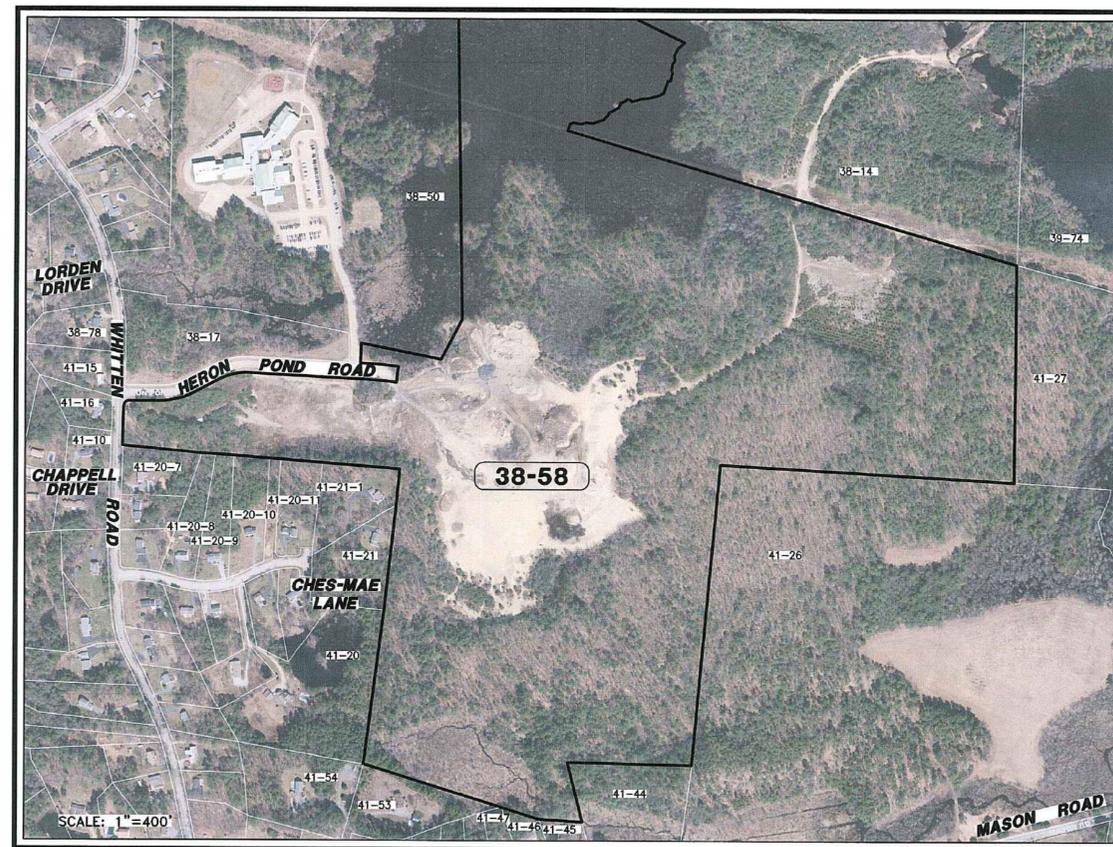


BROX COMMUNITY LANDS

PRELIMINARY DEVELOPMENT PLANS

TAX MAP 38 - LOT 58
HERON POND ROAD
MILFORD, NEW HAMPSHIRE 03055

DECEMBER 1, 2014
LAST REVISED: APRIL 12, 2016



SHEET INDEX		
PAGE	SHEET	TITLE
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2	EH-1	RESOURCES PLAN
3	MP-2	PHASING & MASTER GRADING PLAN
4	GR-1	GRADING PLAN
5	GR-2	GRADING PLAN
6	GR-3	GRADING PLAN
7	D-1	CONSTRUCTION DETAILS
8	D-2	EROSION CONTROL DETAILS

CERTIFICATION:

"I HEREBY CERTIFY THAT THE EXISTING CONDITIONS SHOWN WERE DEVELOPED FROM THE REFERENCE PLANS CITED HEREON AND ALSO FROM A FIELD SURVEY PERFORMED BY FIELDSTONE LAND CONSULTANTS, PLLC DURING THE MONTH OF APRIL 2014"

DATE: 4/12/16



CERTIFICATION:

WETLANDS WERE DELINEATED IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS 1987 WETLANDS DELINEATION MANUAL Y-87-1 AND INTERIM REGIONAL SUPPLEMENT FOR NORTHEAST AND NORTH-CENTRAL REGION AND FIELD INDICATORS FOR HYDRIC SOILS IN NEW ENGLAND, BY CHRISTOPHER A. GUIDA, C.W.S. IN OCTOBER OF 2012.

DATE: 4/12/16

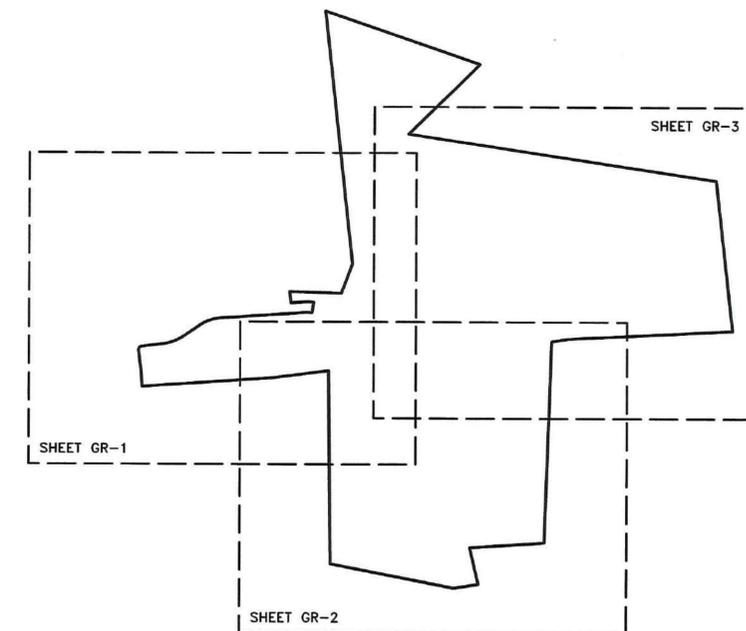


PREPARED FOR:
MILFORD COMMUNITY DEVELOPMENT

TOWN HALL, 1 UNION SQUARE
MILFORD, NEW HAMPSHIRE, 03055

LAND OF:
TOWN OF MILFORD

TOWN HALL, 1 UNION SQUARE
MILFORD, NEW HAMPSHIRE, 03055



SHEET KEY

REV.	DATE	DESCRIPTION	C/O	DR	CK
E	4/12/16	REVISIONS PER TOWN COMMENTS		PWH	CEB
D	1/29/15	MODIFIED PROJECT PHASING PER TOWN		JMT	CEB
C	12/29/14	REVISIONS PER IN HOUSE REVIEW		JMT	CEB
B	12/24/14	REVISIONS PER IN HOUSE REVIEW		JMT	CEB
A	12/11/14	REVISIONS PER TOWN COMMENTS		JMT	CEB

FILE: 519CV01E.dwg PROJ. NO. 519.01 SHEET: CV-1 PAGE NO. 1 OF 8

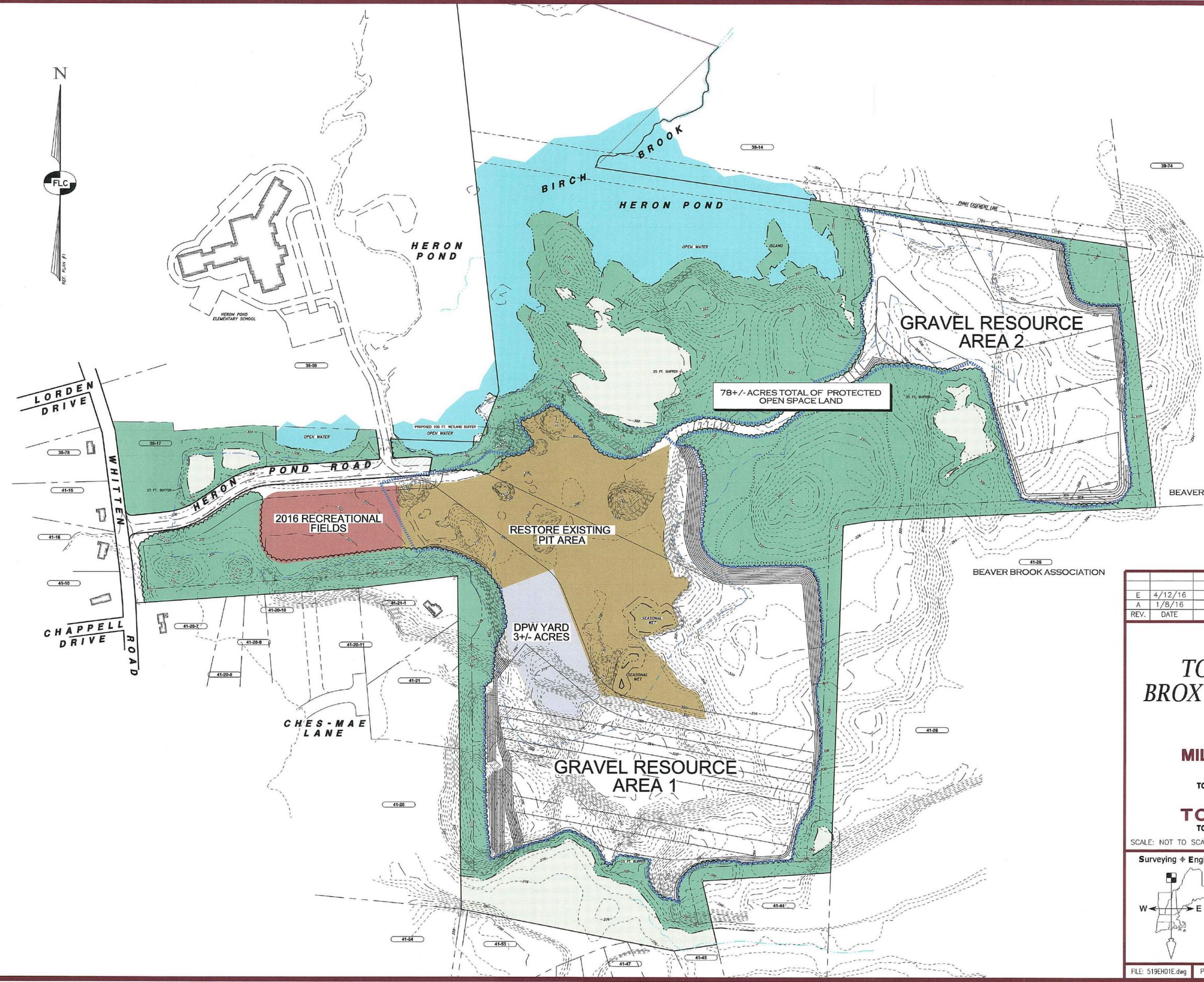
811 DigSafe
MA ME NH RI VT
CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION
DIGSAFE.COM
OR DIAL 811
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E	4/12/16	REVISIONS PER TOWN COMMENTS	PWH	CEB	
A	1/8/16	REV. PER TOWN COMMENTS	PWH	CEB	
REV.	DATE	DESCRIPTION	C/O	DR	CK

RESOURCES PLAN
TOWN OF MILFORD
BROX COMMUNITY LANDS
 TAX MAP 38 - LOT 58
 MILFORD, NEW HAMPSHIRE
 PREPARED FOR:
MILFORD COMMUNITY DEVELOPMENT
 TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055
 LAND OF:
TOWN OF MILFORD
 TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

SCALE: NOT TO SCALE JANUARY 4, 2016

Surveying + Engineering + Land Planning + Permitting + Septic Designs

FIELDSTONE
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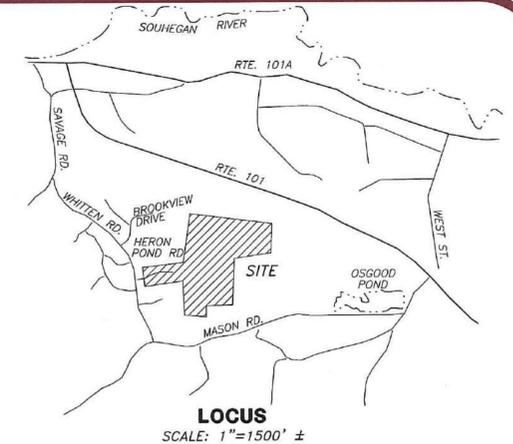
206 Elm Street, Milford, NH 03055
 Phone: (603) 672-5456 Fax: (603) 413-5456
www.FieldstoneLandConsultants.com

REFERENCE PLANS:

1. "TOWN OF MILFORD - CONSOLIDATION AND SUBDIVISION PLAN OF LAND - TAX MAP LOTS 38-4, 38-5, 38-8, 38-11, 38-12, 38-13, 38-14, 38-15, 38-16, 38-17, 38-55, 41-23, 41-24 AND 41-25 - PREPARED FOR TOWN OF MILFORD - 1 UNION SQUARE - MILFORD, NEW HAMPSHIRE 03055", 8 SHEETS, SCALE: 1"=100', DATED JANUARY 4, 2002 AND LAST REVISED MARCH 15, 2002, BY MERIDIAN LAND SERVICES, INC. RECORDED IN THE H.C.R.D. AS PLAN NO. 31877.
2. "CONCEPTUAL MASTER PLAN/LAND DEVELOPMENT PLAN - BROX COMMUNITY PROPERTY - PREPARED BY: - BROX COMMITTEE - MILFORD, NEW HAMPSHIRE - BILL PARKER - COMMUNITY DEVELOPMENT DIRECTOR - 1 UNION SQUARE, MILFORD, NH 03055", SHEET L-1, SCALE 1"=200', DATED JANUARY 12, 2014. ALSO KNOWN AS "EXHIBIT 2 - SCHEMATIC DEVELOPMENT PLAN" OR "EXHIBIT B - SCHEMATIC FUTURE DEVELOPEMNT PLAN".

GENERAL NOTES:

1. THE OWNER OR RECORD FOR TAX MAP PARCEL 38-58 IS THE TOWN OF MILFORD, TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055. DEED REFERENCE TO PARCEL IS BOOK 6287 PAGE 1350.
2. THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS OF TAX MAP LOT 38-58 AND THE REQUIRED GRADING FOR THE DEVELOPMENT OF THE CONCEPTUAL MASTER PLAN AND THE ASSOCIATED REMOVAL OF MATERIAL.
3. THE TOTAL AREA OF TAX MAP PARCEL 38-58 IS 142,127 ACRES OR 6,191,062 SQ.FT.
4. ZONING FOR THE PARCEL IS "R", RESIDENTIAL R DISTRICT. MINIMUM LOT SIZE IS 2 ACRES, MINIMUM FRONTAGE ON A CLASS Y ROAD OR BETTER IS 200 FT., MINIMUM FRONT SETBACK IS 30 FT., MINIMUM SIDE SETBACK IS 15 FT. AND THE MINIMUM REAR SETBACK IS 30 FT.
5. LOT NUMBERS REFER TO THE TOWN OF MILFORD ASSESSORS MAPS 38 & 41.
6. THE SITE IS UNDEVELOPED WITH NO BULDINGS AND NO MUNICIPAL SERVICES.
7. THE SITE IS NOT LOCATED WITHIN THE GROUNDWATER PROTECTION DISTRICT.
8. PORTIONS OF THE SITE ARE NOT LOCATED IN A FLOOD HAZARD AREA AS DETERMINED FROM THE FLOOD INSURANCE STUDY (FIRM), HILLSBOROUGH COUNTY, NEW HAMPSHIRE, COMMUNITY NO. 330096, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBERS 33011C0454D AND 33011C0458D DATED SEPTEMBER 25, 2009.
9. LOT 38-58 IS SUBJECT TO AN EXISTING 112.5 FT. WIDE PUBLIC SERVICE OF NEW HAMPSHIRE UTILITY EASEMENT THAT CROSSES THE NORTHERLY PORTION OF THE LOT. THE DEED REFERENCE FOR THE EASEMENT IS VOL.1685 PG. 496 DATED APRIL 13, 1962.
10. TAX MAP PARCEL 38-58 IS A MIX OF WOODLANDS AND OPEN AREAS FORMERLY USED FOR GRAVEL QUARRIES.
11. HORIZONTAL ORIENTATION IS BASED ON REFERENCE PLAN #1 CITED HEREON.
12. THE TOPOGRAPHY SHOWN WAS PROVIDED BY THE TOWN OF MILFORD AND WAS DEVELOPED FROM AERIAL PHOTOGRAPHY.



EXCAVATION PHASING NOTES:

- A. ALL EXCAVATION OPERATIONS SHALL BE SELF CONTAINED AT ALL TIMES.
- B. THE PROPOSED EXCAVATION WILL BE PHASED AND CONSIST OF DISTURBING APPROXIMATELY 62.0± ACRES TOTAL.
- C. THE ESTIMATED AMOUNT OF MATERIALS TO BE EXCAVATED IS 696,000± CUBIC YARDS.
- D. NO EXCAVATION WITHIN 3 FEET OF SEASONAL HIGH WATER TABLE IS PLANNED. ADDITIONAL TEST PITS WILL NEED TO BE PERFORMED IN DEEP CUT AREAS ONCE MATERIAL IS EXCAVATED TO ENSURE ADEQUATE SEPARATION BETWEEN SEASONAL HIGH WATER IS MAINTAINED.
- E. PHASE I WILL CONSIST OF EXCAVATING THE MATERIAL ON THE SOUTH SIDE OF THE PROPERTY. THIS PHASE CONSISTS OF EXCAVATING 696,000± CUBIC YARDS. PHASE I ALSO CONSISTS OF REGRADING THE FLOOR OF THE EXISTING GRAVEL OPERATION TO MAINTAIN ADEQUATE SEPARATION TO THE SEASONAL HIGH WATER TABLE. TOTAL AREA OF DISTURBANCE FOR PHASE I IS APPROXIMATELY 1,935,745 Sq.Ft. (44.44 Acres).
- F. PHASE II WILL CONSIST OF EXCAVATING THE MATERIAL AT THE NORTHEAST CORNER OF THE PROPERTY. THIS PHASE WILL CONSIST OF EXCAVATING 138,000± CUBIC YARDS. TOTAL AREA OF DISTURBANCE FOR PHASE II IS APPROXIMATELY 766,154 Sq.Ft. (17.59 Acres).
- G. THE DURATION OF EACH PHASE WILL BE DETERMINED BY THE MARKET AND THE NEED FOR MATERIAL.
- H. NO MORE THAN FIVE (5) ACRES (EXCLUDING ACCESS ROADS, PROCESSING AREA) SHALL BE LEFT IN AN UNRESTORED (UNSTABILIZED) CONDITION AT ANY TIME. THE ACTIVE AREA MAY BE BROKEN INTO TWO SEPARATE AREAS (MARKETING TWO MATERIALS) AS LONG AS THE TOTAL DISTURBANCE DOES NOT EXCEED FIVE (5) ACRES.
- I. EXCAVATION AREAS SHALL BE WORKED FROM THE HIGHER ELEVATIONS TO PREVENT LARGE VERTICAL FACES OF MATERIAL.
- J. ALL AREAS EXCAVATED SHALL BE STABILIZED UPON COMPLETION.

REV.	DATE	DESCRIPTION	C/O	DR	CK
E	4/12/16	REVISIONS PER TOWN COMMENTS		PWH	CEB
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PHASING & MASTER GRADING PLAN FOR EXCAVATION

**TOWN OF MILFORD
BROX COMMUNITY LANDS**

**TAX MAP 38 - LOT 58
MILFORD, NEW HAMPSHIRE**

**PREPARED FOR:
MILFORD COMMUNITY
DEVELOPMENT**

TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

**LAND OF:
TOWN OF MILFORD
TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055**

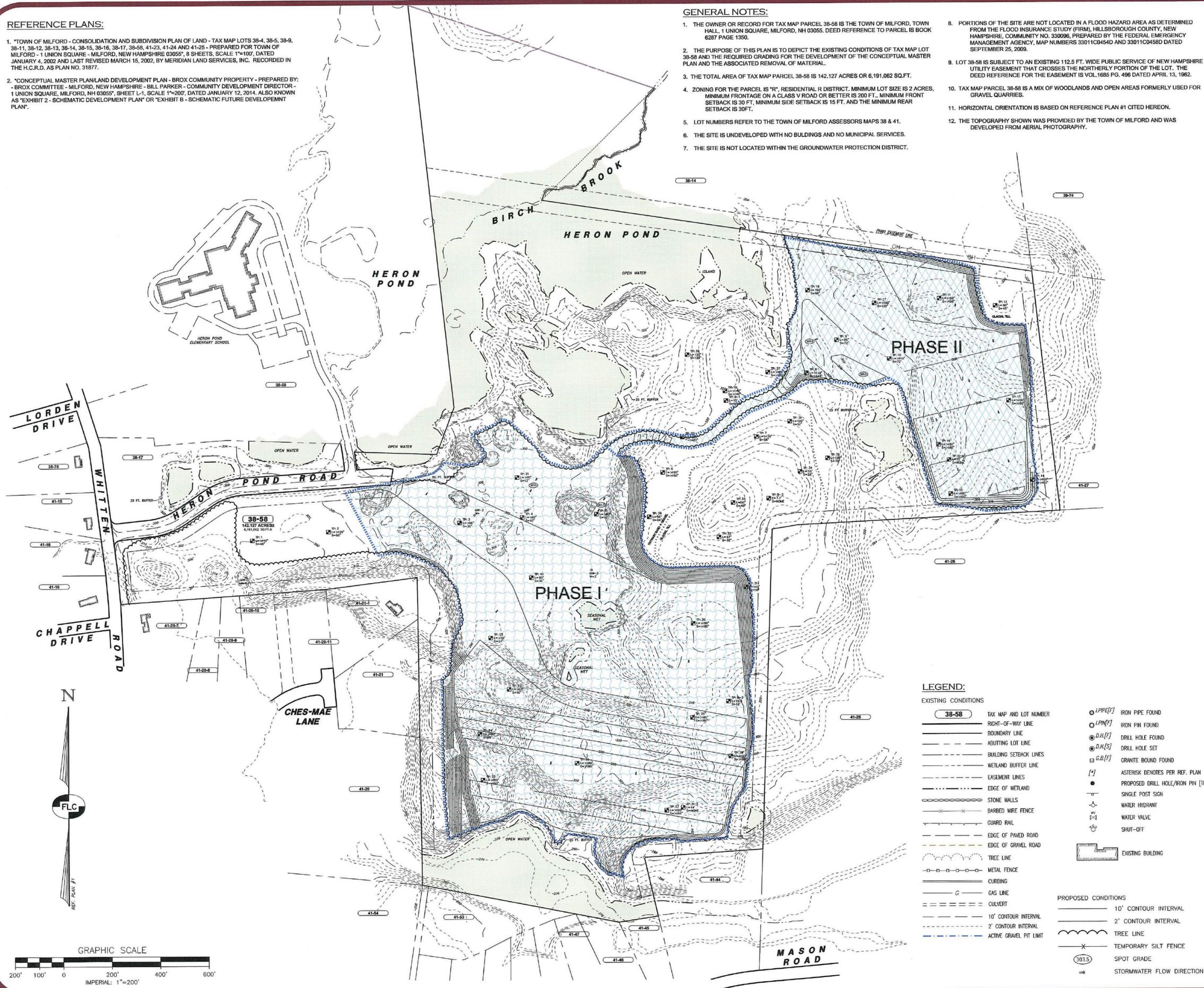
SCALE: 1" = 200'

DECEMBER 1, 2014

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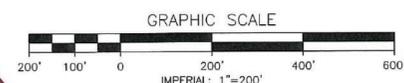
LEGEND:

EXISTING CONDITIONS

- 38-58 TAX MAP AND LOT NUMBER
- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- ADJUTING LOT LINE
- - - BUILDING SETBACK LINES
- - - WETLAND BUFFER LINE
- - - EASEMENT LINES
- - - EDGE OF WETLAND
- STONE WALLS
- BARBED WIRE FENCE
- GUARD RAIL
- - - EDGE OF PAVED ROAD
- - - EDGE OF GRAVEL ROAD
- TREE LINE
- METAL FENCE
- CURBING
- GAS LINE
- CULVERT
- 10' CONTOUR INTERVAL
- 2' CONTOUR INTERVAL
- ACTIVE GRAVEL PIT LIMIT
- L.P.P.E.[F] IRON PIPE FOUND
- L.P.I.N.[F] IRON PIN FOUND
- ⊙ D.H.[F] DRILL HOLE FOUND
- ⊙ D.H.[S] DRILL HOLE SET
- G.B.[F] GRANITE BOUND FOUND
- [*] ASTERISK DENOTES PER REF. PLAN
- PROPOSED DRILL HOLE/IRON PIN [TBS]
- SINGLE POST SIGN
- WATER HYDRANT
- WATER VALVE
- SHUT-OFF
- EXISTING BUILDING

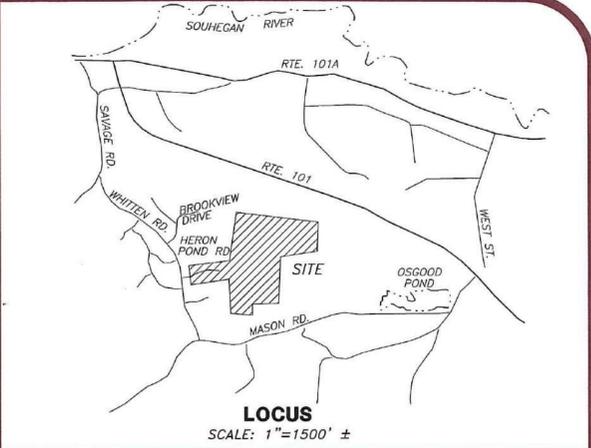
PROPOSED CONDITIONS

- 10' CONTOUR INTERVAL
- 2' CONTOUR INTERVAL
- TREE LINE
- TEMPORARY SILT FENCE
- SPOT GRADE
- STORMWATER FLOW DIRECTION



GENERAL NOTES:

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5. LOT NUMBERS REFER TO THE TOWN OF MILFORD ASSESSORS MAPS 38 & 41.
6. THE SITE IS UNDEVELOPED WITH NO BUILDINGS AND NO MUNICIPAL SERVICES.
7. THE SITE IS NOT LOCATED WITHIN THE WATER SUPPLY PROTECTION DISTRICT.
8. PORTIONS OF THE SITE ARE NOT LOCATED IN A FLOOD HAZARD AREA AS DETERMINED FROM THE FLOOD INSURANCE STUDY (FIRM), HILLSBOROUGH COUNTY, NEW HAMPSHIRE, COMMUNITY NO. 330086, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBERS 33011C0454D AND 33011C0458D DATED SEPTEMBER 25, 2009.
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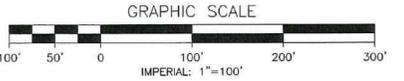
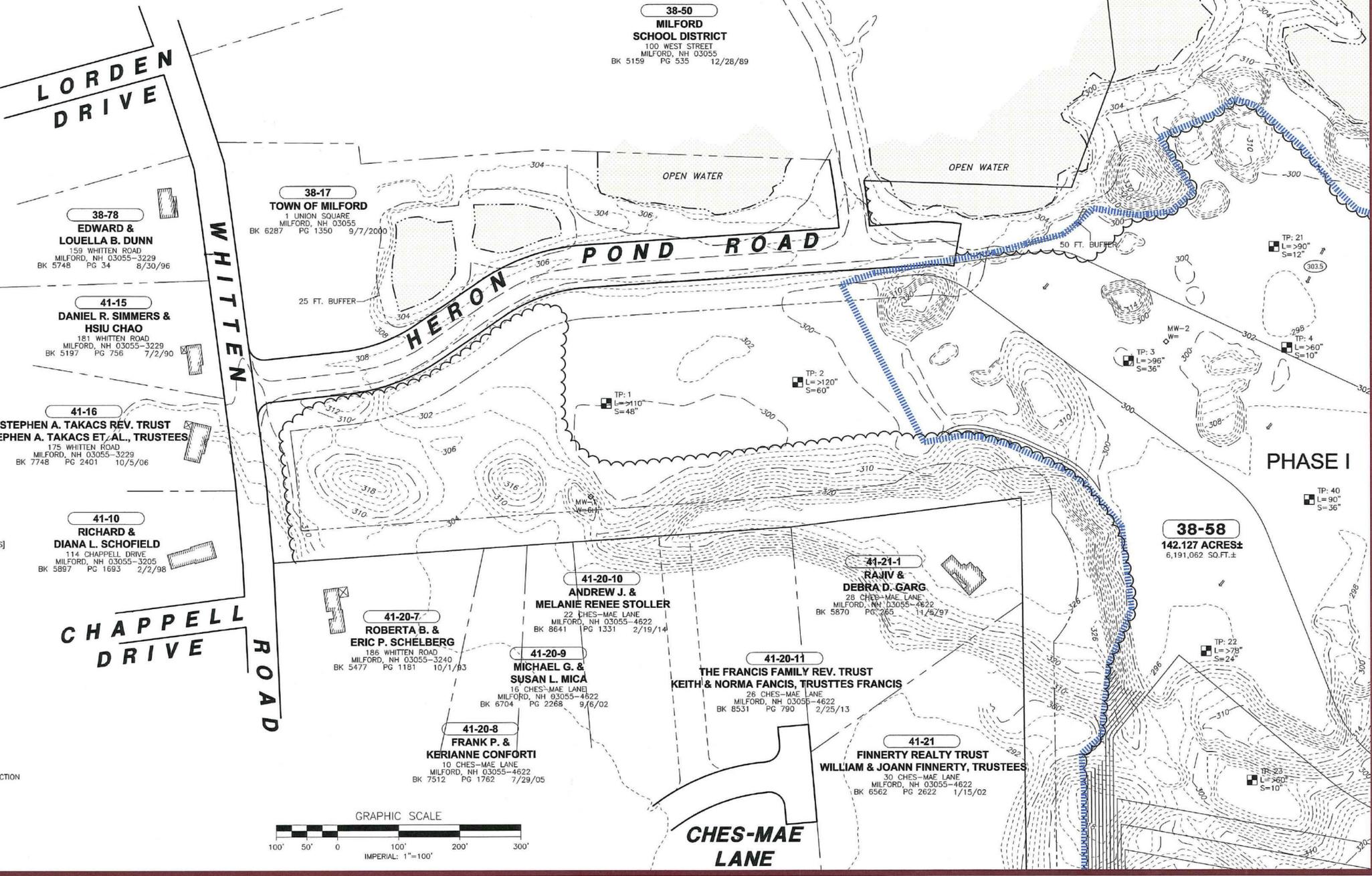


OPERATIONAL NOTES:

- A. THIS PLAN DEPICTS THE REQUIRED GRADING FOR THE DEVELOPMENT OF THE CONCEPTUAL MASTER PLAN AND THE ASSOCIATED REMOVAL OF MATERIAL FROM THE SUBJECT PROPERTY.
- B. ALL TRAFFIC TRANSPORTING EXCAVATED MATERIALS FROM THE PROPERTY WILL BE DETERMINED AT THE TIME OF PLANNING BOARD APPROVAL OF EXCAVATION.
- C. NO EXCAVATION WILL BE PERFORMED WITHIN 25' OF MAPPED WETLANDS OR 50' FROM BIRCH BROOK IN EXCESS OF 10,000 SF, WITHIN 50' OF ABUTTING PROPERTIES OR WITHIN 150' OF EXISTING DWELLINGS.
- D. NO EXCAVATION WITHIN 3 FEET OF SEASONAL HIGH WATER TABLE IS PLANNED. ADDITIONAL TEST PITS WILL NEED TO BE PERFORMED IN DEEP CUT AREAS ONCE MATERIAL IS EXCAVATED TO ENSURE ADEQUATE SEPARATION BETWEEN SEASONAL HIGH WATER IS MAINTAINED.
- E. THE OPERATIONS ON SITE WILL CONSIST OF AN OFFICE TRAILER AND EXCAVATION EQUIPMENT. THE EQUIPMENT USED ON SITE TO PROCESS THE MATERIAL WILL CONSIST OF A MINIMUM OF ONE BULLDOZER, A WHEELED LOADER, AN ARTICULATED HAULER, AN EXCAVATOR, A WATER TRUCK AND PORTABLE PROCESSORS, SUCH AS SCREENERS AND A WASH PLANT. ALL PROCESSING PLANTS SHALL BE CENTRALLY LOCATED ON SITE TO PROVIDE THE GREATEST SEPARATION TO ABUTTING PROPERTIES. THE SITE WILL BE WORKED FROM THE FRONT TO BACK AND WILL BE SELF CONTAINED AT ALL TIMES.
- F. NO CHEMICALS, SUCH AS CALCIUM CHLORIDE, WILL BE USED FOR DUST CONTROL ON SITE. A WATER TRUCK WILL BE UTILIZED FOR DUST CONTROL.
- G. NO HAZARDOUS MATERIALS WILL BE STORED ON-SITE. NO OIL, FUEL OR ANTIFREEZE WILL BE STORED ON SITE. FUEL TANKERS WILL BE UTILIZED TO FUEL EARTH MOVING, LOADING OR PROCESSING EQUIPMENT. FUEL WILL BE DELIVERED TO THE SITE EACH MORNING. SPILL PROTECTION EQUIPMENT AND PADS WILL BE STORED ON SITE FOR IMMEDIATE RESPONSE TO ANY POTENTIAL SPILLS. ANY SPILLAGE SHALL BE IMMEDIATELY REMOVED BY EXCAVATION AND DISPOSED OF IN ACCORDANCE WITH STATE OR FEDERAL REQUIREMENTS. ALL SPILLS OF GREATER THAN FIVE (5) GALLONS WILL BE REPORTED TO THE MILFORD FIRE DEPARTMENT AND TO THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
- H. EROSION AND SEDIMENTATION CONTROL WILL BE MAINTAINED AS REQUIRED BY LOCAL, STATE AND FEDERAL PERMITS. THE EXCAVATION OPERATIONS FOR THIS PROJECT WILL BE SELF CONTAINED.
- I. NO MORE THAN FIVE (5) ACRES, EXCLUDING THE PROCESSING AREA AND ACCESS ROADS (APPROX. 5 ACRES), SHALL BE LEFT IN AN UNRESTORED (UNSTABILIZED) CONDITION AT ANY TIME. SEE RESTORATION PLAN NOTES.
- J. WORKING HOURS SHALL BE 7 A.M. TO 6 P.M. MONDAY THROUGH FRIDAY AND 7 A.M. TO 2 P.M. ON SATURDAY. NO MATERIAL PROCESSING WILL START BEFORE 7 A.M.
- K. TRUCKS THAT WILL BE UTILIZED TO TRANSPORT THE MATERIAL FROM THE SITE WILL CONSIST OF TRAILERS, 10-WHEELERS, AND TRACTOR TRAILER DUMP TRUCKS. THE DURATION OF THE EXCAVATION WILL BE DETERMINED BY THE MARKET AND THE NEED FOR THE MATERIAL.
- L. THE FOLLOWING PERMITS ARE REQUIRED FOR THIS PHASE OF THE PROJECT:
- WIDES ALTERATION OF TERRAIN PERMIT - AOT (FORMERLY SITE SPECIFIC PERMIT)

LEGEND:

- EXISTING CONDITIONS**
- 38-58 TAX MAP AND LOT NUMBER
 - RIGHT-OF-WAY LINE
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 - CULVERT
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 - IRON PIN FOUND
 - DRILL HOLE FOUND
 - DRILL HOLE SET
 - GRANITE BOUND FOUND
 - ASTERISK DENOTES PER REF. PLAN
 - PROPOSED DRILL HOLE/IRON PIN [TBS]
 - SINGLE POST SIGN
 - WATER HYDRANT
 - WATER VALVE
 - SHUT-OFF
 - EXISTING BUILDING
- PROPOSED CONDITIONS**
- 10' CONTOUR INTERVAL
 - 2' CONTOUR INTERVAL
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GRADING PLAN

TOWN OF MILFORD
BROX COMMUNITY LANDS

TAX MAP 38 - LOT 58
MILFORD, NEW HAMPSHIRE

PREPARED FOR:
MILFORD COMMUNITY
DEVELOPMENT

TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

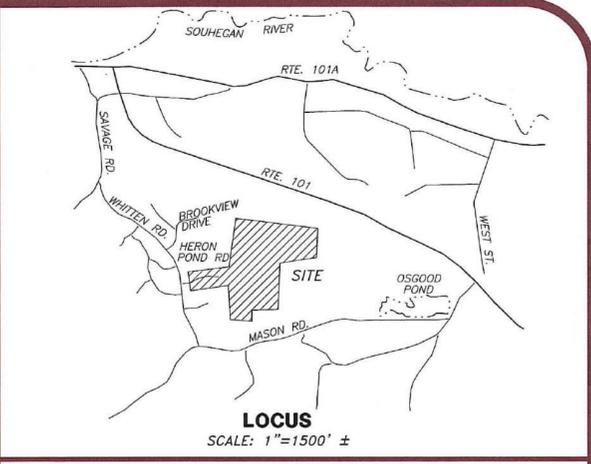
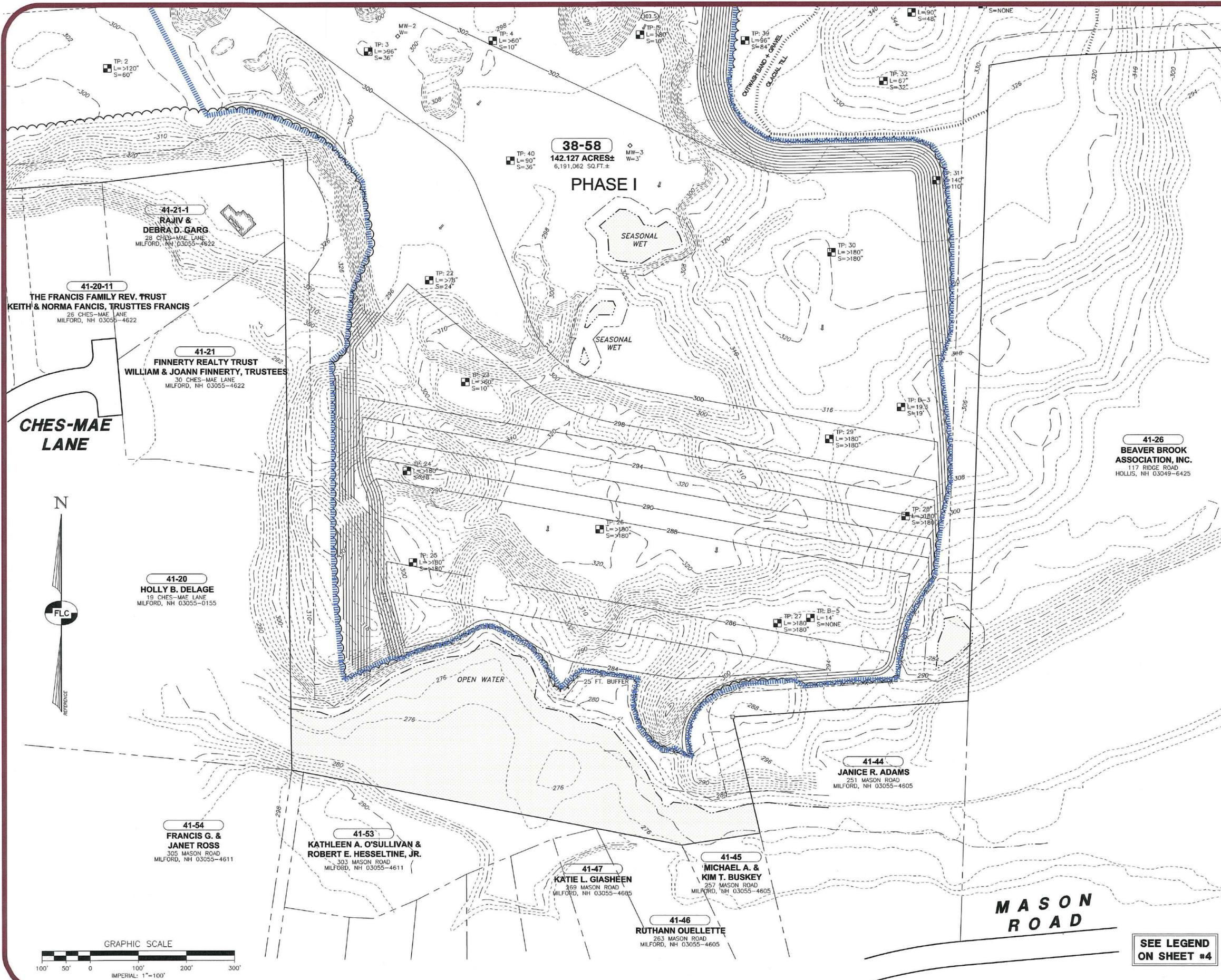
LAND OF:
TOWN OF MILFORD
TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

SCALE: 1" = 100' DECEMBER 1, 2014

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs



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 - D. NO EXCAVATION WITHIN 3 FEET OF SEASONAL HIGH WATER TABLE IS PLANNED. ADDITIONAL TEST PITS WILL NEED TO BE PERFORMED IN DEEP CUT AREAS ONCE MATERIAL IS EXCAVATED TO ENSURE ADEQUATE SEPARATION BETWEEN SEASON HIGH WATER IS MAINTAINED.
 - E. THE OPERATIONS ON SITE WILL CONSIST OF AN OFFICE TRAILER AND EXCAVATION EQUIPMENT. THE EQUIPMENT USED ON SITE TO PROCESS THE MATERIAL WILL CONSIST OF A MINIMUM OF ONE BULLDOZER, A WHEELED LOADER, AN ARTICULATED HAULER, AN EXCAVATOR, A WATER TRUCK AND PORTABLE PROCESSORS, SUCH AS SCREENERS AND A WASH PLANT. ALL PROCESSING PLANTS SHALL BE CENTRALLY LOCATED ON SITE TO PROVIDE THE GREATEST SEPARATION TO ABUTTING PROPERTIES. THE SITE WILL BE WORKED FROM THE FRONT TO BACK AND WILL BE SELF-CONTAINED AT ALL TIMES.
 - F. NO CHEMICALS, SUCH AS CALCIUM CHLORIDE, WILL BE USED FOR DUST CONTROL ON SITE. A WATER TRUCK WILL BE UTILIZED FOR DUST CONTROL.
 - G. NO HAZARDOUS MATERIALS WILL BE STORED ON-SITE. NO OIL, FUEL OR ANTIFREEZE WILL BE STORED ON SITE. FUEL TANKERS WILL BE UTILIZED TO FUEL EARTH MOVING, LOADING OR PROCESSING EQUIPMENT. FUEL WILL BE DELIVERED TO THE SITE EACH MORNING. SPILL PROTECTION EQUIPMENT AND PADS WILL BE STORED ON SITE FOR IMMEDIATE RESPONSE TO ANY POTENTIAL SPILLS. ANY SPILLAGE SHALL BE IMMEDIATELY REMOVED BY EXCAVATION AND DISPOSED OF IN ACCORDANCE WITH STATE OR FEDERAL REQUIREMENTS. ALL SPILLS OF GREATER THAN FIVE (5) GALLONS WILL BE REPORTED TO THE MILFORD FIRE DEPARTMENT AND TO THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
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 - L. THE FOLLOWING PERMITS ARE REQUIRED FOR THIS PHASE OF THE PROJECT:
 - WIDES ALTERATION OF TERRAIN PERMIT - AOT (FORMERLY SITE SPECIFIC PERMIT)

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GRADING PLAN

TOWN OF MILFORD
BROX COMMUNITY LANDS
 TAX MAP 38 - LOT 58
 MILFORD, NEW HAMPSHIRE

PREPARED FOR:
MILFORD COMMUNITY DEVELOPMENT
 TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

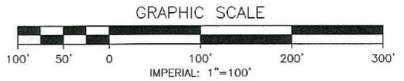
LAND OF:
TOWN OF MILFORD
 TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

SCALE: 1" = 100' DECEMBER 1, 2014

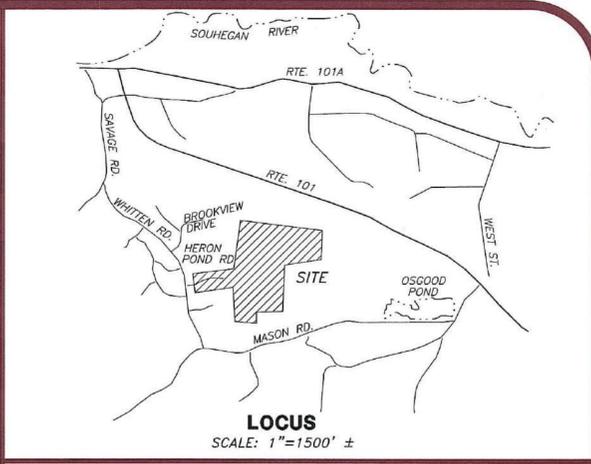
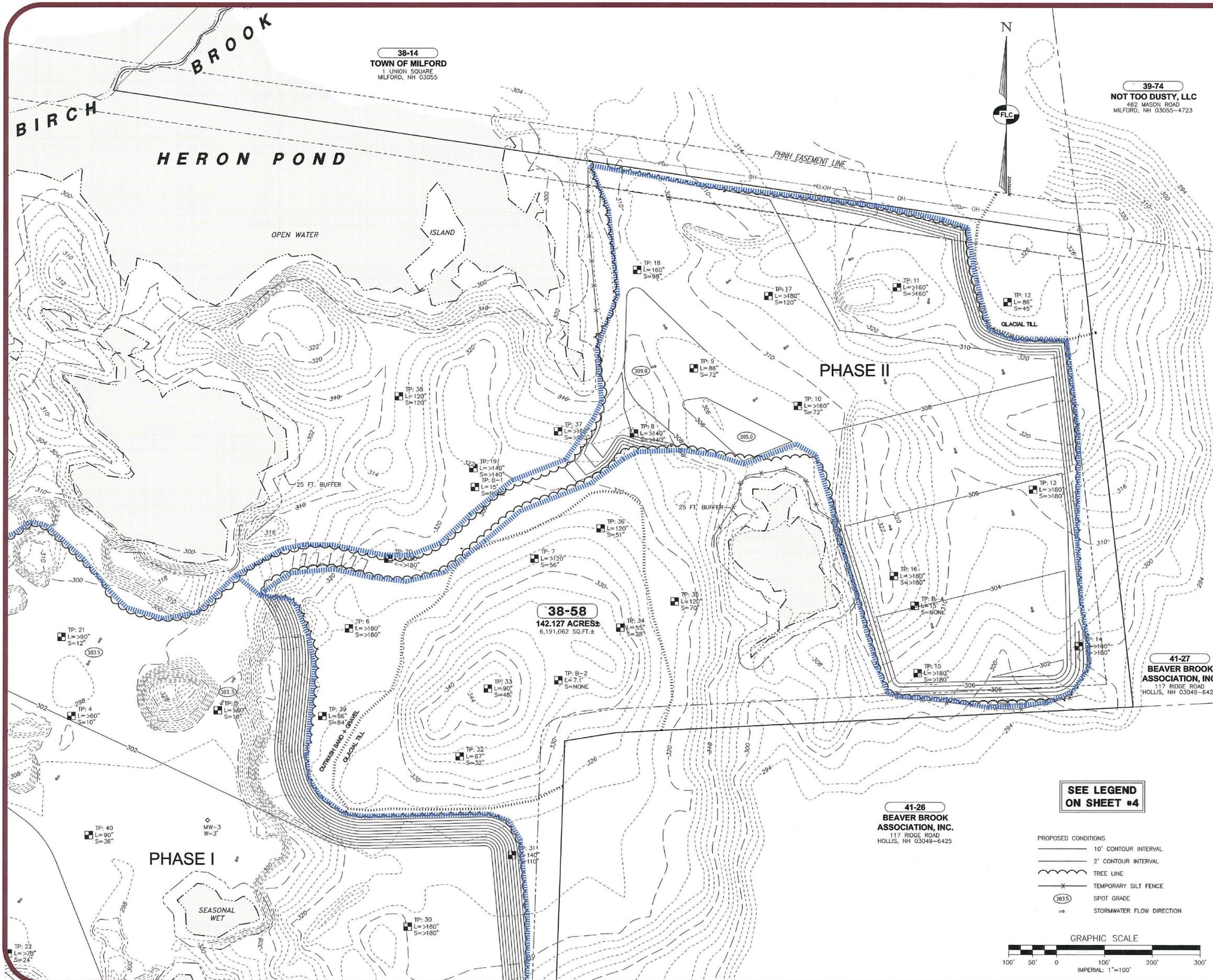
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SEE LEGEND ON SHEET #4



- OPERATIONAL NOTES:**
- A. THIS PLAN DEPICTS THE REQUIRED GRADING FOR THE DEVELOPMENT OF THE CONCEPTUAL MASTER PLAN AND THE ASSOCIATED REMOVAL OF MATERIAL FROM THE SUBJECT PROPERTY.
 - B. ALL TRAFFIC TRANSPORTING EXCAVATED MATERIALS FROM THE PROPERTY WILL BE DETERMINED AT THE TIME OF PLANNING BOARD APPROVAL OF EXCAVATION.
 - C. NO EXCAVATION WILL BE PERFORMED WITHIN 25' OF MAPPED WETLANDS OR 50' FROM BIRCH BROOK IN EXCESS OF 10,000 SF, WITHIN 50' OF ABUTTING PROPERTIES OR WITHIN 150' OF EXISTING DWELLINGS.
 - D. NO EXCAVATION WITHIN 3 FEET OF SEASONAL HIGH WATER TABLE IS PLANNED. ADDITIONAL TEST PITS WILL NEED TO BE PERFORMED IN DEEP CUT AREAS ONCE MATERIAL IS EXCAVATED TO ENSURE ADEQUATE SEPARATION BETWEEN SEASON HIGH WATER IS MAINTAINED.
 - E. THE OPERATIONS ON SITE WILL CONSIST OF AN OFFICE TRAILER AND EXCAVATION EQUIPMENT. THE EQUIPMENT USED ON SITE TO PROCESS THE MATERIAL WILL CONSIST OF A MINIMUM OF ONE BULLDOZER, A WHEELED LOADER, AN ARTICULATED HAULER, AN EXCAVATOR, A WATER TRUCK AND PORTABLE PROCESSORS, SUCH AS SCREENERS AND A WASH PLANT. ALL PROCESSING PLANTS SHALL BE CENTRALLY LOCATED ON SITE TO PROVIDE THE GREATEST SEPARATION TO ABUTTING PROPERTIES. THE SITE WILL BE WORKED FROM THE FRONT TO BACK AND WILL BE SELF CONTAINED AT ALL TIMES.
 - F. NO CHEMICALS, SUCH AS CALCIUM CHLORIDE, WILL BE USED FOR DUST CONTROL ON SITE. A WATER TRUCK WILL BE UTILIZED FOR DUST CONTROL.
 - G. NO HAZARDOUS MATERIALS WILL BE STORED ON-SITE. NO OIL, FUEL OR ANTIFREEZE WILL BE STORED ON SITE. FUEL TANKERS WILL BE UTILIZED TO FUEL EARTH MOVING, LOADING OR PROCESSING EQUIPMENT. FUEL WILL BE DELIVERED TO THE SITE EACH MORNING. SPILL PROTECTION EQUIPMENT AND PADS WILL BE STORED ON SITE FOR IMMEDIATE RESPONSE TO ANY POTENTIAL SPILLS. ANY SPILLAGE SHALL BE IMMEDIATELY REMOVED BY EXCAVATION AND DISPOSED OF IN ACCORDANCE WITH STATE OR FEDERAL REQUIREMENTS. ALL SPILLS OF GREATER THAN FIVE (5) GALLONS WILL BE REPORTED TO THE MILFORD FIRE DEPARTMENT AND TO THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
 - H. EROSION AND SEDIMENTATION CONTROL WILL BE MAINTAINED AS REQUIRED BY LOCAL, STATE AND FEDERAL PERMITS. THE EXCAVATION OPERATIONS FOR THIS PROJECT WILL BE SELF CONTAINED.
 - I. NO MORE THAN FIVE (5) ACRES, EXCLUDING THE PROCESSING AREA AND ACCESS ROADS (APPROX. 5 ACRES), SHALL BE LEFT IN AN UNRESTORED (UNSTABILIZED) CONDITION AT ANY TIME. SEE RESTORATION PLAN NOTES.
 - J. WORKING HOURS SHALL BE 7 A.M. TO 6 P.M. MONDAY THROUGH FRIDAY AND 7 A.M. TO 2 P.M. ON SATURDAY. NO MATERIAL PROCESSING WILL START BEFORE 7 A.M.
 - K. TRUCKS THAT WILL BE UTILIZED TO TRANSPORT THE MATERIAL FROM THE SITE WILL CONSIST OF TRI-AXLES, 10-WHEELERS, AND TRACTOR TRAILER DUMP TRUCKS. THE DURATION OF THE EXCAVATION WILL BE DETERMINED BY THE MARKET AND THE NEED FOR THE MATERIAL.
 - L. THE FOLLOWING PERMITS ARE REQUIRED FOR THIS PHASE OF THE PROJECT:
 - NHDES ALTERATION OF TERRAIN PERMIT - AOT (FORMERLY SITE SPECIFIC PERMIT)

REV.	DATE	DESCRIPTION	C/O	DR	CK
E	4/12/16	REVISIONS PER TOWN COMMENTS		PWH	CEB
D	1/29/15	MODIFIED PROJECT PHASING PER TOWN		JMT	CEB
C	12/29/14	REVISIONS PER IN HOUSE REVIEW		JMT	CEB
B	12/24/14	REVISIONS PER IN HOUSE REVIEW		JMT	CEB
A	12/11/14	REVISIONS PER TOWN COMMENTS		JMT	CEB
REV.	DATE	DESCRIPTION	C/O	DR	CK

GRADING PLAN

TOWN OF MILFORD
BROX COMMUNITY LANDS
 TAX MAP 38 - LOT 58
 MILFORD, NEW HAMPSHIRE

PREPARED FOR:
MILFORD COMMUNITY DEVELOPMENT
 TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

LAND OF:
TOWN OF MILFORD
 TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

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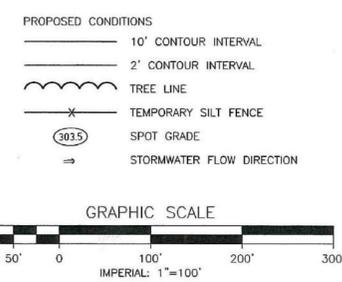
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FILE: 519GR01E.dwg PROJ. NO. 519.01 SHEET: GR-3 SHEET NO. 6 OF 8

SEE LEGEND ON SHEET #4



SITE PREPARATION:

- CUT AND FILL SLOPES SHOULD NOT EXCEED 2:1 TO PROVIDE STABILITY. FLATTER SLOPES (3:1) ARE PREFERRED.
- AVOID LONG SLOPES TO HELP PREVENT EROSION AND TO ALLOW ACCESS FOR SEEDING, MULCHING AND MAINTENANCE. (SEE TERRACED SLOPE DETAIL).
- WHEN POSSIBLE, DIVERSIONS SHOULD BE CONSTRUCTED AT TOPS OF SLOPES TO DIVERT RUNOFF WATER AWAY FROM THE SLOPE BANKS TO PREVENT EROSION (SEE TERRACED SLOPE DETAIL).
- WHEN SLOPES ARE TERRACED, ROCK LINED CHUTES OR EQUIVALENT SHALL BE UTILIZED TO CONVEY CONCENTRATED FLOWS OF WATER TO STABLE OUTLETS.
- REMOVE LARGE STONES, BOULDERS AND OTHER DEBRIS THAT WILL HINDER THE SEEDING PROCESS AND ALLOW THE ESTABLISHMENT OF VEGETATION.
- SPREAD A MINIMUM OF 4 INCHES OF TOPSOIL OVER THE SITE, IF AVAILABLE.
- OBTAIN SOIL SAMPLES BY COLLECTING 6 TO 8 SMALL SAMPLES (1 OR 2 HANDFULS) OF SOIL MATERIAL FROM THE UPPER 4 INCHES OF THE AREA TO BE SEEDDED. MIX THE SMALL SAMPLES TO OBTAIN ONE COMPOSITE SAMPLE.
- USE PART OF THE SAMPLE FOR A SOIL TEST TO DETERMINE LIME AND FERTILIZER NEEDS. RUN THE BALANCE OF THE SAMPLE(S) THROUGH A SIEVE ANALYSIS TO DETERMINE THE PERCENT BY WEIGHT PASSING A NO. 20 SIEVE. THOSE PASSING ARE CALLED FINES.

SEEDING PROCEDURES:

(1) SPECIES AND VARIETY SELECTION

SELECT ONE OF THE GRASS/LEGUME MIXES BASED ON THE PERCENT WEIGHT PASSING A NO. 200 SIEVE AS OUTLINED ABOVE. MIX 2 IS RECOMMENDED IF SUPPRESSION OF WOODY GROWTH IS DESIRED AND THERE ARE MORE THAN 15 PERCENT FINES. THE STANDARD CONSERVATION MIXES AVAILABLE FROM LOCAL SEED SUPPLIERS ARE NOT RECOMMENDED ON DROUGHTY SITES. THESE MIXES USUALLY PROVIDE A GREEN COVER VERY QUICKLY, BUT THE PLANT SPECIES BEGIN TO DIE IN 2-4 YEARS ON STERILE AND DROUGHTY SITES.

WHERE PERCENT BY WEIGHT PASSING A NO. 200 SIEVE IS LESS THAN 15, SELECT FROM MIX 1.

MIX 1 (WARM SEASON GRASSES)

SPECIES	VARIETIES (SELECT ONE)	MIX OPTIONS FOR VARIOUS SITUATIONS ^(b)		
		(1)	(2)	(3)
SWITCHGRASS	TRAILBLAZER, PATHFINDER	6	2	6
COASTAL PANICGRASS	ATLANTIC	5	5	5
BIG BLUESTEM	NIAGRA, KAW	4	2	4
LITTLE BLUESTEM	ALDOUS, CAMPER, BLAZE	2	2	2
SAND LOVEGRASS	BEND, NE-27	4	6	5
		15	15	15

OPTIONS IN MIX 1

- THIS COMBINATION MOST CLOSELY REPRESENTS THE NATURALLY OCCURRING VEGETATION WHERE WARM SEASON GRASSES ARE NATIVE IN THE NORTHEAST.
- THIS COMBINATION HAS THE FASTEST ESTABLISHMENT AND COVER.
- THIS COMBINATION IS THE SIMPLEST AND MAY BE EASIER TO OBTAIN. OPTIONS 2 OR 1 IS PREFERRED.

WHERE PERCENT BY WEIGHT PASSING A NO. 200 SIEVE IS BETWEEN 15 AND 20, SELECT FROM MIX 2.

MIX 2 (LEGUMES AND COOL SEASON GRASSES)

SPECIES	VARIETIES (SELECT ONE) ^(a)	LBS PER ACRE ^(c)		
		(1)	(2)	(3)
FLATPEA ^(c)	LATHCO	10.0	10.0	10.0
PERENNIAL PEA ^(c)	LANCER	2.0	2.0	2.0
CROWN VETCH ^(c)	PENGIFT, CHEMUNG	10.0	10.0	10.0
TALL FESCUE	KY-31, REBEL, KEN-HI	10.0	10.0	10.0

(a) VARIETIES ARE LISTED IN PREFERENTIAL ORDER.

(b) WARM SEASON GRASS SEED IS SOLD AND PLANTED ON THE BASIS OF PURE LIVE SEEDS (PLS). AN ADJUSTMENT IS MADE TO THE BULK POUNDS OF SEED TO COMPENSATE FOR INERT MATERIAL AND DEAD SEED.

(c) THESE LEGUMES MUST BE INOCULATED AT THE TIME OF SEEDING. IF SEEDING BY HAND, USE A STICKING AGENT SUCH AS COCA-COLA OR MILK TO STICK INOCULANT TO SEED. IF SEEDING WITH A HYDROSEEDER, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT.

WHERE PERCENT BY WEIGHT PASSING A NO. 200 SIEVE IS ABOVE 20, SELECT FROM MIX 3.

MIX 3 (LEGUMES AND COOL SEASON GRASSES)

SPECIES	VARIETIES (SELECT ONE) ^(a)	LBS PER ACRE ^(b)		
		(1)	(2)	(3)
TALL FESCUE	KY-31	20.0	20.0	20.0
REDTOP	STREEKER, COMMON	2.0	2.0	2.0
BIRDSFOOT TREFOIL ^(c)	VIKING, EMPIRE	8.0	8.0	8.0

(a) VARIETIES ARE LISTED IN PREFERENTIAL ORDER.

(b) LEGUME AND COOL SEASON GRASS SEED IS SOLD AND PLANTED ON A BULK BASIS. THE WEIGHT IS NOT COMPENSATED FOR INERT MATERIAL AND DEAD SEED.

(c) THESE LEGUMES MUST BE INOCULATED AT THE TIME OF SEEDING. IF SEEDING BY HAND, USE A STICKING AGENT SUCH AS COCA-COLA OR MILK TO STICK INOCULANT TO SEED. IF SEEDING WITH A HYDROSEEDER, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT.

(2) LIME AND FERTILIZER DETERMINATION

(a) MIX 1 - IN LIEU OF A SOIL TEST, LIME AT THE RATE OF 1 TON/ACRE (50 LBS/1000 S.F.) FERTILIZE WITH 500 LBS/ACRE (11 LBS/1000 S.F.) OF 10-20-20 OR EQUIVALENT. INCORPORATE LIME, FERTILIZER, AND SEED USING RAKES IF SEEDING IS DONE BY HAND. IT IS STRONGLY RECOMMENDED TO USE A BULLDOZER TO "TRACK" THE SITE AFTER SEEDING. TRACKING WILL INCORPORATE THE LIME, FERTILIZER AND SEED TO PROMOTE SEED GERMINATION.

(b) MIXES 2 & 3 - IN LIEU OF A SOIL TEST, LIME AT THE RATE OF 2 TONS/ACRE (90 LBS/1000 S.F.) FERTILIZE WITH 500 LBS/ACRE (11 LBS/1000 S.F.) OF 10-20-20 OR EQUIVALENT.

THE SEED NEEDS TO BE INCORPORATED TO ENSURE SUCCESS AND TO SHORTEN ESTABLISHMENT TIME. THIS IS ESPECIALLY TRUE OF MIXES 1 AND 2, AND IS MOST CRITICAL FOR THE LARGE SEED LEGUMES IN MIX 2. ON THE FLATTER SLOPES, USE A BULLDOZER TO "TRACK" IN THE SEED.

(3) MULCH DETERMINATION

(a) MULCHING FOR MIX 1 - WEED FREE MULCH. CLEAN STRAW IS RECOMMENDED. MULCH AT THE MAXIMUM RATE OF 500-700 LBS/ACRE. HIGHER MULCHING RATES AND MULCH WITH WEED SEED CONTENT WILL INHIBIT SEEDING SUCCESS SIGNIFICANTLY. IF THE EROSION HAZARD IS AND THE SEED IS INCORPORATED, MULCHING IS NOT NECESSARY FOR SEEDING SUCCESS. DO NOT APPLY MULCH PRIOR TO "TRACKING" WITH A BULLDOZER.

(b) MULCHING FOR MIX 2 AND 3 - MULCH WITH WEED FREE HAY OR STRAW AND MULCH AT THE RATE OF 2-3 TONS/ACRE FOR MIX 2 AND 1-2 TONS/ACRE FOR MIX 3. THE HIGHER MULCHING RATE IS RECOMMENDED WHERE SEED INCORPORATION IS DIFFICULT. THIS IS ESPECIALLY CRITICAL FOR MIX 2.

(4) SEEDING METHODS

ALTERNATIVE 1 - LARGE AREAS AND/OR STEEP SLOPES
APPLY LIME, SEED AND FERTILIZER WITH A HYDROSEEDER AND DEPENDING ON THE CONSISTENCY OF THE SOIL MATERIAL, STEEPNESS OF SLOPE, AND SEED MIXTURE USED:

- PRESS THE SEED INTO THE SOIL BY "TRACKING" WITH BULLDOZER, OR
- COVER THE SEED BY WALKING BACK AND FORTH OVER STEEP LOOSE SANDY SLOPES, OR
- APPLY MULCH AND A TACKIFIER TO HOLD THE MULCH IN PLACE.

ALTERNATIVE 2 - FLAT TO GENTLY SLOPING AREAS (2:1 SLOPES MAXIMUM)
APPLY LIME, SEED AND FERTILIZER USING FARM TYPE SPREADERS, AND "TRACK" THE SITE WITH A BULLDOZER OR APPLY MULCH

(5) SEEDING DATES

PRIMARY SEEDING DATES BEGIN AS SOON AS THE SNOW MELTS IN THE SPRING AND ENDS MAY 15. THE IMPORTANCE OF EARLY SEEDING CANNOT BE OVEREMPHASIZED. THIS IS ESPECIALLY TRUE OF MIX 1. DEPENDING ON THE WEATHER CONDITIONS, SUBSTANTIAL FAILURE CAN BE EXPECTED IF SEEDING IS DONE LATER.

LATE SUMMER AND EARLY FALL SEEDINGS ARE NOT RECOMMENDED FOR MIXES 1 AND 2. IF LATE SEASON SEEDINGS OF MIXES 1 AND 2 ARE NECESSARY, THEY SHOULD BE DONE AFTER OCTOBER 20 TO PREVENT FALL GERMINATION AND SUBSEQUENT WINTER KILL.

MIX 3 CAN ALSO BE SEEDDED FROM AUGUST 15 TO SEPTEMBER 1 WITH CONVENTIONAL SEEDING.

(6) RESPONSE OF SEEDING

THE PLANT SPECIES IN MIXES 1 AND 2 GERMINATE AND GROW SLOWLY. COMPLETE COVER MAY NOT OCCUR FOR 2-4 YEARS. HOWEVER, A WELL ESTABLISHED STAND WILL ENDURE FOR YEARS.

FOLLOW-UP SEEDING MAY BE NEEDED TO ESTABLISH VEGETATION ON THE MORE DIFFICULT PARTS OF SOME SITES. THE NEED TO DO FOLLOW-UP SEEDING CAN BE DETERMINED THE YEAR AFTER THE INITIAL PLANTING.

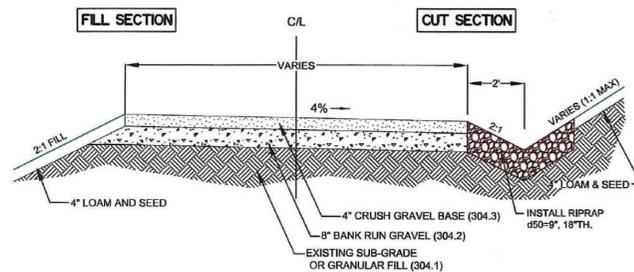
MAINTENANCE:

SUBSTANTIAL STAND VIGOR CAN BE ACHIEVED IF THE SITE IS TOPDRESSED WITH FERTILIZER ONE YEAR AFTER PLANTING. IF TOPDRESSING MIX 1, FERTILIZE BETWEEN JUNE 15 AND JULY 15. THE TIMING OF THIS TOPDRESSING IS IMPORTANT. MIXES 2 AND 3 SHOULD BE TOPDRESSED IN EARLY SPRING. TOPDRESS MIXES 1 AND 3 WITH A BALANCED FERTILIZER, APPLYING 50 LBS OF NITROGEN/ACRE. FOR EXAMPLE APPLY 250 LBS OF 20-20-20/ACRE. TOPDRESS MIX 2 WITH 500 LBS OF 0-20-20/ACRE IN APRIL, MAY OR JUNE.

IF MOWING IS DESIRED TO SUPPRESS WOODY GROWTH, MOW MIX 1 ABOUT MID JULY LEAVING A STUBBLE HEIGHT OF 6-8 INCHES. IT IS NOT NECESSARY TO MOW MIX 2. A GOOD COVER OF FLATPEA WILL PREVENT INVASION OF WOODY SPECIES. MIX 3 CAN BE MOWED AT ANY TIME.

PERMANENT SEEDING FOR DISTURBED AREAS - CONT.

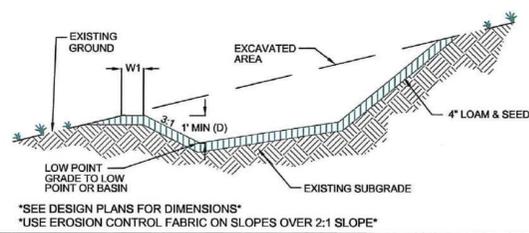
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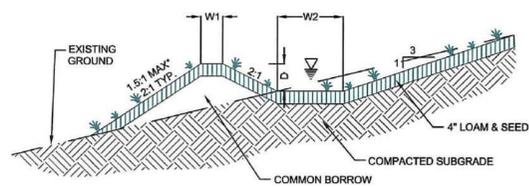
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ACCESS ROAD TYPICAL SECTION

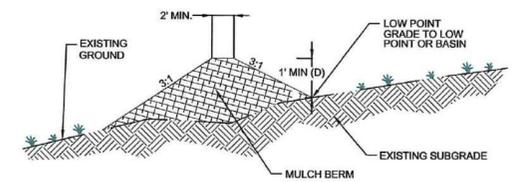
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DIVERSION SWALE / BERM (EXCAVATED CONDITION)

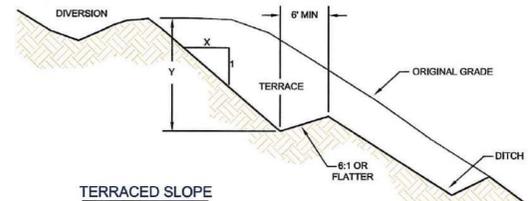


DIVERSION SWALE / BERM (FILL CONDITION)



MULCH BERM

1
D-1



TERRACED SLOPE

- NOTES:
- SLOPES REQUIRING TERRACING/BENCHING:
 - ANY 2:1 SLOPE WITH VERTICAL HEIGHTS OVER 20 FEET.
 - ANY 3:1 SLOPE WITH VERTICAL HEIGHTS OVER 30 FEET.
 - ANY 4:1 SLOPE WITH VERTICAL HEIGHTS OVER 40 FEET.
 - MINIMUM BENCH WIDTH IS 6 FEET.
 - BENCHES SHALL GRADE INTO EMBANKMENT (REVERSE SLOPE) AT A SLOPE OF 6:1 OR FLATTER AND BE A MINIMUM OF 1 FOOT IN DEPTH.
 - THE MAXIMUM FLOW LENGTH ALONG BENCH SHALL NOT EXCEED 800 FEET.
 - THE BENCH GRADIENT TO THE OUTLET POINT SHALL BE 2 TO 3 PERCENT.

TERRACED SLOPE

6
D-1

- TEMPORARY PROTECTION OF DISTURBED AREAS SHALL BE IMPLEMENTED WHERE A TEMPORARY STAND OF GRASS OR SMALL GRAINS WILL NORMALLY PRODUCE SUFFICIENT COVER TO RETARD EROSION AND REDUCE SEDIMENT.
 - USE OF TEMPORARY SEEDING SHALL BE IMPLEMENTED WHEN A DISTURBED AREA OR MATERIAL STOCKPILE WILL BE INACTIVE FOR A PROLONGED PERIOD OF TIME.
 - ALL ESSENTIAL GRADING SUCH AS DIVERSIONS, DAMS, DITCHES, AND DRAINS NEEDED TO PREVENT GULLYING AND REDUCE SILTATION SHALL BE COMPLETED PRIOR TO SEEDING.
 - PREPARE SEEDBED BY REMOVING ALL STONES, TRASH AND STUMPING DEBRIS THAT WILL INTERFERE WITH SEEDING AREA. WHERE FEASIBLE, TILL THE SOIL TO A DEPTH OF ABOUT 3 INCHES TO PREPARE SEEDBED AND MIX FERTILIZER INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATIONS SHOULD BE PERFORMED ACROSS THE SLOPE.
 - A MINIMUM OF 300 POUNDS PER ACRE (7 LBS. PER 1,000 SQ.FT.) OF 10-10-10 FERTILIZER, OR ITS EQUIVALENT, SHALL BE UNIFORMLY SPREAD OVER THE AREA PRIOR TO BEING INCORPORATED INTO THE SOIL.
 - THE SEED SHALL BE SPREAD UNIFORMLY OVER THE AREA. AFTER SEEDING, THE SOIL SHOULD BE FIRMED BY ROLLING OR PACKING. WHERE ROLLING OR PACKING IS NOT FEASIBLE, THE SEED SHALL BE COVERED LIGHTLY BY RAKING, DISKING, OR DRAGGING.
 - HAY OR STRAW MULCH MAY BE NECESSARY TO PROMOTE SEED GERMINATION IN DRY AND/OR INFERTILE CONDITIONS.
 - PLANT SELECTION AND APPLICATION RATES:
- | SPECIES | RATE 1 (LBS/AC.) | RATE 2 (LBS/1,000 S.F.) | REMARKS |
|--------------------|------------------|-------------------------|--|
| WINTER RYE | 112 | 2.5 | FALL 8/15 TO 9/15 PLANT 1.0 INCH DEEP |
| OATS | 80 | 2.0 | SPRING PRIOR TO 5/15 PLANT 1.0 INCH DEEP |
| ANNUAL RYEGRASS | 40 | 1.0 | QUICK, SHORT DURATION GOOD APPEARANCE EARLY SPRING & FALL PLANT 0.25 INCH DEEP |
| PERENNIAL RYEGRASS | 30 | 0.7 | LASTS LONGER THAN ANNUAL LATE SPRING & FALL MULCHING WILL ALLOW USE ALL SEASON PLANT 0.5 INCH DEEP |



GENERAL CONSTRUCTION NOTES

8
D-1

- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS. INSTALL ALL STONE CHECK DAMS, SILTATION CONTROL FENCES, CONSTRUCTION EXITS AND ANY OTHER DEVICES PROPOSED IN LOCATIONS SHOWN ON PLANS.
- CUT AND CLEAR TREES AS REQUIRED. DISPOSE OF DEBRIS.
- REMOVE TOPSOIL AND STOCKPILE AWAY FROM ANY WETLAND. STABILIZE STOCKPILE IMMEDIATELY BY SEEDING. PLACE SILT FENCE AROUND THE DOWN SLOPE SIDE OF EARTH STOCKPILES.
- CONSTRUCT AND MAINTAIN ACCESS ROADS TO PERMIT ACCESS TO ACTIVE SECTIONS OF THE GRAVEL OPERATION. THIS WILL FLUCTUATE THROUGH THE COURSE OF THE PROJECT. ALL CUT AND FILL SLOPES SHALL BE STABILIZED UPON COMPLETION OF ROUGH GRADING PER THE EROSION CONTROL NOTES.
- INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5" OR GREATER RAINFALL EVENT.
- DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, CULVERTS, DITCHES, SILTATION FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
- FINISH GRADING TO PREPARE FOR RESTORATION (LOAM AND SEEDING). ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
- PERMANENT SEEDING SHALL BE PERFORMED UPON COMPLETION OF WORK AREAS (PHASES). SEE PERMANENT SEEDING NOTES ON THIS SHEET.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED. ACCUMULATED SEDIMENT SHALL BE REMOVED AND STABILIZED APPROPRIATELY.

CONSTRUCTION SEQUENCE NOTES

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D-1

REV.	DATE	DESCRIPTION	C/O	DR	CK
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A	12/11/14	REVISED PER TOWN COMMENTS		JMT	CEB

CONSTRUCTION DETAILS

TOWN OF MILFORD

BROX COMMUNITY LANDS

TAX MAP 38 - LOT 58

MILFORD, NEW HAMPSHIRE

PREPARED FOR:

MILFORD COMMUNITY DEVELOPMENT

TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

LAND OF:

TOWN OF MILFORD

TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

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PERMANENT SEEDING FOR DISTURBED AREAS

1
D-1

REFERENCE:
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DIVERSION SWALE / BERM (FILL CONDITION)

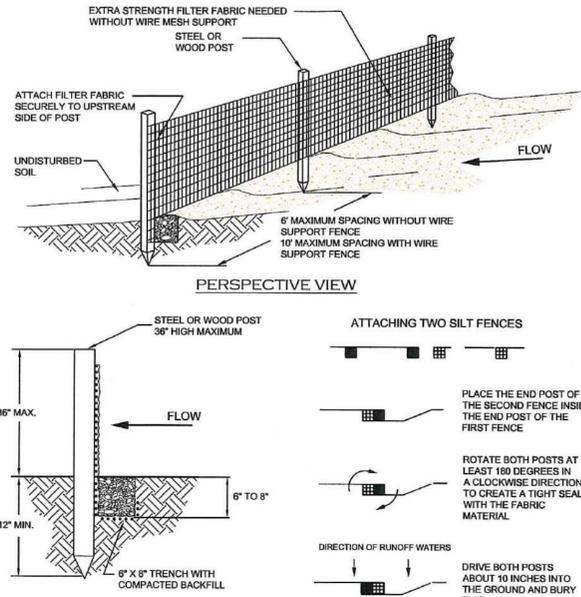
4
D-1

SEEDING FOR TEMPORARY PROTECTION OF DISTURBED AREAS

7
D-1

DURING EXCAVATION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED:

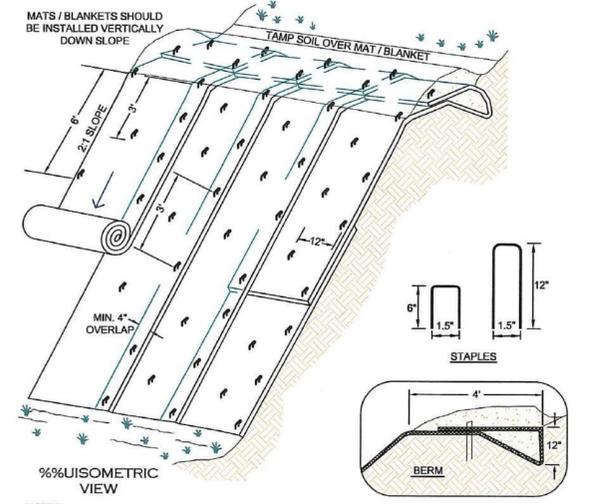
1. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS IN ANY GIVEN AREA. INSTALL ALL STONE CHECK DAMS, SILTATION CONTROL FENCES, CONSTRUCTION EXITS AND ANY OTHER DEVICES PROPOSED IN LOCATIONS SHOWN ON PLANS PER MANUFACTURER'S RECOMMENDATIONS.
2. CUT AND CLEAR TREES AS REQUIRED. DISPOSE OF DEBRIS.
3. REMOVE TOPSOIL AND STOCKPILE AWAY FROM ANY WETLAND. ALL STOCKPILES SHALL BE STABILIZED IMMEDIATELY BY SEEDING. PLACE SILT FENCE AROUND THE DOWN SLOPE SIDE OF EARTH STOCKPILES.
4. EXISTING VEGETATION IS TO REMAIN UNDISTURBED WHEREVER POSSIBLE.
5. THE AREA OF LAND EXPOSED AND THE TIME OF EXPOSURE SHALL BE MINIMIZED. ALL NON-ACTIVE DISTURBED AREAS (AREAS CLEARED FOR EXCAVATION BUT NOT PRESENTLY UNDERGOING EXCAVATION) SHALL BE STABILIZED WITHIN 14 DAYS OF DISTURBANCE. THE MAXIMUM AREA OF ACTIVE DISTURBANCE SHALL BE LIMITED TO 5 ACRES (THIS DOES NOT INCLUDE THE PROCESSING AREA OR ACCESS ROADS WHICH COULD TOTAL APPROXIMATELY 5 ACRES). ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
6. DURING EXCAVATION THE PROJECT SHALL BE GRADED IN SUCH A WAY THAT ALL SIDE SLOPES SLOPE INTO THE PROJECT. THE AREA BEING EXCAVATED SHALL BE SELF CONTAINED. SEE GRADING PLANS.
7. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, CULVERTS, DITCHES, SILTATION FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
8. INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5" OR GREATER RAINFALL EVENT.
9. SEDIMENT BASINS SHALL BE CLEANED WHEN THE BASIN'S CAPACITY IS REDUCED TO HALF. THE SEDIMENT SHALL BE REMOVED TO A SECURE LOCATION AWAY FROM WATERWAYS AND WETLANDS.
10. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
11. AN AREA MAY BE CONSIDERED STABILIZED WHEN ONE OF THE FOLLOWING AS OCCURED:
 - 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-INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE, RIPRAP OR MULCH (STUMP GRINDINGS) HAVE BEEN INSTALLED, OR
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
12. IF VEGETATION IS CHOSEN FOR STABILIZATION (RESTORATION) THEN ALL DISTURBED AREAS SHALL HAVE A MINIMUM OF 4-INCHES OF LOAM INSTALLED. LOAM SHALL BE COVERED WITH SOD OR NOT LESS THAN 1.1 POUNDS OF SEED MIX PER 1,000 SQ.FT. SEEDING PREPARATION AND MIXTURES SHALL BE AS DESCRIBED IN PERMANENT SEEDING NOTES ON SHEET D-1.
13. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS.
15. IF PLANTINGS ARE CHOSEN FOR STABILIZATION (RESTORATION) THEN PLANTINGS SHOULD MIMIC AREAS OF THE SITE THAT HAVE ALREADY BEEN SUCCESSFULLY RESTORED. ALL DISTURBED AREAS SURROUNDING THE PLANTINGS SHALL BE COVERED WITH A MINIMUM OF 2-INCHES OF MULCH.
16. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF APPROPRIATELY.
17. THE CONTRACTOR AND OWNER ARE RESPONSIBLE FOR OBSERVING AND MANAGING THE PROJECT PER RSA 430:53 AND AGR 3800 REGARDING INVASIVE SPECIES (PLANTS AND INSECTS). NO INVASIVE SPECIES PLANT OR INSECT SHALL BE INTRODUCED ONTO THE SITE.
18. DITCHES, SWALES AND DRAINAGE BASINS SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
19. ACCESS ROAD SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
20. ALL CUT AND FILL SLOPES SHALL BE LOAMED AND SEEDED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.



SECTION VIEW

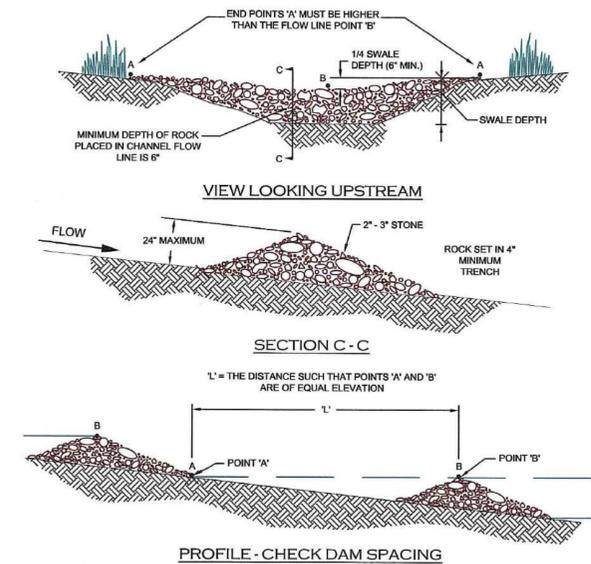
- NOTES:**
1. SILT FENCES SHOULD NOT BE USED ACROSS STREAMS, CHANNELS, SWALES, DITCHES OR OTHER DRAINAGE WAYS.
 2. SILT FENCE SHOULD BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE AND THE ENDS OF THE SILT FENCE SHOULD BE FLARED UPSLOPE.
 3. IF THE SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE OR THE PRESENCE OF HEAVY ROOTS THE BASE OF THE FABRIC SHOULD BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH STONE.
 4. SILT FENCES PLACED AT THE TOE OF SLOPES SHOULD BE INSTALLED AT LEAST 6 FEET FROM THE TOE TO ALLOW SPACE FOR SHALLOW PONDING AND ACCESS FOR MAINTENANCE.
 5. THE MAXIMUM SLOPE ABOVE THE FENCE SHOULD BE 2:1 AND THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHOULD BE 100 FEET.
 6. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
 7. SILT FENCES SHOULD BE REMOVED WHEN THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILT FENCE	2
	D-2



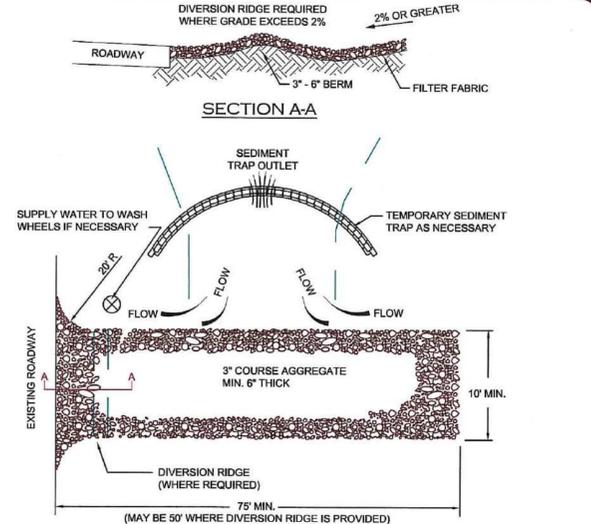
- NOTES:**
1. DIMENSIONS GIVEN IN THIS DETAIL ARE EXAMPLES; DEVICE SHOULD BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
 2. INSTALL STRAWCOCONUT FIBER EROSION CONTROL MAT SUCH AS NORTH AMERICAN GREEN S150 OR EQUAL ON ALL SLOPES EXCEEDING 3' HORIZ : 1' VERT.
 3. THE EROSION CONTROL MATERIAL(S) SHALL BE ANCHORED WITH "U" SHAPED 11 GAUGE WIRE STAPLES OR WOODEN STAKES WITH A MINIMUM TOP WIDTH OF 1 INCH AND LENGTH OF 6 INCH.
 4. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS / BLANKETS SHALL HAVE GOOD SOIL CONTACT.
 5. APPLY LIME, FERTILIZER AND PERMANENT SEEDING BEFORE PLACING BLANKETS.
 6. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET AS SHOWN. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES OR STAKES IN APPROPRIATE LOCATIONS. REFER TO MANUFACTURER'S STAPLE GUIDE FOR CORRECT STAPLE PATTERN.
 7. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
 8. IN LOOSE SOIL CONDITIONS THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 6 INCHES MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
 9. THE CONTRACTOR SHALL MAINTAIN THE BLANKET UNTIL ALL WORK ON THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MAINTENANCE SHALL CONSIST OF THE REPAIR OF AREAS WHERE DAMAGED BY ANY CAUSE. ALL DAMAGED AREAS SHALL BE REPAIRED TO REESTABLISH THE CONDITIONS AND GRADE OF THE SOIL PRIOR TO APPLICATION OF THE COVERING AND SHALL BE REFERTILIZED, RESEEDED AND REMULCHED AS DIRECTED.

EROSION BLANKETS - SLOPE INSTALLATION	4
	D-2



- NOTES:**
1. STONE CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
 2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE CHECK DAM SHOULD BE LESS THAN ONE ACRE.
 3. STONE CHECK DAMS SHOULD NOT BE USED IN A FLOWING STREAM.
 4. STONE CHECK DAMS SHOULD BE CONSTRUCTED OF WELL-GRADED ANGULAR 2 TO 3 INCH STONE. THE INSTALLATION OF 3/4-INCH STONE ON THE UPGRADING FACE IS RECOMMENDED FOR BETTER FILTERING.
 5. WHEN INSTALLING STONE CHECK DAMS THE CONTRACTOR SHALL KEY THE STONE INTO THE CHANNEL BANKS AND EXTEND THE STONE BEYOND THE ABUTMENTS A MINIMUM OF 18-INCHES TO PREVENT FLOW AROUND THE DAM.
 6. STONE CHECK DAMS SHOULD BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED UNLESS OTHERWISE SPECIFIED.

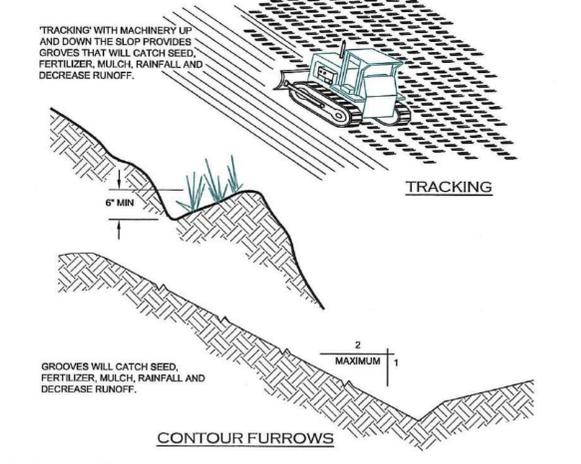
STONE CHECK DAM	5
	D-2



- NOTES:**
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. THE MINIMUM STONE USED SHOULD BE 3-INCH CRUSHED STONE.
 3. THE MINIMUM LENGTH OF THE PAD SHOULD BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH HIGH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
 4. THE PAD SHOULD EXTEND THE FULL WIDTH OF THE CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
 5. THE PAD SHOULD SLOPE AWAY FROM THE EXISTING ROADWAY.
 6. THE PAD SHOULD BE AT LEAST 6-INCHES THICK.
 7. THE GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
 8. THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE Voids IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
 9. NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.
 10. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 11. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

GRAVEL CONSTRUCTION EXIT	6
	D-2

EROSION CONTROL NOTES - EARTH REMOVAL	1
	D-2



SURFACE ROUGHENING	3
	D-2



REV.	DATE	DESCRIPTION	C/O	DR	CK
E	4/12/16	REVISIONS PER TOWN COMMENTS			PWH
D	1/29/15	MODIFIED PROJECT PHASING PER TOWN			JMT
C	12/29/14	REVISED PER IN HOUSE REVIEW			JMT
B	12/24/14	REVISED PER IN HOUSE REVIEW			JMT
A	12/11/14	REVISED PER TOWN COMMENTS			JMT

EROSION CONTROL DETAILS

TOWN OF MILFORD

BROX COMMUNITY LANDS

TAX MAP 38 - LOT 58

MILFORD, NEW HAMPSHIRE

PREPARED FOR:

MILFORD COMMUNITY DEVELOPMENT

TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

LAND OF:

TOWN OF MILFORD

TOWN HALL, 1 UNION SQUARE, MILFORD, NH 03055

SCALE: 1" = 100'

DECEMBER 1, 2014

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

FIELDSTONE

LAND CONSULTANTS, PLLC

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