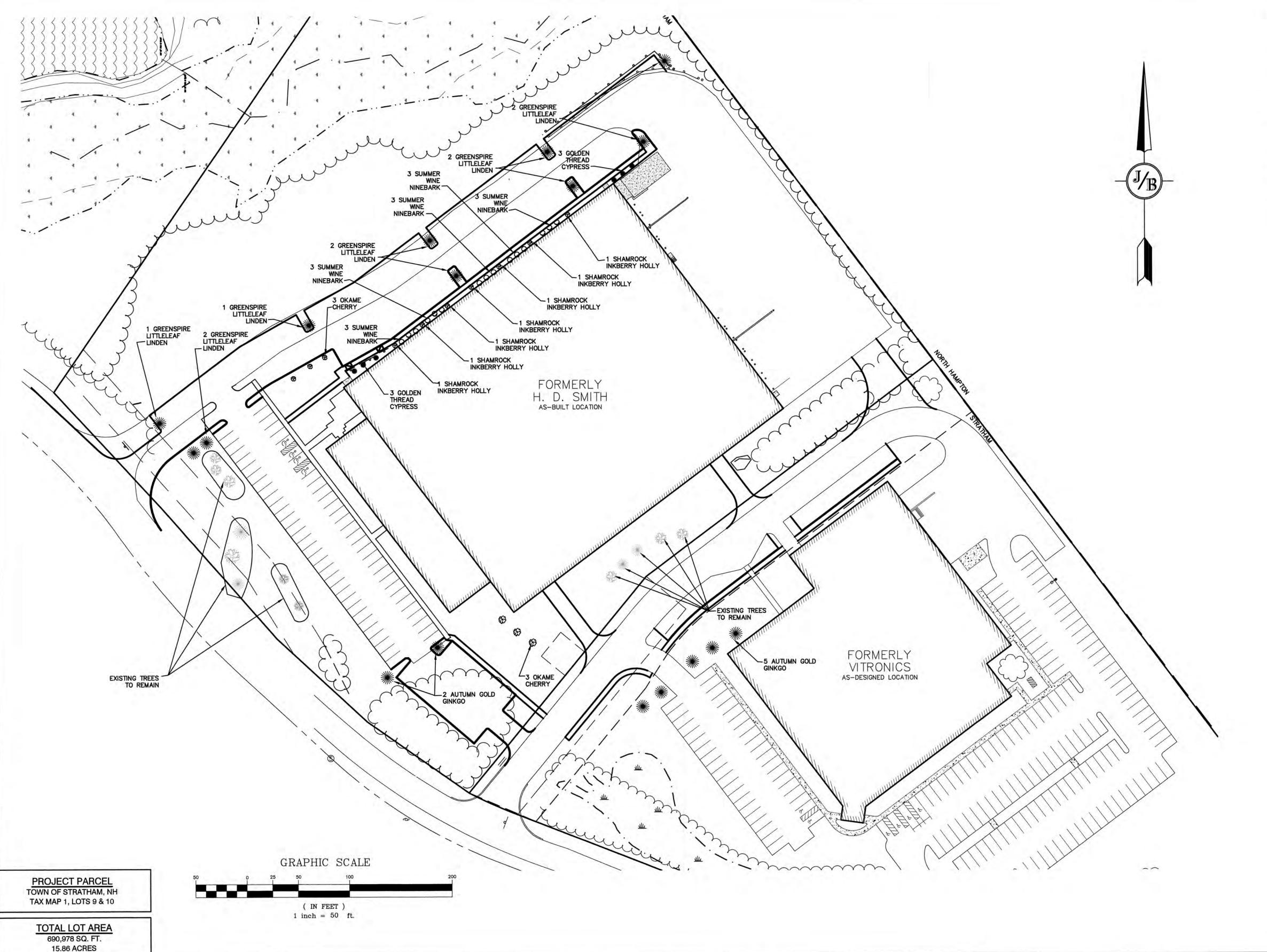
Plan Name:

UTILITY PLAN

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 Owner of Record:

SHEET 6 OF 11 JBE PROJECT NO. 19226



#### LANDSCAPE NOTES:

- THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS.
- ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 4. ALL PLANT SUBSTITUTIONS MUST BE APPROVED.
- 5. ALL PLANT MATERIALS SHALL BE EXACTLY AS SPECIFIED OR SUBSTITUTIONS MUST BE APPROVED
- 6. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ON-GOING FOR CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
- 7. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT-BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
- 8. NO PLANT SHALL BE PUT IN THE GROUND BEFORE GRADING HAS BEEN FINISHED.
- 9. ALL WORK AND PLANTS SHALL BE DONE, INSTALLED AND DETAILED IN STRICT ACCORDANCE WITH
- 10. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN IF NECESSARY, DURING
- 11. BY THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAS DIED, LOST NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESSIVE PRUNING OR INADEQUATE OR IMPROPER CARE, OR THAT IS IN UNHEALTHY OR UNSIGHTLY CONDITION.
- 12. ALL LANDSCAPE AREAS TO BE GRASS COMMON TO REGION, EXCEPT FOR INTERIOR LANDSCAPED ISLANDS OR WHERE OTHER PLANT MATERIAL IS SPECIFIED.
- 13. ALL TREES AND SHRUBS SHALL BE PLANTED IN MULCH BEDS WITH EDGE STRIPS TO SEPARATE TURF GRASS AREAS.
- 14. THE CONTRACTOR SHALL REMOVE WEEDS, ROCKS, CONSTRUCTION ITEMS, ETC. FROM ANY LANDSCAPE AREA SO DESIGNATED TO REMAIN, WHETHER ON OR OFF-SITE.
- 15. FINISHED GRADES IN LANDSCAPED ISLANDS SHALL BE INSTALLED SO THAT THEY ARE 1" HIGHER THAN THE TOP OF THE SURROUNDING CURB.
- 16. ALL LANDSCAPING SHALL MEET THE TOWN STANDARDS AND REGULATIONS.
- 17. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY SNOW FENCING AT THE DRIPLINE OF THE TREE. THE CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS WITHIN THE LANDSCAPED AREAS. ANY DAMAGE TO EXISTING TREES, SHRUBS OR LAWN SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 18. ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER A 10 MIL WEED MAT EQUAL TO 'WEEDBLOCK' BY EASY GARDENER OR DEWITT WEED BARRIER.
- 19. ALL LANDSCAPED AREAS SHALL HAVE SELECT MATERIALS REMOVED TO A DEPTH OF AT LEAST 9" BELOW FINISH GRADE. THE RESULTING VOID IS TO BE FILLED WITH A MINIMUM OF 9" HIGH-QUALITY SCREENED LOAM AMENDED WITH 3" OF AGED ORGANIC COMPOST.
- 20. THIS PLAN IS INTENDED FOR LANDSCAPING PURPOSES ONLY. REFER TO CIVIL/SITE DRAWINGS FOR OTHER SITE CONSTRUCTION INFORMATION.

Design: JAC Draft: DJM Date: 04/23/20 Checked: JAC Scale: AS NOTED Project No.: 19226 Drawing Name: 19226-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE

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REV.	DATE	REVISION	BY

Designed and Produced in NH Jones & Beach Engineers, Inc.

Stratham, NH 03885

85 Portsmouth Ave. Civil Engineering Services
PO Box 219 603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:

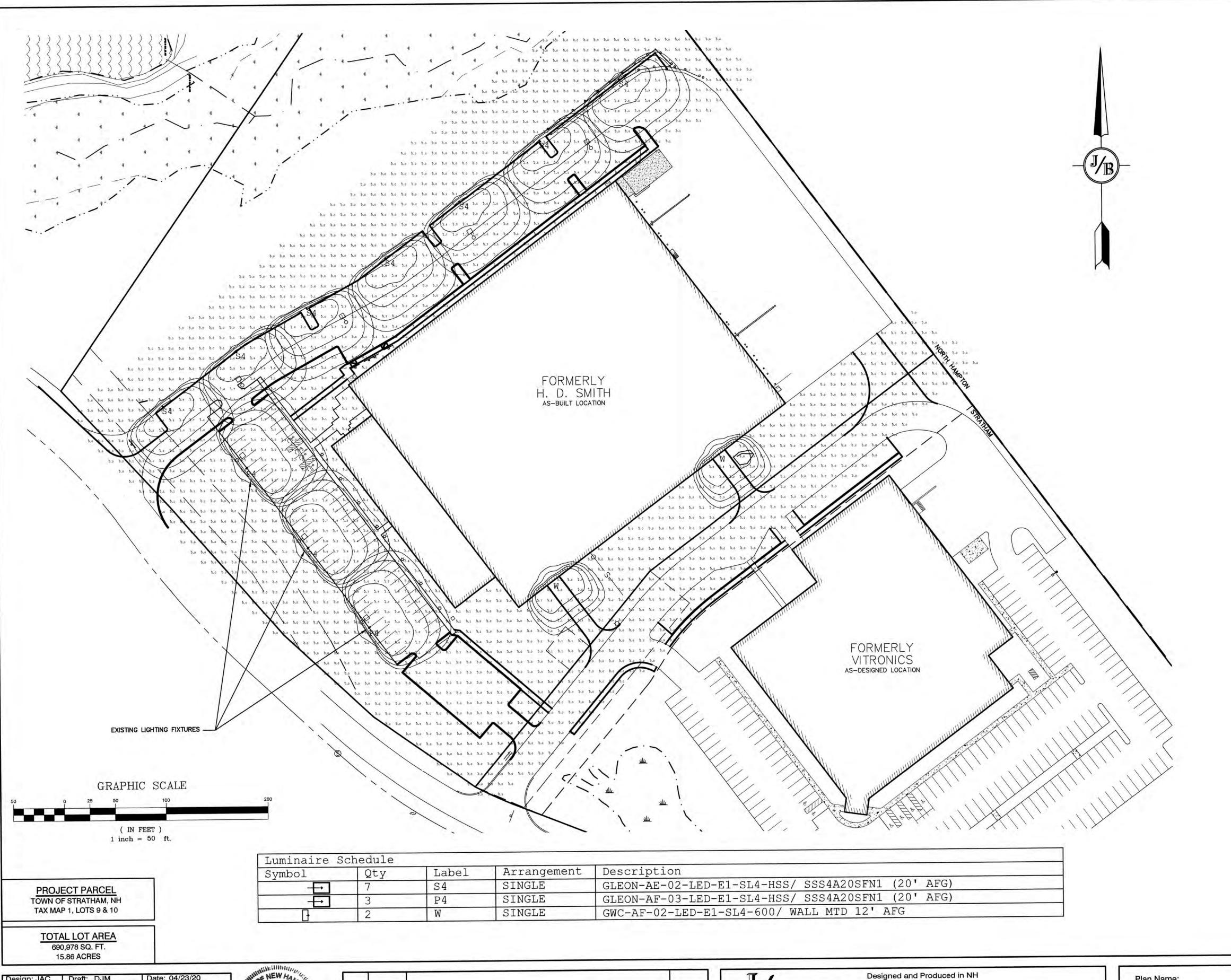
LANDSCAPE PLAN

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 Owner of Record:

SHEET 7 OF 11

JBE PROJECT NO. 19226



# LIGHTING AND ELECTRICAL NOTES:

- SITE ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
- 2. CONTRACTOR SHALL INSTALL PROPOSED LIGHT POLES ACCORDING TO TOWN REGULATIONS.
- 3. ALL OUTDOOR LIGHTING SYSTEMS SHALL BE EQUIPPED WITH TIMERS TO REDUCE ILLUMINATION LEVELS TO NON-OPERATIONAL VALUES PER TOWN REGULATIONS.
- 4. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
- 5. ILLUMINATION READINGS SHOWN ARE BASED ON A TOTAL LLF OF 0.75 AT GRADE. ILLUMINATION READINGS SHOWN ARE IN UNITS OF FOOT—CANDLES.
- LIGHTING CALCULATIONS SHOWN ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM AND SAFETY.
- ALL LIGHTING FIXTURES SHALL BE FULL CUT-OFF DARK-SKY COMPLIANT, UNLESS OTHERWISE NOTED.
- 8. THE PROPOSED LIGHTING CALCULATIONS AND DESIGN WAS PERFORMED BY CHARRON, INC., P.O. BOX 4550, MANCHESTER, NH 03108, ATTENTION KEN SWEENEY. ALL LIGHTS SHOULD BE PURCHASED FROM THIS COMPANY OR ONE OF THEIR SUPPLIERS, OR AN EQUAL LIGHTING DESIGN SHOULD BE SUBMITTED FOR REVIEW IF EQUAL SUBSTITUTIONS ARE PROPOSED BY THE CONTRACTOR OR OWNER.

Date: 04/23/20 Design: JAC Draft: DJM Checked: JAC Scale: AS NOTED Project No.: 19226

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Stratham, NH 03885

FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM Plan Name:

LIGHTING PLAN

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

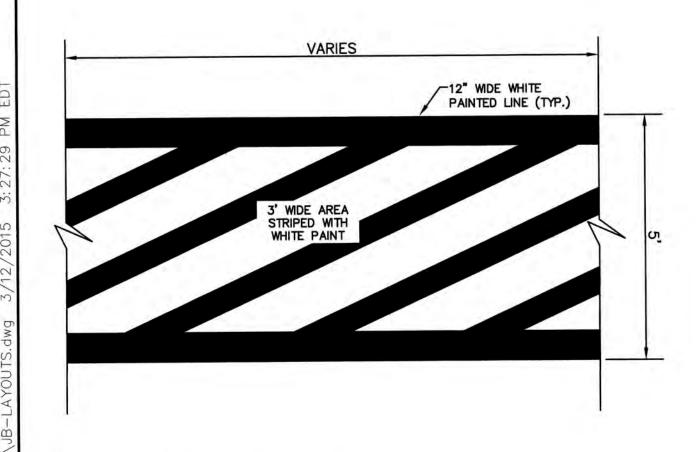
S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 Owner of Record:

JBE PROJECT NO. 19226

- 1. THE MAXIMUM ALLOWABLE CROSS SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) AND CURB
- 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL
- BE 5%, 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) CURB RAMPS
- 4. A MINIMUM OF 4 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (i.e., HYDRANTS, UTLITY POLES, TREE WELLS, SIGNS, ETC.).
- 5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
- 6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
  7. SEE TYPICAL SECTION FOR RAMP CONSTRUCTION.

ACCESSIBLE CURB RAMP (TYPE `A')

NOT TO SCALE



Date: 04/23/20

PAINTED CROSSWALK DETAIL

Checked: JAC | Scale: AS NOTED | Project No.: 19226

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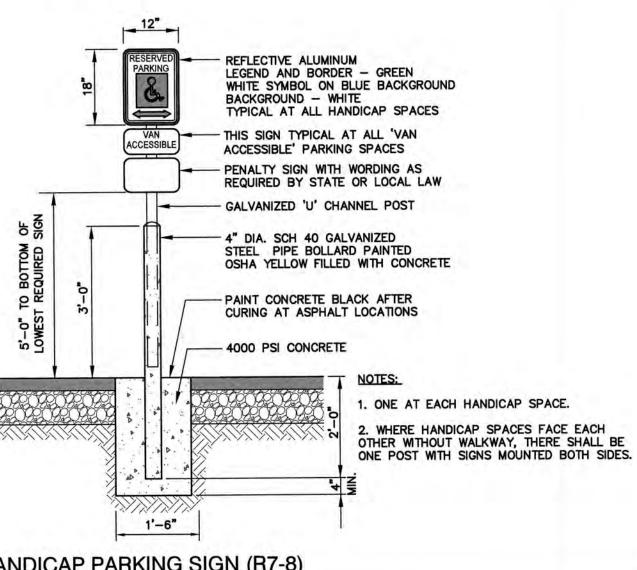
W NEW HA MICHAEL KERIVAN No. 9846 CENSE

DJM ISSUED FOR REVIEW 0 4/29/20 REVISION BY DATE REV.

-BUILDING MOUNTED SIGN WITH ACCESSIBILITY SYMBOL AND 'VAN ACCESSIBLE' SIGN BELOW OR SIGN POST WITH SIGNS PLACED IN OR AT REAR OF WALKWAY, WHICHEVER IS APPROPRIATE (TYP.) NATIONAL STANDARD ACCESSIBILITY SYMBOL PAINTED ON PAVEMENT WHITE FIGURE ON BLUE BACKGROUND 4" PAINTED STRIPING PAVEMENT MAXIMUM SLOPE 2% IN ALL 1'-6" O.C. AT 45" IN FRONT OF RAMP (YELLOW REFLECTIVE) 96" MIN. PER | 60" MIN. | 96" MIN. PER A.D.A. OR PER PER A.D.A. A.D.A. OR PER LOCAL CODE OR AS SHOWN LOCAL CODE

# HANDICAP PARKING LAYOUT

NOT TO SCALE



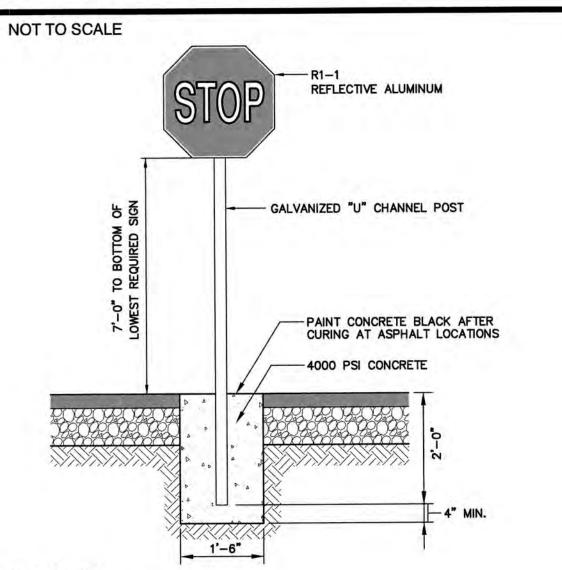
HANDICAP PARKING SIGN (R7-8)

NOT TO SCALE

PAVEMENT DIMENSIONS REFER TO THIS POINT GRANITE CURB PAVEMENT ELEVATIONS REFER TO THIS POINT PARKING LOT SURFACE AS SPECIFIED BASE AS SPECIFIED

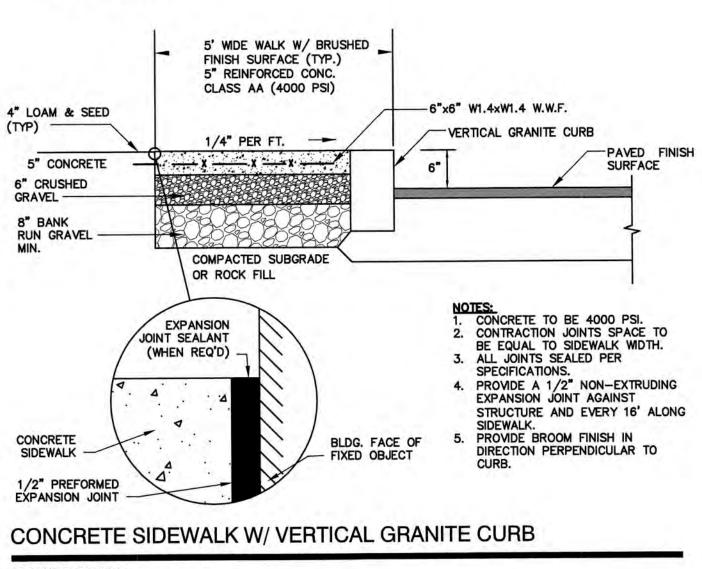
- NOTES: 1. EDGING TO BE PLACED PRIOR TO PLACING TOP SURFACE COURSE.
- 2. JOINTS BETWEEN STONES SHALL BE MORTARED.

# VERTICAL GRANITE CURB



STOP SIGN (R1-1)

NOT TO SCALE

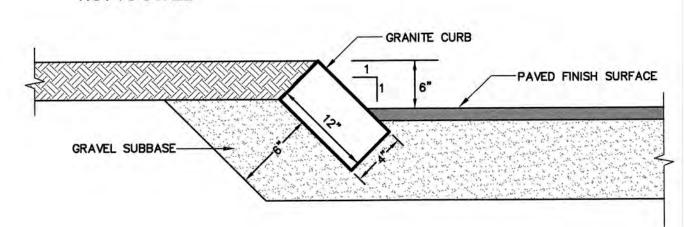


NOT TO SCALE

1" - 3/8" HOT BIT. PAVEMENT WEARING COURSE (TIER 1) 2" - 3/4" HOT BIT PAVEMENT BINDER COURSE (TIER 2) 6" NHDOT ITEM 304.3 CRUSHED GRAVEL 95% MIN. COMPACTION INCLUDING RECLAIMED MATERIAL 12" - NHDOT ITEM 304.2 BANK RUN GRAVEL (MIN.) 95% MIN. COMPACTION 95% COMPACTED SUBGRADE OR ROCK FILL

#### TYPICAL BITUMINOUS PAVEMENT

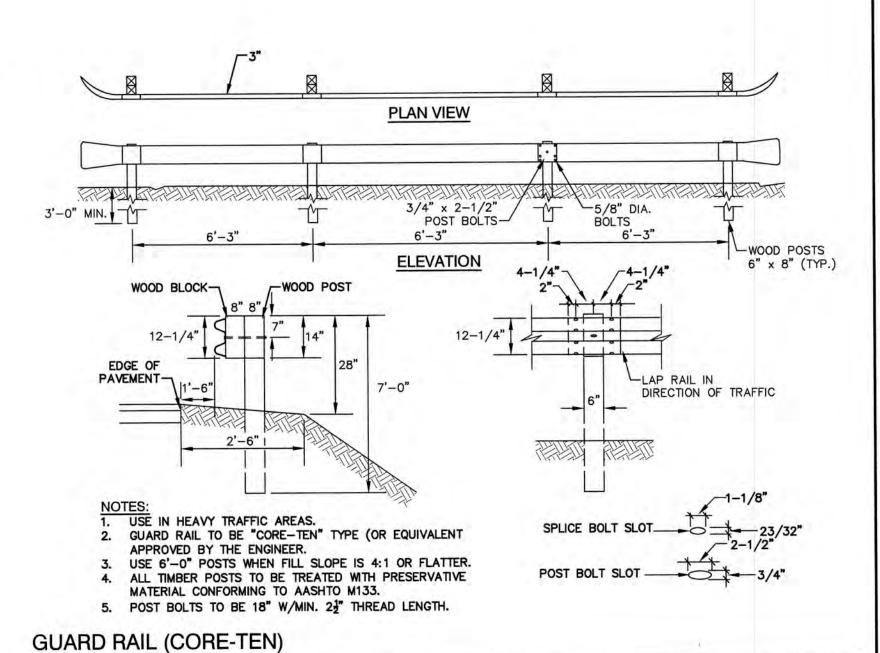
NOT TO SCALE



- 1. EDGING TO BE PLACED PRIOR TO PLACING TOP SURFACE COURSE.
- 2. JOINTS BETWEEN STONES SHALL BE MORTARED. 3. SALVAGE GRANITE CURBS ON-SITE AND RESET TO THE EXTENT POSSIBLE.

# SLOPED GRANITE CURB

NOT TO SCALE



Designed and Produced in NH

**DETAIL SHEET** Plan Name:

NOT TO SCALE

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH SHEET 9 OF 11

DRAWING No.

Jones & Beach Engineers, Inc.

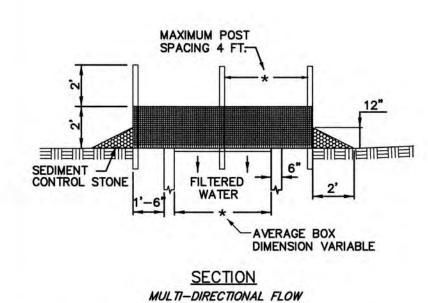
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SEDIMENT CONTROL STONE SHALL BE 3/4" WASHED STONE.
 WRE MESH SHALL BE HARDWARE CLOTH 23 GAUGE MIN. AND SHALL HAVE 1/4 INCH MESH OPENINGS.
 TOP OF WISH MESH SHALL BE A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.

 STEEL BOST SHALL BE 5 ET IN HEICHT BE INSTALLED 1 5 ET DEED MINIMUM.

4. STEEL POST SHALL BE 5 FT. IN HEIGHT, BE INSTALLED 1.5 FT. DEEP MINIMUM, AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.

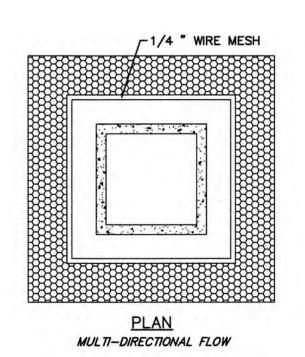
5. WOOD POST SHALL BE 6 FT. IN HEIGHT, BE INSTALLED TO 1.5 FT. DEEP MINIMUM, AND BE 3 INCHES IN DIAMETER.

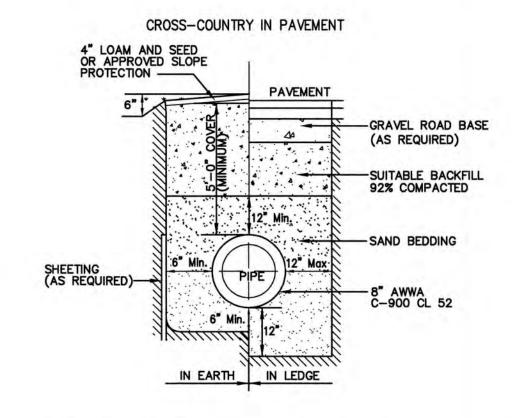
6. POST SPACING SHALL BE A MAXIMUM OF 4 FT.

# **INLET PROTECTION**

NOT TO SCALE

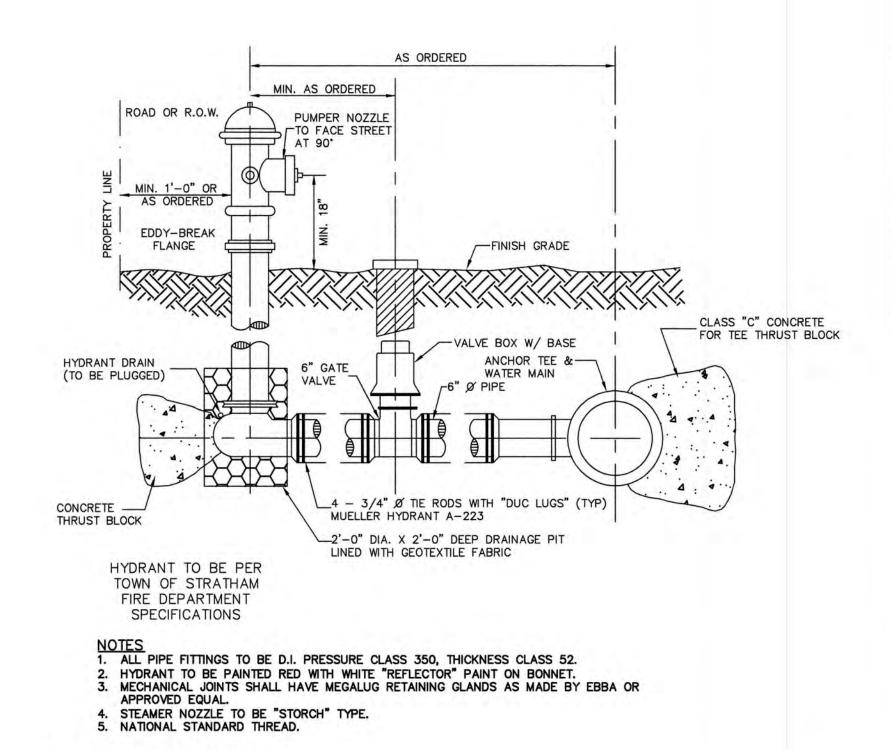
NOTES:





#### WATER SYTEM TRENCH

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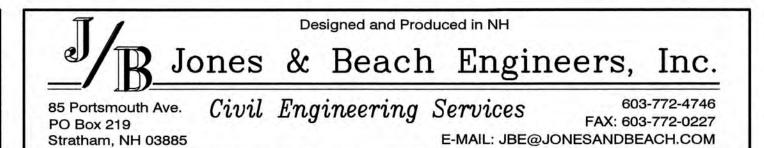
Design: JAC Draft: DJM Date: 04/23/20
Checked: JAC Scale: AS NOTED Project No.: 19226
Drawing Name: 19226-PLAN.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN
PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE).

ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE

AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.



0	4/29/20	ISSUED FOR REVIEW	DJM
REV.	DATE	REVISION	BY



Plan Name:

Owner of Record:

HYDRANT INSTALLATION

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DETAIL SHEET

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

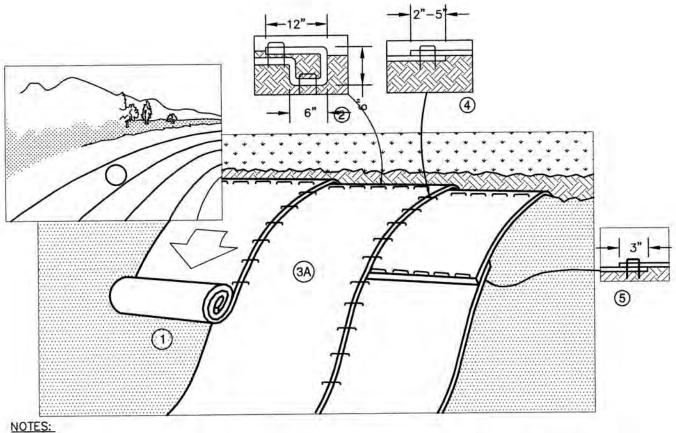
S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 D2

SHEET 10 OF 11

JBE PROJECT NO. 19226

HE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. AT NO TIME SHALL AN AREA IN EXCESS OF 5 ACRES BE EXPOSED AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.

- EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
- ALL DISTURBED AREAS (INCLUDING POND AREAS BELOW THE PROPOSED WATERLINE) SHALL BE RETURNED TO PROPOSED GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 6" OF SCREENED ORGANIC LOAM AND SEEDED WITH SEED MIXTURE 'C' AT A RATE NOT LESS THAN 1.10 POUNDS OF SEED PER 1,000 S.F. OF AREA (48 LBS. / ACRE).
- SILT FENCES AND OTHER BARRIERS SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR GREATER. ALL DAMAGED AREAS SHALL BE REPAIRED, AND SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
- AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
- AREAS MUST BE SEEDED AND MULCHED OR OTHERWISE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 14 DAYS OF THE INITIAL DISTURBANCE OF SOIL, ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING NORTH AMERICAN GREEN S75 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER) ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM
- 10. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
  - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
  - b. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  - C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED; OR
  - d. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- FUGITIVE DUST CONTROL IS REQUIRED TO BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000, AND THE PROJECT IS TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED

2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.

3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEMTH, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED

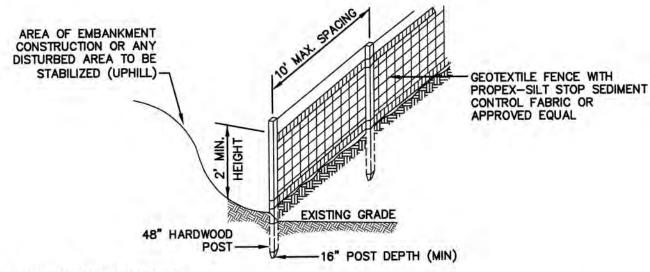
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.



NORTH AMERICAN GREEN 14649 HIGHWAY 41 NORTH EVANSVILLE, INDIANA 47725 1-800-772-2040

**EROSION CONTROL BLANKET SLOPE INSTALLATION** (North American Green)

NOT TO SCALE



#### CONSTRUCTION SPECIFICATIONS:

- WOVEN FABRIC FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP, MID AND BOTTOM AND EMBEDDED IN THE GROUND A MINIMUM OF 8" AND THEN COVERED WITH SOIL.
- . THE FENCE POSTS SHALL BE A MINIMUM OF 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED 6", FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED AND PROPERLY DISPOSED OF WHEN IT IS 6" DEEP OR VISIBLE 'BULGES' DEVELOP IN THE SILT FENCE.
- 5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
- 6. SILT FENCE SHALL REMAIN IN PLACE FOR 24 MONTHS.

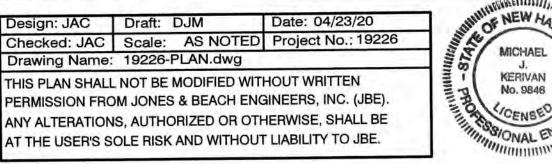
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN

#### SILT FENCE

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MAXIMUM RECOMMENDED UNCONTROLLED SLOPE LENGTH DISTURBED AREA (UPHILL) -CONTOUR LINES 600' RECOMMENDED MAXIMUM FENCING IS TO RUN WITH THE CONTOURS ACROSS A SLOPE FLARE ENDS UPHILL TO PROVIDE TRAPPING CAPABILITY AND SEDIMENT

7. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND REVEGETATED.

# MAINTENANCE:

- 1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE DONE IMMEDIATELY.
- 2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
- 4. SEDIMENT DEPOSITS THAT ARE REMOVED, OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED, SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

#### SEEDING SPECIFICATIONS

- 1. GRADING AND SHAPING A. SLOPES SHALL NOT BE STEEPER THAN 2:1 WITHOUT APPROPRIATE EROSION CONTROL MEASURES AS
- SPECIFIED ON THE PLANS (3:1 SLOPES OR FLATTER ARE PREFERRED) B. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

#### 2. SEEDBED PREPARATION

- A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
- B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND FERTILIZER AND LIME MIXED INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

#### 3. ESTABLISHING A STAND

A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL TYPES AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE

AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ.FT. NITROGEN(N), 50 LBS. PER ACRE OR 1.1 LBS. PER 1,000 SQ.FT. PHOSPHATE(P205), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.

POTASH(K20), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT. (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10.)

B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.

C. REFER TO THE 'SEEDING GUIDE' AND 'SEEDING RATES' TABLES ON THIS SHEET FOR APPROPRIATE SEED MIXTURES AND RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT, TREFOIL AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT PRIOR TO THEIR INTRODUCTION TO THE SITE.

D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20th OR FROM AUGUST 10th TO SEPTEMBER 1st.

A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING. B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 S.F.

#### 5. MAINTENANCE TO ESTABLISH A STAND

- A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED
- B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED.
- C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, ANNUAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL	A B C	FAIR POOR POOR	GOOD GOOD	GOOD FAIR EXCELLENT	FAIR FAIR GOOD
AREAS	D	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENC'SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.		GOOD	GOOD EXCELLENT	GOOD EXCELLENT	FAIR FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A B C	GOOD GOOD GOOD	GOOD GOOD EXCELLENT	GOOD FAIR EXCELLENT	FAIR POOR FAIR
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	E F	FAIR FAIR	EXCELLENT EXCELLENT	EXCELLENT EXCELLENT	2/ 2/

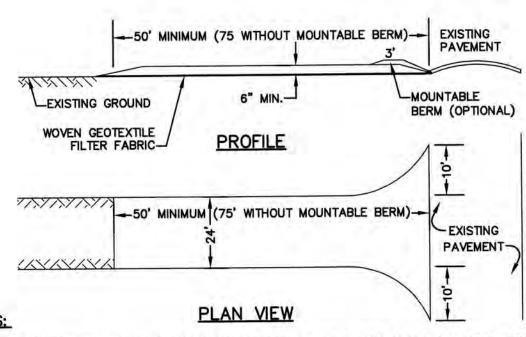
/ REFER TO SEEDING MIXTURES AND RATES IN TABLE BELOW.

27 POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS. NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCTOBER 15th, IF PERMANENT SEEDING NOT YET COMPLETE.

## SEEDING GUIDE

MIXTURE	POUNDS PER ACRE	POUNDS PE 1.000 Sq. F
A. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED TOP	_2_	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH OR	15	0.35
FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
C. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
BIRDS FOOT TREFOIL	8	0.20
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREEPING RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.60
1/ FOR HEAVY USE ATHLETIC FIE NEW HAMPSHIRE COOPERATIVE EX CURRENT VARIETIES AND SEEDING	TENSION TURF SP	UNIVERSITY OF ECIALIST FOR

SEEDING RATES



1. STONE FOR STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR

RECYCLED CONCRETE EQUIVALENT. 2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, 75' WITHOUT A MOUNTABLE BERM, AND EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.

3. THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.

4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS, OR 10 FEET, WHICHEVER IS GREATER.

5. GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.

FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT. 6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A STONE BERM WITH 5:1 SLOPES THAT CAN BE

CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.

7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE

#### STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

CONSTRUCTION SEQUENCE

PRIOR TO THE START OF ANY ACTIVITY, IT IS THE RESPONSIBILITY OF THE SITE'S SITE DEVELOPER (OR OWNER) TO FILE A NOTICE OF INTENT (NOI) FORM WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) IN ORDER TO GAIN COVERAGE UNDER THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. A PRE CONSTRUCTION MEETING IS TO BE HELD WITH ALL DEPARTMENT HEADS PRIOR TO THE START OF CONSTRUCTION.

WETLAND BOUNDARIES ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.

CUT AND REMOVE TREES IN CONSTRUCTION AREA AS REQUIRED OR DIRECTED.

INSTALL SILT FENCING, HAY BALES AND CONSTRUCTION ENTRANCES PRIOR TO THE START OF CONSTRUCTION. THESE ARE TO BE MAINTAINED UNTIL THE FINAL PAVEMENT SURFACING AND LANDSCAPING AREAS ARE ESTABLISHED.

CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. THIS INCLUDES ANY REQUIRED DEMOLITION OF EXISTING STRUCTURES, UTILITIES, ETC.

CONSTRUCT AND/OR INSTALL TEMPORARY OR PERMANENT SEDIMENT AND/OR DETENTION BASIN(S) AS REQUIRED. THESE FACILITIES SHALL BE INSTALLED AND STABILIZED PRIOR TO DIRECTING RUN-OFF TO THEM.

STRIP LOAM AND PAVEMENT, OR RECLAIM EXISTING PAVEMENT WITHIN LIMITS OF WORK PER THE RECOMMENDATIONS OF THE PROJECT ENGINEER AND STOCKPILE EXCESS MATERIAL. STABILIZE STOCKPILE AS NECESSARY.

PERFORM PRELIMINARY SITE GRADING IN ACCORDANCE WITH THE PLANS, INCLUDING THE CONSTRUCTION OF ANY RETAINING WALLS

INSTALL UTILITIES IN ACCORDANCE WITH THE PLAN AND DETAILS. ANY CONFLICTS BETWEEN UTILITIES ARE TO BE RESOLVED WITH THE INVOLVEMENT AND APPROVAL OF THE ENGINEER.

10. INSTALL INLET PROTECTION AT ALL CATCH BASINS AS THEY ARE CONSTRUCTED IN ACCORDANCE WITH DETAILS.

11. ALL SWALES AND DRAINAGE STRUCTURES ARE TO BE CONSTRUCTED AND STABILIZED PRIOR TO HAVING RUN-OFF DIRECTED TO THEM.

12. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINAGE DITCHES, CHECK DAMS, SEDIMENT TRAPS, ETC., TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ABUTTING WATERS AND/OR PROPERTY.

13. PERFORM FINAL FINE GRADING, INCLUDING PLACEMENT OF 'SELECT' SUBGRADE MATERIALS.

14. PAVE ALL PARKING LOT AND DRIVEWAY WITH INITIAL 'BASE COURSE'.

15. PERFORM ALL REMAINING SITE CONSTRUCTION (i.e. BUILDING, CURBING, UTILITY CONNECTIONS, ETC.).

16. LOAM AND SEED ALL DISTURBED AREAS AND INSTALL ANY REQUIRED SEDIMENT AND EROSION CONTROL FACILITIES (i.e. RIP RAP, EROSION CONTROL BLANKETS, ETC.).

17. FINISH PAVING ALL ROADWAYS AND PARKING AREAS WITH 'FINISH' COURSE.

18. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

19. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

20. COMPLETE PERMANENT SEEDING AND LANDSCAPING.

21. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE BEEN 75%-85% ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND RE-VEGETATE ALL DISTURBED AREAS.

22. CLEAN SITE AND ALL DRAINAGE STRUCTURES, PIPES AND SUMPS OF ALL SILT AND DEBRIS.

23. INSTALL ALL PAINTED PAVEMENT MARKINGS AND SIGNAGE PER THE PLANS AND DETAILS.

24. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.

25. UPON COMPLETION OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ANY RELEVANT PERMITTING

AGENCIES THAT THE CONSTRUCTION HAS BEEN FINISHED IN A SATISFACTORY MANNER.

# Designed and Produced in NH Jones & Beach Engineers, Inc.

85 Portsmouth Ave. Civil Engineering Services FAX: 603-772-0227 PO Box 219 E-MAIL: JBE@JONESANDBEACH.COM Stratham, NH 03885

Plan Name: EROSION AND SEDIMENT CONTROL DETAILS

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH JBE PROJECT NO. 19226

DRAWING No.

S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885

603-772-4746

Owner of Record:



85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885 603.772.4746 - JonesandBeach.com

April 29, 2020

Stratham Planning Board Attn. Tavis Austin 10 Bunker Hill Avenue Stratham, NH 03885

RE: Amended Site Plan Application 2 & 8 Marin Way, Stratham, NH Map 1, Lots 9 & 10 JBE Project No. 19226

Dear Mr. Austin:

Jones & Beach Engineers, Inc. respectfully submits an Amended Site Plan Application for the above-referenced parcel on behalf of the owner of these two parcels. The intent of this application is to amend the approved site plan to add parking on each of the lots listed above.

The new tenant for the H.D. Smith site requires additional parking and access to the building in order to facilitate their operation. Therefore, we have added parking in the front of the building with a connector over to 2 Marin Way, two direct driveways into the building from 2 Marin Way and an interconnection in the rear of the site to improve efficiency of the truck maneuvers. We are adding 150 parking spaces, sidewalk, curbing to connect the spaces together. There will be landscaped islands approximately every 15 parking spaces.

Some of the additional parking will be located on 2 Marin Way and utilized for the lease holder at 8 Marin Way. These spaces will be dedicated to the tenant at 8 Marin Way for the time being. Someday, that might not be the case if the tenant changes and the next one no longer needs the spaces. We are also requesting a waiver from the Drainage Design calculations regulation.

The following items are provided in support of this Amended Site Plan Application:

- 1. Amended Site Plan Application.
- 2. Waiver Request.
- 3. Letter of Authorizations.
- 4. Copy Deeds.
- 5. Fee Check.
- 6. Six (6) Full Size Plan Sets.
- 7. Nine (9) Reduced Size (11" x 17") Plan Sets.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very ruly yours,

JONES & BEACH ENGINEERS, INC.

Joseph Coronati Vice President

Rob Graham, Realty Acquisitions, LLC (application and plans via email)



#### Town of Stratham, NH **Site Plan Review Application**

Map#	1	Lot#	9	&	10

Location: 2 & 8 Marin Way, Stratham, NH	
Project Description: _To amend the previously	approved site plan to add an additiona
150 parking spaces so there are a total of	
Zone: Ind. New Industrial / Commercial Square	Footage:
or Number of Residential Ur	
Applicant:	<del></del>
Name: Rob Graham P	hone: 603-479-3666
Company: SIP Lot 3, LLC & SIP-Lot 2, LLC	
Address: PO Box 432, Stratham, NH 03885	
Owner:	
Name: Same as Applicant	Phone:
Company:	
Address:	
Agent:	
Contact Name: Joseph Coronati	Phone: 603-772-4746
Company: Jones & Beach Engineers, Inc.	
Address: PO Box 219, Stratham, NH 03885	
Addiess. 10 Box 219, Betacham, NH 03865	
By signing this application, you are agreeing to all rules and regulation	ons of the Town of Stratham, and are agreeing to allow agents o
the Town of Stratham to conduct inspections, during normal bus Stratham Zoning and Site Review regulations while your application operational phases after approval is granted.  The Signor shall be the owner or the sanor shall provide a letter signer represent the owner in presentation of this application.  Signed:  Fees:  Notification Fee: \$150.00 plus Abutters Fee: 14	ons of the Town of Stratham, and are agreeing to allow agents of siness hours, of your property, to ensure compliance with all tion is under consideration and during any construction and gened by all the property owners giving the signor permission to the signor permiss
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#### **Town of Stratham** Site Plan Review Checklist

1	STRATHAM, N	CW HALL
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AN L		
-	1716	A. C.

X - Information Provided

Project Name:	Parking Lot Expansions		_	
Map # <sup>1</sup>	int# 9 & 10	Date:	4/23/20	

#### Site Plan Review - Information Checklist

O - Information Not Provided

A site plan review application shall contain the following information, where applicable, to be considered complete. However, this checklist is intended only as a guide; the Planning Board may require additional information as deemed necessary. All plans shall conform to the applicable requirements of the Zoning Ordinance, Building Ordinance, Subdivision and Site Plan Review Regulations, and other state, local, and federal requirements. (All data/information sources should be referenced.)

X – II	nformat	on Provided O – Information Not Provided W – Waiver Requested				
I.	Prelim	ninary Consultation				
	_ A. Bas	e map drawn to scale				
		General description of existing conditions on the site.				
		2. Any facilities and utilities.				
		3. Dimensions and sizes of the proposed structure(s).				
		<ol> <li>Topographic map showing the proposed layout of the site: parking, driveways(s), sidewalks.</li> </ol>				
II.	Forma	Application				
X	Α.	Completed "Application for Site Plan Review".				
_X	В.	Names and addresses of all abutters.				
X	C.	Administrative fees (payable to the Town of Stratham).				
N/A	D.	High intensity soils information with sewage disposal and lot size calculations.				
N/A	E.	Data on test pits and percolation tests:				
		Location of test pits.				
		Percolation test date and rate.				
		Certification of test witness.				
		Outline of the area reserved for leach fields.				
_X	F.	Six complete sets of prints drawn to scale with the following:				
	x	Sheet size of 22" x 34".				
	x	Appropriate scale.				
	X	Space for Planning Board signature and date.				
X	G.	Additional submission requirements:				
	X	Nine 11 X 17 copies of proposed plan.				
		One copy of the plan in a digital format referenced to NH State Plane feet, NAD 83, in a format compatible with the town's ESRI ArcView GIS system.				
		Three copies of any engineering or impact reports.				

#### Town of Stratham Site Plan Review Checklist

		X	Three sets of printed labels for abutter mailing.
_X	1,	Existin	g data required.
	X	a.	Site location, current names and addresses of developer, owners of record, abutting landowners.
	X	b.	Names and addresses of person/firm preparing the map with other information:
			x Stamp by registered architect and/or professional engineer.
			X Map scale.
			_X North arrow.
			x Date.
			X Tax map and parcel number.
			X Size of parcel.
	X	C.	Topographic contours.
	X	d.	Boundary lines.
	X	e.	Natural features.
	X	f.	Drainage systems and roads.
	X	g.	Structures within 200 feet
	X	h.	Easements and rights-of-way.
	X	i.	Location of utilities.
	<u>X</u>	j.	Vicinity sketch showing surrounding streets, zoning districts, site boundaries, and 100 year flood plain.
	_X	k.	Soils map.
X	2.	Propose	ed Plans.
		a.	Grades, topographic contours.
	XX	b.	Plan view of proposed structures and/or alterations; rendering of exterior design.
	X	C.	Data for streets, driveways, etc.: location, size, direction of travel, curbing, paving and
			curve radii.
	X	d.	Parking and loading facilities.
	X	e.	Location of utilities.
Waiver	Reques	<b>t</b> ed	Storm drainage plan with supporting calculations.
	X	g.	Landscaping and screening.
		h.	Sign location, size, and design.
		i.	Outdoor lighting.
	X	j.	Surveyed property lines with monument locations.
	X	k.	Construction details (e.g. walks, curbing, drainage structures, etc.).
		l.	Snow storage area.
		m.	Solid waste disposal receptacles and screening.
		n.	Fire protection (e.g. fire lanes, alarms, etc.).
19	X	0.	Erosion and sedimentation control methods.

#### Town of Stratham Site Plan Review Checklist

	p.	Site Review Agreement.
	q.	Other exhibits, if applicable:
		Performance Bond.
		Maintenance Bond.
		Information on pollutants discharge and/or noise generation.
		Traffic impact analysis.
		Natural/Environmental Recourses Inventory
		Environmental/Forestry Impact Report
State ar access	nd local [RSA 23	permits (e.g. state septic system [RSA 149-E:3], site specific [RSA 149:8-a], driveway 6:13], dredge and fill [RSA 483-A], etc.).
"Subdivisi	on and Sit	information, it is strongly recommended that the applicant read Stratham's re Plan Review Regulations" (2004), as well as the Town's Zoning Ordinance (2004) and Building
	mformat	ion provided is complete and correct to the best of my knowledge.  Date: 4/23/20
	access For more "Subdivisi Ordinance	State and local access [RSA 23] For more complete "Subdivision and Sit Ordinance. (2002).



#### **TOWN OF STRATHAM**

10 Bunker Hill Avenue · Stratham, NH 03885 Phone: 603-772-7391 Fax (All Offices) 603-775-0517

# SITE PLAN REVIEW / SUBDIVISION WAIVER REQUEST FORM

Name of Subdivision/Site Plan: Proposed Parking Lot Expansion
Street Address: 2 & 8 Marin Way
I Jones & Beach Engineers, Inc. item(s) Drainage Design Submission hereby request that the Planning Board waive the requirements of of the Subdivision/Site Plan Checklist in
reference to a plan presented by Jones & Beach Engineers, Inc. (name of surveyor and engineer) dated 4/29/20 for the property tax map(s) 1 and lot(s) 9 & 10 in the Town of Stratham, NH
As the aforementioned applicant, I, herein, acknowledge that this waiver is requested in accordance with the provisions set forth in RSA 674:36, II (n) (For Subdivisions) OR RSA 674:44, III (e) (For Site Plans). Without the Planning Board granting said waiver, strict conformity would cause an unnecessary hardship to the applicant and waiver would not be contrary to the spirit and intent of the regulations, the specific circumstances relative to the subdivision/site plan or conditions of the land in the subdivision/site plan indicate that the waiver will properly carry out the spirit and intent of the regulations. Strict conformity would cause an unnecessary hardship to the applicant and waiver would not be contrary to the spirit and intent of the regulations:
OR:
Specific circumstances relative to the subdivision or conditions of the land in the subdivision indicate that the waiver will properly <b>carry out the spirit and intent of the regulations</b> :
All of the stormwater from the proposed parking expansion is near the existing buildings and will end up in the detention ponds that are existing for these two industrial buildings. Therefore, no untreated stormwater will exit the property without first going through the detention ponds. The ponds are well stabilized and maintained and disturbing now would take years to get back to their current vegetated amounts. The abutting property is owned by the applicant as well, the C&R Partnership property.
Signed:
Planning Board Action:  Applicant or Authorized Agent
Waiver Granted
Vaiver Not Granted

#### WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that SPRING LINE HOLDING CO., L.L.C., a New Hampshire Limited Liability Company, with a principal place of business at 142 Portsmouth Avenue, Stratham, County of Rockingham and State of New Hampshire, for consideration paid, grant(s) to SIP-LOT3, L.L.C., a New Hampshire Limited Liability Company with a principal place of business at 459 Lafayette Road, Hampton, County of Rockingham and State of New Hampshire, with Warranty Covenants, all of its right, title and interest in and to the following described premises:

A certain parcel of land located in the Stratham Industrial Park on the southeast side of Marin Way, Town of Stratham, County of Rockingham, State of New Hampshire, depicted as Tax Map 2 Lot 32-3 on a plan entitled "Lot Consolidation and Resubdivision Plan at Stratham Industrial Park" prepared by Easterly Surveying, dated 12/1/97, revised 12/17/97, and recorded in the Rockingham County Registry of Deeds as Plan #D-25995 and being more particularly described as follows:

Beginning at a point on the North Hampton and Stratham town line S 53° 02' 54" W a distance of 206.47 feet from a concrete town bound at the south corner of Tax Map 2 Lot 32-4 at land now or formerly of C & R Partnership, said point being the south corner of the herein described parcel; thence running S 53° 02′ 54" W along said town line by land of said C & R Partnership a distance of 332.50 feet to a point; thence running S 520 53' 46" W along said town line by land of C & R Partnership a distance of 68.68 feet to a concrete town bound at land of Kendall W. and Eugenie Chevalier; thence running S 53° 02′ 51" W along said town line by land of said Kendall W. and Eugenie Chevalier a distance of 326.95 feet to a point at the east corner of Tax Map 2 Lot 35, thence running S 36° 57′ 09" E along said Tax Map 2 Lot 35 a distance of 350.92 feet to a point; thence running S 50° 33' 24" E along said Tax Map 2 Lot 35 a distance of 272.91 feet to a point on the southeast sideline of said Marin Way; thence running northeasterly along the sideline of said Marin Way on a curve to the right having a radius of 455.00 feet and an arc length of 121.25 feet to a point; thence running N 42° 43' 29" E along the southeasterly sideline of said Marin Way a distance of 120.00 feet to a point; thence running northeasterly along the sideline of said Marin Way on a curve to the right having a radius of 810.00 feet and an arc length of 170.07 feet to a point; thence running northeasterly along the sideline of said Marin Way on a curve to the left having a radius of 593.00 feet and an arc length of 154.93 feet to a point at the southeast corner of Tax Map 2 Lot 32-4; thence running S 550 31' 40" E along said Tax Map 2 Lot 32-4 a distance of 741.71 feet to the point of beginning. Said parcel containing 9.77 acres.

Said parcel has the benefit of an adjacent 50 foot wide by 272.91 foot long access and utility easement which is located along the north property line of Tax Map 2 Lot 32-3 as shown on said plan.

Said parcel is subject to a 90 foot wide by 110 foot long access easement in favor of Tax Map 2 Lot 35 located as shown on said plan in the south corner of said parcel.

Said parcel is subject to an adjacent 30 foot by 30 foot long drainage easement which in favor of Tax Map 2 Lot 35 located as shown on said plan along the southwest line of said parcel.

Said parcel is subject to a 20 foot wide sewer easement which is located in the southwest corner of Tax Map 2 Lot 32-3 as shown on said plan.

Being a portion of the premises conveyed to the Grantor herein, for further title reference see Deed of Leon L. Sicard to Spring Line Holding Co., Inc., dated June 27, 1994 and recorded in the Rockingham County Registry of Deeds at Book 3059, Page 2311.

Signed this 30 day of Mann, 1998.

SPRING LINE HOTTING CO. LLC

By:

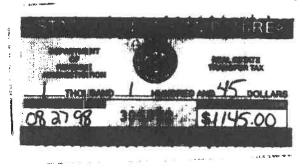
Duly authorized

STATE OF NEW HAMPSHIRE ROCKINGHAM, SS

Dated: 3/64130, 1998

Personally appeared the above named <u>Mark Stevens</u>
in his/heaxcapacity as <u>Managing Member</u>, of SPRING LINE
HOLDING CO., LLC being authorized so to do, executed the foregoing
instrument for the purposes therein contained, by signing the name
of the corporation.

Notary Public/Justice of the Peace



#### WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that MARIN WAY INVESTMENT CORP., a New Hampshire Corporation with a principal place of business at 24 Coach Road, Hampton Falls, County of Rockingham and State of New Hampshire, for consideration paid, grant(s) to SIP-LOT2, L.L.C., a New Hampshire Limited Liability Company with a principal place of business at 459 Lafayette Road, Hampton, County of Rockingham and State of New Hampshire, with Warranty Covenants, all of its right, title and interest in and to the following described premises:

A certain parcel of land located in the Stratham Industrial Park on the east side of Marin Way and the north side of Exeter Road (Route 111), Town of Stratham, County of Rockingham, State of New Hampshire depicted as Tax Map 2, Lot 35 on a plan entitled "Lot Consolidation and Resubdivision Plan at Stratham Industrial Park" prepared by Easterly Surveying dated 12/1/97, revised 12/17/97, to be recorded in the Rockingham County Registry of Deeds and being more particularly described as follows:

Beginning at a stone town bound on the north sideline of said Exeter Road at the southwest corner of land now or formerly of Kendall W. and Eugene Chevalier, said point being the southeast corner of the herein described parcel; thence running N 640 41' 40" W along the north sideline of said Exeter Road a distance of 133.68 feet to a point; thence running northwest along the sideline of said Exeter Road on a curve to the right having a radius of 30.00 feet and an arc length of 47.12 feet to a point on the east side of said Marin Way; thence running northerly along the sideline of said Marin Way on a curve to the left having a radius of 505.00 feet and an arc length of 220.35 feet to a point; thence running northerly along the sideline of said Marin Way on a curve to the right having a radius of 655.53 feet and an arc length of 240.46 feet to a point; thence running N 210 19' 40" E along the easterly sideline of said Marin Way a distance of 219.33 feet to a point; thence running northerly along the sideline of said Marin Way on a curve to the right having a radius of 455.00 feet and an arc length of 48.67 feet to a point at the southwest corner of Tax Map 2 Lot 32-3 as shown on said plan; thence running S 50° 33' 24" E along said Tax Map 2 Lot 32-3 a distance of 272.91 feet to a point; thence running S 360 57' 09" E along said Tax Map 2 Lot 32-3 a distance of 350.92 feet to a point at land of said Chevalier and the town line between North Hampton and Stratham; thence running S 53° 02' 51" W along land of said Chevalier and said town line a distance of 185.25 feet to a concrete town bound; thence running S 53° 10' 20" W along land of said Chevalier and said town line a distance of 394.13 feet to the point of beginning, containing 6.09 acres of land.

Said parcel has the benefit of an adjacent 30 foot by 30 foot drainage easement which is located along the south property line of Tax Map 2 Lot 32-3 as shown on said Plan.

# B3265 P0577

Said parcel has the benefit of a 20 foot wide sewer easement which is located in the southwest corner of Tax Map 2 Lot 32-3 as shown on said plan.

Said parcel is subject to a 50 foot wide by 272.91 foot long access and utility easement in favor of Tax Map 2 Lot 32-3 located as shown on said plan in the northwest corner of said parcel.

Being a portion of the premises acquired by the Grantor herein for further title reference see Deed of Seaton Realty Trust to Marin Way Investment Corp. dated April 17, 1994 to be recorded in the Rockingham County Registry of Deeds herewith.

This is not homestead property.
Signed this 10 day of January, 1998.

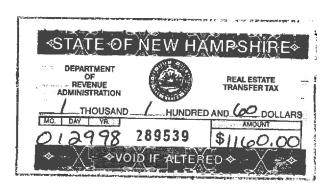
MARIN WAY INVESTMENT CORP.

Duly authorized

STATE OF NEW HAMPSHIRE ROCKINGHAM, SS

Dated: January  $\partial \mathcal{S}$ , 1998

Personally appeared the above named Mail Vleven in his/her capacity as NULLIBERT, of MARIN WAY INVESTMENT CORP., being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation.



ABUTTERS LIST (DIRECT)
AS OF
APRIL 23, 2020
2 & 8 MARIN WAY
STRATHAM, NH 03885
JBE PROJECT NO. 19226

#### **OWNER OF RECORD/ APPLICATION:**

TAX MAP 1/LOT 9 SIP-LOT 3, LLC 142 PORTSMOUTH AVE PO BOX 432 STRATHAM, NH 03885 BK 3320/PG 2035 (03/30/98)

TAX MAP 1/LOT 10 SIP-LOT 2, LLC PO BOX 432 STRATHAM, NH 03885 BK 3265/PG 576 (01/28/98)

#### **STRATHAM ABUTTERS:**

1/2 – STRATHAM ABUTTER 88/5 – EXETER ABUTTER 100 DOMAIN DRIVE DD LLC 88.98% 100 DOMAIN DRIVE EI LLC 11.02 % BOULOS ASSEST MANAGEMENT ONE CANAL PLAZA PORTLAND, ME 04101 5903/1301 (04/05/18)

1/3
ALBANY ROAD – 200 DOMAIN LLC
10 HIGH ST, STE 700
BOSTON, MA 02110
5690/1565 (02/05/16)

1/8 MARIN WAY INVESTMENT CORP PO BOX 432 STRATHAM, NH 03885 3265/568 (01/29/98) 1/11
WELLS FARGO BANK, N.A.
C/O OCWEN LOAN SERVICING, LLC
1661 WORTHINGTON RD, STE 100
WEST PALM BEACH, FL 33409
5671/2393 (11/20/15)

1/12 – STRATHAM ABUTTERS 88/7 – EXETER ABUTTERS POWER REALTY TRUST DIANA CORMIER – TRUSTEE 8 AULSON RD SALEM, NH 03079 4449/2488 (03/14/05)

TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885

### **NORTH HAMPTON ABUTTERS:**

10/3 & 5 KENDALL W. & EUGENIE CHEVALIER 287 ATLANTIC AVE NORTH HAMPTON, NH 03862

10/4 TOWN OF NORTH HAMPTON 233 ATLANTIC AVE NORTH HAMPTON, NH 03862 2939/0589 (08/17/92)

10/8 – NORTH HAMPTON ABUTTER 8/1 – HAMPTON ABUTTER FOUR FIELDS, LLC 71 EXETER RD NORTH HAMPTON, NH 03862 5916/1213 (05/25/18)

### **HAMPTON ABUTTERS:**

7/3
HAMPTON CONSERVATION COMMISSION
100 WINNACUNNET RD
HAMPTON, NH 03842
5624/2364 (06/09/15)

NHDOT 7 HAZEN DR CONCORD, NH 03302

## **ENGINEERS:**

JONES & BEACH ENGINEERS, INC. ATTN. JOSEPH CORONATI PO BOX 219 STRATHAM, NH 03885 SIP-LOT 3, LLC 142 PORTSMOUTH AVE PO BOX 432 STRATHAM. NH 03885 SIP-LOT 3, LLC 142 PORTSMOUTH AVE PO BOX 432 STRATHAM, NH 03885 SIP-LOT 3, LLC 142 PORTSMOUTH AVE PO BOX 432 STRATHAM, NH 03885

SIP-LOT 2, LLC PO BOX 432 STRATHAM, NH 03885 SIP-LOT 2, LLC PO BOX 432 STRATHAM, NH 03885 SIP-LOT 2, LLC PO BOX 432 STRATHAM, NH 03885

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ALBANY ROAD – 200 DOMAIN LLC 10 HIGH ST, STE 700 BOSTON, MA 02110 ALBANY ROAD – 200 DOMAIN LLC 10 HIGH ST, STE 700 BOSTON, MA 02110 ALBANY ROAD – 200 DOMAIN LLC 10 HIGH ST, STE 700 BOSTON, MA 02110

MARIN WAY INVESTMENT CORP PO BOX 432 STRATHAM. NH 03885 MARIN WAY INVESTMENT CORP PO BOX 432 STRATHAM, NH 03885 MARIN WAY INVESTMENT CORP PO BOX 432 STRATHAM, NH 03885

WELLS FARGO BANK, N.A. C/O OCWEN LOAN SERVICING, LLC 1661 WORTHINGTON RD, STE 100 WEST PALM BEACH, FL 33409 WELLS FARGO BANK, N.A. C/O OCWEN LOAN SERVICING, LLC 1661 WORTHINGTON RD, STE 100 WEST PALM BEACH, FL 33409 WELLS FARGO BANK, N.A. C/O OCWEN LOAN SERVICING, LLC 1661 WORTHINGTON RD, STE 100 WEST PALM BEACH, FL 33409

POWER REALTY TRUST DIANA CORMIER – TRUSTEE 8 AULSON RD SALEM, NH 03079 POWER REALTY TRUST DIANA CORMIER – TRUSTEE 8 AULSON RD SALEM, NH 03079 POWER REALTY TRUST DIANA CORMIER – TRUSTEE 8 AULSON RD SALEM, NH 03079

TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885 TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885 TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885

KENDALL W. & EUGENIE CHEVALIER 287 ATLANTIC AVE NORTH HAMPTON, NH 03862 KENDALL W. & EUGENIE CHEVALIER 287 ATLANTIC AVE NORTH HAMPTON, NH 03862 KENDALL W. & EUGENIE CHEVALIER 287 ATLANTIC AVE NORTH HAMPTON, NH 03862

TOWN OF NORTH HAMPTON 233 ATLANTIC AVE NORTH HAMPTON, NH 03862 TOWN OF NORTH HAMPTON 233 ATLANTIC AVE NORTH HAMPTON, NH 03862 TOWN OF NORTH HAMPTON 233 ATLANTIC AVE NORTH HAMPTON, NH 03862 FOUR FIELDS, LLC 71 EXETER RD NORTH HAMPTON, NH 03862 FOUR FIELDS, LLC 71 EXETER RD NORTH HAMPTON, NH 03862 FOUR FIELDS, LLC 71 EXETER RD NORTH HAMPTON, NH 03862

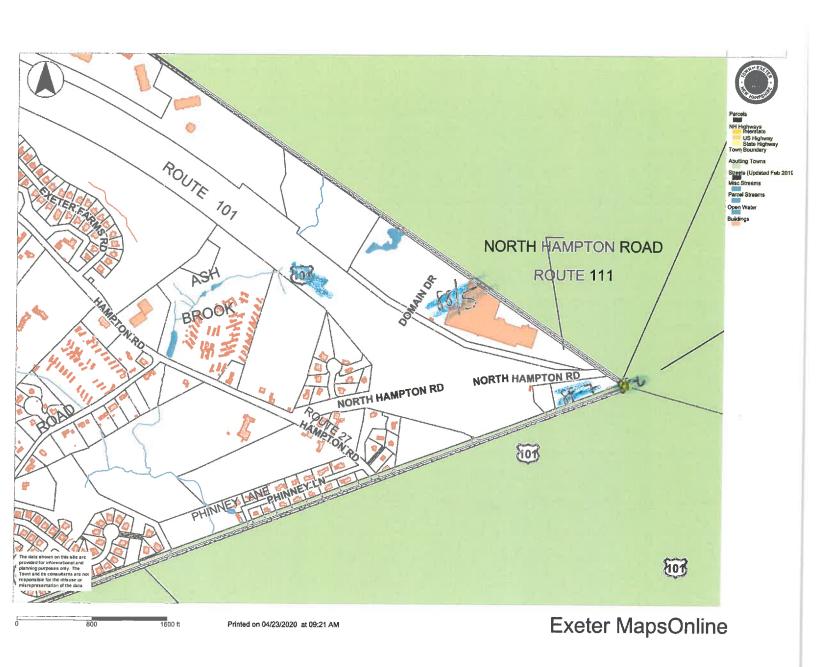
HAMPTON CONSERVATION COMMISSION 100 WINNACUNNET RD HAMPTON, NH 03842

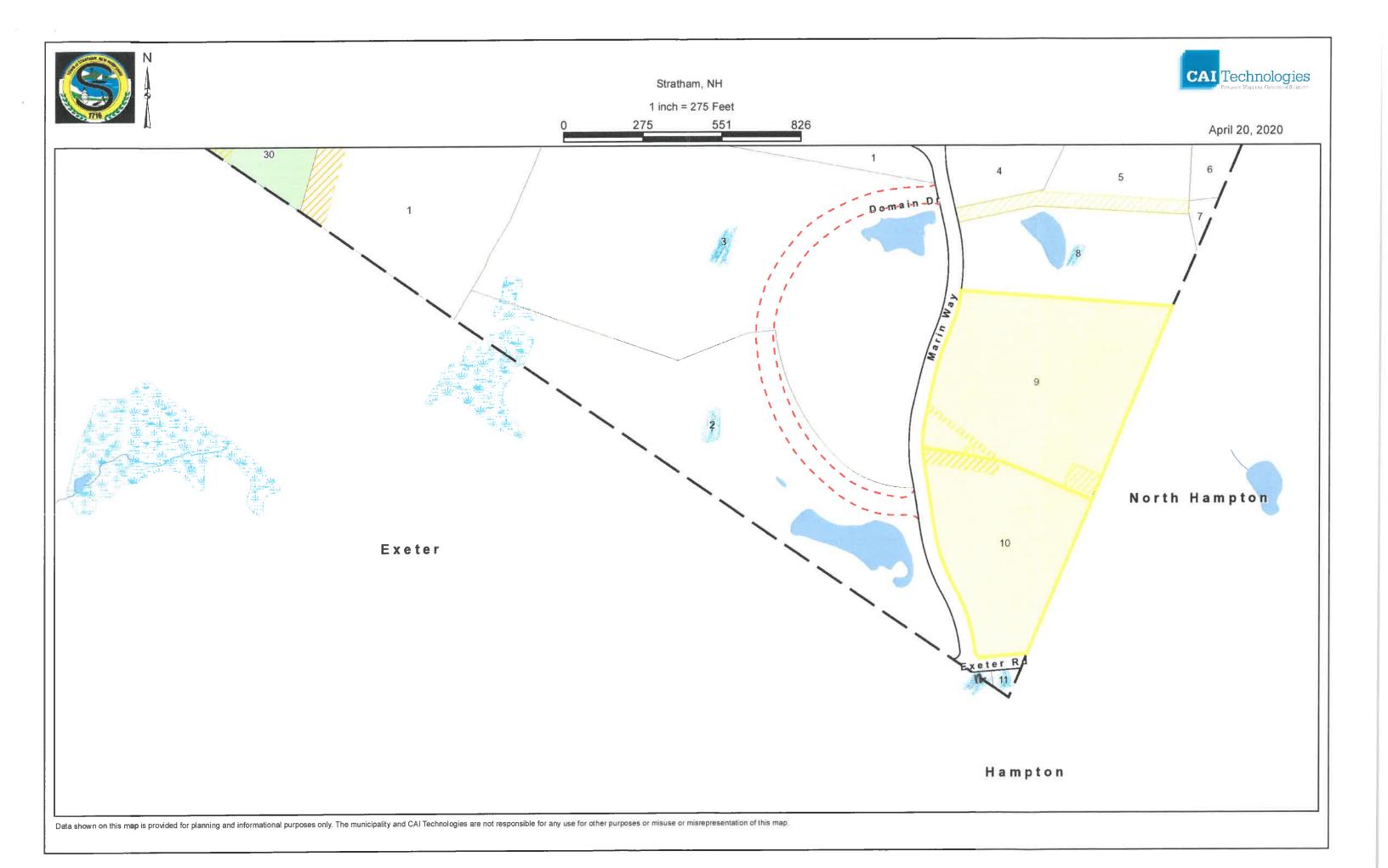
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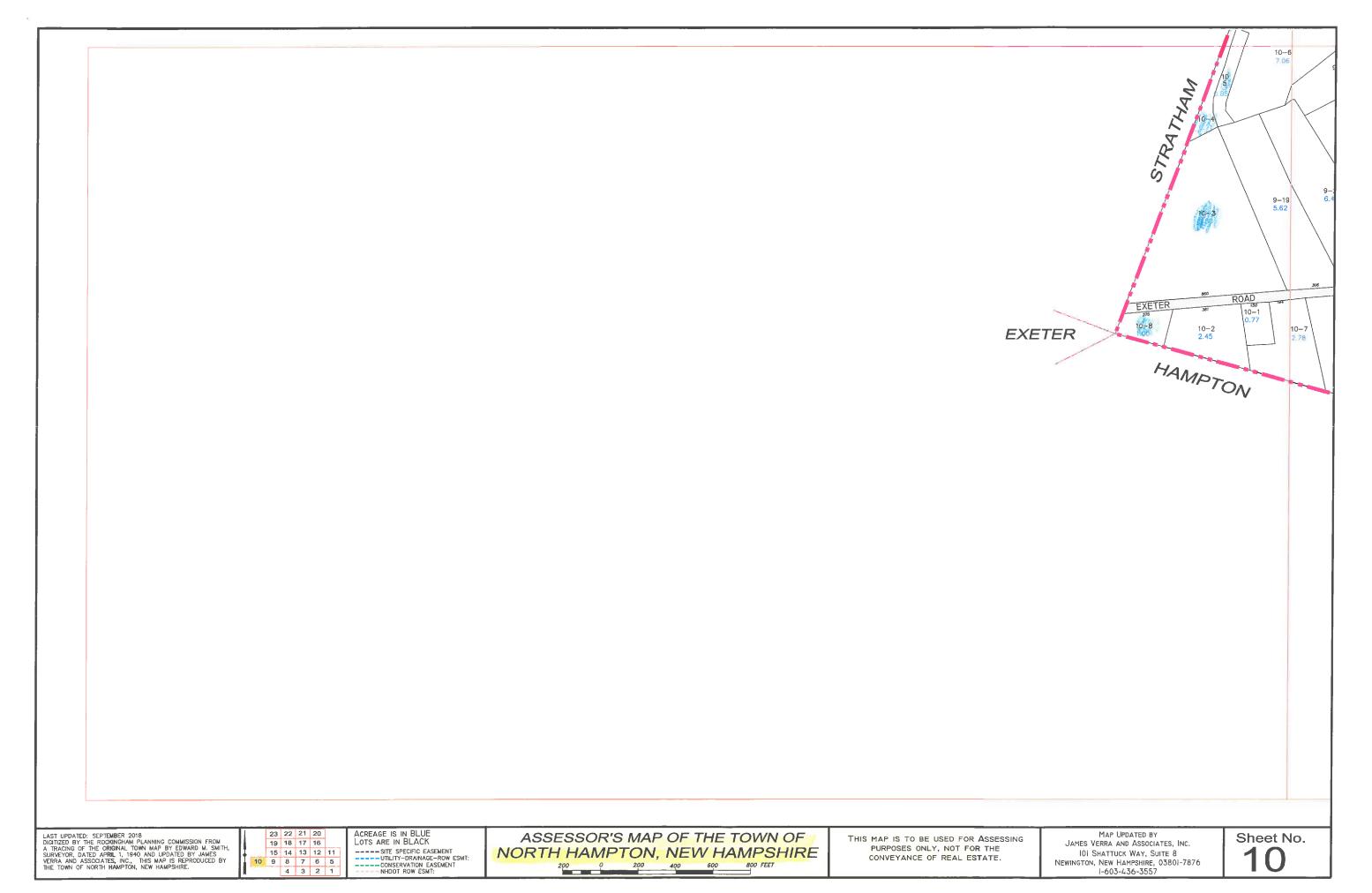
HAMPTON CONSERVATION COMMISSION 100 WINNACUNNET RD HAMPTON, NH 03842

NHDOT 7 HAZEN DR CONCORD, NH 03302 NHDOT 7 HAZEN DR CONCORD, NH 03302 NHDOT 7 HAZEN DR CONCORD, NH 03302

JONES & BEACH ENGINEERS, INC. ATTN. JOSEPH CORONATI PO BOX 219 STRATHAM, NH 03885 JONES & BEACH ENGINEERS, INC. ATTN. JOSEPH CORONATI PO BOX 219 STRATHAM, NH 03885 JONES & BEACH ENGINEERS, INC. ATTN. JOSEPH CORONATI PO BOX 219 STRATHAM, NH 03885









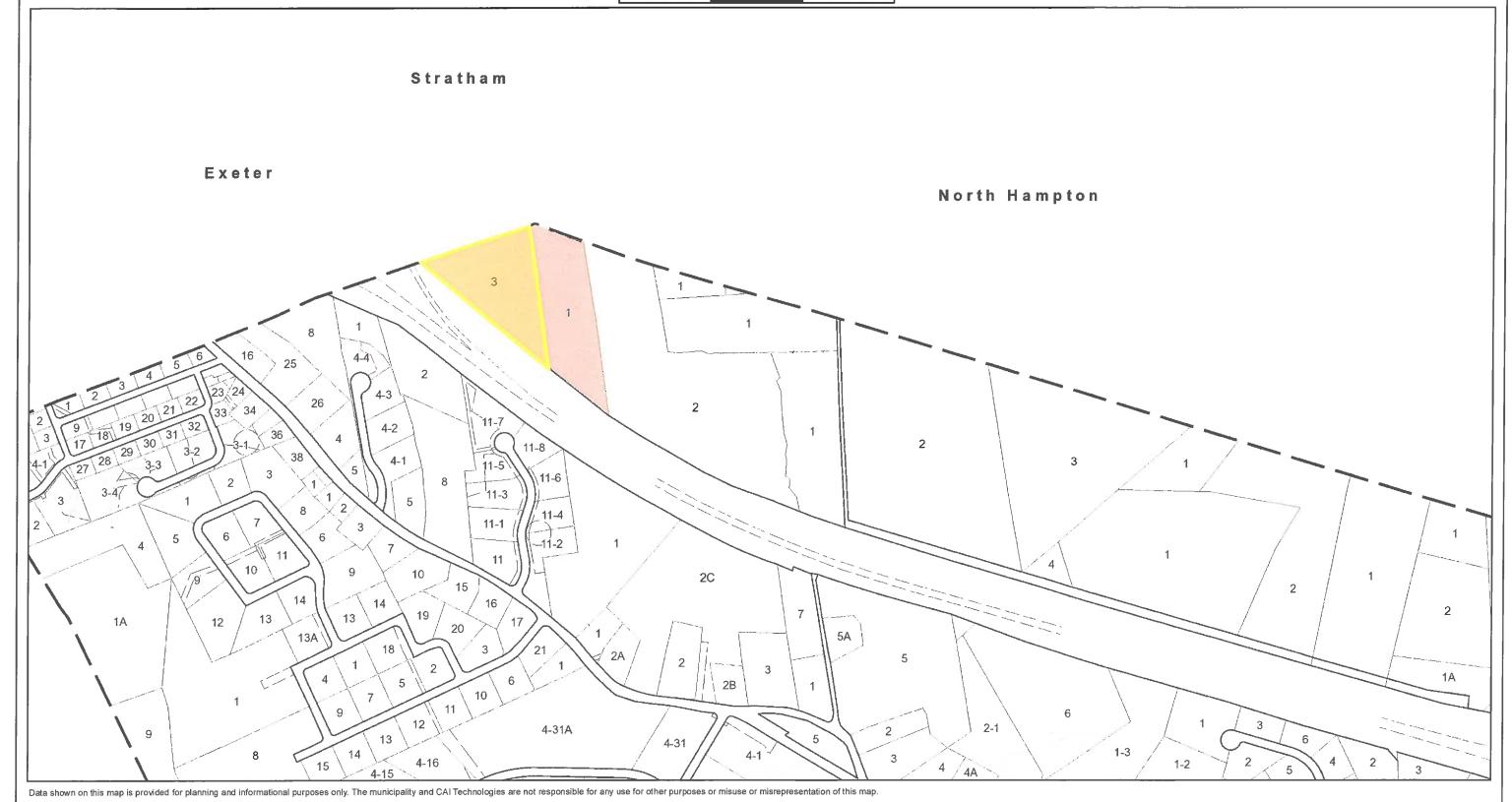
CAI Technologies

1 inch = 551 Feet 1102

551

1<u>6</u>53

April 20, 2020





SIP-LOT 3, LLC 142 PORTSMOUTH AVE PO BOX 432 STRATHAM, NH 03885

7019 2280 0001 7420 1567

SIP-LOT 2, LLC PO BOX 432 STRATHAM, NH 03885

7019 2280 0001 7420 1550

100 DOMAIN DRIVE DD LLC 88.98% 100 DOMAIN DRIVE EI LLC 11.02 % BOULOS ASSEST MANAGEMENT ONE CANAL PLAZA PORTLAND, ME 04101

7019 2280 0001 7420 1543

ALBANY ROAD – 200 DOMAIN LLC 10 HIGH ST, STE 700 BOSTON, MA 02110

7019 2280 0001 7420 1536

MARIN WAY INVESTMENT CORP PO BOX 432 STRATHAM, NH 03885

7019 2280 0001 7420 1529

WELLS FARGO BANK, N.A. C/O OCWEN LOAN SERVICING, LLC 1661 WORTHINGTON RD, STE 100 WEST PALM BEACH, FL 33409

7019 2280 0001 7420 1512

POWER REALTY TRUST DIANA CORMIER – TRUSTEE 8 AULSON RD SALEM, NH 03079

7019 2280 0001 7420 1505

TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885 TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885 TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885

KENDALL W. & EUGENIE CHEVALIER 287 ATLANTIC AVE NORTH HAMPTON, NH 03862

7019 2280 0001 7420 1499

TOWN OF NORTH HAMPTON 233 ATLANTIC AVE NORTH HAMPTON, NH 03862

7019 2280 0001 7420 1482



FOUR FIELDS, LLC 71 EXETER RD NORTH HAMPTON, NH 03862

7019 2280 0001 7420 1475

HAMPTON CONSERVATION COMMISSION 100 WINNACUNNET RD HAMPTON, NH 03842

7019 2280 0001 7420 1468

NHDOT 7 HAZEN DR CONCORD, NH 03302

7019 2280 0001 7420 1451

JONES & BEACH ENGINEERS, INC. ATTN. JOSEPH CORONATI PO BOX 219 STRATHAM, NH 03885

7019 2280 0001 7420 1444

P.O. Box 1721 • Concord, NH 03302 tel: (603) 731-8500 • fax: (866) 929-6094 • sgp@ pernaw.com

Transportation: Engineering • Planning • Design

### MEMORANDUM

Ref: 2023A

To: Rob Graham

SIP Lot 2, LLC & SIP Lot 3, LLC

From: Stephen G. Pernaw, P.E., PTOE

Subject: Proposed Parking Lot Expansion – 2 & 8 Marin Way

Stratham, New Hampshire

Date: May 15, 2020

As requested, Pernaw & Company, Inc. has conducted this "*Traffic Evaluation*" for the proposed parking lot expansion project located at #2 and #8 Marin Way in Stratham, New Hampshire. The purpose of this memorandum is to summarize the results of our trip generation analysis for the proposed change in tenancy as well as our research of available traffic count data in the area. To summarize:

### PROPOSED DEVELOPMENT

According to the plan entitled "Site Plan – H. D. Smith Parking Expansion," Sheet C2 dated 4/29/20, prepared by Jones & Beach Engineers, Inc. (see Attachment 1), the proposed development involves parking lot revisions that will increase the parking supply from 72 spaces to 214 spaces (net +142). The additional non-site parking is required as a result of the proposed change in tenants. The vehicular access to the H. D. Smith building is proposed at two locations on Marin Way: 1) via the existing site driveway (that will be upgraded) and, 2) via the existing ElectroCraft driveway (adjacent to the south side of the H. D. Smith building).

The former tenant (H. D. Smith) provided specialty distribution services for pharmaceutical products. This facility operated with <u>one</u> standard work shift and employed approximately 65 persons.

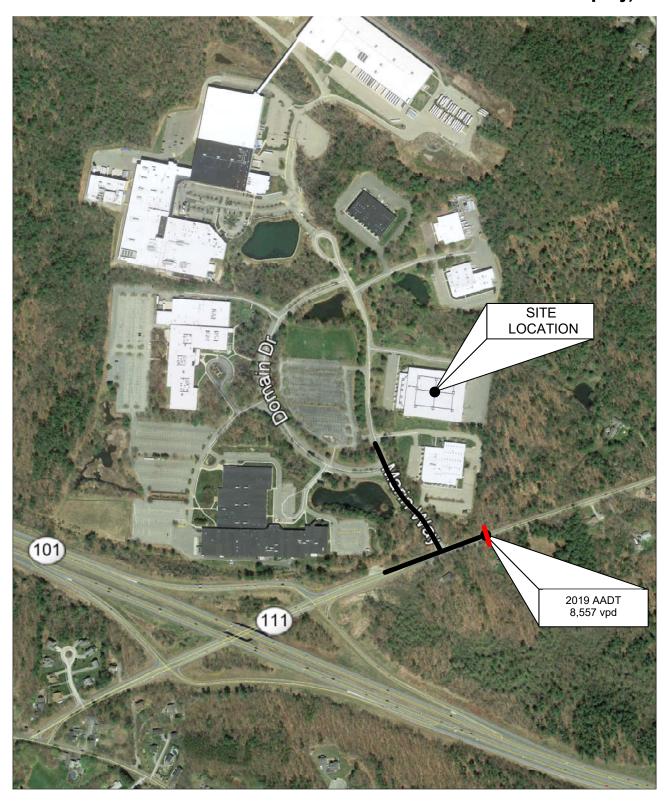
The pending tenant will also use the warehouse for short-term storage and direct distribution of products and packages to end users. The new tenant however will operate with <u>three</u> work shifts. The use of multiple work shifts is a standard Transportation Demand Management (TDM) strategy that reduces/disperses traffic demand on an hourly basis.

Figure 1 shows the location of the subject site with respect to the area roadway system, as well as the location of the most recent Automatic Traffic Recorder (ATR) count conducted in the area by the NHDOT, as well as previous Pernaw & Co., Inc counts conducted at the NH111/Marin Way intersection in 2019.

1



## Pernaw & Company, Inc.



= AUTOMATIC TRAFFIC RECORDER LOCATION (NHDOT)

NORTH



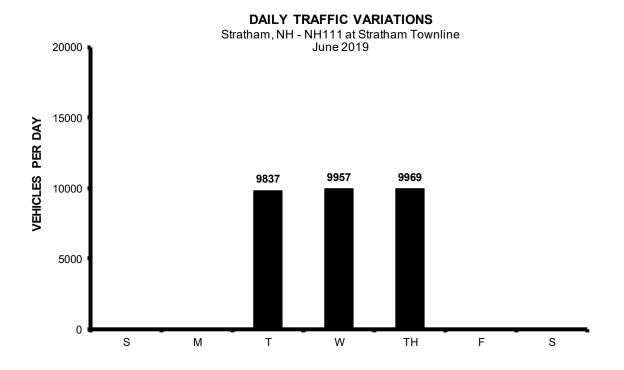
### **EXISTING TRAFFIC VOLUMES**

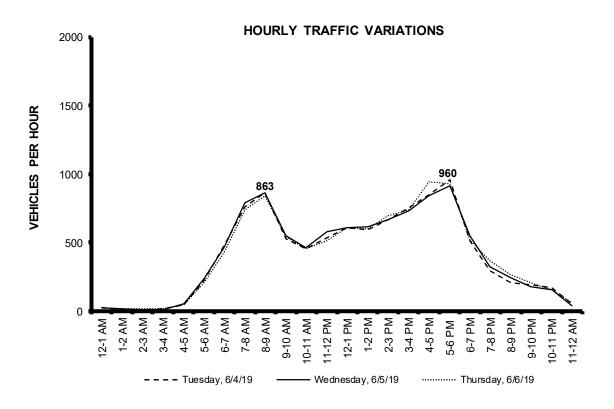
Research at the NHDOT revealed that there is a short-term Automatic Traffic Recorder count station on NH111 at the Stratham-North Hampton line, just east of Marin Way. According to the NHDOT reports that section of NH111 carried an Annual Average Daily Traffic (AADT) volume of approximately 8,557 vehicles per day (vpd) in 2019, down from 10,612 vpd in 2018 (see Attachment 2).

This data demonstrates that weekday traffic volumes in the area typically reach peak levels from 8:00 to 9:00 AM and from 4:00 to 5:00 or 5:00 to 6:00 PM, thus corresponding to the typical commuter periods. The diagrams on Page 4 summarize the daily and hourly variations in traffic demand along the NH111 corridor. The detail sheet pertaining to this count is attached (see Attachment 3).

Pernaw & Company, Inc. conducted peak-period traffic counts at the NH111/Marin Way intersection in 2019 in conjunction with the traffic study for the Lindt Stratham Expansion project on Marin Way. This data is summarized graphically on Attachment 4 and shows that Marin Way accommodated 685 vehicles during the morning peak hour period from 8:00 to 9:00 AM with 91% of the vehicles heading inbound (into Marin Way). During the evening peak hour from 4:30 to 5:30 PM, Marin Way accommodated 668 vehicles with 89% heading in the outbound direction. The predominant directional patterns observed on Marin Way (heavy AM inbound / heavy PM outbound) is typical for most industrial parks.







2023A 4



### TRIP GENERATION

To estimate the quantity of vehicle-trips that will be generated by the proposed shipping/receiving company in the former H. D. Smith distributorship, Pernaw & Company, Inc. considered the standard trip generation rates and equations published by the Institute of Transportation Engineers (ITE)<sup>1</sup>. Land Use Code 155 – High-Cube Fulfillment Center Warehouse is the most applicable category, and the gross floor area of the building was used as the independent variable (see Attachment 5).

ITE Land Use Code 155 is not applicable for the proposed shipping/receiving company in that the ITE methodology is not capable of reflecting the effects of a 24-hour operation with three work shifts. Consequently, detailed scheduling information was obtained from the future tenant, and then compiled and summarized (see Attachment 6). Table 1 compares the trip generating characteristics of the former and proposed tenants of the subject building.

Table 1		Trip Generation Comparis			
		Former H. D. Smith Facility <sup>1</sup>	Proposed Distribution Facility <sup>2</sup>	Net Change	
AM Peak Hour					
(8:00 - 9:00 AM)	Entering	54 veh	47 veh	-7 trips	
	Exiting	<u>5</u> <u>veh</u>	<u>76</u> <u>veh</u>	<u>+71</u> trips	
	Total	59 trips <sup>3</sup>	123 trips	+64 trips	
PM Peak Hour					
(5:00 - 6:00 PM)	Entering	15 veh	9 veh	-6 trips	
	Exiting	122 veh	2 veh	-120 trips	
	Total	137 trips <sup>3</sup>	11 trips	-126 trips	
PM Generator	Peak Hour				
(7:00 - 8:00 PM)	Entering	NA	45 veh	NA	
	Exiting	NA	<u>58</u> <u>veh</u>	NA	
	Total	NA	103 trips	NA	
Weekday (24 H	lours)				
• .	Entering	409 veh	317 veh	-92 trips	
	Exiting	409 <u>veh</u>	317 <u>veh</u>	-92 trips	
	Total	818 trips	634 trips	-184 trips	

<sup>&</sup>lt;sup>1</sup> ITE Land Use Code 155 - High-Cube Fulfillment Center Warehouse (100 000 sf)

This summary shows that the future tenant will likely generate more traffic than the previous tenant during the AM peak hour. This impact is mitigated by the fact that: 1) there will be fewer inbound trips during the AM peak hour, and 2) the majority of site traffic will be outbound trips during the AM, whereas most vehicles are arriving at Marin Way during the AM peak hour. The future tenant will generate significantly fewer trips during the PM peak hour and on a 24-hour basis.

<sup>&</sup>lt;sup>2</sup> 2026 Projections from the future tenant (See Attachment 6)

<sup>&</sup>lt;sup>3</sup> Percentage in/out derived from Pernaw & Co., Inc 2019 traffic count on Marin Way

<sup>&</sup>lt;sup>1</sup> Institute of Transportation Engineers, *Trip Generation*, Tenth edition (Washington, D.C., 2017). 2023A



### TRIP DISTRIBUTION

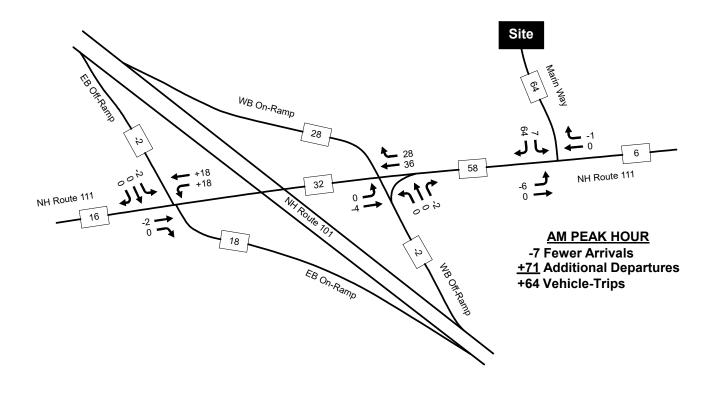
The diagrams on Figure 2 show the net changes in traffic flow at the NH111/Marin Way intersection as well as at the adjacent interchange with NH101. The travel patterns indicated on Figure 2 are based the trip generation changes summarized in Table 1, and the trip distribution percentages found in our previous report entitled: "Traffic Impact and Site Access Study-Proposed Lindt Stratham Expansion."

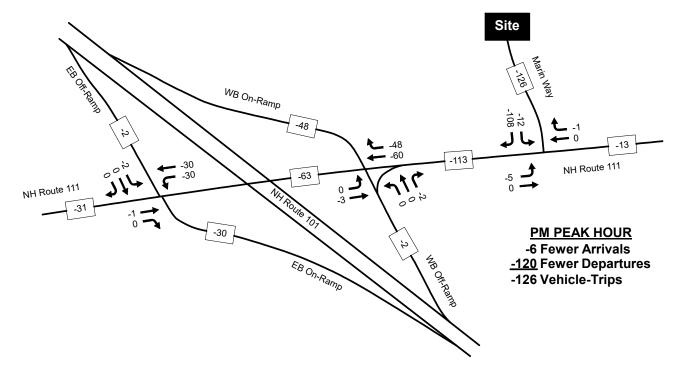
The anticipated increase in right-turn departures from Marin Way during the AM peak hour is not of concern as the previous traffic study indicated this movement currently operates well below capacity during the AM peak hour. The anticipated decrease in all turning movements to/from Marin Way during the PM peak hour can only be described as "beneficial" as police officer control is currently utilized at this intersection during the PM peak hour.

2023A 6



### Pernaw & Company, Inc



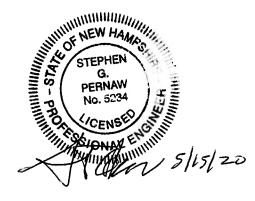


NORTH

### FINDINGS AND CONCLUSIONS

- 1. According to NHDOT reports, NH111 (east of Marin Way) carried an Annual Average Daily Traffic (AADT) volume of approximately 8,557 vehicles per day (vpd) in 2019, down from 10,612 vpd in 2018.
- 2. The future shipping/receiving tenant will operate with three work shifts on a typical weekday. The use of multiple work shifts is an effective Transportation Demand Management (TDM) measure that has the potential to reduce traffic impacts considerably. The former H. D. Smith tenant operated with one standard work shift that coincided with the busiest traffic periods on Marin Way.
- 3. The trip generation analysis indicates that the future shipping/receiving tenant will generate approximately +64 additional vehicle-trips will during the AM peak hour, when compared with the trip generation estimates for the former H. D. Smith business. This apparent impact is mitigated by the fact that: 1) there will be fewer inbound trips during the AM peak hour, and 2) the majority of site traffic from the future tenant will be outbound trips during the AM, whereas most vehicles are arriving at Marin Way during the AM peak hour.
- 4. The trip generation analysis indicates that the future shipping/receiving tenant will generate considerably <u>fewer</u> vehicle-trips during the PM peak hour than the former tenant.
- 5. The trip generation analysis indicates that the future shipping/receiving tenant will generate considerably <u>fewer</u> vehicle-trips on a 24-hour daily basis than the former tenant.
- 6. The anticipated changes in traffic generation due to the proposed change in tenancy at the H. D. Smith building on Marin Way does <u>not</u> alter the findings and conclusions found in the previously prepared traffic impact study for Lindt Stratham: 1) police officer control is essential during the PM peak hour to reduce delays and prevent an over-capacity situation, 2) <u>existing</u> traffic volumes indicate that NH111 should be widened to provide an exclusive left-turn lane for eastbound vehicles turning left on to Marin Way, and 3) <u>existing</u> traffic volumes indicate that traffic signal control is currently warranted at this intersection.
- 7. The project proponent is willing to provide additional "right-of-way" along both Marin Way and NH111 if needed as part of any future NHDOT improvement project at this intersection.

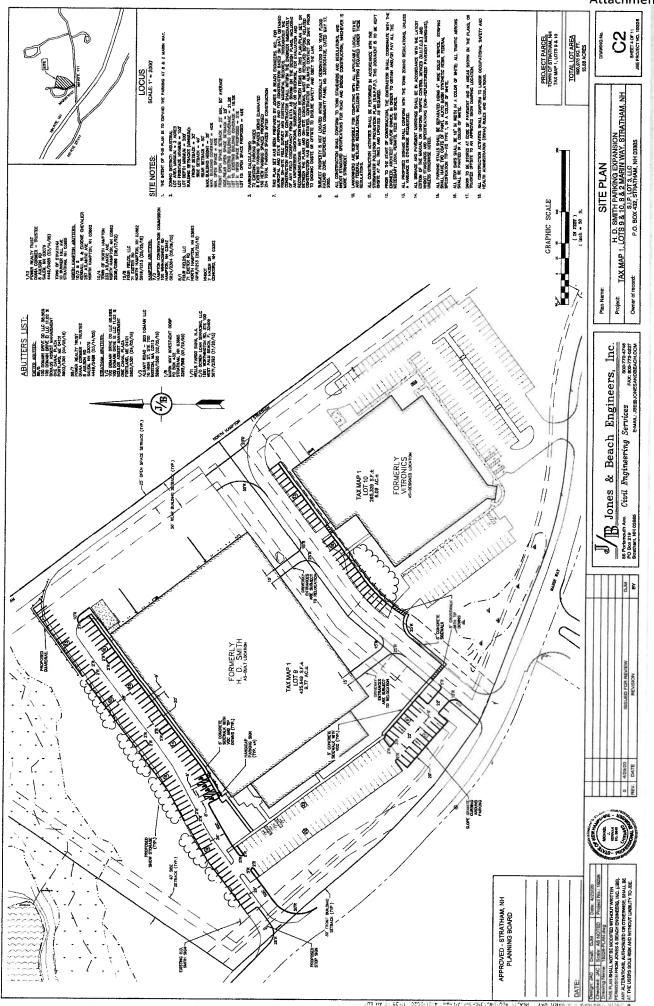
Attachments





### **ATTACHMENTS**

2023A 9







# **Transportation Data Management System**

	List View	All DIF	₹s									
R	ecord	1	<b>&gt;</b>	<b>M</b>	of 1	Goto F	Record	go				
	Location ID	82153009							MPO ID			
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	LRS ID	S0000111						LR	S Loc Pt.			
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	2016	10,200 <sup>3</sup>					9,30	3 (91%)	897 (	4% I	Grown om 2015	
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*	Tu	ie 6/4/2019		60		9,837	2017			2% 2%		
*		i 7/17/2015		60	1	2,401	2016			2%		
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# **Transportation Data Management System**



### **Excel Version**

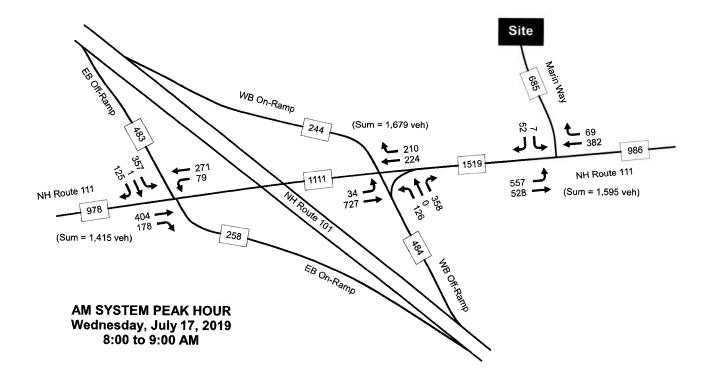
Weekly Volume Rep	ort		
Location ID:	82153009	Type:	SPOT
Located On:	Atlantic Ave	:	
Direction:	2-WAY		
Community:	STRATHAM	Period:	Mon 6/3/2019 - Sun 6/9/2019
AADT:	8557		

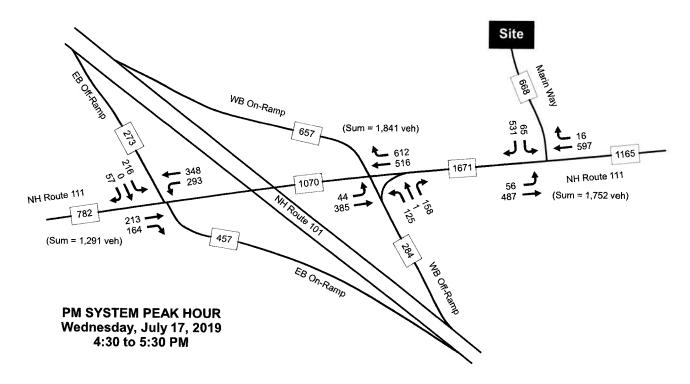
Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg	Graph
12:00 AM		29	27	25				_	7 0.3%
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2:00 AM		14	13	15				1.	
3:00 AM		15	14	17					5 0.2%
4:00 AM		49	52	49				5	
5:00 AM		223	237	211				224	
6:00 AM		475	461	425				454	
7:00 AM		765	789	743				760	
8:00 AM		863	861	845	)			856	NAME OF TAXABLE PARTY.
9:00 AM		530	548	540				539	
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11:00 AM		537	578	517				544	
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1:00 PM		591	616	603				603	6.1%
2:00 PM		670	670	693				678	6.8%
3:00 PM		756	734	740				743	7.5%
4:00 PM		843	844	942				876	8.8%
5:00 PM		960	917	927				935	9.4%
6:00 PM		511	554	525				530	5.3%
7:00 PM		299	324	370				331	3.3%
8:00 PM		207	246	264				239	2.4%
9:00 PM		197	182	209				196	2.0%
10:00 PM		170	160	160				163	1.6%
11:00 PM		53	42	65				53	0.5%
Total	0	9,837	9,957	9,969	0	0	0		
24hr Total		9837	9957	9969				9,921	
AM Pk Hr		8:00	8:00	8:00					
AM Peak		863	861	845				856	
PM Pk Hr		5:00	5:00	4:00					
PM Peak		960	917	942				940	
% Pk Hr		9.76%	9.21%	9.45%				9.47%	





### Pernaw & Company, Inc





NORTH



Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

Custom rate used for selected time period.

TRIP GENERATION 10, TRAFFICWARE, LLC

5/13/2020 5/13/2020

Open Date: Analysis Date:

**Trip Generation Summary** 

Alternative: Former Use H. D. Smith Phase:

2023A Project:

Weekday PM Peak Hour of Adjacent Street Traffic Weekday AM Peak Hour of Adjacent Street Traffic Weekday Average Daily Trips

Enter \* Total 818 409 EX Enter 469 ĸ 1000 Sq. Ft. GFA WAREHOUSE-HCFC 1 ITE Land Use 9

155

0

818 0

0 0

0 0 0 0

0 0

0

0

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0 0

0

Enter

Total 137

EX

\*

Total

29

ΕX

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Volume Added to Adjacent Streets

Internal Capture Trips Unadjusted Volume

Pass-By Trips

2026 Trip Generation Summary - Proposed Distribution Facility / Marin Way, Stratham, NH

Pas	2	- 1:00 AM	- 2:00 AM	- 3:00 AM	- 4:00 AM	- 5:00 AM	- 6:00 AM	6:00 AM - 7:00 AM 11	- 8:00 AM	- 9:00 AM	- 10:00 AM	- 11:00 AM	- 12:00 PM	- 1:00 PM	- 2:00 PM	- 3:00 PM	- 4:00 PM	- 5:00 PM	- 6:00 PM	- 7:00 PM	- 8:00 PM	- 9:00 PM	- 10:00 PM	10:00 PM - 11:00 PM 12	- 12:00 AM	220
Passenger Cars	TUO I	0	0			0		0				0												7		220
Comn	2	0	-	-	•	- τ	-	-	τ	0	0	0	0	0	0	0	0	0	o	27	45	o	0	0	0	26
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Trips	TOTAL	c	) <del>-</del>	- 4	<u>.</u> پ	67	5 m	5 2	54	123	8	; ^	1 8	2	2	8	۸	۱۸	1	47	103	34	; m	, 4	20	634
										Typical AM Street Peak Hour = AM Generator Beak Hour									Typical PM Street Beak Hour		PM Generator Deak Hour					

### **Comment Review Responses (Project Marin Way Parking)**

### May 20, 2020

Groups who were asked to comment were as follows: Core group, Recreation Commission, Public Works Commission, Pedestrian and Cyclist Advocacy Committee, Select Board, Conservation Commission, Energy Commission.

Groups who responded were as follows:

- a. Core
  - Parks and Recreation Seth Hickey
- b. Pedestrian and Cyclist Advocacy Committee
  - Melissa Gahr (Comments Attached)

No Comments received from the following:

- a. Core
  - Town Clerk Joyce Charbonneau
  - Finance Dawna Duhamel
  - Assessing Andrea Lewy
  - Fire Chief Matt Larrabee
  - Code Enforcement Officer Shanti Wolph
  - Parkes and Recreation Seth Hickey
  - Library Lesley Kimball
  - Police Chief Anthony King
  - Public Works Nathaniel Mears
- b. Public Works Commission
  - John Boisvert
- c. Select Board
  - Mike Houghton
- d. Library
  - Lesley Kimball
- e. Police Chief
  - Anthony King
- f. Conservation Commission
  - William McCarthy
- g. Energy Commission
  - Michael Welty
- h. Recreation Commission
  - Tracy Abbott

### **Stephanie Gardner**

From: Seth Hickey

**Sent:** Thursday, May 07, 2020 8:11 AM

**To:** Stephanie Gardner

**Subject:** Re: DH and Committee/Commission Chair Review Comments

**Attachments:** 2020.05.06 DH Comments SP 2 & 8 Marin Way.pdf

Follow Up Flag: Flag for follow up

Flag Status: Flagged

No impact to my Department with this proposal.

### No Comment

From: Stephanie Gardner <sgardner@StrathamNH.gov>

Sent: Wednesday, May 6, 2020 12:15 PM

**To:** John Boisvert < John.boisvert@pennichuck.com>; Melissa Gahr < melissaHGahr@gmail.com>; Michael Welty < MJWelty@comcast.net>; Mike Houghton (Mike@dowlingcorp.com) < Mike@dowlingcorp.com>; Nathaniel Mears < nmears@StrathamNH.gov>; Tracy-Lynn Abbott (tntabbott@comcast.net) < tntabbott@comcast.net>; William McCarthy < mccarthywilliam@comcast.net>; Andrea Lewy < Alewy@StrathamNH.gov>; Anthony King < AKing@strathampd.org>; Dawna Duhamel < dduhamel@StrathamNH.gov>; Joyce Charbonneau < JCharbonneau@StrathamNH.gov>; Lesley Kimball < WigginML@comcast.net>; Matt Larrabee < MLarrabee@strathamfire.org>; Nathaniel Mears < nmears@StrathamNH.gov>; Seth Hickey < SHickey@StrathamNH.gov>; Shanti Wolph < swolph@StrathamNH.gov>;

Tavis Austin <TAustin@StrathamNH.gov>
Cc: Tavis Austin <TAustin@StrathamNH.gov>

Subject: DH and Committee/Commission Chair Review Comments

Dear Department Heads and Committee/Commission Chairs,

Attached is a Department Head and Committee/Commission Chair Review Comment form for a Planning Board hearing on May 20, 2020. The Board would like to hear from you if you have any comments regarding the project. Please use the fillable form and send your responses to me via email **by 12 PM, Wednesday May 13**<sup>th</sup>. If you have no comments, please return your form and note "no comment". If we do not receive a response, a no comment response will be shared by the Town Planner with the Board on behalf of your Department, Committee, or Commission.

Best, Stephanie

Stephanie Gardner Land Use Project Coordinator Town of Stratham (p) 603-772-7391 ext. 178 (fax) 603-775-0517

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Certain emails are public documents and subject to disclosure unless the subject matter is protected by State or Federal Laws. This electronic message and any attachments may contain information that is confidential and/or legally privileged in accordance with NH RSA 91-A and other applicable laws or regulations. It is intended only for the use of the person and/or entity identified as recipient(s) in the message. If you are not an intended recipient of this message, please notify the sender immediately and delete the

# **Stephanie Gardner**

From: Sent: To: Subject: Attachments:	Melissa Hanson Gahr <melissahgahr@gmail.com> Wednesday, May 06, 2020 2:18 PM Stephanie Gardner Re: DH and Committee/Commission Chair Review Comments 2020.05.06 DH Comments SP 2 &amp; 8 Marin Way.pdf</melissahgahr@gmail.com>
Follow Up Flag: Flag Status:	Flag for follow up Flagged
see attached, thanks.	
On Wed, May 6, 2020 at 12:15	PM Stephanie Gardner < <u>sgardner@strathamnh.gov</u> > wrote:
Dear Department Heads and Cor	mmittee/Commission Chairs,
on May 20, 2020. The Board wou the fillable form and send your re please return your form and not	and Committee/Commission Chair Review Comment form for a Planning Board hearing ald like to hear from you if you have any comments regarding the project. Please use esponses to me via email <b>by 12 PM, Wednesday May 13<sup>th</sup></b> . If you have no comments, e "no comment". If we do not receive a response, a no comment response will be a the Board on behalf of your Department, Committee, or Commission.
Stephanie Gardner	
Land Use Project Coordinator	
Town of Stratham	
(p) 603-772-7391 ext. 178	
(fax) 603-775-0517	
Privacy should not be assumed with	emails associated with Town Business.

Certain emails are public documents and subject to disclosure unless the subject matter is protected by State or Federal Laws. This electronic message and any attachments may contain information that is confidential and/or legally privileged in accordance with NH RSA 91-A and other applicable laws or regulations. It is intended only for the use of the person and/or entity identified as

### TOWN OF STRATHAM

*Incorporated* 1716

10 Bunker Hill Avenue · Stratham, NH 03885 Town Clerk/Tax Collector 603-772-4741 Select Board's Office/Administration/Assessing 603-772-7391 Code Enforcement/Building Inspections/Planning 603-772-7391 Fax (All Offices) 603-775-0517

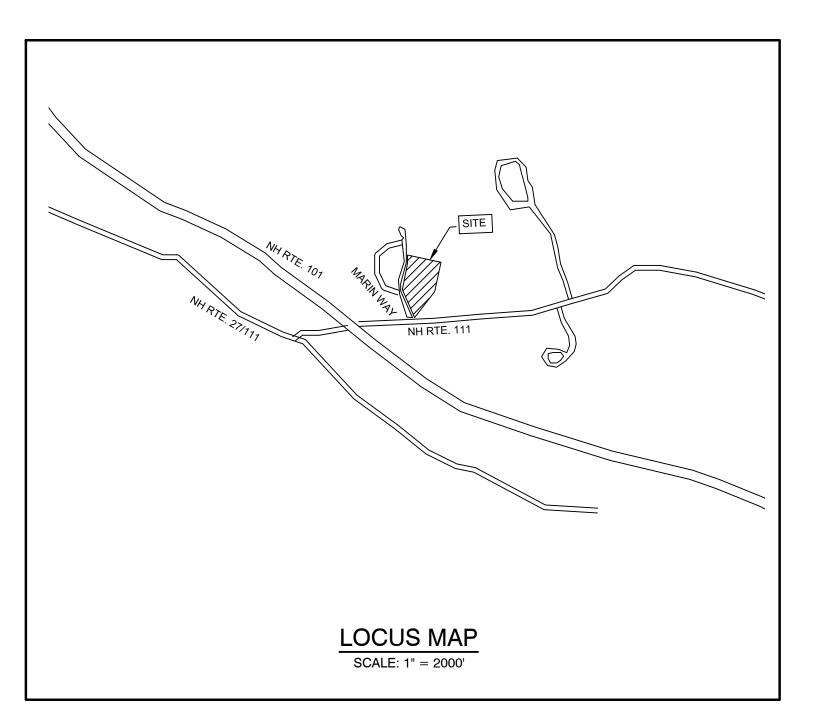
# Stratham Planning Department Department Head Project Review

### **Departments:**

	Assessing Department  Building Department  Conservation Commission  Fire Department  Planning Department	Town Clerk
Proje	ect Information:	
Proj	ect Name:	
Loca	ition:	
Proj	ect Description:	
Plan	ning Board Hearing Date:	_Please return to Planner No Later Than:
Com		_Please return to Planner No Later Than:  If you have no comment and/or all issues have been
Com	ments: Please provide your written comments.	
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# GENERAL LEGEND MAJOR CONTOUR MINOR CONTOUR EDGE OF PAVEMENT VERTICAL GRANITE CURB SLOPE GRANITE CURB CAPE COD BERM POURED CONCRETE CURB SILT FENCE DRAINAGE LINE SEWER LINE SEWER FORCE MAIN UNDERGROUND ELECTRIC **GUARDRAIL UNDERDRAIN** FIRE PROTECTION LINE THRUST BLOCK IRON PIPE/IRON ROD DRILL HOLE STONE/GRANITE BOUND 100x0 SPOT GRADE PAVEMENT SPOT GRADE CURB SPOT GRADE DOUBLE POST SIGN 0 0 SINGLE POST SIGN TEST PIT FAILED TEST PIT MONITORING WELL PERC TEST PHOTO LOCATION TREES AND BUSHES UTILITY POLE LIGHT POLES DRAIN MANHOLE SEWER MANHOLE HYDRANT WATER GATE WATER SHUT OFF DOUBLE GRATE CATCH BASIN TRANSFORMER CULVERT W/WINGWALLS D----D ----CULVERT W/FLARED END SECTION CULVERT W/STRAIGHT HEADWALL —D — STONE CHECK DAM DRAINAGE FLOW DIRECTION 4K SEPTIC AREA WETLAND IMPACT XXXXX VEGETATED FILTER STRIP RIPRAP OPEN WATER **4 4 4** FRESHWATER WETLANDS . . . . TIDAL WETLANDS STABILIZED CONSTRUCTION **ENTRANCE** CONCRETE GRAVEL SNOW STORAGE RETAINING WALL

# SITE PLAN PARKING LOT EXPANSION 2 & 8 MARIN WAY, STRATHAM, NH TAX MAP 1, LOTS 9 & 10



CIVIL ENGINEER
JONES & BEACH ENGINEERS, INC.
85 PORTSMOUTH AVENUE
PO BOX 219
STRATHAM, NH 03885
(603) 772-4746
CONTACT: JOSEPH CORONATI

# SHEET INDEX

COVER SHEET

A1-A2 EASEMENT PLAN

DM1 DEMOLITION PLAN

2 SITE PLAN

C3 GRADING AND DRAINAGE PLAN

C4 UTILITY PLAN

\_1 LANDSCAPE PLAN

\_2 LIGHTING PLAN

D1-D2 DETAIL SHEET

E1 EROSION AND SEDIMENT CONTROL DETAILS

# ABUTTERS LIST:

# FXFTFR ABUTTE

EXETER ABUTTER:
88/5
100 DOMAIN DRIVE DD LLC 88.98%
100 DOMAIN DRIVE EI LLC 11.02 %
BOULOS ASSEST MANAGEMENT
ONE CANAL PLAZA
PORTLAND, ME 04101
5903/1301 (04/05/18)

88/7
POWER REALTY TRUST
DIANA CORMIER — TRUSTEE
8 AULSON RD
SALEM, NH 03079
4449/2488 (03/14/05)

# STRATHAM ABUTTERS:

1/2
100 DOMAIN DRIVE DD LLC 88.98%
100 DOMAIN DRIVE EI LLC 11.02 %
BOULOS ASSEST MANAGEMENT
ONE CANAL PLAZA
PORTLAND, ME 04101
5903/1301 (04/05/18)

1/3 ALBANY ROAD - 200 DOMAIN LLC 10 HIGH ST, STE 700 BOSTON, MA 02110 5690/1565 (02/05/16)

1/8
MARIN WAY INVESTMENT CORP
PO BOX 432
STRATHAM, NH 03885
3265/568 (01/29/98)

1/11
WELLS FARGO BANK, N.A.
C/O OCWEN LOAN SERVICING, LLC
1661 WORTHINGTON RD, STE 100
WEST PALM BEACH, FL 33409
5671/2393 (11/20/15)

1/12 POWER REALTY TRUST DIANA CORMIER - TRUSTEE 8 AULSON RD SALEM, NH 03079 4449/2488 (03/14/05)

TOWN OF STRATHAM 10 BUNKER HILL AVE STRATHAM, NH 03885

NORTH HAMPTON ABUTTERS: 10/3 & 5 KENDALL W. & EUGENIE CHEVALIER 287 ATLANTIC AVE NORTH HAMPTON, NH 03862

10/4
TOWN OF NORTH HAMPTON
233 ATLANTIC AVE
NORTH HAMPTON, NH 03862
2939/0589 (08/17/92)

10/8 FOUR FIELDS, LLC 71 EXETER RD NORTH HAMPTON, NH 03862 5916/1213 (05/25/18)

HAMPTON ABUTTERS:
7/3
HAMPTON CONSERVATION COMMISSION
100 WINNACUNNET RD
HAMPTON, NH 03842
5624/2364 (06/09/15)

FOUR FIELDS, LLC
71 EXETER RD
NORTH HAMPTON, NH 03862
5916/1213 (05/25/18)
NHDOT

NHDOT 7 HAZEN DR CONCORD, NH 03302 PROJECT PARCEL
TOWN OF STRATHAM, NH
TAX MAP 1, LOTS 9 & 10

TOTAL LOT AREA 690,978 SQ. FT. 15.86 ACRES

APPROVED - STRATHAM, NH PLANNING BOARD

DATE:

Design: JAC Draft: DJM Date: 4/23/20
Checked: JAC Scale: AS SHOWN Project No.:19226
Drawing Name: 19226-PLAN.dwg
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN
PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE).

ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE

AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

2	5/19/20	REVISED DRAINAGE	DJM
1	5/6/20	REVISED SITE PLAN AND EASEMENT	DJM
0	4/29/20	ISSUED FOR REVIEW	DJM
RE	V. DATE	REVISION	BY



Stratham, NH 03885

E-MAIL: JBE@JONESANDBEACH.COM

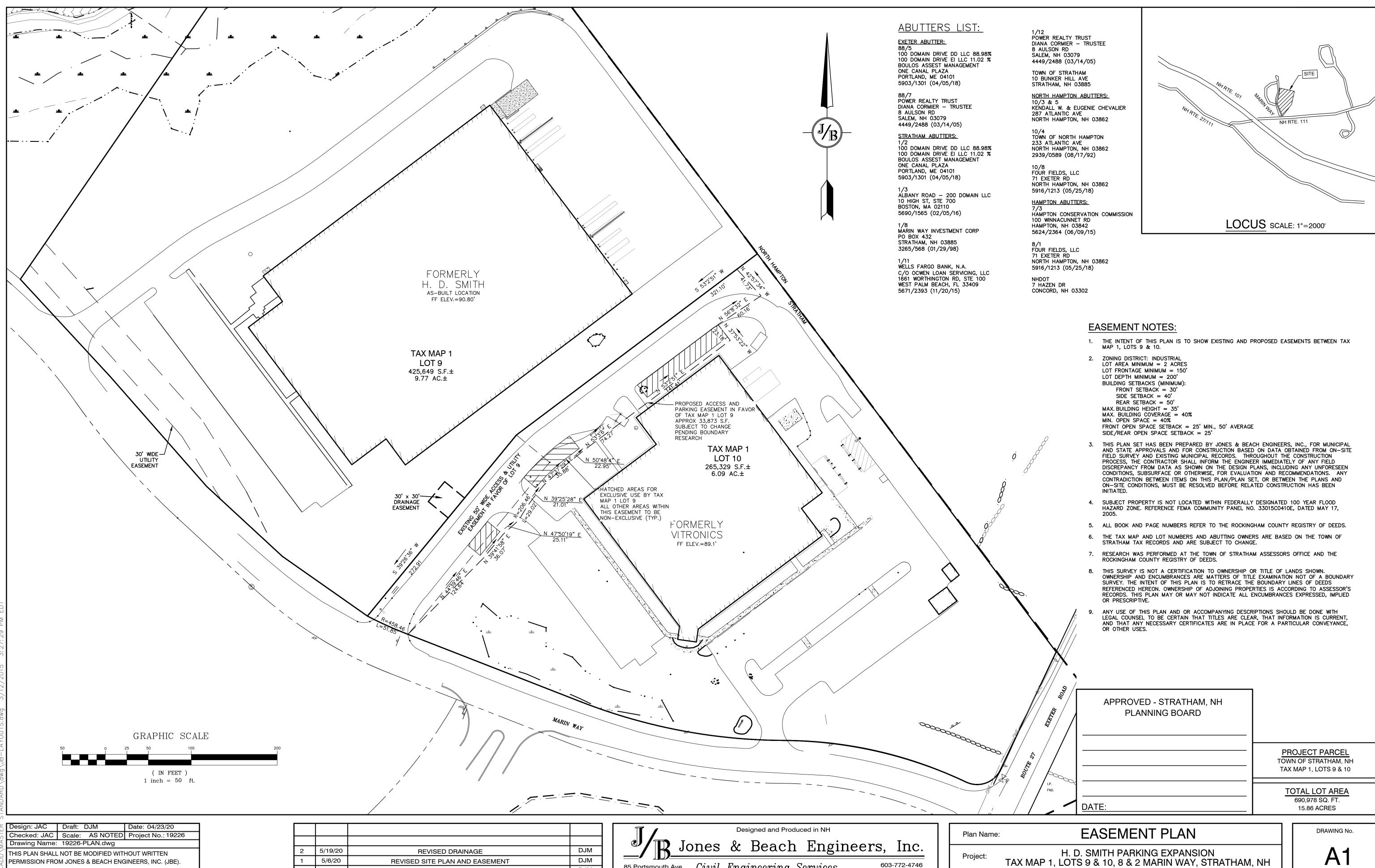
Plan Name:	COVER SHEET
Project:	H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH
Client:	S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885

DRAWING No.

CS

SHEET 1 OF 12

JBE PROJECT NO. 19226



85 Portsmouth Ave. Civil Engineering Services

603-772-4746

Owner of Record:

FAX: 603-772-0227

E-MAIL: JBE@JONESANDBEACH.COM

DJM

DJM

BY

PO Box 219

Stratham, NH 03885

5/6/20

4/29/20

DATE

REV.

PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE).

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REVISED SITE PLAN AND EASEMENT

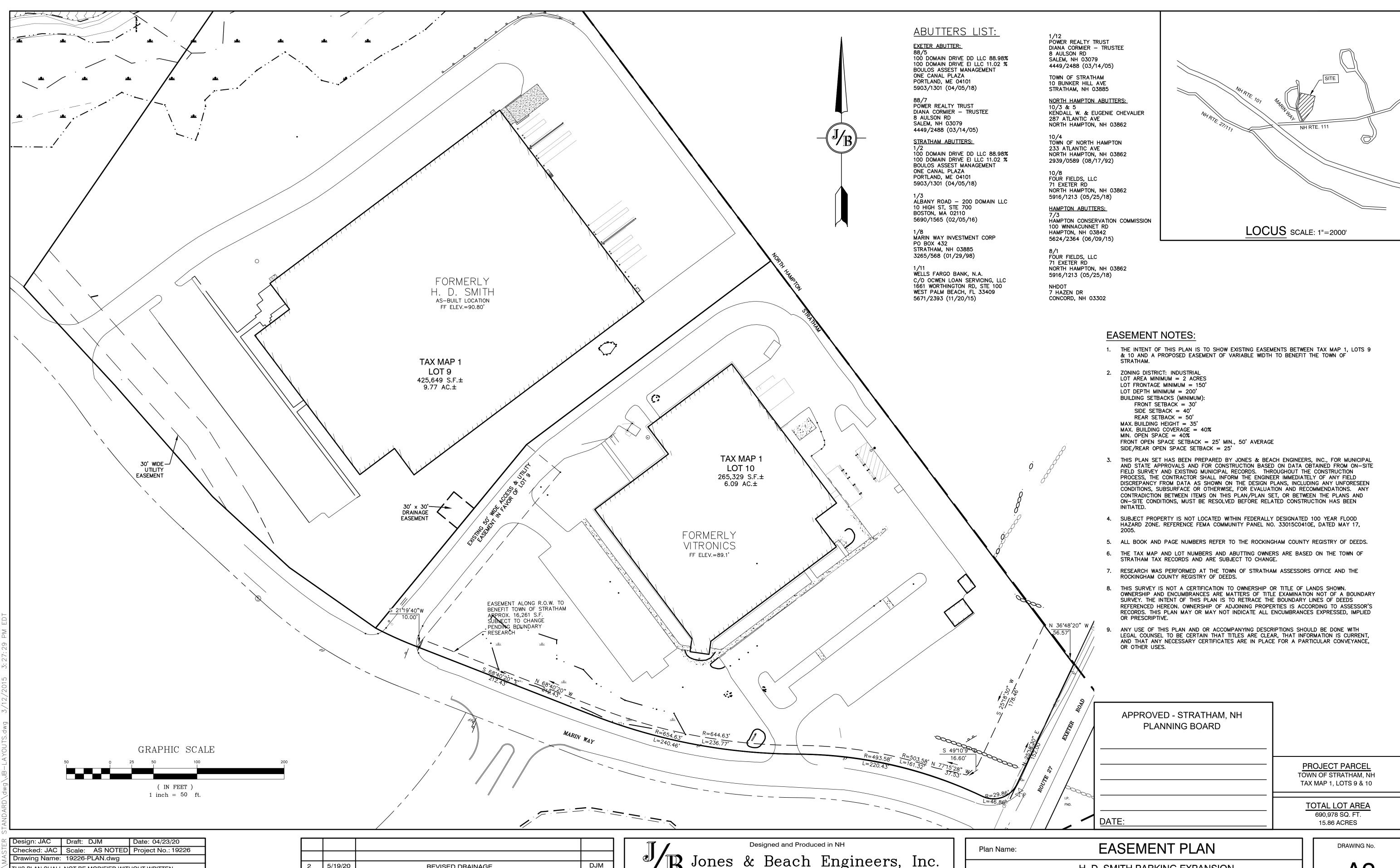
**ISSUED FOR REVIEW** 

REVISION

SHEET 2 OF 12 JBE PROJECT NO. 19226

S.I.P. LOT 3, LLC

P.O. BOX 432, STRATHAM, NH 03885



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0	4/29/20	ISSUED FOR REVIEW	DJM
REV.	DATE	REVISION	BY

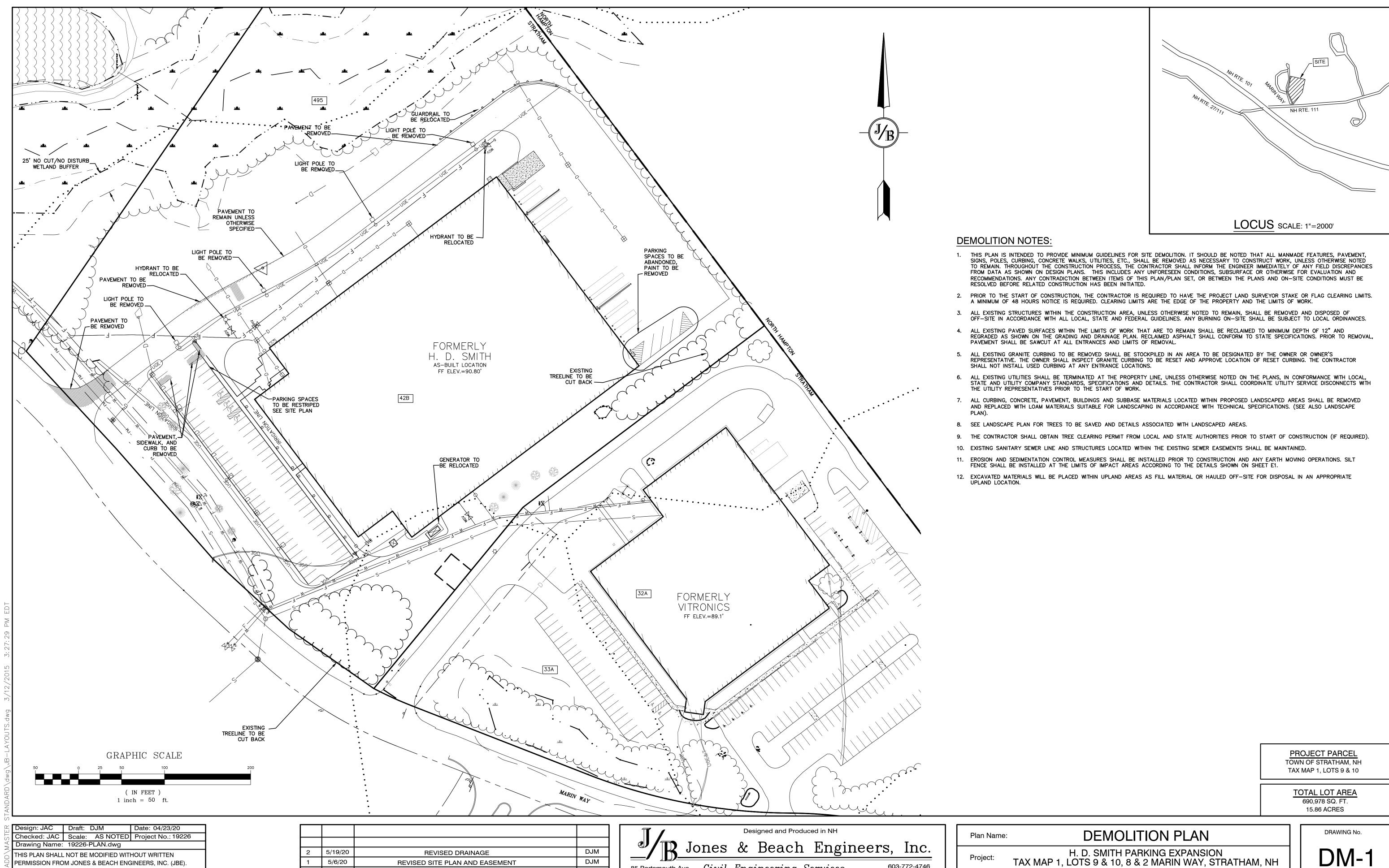
Jones & Beach Engineers, Inc.

85 Portsmouth Ave. Civil Engineering Services 603-772-4746 FAX: 603-772-0227 PO Box 219 E-MAIL: JBE@JONESANDBEACH.COM Stratham, NH 03885

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

S.I.P. LOT 3, LLC Owner of Record: P.O. BOX 432, STRATHAM, NH 03885

SHEET 3 OF 12 JBE PROJECT NO. 19226



85 Portsmouth Ave. Civil Engineering Services

603-772-4746

Owner of Record:

FAX: 603-772-0227

E-MAIL: JBE@JONESANDBEACH.COM

DJM

DJM

PO Box 219

Stratham, NH 03885

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5/6/20

4/29/20

DATE

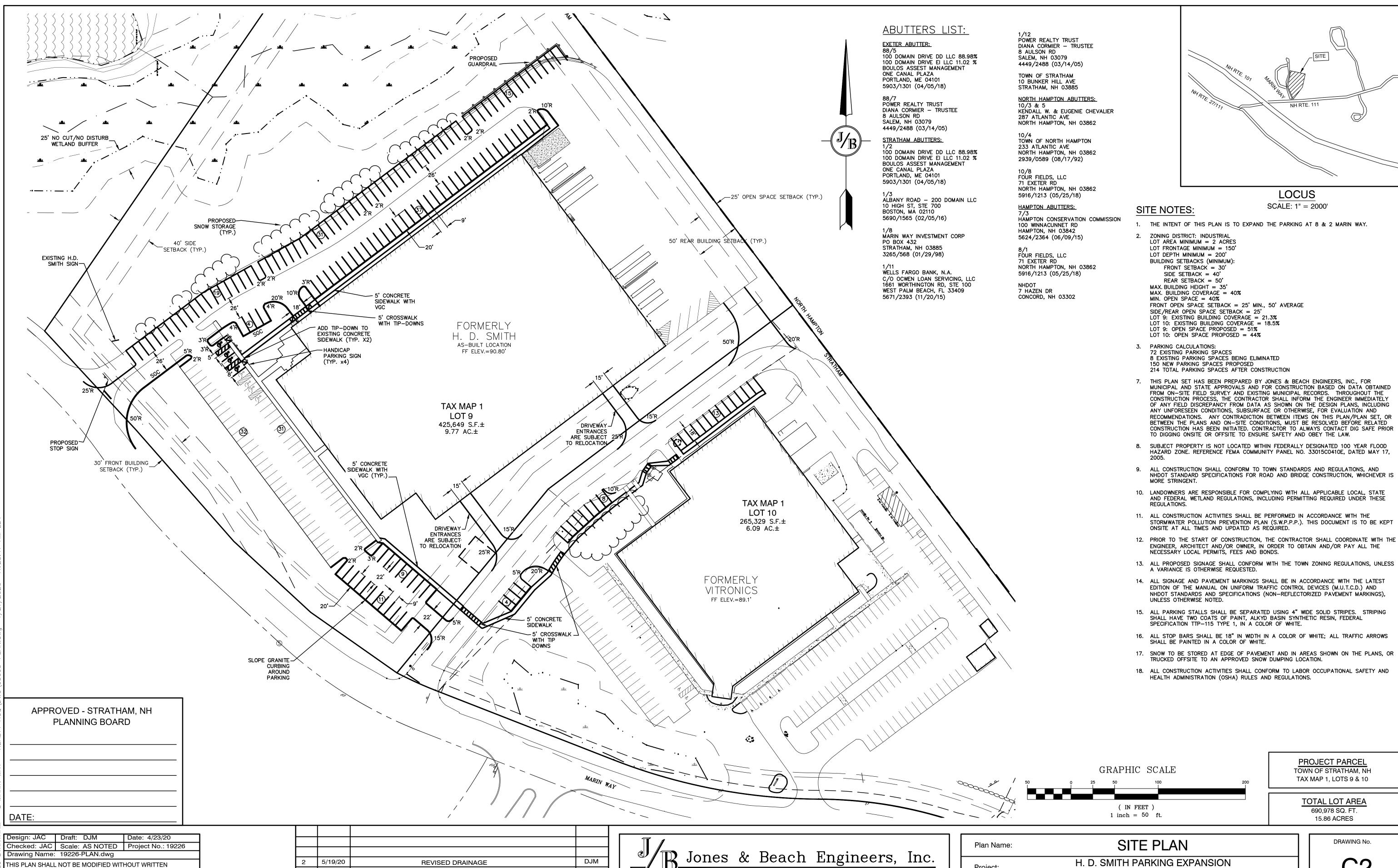
REVISED SITE PLAN AND EASEMENT

ISSUED FOR REVIEW

REVISION

DM-JBE PROJECT NO. 19226

S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885



85 Portsmouth Ave. Civil Engineering Services

603-772-4746

Owner of record:

FAX: 603-772-0227

E-MAIL: JBE@JONESANDBEACH.COM

DJM

DJM

BY

PO Box 219

Stratham, NH 03885

5/4/20

4/29/20

DATE

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**REVISED SITE PLAN AND EASEMENT** 

**ISSUED FOR REVIEW** 

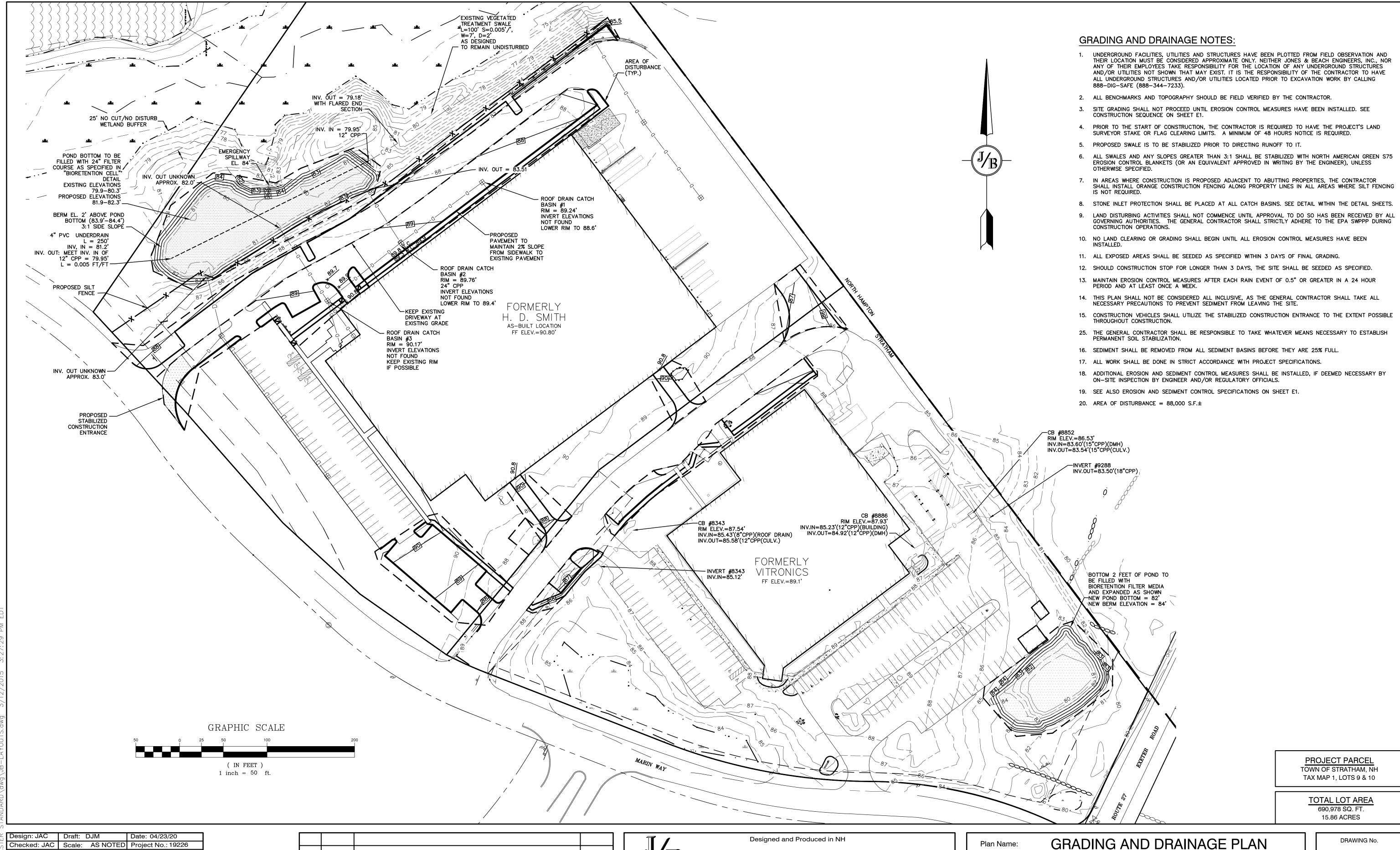
**REVISION** 

C2
SHEET 5 OF 12
JBE PROJECT NO. 19226

TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

S.I.P. LOT 3, LLC

P.O. BOX 432, STRATHAM, NH 03885



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DJM 5/19/20 REVISED DRAINAGE DJM 5/6/20 REVISED SITE PLAN AND EASEMENT DJM 4/29/20 ISSUED FOR REVIEW **REVISION** BY DATE

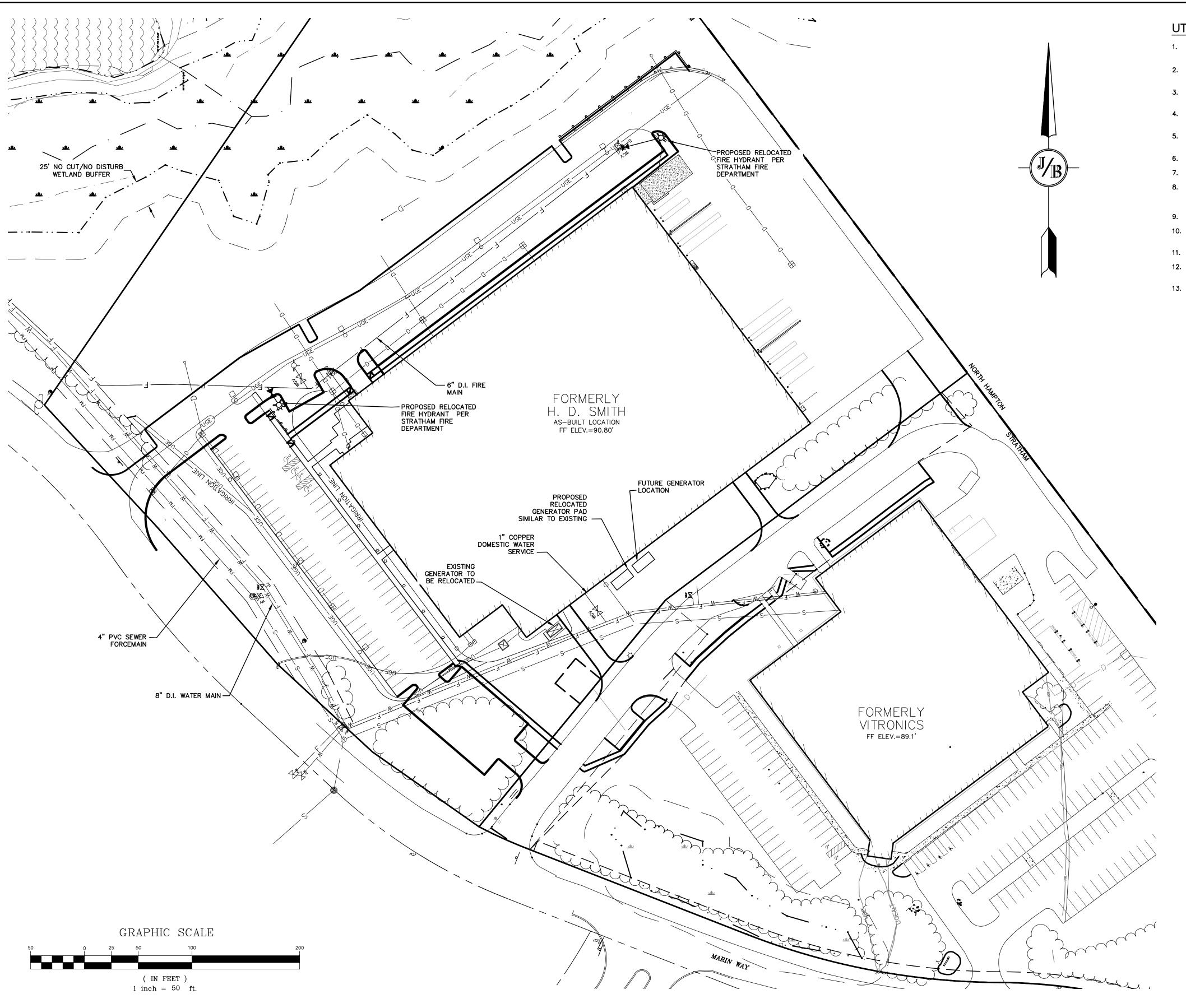
Jones & Beach Engineers, Inc.

85 Portsmouth Ave. Civil Engineering Services 603-772-4746 FAX: 603-772-0227 PO Box 219 E-MAIL: JBE@JONESANDBEACH.COM Stratham, NH 03885

H. D. SMITH PARKING EXPANSION Project: TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 Owner of Record:

SHEET 6 OF 12 JBE PROJECT NO. 19226



**UTILITY NOTES:** 

- 1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, CONNECTION FEES AND BONDS.
- 2. THE CONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF FOURTEEN (14) DAYS TO ALL CORPORATIONS, COMPANIES AND/OR LOCAL AUTHORITIES OWNING OF HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
- 3. THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY.
- 4. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER, ENGINEER, ARCHITECT, CONTRACTOR, LOCAL OFFICIALS, AND ALL PROJECT—RELATED UTILIT COMPANIES (PUBLIC AND PRIVATE) PRIOR TO START OF CONSTRUCTION.
- 5. ALL CONSTRUCTION SHALL CONFORM TO THE TOWN STANDARDS AND REGULATIONS, AND NHDES STANDARDS AND SPECIFICATIONS, WHICHEVER ARE MORE STRINGENT.
- 6. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
- 7. BUILDING TO BE SERVICED BY UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED.
- 8. THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS. ENGINEER TO BE NOTIFIED.
- 9. AS-BUILT PLANS SHALL BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS.
- 10. CONTRACTOR TO FURNISH SHOP DRAWINGS FOR UTILITY RELATED ITEMS TO ENSURE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SHOULD BE SENT IN TRIPLICATE TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 11. EXISTING UTILITIES SHALL BE DIGSAFED BEFORE CONSTRUCTION.
- 12. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRIC CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
- 13. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.

PROJECT PARCEL
TOWN OF STRATHAM, NH
TAX MAP 1, LOTS 9 & 10

TOTAL LOT AREA 690,978 SQ. FT. 15.86 ACRES

Design: JAC Draft: DJM Date: 04/23/20
Checked: JAC Scale: AS NOTED Project No.: 19226
Drawing Name: 19226-PLAN.dwg
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2	2	5/19/20	REVISED DRAINAGE	DJM
-	1	5/6/20	REVISED SITE PLAN AND EASEMENT	DJM
	0	4/29/20	ISSUED FOR REVIEW	DJM
R	EV.	DATE	REVISION	BY

Designed and Produced in NH

Jones & Beach Engineers, Inc.

85 Portsmouth Ave. PO Box 219
Stratham, NH 03885

Civil Engineering Services

FAX: 603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: UTILITY PLAN

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

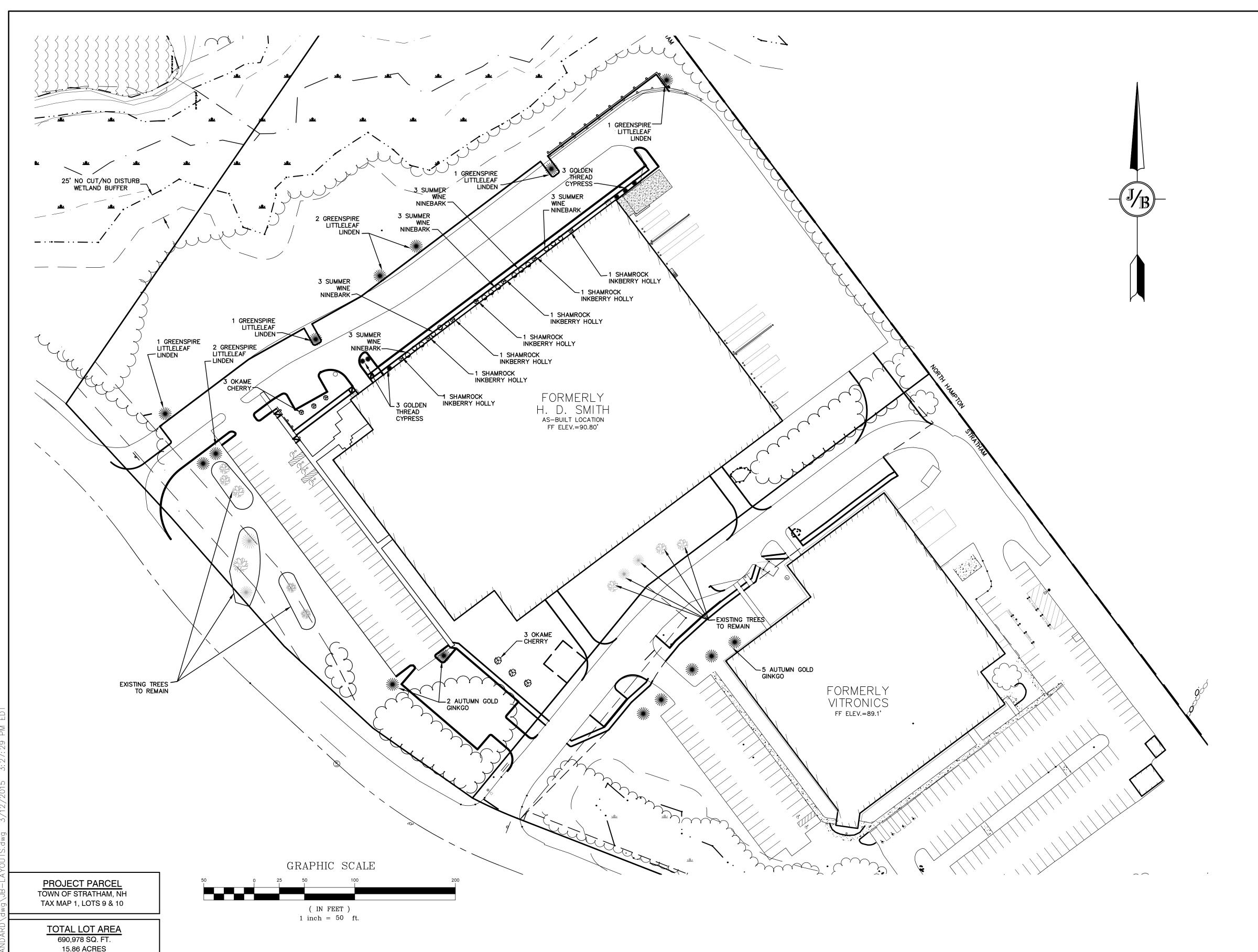
S.I.P. LOT 3, LLC
Owner of Record:
P.O. BOX 432, STRATHAM, NH 03885

C4

SHEET 7 OF 12

JBE PROJECT NO. 19226

DRAWING No.



## LANDSCAPE NOTES:

- 1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.
- 2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS.
- 3. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 4. ALL PLANT SUBSTITUTIONS MUST BE APPROVED.
- 5. ALL PLANT MATERIALS SHALL BE EXACTLY AS SPECIFIED OR SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
- PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ON-GOING FOR CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
- 7. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT-BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
- 8. NO PLANT SHALL BE PUT IN THE GROUND BEFORE GRADING HAS BEEN FINISHED.
- 9. ALL WORK AND PLANTS SHALL BE DONE, INSTALLED AND DETAILED IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
- 10. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24—HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN IF NECESSARY, DURING THE FIRST GROWING SEASON.
- 11. BY THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAS DIED, LOST NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESSIVE PRUNING OR INADEQUATE OR IMPROPER CARE, OR THAT IS IN UNHEALTHY OR UNSIGHTLY CONDITION.
- 12. ALL LANDSCAPE AREAS TO BE GRASS COMMON TO REGION, EXCEPT FOR INTERIOR LANDSCAPED ISLANDS OR WHERE OTHER PLANT MATERIAL IS SPECIFIED.
- 13. ALL TREES AND SHRUBS SHALL BE PLANTED IN MULCH BEDS WITH EDGE STRIPS TO SEPARATE TURF GRASS AREAS.
- 14. THE CONTRACTOR SHALL REMOVE WEEDS, ROCKS, CONSTRUCTION ITEMS, ETC. FROM ANY LANDSCAPE AREA SO DESIGNATED TO REMAIN, WHETHER ON OR OFF-SITE.
- 15. FINISHED GRADES IN LANDSCAPED ISLANDS SHALL BE INSTALLED SO THAT THEY ARE 1" HIGHER THAN THE TOP OF THE SURROUNDING CURB.
- 16. ALL LANDSCAPING SHALL MEET THE TOWN STANDARDS AND REGULATIONS.
- 17. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY SNOW FENCING AT THE DRIPLINE OF THE TREE. THE CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS WITHIN THE LANDSCAPED AREAS. ANY DAMAGE TO EXISTING TREES, SHRUBS OR LAWN SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 18. ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER A 10 MIL WEED MAT EQUAL TO 'WEEDBLOCK' BY EASY GARDENER OR DEWITT WEED BARRIER.
- 19. ALL LANDSCAPED AREAS SHALL HAVE SELECT MATERIALS REMOVED TO A DEPTH OF AT LEAST 9"
  BELOW FINISH GRADE. THE RESULTING VOID IS TO BE FILLED WITH A MINIMUM OF 9"
  HIGH-QUALITY SCREENED LOAM AMENDED WITH 3" OF AGED ORGANIC COMPOST.
- 20. THIS PLAN IS INTENDED FOR LANDSCAPING PURPOSES ONLY. REFER TO CIVIL/SITE DRAWINGS FOR OTHER SITE CONSTRUCTION INFORMATION.

Design: JAC Draft: DJM Date: 04/23/20
Checked: JAC Scale: AS NOTED Project No.: 19226
Drawing Name: 19226-PLAN.dwg
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2	5/19/20	REVISED DRAINAGE	DJM
1	5/6/20	REVISED SITE PLAN AND EASEMENT	DJM
0	4/29/20	ISSUED FOR REVIEW	DJM
RE	V. DATE	REVISION	BY



85 Portsmouth Ave. PO Box 219
Stratham, NH 03885

Civil Engineering Services

603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

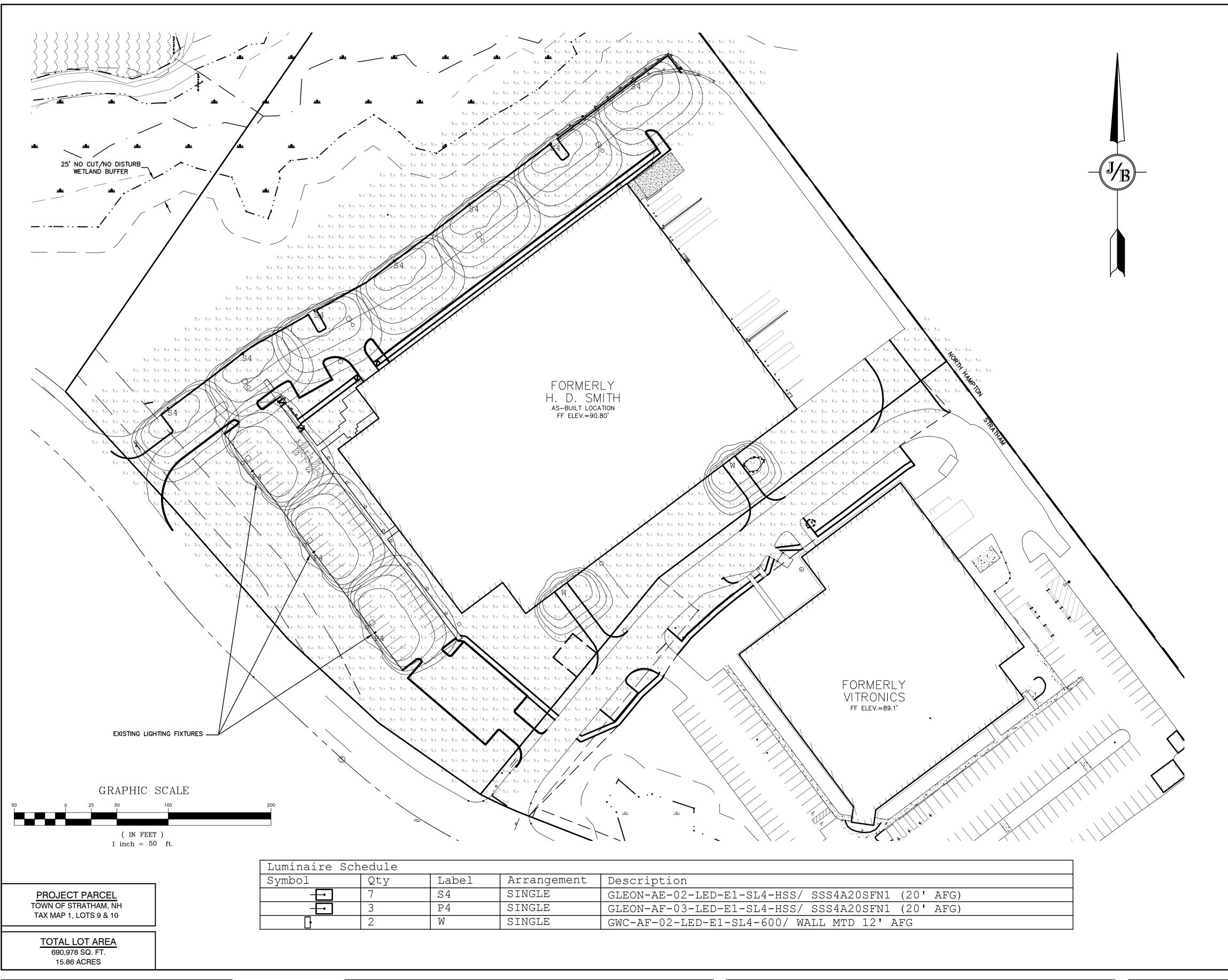
Plan Name: LANDSCAPE PLAN

Owner of Record:

H. D. SMITH PARKING EXPANSION
TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 SHEET 8 OF 12 JBE PROJECT NO. 19226

DRAWING No.



# LIGHTING AND ELECTRICAL NOTES:

- SITE ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
- 2. CONTRACTOR SHALL INSTALL PROPOSED LIGHT POLES ACCORDING TO TOWN REGULATIONS.
- 3. ALL OUTDOOR LIGHTING SYSTEMS SHALL BE EQUIPPED WITH TIMERS TO REDUCE ILLUMINATION LEVELS TO NON-OPERATIONAL VALUES PER TOWN REGULATIONS.
- 4. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
- 5. ILLUMINATION READINGS SHOWN ARE BASED ON A TOTAL LLF OF 0.75 AT GRADE. ILLUMINATION READINGS SHOWN ARE IN UNITS OF FOOT—CANDLES.
- 6. LIGHTING CALCULATIONS SHOWN ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM AND SAFETY.
- 7. ALL LIGHTING FIXTURES SHALL BE FULL CUT-OFF DARK-SKY COMPLIANT, UNLESS
- OTHERWISE NOTED. 8. THE PROPOSED LIGHTING CALCULATIONS AND DESIGN WAS PERFORMED BY CHARRON, INC., P.O. BOX 4550, MANCHESTER, NH 03108, ATTENTION KEN SWEENEY. ALL LIGHTS SHOULD BE PURCHASED FROM THIS COMPANY OR ONE OF THEIR SUPPLIERS, OR AN EQUAL LIGHTING DESIGN SHOULD BE SUBMITTED FOR REVIEW IF EQUAL SUBSTITUTIONS ARE PROPOSED BY THE CONTRACTOR OR OWNER.

Design: JAC Draft: DJM Date: 04/23/20 Checked: JAC Scale: AS NOTED Project No.: 19226 Drawing Name: 19226-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

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REV.	DATE	REVISION	BY

Designed and Produced in NH Jones & Beach Engineers, Inc.

85 Portsmouth Ave. Civil Engineering Services 603-772-4746 FAX: 603-772-0227 PO Box 219 E-MAIL: JBE@JONESANDBEACH.COM Stratham, NH 03885

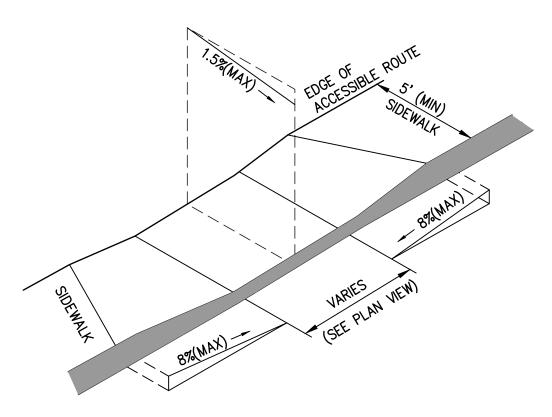
Plan Name:	LIGHTING PLAN

Owner of Record:

H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885

SHEET 9 OF 12 JBE PROJECT NO. 19226

DRAWING No.

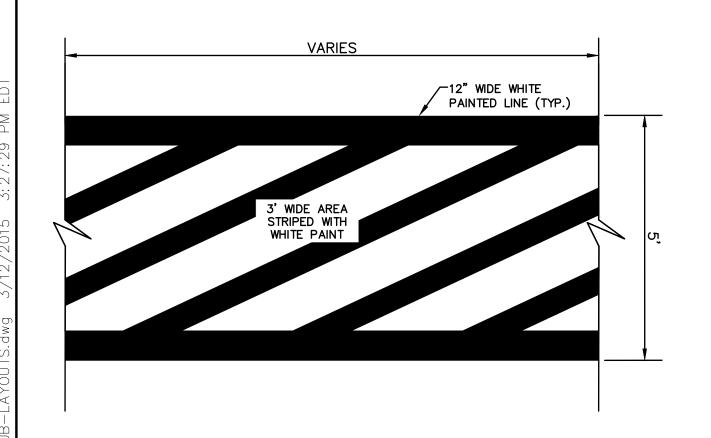


- NOTES:

  1. THE MAXIMUM ALLOWABLE CROSS SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) AND CURB SHALL BE 1.5%. 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL
- 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) CURB RAMPS
- SHALL BE 8%, 4. A MINIMUM OF 4 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN
- ACCESSIBLE ROUTE (i.e., HYDRANTS, UTLITY POLES, TREE WELLS, SIGNS, ETC.). 5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
- 6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING SEE TYPICAL SECTION FOR RAMP CONSTRUCTION.

## ACCESSIBLE CURB RAMP (TYPE `A')

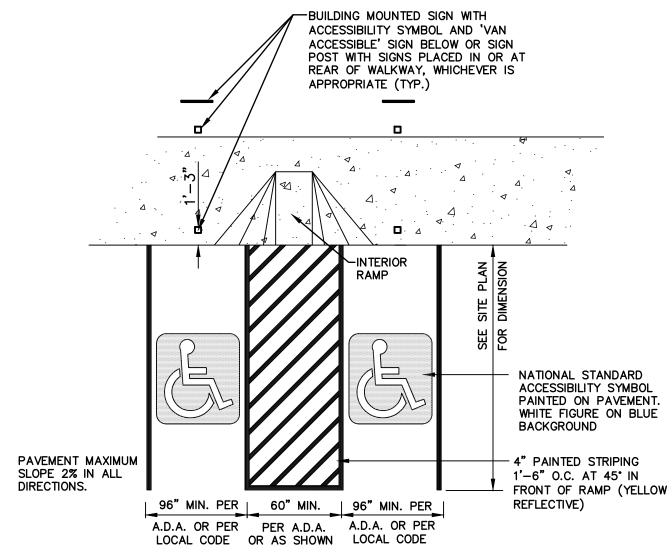
# NOT TO SCALE



## PAINTED CROSSWALK DETAIL

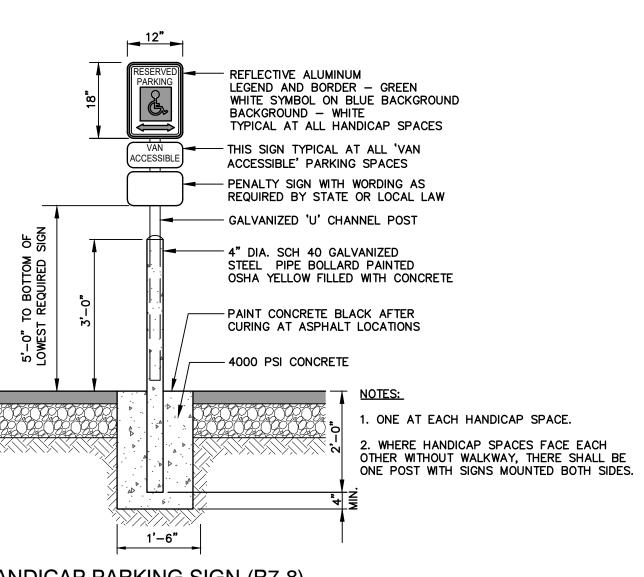
NOT TO SCALE

HANDICAP PARKING SIGN (R7-8) NOT TO SCALE



# HANDICAP PARKING LAYOUT

NOT TO SCALE



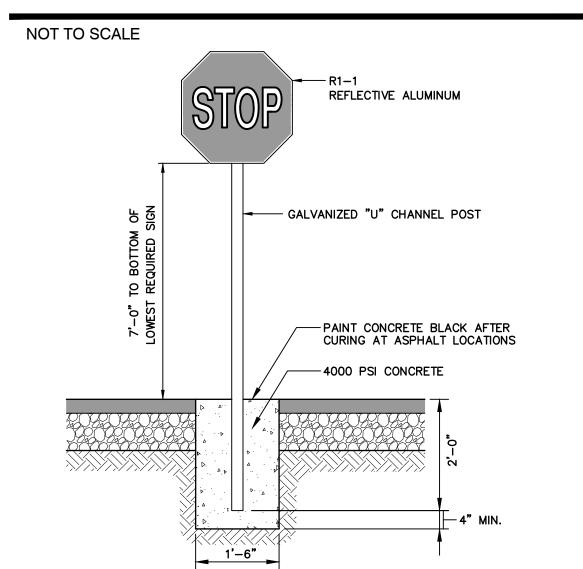
DJM 5/19/20 REVISED DRAINAGE DJM 5/6/20 **REVISED SITE PLAN AND EASEMENT** DJM 4/29/20 **ISSUED FOR REVIEW REVISION** BY REV. DATE

PAVEMENT DIMENSIONS REFER TO THIS POINT PAVEMENT ELEVATIONS REFER TO THIS POINT PARKING LOT SURFACE AS SPECIFIED BASE AS SPECIFIED NOTES:

1. EDGING TO BE PLACED PRIOR TO PLACING TOP SURFACE COURSE.

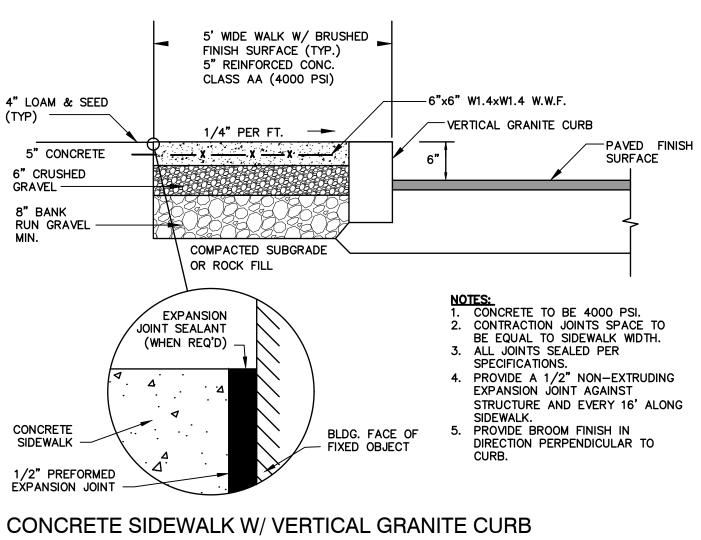
2. JOINTS BETWEEN STONES SHALL BE MORTARED.

## VERTICAL GRANITE CURB



## STOP SIGN (R1-1)

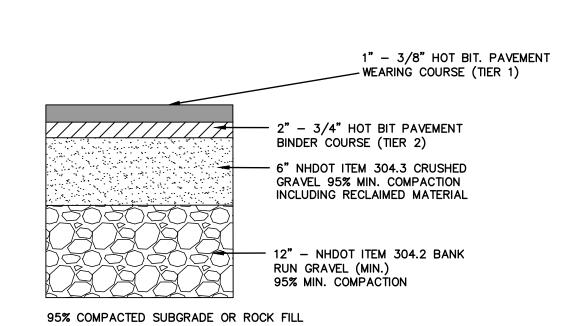
NOT TO SCALE



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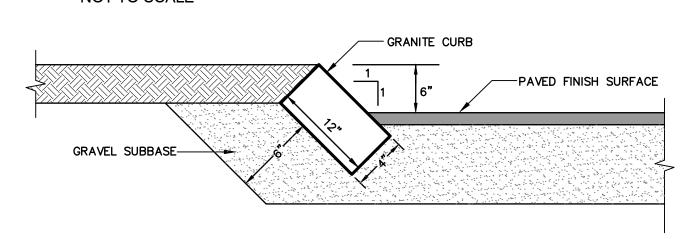
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Stratham, NH 03885



## TYPICAL BITUMINOUS PAVEMENT

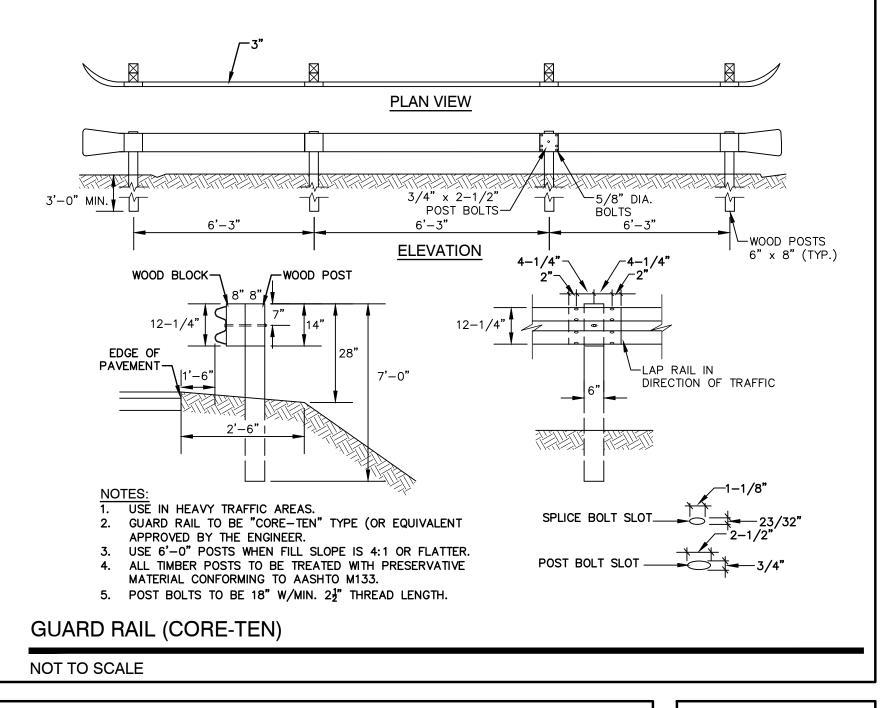
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- 1. EDGING TO BE PLACED PRIOR TO PLACING TOP SURFACE COURSE.
- 2. JOINTS BETWEEN STONES SHALL BE MORTARED. 3. SALVAGE GRANITE CURBS ON-SITE AND RESET TO THE EXTENT POSSIBLE.

## SLOPED GRANITE CURB

NOT TO SCALE

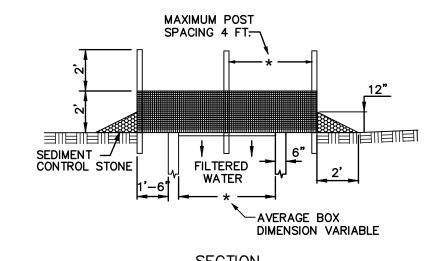


## Designed and Produced in NH Jones & Beach Engineers, Inc. 85 Portsmouth Ave. Civil Engineering Services 603-772-4746 FAX: 603-772-0227 PO Box 219

**DETAIL SHEET** Plan Name: H. D. SMITH PARKING EXPANSION TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH S.I.P. LOT 3, LLC P.O. BOX 432, STRATHAM, NH 03885 Owner of Record:

DRAWING No. SHEET 10 OF 12 JBE PROJECT NO. 19226

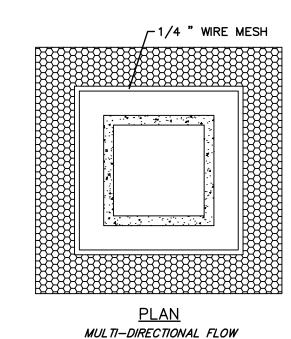
Design: JAC Draft: DJM Date: 04/23/20 Checked: JAC | Scale: AS NOTED | Project No.: 19226 Drawing Name: 19226-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE T THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.



MULTI-DIRECTIONAL FLOW

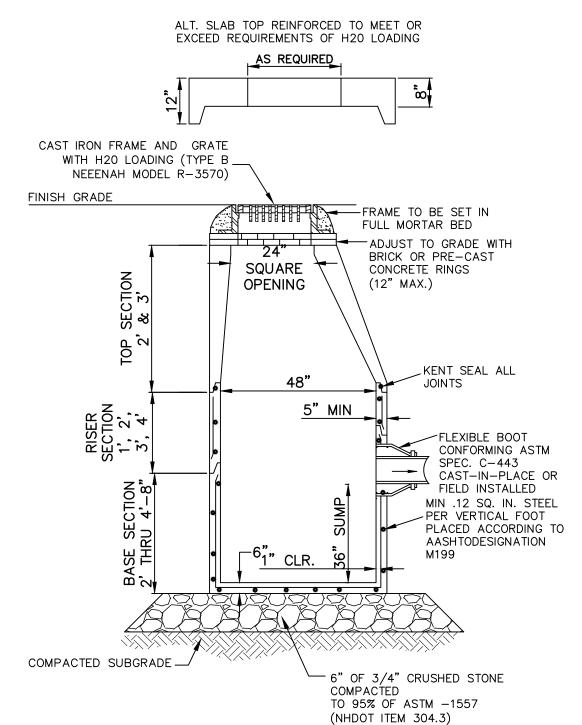
NOTES:

1. SEDIMENT CONTROL STONE SHALL BE 3/4" WASHED STONE. 2. WIRE MESH SHALL BE HARDWARE CLOTH 23 GAUGE MIN. AND SHALL HAVE 1/4 3. TOP OF WIRE MESH SHALL BE A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT. 4. STEEL POST SHALL BE 5 FT. IN HEIGHT, BE INSTALLED 1.5 FT. DEEP MINIMUM, AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE. 5. WOOD POST SHALL BE 6 FT. IN HEIGHT, BE INSTALLED TO 1.5 FT. DEEP MINIMUM, AND BE 3 INCHES IN DIAMETER. 6. POST SPACING SHALL BE A MAXIMUM OF 4 FT.



**INLET PROTECTION** 

NOT TO SCALE

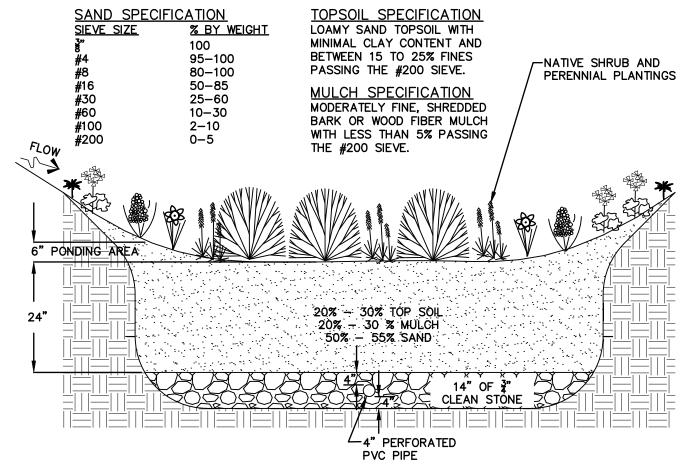


## NOTES:

- 1. BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
- 2. ALL SECTIONS SHALL BE DESIGNED FOR H20 LOADING.
- 3. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
- 4. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H20 LOADING
- 5. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
- 6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
- 7. ALL CATCH BASIN FRAMES AND GRATES SHALL BE NHDOT CATCH BASIN TYPE ALTERNATE 1 OR NEENAH R-3570 OR APPROVED EQUAL (24"x24"
- 8. STANDARD CATCH BASIN FRAME AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE 'DONUTS'.

## CATCH BASIN

NOT TO SCALE



## **DESIGN CONSIDERATIONS**

- DO NOT PLACE BIORETENTION SYSTEMS INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- 2. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUN-OFF, WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
- 3. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE

## MAINTENANCE REQUIREMENTS:

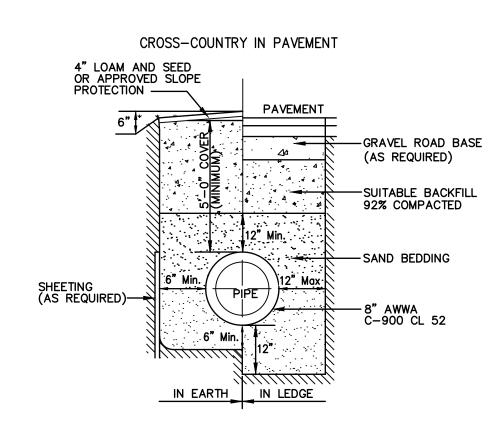
- SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENT EXCEEDING 2.5 INCHES IN A 24 HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.
- PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
- 3. TRASH AND DEBRIS SHOULD BE REMOVED AT EACH INSPECTION.
- 4. AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72 HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
- VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL
- 6. CLAY LINER MATERIAL SHALL BE CLEAN SILTY-CLAY BORROW FREE OF ROOTS, ORGANIC MATTER, AND OTHER DELETERIOUS SUBSTANCES, AND SHALL CONTAIN NO ROCKS OR LUMPS OVER THREE INCHES (3") IN DIAMETER. THIS MATERIAL SHALL BE INSTALLED IN 6" LIFTS COMPACTED TO 92% OF ASTM D-1557, AND SHALL MEET THE FOLLOWING SPECIFICATIONS: 6" PASSING 100%, #4 SIEVE 95-100%, #40 SIEVE 60-90%, #100 SIEVE 40-60%, #200 SIEVE 25-45% (OF THE FRACTION PASSING THE #4 SIEVE). THE CLAY COMPONENT SHALL HAVE A PLASTICITY INDEX OF AT LEAST 8 AND A HYDRAULIC CONDUCTIVITY OF 10 TO THE -6 CM/SEC.
- COMPACTION AND MATERIALS TESTING SERVICES SHALL BE PERFORMED BY AN INDEPENDENT GEOTECHNICAL ENGINEER RETAINED BY THE OWNER.

BIORETENTION SYSTEM (with clay bottom and pipe)

NOT TO SCALE

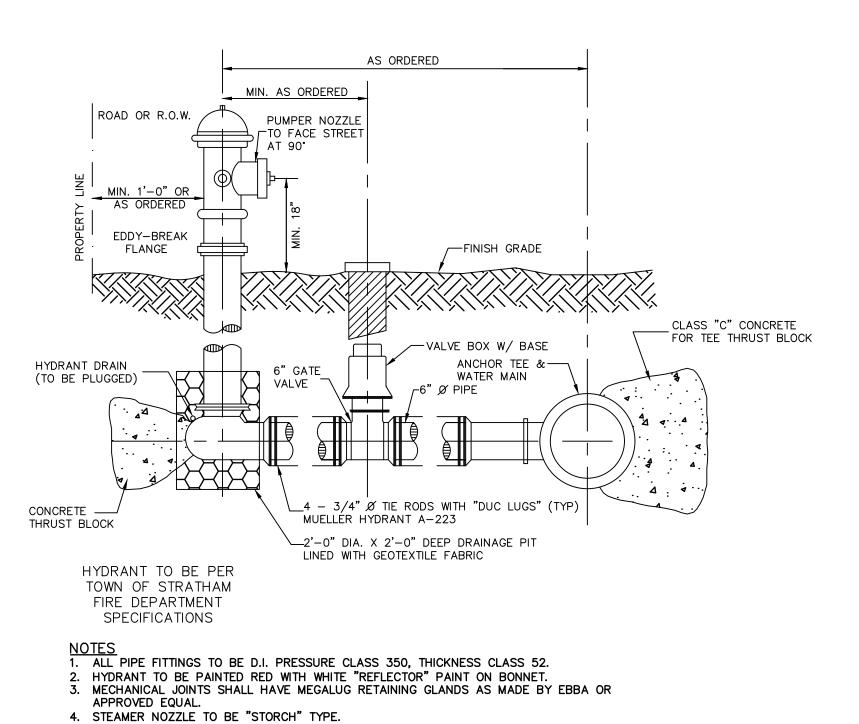
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## WATER SYTEM TRENCH

NOT TO SCALE



## HYDRANT INSTALLATION

NOT TO SCALE

5. NATIONAL STANDARD THREAD.

Designed and Produced in NH 85 Portsmouth Ave. Civil Engineering Services

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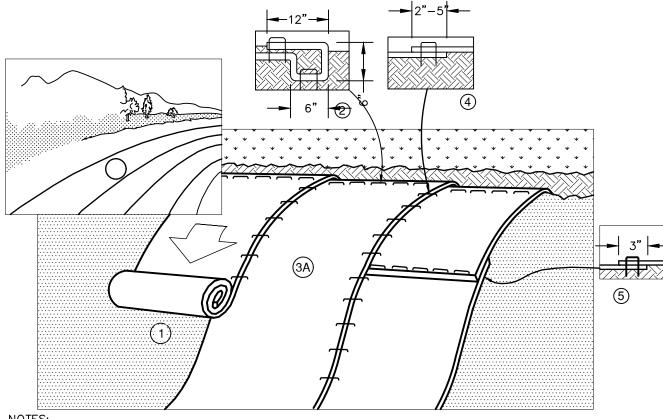
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5/19/20 **REVISED DRAINAGE** DJM 5/6/20 REVISED SITE PLAN AND EASEMENT DJM 4/29/20 **ISSUED FOR REVIEW REVISION** BY REV. DATE

## TEMPORARY EROSION CONTROL NOTES

- . THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. AT NO TIME SHALL AN AREA IN EXCESS OF 5 ACRES BE EXPOSED AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED
- EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
- ALL DISTURBED AREAS (INCLUDING POND AREAS BELOW THE PROPOSED WATERLINE) SHALL BE RETURNED TO PROPOSED GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 6" OF SCREENED ORGANIC LOAM AND SEEDED WITH SEED MIXTURE 'C' AT A RATE NOT LESS THAN 1.10 POUNDS OF SEED PER 1,000 S.F. OF AREA (48 LBS. / ACRE).
- SILT FENCES AND OTHER BARRIERS SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR GREATER. ALL DAMAGED AREAS SHALL BE REPAIRED, AND SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
- AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
- AREAS MUST BE SEEDED AND MULCHED OR OTHERWISE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING. OR TEMPORARILY STABILIZED WITHIN 14 DAYS OF THE INITIAL DISTURBANCE OF SOIL. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING NORTH AMERICAN GREEN S75 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER) ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- 8. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM
- 10. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
  - a. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
  - b. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  - c. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED; OR
  - d. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- FUGITIVE DUST CONTROL IS REQUIRED TO BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000, AND THE PROJECT IS TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO



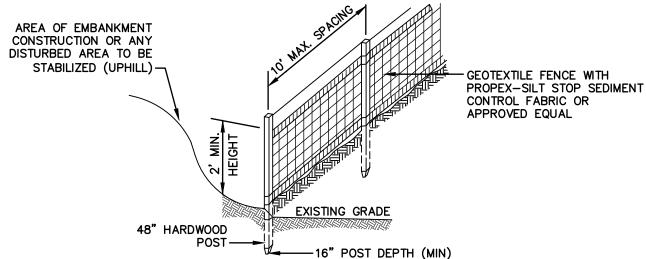
- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEMTM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED
- 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.



NORTH AMERICAN GREEN 14649 HIGHWAY 41 NORTH EVANSVILLE, INDIANA 47725 1-800-772-2040

EROSION CONTROL BLANKET SLOPE INSTALLATION (North American Green)

NOT TO SCALE



## **CONSTRUCTION SPECIFICATIONS:**

- WOVEN FABRIC FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP, MID AND BOTTOM AND EMBEDDED IN THE GROUND A MINIMUM OF 8" AND THEN COVERED WITH SOIL.
- . THE FENCE POSTS SHALL BE A MINIMUM OF 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
- . WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED 6", FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.
- 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED AND PROPERLY DISPOSED OF WHEN IT IS 6" DEEP OR VISIBLE 'BULGES' DEVELOP IN THE SILT FENCE.

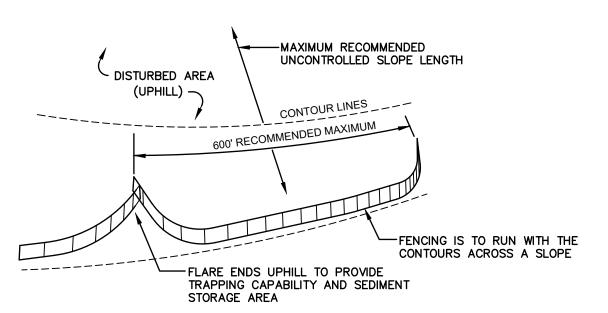
Date: 04/23/20

5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE. 6. SILT FENCE SHALL REMAIN IN PLACE FOR 24 MONTHS.

## SILT FENCE

NOT TO SCALE

Design: JAC | Draft: DJM



7. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND REVEGETATED.

- 1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE DONE IMMEDIATELY.
- 2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
- 4. SEDIMENT DEPOSITS THAT ARE REMOVED, OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED, SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

### SEEDING SPECIFICATIONS

#### 1. GRADING AND SHAPING

- A. SLOPES SHALL NOT BE STEEPER THAN 2:1 WITHOUT APPROPRIATE EROSION CONTROL MEASURES AS SPECIFIED ON THE PLANS (3:1 SLOPES OR FLATTER ARE PREFERRED).
- B. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

- 2. <u>SEEDBED PREPARATION</u> A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING
- OR WINTER KILLING OF THE PLANTS. B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND FERTILIZER AND LIME MIXED INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

#### 3. ESTABLISHING A STAND

- A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. TYPES AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE
- AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ.FT. NITROGEN(N), 50 LBS. PER ACRE OR 1.1 LBS. PER 1,000 SQ.FT. PHOSPHATE(P205), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
- POTASH(K20), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT. (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10.)
- B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
- C. REFER TO THE 'SEEDING GUIDE' AND 'SEEDING RATES' TABLES ON THIS SHEET FOR APPROPRIATE SEED MIXTURES AND RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT, TREFOIL AND FLATPEA)
- MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT PRIOR TO THEIR INTRODUCTION TO THE SITE. D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20th OR FROM AUGUST 10th TO SEPTEMBER 1st.

A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING. B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 S.F.

### 5. MAINTENANCE TO ESTABLISH A STAND

- A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED
- B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED.
- C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, ANNUAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

JSE_	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
TEEP CUTS AND ILLS, BORROW ND DISPOSAL REAS	A B C	FAIR POOR POOR	GOOD GOOD GOOD	GOOD FAIR EXCELLENT	FAIR FAIR GOOD
	D	FAIR	EXCELLENT	EXCELLENT	POOR
ATERWAYS, EMERGENC' PILLWAYS, AND OTHER HANNELS WITH LOWING WATER.	Y A C	GOOD GOOD	GOOD EXCELLENT	GOOD EXCELLENT	FAIR FAIR
GHTLY USED PARKING OTS, ODD AREAS, NUSED LANDS, AND OW INTENSITY USE ECREATION SITES.	A B C	GOOD GOOD GOOD	GOOD GOOD EXCELLENT	GOOD FAIR EXCELLENT	FAIR POOR FAIR
LAY AREAS AND THLETIC FIELDS. TOPSOIL IS ESSENTIAL OR GOOD TURF.)	E F	FAIR FAIR	EXCELLENT EXCELLENT	EXCELLENT EXCELLENT	2/ 2/

GRAVEL PIT, SEE NH-PM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND / REFER TO SEEDING MIXTURES AND RATES IN TABLE BELOW.

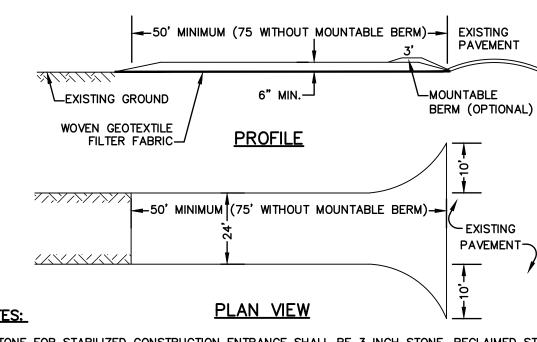
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCTOBER 15th, IF PERMANENT SEEDING NOT YET COMPLETE.

## **SEEDING GUIDE**

MIXTURE_	POUNDS PER ACRE	POUNDS PE 1.000 Sq. F
A. TALL FESCUE CREEPING RED FESCUE RED TOP TOTAL  B. TALL FESCUE CREEPING RED FESCUE CROWN VETCH OR FLAT PEA TOTAL  C. TALL FESCUE CREEPING RED FESCUE BIRDS FOOT TREFOIL TOTAL  D. TALL FESCUE	20 20 <u>2</u> 42	0.45 0.45 <u>0.05</u> 0.95
CREEPING RED FESCUE CROWN VETCH OR	15 10 15 30	0.35 0.25 0.35 0.75
		0.95 OR 1.35
CREEPING RED FESCUE BIRDS FOOT TREFOIL	20 20 <u>8</u> 48	0.45 0.45 <u>0.20</u> 1.10
D. TALL FESCUE FLAT PEA TOTAL	20 <u>30</u> 50	0.45 <u>0.75</u> 1.20
E. CREEPING RED FESCUE 1/ KENTUCKY BLUEGRASS 1/ TOTAL	50 <u>50</u> 100	1.15 1.15 2.30
F. TALL FESCUE 1	150	3.60
1/ FOR HEAVY USE ATHLETIC FIEL NEW HAMPSHIRE COOPERATIVE EXTOURRENT VARIETIES AND SEEDING	TENSION TURF SPE	

**SEEDING RATES** 



- 1. STONE FOR STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR
- RECYCLED CONCRETE EQUIVALENT. 2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, 75' WITHOUT A MOUNTABLE BERM, AND EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH
- 3. THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES. 4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE
- INGRESS OR EGRESS OCCURS, OR 10 FEET, WHICHEVER IS GREATER.
- 5. GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT.
- 6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A STONE BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- 7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

## STABILIZED CONSTRUCTION ENTRANCE

### NOT TO SCALE

## CONSTRUCTION SEQUENCE

- 1. PRIOR TO THE START OF ANY ACTIVITY, IT IS THE RESPONSIBILITY OF THE SITE'S SITE DEVELOPER (OR OWNER) TO FILE A NOTICE OF INTENT (NOI) FORM WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) IN ORDER TO GAIN COVERAGE UNDER THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. A PRE CONSTRUCTION MEETING IS TO BE HELD WITH ALL DEPARTMENT HEADS PRIOR TO THE START OF CONSTRUCTION
- 2. WETLAND BOUNDARIES ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.
- CUT AND REMOVE TREES IN CONSTRUCTION AREA AS REQUIRED OR DIRECTED.
- 4. INSTALL SILT FENCING, HAY BALES AND CONSTRUCTION ENTRANCES PRIOR TO THE START OF CONSTRUCTION. THESE ARE TO BE
- 5. CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. THIS INCLUDES ANY REQUIRED DEMOLITION OF EXISTING STRUCTURES, UTILITIES, ETC.
- 6. CONSTRUCT AND/OR INSTALL TEMPORARY OR PERMANENT SEDIMENT AND/OR DETENTION BASIN(S) AS REQUIRED. THESE FACILITIES SHALL BE INSTALLED AND STABILIZED PRIOR TO DIRECTING RUN-OFF TO THEM.
- 7. STRIP LOAM AND PAVEMENT, OR RECLAIM EXISTING PAVEMENT WITHIN LIMITS OF WORK PER THE RECOMMENDATIONS OF THE PROJECT ENGINEER AND STOCKPILE EXCESS MATERIAL. STABILIZE STOCKPILE AS NECESSARY.
- 8. PERFORM PRELIMINARY SITE GRADING IN ACCORDANCE WITH THE PLANS, INCLUDING THE CONSTRUCTION OF ANY RETAINING WALLS
- 9. INSTALL UTILITIES IN ACCORDANCE WITH THE PLAN AND DETAILS. ANY CONFLICTS BETWEEN UTILITIES ARE TO BE RESOLVED WITH THE INVOLVEMENT AND APPROVAL OF THE ENGINEER.
- 10. INSTALL INLET PROTECTION AT ALL CATCH BASINS AS THEY ARE CONSTRUCTED IN ACCORDANCE WITH DETAILS.
- 11. ALL SWALES AND DRAINAGE STRUCTURES ARE TO BE CONSTRUCTED AND STABILIZED PRIOR TO HAVING RUN-OFF DIRECTED TO THEM.
- 12. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINAGE DITCHES, CHECK DAMS, SEDIMENT TRAPS, ETC., TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ABUTTING WATERS AND/OR PROPERTY.
- 13. PERFORM FINAL FINE GRADING, INCLUDING PLACEMENT OF 'SELECT' SUBGRADE MATERIALS.
- 14. PAVE ALL PARKING LOT AND DRIVEWAY WITH INITIAL 'BASE COURSE'.
- 15. PERFORM ALL REMAINING SITE CONSTRUCTION (i.e. BUILDING, CURBING, UTILITY CONNECTIONS, ETC.).
- 16. LOAM AND SEED ALL DISTURBED AREAS AND INSTALL ANY REQUIRED SEDIMENT AND EROSION CONTROL FACILITIES (i.e. RIP RAP, EROSION CONTROL BLANKETS, ETC.).
- 17. FINISH PAVING ALL ROADWAYS AND PARKING AREAS WITH 'FINISH' COURSE.
- 18. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 19. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 20. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- 21. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE BEEN 75%-85% ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND RE-VEGETATE ALL DISTURBED AREAS.
- 22. CLEAN SITE AND ALL DRAINAGE STRUCTURES, PIPES AND SUMPS OF ALL SILT AND DEBRIS.
- 23. INSTALL ALL PAINTED PAVEMENT MARKINGS AND SIGNAGE PER THE PLANS AND DETAILS.
- 24. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.

S.I.P. LOT 3, LLC

P.O. BOX 432, STRATHAM, NH 03885

25. UPON COMPLETION OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ANY RELEVANT PERMITTING AGENCIES THAT THE CONSTRUCTION HAS BEEN FINISHED IN A SATISFACTORY MANNER.

FAX: 603-772-0227

E-MAIL: JBE@JONESANDBEACH.COM

Owner of Record:

# Designed and Produced in NH 85 Portsmouth Ave. Civil Engineering Services 603-772-4746

PO Box 219

Stratham, NH 03885

## **EROSION AND SEDIMENT CONTROL DETAILS** H. D. SMITH PARKING EXPANSION Project: TAX MAP 1, LOTS 9 & 10, 8 & 2 MARIN WAY, STRATHAM, NH

JBE PROJECT NO. 19226

DRAWING No.

Checked: JAC | Scale: AS NOTED | Project No.: 19226 Drawing Name: 19226-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE T THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

5/19/20 REVISED DRAINAGE DJM 5/6/20 REVISED SITE PLAN AND EASEMENT DJM 4/29/20 **ISSUED FOR REVIEW** REV. DATE REVISION BY



85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885 603.772.4746 - JonesandBeach.com

# DRAINAGE ANALYSIS SEDIMENT AND EROSION CONTROL PLAN

## **Prepared for:**

S.I.P Lot 3, LLC P.O. Box 432 Tax Map 1, Lots 9&10 2 & 8 Marin Way Stratham, NH 03885

#### **EXECUTIVE SUMMARY**

S.I.P Lot 3, LLC proposes to add 150 new parking spaces to the previously developed site at Stratham Industrial Park on Tax Map 1 Lots 9&10, all of which are to benefit future use of Lot 9. The most recent developments on this site in the mid-2000's were before current Alteration of Terrain Permit Rules were developed. Both Lots 9 and 10 include detention ponds, and Lot 9 includes a shallow vegetated treatment swale, but this is not designed per the currently accepted standards.

Therefore, we are improving the treatment capacity of the site by adding 24" biofilter to the bottom of the existing detention ponds to effectively convert them into bioretention cells. The new stormwater treatment BMP's are being designed to capture and hold the water quality volume (WQV) without relying on infiltration. Additionally, no existing pond storage volume will be lost.

The project site is located in Zone I – Industrial. Significant impervious coverage already exists and this project proposes a moderate increase, but greatly increases the amount of *treated* impervious coverage.

In total, an increase in impervious surface of approximately 40,000 square feet (0.91 Acres) is proposed. After the pond conversions, however, there will be 7.09 Acres of treated impervious surface, whereas only 4.22 Acres of impervious runoff was directed toward the treatment swale previously, and none was treated per the current AoT standards. The increase in impervious surface that is treated is therefore 2.87 Acres, much higher than the net increase of 0.91 Acres of impervious surface.

	Drainage Area (Acres)	Impervious Drainage Area (Acres)	Water Quality Volume (CF)	Proposed Storage Volume (CF)
Bioretention #1	4.96	3.40	12,009	27,768
Bioretention #2	2.27	1.83	6,391	14,133

The use of Best Management Practices per the NHDES <u>Stormwater Manual</u> have been applied to the design of this drainage system and will be observed during all stages of construction. All land disturbed during construction will be stabilized within thirty days of groundbreaking, and abutting property owners will suffer minimal adversity resultant to this development.

## TABLE OF CONTENTS

## Executive Summary

1.0	Existing Conditions Analysis	Page 1
2.0	Proposed Conditions Analysis	Page 1
3.0	Sediment and Erosion Control Best Management Practices	Pages 2-3
4.0	Conclusion	Page 4
Appendix	I Attachments and Calculations BMP Worksheets NRCS Web Soil Survey Stormwater Operations and Maintenance Manual	

#### 1.0 EXISTING CONDITIONS ANALYSIS

The subject parcels are developed and together include two large industrial buildings, paved area, and lawn coverage. Some wetlands are present on the subject parcel. The aforementioned detention ponds and treatment swale are used for stormwater management.

Classified through the use of a Natural Resources Conservation Service (NRCS) Web Soil Survey, the land of the site is composed of several different soil types, with Canton Fine Sandy Loam (42B) predominating the proposed area of disturbance.

#### 2.0 PROPOSED CONDITIONS ANALYSIS

The proposed site development keeps both of the buildings and most of the existing paved area but adds 150 new parking spaces as well as several sidewalks and access driveways from Lot 10 to benefit Lot 9. Due to this increase in impervious area, the ponds will be modified to capture the water quality volume and improve treatment, and there will be no decrease in pond volume. Namely, the proposed filter course at the bottom of the existing detention ponds will convert them into effectively bioretention cells. This biofilter needs to be 24" thick as the site is located within an NHDES-designated Groundwater Protection Area. Due to the filter course, the pond bottoms will be raised, as will the pond berms. One pond berm is being raised 24", while another is being raised 12" but the pond itself is expanded.

# 4.0 TEMPORARY SEDIMENT & EROSION CONTROL BEST MANAGEMENT PRACTICES

The proposed site development is protected from erosion and the roadways and abutting properties are protected from sediment by the use of Best Management Practices as outlined in the NHDES Stormwater Manual. Any area disturbed by construction will be re-stabilized within 30 days and abutting properties and wetlands will suffer minimal adversity resultant of this development. All swales and drainage structures will be constructed and stabilized prior to having runoff directed to them.

#### 4.0 Silt Fence / Construction Fence

The plan set demonstrates the location of silt fence for sediment control. Sheet E1 – Erosion and Sediment Control Details, has the specifications for installation and maintenance of the silt fence. In areas where the limits of construction need to be emphasized to operators, construction fence for added visibility will be installed. Orange construction fence will be VISI Perimeter Fence by Conwed Plastic Fencing, or equal. The four-foot fencing to be installed using six-foot posts at least two feet in the ground at a spacing of six to eight feet.

#### 4.1 Stabilized Construction Entrance

A temporary gravel construction entrance provides an area where mud can be dislodged from tires before the vehicle leaves the construction site to reduce the amount of mud and sediment transported onto paved municipal and state roads. The stone size for the pad should be between 1 to 2 inch coarse aggregate, and the pad itself constructed to a minimum length of 50 feet for the full width of the access

road. The aggregate should be placed at least six inches thick. A plan view and profile are shown on Sheet E1.

#### 4.2 Environmental Dust Control

Dust will be controlled on the site by the use of multiple Best Management Practices. Mulching and temporary seeding will be the first line of protection to be utilized where problems occur. If dust problems are not solved by these applications, the use of water can be applied. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

#### 4.3 Erosion Control Blanket (Jute Mat)

In newly graded areas where there exists the potential for extensive erosion prior to the establishment of an adequate vegetative cover, an erosion control blanket or jute mat may be required. A tightly woven fabric of fibers (preferably biodegradable) or a synthetic mesh, the blanket provides stability by trapping soil particles, shields loam and seed from rain and runoff, retains moisture for seed germination, deposits additional bio-mass after the blanket rots, and provides temporary (or permanent) reinforcement to turf on slopes, in channels, and along shorelines.

#### 4.4 Temporary Erosion Control Measures

- 1. The smallest practical area of land shall be exposed at any one time. At no time shall an area in excess of that required for construction be exposed.
- 2. Erosion, sediment and detention measures shall be installed as shown on the plans and at locations as required, or directed by the engineer.
- 3. All disturbed areas shall be returned to proposed grades and elevations.
- 4. Silt fences and other barriers shall be inspected every seven days and within 24 hours of a rainfall of 0.5" or greater. All damaged areas shall be repaired, and sediment deposits shall periodically be removed and properly disposed of.
- 5. After all disturbed areas have been stabilized, the temporary erosion control measures are to be removed and the area disturbed by the removal smoothed.
- 6. All proposed vegetated areas not stabilized by or are disturbed after October 15th must be protected with North American Green S75 erosion control blankets (or an equivalent approved in writing by the engineer) and seeded with winter rye or oats at a rate of 2.50 pounds per 1,000 square feet of area (108.90 lbs. per acre). Placement of blankets shall not occur over accumulated snow.
- 7. An area shall be considered stable if one of the following has occurred:
  - a. Base course gravels have been installed in areas to be paved;

- b. A minimum of 85% vegetated growth has been established;
- c. A minimum of 3" or non-erosive material such as stone or riprap has been installed; or
- d. Erosion control blankets have been properly installed.
- 8. After October 15<sup>th</sup> where work has stopped for the season, incomplete roadway or parking surfaces shall be protected with a minimum of 3" of crushed gravel meeting NHDOT Item 304.3.
- 4.5 Inspection and Maintenance Schedule
  - 4.10.1 Temporary Best Management Practices

Silt Fencing

During the construction process, all silt fencing will be inspected during and after storm events to ensure that the fence still has integrity and is not allowing sediment to pass. Any section of fence that has failed or is failing is to be replaced immediately, overlapping adjacent fence sections by at least one foot. If the problem persists, measures such as additional fencing (i.e. double) or the addition of hay-bales on the project side of the fence line should be considered. Sediment is to be removed from behind the fencing if found to be deeper than six inches and disposed of properly.

#### 5.0 CONCLUSION

This proposed site development will have minimal adverse effect on abutting infrastructures or properties by way of stormwater runoff or siltation. There will be a significant improvement in stormwater treatment on site due to the addition of a 24" biofilter beneath the detention ponds. Appropriate steps will be taken to eliminate erosion and sedimentation; these will be accomplished through the use of a stabilized construction entrance, silt fence, and site grading. The use of Best Management Practices developed by the State of New Hampshire have been utilized in the design of this system and their application will be enforced throughout the construction process.

An Alteration of Terrain permit (RSA 485:A-17) <u>is not</u> required for this site plan due to the area of disturbance being less than 100,000 square-feet.

Respectfully Submitted,
JONES & BEACH ENGINEERS, INC.

Daniel Meditz, EIT Project Engineer

## APPENDIX I

## BMP Worksheets NRCS Web Soil Survey Stormwater Management Operations and Maintenance Manual



# FILTRATION PRACTICE DESIGN CRITERIA (Env-Wq 1508.07)

#### Type/Node Name: Bioretention Cell (Lot 9)

Enter the type of filtration practice (e.g., bioretention system) and the node name in the drainage analysis, if applicable

		Have you reviewed the restrictions on unlined systems outlined in Env-Wq 1508.07(a)?
4.96	_	•
-	_	A = Area draining to the practice
3.40		$A_{I}$ = Impervious area draining to the practice
	decimal	I = percent impervious area draining to the practice, in decimal form
0.67	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)
3.31	ac-in	WQV = 1" x Rv x A
12,009	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")
3,002	cf	25% x WQV (check calc for sediment forebay volume)
9,007	cf	75% x WQV (check calc for surface sand filter volume)
		Method of Pretreatment? (not required for clean or roof runoff)
	cf	$V_{SED}$ = sediment forebay volume, if used for pretreatment $\leftarrow \geq 25\% WQV$
	sf	$A_{SA}$ = surface area of the practice
	iph	Ksat <sub>DESIGN</sub> = design infiltration rate <sup>1</sup>
	Yes/No	If Ksat (prior to factor of safety) is < 0.50 iph, has an underdrain been provided?
-	hours	$T_{DRAIN} = drain time = V / (A_{SA} * I_{DESIGN})$ $\leftarrow \leq 72-hrs$
	feet	$E_{FC}$ = elevation of the bottom of the filter course material <sup>2</sup>
	feet	E <sub>UD</sub> = invert elevation of the underdrain (UD), if applicable
	feet	E <sub>SHWT</sub> = elevation of SHWT (if none found, enter the lowest elevation of the test pit)
	feet	E <sub>ROCK</sub> = elevation of bedrock (if none found, enter the lowest elevation of the test pit)
-	feet	$D_{FC \text{ to UD}} = \text{depth to UD from the bottom of the filter course}$
-	feet	$D_{FC \text{ to ROCK}} = \text{depth to bedrock from the bottom of the filter course}$
-	feet	$D_{FC \text{ to SHWT}} = \text{depth to SHWT from the bottom of the filter course}$ $\leftarrow \geq 1'$
	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)
	ft	Elevation of the top of the practice
-		50 peak elevation $\leq$ Elevation of the top of the practice $\leftarrow$ yes

### If a surface sand filter or underground sand filter is proposed:

YES	ac	Drainage Area check.	<b>←</b> < 10 ac
	cf	V = volume of storage3 (attach a stage-storage table)	← $\geq$ 75%WQV
	inches	$D_{FC}$ = filter course thickness	← 18", or 24" if within GPA
Sheet	•	Note what sheet in the plan set contains the filter course specification	
	Yes/No	Access grate provided?	<b>←</b> yes

#### If a bioretention area is proposed:

YES ac	Drainage Area no larger than 5 ac?	← yes
27,768 cf	V = volume of storage <sup>3</sup> (attach a stage-storage table)	$\leftarrow \geq WQV$
inches 24.0	$D_{FC}$ = filter course thickness	← 18", or 24" if within GPA
Sheet	Note what sheet in the plan set contains the filter course specification	
3.0 :1	Pond side slopes	<b>←</b> ≥3:1
Sheet	Note what sheet in the plan set contains the planting plans and surface	e cover

#### If porous pavement is proposed:

	Type of pavement proposed (concrete? Asphalt? Pavers? Etc)	
acres	$A_{SA}$ = surface area of the pervious pavement	
:1	ratio of the contributing area to the pervious surface area	<b>←</b> ≤ 5:1
inches	$D_{FC}$ = filter course thickness	← 12", or 18" if within GPA
Sheet	Note what sheet in the plan set contains the filter course spec.	<b>←</b> 304.1 sand

- 1. Rate of the limiting layer (either the filter course or the underlying soil). Ksat<sub>design</sub> includes factor of safey. See Env-Wq 1504.14 for guidance on determining the infiltration rate.
- 2. See lines 34, 40 and 48 for required depths of filter media.
- 3. Volume without depending on infiltration. The volume includes the storage above the filter (but below the invert of the outlet stucture, if any), the filter media voids, and the pretreatment area. The storage above the filter media shall not include the volume above the outlet structure, if any.

Designer's Notes:			



# FILTRATION PRACTICE DESIGN CRITERIA (Env-Wq 1508.07)

### Type/Node Name: Bioretention Cell (Lot 10)

Enter the type of filtration practice (e.g., bioretention system) and the node name in the drainage analysis, if applicable

	Have you reviewed the restrictions on unlined systems outlined in Env-Wq 1508.07(a)?			
2.27 ac	A = Area draining to the practice			
1.83 ac	$A_{I}$ = Impervious area draining to the practice			
0.81 decimal	I = percent impervious area draining to the practice, in decimal form			
0.78 unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)			
1.76 ac-in	WQV= 1" x Rv x A			
6,391 cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")			
1,598 cf	25% x WQV (check calc for sediment forebay volume)			
4,793 cf	75% x WQV (check calc for surface sand filter volume)			
	Method of Pretreatment? (not required for clean or roof runoff)			
cf	$V_{SED}$ = sediment forebay volume, if used for pretreatment $\leftarrow \geq 25\%WQV$			
sf	$A_{SA}$ = surface area of the practice			
iph	Ksat <sub>DESIGN</sub> = design infiltration rate <sup>1</sup>			
Yes/No	If Ksat (prior to factor of safety) is < 0.50 iph, has an underdrain been provided?			
- hours	$T_{DRAIN} = drain time = V / (A_{SA} * I_{DESIGN})$ $\leftarrow \leq 72$ -hrs			
feet	$E_{FC}$ = elevation of the bottom of the filter course material <sup>2</sup>			
feet	E <sub>UD</sub> = invert elevation of the underdrain (UD), if applicable			
feet	$E_{SHWT}$ = elevation of SHWT (if none found, enter the lowest elevation of the test pit)			
feet	$E_{ROCK}$ = elevation of bedrock (if none found, enter the lowest elevation of the test pit)			
- feet	$D_{FC \text{ to UD}} = \text{depth to UD from the bottom of the filter course}$			
- feet	$D_{FC \text{ to ROCK}} = \text{depth to bedrock from the bottom of the filter course}$			
- feet	$D_{FC \text{ to SHWT}} = \text{depth to SHWT from the bottom of the filter course}$			
ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)			
ft	Elevation of the top of the practice			
-	50 peak elevation $\leq$ Elevation of the top of the practice $\leftarrow$ yes			

## If a surface sand filter or underground sand filter is proposed:

YES	ac	Drainage Area check.	<b>←</b> < 10 ac
	cf	$V = \text{volume of storage}^3$ (attach a stage-storage table)	← $\geq$ 75%WQV
	inches	$D_{FC}$ = filter course thickness	← 18", or 24" if within GPA
Sheet	<u> </u>	Note what sheet in the plan set contains the filter course specification	
	Yes/No	Access grate provided?	<b>←</b> yes

#### If a bioretention area is proposed:

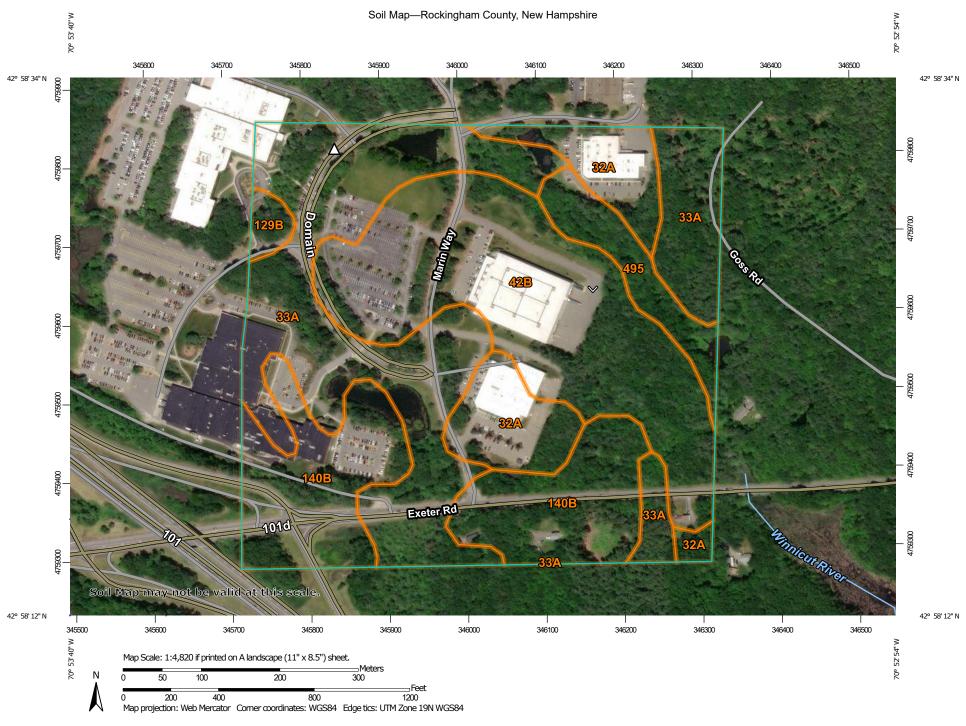
YES ac	Drainage Area no larger than 5 ac?	← yes
14,133 cf	V = volume of storage3 (attach a stage-storage table)	$\leftarrow \geq WQV$
inches 24.0	inches $D_{FC}$ = filter course thickness	
Sheet	Note what sheet in the plan set contains the filter course specification	
3.0 :1	Pond side slopes	<b>←</b> ≥3:1
Sheet	Note what sheet in the plan set contains the planting plans and surface	cover

#### If porous pavement is proposed:

Type of pavement proposed (concrete? Asphalt? Pavers? Etc)					
acres	$A_{SA}$ = surface area of the pervious pavement				
ratio of the contributing area to the pervious surface area   ← ≤ 5:1					
inches	inches $D_{FC}$ = filter course thickness				
Sheet	Note what sheet in the plan set contains the filter course spec.	<b>←</b> 304.1 sand			

- 1. Rate of the limiting layer (either the filter course or the underlying soil). Ksat<sub>design</sub> includes factor of safey. See Env-Wq 1504.14 for guidance on determining the infiltration rate.
- 2. See lines 34, 40 and 48 for required depths of filter media.
- 3. Volume without depending on infiltration. The volume includes the storage above the filter (but below the invert of the outlet stucture, if any), the filter media voids, and the pretreatment area. The storage above the filter media shall not include the volume above the outlet structure, if any.

Designer's Notes:		



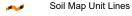
#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons



Soil Map Unit Points

#### Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Candfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

+ Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

#### GLIAD

Spoil Area

Stony Spot

Wery Stony Spot

Wet Spot
 Other

Special Line Features

#### Water Features

Δ

Streams and Canals

#### Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

#### Background

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockingham County, New Hampshire Survey Area Data: Version 21, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Jun 14, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
32A	Boxford silt loam, 0 to 3 percent slopes	8.6	10.3%
33A	Scitico silt loam, 0 to 5 percent slopes	29.2	35.0%
42B Canton fine sandy loam, 3 to 8 percent slopes		23.4	28.0%
129B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	0.9	1.1%
140B	OB Chatfield-Hollis-Canton complex, 0 to 8 percent slopes, rocky		20.8%
495	Natchaug mucky peat, 0 to 2 percent slopes	4.0	4.8%
Totals for Area of Interest		83.5	100.0%



85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885 603.772.4746 - JonesandBeach.com

# STORMWATER MANAGEMENT OPERATION AND MAINTENANCE MANUAL

**Prepared for:** 

S.I.P Lot 3, LLC Map 1, Lots 9&10 2 & 8 Marin Way Stratham, NH 03885

## **Inspection and Maintenance of Facilities and Property**

#### A. Maintenance of Common Facilities or Property

 S.I.P Lot 3, LLC, future owners and assigns are responsible to perform the maintenance obligations or hire a Professional Engineer to review the site on an annual basis for maintenance and certification of the stormwater system. The owner shall keep receipts and records of all maintenance companies hired throughout the year to submit along with the following form.

#### **B.** General Inspection and Maintenance Requirements

- 1. Permanent stormwater and sediment and erosion control facilities to be maintained on the site include, but are not limited to, the following:
  - a. Catch basins
  - b. Culverts
  - c. Vegetation and landscaping
  - d. Parking lots and roadways
  - e. Riprap inlet and outlet protection aprons
  - f. Rain Gardens (Bio-retention systems)
  - g. Roof drains
- 2. Maintenance of permanent measures shall follow the following schedule:
  - a. Normal winter roadway and parking lot maintenance including plowing and snow removal.
  - b. Road and parking lot sweeping at the end of every winter, preferably at the start of the spring rain season.
  - c. **Inspection** of culvert inlets and outlets at least **once per month** during the rainy season (March to November). Any debris is to be removed and disposed of properly by owner or contractor.
  - d. **Annual inspection** of the site for erosion, destabilization, settling, and sloughing. Any needed repairs are to be conducted immediately.
  - e. **Annual inspection** of site's vegetation and landscaping. Any areas that are bare shall be reseeded and mulched with hay or, if the case is extreme, loamed and seeded or sodded to ensure adequate vegetative cover. Landscape specimens shall be replaced in kind, if they are found to be dead or dying.



- f. Annual inspection of catch basins and drain manholes to determine if they need to be cleaned. Catch basins are to be cleaned if the depth of deposits is greater than one-half the depth from the basin bottom to the invert of the lowest pipe or opening into or out of the basin. If a catch basin significantly exceeds the one-half depth standard during the inspection, then it should be cleaned more frequently. If woody debris or trash accumulates in a catch basin, then it should be cleaned on a weekly basis. Manholes should be cleaned of any material upon inspection. Catch basins and manholes can be cleaned either manually or by specially designed equipment including, but not limited to, bucket loaders and vacuum pumps. Before any materials can be disposed, it is necessary to perform a detailed chemical analysis to determine if the materials meet the EPA criteria for hazardous waste. This will help determine how the materials should be stored, treated, and disposed. Grease hoods are to be wiped clean and the rags disposed of properly. Debris obscuring the grate inlet should also be removed.
- g. Permanent stone check dams should be **inspected annually** in order to ensure that they are in good condition. Any sediment accumulated behind them shall be removed if it is deeper than six inches.
- h. Rock riprap should be **inspected annually** in order to ensure that it has not been displaced, undermined, or otherwise damaged. Displaced rock should be replaced, or additional rock added in order to maintain the structure(s) in their undamaged state. Woody vegetation should not be allowed to become established in riprap areas, and/or any debris removed from the void spaces between the rocks. If the riprap is adjacent to a stream or other waterbody, the water should be kept clear of obstructions, debris, and sediment deposits.

#### i. Raingarden - Bioretention Cells:

- Visually inspect monthly and repair erosion. Use small stones to stabilize erosion along drainage paths.
- Check the pH once a year if plantings are not surviving. Apply an alkaline product, such as limestone, if needed.
- Re-mulch any void areas by hand as needed.
- Every 6 months, in the spring and fall, add a fresh mulch layer.
- Once every 2 to 3 years, in the spring, remove old mulch layer before applying new one
- Immediately after the completion of cell construction, water plant material for 14 consecutive days unless there is sufficient natural rainfall.
- When trees have taken root, or at least by 6 months, remove stakes and wires.
- Once a month (more frequently in the summer), residents are encouraged to visually inspect vegetation for disease or pest problems and treat as required.
- Twice a year, from March 15th to April 30th and October 1st to November 30th, remove and replace all dead and diseased vegetation considered beyond treatment.
- During times of extended drought, look for physical features of stress (unrevived wilting, yellow, spotted or brown leaves, loss of leaves, etc.). Water in the early morning as needed.



- Weed regularly, if needed.
- Prune excess growth annually or more often, if desired. Trimmed materials may be recycled back in with replenished mulch or land filled if there is a concern of heavy metals accumulation.
- After rainstorms, inspect the cell and make sure that drainage paths are clear and that ponding water dissipates over 4-6 hours. (Water may pond for longer times during the winter and early spring.)
- KEEP IN MIND, THE BIORETENTION CELL IS NOT A POND. IT SHOULD NOT PROVIDE A BREEDING GROUND FOR MOSQUITOES. MOSQUITOES NEED AT LEAST FOUR (4) DAYS OF STANDING WATER TO DEVELOP AS LARVA.

#### j. Roof Drains:

Roof drains should be **inspected annually**, preferably in the fall after leaf drop. Drains should be kept clear, and any debris that may clog a drain such as tennis balls, baseballs, beverage cans, etc. should be removed during each inspection. Every drain should have a clean "leaf" grate present to prevent clogging of the drainpipes. A roof inspection in the late fall should also include the removal of leaves. Outfalls should be inspected to assure a clear drainage path.

#### WHAT TO LOOK FOR:

Although improper roof drainage can best be observed immediately after a rain storm, most impacted drainage conditions will leave "tell-tale" indications even after standing water has evaporated:

- 1. Accumulated Debris. Debris frequently accumulates in ponding areas. Because water eventually evaporates from impacted areas, a concentric pattern of debris or dirt is a good indication of a ponding condition.
- 2. Visible Sagging or Deflection.
- 3. Discoloration of Curbs and Walls. The discoloration may be due to a build-up of snow or ice, or it may be an indication that water may "back up" during very severe rain storms.

See attached sample forms as a guideline.



Any inquiries in regards to the design, function, and/or maintenance of any one of the above mentioned facilities or tasks shall be directed to the project engineer:

Jones & Beach Engineers, Inc. 85 Portsmouth Avenue P.O. Box 219 Stratham, NH 03885

T#: (603) 772-4746 F#: (603) 772-0227

### **Commitment to maintenance requirements**

I agree to complete and/or observe all of the required maintenance practices and their respective schedules as outlined above.

Signature		
Print Name		
Title		
 Date	 	 



### **Annual Operations and Maintenance Report**

S.I.P Lot 3, LLC, future owners and assigns are responsible to perform the maintenance obligations or hire a Professional Engineer to review the site on an annual basis for maintenance and certification of the stormwater system. The owner shall keep receipts and records of all maintenance companies hired throughout the year to submit along with the following form.

Construction Activity	Date of Inspection	Who Inspected	Findings of Inspector
Catch basins			
Culverts			
Vegetation and landscaping			
Parking lots and roadways			
Rain Garden Bioretention Systems			
Roof Drains			



# Regular Inspection and Maintenance Guidance for Bioretention Systems / Tree Filters

Maintenance of bioretention systems and tree filters can typically be performed as part of standard landscaping. Regular inspection and maintenance is critical to the effective operation of bioretention systems and tree filters to insure they remain clear of leaves and debris and free draining. This page provides guidance on maintenance activities that are typically required for these systems, along with the suggested frequency for each activity. Individual systems may have more, or less, frequent maintenance needs, depending on a variety of factors including the occurrence of large storm events, overly wet or dry (I.E., drought), regional hydrologic conditions, and the upstream land use.

#### **ACTIVITIES**

The most common maintenance activity is the removal of leaves from the system and bypass structure. Visual inspections are routine for system maintenance. This includes looking for standing water, accumulated leaves, holes in the soil media, signs of plant distress, and debris and sediment accumulation in the system. Mulch and/or vegetation coverage is integral to the performance of the system, including infiltration rate and nutrient uptake. Vegetation care is important to system productivity and health.

productivity and nearth.	EDECUENCY		
ACTIVITY	FREQUENCY		
A record should be kept of the time to drain for the system completely after a storm event. The system should drain completely within 72 hours.			
Check to ensure the filter surface remains well draining after storm event.	After every major storm in the first few		
<b>Remedy</b> : If filter bed is clogged, draining poorly, or standing water covers more than 15% of the surface 48 hours after a precipitation event, then remove top few inches of discolored material. Till or rake remaining material as needed.	months, then biannually.		
-			
Check inlets and outlets for leaves and debris.			
<b>Remedy</b> : Rake in and around the system to clear it of debris. Also, clear the inlet and overflow if obstructed.			
Check for animal burrows and short circuiting in the system			
<b>Remedy</b> : Soil erosion from short circuiting or animal boroughs should be repaired when they occur. The holes should be filled and lightly compacted.	Quarterly initially, biannually,		
Check to insure the filter bed does not contain more than 2 inches accumulated material	frequency adjusted as needed after 3 inspections		
<b>Remedy</b> : Remove sediment as necessary. If 2 inches or more of filter bed has been removed, replace media with either mulch or a (50% sand, 20% woodchips, 20% compost, 10% soil) mixture.			
During extended periods without rainfall, inspect plants for signs of distress.			
<b>Remedy</b> : Plants should be watered until established (typical only for first few months) or as needed thereafter.			
Inspect inlets and outlets to ensure good condition and no evidence of deterioration. Check to see if high-flow bypass is functioning.			
<b>Remedy</b> : Repair or replace any damaged structural parts, inlets, outlets, sidewalls.	Annually		
Check for robust vegetation coverage throughout the system.			
<b>Remedy</b> : If at least 50% vegetation coverage is not established after 2 years, reinforcement planting should be performed.			
Check for dead or dying plants, and general long term plant health.			
<b>Remedy</b> : This vegetation should be cut and removed from the system. If woody vegetation is present, care should be taken to remove dead or decaying plant Material. Separation of Herbaceous vegetation rootstock should occur when overcrowding is observed.	As needed		

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#### CHECKLIST FOR INSPECTION OF BIORETENTION SYSTEM / TREE FILTERS Location: Inspector: Date: Time: Site Conditions: Date Since Last Rain Event: Satisfactory (S) or Comments/Corrective Inspection Items **Unsatisfactory (U)** Action 1. Initial Inspection After Planting and Mulching Plants are stable, roots not exposed S U U S Surface is at design level, typically 4" below overpass U Overflow bypass / inlet ( if available) is functional S 2. Debris Cleanup (2 times a year minimum, Spring & Fall) Litter, leaves, and dead vegetation removed from the system S U S U Prune perennial vegetation 3. Standing Water (1 time a year, After large storm events) No evidence of standing water after 72 hours S U 4. Short Circuiting & Erosion (1 time a year, After large storm events) No evidence of animal burrows or other holes S U U No evidence of erosion S 5. Drought Conditions (As needed) Water plants as needed S U Dead or dying plants 6. Overflow Bypass / Inlet Inspection (1 time a year, After large storm events) No evidence of blockage or accumulated leaves S U Good condition, no need for repair U S 7. Vegetation Coverage (once a year) 50% coverage established throughout system by first year S U U Robust coverage by year 2 or later S 8. Mulch Depth (if applicable)(once every 2 years) U Mulch at original design depth after tilling or replacement S 9. Vegetation Health (once every 3 years) Dead or decaying plants removed from the system S U 10. Tree Pruning (once every 3 years)

S

U

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Prune dead, diseased, or crossing branches

**Corrective Action Needed** 

2.
 3.

**Due Date**