AMENDED DEVELOPMENT PROGRAM AND TAX INCREMENT FINANCING PLAN

RT. 140 CORRIDOR
TAX INCREMENT FINANCING DISTRICT

NORTHFIELD, NEW HAMPSHIRE

PREPARED BY
TOWN OF NORTHFIELD
NORTHFIELD ECONOMIC DEVELOPMENT CORPORATION
LAKES REGION PLANNING COMMISSION

ADOPTED MARCH 2006
AMENDED MARCH 2017

Introduction

At Town Meeting 2006 Northfield voters established a Tax Increment Financing (TIF) District for the Route 140 Corridor in accordance with RSA 162-K:5. The purpose of the Development Program and Tax Increment Financing Plan is to comply with the provisions of New Hampshire RSA 162-K:6, 162-K:9 and 162- K:10. Specifically, these statutes require:

- Municipal adoption of a development program as a condition of establishing a TIF District. (RSA 162-K:6).
- Municipal adoption of a development and financing plan that allocates use of tax increments for operation, maintenance and improvements in the district and for general municipal purposes (RSA 162-K:9 and K:10).

The purpose of the proposed amendment to the TIF Development Program and Tax Increment Financing Plan is to modify Section II Proposed Improvements to reflect current conditions within the District and revised development priorities.

I. Objectives

The objectives of both the original and amended Development Program and Tax Increment Financing Plan are to:

- Create opportunities for businesses to locate and expand within the district;
- Enhance employment and earnings opportunities for area residents;
- Expand the property tax base of the Town of Northfield.

These objectives will be achieved through the construction of public sewer lines and sewage pumping facilities within the district.

II. Proposed Improvements

Phase I:

A. The Town of Northfield proposes that operation and maintenance responsibility for the following infrastructure be publically managed through a partnership between the Northfield Sewer District and the Town of Northfield:

1. (South Park) An existing sewer force main located along the west side of NH Route 140 as depicted on subdivision plans (8 Sheets) by Burd Engineering – Prepared for Monique Cormier – 70 Carol Court – Laconia. NH and dated June 1998 (revised June 6, 2002) (Exhibit B). The subdivision has 5 commercial lots serviced by an existing paved roadway and cul-de-sac with the lots being

designated as Map R-14/Lot 5-1, Map R-14/Lot 5-2, Map R-14/Lot 5-3, Map R-14/Lot 5-4 and Map R-14/Lot 5-5.

The existing sewer force main is 2" diameter SDR26 PVC pressure line that ties into an existing sewer manhole along Route 140 and opposite Riverside Drive, entrance into "North Park". The force main proceeds east along Route 140 for 827 LF to a sewer cleanout located approximately at Road Station 0+95 shown on plans by Burd Plan on the east side of the subdivision road. Approximately 566 LF of the force main is contained in a 30 LF wide sewer easement for Lot 5-5. The force main then travels south from the sewer cleanout location along the subdivision road for approximately 640 LF to a sewer manhole located at Station 7+30 at the end of the subdivision road. Each of the 5 commercial lots tie into the sewer force main by sewer service laterals and individual low-pressure sewer grinder pump stations.

The existing sewer pressure line would be publically owned. The low pressure sewer grinder pump stations located on Lots as Map R-14/Lot 5-1, Map R-14/Lot 5-2, Map R-14/Lot 5-3, Map R-14/Lot 5-4 and Map R-14/Lot 5-5 would be owned and maintained by the owners of these lots.

2. (North Park) An existing sewer force main located along the North-East side of NH Route 140 as depicted on subdivision plans by Burd Engineering – Prepared for Monique Cormier – 70 Carol Court – Laconia NH and dated April 27, 1998 (sheets separately revised November 12, 1999 and July 24, 1999) (Exhibit C). The subdivision entitled "North Park" has 3 commercial lots serviced by an existing paved roadway and cul-de-sac with the lots being designated as Map R-14/Lot 8-2, Map R-14/Lot 8-3 and Map R-14/Lot 8-4. The subdivision roadway name is Riverside Business Park.

   The sewer force main is 3" SDR26 PVC that ties into an existing sewer manhole along Route 140 and opposite Riverside Business Park entrance. The force main proceeds north from the sewer manhole across Route 140 to the subdivision's entrance. The force main then travels along the west side shoulder of the subdivision road to approximately Station 7+00 being the beginning of the cul-de-sac. The force main continues across the center of the cul-de-sac for approximately 258 LF to approximately Station 9+75, terminating at a sewer manhole located in the roadway shoulder. Each of the 3 commercial lots tie into the sewer force main by sewer service laterals and individual low-pressure sewer grinder pump stations.

   The existing sewer pressure line would be publically owned. The low pressure sewer grinder pump stations located on Lots as Map R-14/8-2, Map R-14/Lot 8-3, Map R-14/Lot 8-4 would be owned and maintained by the owners of these lots.

B. The Town of Northfield proposes that operation and maintenance responsibility for the following infrastructure be managed by the Town of Northfield:

A 50 foot right of way identified as the access road to the South Park development as depicted on subdivision plans (8 Sheets) by Burd Engineering – Prepared for Monique Cormier – 70 Carol Court – Laconia. NH and dated June 1998 (revised June 6, 2002) (Exhibit B) including accompanying drainage easements and improvements thereon.

C. The Town of Northfield proposes that operation and maintenance responsibility for the following infrastructure currently owned by the Town of Northfield be funded through using tax increment financing funds:

Riverside Business Park Drive, a 50 foot right of way acquired by the Town in 2000 (Merrimack County Registry of Deeds Book 2230 Page 1367) 1,236 feet in length and depicted on subdivision plans by Burd Engineering – Prepared for Monique Cormier – 70 Carol Court – Laconia NH and dated April 27, 1998 (sheets separately revised November 12, 1999 and July 24, 1999) (Exhibit C).

Phase II: Construction of sewer infrastructure to serve the northerly portion of the TIF District remains a high priority and will be presented to Northfield voters as a future amendment to this plan.

The number of potential developable lots in Phase II include 14 parcels in Northfield Industrial Park and 2 parcels across Rt. 140 from Northfield Industrial Park, total of 16 parcels with 121 acres.

III. Project Benefits

A. Economic Development Benefits

A report commissioned by the Northfield Economic Development Corporation and written by Fougere Planning and Development Inc., indicates the 182 acres of available land on the Rt. 140 corridor can accommodate up to an additional one million square feet of commercial/industrial space. This projection is based on available acreage; accounting for restrictions such as wetlands, river and road setbacks and impervious surface restrictions.

Using assessments of $30/sq. ft. for industrial space and $50/sq. ft. for professional office space, Fougere estimates that new construction has the potential to add between $30,000,000 and $50,000,000 in building value to Northfield's total assessed valuation.

Phase I: Development benefits for the project area of Phase I will depend on the type and extent of development. However, the extent to which the town can help create a stable platform for the provision of sewage disposal will help to create a competitive environment for private investment.

The table below projects added valuation of buildings only using a projected coverage of 20% of each of the five lots and a building value of $30/sq ft:

South Park						
			Building Coverage		Potential Valuation	
Lot	Lot Size		Est. Coverage	20%	Value/sq. ft.	$30
1	242,650.00	sq. ft	48,530.00	sq. ft	$1,455,900	
2	500,379.00	sq. ft	100,075.80	sq. ft	$3,002,274	
3	155,990.00	sq. ft	31,198.00	sq. ft	$935,940	
4	443,167.00	sq. ft	88,633.40	sq. ft	$2,659,002	
5	470,785.00	sq. ft	94,157.00	sq. ft	$2,824,710	
Total	1,812,971.00	sq. ft	362,594.20	sq. ft	$10,877,826	

North Park						
			Building Coverage		Potential Valuation	
Lot	Lot Size		Est. Coverage	20%	Value/sq. ft.	$30
1	470,785.00	sq. ft	Not Included		$0	
2	261,360.00	sq. ft **	52,272.00	sq. ft	$1,568,160	
3	132,858.00	sq. ft	26,571.60	sq. ft	$797,148	
4	394,218.00	sq. ft	Already Developed		$0	
5	687,376.80	sq. ft	137,475.36	sq. ft	$4,124,261	
Total	1,812,971.00	sq. ft	78,843.60	sq. ft	$6,489,569	

** Approximate, discounting for wetlands area

The economic development objectives of the project are consistent with the Town of Northfield Master Plan. which states that the continued promotion of industrial and commercial growth in the Route 140 area is a Town priority.

B. Natural Resources Protection

The Master Plan also addresses another important priority of the Town, involving the protection of the stratified aquifer that supplies drinking water to residents of Northfield, Tilton, and Belmont. Several developments on Route 140 rely on subsurface disposal of wastewater. These systems are expensive and consume significant land area.

This project will allow much greater development density which both makes development more feasible and could preserve open space. Construction of the proposed project will transport wastewater generated within the sewer service area to the WRBP treatment plant in Franklin and eliminate the need for future subsurface systems, which pose a threat to the aquifer. In sum, the project will allow a significant amount of reasonable, well planned development while protecting the environmental integrity of the water supply for Northfield, Tilton, and Belmont.

IV. District Boundaries

A. List of Properties

The TIF district includes those 33 properties indicated in EXHIBIT A which is appended hereto.

B. Land Area and Assessed Values

The TIF district contains 360.35 acres, which represents 1.9% of the total land area in the Town of Northfield (18,496 acres). The total assessed value of taxable property at the time the district was created $9,947,868, or 3.4% of the total assessed value of taxable property in the Town ($293,433,094). Thus, the district complies with the size standards of RSA 162-K:5 which stipulates that the district cannot exceed 5% of total acreage of the municipality

A plan of the District is appended as Exhibit A

V. Open Space

There is no additional open space planned within the District at this time.

VI. Environmental Controls

The Town of Northfield, as well as private parties, will be required to comply with appropriate environmental regulations.

These regulations may include any or all of the following:

- State and federal regulations regarding the protection of wetlands and floodplains.
- State standards for design of public sewer systems.
- State permits regarding soil disturbance/filling.
- State and federal regulations regarding air, water, and noise pollution.
- Applicable building codes, zoning ordinance, subdivision and site planning regulations.

VII. Proposed Re-Use of Private Property

TIF proceeds will not be utilized for the purpose of purchasing private property.

VIII. Relocation and Displacement

The planned development program will not result in the relocation and/or displacement of persons, families, business concerns, or others.

IX. Proposed Operations of the District

A. Maintenance and Operations

Engineers from Stantec Engineering, working under contract with the Northfield Economic Development Corporation, expects that there will be about $10,000 in Phase I annual costs associated with normal maintenance, inspection, de-icing and operations of the above referenced system.

B. Sources of Funding

These costs will be paid from incremental tax revenues attributable to new development and/or redevelopment within the proposed TIF District.

Since the planned improvements have a general public benefit, no special assessments will be levied against properties located in the District.

C. Records and Reports

Pursuant to the requirements of Section 162-K:11, the Town of Northfield annual report shall contain a financial report for the Development District. This report shall contain:

- The amount and source of revenue of the District;
- The amount and purpose of expenditures;
- The amount of principal and interest on any outstanding bonded indebtedness;
- The original assessed value of the District;
- The captured assessed value retained by the District;
- The tax increments received; and
- Any additional information necessary to demonstrate compliance with the tax increment financing plan.

X. Estimated Cost of the Development Program

A. Septic Improvements:

The total estimated cost to implement the proposed project based on estimates provided by Stantec Engineering, consists of:

- an estimated annual operations and maintenance expense of $10,000;
- development and maintenance of a $50,000 emergency repair fund, and

- establishment of a system replacement fund, funded at a level of \$17,550.00 annually. The replacement fund assumes a replacement cost of \$308,375.00 adjusted for inflation over the 75 year estimated life of system, as indicated in Section XI B below.

B. Road improvements

Includes the estimated cost to reclaim and overlay Riverside Business Park and South Park Development Road on a cycle approximately 15 years in duration, exact schedule will factor in actual road conditions:

A total of 2,035 feet of road way 24 feet in width, with a 4 inch overlay. Estimated 1272 tons of material costed at \$85/ton, total cost of \$108,120.00 for each repair cycle.

XI. Funding Sources

A. Uses of Incremental Tax Revenues

Pursuant to RSA 162-K, the Town of Northfield may, subject to approval of Town Meeting, utilize incremental property tax revenues received from newly developed properties, and increased assessed value in the TIF District to pay for the proposed improvements. This means that since the Town Meeting adopted the statute, approved this plan, and designated the TIF District, any increase in assessed value on April 1, 2006 and thereafter is classified as "incremental assessed value". Incremental income is gained by applying the Town property tax rate, less the State education rate, to this incremental value. As indicated in Section XIII, below, this rate is currently \$26.00/\$1,000 (\$.02600). Thus, \$1,000,000 in incremental assessed value would yield \$26,000 in tax revenues.

B. Annual Cost of the Program

The estimated annual cost of the program is \$39,830 for the first 10 years and \$34,830 annually thereafter, except as needed to replenish the repair funds if needed as follows:

- Operations and Maintenance, sewer facilities: \$10,000 annually
- Repair Fund, sewer facilities: \$5,000 annually, suspended when fund balance reaches \$50,000
- Replacement Fund, sewer facilities: \$17,550 annually. Stantec Engineering estimates system replacement costs in 2017 dollars as \$125.00/linear foot, or \$308,375 and that the life expectancy of the system is 75 years. Projecting future costs using an

inflation rate of 2% annually the replacement cost in 2092 is $1,335,032.00. Annual deposits of $17,550 and an assumed interest rate of 0.75% will provide the necessary funds (Exhibits D & E)

- Repair fund, road maintenance: $7,208 annually. Estimated need for reclaim on a 15 year cycle. $7,208 annually x 15 years = $108,120; estimated maintenance cost.

XII. Development Agreements

Since operation of the system may commence prior to the realization of the required incremental value, the Board of Selectmen will require a potential developer, or potential developers as the case may be, to execute a clearly enforceable Development Agreement. This Agreement will require potential developer(s) to pay any deficiency between the Town's actual annual project costs and incremental tax revenues.

XIII. Impacts on Other Taxing Jurisdictions

Property taxes applied to incremental assessed value in the TIF District will include the municipal, school, county, and precinct taxes currently collected by the Town. In 2016 the applicable tax rates are as follows:

Town	$6.95 per $1,000
County	$2.92 per $1,000
Local School Effort	$13.63 per $1,000
Tilton-Northfield Fi	$2.50 per $1,000
Total	$26.00 per $1,000

State School effort of $2.48 cannot be applied

The estimated impact of tax increment financing on the assessed values of all other taxing jurisdictions within the Town of Northfield is negligible, since:

- The proposed improvements are designed to encourage industrial and commercial investment and lessen the residential tax burden. Thus, these activities will contribute to a long-term increase in the non-residential tax base at a faster rate than would otherwise be achieved.

- Municipal authorities believe that the least burdensome form of providing infrastructure improvements involves tax increment financing.

- There is no currently taxable property planned to be removed from the Grand List as a result of this project.

- The Town of Northfield will limit its use of incremental revenues to an annual amount required as noted in Section XI B, above, excess incremental revenues will be returned to the Grand List.

XIV. Plan Amendments

Pursuant to RSA 162-K:9, this plan can only be amended by a vote of Town Meeting.

XV. Duration of Program

The Development District will exist until all maintenance, repair and replacement obligations outlined in this amended development plan are fulfilled.

XVI. District Administration

The District shall be administered by the Town Administrator and the Board of Selectmen.

XVII. Advisory Board

An Advisory Board shall advise the Board of Selectmen and Town Administrator on planning, construction and implementation of the development program and on maintenance and operation issues within the District after the development program described herein has been completed. Subject to Town Meeting authorization, a five person Advisory Board shall be appointed by the Board of Selectmen. Pursuant to RSA 164-K:14 a majority of the Advisory Board shall be owners or occupants of real property within or adjacent to the TIF District.

XVIII. Implementation

Implementation of this plan amendment requires that the following actions be taken at the March 2017 Town Meeting:

- Adoption of this Development Program and Tax Increment Financing Plan (RSA 162-K:6 and 162-K:9).

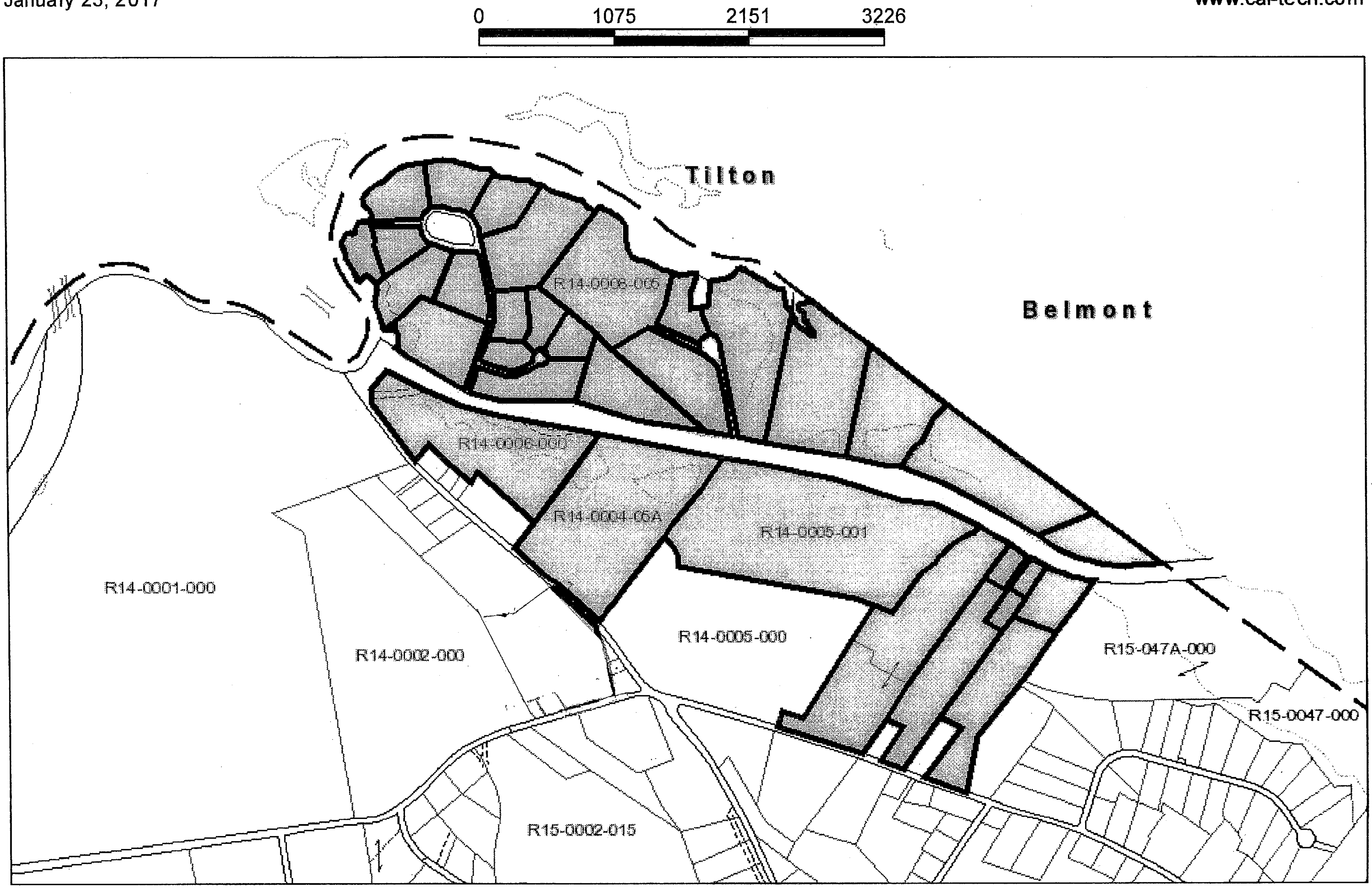
EXHIBIT A

Rt. 140 Development Corridor TIF

Northfield, NH

January 23, 2017

1 inch = 1075 Feet

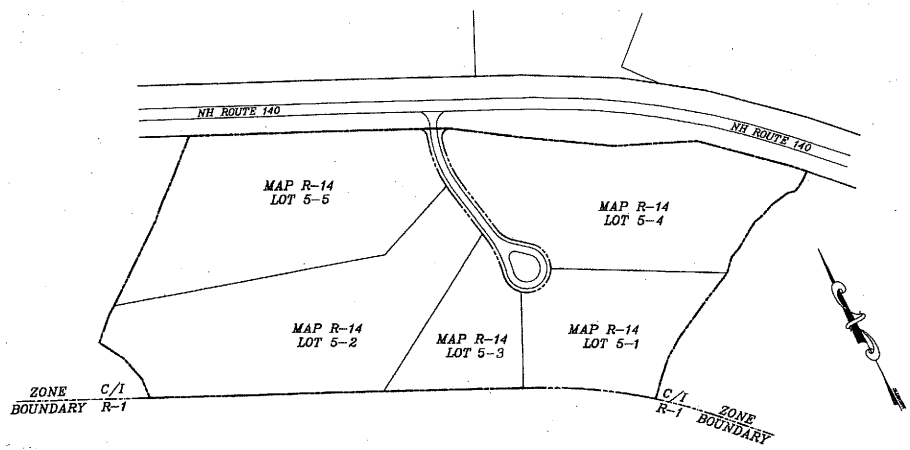


www.cai-tech.com

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

EXHIBIT B

SOUTH PARK
COMMERCIAL / INDUSTRIAL SUBDIVISION
NORTHFIELD NEW HAMPSHIRE



OWNED BY:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276

PREPARED BY:

BURD ENGINEERING
Civil Engineering • Land Surveying • Land Planning
105 Loudon Road Concord, NH 03301 (603) 224-6868

SHEET INDEX

1 SUBDIVISION PLAN (RECORDING)
2 TOPOGRAPHIC PLAN
3 PROPOSED ROAD PLAN & PROFILE
4-5 PROPOSED ROAD CROSS SECTIONS
6 CONSTRUCTION DETAILS
7 WATER LINE DETAILS
8 EROSION CONTROL DETAILS

JUNE 1998
REVISED: DECEMBER 6, 2000

SEWER REVISED 4/18/01
LOT 1 " 4/24/01

\CORMIER\246 | PROJ. NO 246

EXHIBIT B

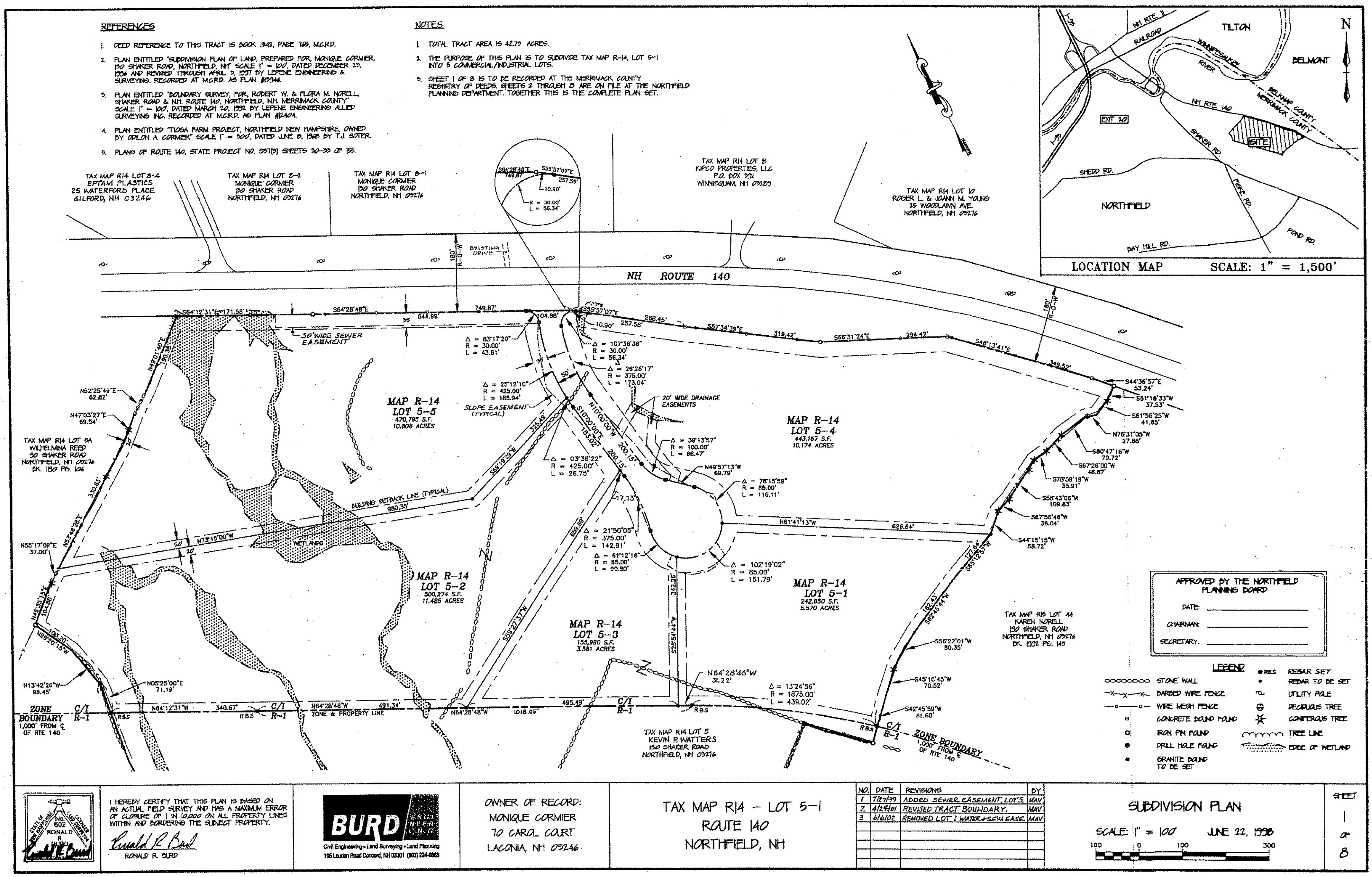
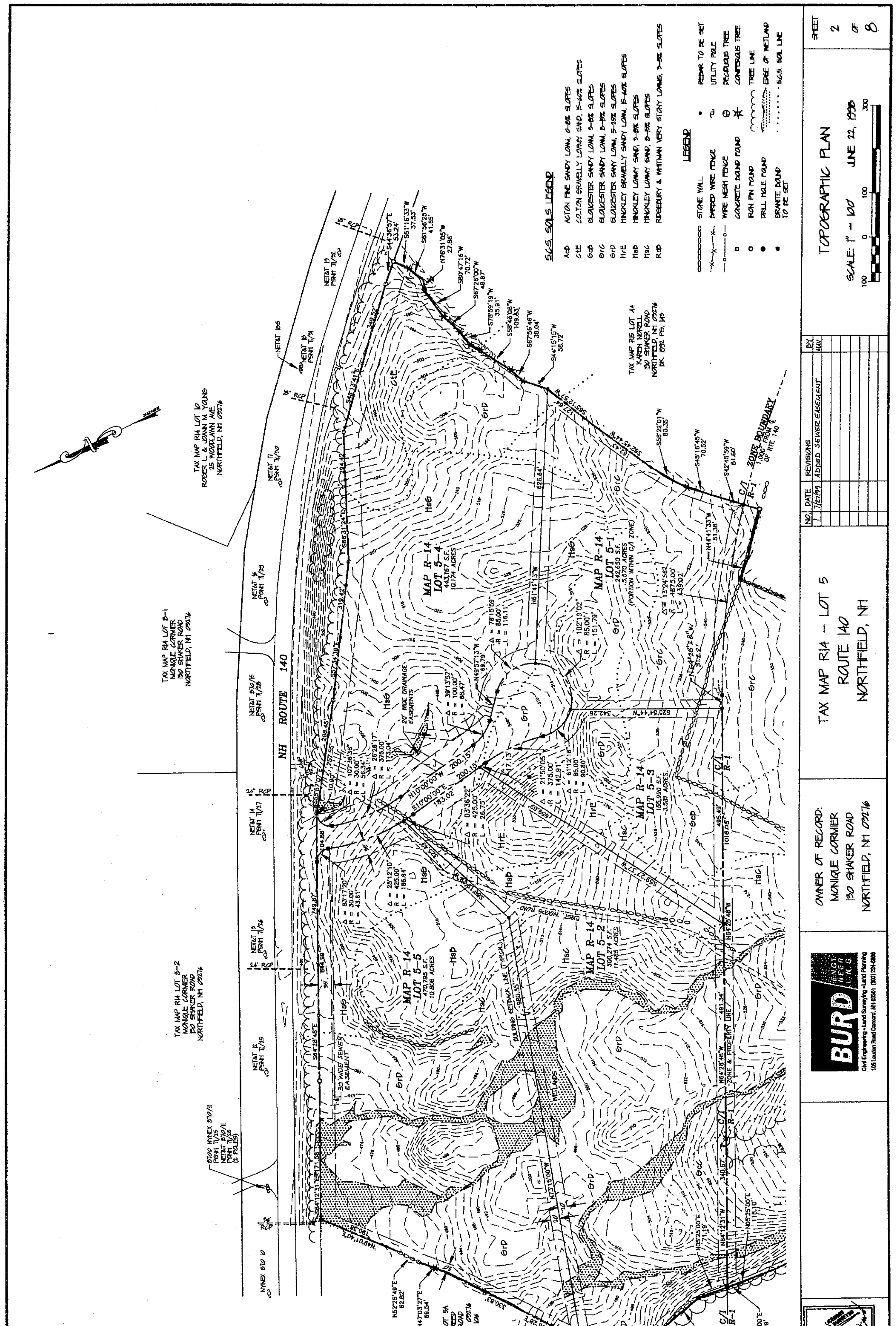

REFERENCES
1. DEED REFERENCE TO THIS TRACT IS BOOK 1342, PAGE 765, M.C.R.D.
2. PLAN ENTITLED "SUBDIVISION PLAN OF LAND, PREPARED FOR, MONIQUE CORMIER, 130 SHAKER ROAD, NORTHFIELD, NH" SCALE 1" = 100', DATED DECEMBER 23, 1996 AND REVISED THROUGH APRIL 3, 1997 BY LEPENE ENGINEERING & SURVEYING. RECORDED AT M.C.R.D. AS PLAN #13346.
3. PLAN ENTITLED "BOUNDARY SURVEY, FOR, ROBERT W. & FLORA M. NORELL, SHAKER ROAD & N.H. ROUTE 140, NORTHFIELD, N.H. MERRIMACK COUNTY" SCALE 1" = 100', DATED MARCH 20, 1992 BY LEPENE ENGINEERING ALLIED SURVEYING INC. RECORDED AT M.C.R.D. AS PLAN #12404.
4. PLAN ENTITLED "TIOGA FARM PROJECT, NORTHFIELD NEW HAMPSHIRE, OWNED BY ODILON A. CORMIER" SCALE 1" = 500', DATED JUNE 8, 1968 BY T.J. SOTER.
5. PLANS OF ROUTE 140, STATE PROJECT NO. 537(3) SHEETS 30-33 OF 155.
NOTES
1. TOTAL TRACT AREA IS 42.79 ACRES.
2. THE PURPOSE OF THIS PLAN IS TO SUBDIVIDE TAX MAP R-14, LOT 5-1 INTO 5 COMMERCIAL/INDUSTRIAL LOTS.
3. SHEET 1 OF 8 IS TO BE RECORDED AT THE MERRIMACK COUNTY REGISTRY OF DEEDS. SHEETS 2 THROUGH 8 ARE ON FILE AT THE NORTHFIELD PLANNING DEPARTMENT. TOGETHER THIS IS THE COMPLETE PLAN SET.
TAX MAP R14 LOT 8-4 EPTAM PLASTICS 25 WATERFORD PLACE GILFORD, NH 03246
TAX MAP R14 LOT 8-2 MONIQUE CORMIER 130 SHAKER ROAD NORTHFIELD, NH 03276
TAX MAP R14 LOT 8-1 MONIQUE CORMIER 130 SHAKER ROAD NORTHFIELD, NH 03276
TAX MAP R14 LOT 8 KIPCO PROPERTIES, LLC P.O. BOX 391 WINNISQUAM, NH 03289
TAX MAP R14 LOT 10 ROBERT L. & JOANN M. YOUNG 25 WOODLAWN AVE. NORTHFIELD, NH 03276
LOCATION MAP SCALE: 1" = 1,500'
TILTON
BELMONT
NORTHFIELD
SITE
EXIT 20
NH ROUTE 140
30' WIDE SEWER EASEMENT
20' WIDE DRAINAGE EASEMENTS
SLOPE EASEMENT (TYPICAL)
BUILDING SETBACK LINE (TYPICAL)
WETLANDS
MAP R-14 LOT 5-5 470,795 S.F. 10.808 ACRES
MAP R-14 LOT 5-4 443,167 S.F. 10.174 ACRES
MAP R-14 LOT 5-2 500,274 S.F. 11.485 ACRES
MAP R-14 LOT 5-3 155,990 S.F. 3.581 ACRES
MAP R-14 LOT 5-1 242,650 S.F. 5.570 ACRES
TAX MAP R14 LOT 5A WILHELMINA REED 30 SHAKER ROAD NORTHFIELD, NH 03276 BK. 1150 PG. 106
TAX MAP R14 LOT 5 KEVIN P. WATTERS 150 SHAKER ROAD NORTHFIELD, NH 03276
TAX MAP R15 LOT 44 KAREN NORELL 130 SHAKER ROAD NORTHFIELD, NH 03276 BK. 1932 PG. 145
ZONE BOUNDARY 1,000' FROM ℄ OF RTE 140
C/I R-1
ZONE & PROPERTY LINE
APPROVED BY THE NORTHFIELD PLANNING BOARD
DATE:
CHAIRMAN:
SECRETARY:
LEGEND
STONE WALL
BARBED WIRE FENCE
WIRE MESH FENCE
CONCRETE BOUND FOUND
IRON PIN FOUND
DRILL HOLE FOUND
GRANITE BOUND TO BE SET
REBAR SET
REBAR TO BE SET
UTILITY POLE
DECIDUOUS TREE
CONIFEROUS TREE
TREE LINE
EDGE OF WETLAND
I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND HAS A MAXIMUM ERROR OF CLOSURE OF 1 IN 10,000 ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.
RONALD R. BURD
BURD ENGINEERING
Civil Engineering • Land Surveying • Land Planning
105 Loudon Road Concord, NH 03301 (603) 224-6869
OWNER OF RECORD: MONIQUE CORMIER 70 CAROL COURT LACONIA, NH 03246
TAX MAP R14 - LOT 5-1 ROUTE 140 NORTHFIELD, NH
NO. DATE REVISIONS BY
1 7/27/99 ADDED SEWER EASEMENT, LOT 5. MAV
2 4/24/01 REVISED TRACT BOUNDARY. MAV
3 6/6/02 REMOVED LOT 1 WATER+SEW EASE. MAV
SUBDIVISION PLAN
SCALE: 1" = 100' JUNE 22, 1998
SHEET 1 OF 8

EXHIBIT B



TOPOGRAPHIC PLAN
SCALE: 1" = 100'
JUNE 22, 1998
SHEET 2 OF 8
TAX MAP R14 - LOT 5
ROUTE 140
NORTHFIELD, NH
OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276
BURD
Civil Engineering • Land Surveying • Land Planning
NO. DATE REVISIONS BY
1 ADDED SEWER EASEMENT
NH ROUTE 140
MAP R-14 LOT 5-4 443,167 S.F. 10.174 ACRES
MAP R-14 LOT 5-1
MAP R-14 LOT 5-2
MAP R-14 LOT 5-3
MAP R-14 LOT 5-5 470,795 S.F. 10.808 ACRES
20' WIDE DRAINAGE EASEMENTS
30' WIDE SEWER EASEMENT
ZONE BOUNDARY 1,000' FROM ℄ OF RTE 140
S.C.S. SOILS LEGEND
AcB ACTON FINE SANDY LOAM, 0-8% SLOPES
CtE COLTON GRAVELLY LOAMY SAND, 15-40% SLOPES
GrB GLOUCESTER SANDY LOAM, 3-8% SLOPES
GrC GLOUCESTER SANDY LOAM, 8-15% SLOPES
GrD GLOUCESTER SANDY LOAM, 15-25% SLOPES
HrE HINCKLEY GRAVELLY SANDY LOAM, 15-40% SLOPES
HsB HINCKLEY LOAMY SAND, 3-8% SLOPES
HsC HINCKLEY LOAMY SAND, 8-15% SLOPES
RdB RIDGEBURY & WHITMAN VERY STONY LOAMS, 3-8% SLOPES
LEGEND
STONE WALL
BARBED WIRE FENCE
WIRE MESH FENCE
CONCRETE BOUND FOUND
IRON PIN FOUND
DRILL HOLE FOUND
GRANITE BOUND TO BE SET
REBAR TO BE SET
UTILITY POLE
DECIDUOUS TREE
CONIFEROUS TREE
TREE LINE
EDGE OF WETLAND
S.C.S. SOIL LINE

EXHIBIT B

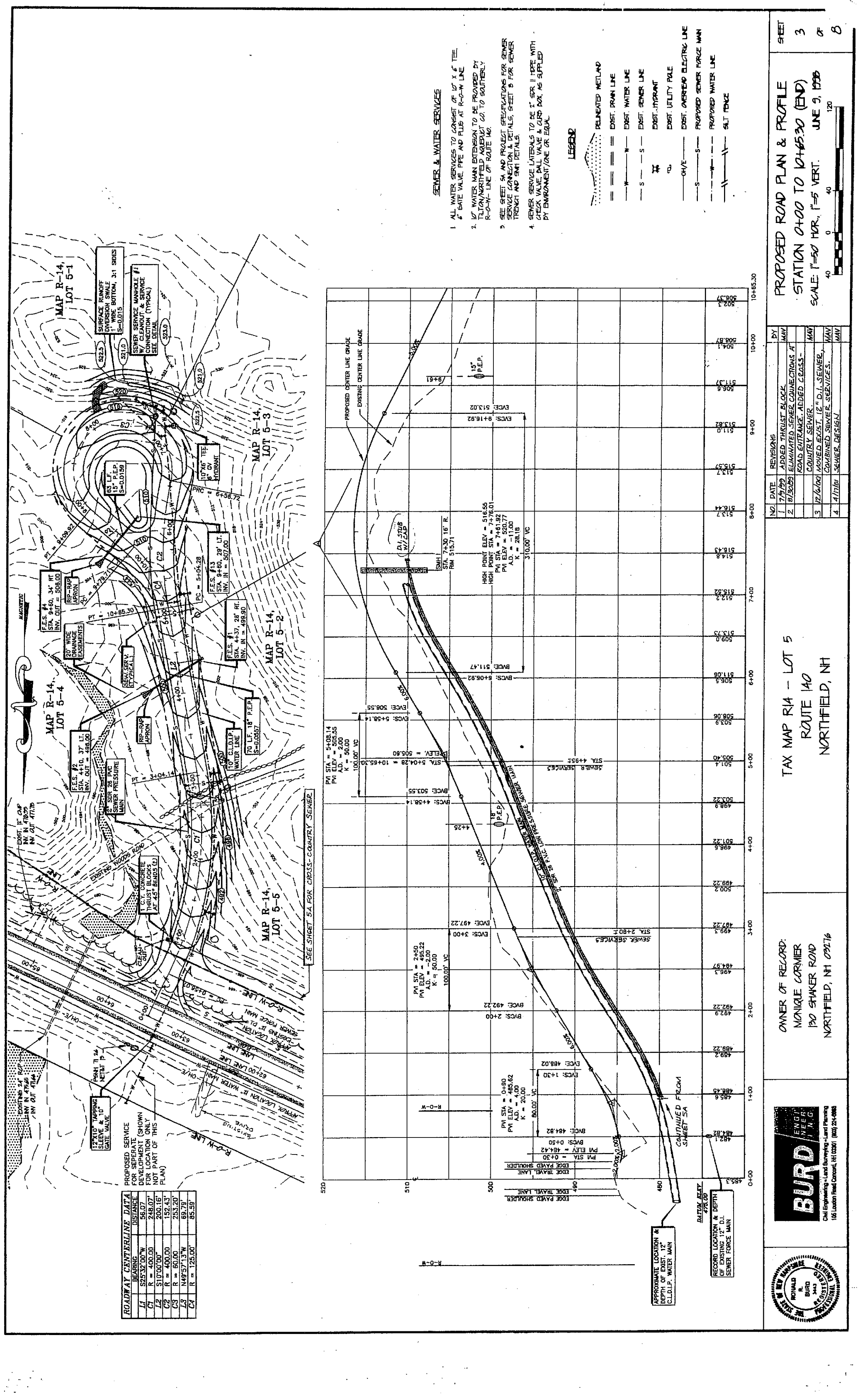
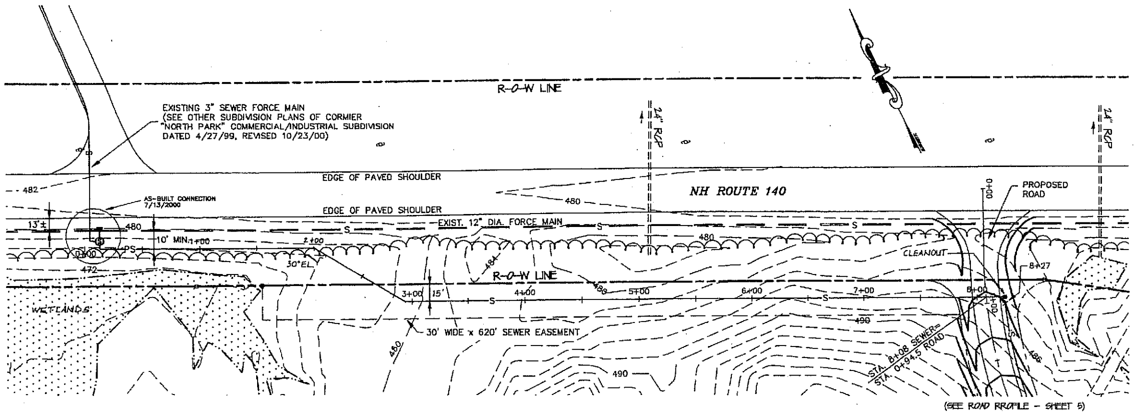
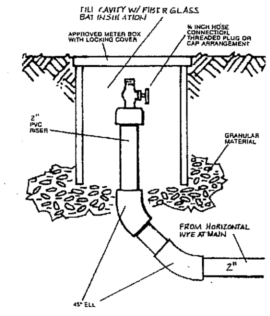
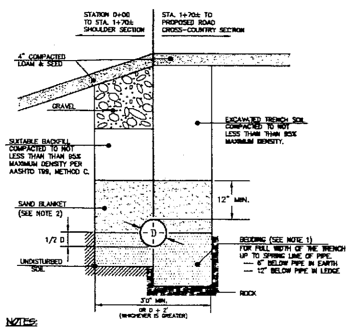

PROPOSED ROAD PLAN & PROFILE
STATION 0+00 TO 10+65.30 (END)
SCALE: 1"=50' HOR., 1"=5' VERT.
JUNE 9, 1998
SHEET 3 OF 8
TAX MAP R14 - LOT 5
ROUTE 140
NORTHFIELD, NH
OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276
BURD
MAP R-14, LOT 5-1
MAP R-14, LOT 5-2
MAP R-14, LOT 5-3
MAP R-14, LOT 5-4
MAP R-14, LOT 5-5
SEE SHEET 5A FOR CROSS-COUNTRY SEWER
SEWER & WATER SERVICES
LEGEND
ROADWAY CENTERLINE DATA

EXHIBIT B





CLEANOUT



NOTES:

1. BEDDING SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 STONE SIZE NO. 67.

100% PASSING	1 INCH SCREEN
90–100% PASSING	3/4 INCH SCREEN
20–55% PASSING	3/8 INCH SCREEN
0–10% PASSING	#4 SIEVE
0–5% PASSING	#8 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.

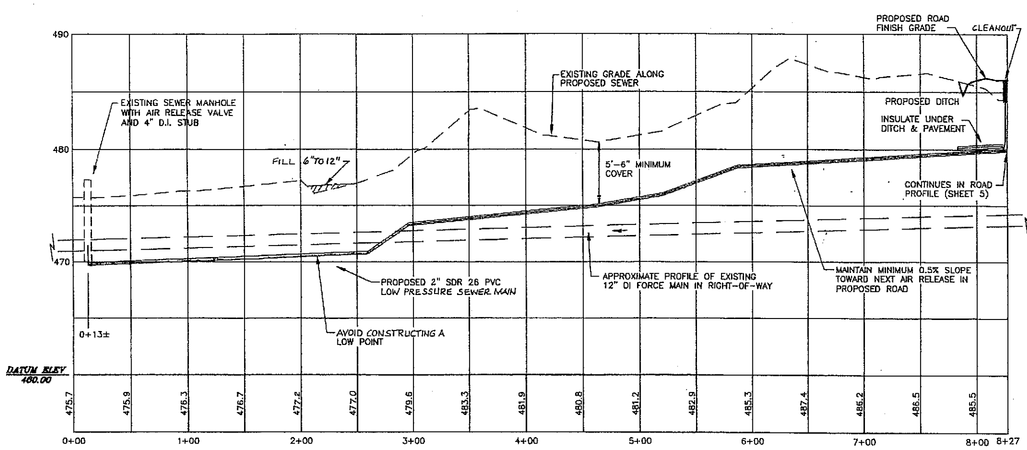
2. SAND BLANKET CLEAN SAND FREE FROM ORGANIC MATTER SO GRADED THAT 90–100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE.

TYPICAL SEWER TRENCH

NOT TO SCALE

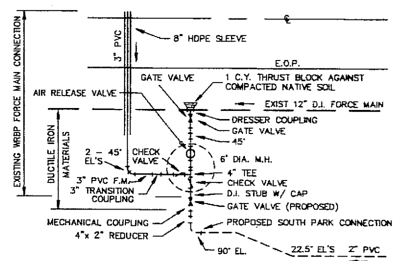
LEGEND

- DELINEATED WETLAND
- EXIST. DRAIN LINE
- EXIST. SEWER LINE
- EXIST. UTILITY POLE
- PROPOSED SEWER FORCE MAIN
- SILT FENCE



NOTES

1. CONTRACTOR TO SECURE TRENCHING PERMIT FROM NHDOT. DISTRICT 5 OFFICE PRIOR TO WORKING WITHIN THE STATE RIGHT-OF-WAY. CONTRACTOR TO INSTALL TRAFFIC SAFETY WARNINGS & BARRIERS AS REQUIRED BY THE NHDOT.
2. SEWER FORCE MAIN TO BE SDR 26 P.V.C. WITH PUSH ON JOINTS, 160 LB. PRESSURE RATING, CONFORMING TO ASTM D-2241.
3. SEE "TECHNICAL SPECIFICATIONS FOR SANITARY SEWERS", PREPARED FOR THIS PROJECT (SEPARATE DOCUMENT).
4. CONTRACTOR TO EXERCISE CARE SO AS TO AVOID DAMAGING THE 12" D.I. FORCE MAIN OR WEAKENING IT'S BEDDING MATERIAL. DO NOT PLACE HEAVY EQUIPMENT DIRECTLY ONTO OR WITHIN 24" ABOVE THE FORCE MAIN.
5. USE SHEETING AND/OR TRENCH BOX TO SUPPORT THE EXCAVATION, AS CONDITIONS MAY WARRANT.
6. IN AREAS WHERE THE 5'-6" MINIMUM COVER CANNOT BE MAINTAINED, AND FILL CANNOT BE ADDED (SUCH AS IN THE R-O-W), INSULATION MAY BE ADDED OVER THE PIPE. INSULATION SHALL BE A 4" THICK X 2 FT. WIDE STRIP OF RIGID POLYSTYRENE BOARD.
7. THRUST BLOCKS TO BE CONSTRUCTED AT ALL ELBOWS AND BENDS. STONE BACKING CANNOT BE SUBSTITUTED IN LIEU OF THRUST BLOCKS.
8. CONTRACTOR TO NOTIFY NHDES. WINNIPESAUKEE RIVER BASIN PROGRAM (603-934-2809) AND THE NORTHFIELD SEWER COMMISSION AT LEAST ONE WEEK IN ADVANCE OF START OF CONSTRUCTION FOR SITE INSPECTIONS.
9. THE OWNER OF THE PROJECT WILL BE RESPONSIBLE FOR THE COSTS OF ANY AND ALL DAMAGE THAT OCCURS TO THE WRBP FORCE MAIN AS A RESULT OF THE CONSTRUCTION.
10. AT SUCH TIME AS A PUBLIC SEWER SYSTEM BECOMES AVAILABLE AT THIS LOCATION, THE DIRECT CONNECTION TO THE WRBP INTERCEPTOR WILL BE TERMINATED, AND THE SUBDIVISION FORCE MAINS REDIRECTED TO THE PUBLIC SYSTEM.
11. FUTURE SEWER CONNECTIONS TO THESE LINES BEYOND THOSE SHOWN ON THE PLANS SHALL NOT BE PERMITTED, AS LONG AS THE DIRECT CONNECTION TO THE WRBP FORCE MAIN EXISTS.
12. THIS DESIGN IS FOR A LOW PRESSURE SEWER SYSTEM WITH INDIVIDUAL PUMPING STATIONS ON EACH LOT. PUMPS TO BE PROGRESSIVE CAVITY, SEMI-POSITIVE OR POSITIVE DISPLACEMENT TYPE. SEE SPECIFICATIONS FOR ENVIRONMENT/ONE PUMPING STATION SPECIFICATIONS AND INSTALLATION. SEWER DISCHARGE PERMITS WILL BE REQUIRED FOR END USERS.



AS-BUILT CONNECTION SCHEMATIC

NOT TO SCALE

NOTE: PORTIONS OF ABOVE ARE BASED ON AS-BUILT SKETCHES BY WRBP INSPECTOR AND KIP CORMIER BUILDERS, INC., DATED 7/13 & 7/25/00.

BURD
Civil Engineering • Land Surveying • Land Planning
105 Loudon Road Concord, NH 03301 (603) 224-6868

OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH

TAX MAP R14 – LOT 5
ROUTE 140
NORTHFIELD, NH

NO.	DATE	REVISIONS	BY
1	11/12/99	MIN. SEWER TO SEWER SEPARATION	
		ADDED NOTE 6 & CROSSING NOTES.	CRT
2	12/6/00	REVISED NOTES, SCHEMATIC, PROPOSED FORCE	
		MAIN PROFILE, ADDED AS-BUILT CONNECTION.	MAV
3	4/10/01	NOTE 12, MAIN SIZE, LOCATION & PROFILE,	
		CLEANOUT.	MAV

CROSS-COUNTRY SEWER
PLAN & PROFILE

SCALE: 1"=50' HOR., 1"=5' VERT. AUGUST 27, 1999

SHEET 3A OF 8

\CORMIER\DESIGN.DWG | PROJ. NO 246

EXHIBIT B

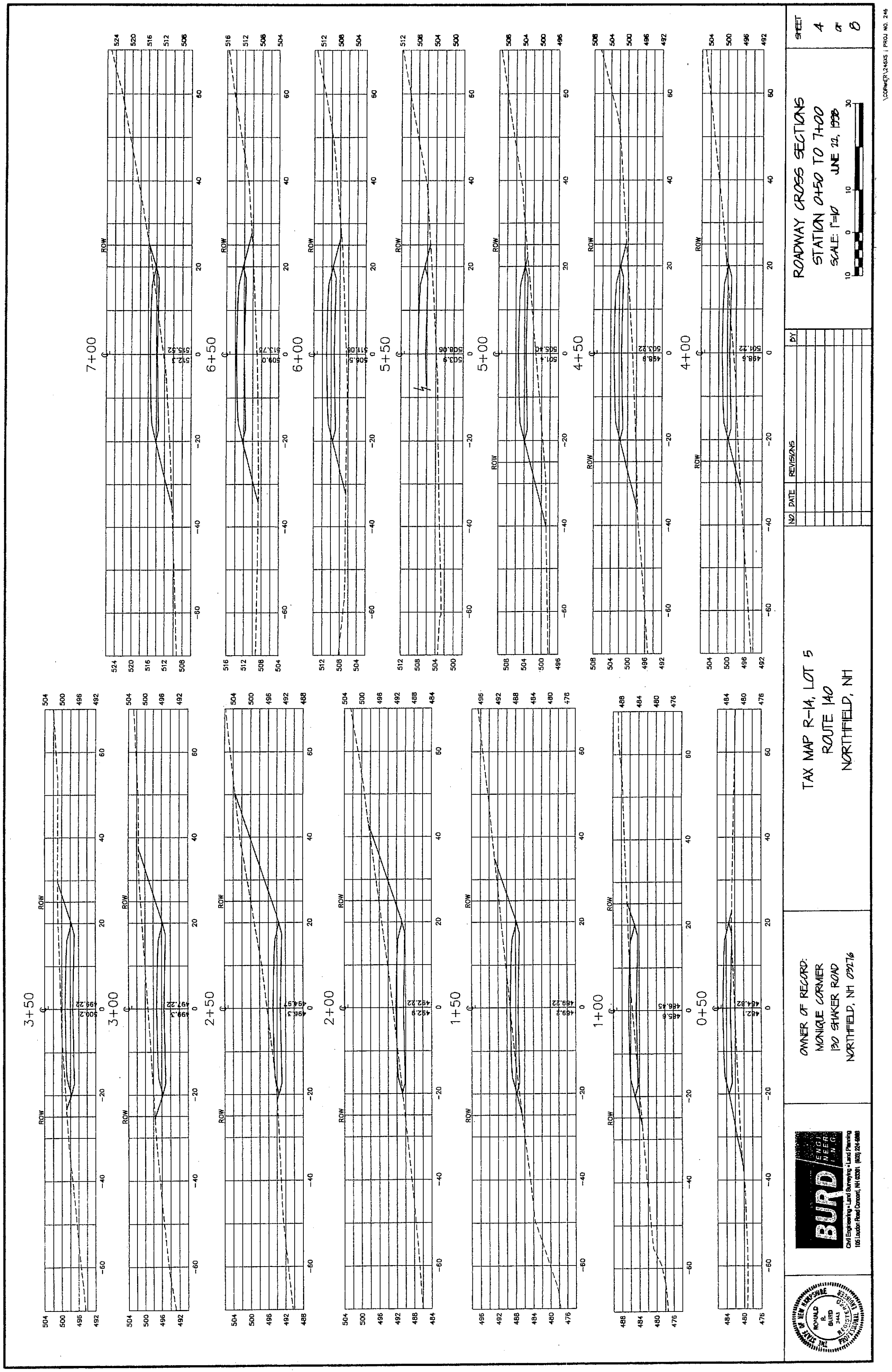
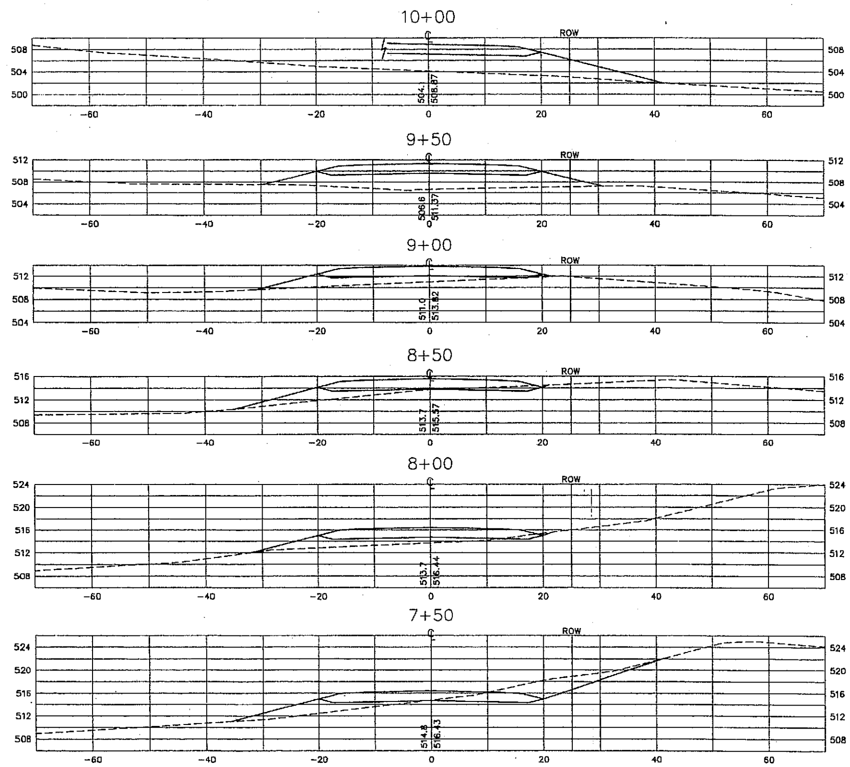

ROADWAY CROSS SECTIONS
STATION 0+50 TO 7+00
SCALE: 1"=10'
JUNE 22, 1998
SHEET 4 OF 8
TAX MAP R-14, LOT 5
ROUTE 140
NORTHFIELD, NH
OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276
BURD
NO DATE REVISIONS BY
7+00
6+50
6+00
5+50
5+00
4+50
4+00
3+50
3+00
2+50
2+00
1+50
1+00
0+50
ROW

EXHIBIT B



BURD ENGINEERING — Civil Engineering • Land Surveying • Land Planning, 105 Loudon Road Concord, NH 03301 (603) 224-8888	OWNER OF RECORD: MONIQUE CORMIER 130 SHAKER ROAD NORTHFIELD, NH 03276	TAX MAP R-14, LOT 5 ROUTE 140 NORTHFIELD, NH	ROADWAY CROSS SECTIONS STATION 7+50 TO 10+00 (END) SCALE: 1"=10' JUNE 22, 1998	SHEET 5 OF 8

NO.	DATE	REVISIONS	BY

THE STATE OF NEW HAMPSHIRE RONALD R. BURD 3443 REGISTERED PROFESSIONAL ENGINEER

\CORMIER\246XS | PROJ NO. 246

EXHIBIT B

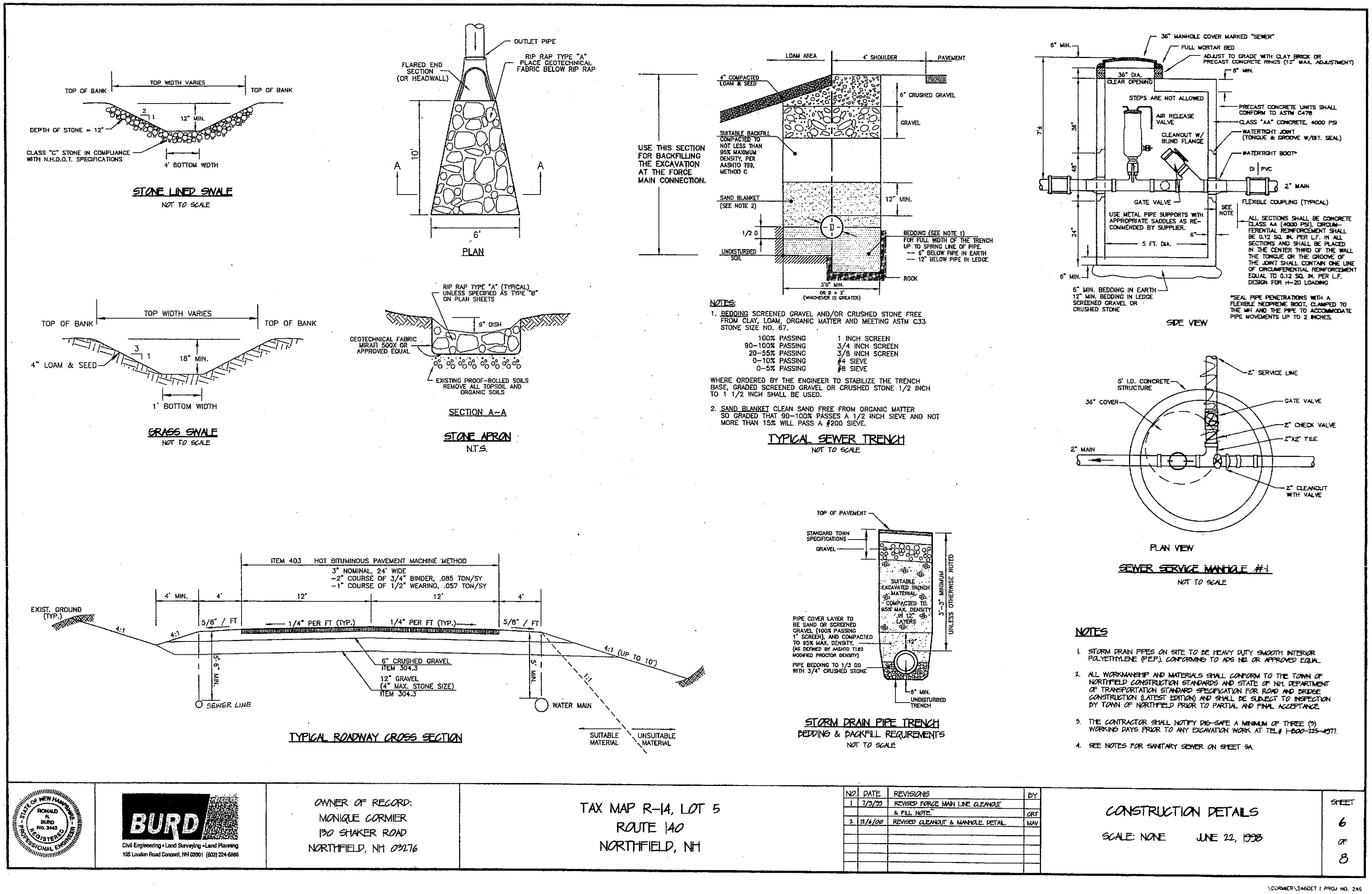
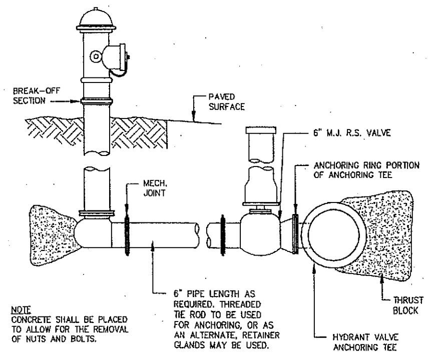
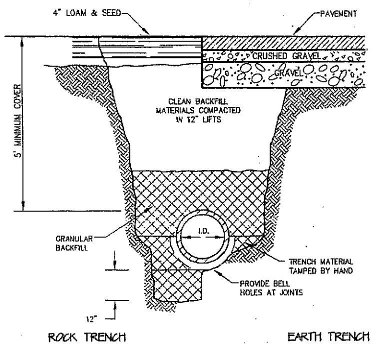

TOP WIDTH VARIES
TOP OF BANK
TOP OF BANK
12" MIN.
DEPTH OF STONE = 12"
CLASS "C" STONE IN COMPLIANCE WITH N.H.D.O.T. SPECIFICATIONS
4' BOTTOM WIDTH
STONE LINED SWALE
NOT TO SCALE
TOP WIDTH VARIES
TOP OF BANK
TOP OF BANK
18" MIN.
4" LOAM & SEED
1' BOTTOM WIDTH
GRASS SWALE
NOT TO SCALE
OUTLET PIPE
RIP RAP TYPE "A" PLACE GEOTECHNICAL FABRIC BELOW RIP RAP
FLARED END SECTION (OR HEADWALL)
10'
6'
PLAN
RIP RAP TYPE "A" (TYPICAL) UNLESS SPECIFIED AS TYPE "B" ON PLAN SHEETS
9" DISH
GEOTECHNICAL FABRIC MIRAFI 500X OR APPROVED EQUAL
EXISTING PROOF-ROLLED SOILS REMOVE ALL TOPSOIL AND ORGANIC SOILS
SECTION A-A
STONE APRON
N.T.S.
USE THIS SECTION FOR BACKFILLING THE EXCAVATION AT THE FORCE MAIN CONNECTION.
LOAM AREA
4' SHOULDER
PAVEMENT
4" COMPACTED LOAM & SEED
6" CRUSHED GRAVEL
GRAVEL
SUITABLE BACKFILL COMPACTED TO NOT LESS THAN 95% MAXIMUM DENSITY, PER AASHTO T99, METHOD C
SAND BLANKET (SEE NOTE 2)
12" MIN.
1/2 D
UNDISTURBED SOIL
BEDDING (SEE NOTE 1) FOR FULL WIDTH OF THE TRENCH UP TO SPRING LINE OF PIPE. — 6" BELOW PIPE IN EARTH — 12" BELOW PIPE IN LEDGE
ROCK
3'0" MIN. OR D + 2' (WHICHEVER IS GREATER)
NOTES:
1. BEDDING SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 STONE SIZE NO. 67.
100% PASSING 1 INCH SCREEN
90-100% PASSING 3/4 INCH SCREEN
20-55% PASSING 3/8 INCH SCREEN
0-10% PASSING #4 SIEVE
0-5% PASSING #8 SIEVE
WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.
2. SAND BLANKET CLEAN SAND FREE FROM ORGANIC MATTER SO GRADED THAT 90-100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE.
TYPICAL SEWER TRENCH
NOT TO SCALE
36" MANHOLE COVER MARKED "SEWER"
FULL MORTAR BED
ADJUST TO GRADE WITH CLAY BRICK OR PRECAST CONCRETE RINGS (12" MAX. ADJUSTMENT)
5" MIN.
6" MIN.
36" DIA. CLEAR OPENING
STEPS ARE NOT ALLOWED
AIR RELEASE VALVE
CLEANOUT W/ BLIND FLANGE
PRECAST CONCRETE UNITS SHALL CONFORM TO ASTM C478
CLASS "AA" CONCRETE, 4000 PSI
WATERTIGHT JOINT (TONGUE & GROOVE W/BIT. SEAL)
WATERTIGHT BOOT*
DI | PVC
2" MAIN
FLEXIBLE COUPLING (TYPICAL)
GATE VALVE
SEE NOTE
USE METAL PIPE SUPPORTS WITH APPROPRIATE SADDLES AS RE-COMMENDED BY SUPPLIER.
5 FT. DIA.
ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F. DESIGN FOR H-20 LOADING
6" MIN. BEDDING IN EARTH 12" MIN. BEDDING IN LEDGE SCREENED GRAVEL OR CRUSHED STONE
*SEAL PIPE PENETRATIONS WITH A FLEXIBLE NEOPRENE BOOT, CLAMPED TO THE MH AND THE PIPE TO ACCOMMODATE PIPE MOVEMENTS UP TO 2 INCHES.
SIDE VIEW
2" SERVICE LINE
5' I.D. CONCRETE STRUCTURE
36" COVER
GATE VALVE
2" CHECK VALVE
2"X2" TEE
2" MAIN
2" CLEANOUT WITH VALVE
PLAN VIEW
SEWER SERVICE MANHOLE #1
NOT TO SCALE
ITEM 403 HOT BITUMINOUS PAVEMENT MACHINE METHOD
3" NOMINAL, 24' WIDE
-2" COURSE OF 3/4" BINDER, .085 TON/SY
-1" COURSE OF 1/2" WEARING, .057 TON/SY
EXIST. GROUND (TYP.)
4' MIN.
4'
12'
12'
4'
5/8" / FT
1/4" PER FT (TYP.)
1/4" PER FT (TYP.)
5/8" / FT
4:1
4:1
4:1 (UP TO 10')
1:1
5'-6" MIN.
5' MIN.
6" CRUSHED GRAVEL ITEM 304.3
12" GRAVEL (4" MAX. STONE SIZE) ITEM 304.3
SEWER LINE
WATER MAIN
SUITABLE MATERIAL
UNSUITABLE MATERIAL
TYPICAL ROADWAY CROSS SECTION
TOP OF PAVEMENT
STANDARD TOWN SPECIFICATIONS
GRAVEL
SUITABLE EXCAVATED TRENCH MATERIAL COMPACTED TO 95% MAX. DENSITY IN 12" LAYERS
3'-5' MINIMUM UNLESS OTHERWISE NOTED
PIPE COVER LAYER TO BE SAND OR SCREENED GRAVEL (100% PASSING 1" SCREEN), AND COMPACTED TO 95% MAX. DENSITY. (AS DEFINED BY AASHTO T180 MODIFIED PROCTOR DENSITY)
PIPE BEDDING TO 1/3 OD WITH 3/4" CRUSHED STONE
6" MIN.
UNDISTURBED TRENCH
STORM DRAIN PIPE TRENCH
BEDDING & BACKFILL REQUIREMENTS
NOT TO SCALE
NOTES
1. STORM DRAIN PIPES ON SITE TO BE HEAVY DUTY SMOOTH INTERIOR POLYETHYLENE (P.E.P.), CONFORMING TO ADS N12 OR APPROVED EQUAL.
2. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE TOWN OF NORTHFIELD CONSTRUCTION STANDARDS AND STATE OF NH. DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION) AND SHALL BE SUBJECT TO INSPECTION BY TOWN OF NORTHFIELD PRIOR TO PARTIAL AND FINAL ACCEPTANCE.
3. THE CONTRACTOR SHALL NOTIFY DIG-SAFE A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO ANY EXCAVATION WORK AT TEL# 1-800-225-4977.
4. SEE NOTES FOR SANITARY SEWER ON SHEET 5A.
STATE OF NEW HAMPSHIRE RONALD R. BURD No. 3443 REGISTERED PROFESSIONAL ENGINEER
BURD
Civil Engineering • Land Surveying • Land Planning
105 Loudon Road Concord, NH 03301 (603) 224-6866
OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276
TAX MAP R-14, LOT 5
ROUTE 140
NORTHFIELD, NH
NO. DATE REVISIONS BY
1 7/3/99 REVISED FORCE MAIN LINE CLEANOUT & FILL NOTE CRT
2 12/6/00 REVISED CLEANOUT & MANHOLE DETAIL MAV
CONSTRUCTION DETAILS
SCALE: NONE JUNE 22, 1998
SHEET 6 OF 8
\CORMIER\3460ET | PROJ NO. 246

EXHIBIT B

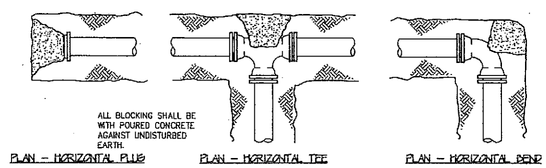


HYDRANT INSTALLATION DETAIL
NOT TO SCALE



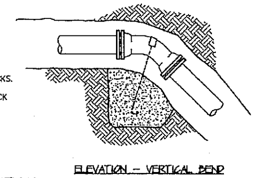
FOR 6", 8", 10", 12", & 16" I.D. PIPE

TYPICAL TRENCH DETAIL
NOT TO SCALE

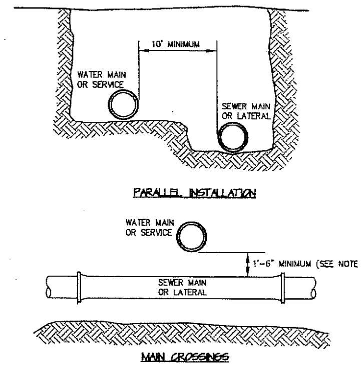


NOTES:

1. THRUST BLOCK DIMENSIONS TO BE DETERMINED IN FIELD BY ENGINEER BASED ON PIPE SIZE, WATER PRESSURE AND SOIL TYPE.
2. STONE BACKING MAY NOT BE SUBSTITUTED FOR CONCRETE THRUST BLOCKS.
3. USE OF JOINT RESTRAINT SYSTEMS SHALL NOT ELIMINATE THRUST BLOCK REQUIREMENTS (WHERE POSSIBLE).



TYPICAL THRUST BLOCK INSTALLATIONS
NOT TO SCALE



SEWER & WATER CLEARANCES
NOT TO SCALE

NOTES

1. CONSTRUCTION TO BE IN COMPLIANCE WITH TILTON & NORTHFIELD AQUEDUCT COMPANY, INC.
2. WHERE 18" MINIMUM CANNOT BE PROVIDED, USE D.I. PIPE FOR SEWER, 20 L.F. SECTION, 10 L.F. EITHER SIDE OF CROSSING (SEE MAIN LOCATION INDICATED ON PROFILE).

STATE OF NEW HAMPSHIRE – RONALD R. BURD No. 3443 – REGISTERED PROFESSIONAL ENGINEER

BURD
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105 Loudon Road Concord, NH 03301 (603) 224-6888

OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276

TAX MAP R-14, LOT 5
ROUTE 140
NORTHFIELD, NH

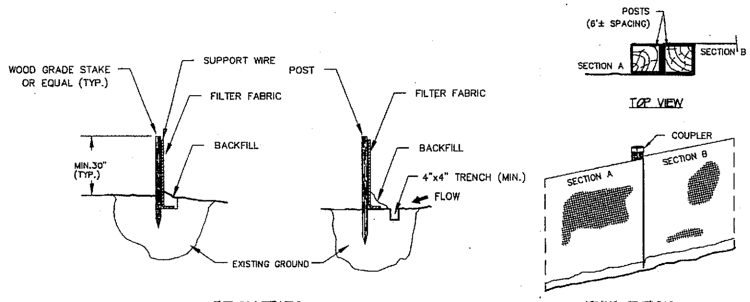
NO.	DATE	REVISIONS	BY
1	12/6/00	REV. NOTE 2, THRUST BLOCKS.	MV

WATER LINE DETAILS
SCALE: NONE JUNE 22, 1998

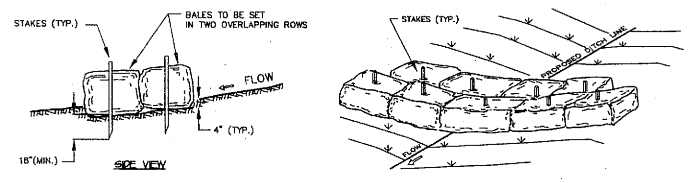
SHEET 7 OF 8

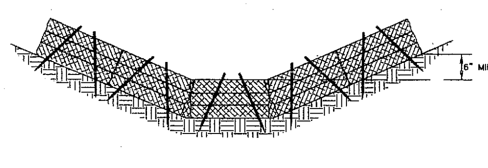
\CORMIER\246DET | PROJ NO. 246

EXHIBIT B



SILT FENCE DETAILS
NOT TO SCALE

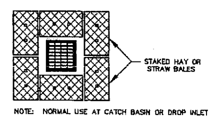




PLACE BALES EVERY 100' IN SWALES OR AS SHOWN ON PLANS

DETAIL OF BALE CHANNEL BARRIER
NOT TO SCALE

NOT TO SCALE



NOTE: NORMAL USE AT CATCH BASIN OR DROP INLET

HAY BALE NOTES:

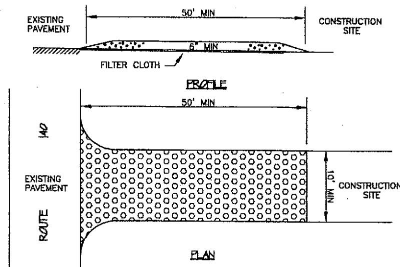
1.) STAKES TO HOLD HAY BALES SHALL BE GRADE STAKE OR EQUIVALENT AND SHALL BE LONG ENOUGH TO EXTEND 1 FOOT MIN INTO THE GROUND.
2.) BALES SHALL BE SET 3± INCHES BELOW GROUND SURFACE OR AS ORDERED.

LOW POINT SEDIMENTATION CONTROL BARRIER
NOT TO SCALE

NOTES

CONSTRUCTION NOTES:

1. HAY BALE BARRIERS SHALL BE PLACED IN ALL DITCHES AND DRAINAGE SWALES AT MAX. 100 FT. INTERVALS.
2. EROSION CONTROL FABRIC IN DITCHES TO BE CARTHAGE MILLS "VEG-NET", CONFORMING TO ASTM D-3776 & D-4632, OR APPROVED EQUAL. USE IN ALL GRASS LINED DITCHES AND SWALES OVER 5% SLOPE AND IN THE TREATMENT SWALES.
3. DRAINAGE SWALES SHALL BE STABILIZED WITH SEEDING OR STONE LINING PRIOR TO DIRECTING FLOW TO THEM.
4. THE CONTRACTOR SHALL EMPLOY EROSION CONTROL MEASURES IN ACCORDANCE WITH "STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE," BY ROCKINGHAM COUNTY CONSERVATION DISTRICT, DATED AUGUST, 1992.



CONSTRUCTION SPECIFICATIONS

1) STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2) LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)
3) THICKNESS – NOT LESS THAN SIX (6) INCHES.
4) WIDTH – TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5) FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6) SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7) MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

VEGETATIVE MEASURES

TOPSOIL STOCKPILING: TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR LATER USE ON CRITICAL AREAS AND ALL OTHER AREAS TO BE SEEDED. THE STOCK PILE WILL NOT BE COMPACTED AND SHALL BE STABILIZED AGAINST EROSION WITH TEMPORARY SEEDING.

TEMPORARY SEEDING:

A) BEDDING – REMOVE STONES AND TRASH THAT WILL INTERFERE WITH SEEDING THE AREA. WHERE FEASIBLE, TILL THE SOIL TO A DEPTH OF ABOUT THREE INCHES TO PREPARE SEED BED AND MIX THE FERTILIZER INTO THE SOIL.

B) FERTILIZER – FERTILIZER SHOULD BE UNIFORMLY SPREAD OVER THE AREA PRIOR TO BEING TILLED INTO THE SOIL. A 10-10-10 MIX OF FERTILIZER SHOULD BE APPLIED AT A RATE OF 300 POUNDS PER ACRE (OR SEVEN POUNDS PER 1,000 S.F.)

C) SEED MIXTURE: USE ANY OF THE FOLLOWING:

SPECIES	SEEDING RATE PER ACRE	SEEDING RATE PER 1000 S.F.	DATES	DEPTH
WINTER RYE	112 LBS.	2.5 LBS.	8/15 – 5/15	1 INCH
OATS	80 LBS.	2.0 LBS.	SPRING – 5/15	1 INCH
ANNUAL RYEGRASS	40 LBS.	1.0 LBS.	4/15 – 9/15 WITH MULCH	1/4 INCH

D) MULCHING – WHERE IT IS IMPRACTICABLE TO INCORPORATE FERTILIZER AND SEED INTO MOIST SOIL, THE SEEDED AREA SHOULD BE MULCHED TO FACILITATE GERMINATION. MULCH IN THE FORM OF HAY OR STRAW SHOULD BE APPLIED AT A RATE OF 70 TO 90 LBS PER 1,000 S.F.

PERMANENT SEEDING:

A) BEDDING – STONES LARGER THAN FOUR INCHES, TRASH, ROOTS, AND OTHER DEBRIS THAT WILL INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA SHOULD BE REMOVED. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF FOUR INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION.

B) FERTILIZER – LIME AND FERTILIZER SHOULD BE APPLIED EVENLY OVER THE AREA PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. TYPE 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 APPLIED:

- AGRICULTURAL LIMESTONE @ 100 LBS. PER 1,000 S.F.
- 10-20-20 FERTILIZER @ 12 LBS. PER 1,000 S.F.

C) SEED MIXTURE – (RECOMMENDED)

TYPE	SEEDING RATE LBS. PER ACRE	SEEDING RATE LBS. PER 1,000 S.F.	USE
I. TALL FESQUE	20	0.45	STEEP CUTS AND FILLS DETENTION BASINS AND SWALES
CREEPING RED FESQUE	20	0.45	
RED TOP	2	0.05	
TOTAL	42	0.95	
II. CREEPING RED FESQUE	50	1.15	ALL OTHER AREAS
KENTUCKY BLUEGRASS	50	1.15	
TOTAL	100	2.30	

PLANTING DATES:
WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM APRIL 1 TO OCTOBER 1. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM APRIL 1 TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.

CONSTRUCTION SEQUENCE:

1. CUT AND CLEAR VEGETATION TO LIMITS OF CONSTRUCTION GRADING.
2. INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES PRIOR TO COMMENCING EARTHWORK.
3. STRIP AND STOCKPILE TOPSOIL ON SITE; PLACE SEDIMENT BARRIER ALONG DOWNSLOPE SIDE OF STOCKPILE(S).
4. EXCAVATE AND PLACE ON-SITE MATERIALS TO SUBGRADE ELEVATIONS.
5. CONSTRUCT DRAINAGE STRUCTURES & DITCHES.
6. SHAPE SWALES AND SLOPES AND REPLACE LOAM. PLACE HAY BALES IN SWALES IMMEDIATELY AFTER FINAL GRADING.
7. APPLY SEEDING AND MULCHING ON ALL CUT AND FILL SLOPES IMMEDIATELY AFTER FINAL GRADING.
8. SEDIMENT BARRIERS ARE TO BE MAINTAINED AND CLEANED UNTIL ALL DISTURBED AREAS HAVE A STAND OF GRASS OR HAVE BEEN PAVED.

THE STATE OF NEW HAMPSHIRE RONALD R. BURD 3443 REGISTERED PROFESSIONAL ENGINEER

BURD ENGINEERING
Civil Engineering • Land Surveying • Land Planning
105 Loudon Road Concord, NH 03301 (603) 224-6866

OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276

TAX MAP R-14, LOT 5
ROUTE 140
NORTHFIELD, NH

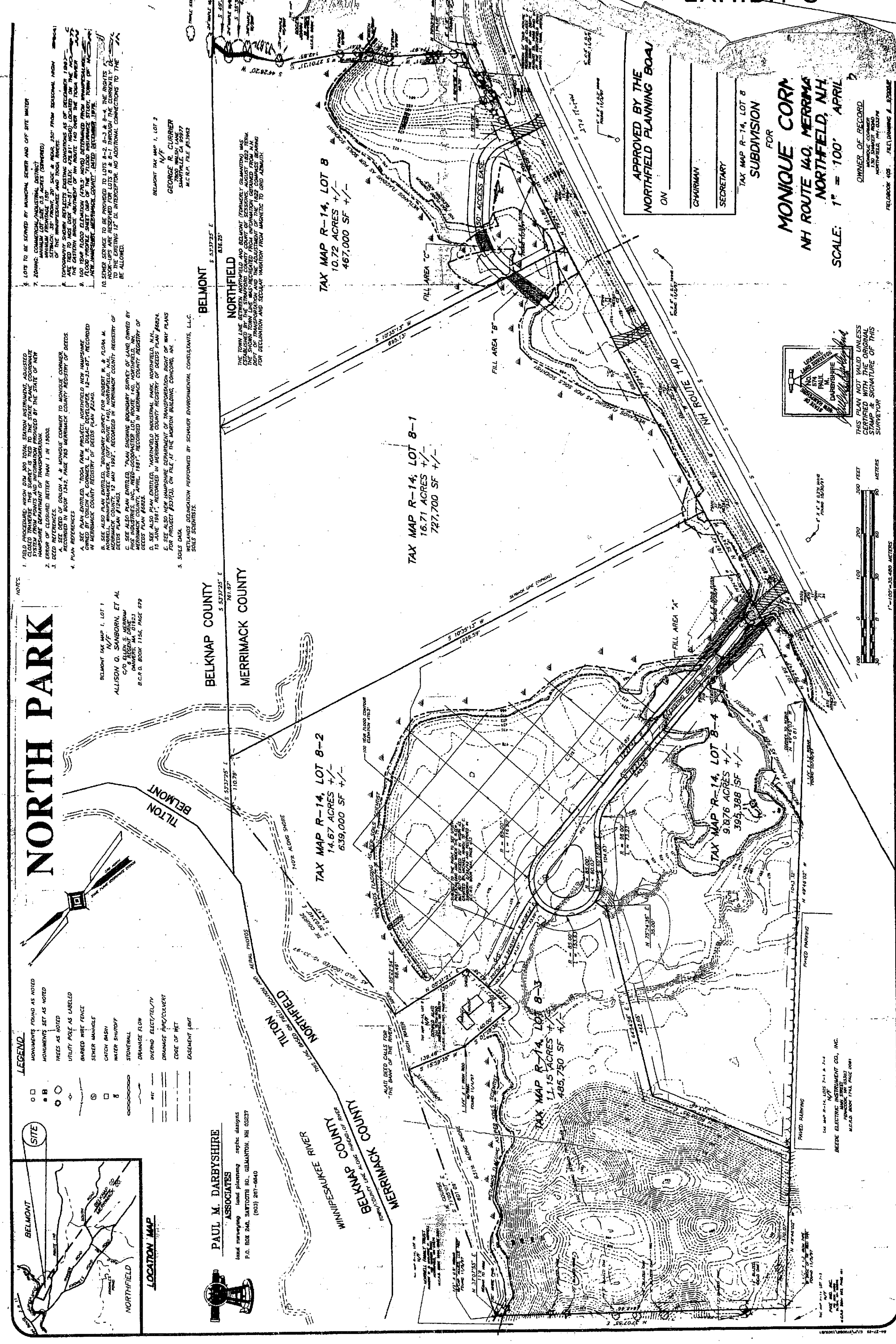
NO.	DATE	REVISIONS	BY

EROSION CONTROL DETAILS
SCALE: 1"=10' JUNE 22, 1998

SHEET 8 OF 8

\CORMIER\246DET | PROJ NO. 246

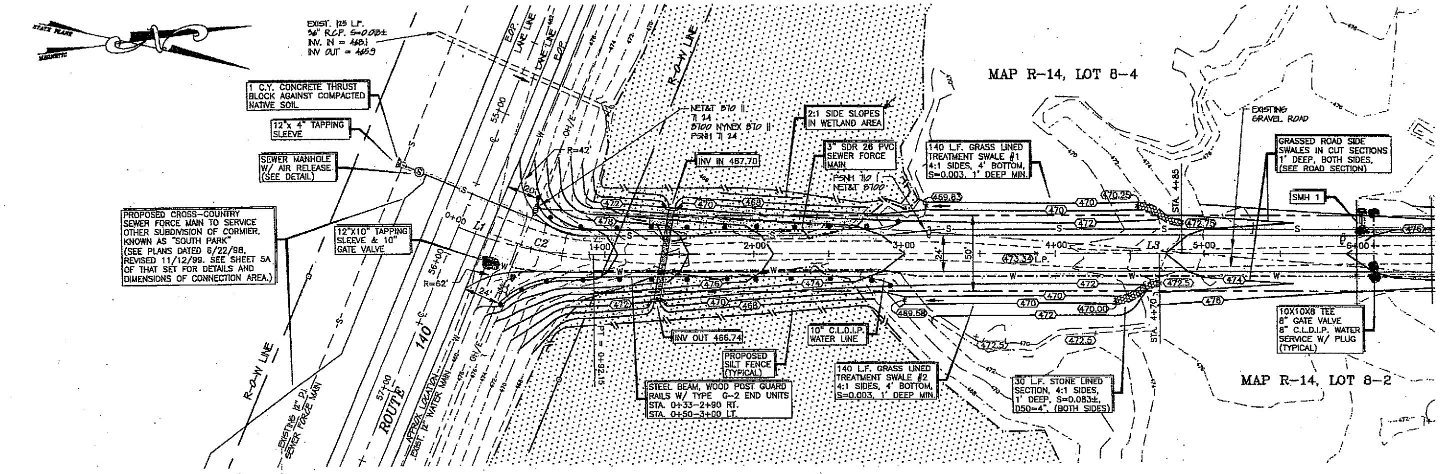
EXHIBIT C



NORTH PARK
LOCATION MAP
LEGEND
PAUL M. DARBYSHIRE ASSOCIATES
BELKNAP COUNTY
MERRIMACK COUNTY
BELMONT
NORTHFIELD
TILTON
WINNIPESAUKEE RIVER
NH ROUTE 140
TAX MAP R-14, LOT 8
10.72 ACRES +/-
467,000 SF +/-
TAX MAP R-14, LOT 8-1
16.71 ACRES +/-
727,700 SF +/-
TAX MAP R-14, LOT 8-2
14.67 ACRES +/-
639,000 SF +/-
TAX MAP R-14, LOT 8-3
11.15 ACRES +/-
485,750 SF +/-
TAX MAP R-14, LOT 8-4
9.076 ACRES +/-
395,388 SF +/-
FILL AREA "A"
FILL AREA "B"
FILL AREA "C"
APPROVED BY THE NORTHFIELD PLANNING BOA
CHAIRMAN
SECRETARY
SUBDIVISION FOR
MONIQUE CORN
NORTHFIELD, N.H.
SCALE: 1" = 100'
OWNER OF RECORD

EXHIBIT C

ROADWAY CENTERLINE DATA		
	BEARING	DISTANCE
L1	N10°35'13"E	1.64'
C2	R = 225.00	90.51'
L3	N12°27'42"W	768.61'
C4	R = 50.00	233.33'
L5	S55°15'30"E	108.75'
C6	R = 113.00	84.44'



REFERENCE PLAN

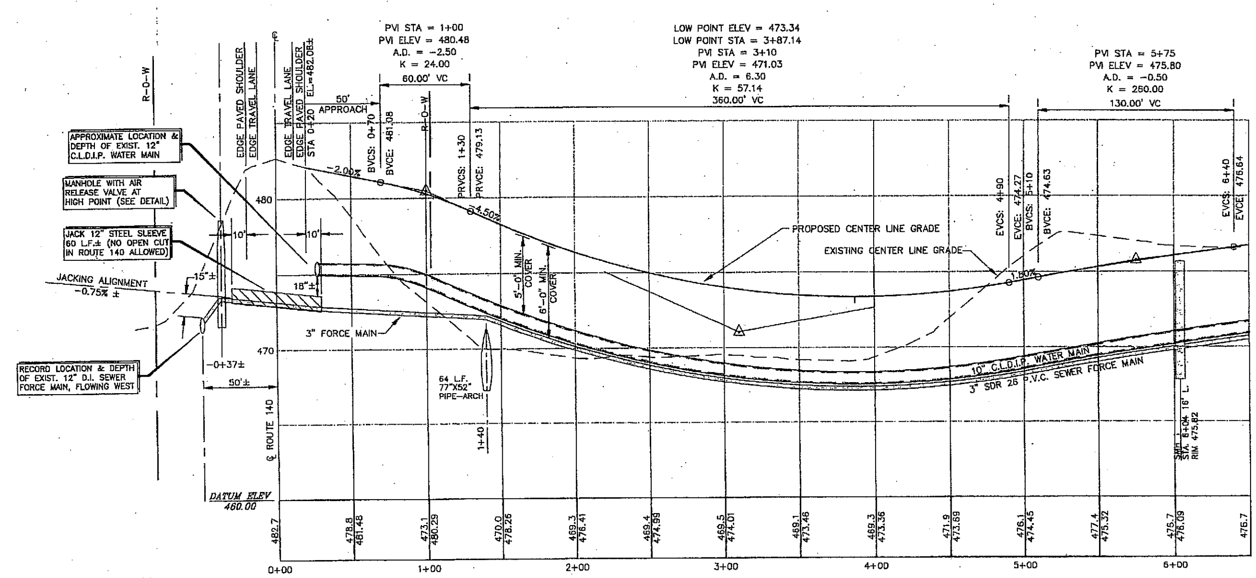
1. TAX MAP R-14, LOT 8, TITLED "SUBDIVISION FOR MONIQUE CORMIER, NH ROUTE 140, MERRIMACK CO. NORTHFIELD, NH." SCALE: 1" = 100', DATED APRIL 20, 1998, BY PAUL M. DARBYSHIRE ASSOCIATES.

NOTES

1. CONFIRM WATER MAIN LOCATION & DEPTH PRIOR TO JACKING OF SEWER SLEEVE.
2. WATER MAIN TO BE C.L.D.I.P., CLASS 52. INSTALLATION TO BE IN COMPLIANCE WITH THE REQUIREMENTS OF THE TILTON AND NORTHFIELD AQUEDUCT COMPANY, INC.
3. SEWER FORCE MAIN TO BE SDR 26 P.V.C. WITH PUSH ON JOINTS, 160 LB. PRESSURE RATING, CONFORMING TO ASTM D-2241.
4. ELECTRIC POLES TO BE RELOCATED PER P.S.N.H.
5. CONTRACTOR TO NOTIFY N.H.D.E.S. WINNIPESAUKEE RIVER BASIN PROGRAM (603-934-2809) AND THE NORTHFIELD SEWER COMMISSION AT LEAST ONE WEEK IN ADVANCE OF START OF CONSTRUCTION FOR SITE INSPECTION AND LOCATION OF MAIN CONNECTION.

LEGEND

- DELINEATED WETLAND
- EXIST. DRAIN LINE
- EXIST. WATER LINE
- EXIST. SEWER LINE
- EXIST. HYDRANT
- EXIST. UTILITY POLE
- EXIST. OVERHEAD ELECTRIC LINE
- PROPOSED SEWER FORCE MAIN
- PROPOSED WATER LINE
- SILT FENCE



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THE STATE OF NEW HAMPSHIRE RONALD R. BURD 9443 REGISTERED PROFESSIONAL ENGINEER

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OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276

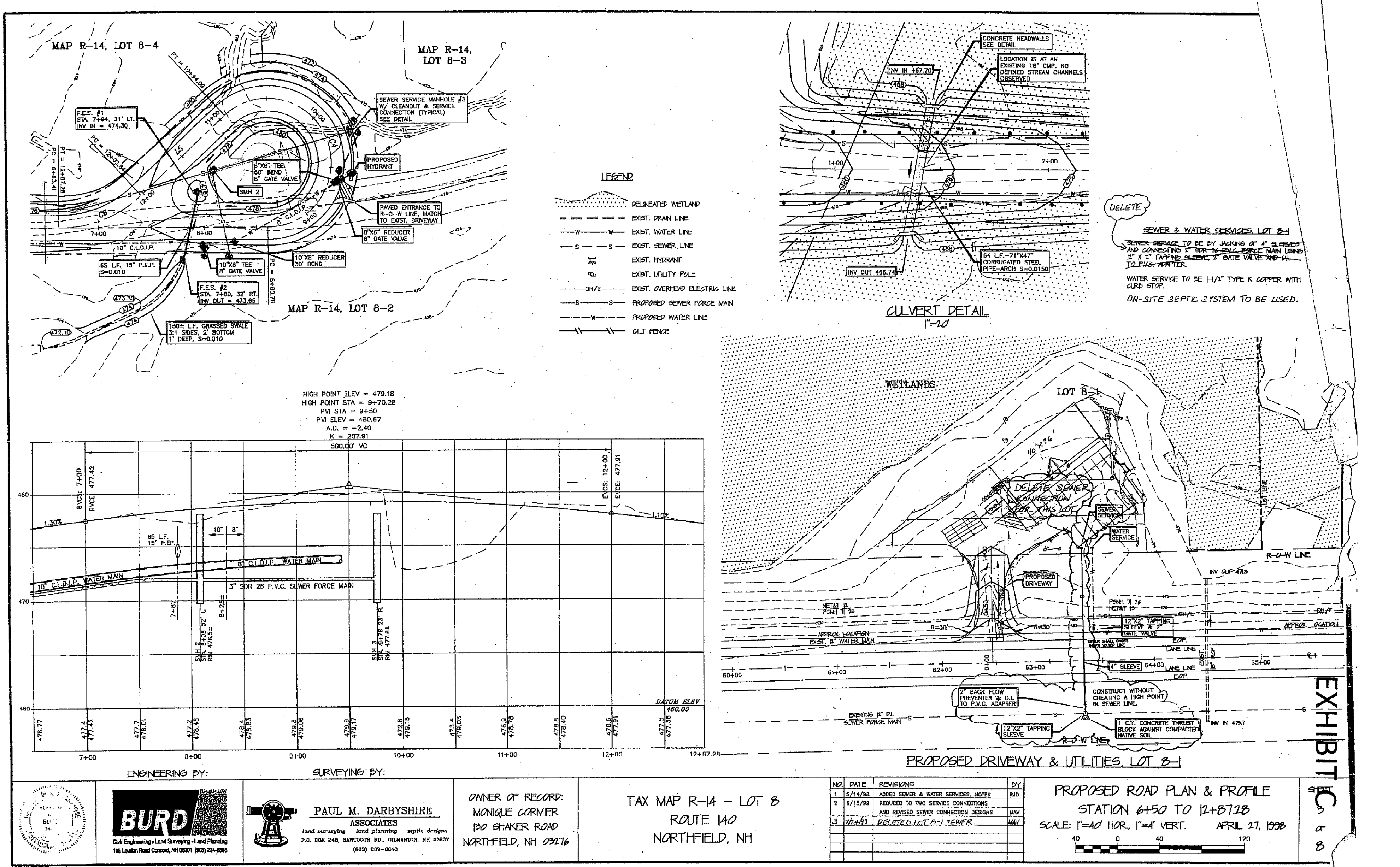
TAX MAP R-14 - LOT 8
ROUTE 140
NORTHFIELD, NH

NO.	DATE	REVISIONS	BY
1	6/15/99	REVISED SEWER CONNECTION DESIGNS.	MAV
2	7/24/99	ADDED CROSS-COUNTRY SEWER CONNECTION.	MAV
3	11/12/99	ADDED NOTE 5, REV. CROSS REFERENCE NOTES	CRT

PROPOSED ROAD PLAN & PROFILE
STATION 0+00 TO 6+50
SCALE: 1"=40' HOR., 1"=4' VERT. APRIL 27, 1998
40 0 40 120

\CORM140\258.DWG | PR

EXHIBIT C



MAP R-14, LOT 8-4
MAP R-14, LOT 8-3
MAP R-14, LOT 8-2
F.E.S. #1 STA. 7+94, 31' LT. INV IN = 474.30
SEWER SERVICE MANHOLE #3 W/ CLEANOUT & SERVICE CONNECTION (TYPICAL) SEE DETAIL
PROPOSED HYDRANT
8"X8" TEE 90° BEND 8" GATE VALVE
SMH 2
PAVED ENTRANCE TO R-O-W LINE, MATCH TO EXIST. DRIVEWAY
8"X6" REDUCER 6" GATE VALVE
10"X8" REDUCER 30° BEND
10"X8" TEE 8" GATE VALVE
65 L.F. 15" P.E.P. S=0.010
F.E.S. #2 STA. 7+60, 32' RT. INV OUT = 473.65
150± L.F. GRASSED SWALE 3:1 SIDES, 2' BOTTOM 1' DEEP, S=0.010
PT = 10+94.09
PC = 12+02.84
PT = 12+87.28
PC = 6+83.41
PC = 6+80.78
10" C.L.D.I.P.
8" C.L.D.I.P.
LEGEND
DELINEATED WETLAND
EXIST. DRAIN LINE
EXIST. WATER LINE
EXIST. SEWER LINE
EXIST. HYDRANT
EXIST. UTILITY POLE
EXIST. OVERHEAD ELECTRIC LINE
PROPOSED SEWER FORCE MAIN
PROPOSED WATER LINE
SILT FENCE
CONCRETE HEADWALLS SEE DETAIL
LOCATION IS AT AN EXISTING 18" CMP. NO DEFINED STREAM CHANNELS OBSERVED
INV IN 467.70
64 L.F.-71"X47" CORRUGATED STEEL PIPE-ARCH S=0.0150
INV OUT 466.74
CULVERT DETAIL
1"=20'
DELETE
SEWER & WATER SERVICES, LOT 8-1
~~SEWER SERVICE TO BE BY JACKING OF 4" SLEEVES AND CONNECTING 2" SDR 26 P.V.C. FORCE MAIN USING 12" X 2" TAPPING SLEEVE, 2" GATE VALVE AND P.I. TO P.V.C. ADAPTER.~~
WATER SERVICE TO BE 1-1/2" TYPE K COPPER WITH CURB STOP.
ON-SITE SEPTIC SYSTEM TO BE USED.
HIGH POINT ELEV = 479.18
HIGH POINT STA = 9+70.28
PVI STA = 9+50
PVI ELEV = 480.67
A.D. = -2.40
K = 207.91
500.00' VC
BVCS: 7+00
BVCE: 477.42
EVCS: 12+00
EVCE: 477.91
1.30%
1.10%
65 L.F. 15" P.E.P.
8" C.L.D.I.P. WATER MAIN
10" C.L.D.I.P. WATER MAIN
3" SDR 26 P.V.C. SEWER FORCE MAIN
SMH 2 STA. 8+08 52' L RIM 478.5±
SMH 3 STA. 9+76 23' R. RIM 477.8±
DATUM ELEV 460.00
WETLANDS
LOT 8-1
DELETE SEWER CONNECTION FOR THIS LOT
SEWER SERVICE
WATER SERVICE
PROPOSED DRIVEWAY
R-O-W LINE
12"X2" TAPPING SLEEVE & 2" GATE VALVE
4" SLEEVE
2" BACK FLOW PREVENTER & D.I. TO P.V.C. ADAPTER
CONSTRUCT WITHOUT CREATING A HIGH POINT IN SEWER LINE.
1 C.Y. CONCRETE THRUST BLOCK AGAINST COMPACTED NATIVE SOIL
12"X2" TAPPING SLEEVE
EXISTING 12" D.I. SEWER FORCE MAIN
EXIST. 12" WATER MAIN
APPROX. LOCATION
PROPOSED DRIVEWAY & UTILITIES, LOT 8-1
ENGINEERING BY:
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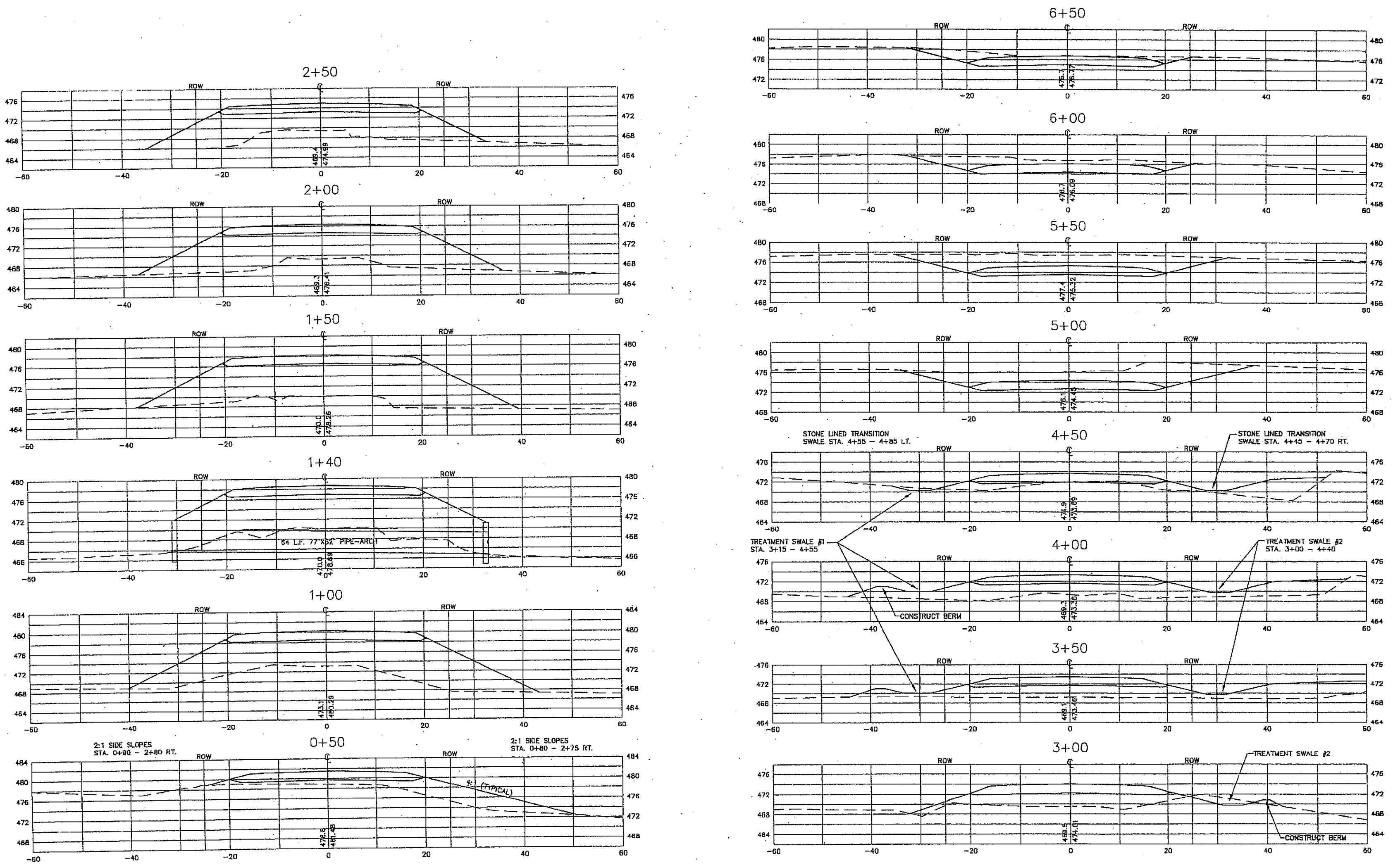
(603) 267-6640
OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276
TAX MAP R-14 - LOT 8
ROUTE 140
NORTHFIELD, NH
NO. DATE REVISIONS BY
1 5/14/98 ADDED SEWER & WATER SERVICES, NOTES RJD
2 6/15/99 REDUCED TO TWO SERVICE CONNECTIONS AND REVISED SEWER CONNECTION DESIGNS MAV
3 7/24/99 DELETED LOT 8-1 SEWER. MAV
PROPOSED ROAD PLAN & PROFILE
STATION 6+50 TO 12+87.28
SCALE: 1"=40' HOR., 1"=4' VERT.
APRIL 27, 1998
SHEET 5 OF 8
\CORM140\258.DWG | PROJ NO.

EXHIBIT C



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OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276

TAX MAP R-14 – LOT 8
ROUTE 140
NORTHFIELD, NH

NO.	DATE	REVISIONS	BY

ROADWAY CROSS SECTIONS
STATION 0+50 TO 6+50
SCALE: 1"=10' APRIL 27, 1998

SHEET 4 OF 8

\CORM140\258XS.DWG | PROJ. NO 258

EXHIBIT C

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OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276

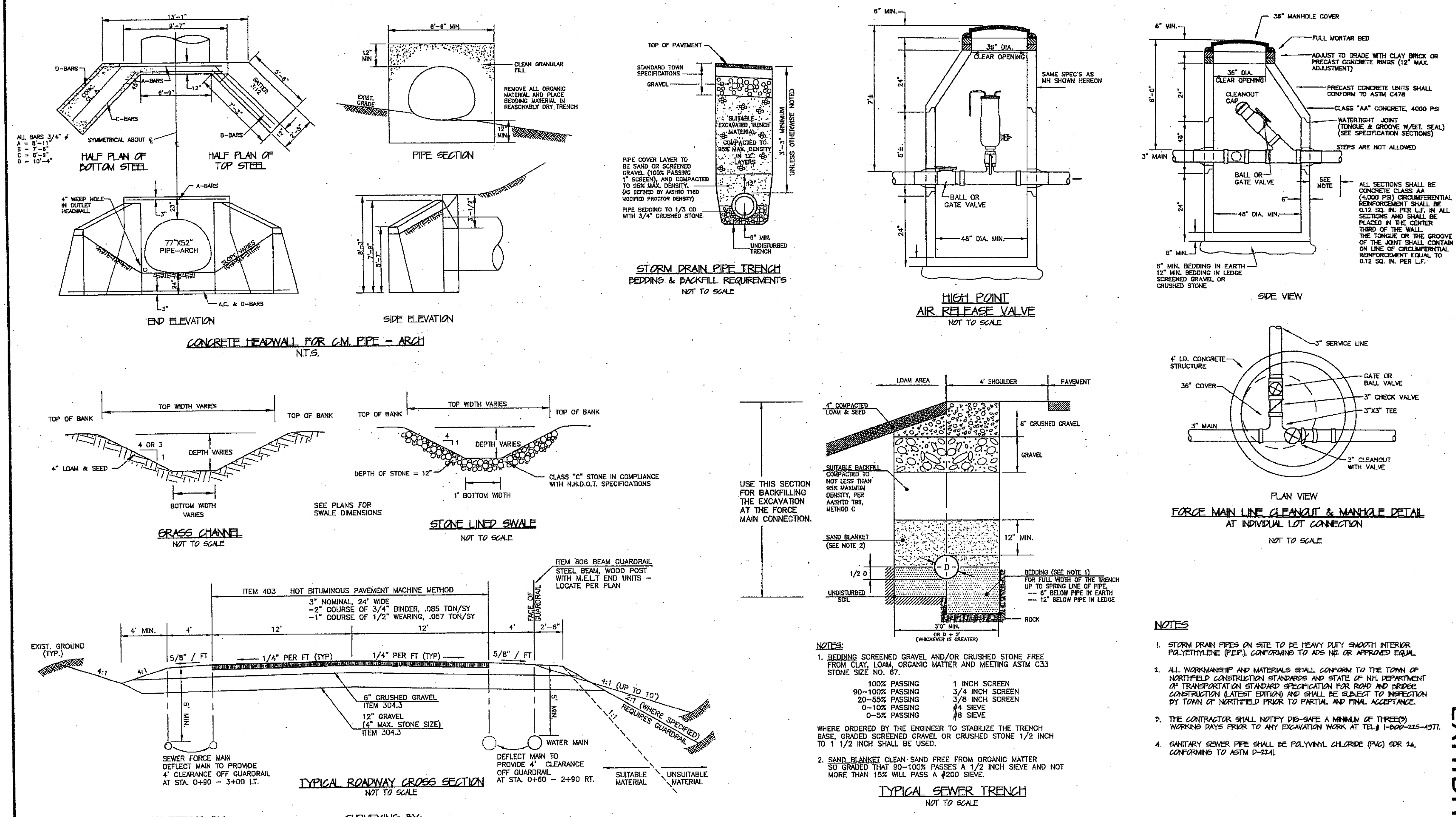
TAX MAP R-14 – LOT 8
ROUTE 140
NORTHFIELD, NH

NO.	DATE	REVISIONS	BY

ROADWAY CROSS SECTIONS
STATION 7+00 TO 12+00 (END)
SCALE: 1"=10' APRIL 27, 1998

SHEET 5 OF 8

\CORM140\258XS.DWG | PROJ. NO 258



NOTES:

1. BEDDING SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 STONE SIZE NO. 67.

100% PASSING	1 INCH SCREEN
90–100% PASSING	3/4 INCH SCREEN
20–55% PASSING	3/8 INCH SCREEN
0–10% PASSING	#4 SIEVE
0–5% PASSING	#8 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.

2. SAND BLANKET CLEAN SAND FREE FROM ORGANIC MATTER SO GRADED THAT 90–100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE.

NOTES

1. STORM DRAIN PIPES ON SITE TO BE HEAVY DUTY SMOOTH INTERIOR POLYETHYLENE (P.E.P.), CONFORMING TO ADS N12 OR APPROVED EQUAL.
2. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE TOWN OF NORTHFIELD CONSTRUCTION STANDARDS AND STATE OF N.H. DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION) AND SHALL BE SUBJECT TO INSPECTION BY TOWN OF NORTHFIELD PRIOR TO PARTIAL AND FINAL ACCEPTANCE.
3. THE CONTRACTOR SHALL NOTIFY DIG-SAFE A MINIMUM OF THREE(3) WORKING DAYS PRIOR TO ANY EXCAVATION WORK AT TEL# 1-800-225-4977.
4. SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SDR 26, CONFORMING TO ASTM D-2241.

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OWNER OF RECORD:
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130 SHAKER ROAD
NORTHFIELD, NH 03276

TAX MAP R-14 - LOT 8
ROUTE 140
NORTHFIELD, NH

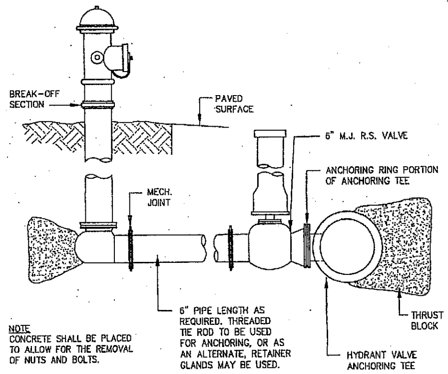
NO	DATE	REVISIONS	BY
1	6/15/99	ADDED AIR RELEASE VALVE & FILL NOTE.	MAV

CONSTRUCTION DETAILS
SCALE: AS SHOWN APRIL 27, 1998

SHEET 6 OF 8

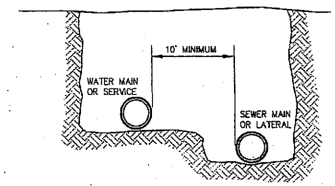
\CORM140\258DET.DWG | PROJ. NO 258

EXHIBIT C

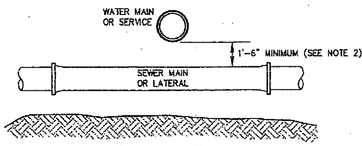


NOTE
CONCRETE SHALL BE PLACED TO ALLOW FOR THE REMOVAL OF NUTS AND BOLTS.

HYDRANT INSTALLATION DETAIL
NOT TO SCALE

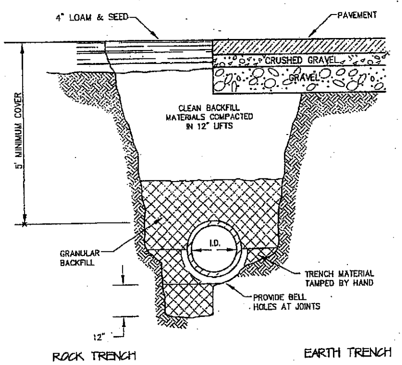


PARALLEL INSTALLATION



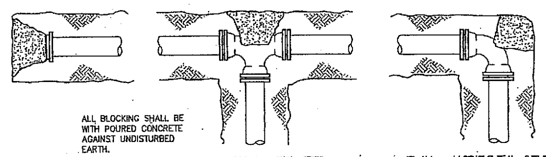
MAIN CROSSINGS

SEWER & WATER CLEARANCES
NOT TO SCALE



FOR 6", 8", 10", 12", & 16" I.D. PIPE

TYPICAL TRENCH DETAIL
NOT TO SCALE

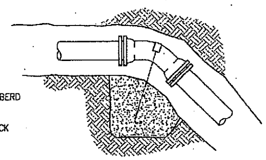


ALL BLOCKING SHALL BE WITH POURED CONCRETE AGAINST UNDISTURBED EARTH.

PLAN – HORIZONTAL PLUG

PLAN – HORIZONTAL TEE

PLAN – HORIZONTAL BEND



ELEVATION – VERTICAL BEND

NOTES:

1. THRUST BLOCK DIMENSIONS TO BE DETERMINED IN FIELD BY ENGINEER BASED ON PIPE SIZE, WATER PRESSURE AND SOIL TYPE.
2. STONE BACKING MAY BE SUBSTITUTED FOR CONCRETE THRUST BLOCKS PROVIDED THE STONE(S) ARE OF EQUAL SIZE AND BEAR ON UNDISTURBERD EARTH.
3. USE OF JOINT RESTRAINT SYSTEMS SHALL NOT ELIMINATE THRUST BLOCK REQUIREMENTS (WHERE POSSIBLE).

TYPICAL THRUST BLOCK INSTALLATIONS
NOT TO SCALE

NOTES

1. CONSTRUCTION TO BE IN COMPLIANCE WITH TILTON & NORTHFIELD AQUEDUCT COMPANY, INC.
2. WHERE 18" MINIMUM CANNOT BE PROVIDED, USE D.I. PIPE FOR SEWER, 20 L.F. SECTION, 10 L.F. EITHER SIDE OF CROSSING (SEE MAIN LOCATION INDICATED ON PROFILE).

ENGINEERING BY:

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OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276

TAX MAP R-14 – LOT 8
ROUTE 140
NORTHFIELD, NH

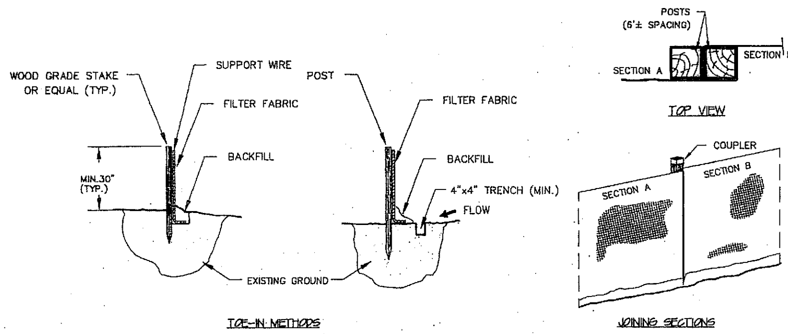
NO.	DATE	REVISIONS	BY

WATER LINE DETAILS
SCALE: NONE APRIL 27, 1998

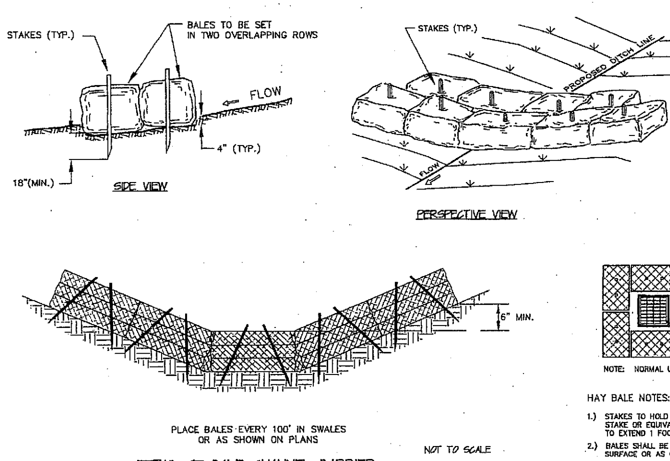
SHEET 7 OF 8

\CORM140\256DET.DWG | PROJ. NO 258

EXHIBIT 6

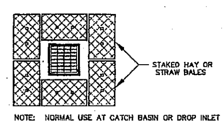


SILT FENCE DETAILS
NOT TO SCALE



DETAIL OF BALE CHANNEL BARRIER
NOT TO SCALE

NOT TO SCALE



NOTE: NORMAL USE AT CATCH BASIN OR DROP INLET

HAY BALE NOTES:

1.) STAKES TO HOLD HAY BALES SHALL BE GRADE STAKE OR EQUIVALENT AND SHALL BE LONG ENOUGH TO EXTEND 1 FOOT MIN INTO THE GROUND.

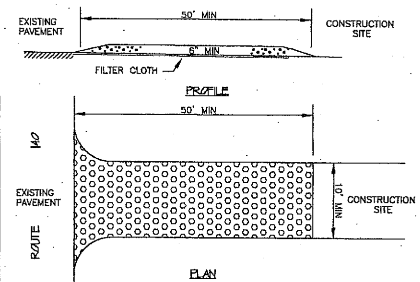
2.) BALES SHALL BE SET 3± INCHES BELOW GROUND SURFACE OR AS ORDERED.

LOW POINT SEDIMENTATION CONTROL BARRIER
NOT TO SCALE

NOTES

CONSTRUCTION NOTES:

1. HAY BALE BARRIERS SHALL BE PLACED IN ALL DITCHES AND DRAINAGE SWALES AT MAX. 100 FT. INTERVALS.
2. EROSION CONTROL FABRIC IN DITCHES TO BE CARTHAGE MILLS "VEG-NET", CONFORMING TO ASTM D-3776 & D-4632, OR APPROVED EQUAL. USE IN ALL GRASS LINED DITCHES AND SWALES OVER 3% SLOPE AND IN THE TREATMENT SWALES.
3. DRAINAGE SWALES SHALL BE STABILIZED WITH SEEDING OR STONE LINING PRIOR TO DIRECTING FLOW TO THEM.
4. THE CONTRACTOR SHALL EMPLOY EROSION CONTROL MEASURES IN ACCORDANCE WITH "STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE," BY ROCKINGHAM COUNTY CONSERVATION DISTRICT, DATED AUGUST, 1992.



CONSTRUCTION SPECIFICATIONS

1) STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2) LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)
3) THICKNESS - NOT LESS THAN SIX (6) INCHES.
4) WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5) FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6) SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7) MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

VEGETATIVE MEASURES

TOPSOIL STOCKPILING: TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR LATER USE ON CRITICAL AREAS AND ALL OTHER AREAS TO BE SEEDED. THE STOCK PILE WILL NOT BE COMPACTED AND SHALL BE STABILIZED AGAINST EROSION WITH TEMPORARY SEEDING.

TEMPORARY SEEDING:

A) BEDDING - REMOVE STONES AND TRASH THAT WILL INTERFERE WITH SEEDING THE AREA. WHERE FEASIBLE, TILL THE SOIL TO A DEPTH OF ABOUT THREE INCHES TO PREPARE SEED BED AND MIX THE FERTILIZER INTO THE SOIL.

B) FERTILIZER - FERTILIZER SHOULD BE UNIFORMLY SPREAD OVER THE AREA PRIOR TO BEING TILLED INTO THE SOIL. A 10-10-10 MIX OF FERTILIZER SHOULD BE APPLIED AT A RATE OF 300 POUNDS PER ACRE (OR SEVEN POUNDS PER 1,000 S.F.)

C) SEED MIXTURE: USE ANY OF THE FOLLOWING:

SPECIES	SEEDING RATE PER ACRE	SEEDING RATE PER 1000 S.F.	DATES	DEPTH
WINTER RYE	112 LBS.	2.5 LBS.	8/15 - 5/15	1 INCH
OATS	80 LBS.	2.0 LBS.	SPRING - 5/15	1 INCH
ANNUAL RYEGRASS	40 LBS.	1.0 LBS.	4/15 - 9/15 WITH MULCH	1/4 INCH

D) MULCHING - WHERE IT IS IMPRACTICABLE TO INCORPORATE FERTILIZER AND SEED INTO MOIST SOIL, THE SEEDED AREA SHOULD BE MULCHED TO FACILITATE GERMINATION. MULCH IN THE FORM OF HAY OR STRAW SHOULD BE APPLIED AT A RATE OF 70 TO 90 LBS PER 1,000 S.F.

PERMANENT SEEDING:

A) BEDDING - STONES LARGER THAN FOUR INCHES, TRASH, ROOTS, AND OTHER DEBRIS THAT WILL INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA SHOULD BE REMOVED. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF FOUR INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION.

B) FERTILIZER - LIME AND FERTILZER SHOULD BE APPLIED EVENLY OVER THE AREA PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. TYPE 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 APPLIED:

- AGRICULTURAL LIMESTONE @ 100 LBS. PER 1,000 S.F.
- 10-20-20 FERTILIZER @ 12 LBS. PER 1,000 S.F.

C) SEED MIXTURE - (RECOMMENDED)

TYPE	SEEDING RATE LBS. PER ACRE	SEEDING RATE LBS. PER 1,000 S.F.	USE
I. TALL FESQUE	20	0.45	STEEP CUTS AND FILLS DETENTION BASINS AND SWALES
CREEPING RED FESQUE	20	0.45	
RED TOP	2	0.05	
TOTAL	42	0.95	
II. CREEPING RED FESQUE	50	1.15	ALL OTHER AREAS
KENTUCKY BLUEGRASS	50	1.15	
TOTAL	100	2.30	

PLANTING DATES:
WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM APRIL 1 TO OCTOBER 1. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM APRIL 1 TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.

CONSTRUCTION SEQUENCE:

1. CUT AND CLEAR VEGETATION TO LIMITS OF CONSTRUCTION GRADING.
2. INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES PRIOR TO COMMENCING EARTHWORK.
3. STRIP AND STOCKPILE TOPSOIL ON SITE. PLACE SEDIMENT BARRIER ALONG DOWNSLOPE SIDE OF STOCKPILE(S).
4. EXCAVATE AND PLACE ON-SITE MATERIALS TO SUBGRADE ELEVATIONS.
5. CONSTRUCT DRAINAGE STRUCTURES & DITCHES.
6. SHAPE SWALES AND SLOPES AND REPLACE LOAM. PLACE HAY BALES IN SWALES IMMEDIATELY AFTER FINAL GRADING.
7. APPLY SEEDING AND MULCHING ON ALL CUT AND FILL SLOPES IMMEDIATELY AFTER FINAL GRADING.
8. SEDIMENT BARRIERS ARE TO BE MAINTAINED AND CLEANED UNTIL ALL DISTURBED AREAS HAVE A STAND OF GRASS OR HAVE BEEN PAVED.

THE STATE OF NEW HAMPSHIRE
RONALD R. BURD 3443
REGISTERED PROFESSIONAL ENGINEER

ENGINEERING BY:
BURD
Civil Engineering • Land Surveying • Land Planning
165 Loudon Road Concord, NH 03301 (603) 224-5888

SURVEYING BY:
PAUL M. DARBYSHIRE ASSOCIATES
land surveying land planning septic designs
P.O. BOX 248, SANTOOTH RD., GILMANTON, NH 03237
(603) 267-6640

OWNER OF RECORD:
MONIQUE CORMIER
130 SHAKER ROAD
NORTHFIELD, NH 03276

TAX MAP R-14 - LOT 8
ROUTE 140
NORTHFIELD, NH

NO.	DATE	REVISIONS	BY

EROSION CONTROL DETAILS
SCALE: AS SHOWN APRIL 27, 1998

SHEET 8 OF 8

\CORM140\258DET.DWG | PROJ. NO 258

System Replacement Costs

EXHIBIT D

Replacement Cost:	$ 125.00	per linear foot
Length of system:	1467	linear feet
2017 replacement cost:	$308,375.00	
Assumed Inflation rate:	2.0%	

Year	Replacement Cost	Year	Replacement Cost	Year	Replacement Cost
1	$308,375.00	26	$ 505,921.87	51	$ 830,018.46
2	$ 314,542.50	27	$ 516,040.31	52	$ 846,618.83
3	$ 320,833.35	28	$ 526,361.12	53	$ 863,551.20
4	$ 327,250.02	29	$ 536,888.34	54	$ 880,822.23
5	$ 333,795.02	30	$ 547,626.11	55	$ 898,438.67
6	$ 340,470.92	31	$ 558,578.63	56	$ 916,407.45
7	$ 347,280.34	32	$ 569,750.20	57	$ 934,735.60
8	$ 354,225.94	33	$ 581,145.21	58	$ 953,430.31
9	$ 361,310.46	34	$ 592,768.11	59	$ 972,498.91
10	$ 368,536.67	35	$ 604,623.47	60	$ 991,948.89
11	$ 375,907.40	36	$ 616,715.94	61	$ 1,011,787.87
12	$ 383,425.55	37	$ 629,050.26	62	$ 1,032,023.63
13	$ 391,094.06	38	$ 641,631.26	63	$ 1,052,664.10
14	$ 398,915.94	39	$ 654,463.89	64	$ 1,073,717.38
15	$ 406,894.26	40	$ 667,553.17	65	$ 1,095,191.73
16	$ 415,032.15	41	$ 680,904.23	66	$ 1,117,095.56
17	$ 423,332.79	42	$ 694,522.32	67	$ 1,139,437.47
18	$ 431,799.45	43	$ 708,412.76	68	$ 1,162,226.22
19	$ 440,435.44	44	$ 722,581.02	69	$ 1,185,470.75
20	$ 449,244.15	45	$ 737,032.64	70	$ 1,209,180.16
21	$ 458,229.03	46	$ 751,773.29	71	$ 1,233,363.77
22	$ 467,393.61	47	$ 766,808.76	72	$ 1,258,031.04
23	$ 476,741.48	48	$ 782,144.93	73	$ 1,283,191.66
24	$ 486,276.31	49	$ 797,787.83	74	$ 1,308,855.50
25	$ 496,001.84	50	$ 813,743.59	75	$ 1,335,032.61

Replacement Fund Deposits

EXHIBIT E

Annual Deposit	$	17,550.00
Interest earned		0.75%

Year	Principal	Interest Earned	P + I
1	$ 17,550.00	$ 131.63	$ 17,681.63
2	$ 35,100.00	$ 395.86	$ 35,495.86
3	$ 52,650.00	$ 661.09	$ 53,311.09
4	$ 70,200.00	$ 926.33	$ 71,126.33
5	$ 87,750.00	$ 1,191.57	$ 88,941.57
6	$ 105,300.00	$ 1,456.81	$ 106,756.81
7	$ 122,850.00	$ 1,722.05	$ 124,572.05
8	$ 140,400.00	$ 1,987.29	$ 142,387.29
9	$ 157,950.00	$ 2,252.53	$ 160,202.53
10	$ 175,500.00	$ 2,517.77	$ 178,017.77
11	$ 193,050.00	$ 2,783.01	$ 195,833.01
12	$ 210,600.00	$ 3,048.25	$ 213,648.25
13	$ 228,150.00	$ 3,313.49	$ 231,463.49
14	$ 245,700.00	$ 3,578.73	$ 249,278.73
15	$ 263,250.00	$ 3,843.97	$ 267,093.97
16	$ 280,800.00	$ 4,109.20	$ 284,909.20
17	$ 298,350.00	$ 4,374.44	$ 302,724.44
18	$ 315,900.00	$ 4,639.68	$ 320,539.68
19	$ 333,450.00	$ 4,904.92	$ 338,354.92
20	$ 351,000.00	$ 5,170.16	$ 356,170.16
21	$ 368,550.00	$ 5,435.40	$ 373,985.40
22	$ 386,100.00	$ 5,700.64	$ 391,800.64
23	$ 403,650.00	$ 5,965.88	$ 409,615.88
24	$ 421,200.00	$ 6,231.12	$ 427,431.12
25	$ 438,750.00	$ 6,496.36	$ 445,246.36
26	$ 456,300.00	$ 6,761.60	$ 463,061.60
27	$ 473,850.00	$ 7,026.84	$ 480,876.84
28	$ 491,400.00	$ 7,292.08	$ 498,692.08
29	$ 508,950.00	$ 7,557.32	$ 516,507.32
30	$ 526,500.00	$ 7,822.55	$ 534,322.55
31	$ 544,050.00	$ 8,087.79	$ 552,137.79
32	$ 561,600.00	$ 8,353.03	$ 569,953.03
33	$ 579,150.00	$ 8,618.27	$ 587,768.27
34	$ 596,700.00	$ 8,883.51	$ 605,583.51
35	$ 614,250.00	$ 9,148.75	$ 623,398.75
36	$ 631,800.00	$ 9,413.99	$ 641,213.99
37	$ 649,350.00	$ 9,679.23	$ 659,029.23
38	$ 666,900.00	$ 9,944.47	$ 676,844.47
39	$ 684,450.00	$ 10,209.71	$ 694,659.71
40	$ 702,000.00	$ 10,474.95	$ 712,474.95
41	$ 719,550.00	$ 10,740.19	$ 730,290.19
42	$ 737,100.00	$ 11,005.43	$ 748,105.43
43	$ 754,650.00	$ 11,270.67	$ 765,920.67
44	$ 772,200.00	$ 11,535.90	$ 783,735.90
45	$ 789,750.00	$ 11,801.14	$ 801,551.14
46	$ 807,300.00	$ 12,066.38	$ 819,366.38
47	$ 824,850.00	$ 12,331.62	$ 837,181.62
48	$ 842,400.00	$ 12,596.86	$ 854,996.86
49	$ 859,950.00	$ 12,862.10	$ 872,812.10
50	$ 877,500.00	$ 13,127.34	$ 890,627.34
51	$ 895,050.00	$ 13,392.58	$ 908,442.58
52	$ 912,600.00	$ 13,657.82	$ 926,257.82
53	$ 930,150.00	$ 13,923.06	$ 944,073.06
54	$ 947,700.00	$ 14,188.30	$ 961,888.30
55	$ 965,250.00	$ 14,453.54	$ 979,703.54
56	$ 982,800.00	$ 14,718.78	$ 997,518.78
57	$ 1,000,350.00	$ 14,984.02	$ 1,015,334.02
58	$ 1,017,900.00	$ 15,249.26	$ 1,033,149.26
59	$ 1,035,450.00	$ 15,514.49	$ 1,050,964.49
60	$ 1,053,000.00	$ 15,779.73	$ 1,068,779.73
61	$ 1,070,550.00	$ 16,044.97	$ 1,086,594.97
62	$ 1,088,100.00	$ 16,310.21	$ 1,104,410.21
63	$ 1,105,650.00	$ 16,575.45	$ 1,122,225.45
64	$ 1,123,200.00	$ 16,840.69	$ 1,140,040.69
65	$ 1,140,750.00	$ 17,105.93	$ 1,157,855.93
66	$ 1,158,300.00	$ 17,371.17	$ 1,175,671.17
67	$ 1,175,850.00	$ 17,636.41	$ 1,193,486.41
68	$ 1,193,400.00	$ 17,901.65	$ 1,211,301.65
69	$ 1,210,950.00	$ 18,166.89	$ 1,229,116.89
70	$ 1,228,500.00	$ 18,432.13	$ 1,246,932.13
71	$ 1,246,050.00	$ 18,697.37	$ 1,264,747.37
72	$ 1,263,600.00	$ 18,962.61	$ 1,282,562.61
73	$ 1,281,150.00	$ 19,227.84	$ 1,300,377.84
74	$ 1,298,700.00	$ 19,493.08	$ 1,318,193.08
75	$ 1,316,250.00	$ 19,758.32	$ 1,336,008.32