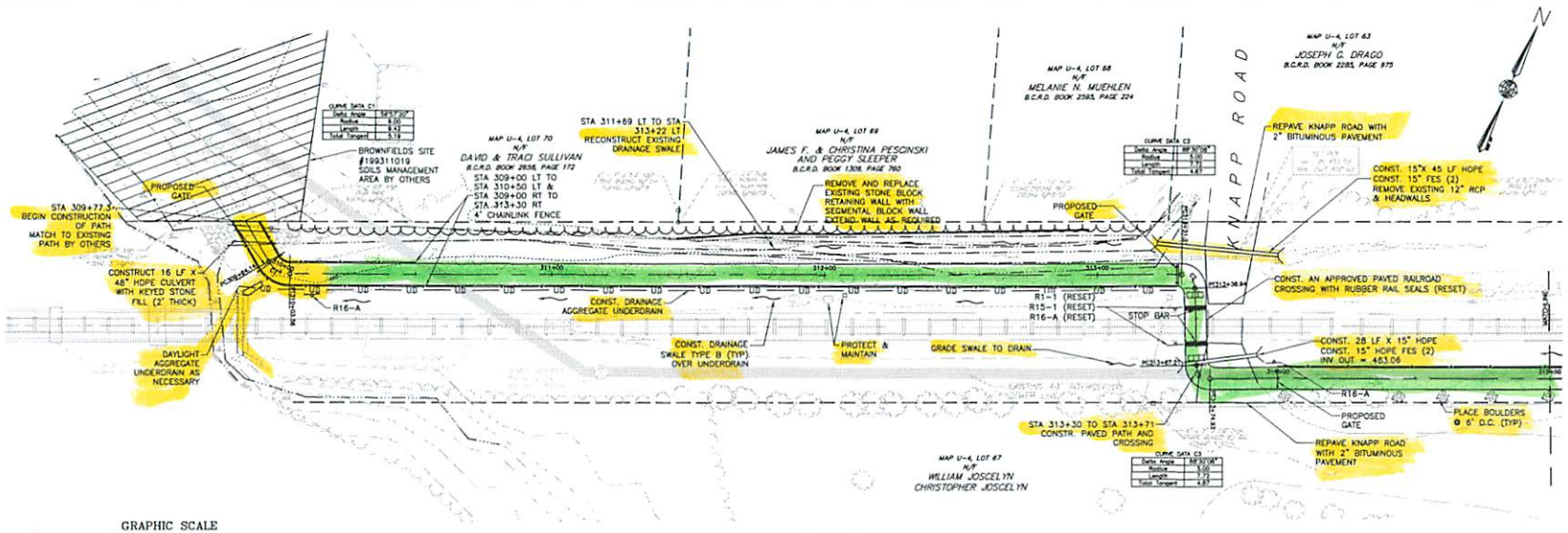
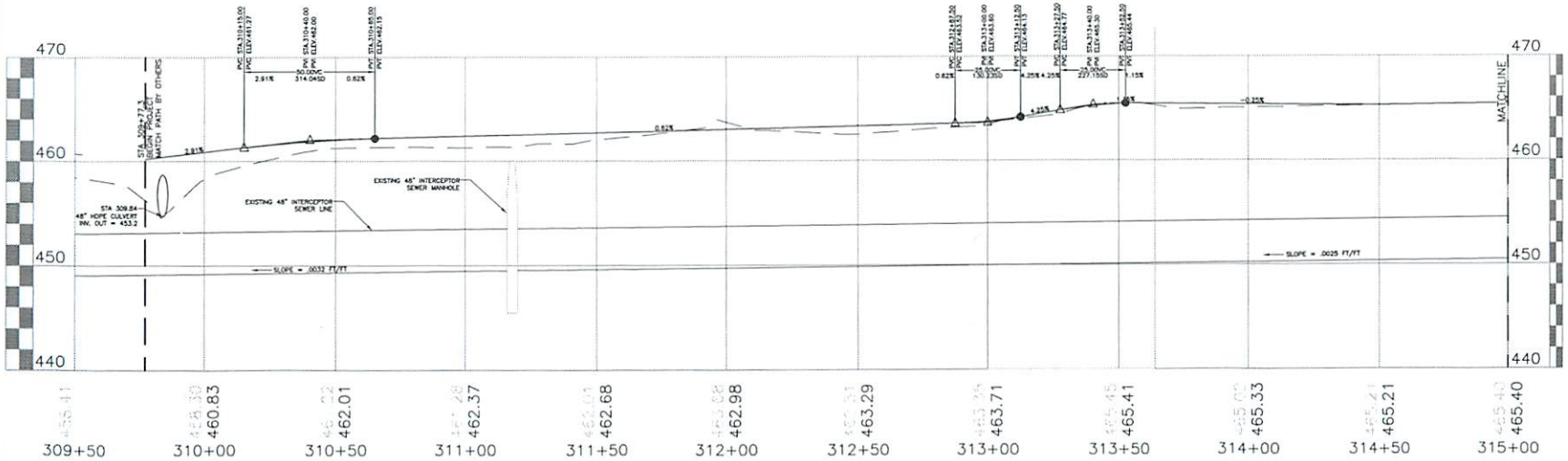


GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

TRAIL PLAN
SCALE: 1"=20'



TRAIL PROFILE
SCALE: 1"=20'H/1"=50'V

QUANTUM CONSTRUCTION CONSULTANTS, LLC
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FAX: 603-224-3625
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ISSUED FOR

- ENGINEERING STUDY
- ● PRELIMINARY PLANS
- FINAL DESIGN
- PERMITTING
- BID
- ● NOT FOR CONSTRUCTION

REVISIONS

SET PLAN NTS

PROJECT TITLE / ADDRESS

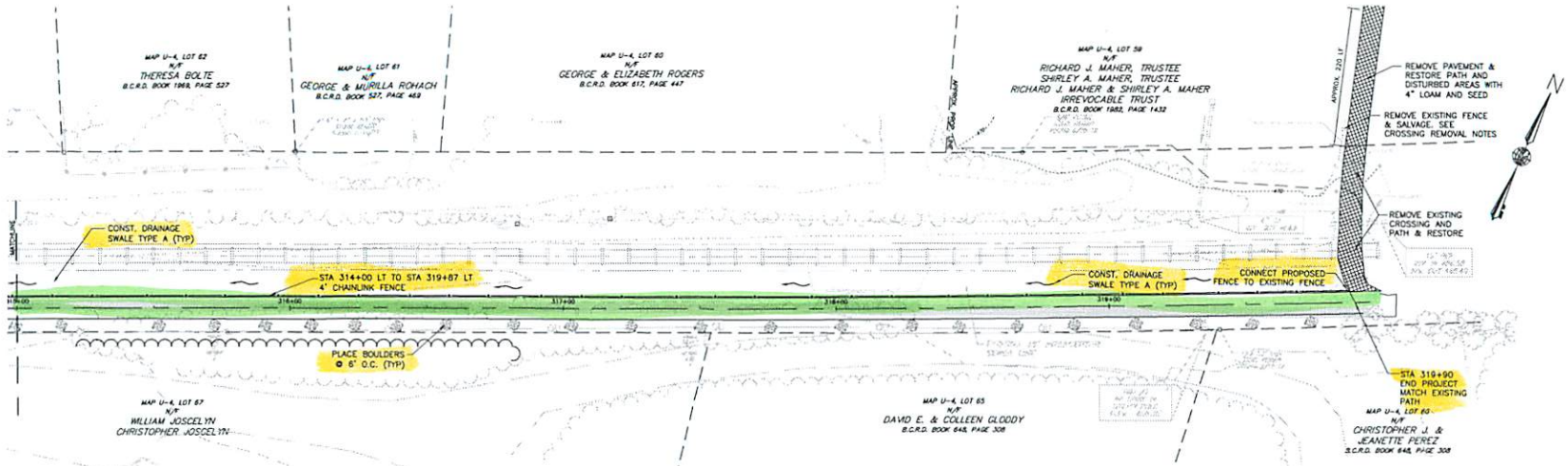
TOWN OF NORTHFIELD
WINNIPESAUKEE RIVER TRAIL – PHASE IIA
NHDOT PROJECT NO. X-A000(567), #14839

PROJ. NO.: 0287
SCALE: AS NOTED
DESN. BY: JAB
DRAWN BY: MSP
CHKD BY: LMM
DATE: 07/30/14
STAMP

SHEET TITLE
PLAN AND PROFILE
STA 309+77.3–315+00

T1

DIRECTORY: PRELIM FILE NAME: 0287 Plan & Profile



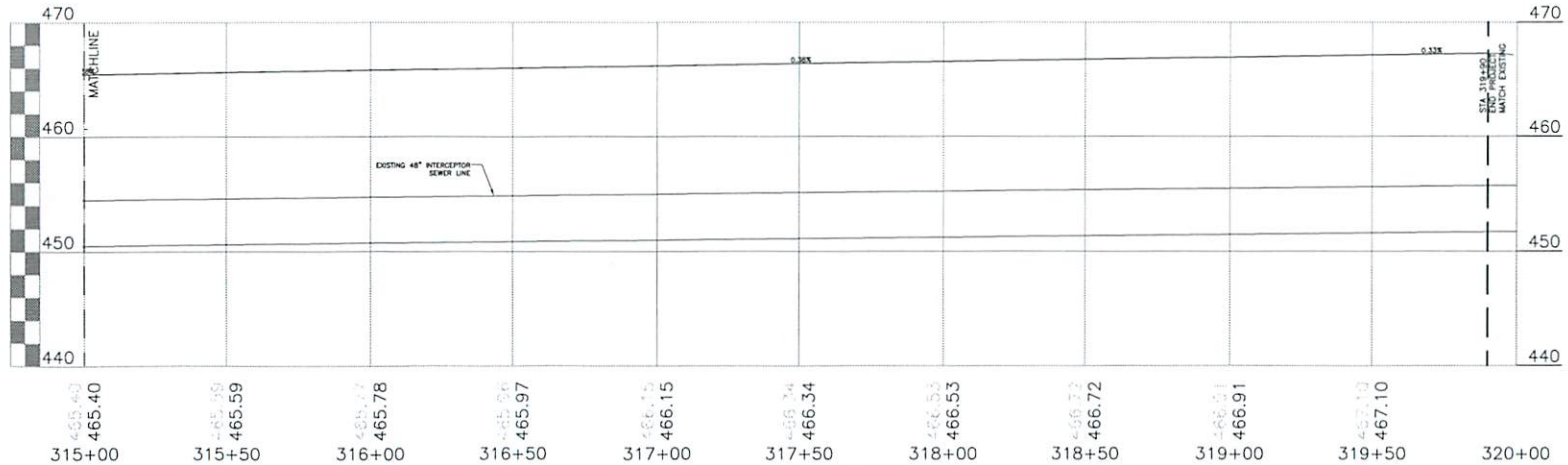
TRAIL PLAN
SCALE: 1"=20'

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

EXISTING CROSSING REMOVAL NOTES:

1. REMOVE AND SALVAGE EXISTING SIGNS FOR RESET KNAPP ROAD.
2. REMOVE AND SALVAGE EXISTING RUBBER RAIL SEALS FOR RESET AT KNAPP ROAD.
3. REMOVE AND SALVAGE DETECTABLE WARNING PLATES FOR RESET AT KNAPP ROAD.
4. REMOVE EXISTING GATES AND BOLLARDS.
5. REMOVE AND SALVAGE EXISTING CHAIN LINK FENCING FABRIC AND TRUSS RODS FOR RE-USE ON PROJECT. DISPOSE OF LINE POSTS.
6. REMOVE AND SALVAGE EXISTING GATE AND BOLLARD FOR RESET ON PROJECT.



TRAIL PROFILE
SCALE: 1"=20'H/1"=50'V

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ISSUED FOR	
	ENGINEERING STUDY
●	PRELIMINARY PLANS
	FINAL DESIGN
	PERMITTING
	BID
●	NOT FOR CONSTRUCTION

REVISIONS

EXT PLAN

PROJECT TITLE / ADDRESS

TOWN OF NORTHFIELD
WINNIPESAUKEE RIVER TRAIL – PHASE IIA
NHDOT PROJECT NO. X-A000(567), #14839

PROJ. NO.: 0247
SCALE: AS NOTED
DESN. BY: JAB
DRAWN BY: MSP
CHKD BY: LMM
DATE: 07/30/14

STAMP

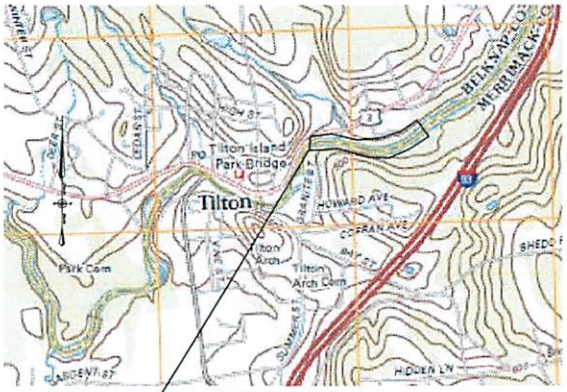
SHEET TITLE
PLAN AND PROFILE
STA 315+00–319+90

T2

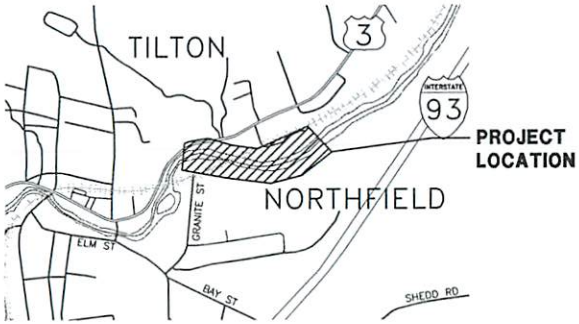
DIRECTORY: PROJ\M FILE NAME: 0247 Plan & Profile

WINNIPESAUKEE RIVER TRAIL
PHASE IIA

TOWN OF NORTHFIELD, N.H.
TOWN OF TILTON, N.H.
NHDOT PROJECT NO. 14839
FEDERAL PROJECT NO. X-A000(567)



USGS MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

SHEET INDEX

GENERAL NOTES	A
EXISTING CONDITIONS PLAN	1 OF 3
EXISTING CONDITIONS PLAN	2 OF 3
EXISTING CONDITIONS PLAN	3 OF 3
TYPICAL SECTIONS & DETAILS	TS
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PLAN & PROFILE, STA 315+00–319+90	T2
CROSS SECTIONS	T3, T4, T5
TYPICAL EROSION CONTROL NOTES	TECN
TYPICAL EROSION CONTROL DETAILS	TEC1, TEC2

NOT FOR CONSTRUCTION
ISSUED FOR AGENCY APPROVAL
PRELIMINARY PLANS
JULY 30, 2014

QUANTUM CONSTRUCTION CONSULTANTS, LLC
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CONCORD, NH 03301-5417

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LEGEND

ENGINEERING

PROPOSED	EXISTING	DESCRIPTION
212	212	CONTOUR INTERVALS
212.3	x 212.3	SPOT ELEVATIONS

BOUNDARIES

PROPOSED	EXISTING	DESCRIPTION
		RIGHT OF WAY LINE (SEE EXISTING CONDITIONS PLAN)
		PROPERTY LINE
		EDGE OF PAVEMENT
		EDGE OF PERMANENT SLOPE EASEMENT
		EDGE OF WATER
		EDGE OF FLAGGED WETLAND
		GUARD RAIL
		EDGE OF GRAVEL
		STONE WALL
		IRON PIPE
		GRANITE or CONCRETE BOUND

UTILITIES

PROPOSED	EXISTING	DESCRIPTION
		UTILITY POLE
		OVERHEAD ELECTRIC LINE
		WELL

GENERAL CULTURE

PROPOSED	EXISTING	DESCRIPTION
		CONCRETE
		EDGE OF WOODS
A		SIGNS & SYMBOLS
B-1	17	SUBSURFACE BORING/PROBE
1/5 — SECTION / DETAIL NUMBER; SHEET LOCATION OF SECTION / DETAIL		SECTION / DETAIL MARKER

EROSION CONTROL

PROPOSED	EXISTING	DESCRIPTION
		HAYBALE BARRIER
		SILTATION FENCING
		STRUCTURAL FILL
		KEYED STONE FILL
		GRAVEL BLANKET

ABBREVIATIONS

GENERAL

ABAN	ABANDON
ADJ	ADJUST
APPROX	APPROXIMATE
BOS	BOTTOM OF SLOPE
ELEV	ELEVATION
EXIST	EXISTING
FDN	FOUNDATION
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
TOS	TOP OF SLOPE
TYP	TYPICAL

LANDSCAPING

B&B	BALLED & BURLAPPED
BR	BARE ROOT
L&S	LOAM & SEED

UTILITY

ACCMP	ASPHALT COATED CORRUGATED METAL PIPE
CAP	CORRUGATED ALUMINUM PIPE
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CMP	CORRUGATED METAL PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FES	FLARED END SECTION
HDPE	HIGH DENSITY POLYETHYLENE PIPE
INV	INVERT ELEVATION
NSS	NEW SANITARY SEWER
PVC	POLYVINYLCHLORIDE PIPE
UP	UTILITY POLE

PATHWAY CONSTRUCTION NOTES:

1. THE RAIL WILL BE ACTIVE DURING CONSTRUCTION. ALL CONSTRUCTION ACTIVITIES MUST BE COMPLETED WITHOUT IMPACT TO THE RAILROAD INFRASTRUCTURE OR OPERATING RAILROAD.

2. NHDOT BUREAU OF RAILS AND TRANSIT AND THE PLYMOUTH AND LINCOLN RAILROAD (OPERATING RAILROAD) SHALL HAVE ACCESS TO RAIL FACILITIES AT ALL TIMES.

3. THE SELECTED CONTRACTOR WILL BE REQUIRED TO ENTER INTO A TEMPORARY USE AGREEMENT WITH THE NHDOT BUREAU OF RAILS AND TRANSIT FOR CONSTRUCTION OF THE PROPOSED PATH. A COPY OF THE TEMPORARY USE AGREEMENT, INCLUDING PROSECUTION OF WORK, REQUIRED INSURANCE CERTIFICATES AND OTHER SPECIFICATIONS, IS INCLUDED IN THE PROJECT MANUAL. THE FEE FOR AGREEMENT IS $400.

4. THE CONTRACTOR CAN ONLY ACCESS THE PATH AREA FROM EXISTING ACCESS POINTS (PARCEL U4-71 AND KNAPP ROAD). THE CONTRACTOR CANNOT CROSS THE TRACKS AT ANY OTHER LOCATIONS. A TEMPORARY PLANKED CROSSING WILL BE REQUIRED FOR THE NEW CROSSING NEAR KNAPP ROAD, WHILE CONSTRUCTION IS IN PROCESS. THE FINISHED PAVED CROSSING CANNOT BE CONSTRUCTED UNTIL ALL OTHER WORK ON THE PATH IS COMPLETED.

5. ALL DISTURBED GROUND WITHIN 15' OF THE TRACKS SHALL BE RESTORED USING 1.5" BALLAST STONE OR 6" EROSION STONE AS DIRECTED BY THE BUREAU OF RAILS AND TRANSIT. NO SEED OR LOAM SHALL BE USED IN THESE AREAS.

6. PATHWAY CONSTRUCTION WITHIN THE NHDOT RAILROAD CORRIDOR REQUIRES A MINIMUM 15 FEET SEPARATION FROM CENTERLINE OF RAIL. IN GENERAL, THE DESIGN INTENT FOR CONSTRUCTION WITHIN THE RAILROAD CORRIDOR IS TO INSTALL A FENCE BARRIER OFFSET 15 FEET FROM THE CENTERLINE OF THE RAIL AND TO CONSTRUCT THE PATHWAY 15' FROM THE CENTERLINE OF THE RAIL. SEE PLANS FOR AREAS WHICH DIFFER FROM THE GENERAL DESIGN INTENT. THE CONTRACTOR CANNOT STORE MATERIALS OR EQUIPMENT WITHIN 15 FEET OF THE TRACKS AT ANY TIME.

7. THE CONTRACTOR CANNOT TRAVEL ON THE RAIL OR TRACK STRUCTURE TO PERFORM WORK TO CONSTRUCT THE PATH. ALL PATH CONSTRUCTION WORK AND MOVEMENT OF MATERIALS MUST BE PERFORMED FROM THE PATH ONLY.

8. CONSTRUCTION OF DRAINAGE, RETAINING WALLS, DITCH LINES OR ANY OTHER WORK WITHIN 15 FEET OF TRACKS WILL REQUIRE THAT A FLAGMAN/INSPECTOR FROM THE OPERATING RAILROAD BE ON SITE. WHEN WORK IS OUTSIDE THE 15 FOOT FOUL ZONE, THEN A FLAGMAN/INSPECTOR WILL NOT BE REQUIRED FROM THE OPERATING RAILROAD. AN INSPECTOR FROM THE BUREAU WILL BE INSPECTING THE WORK ON THE PATH AT LEAST TWICE PER WEEK. THE COST OF THESES INSPECTIONS AND FLAGMEN WILL BE BORNE BY THE CONTRACTOR.

9. THE CONTRACTOR SHALL PERFORM ALL REQUIRED GRADING TO ENSURE THAT WATER DOES NOT POND BETWEEN THE PATH AND THE TRACKS.

GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, DATED 2010, SUPPLEMENTAL SPECIFICATIONS, AND NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND DETAILS. THE NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STANDARD PLANS AND DETAILS ARE HEREBY INCORPORATED INTO THE CONTRACT DOCUMENTS BY REFERENCE.

2. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH NEW HAMPSHIRE NATURAL RESOURCE AGENCY PERMIT REQUIREMENTS.

3. CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING BENCHMARKS AND BOUNDS. ALL BENCHMARKS AND BOUNDS DISTURBED BY THE CONTRACTOR SHALL BE RE-ESTABLISHED BY A NEW HAMPSHIRE REGISTERED LAND SURVEYOR AT NO EXPENSE TO THE OWNER.

4. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, TEMPORARY UTILITIES AND COORDINATION WITH ALL AGENCIES IN OBTAINING ACCESS TO THE SITE AND PERFORMING ALL WORK REQUIRED FOR THIS PROJECT.

5. THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL BEAR THE COST FOR THE COORDINATION AND PROVISION OF ALL TRAFFIC AND PEDESTRIAN CONTROL AND SAFETY FOR THE DURATION OF THIS PROJECT, EXCEPT FOR UNIFORMED OFFICERS AS PROVIDED IN THE CONTRACT DOCUMENTS.

6. PERFORM ALL WORK WITHIN THE RIGHT-OF-WAY, EXISTING OR NEW, UNLESS OTHERWISE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER.

7. NHDOT WORK ZONE TRAFFIC CONTROL, STANDARD PLANS, INCLUDING SHEETS TC-1 THROUGH TC-7, AMENDED PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) ARE TO BE USED IN CONJUNCTION WITH SECTION 618 OF THE NHDOT STANDARD SPECIFICATIONS FOR WORK ZONE TRAFFIC CONTROL.

8. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO CONSTRUCTION, AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

9. DO NOT SCALE FROM DRAWINGS. IF REQUIRED DIMENSION IS NOT PROVIDED, CONTACT THE ENGINEER FOR THE INFORMATION.

10. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY EXISTING CONDITIONS WHICH ARE NOT AS INDICATED AND SHALL PROCEED AS DIRECTED BY THE ENGINEER.

11. ALL SECTIONS MARKED TYPICAL OR NOT REFERRED TO A SPECIFIC LOCATION SHALL BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.

12. COORDINATE ALL WORK WITH THE ENGINEER AND THE TOWN PRIOR TO CONSTRUCTION.

13. REFER TO ALL PROJECT DOCUMENTS FOR ALL WORK ITEMS ON THIS PROJECT.

14. V.I.F. DESIGNATES CONTRACTOR TO VERIFY IN FIELD PRIOR TO CONSTRUCTION.

15. ALL PRODUCTS SHALL BE ON THE NHDOT QUALIFIED PRODUCTS LIST.

UTILITY NOTES

1. THE CONTRACTOR IS ADVISED THAT UNDERGROUND UTILITIES MAY BE PRESENT. THE UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS BASED ON RECORD UTILITY DRAWINGS. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE OR COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PRESERVE ALL UTILITY SERVICES.

2. CONTRACTOR IS TO NOTIFY DIG SAFE AT (888) 344-7233 A MINIMUM OF THREE DAYS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITY, TO VERIFY AND DETERMINE THE ACTUAL UTILITY LOCATIONS WITHIN THE WORK AREAS.

3. IF APPLICABLE, THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY AGENCY PRIOR TO DISCONNECTING THE EXISTING SERVICE CONNECTIONS. THE EXISTING UTILITIES SHALL BE DISCONNECTED IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS AND SPECIFICATIONS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY NEW UTILITIES OR UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

GENERAL EROSION & SEDIMENT CONTROL NOTES

1. FOR GENERAL EROSION & SEDIMENT CONTROL NOTES, SEE SHEETS TECH.

2. DEWATERING OF WORK ZONES IF REQUIRED SHALL BE DISCHARGED INTO APPROVED SEDIMENT RETENTION MEASURES. THE CONTRACTOR SHALL NOT DISCHARGE DIRECTLY TO EXISTING STORM DRAINAGE SYSTEMS, WATERCOURSES OR WATERWAYS. ALL CATCH BASINS SHALL HAVE SEDIMENT FILTERS INSTALLED IN THE INLETS.

3. ALL DISTURBED AREAS NOT OTHERWISE SHOWN TO BE TREATED SHALL BE LOAMED TO SIX-INCH DEPTH AND SEEDED.

4. TOPSOIL SHALL BE REMOVED TO ITS TOTAL DEPTH WITHIN THE LIMITS OF THE WORK LINES. THE TOPSOIL SHALL BE STOCKPILED AND USED IN ITS ENTIRETY FOR RE-ESTABLISHING LOAM AND SEED AREAS.

5. ALL NEW EARTH SLOPES SHALL BE MULCHED UNLESS OTHERWISE NOTED.

PERMIT NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING A NPDES "NOTICE OF INTENT" AND "NOTICE OF TERMINATION" WITH THE EPA, IF REQUIRED.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING A NPDES "DEWATERING PERMIT", IF REQUIRED BY LAW.

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TEL: 603-224-0859
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ISSUED FOR

- ● PRELIMINARY PLANS
- ● NOT FOR CONSTRUCTION

TOWN OF NORTHFIELD
WINNIPESAUKEE RIVER TRAIL – PHASE IIA
NHDOT PROJECT NO. X-A000(567), #14839

GENERAL NOTES

A

NOTES

1) FIELD PROCEDURE: NIKON NPL-352 TOTAL STATION INSTRUMENT, ADJUSTED CLOSED TRAVERSE PERFORMED MAY 4, 2012. COMPASS RULE ADJUSTMENT. THE PLAN IS TIED TO WORK PERFORMED IN CONJUNCTION WITH THE PREPARATION OF PLAN DIVISLED "TOWN OF NORTHFIELD AND THE TOWN OF TILTON, WINNIPESAUKEE RIVER TRAIL PHASE II, INDOT PROJECT: LBRO3, FEDERAL PROJECT NO. X-A000(09)" PREPARED BY THE LOUIS BERGER GROUP, INC. AND DATED MARCH 18, 2008.

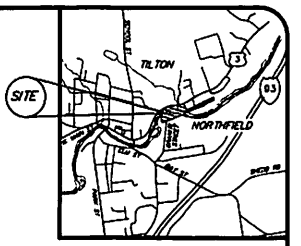
2) ERROR OF CLOSURE: BETTER THAN 1 IN 15,000.

3) TOPOGRAPHY SHOWN REFLECT EXISTING CONDITIONS AS OF MAY 4, 2013 AND NOVEMBER 6, 2012. THE CONTOUR INTERVAL IS TWO FEET AND THE DATUM IS N.A.V.D. 1988 TIED TO US COAST AND GEODETIC SURVEY DISK STAMPED "A-4, 1933" LOCATED ON THE SOUTH END OF THE WEST ABUTMENT OF THE RAILROAD BRIDGE OVER THE WINNIPESAUKEE RIVER ADJACENT TO US ROUTE 3 (NOT SHOWN).

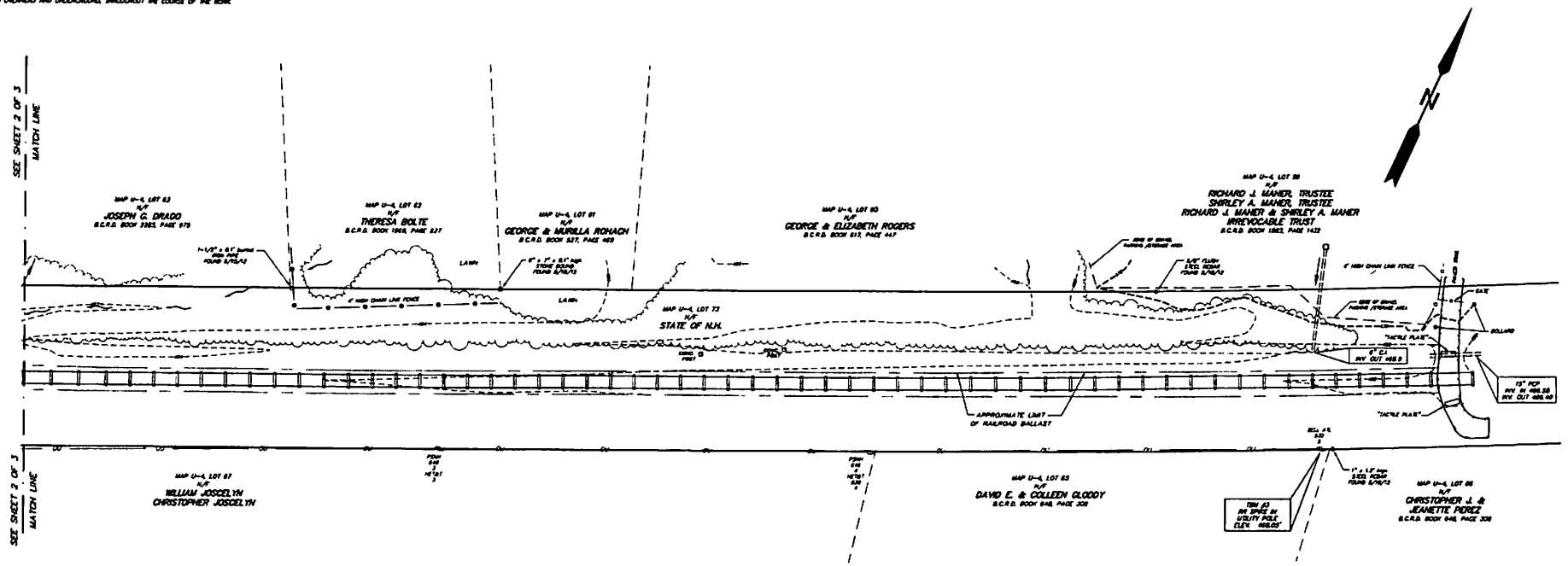
4) PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST (#6), OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF LOUDON, NH, PERFORMED THE WETLAND MAPPING ON APRIL 19 AND NOVEMBER 6, 2013 ACCORDING TO THE "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL" AND THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION", VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.

5) THE LOCATION OF THE TILTON EDGE OF THE WINNIPESAUKEE RIVER AS SHOWN IN 1970 IS BASED UPON PLANS PREPARED FOR THE CONSTRUCTION OF THE "WINNIPESAUKEE RIVER BASIN PROGRAM, TILTON-NORTHFIELD INTERCEPTOR SEWER" (SHEETS 3 & 4) DATED DECEMBER 1970 AND AS RECORDED ON FILE AT THE OFFICES OF THE FRANKLIN SEWAGE TREATMENT PLANT LOCATED IN FRANKLINH.

6) UTILITY INFORMATION DEPICTED ON THESE PLANS IS BASED ON FIELD SURVEY OF SURFACE EVIDENCE AND AVAILABLE PLAN DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES BOTH OVERHEAD AND UNDERGROUND, THROUGHOUT THE COURSE OF THE WORK.



LOCATION MAP



TILTON TAX MAP U-4, LOTS 71, 72 & 73
NORTHFIELD TAX MAP U-7, LOTS 101 & 101-01

EXISTING CONDITIONS PLAN
FOR

WINNIPESAUKEE RIVER TRAIL, PHASE IIA

US ROUTE 3 & GRANITE STREET
BELKNAP CO. TILTON, N.H.
MERRIMACK CO. NORTHFIELD, N.H.

SCALE: 1" = 20' JANUARY 3, 2013

SHEET 1 OF 3

CLIENT
QUANTUM CONSTRUCTION CONSULTANTS, LLC
59 LOCKE ROAD
CONCORD, NH 03301

LEGEND

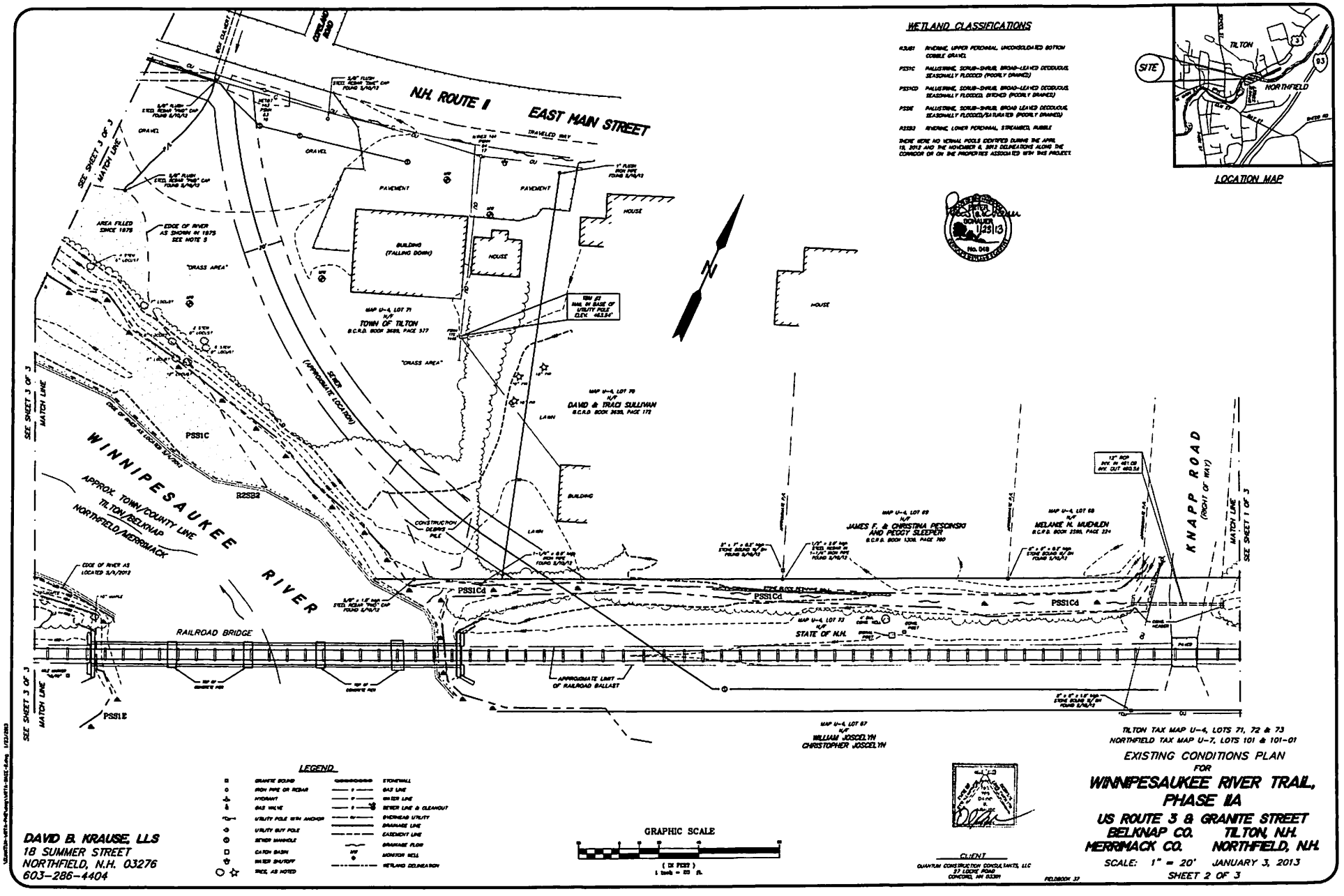
■	GRANITE BOUND		STONEWALL
○	IRON PIPE OR REBAR	—— G ——	GAS LINE
	HYDRANT	—— W ——	WATER LINE
	GAS VALVE	—— S ——	SEWER LINE & CLEANOUT
"OH"	UTILITY POLE WITH ANCHOR	—— OH ——	OVERHEAD UTILITY
	UTILITY GUY POLE		DRAINAGE LINE
	SEWER MANHOLE		EASEMENT LINE
	CATCH BASIN		DRAINAGE FLOW
	WATER SHUTOFF	MW	MONITOR WELL
○ ☆	VALVE, AS NOTED		WETLAND DELINEATION

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

FIELDBOOK 37

DAVID B. KRAUSE, LLS
18 SUMMER STREET
NORTHFIELD, N.H. 03276
603-286-4404



WETLAND CLASSIFICATIONS

R3UB1 RIVERINE, UPPER PERENNIAL, UNCONSOLIDATED BOTTOM COBBLE GRAVEL

PSS1C PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED (POORLY DRAINED)

PSS1C/D PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED, DITCHED (POORLY DRAINED)

PSS1E PALUSTRINE, SCRUB-SHRUB, BROAD LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED (POORLY DRAINED)

R2SB2 RIVERINE, LOWER PERENNIAL, STREAMBED, RUBBLE

THERE WERE NO VERNAL POOLS IDENTIFIED DURING THE APRIL 15, 2012 AND THE NOVEMBER 6, 2012 DELINEATIONS ALONG THE CORRIDOR OR ON THE PROPERTIES ASSOCIATED WITH THIS PROJECT.

LOCATION MAP

LEGEND

GRANITE BOUND	STONEWALL
IRON PIPE OR REBAR	GAS LINE
HYDRANT	WATER LINE
GAS VALVE	SEWER LINE & CLEANOUT
UTILITY POLE WITH ANCHOR	OVERHEAD UTILITY
UTILITY GUY POLE	DRAINAGE LINE
SEWER MANHOLE	EASEMENT LINE
CATCH BASIN	DRAINAGE FLOW
WATER SHUTOFF	MONITOR WELL
TREE, AS NOTED	WETLAND DELINEATION

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

DAVID B. KRAUSE, LLS
18 SUMMER STREET
NORTHFIELD, N.H. 03276
603-286-4404

CLIENT
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27 LOCKE ROAD
CONCORD, NH 03301

FIELDBOOK 37

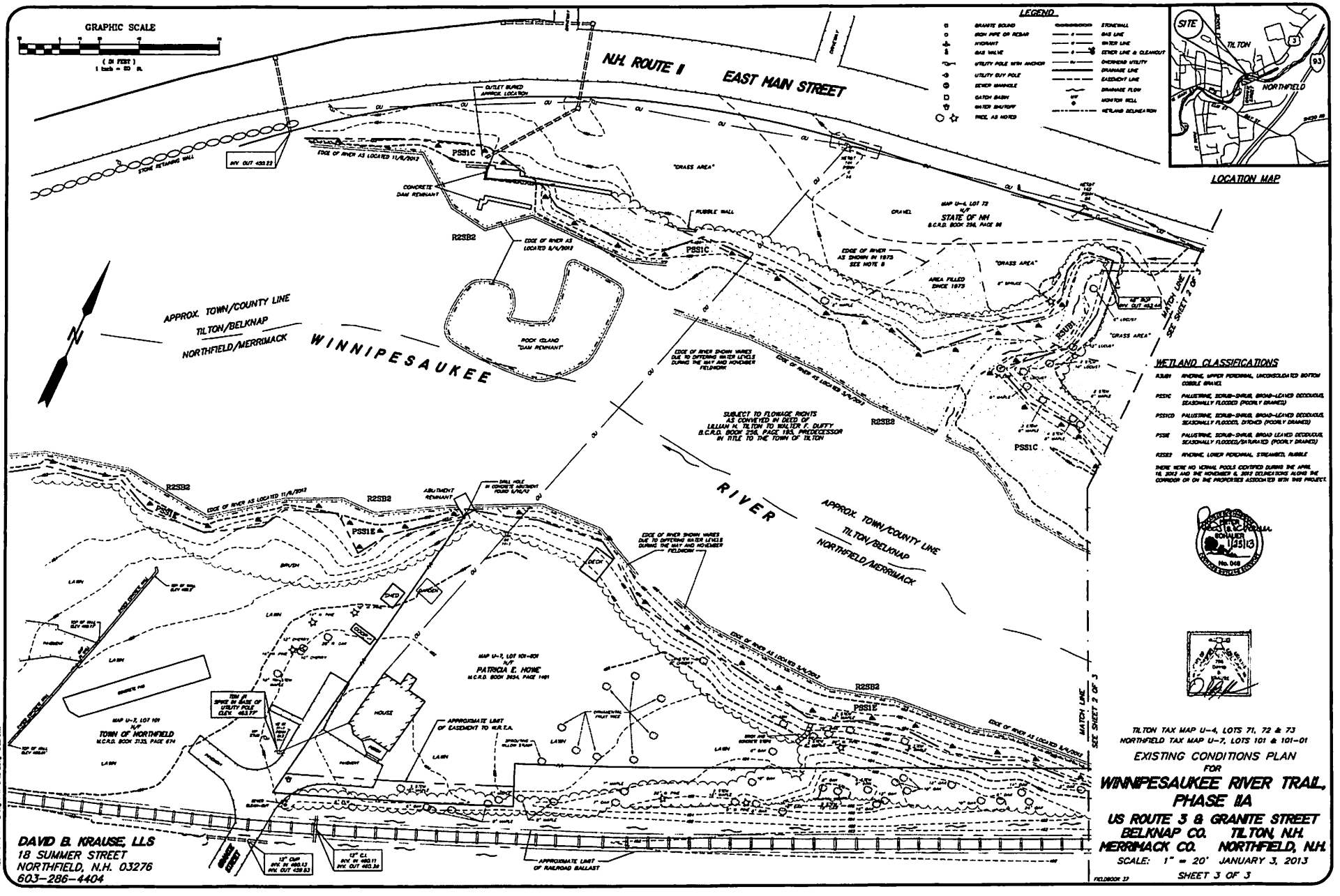
TILTON TAX MAP U-4, LOTS 71, 72 & 73
NORTHFIELD TAX MAP U-7, LOTS 101 & 101-01

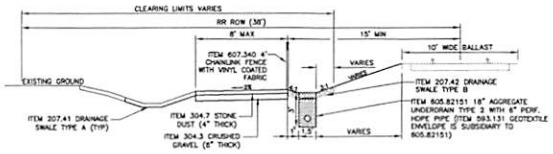
EXISTING CONDITIONS PLAN
FOR

WINNIPESAUKEE RIVER TRAIL, PHASE IIA

US ROUTE 3 & GRANITE STREET
BELKNAP CO. TILTON, N.H.
MERRIMACK CO. NORTHFIELD, N.H.

SCALE: 1" = 20' JANUARY 3, 2013
SHEET 2 OF 3

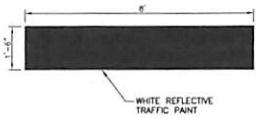

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
N.H. ROUTE 11
EAST MAIN STREET
LEGEND
GRANITE BOUND
IRON PIPE OR REBAR
HYDRANT
GAS VALVE
UTILITY POLE WITH ANCHOR
UTILITY GUY POLE
SEWER MANHOLE
CATCH BASIN
WATER SHUTOFF
FACE AS NOTED
STONEWALL
GAS LINE
WATER LINE
SEWER LINE & CLEANOUT
OVERHEAD UTILITY
DRAINAGE LINE
EASEMENT LINE
DRAINAGE FLOW
MONITOR WELL
WETLAND DELINEATION
SITE
TILTON
NORTHFIELD
93
LOCATION MAP
APPROX. TOWN/COUNTY LINE
TILTON/BELKNAP
NORTHFIELD/MERRIMACK
WINNIPESAUKEE
RIVER
STONE RETAINING WALL
INV. OUT 450.22
OUTLET BURIED APPROX. LOCATION
EDGE OF RIVER AS LOCATED 11/8/2012
CONCRETE DAM REMNANT
ROCK ISLAND "DAM REMNANT"
RUBBLE WALL
"GRASS AREA"
GRAVEL
MAP U-4, LOT 73
N/F
STATE OF NH
B.C.R.D. BOOK 256, PAGE 98
EDGE OF RIVER AS SHOWN IN 1975 SEE NOTE 8
AREA FILLED SINCE 1975
EDGE OF RIVER SHOWN VARIES DUE TO DIFFERING WATER LEVELS DURING THE MAY AND NOVEMBER FIELDWORK
SUBJECT TO FLOWAGE RIGHTS AS CONVEYED IN DEED OF LILLIAN H. TILTON TO WALTER F. DUFFY B.C.R.D. BOOK 256, PAGE 185, PREDECESSOR IN TITLE TO THE TOWN OF TILTON
R2SB2
PSS1C
PSS1E
R3UB1
ABUTMENT REMNANT
DRILL HOLE IN CONCRETE ABUTMENT FOUND 5/9/13
LAWN
BRUSH
DECK
HOUSE
MAP U-7, LOT 101-01
N/F
PATRICIA E. HOWE
M.C.R.D. BOOK 3634, PAGE 1481
MAP U-7, LOT 101
N/F
TOWN OF NORTHFIELD
M.C.R.D. BOOK 3133, PAGE 874
TOW P. SPIKE IN BASE OF UTILITY POLE ELEV. 463.77
APPROXIMATE LIMIT OF EASEMENT TO N.E.T.A.
ORNAMENTAL FRUIT TREE
SPRUCE WILLOW STAND
APPROXIMATE LIMIT OF RAILROAD BALLAST
12" CMP INV. IN 460.13 INV. OUT 459.93
12" C.I. INV. IN 460.11 INV. OUT 460.36
MATCH LINE SEE SHEET 2 OF 3
WETLAND CLASSIFICATIONS
R3UB1 RIVERINE, UPPER PERENNIAL, UNCONSOLIDATED BOTTOM COBBLE GRAVEL
PSS1C PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED (POORLY DRAINED)
PSS1CD PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED, DITCHED (POORLY DRAINED)
PSS1E PALUSTRINE, SCRUB-SHRUB, BROAD LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED (POORLY DRAINED)
R2SB2 RIVERINE, LOWER PERENNIAL, STREAMBED, RUBBLE
THERE WERE NO NORMAL POOLS CONTACTED DURING THE APRIL 18, 2013 AND THE NOVEMBER 6, 2012 DELINEATIONS ALONG THE CORRIDOR OR ON THE PROPERTIES ASSOCIATED WITH THIS PROJECT.
SCHAUER
No. 948
TILTON TAX MAP U-4, LOTS 71, 72 & 73
NORTHFIELD TAX MAP U-7, LOTS 101 & 101-01
EXISTING CONDITIONS PLAN
FOR
WINNIPESAUKEE RIVER TRAIL, PHASE IIA
US ROUTE 3 & GRANITE STREET
BELKNAP CO. TILTON, N.H.
MERRIMACK CO. NORTHFIELD, N.H.
SCALE: 1" = 20' JANUARY 3, 2013
SHEET 3 OF 3
FIELDBOOK 37
DAVID B. KRAUSE, LLS
18 SUMMER STREET
NORTHFIELD, N.H. 03276
603-286-4404



TYPICAL SECTION NO. 1

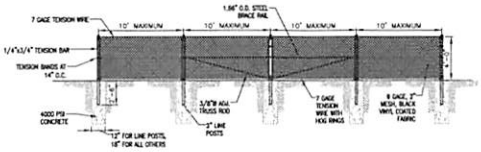
SCALE: 1"=5'

STA 310+00 TO STA 313+00 +/-



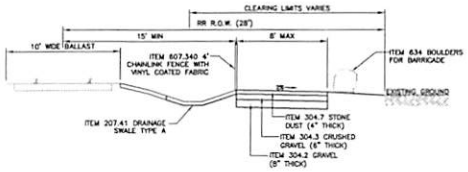
STOP BAR DETAIL

N.T.S.



FENCE DETAIL

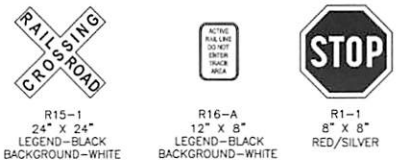
SCALE: N.T.S.



TYPICAL SECTION NO. 2

SCALE: 1"=5'

STA 314+00 TO 319+50 +/-



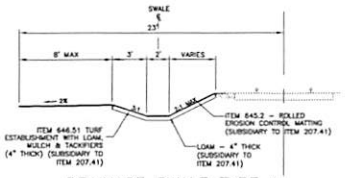
R15-1
24" X 24"
LEGEND-BLACK
BACKGROUND-WHITE

R16-A
12" X 8"
LEGEND-BLACK
BACKGROUND-WHITE

R1-1
8" X 8"
RED/SILVER

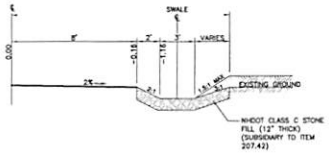
SIGNS

N.T.S.



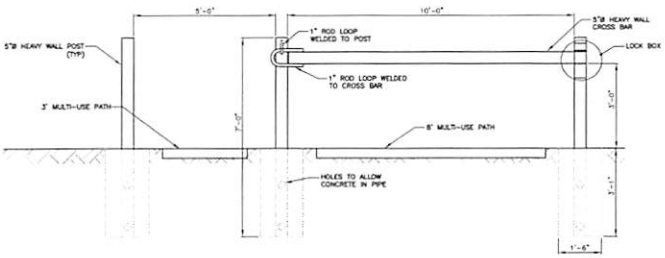
DRAINAGE SWALE TYPE A

SCALE: 1"=5'



DRAINAGE SWALE TYPE B

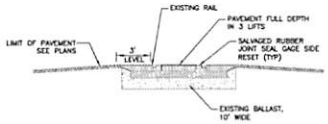
SCALE: 1"=5'



MULTI-USE PATH GATE

SCALE: 1/2"=1'-0"

INSTALL AT STA 309+95, 313+30, 314+00



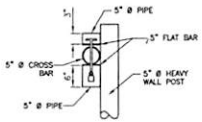
RUBBER RAIL SEAL PAVED CROSSING

SCALE: 1"=5'

1. THE PAVED CROSSING SHALL BE 2' WIDER ON EACH SIDE THAN THE PATH APPROACH.

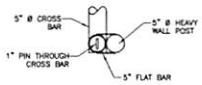
2. THIS IS A CONCEPTUAL PLAN AND THE ACTUAL SITE WILL NEED TO BE REVIEWED WITH THE NHDOT, BUREAU OF RAILS AND TRANSIT AND ENGINEER BEFORE ACTUAL WORK CAN BE DETERMINED.

3. THE PAVEMENT MUST BE INSTALLED ¼" HIGHER THAN THE RAIL AND RAIL SEAL.



LOCK BOX SIDE VIEW

SCALE: 3/4"=1'-0"



LOCK BOX TOP VIEW

SCALE: 3/4"=1'-0"

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- FINAL DESIGN
- PERMITTING
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REVISIONS

KEY PLAN NTS

PROJECT TITLE / ADDRESS

TOWN OF NORTHFIELD

WINNIPESAUKEE RIVER TRAIL – PHASE IIA

NHDOT PROJECT NO. X-A000(567), #14839

PROJ. NO.: 0267
SCALE: AS NOTED
DESN. BY: JAB
DRAWN BY: MGP
CKED BY: LAM
DATE: 07/30/14

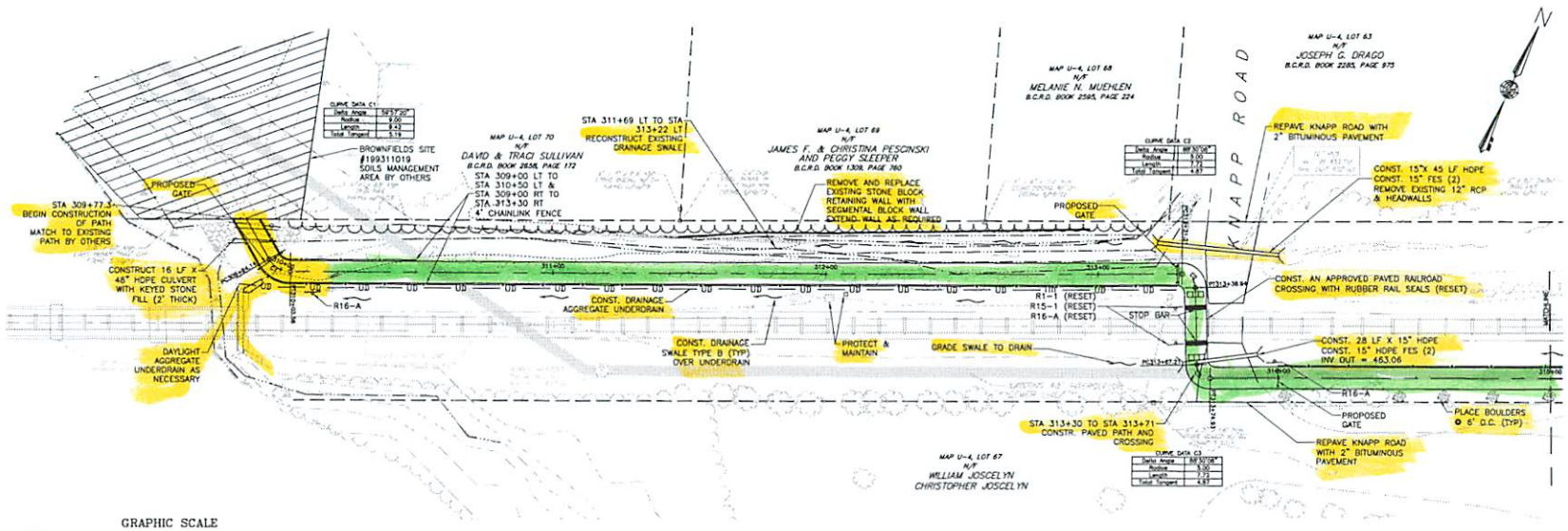
STAMP

SHEET TITLE

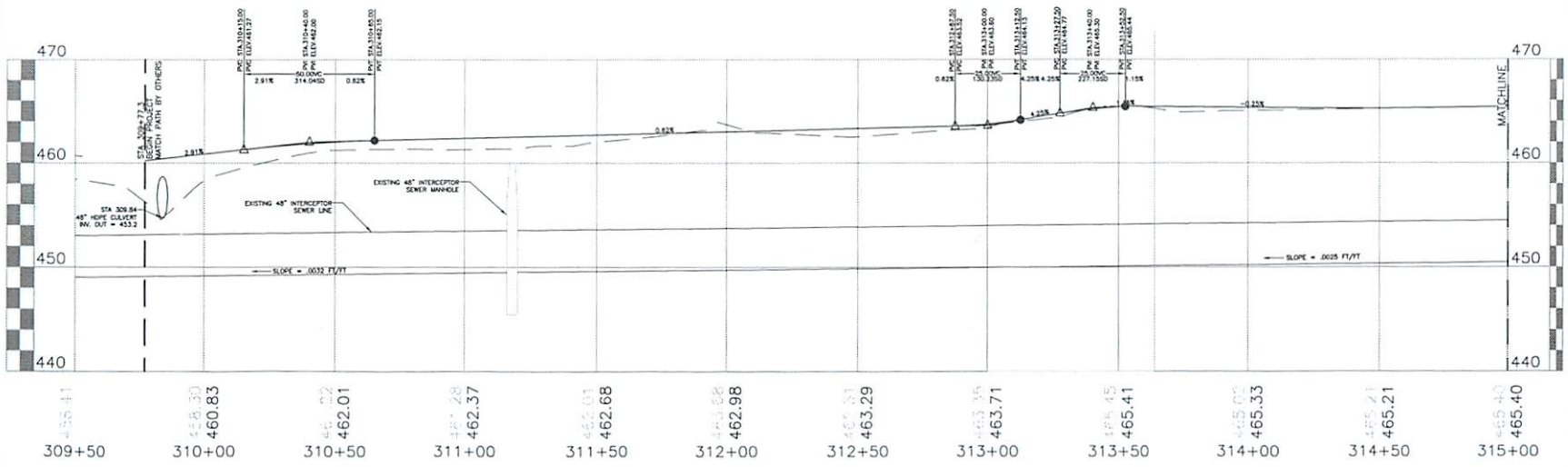
TYPICAL SECTIONS & DETAILS

TS

DIRECTORY: PRELIM FILE NAME: UNP Typical Sections



TRAIL PLAN
SCALE: 1"=20'



TRAIL PROFILE
SCALE: 1"=20'H/1"=50'V

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EST PLAN

PROJECT TITLE / ADDRESS

TOWN OF NORTHFIELD
WINNIPESAUKEE RIVER TRAIL – PHASE IIA
NHDOT PROJECT NO. X-A000(567), #14839

PROJ. NO.: 0267
SCALE: AS NOTED
DESN. BY: JAB
DRAWN BY: MSP
CHKD BY: LMM
DATE: 07/30/14

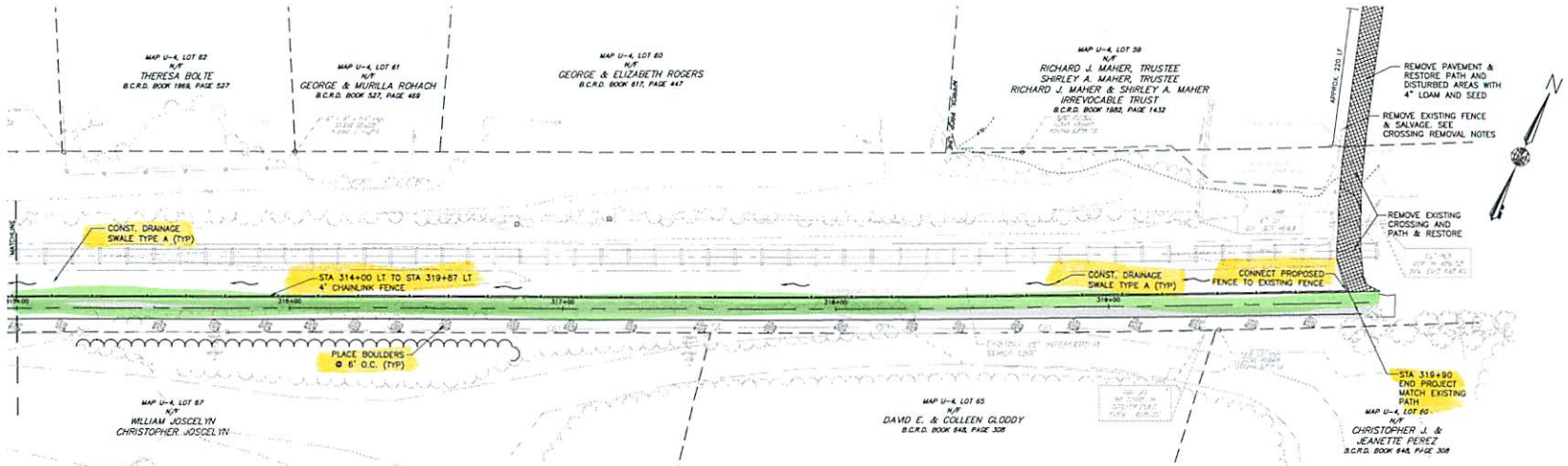
STAMP

SHEET TITLE

PLAN AND PROFILE
STA 309+77.3–315+00

T1

DIRECTORY: PRELIM FILE NAME: 0267 Plan & Profile



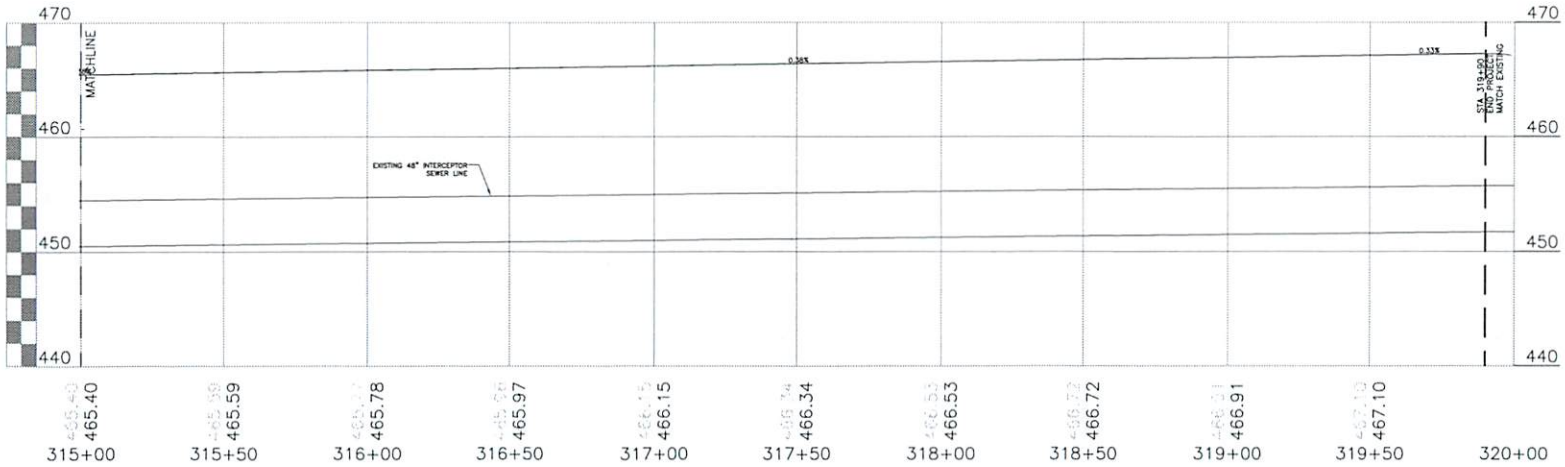
TRAIL PLAN
SCALE: 1"=20'

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

EXISTING CROSSING REMOVAL NOTES:

1. REMOVE AND SALVAGE EXISTING SIGNS FOR RESET KNAPP ROAD.
2. REMOVE AND SALVAGE EXISTING RUBBER RAIL SEALS FOR RESET AT KNAPP ROAD.
3. REMOVE AND SALVAGE DETECTABLE WARNING PLATES FOR RESET AT KNAPP ROAD.
4. REMOVE EXISTING GATES AND BOLLARDS.
5. REMOVE AND SALVAGE EXISTING CHAIN LINK FENCING FABRIC AND TRUSS RODS FOR RE-USE ON PROJECT. DISPOSE OF LINE POSTS.
6. REMOVE AND SALVAGE EXISTING GATE AND BOLLARD FOR RESET ON PROJECT.



TRAIL PROFILE
SCALE: 1"=20'H/1"=50'V

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KEY PLAN NTS

PROJECT TITLE / ADDRESS

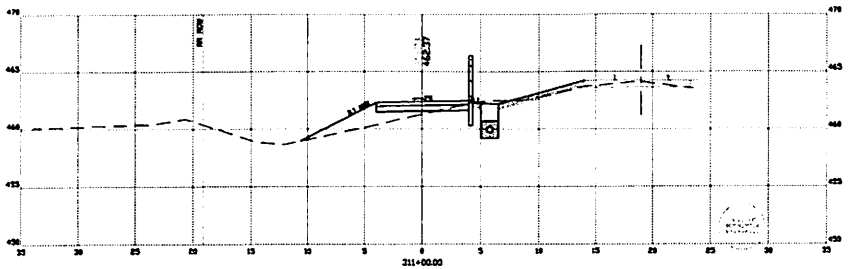
TOWN OF NORTHFIELD
WINNIPESAUKEE RIVER TRAIL – PHASE IIA
NHDOT PROJECT NO. X-A000(567), #14839

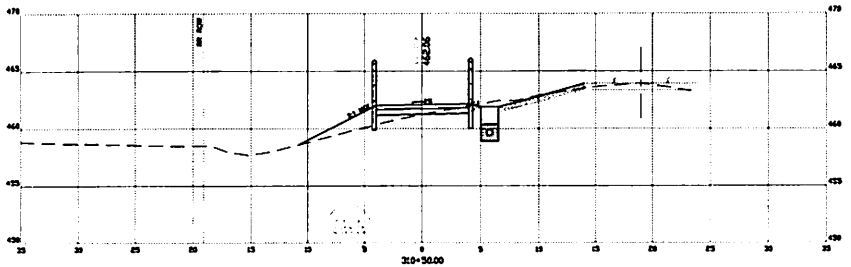
PROJ. NO.: 0207
SCALE: AS NOTED
DESN. BY: JAB
DRAWN BY: MSP
CKED BY: LAM
DRWG DATE: 07/30/14
STAMP

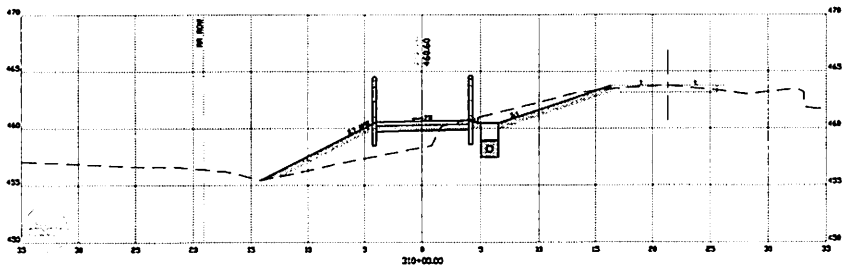
SHEET TITLE
PLAN AND PROFILE
STA 315+00–319+90

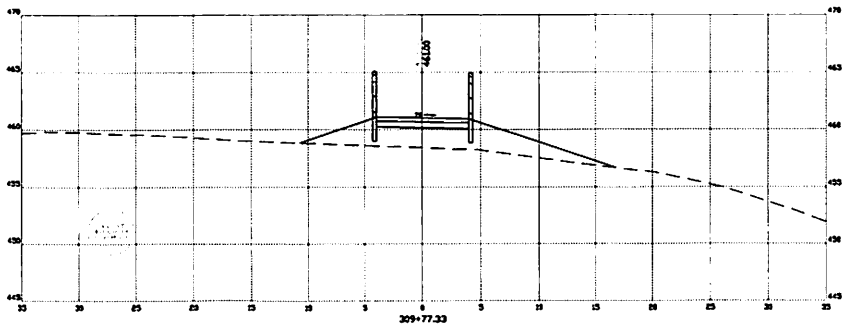
T2

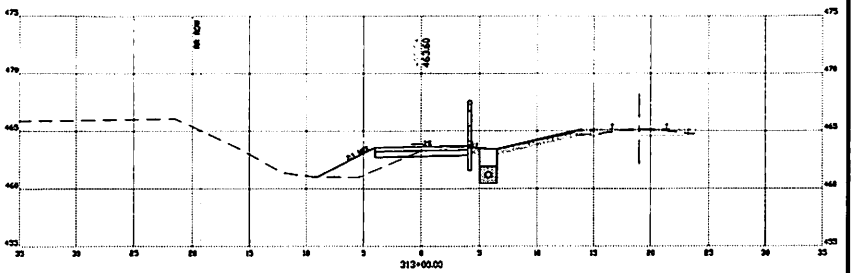
SUBSTRATE: PRELIM
FILE NAME: 0207 Plan & Profile

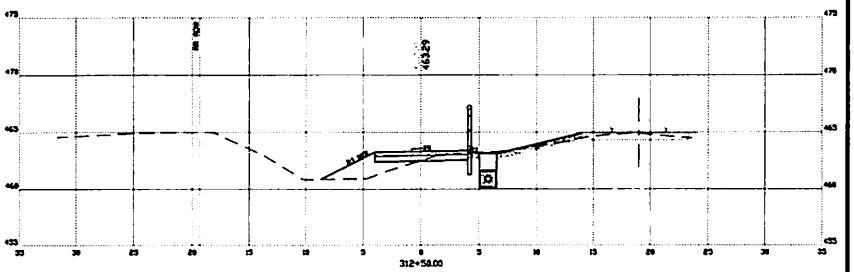


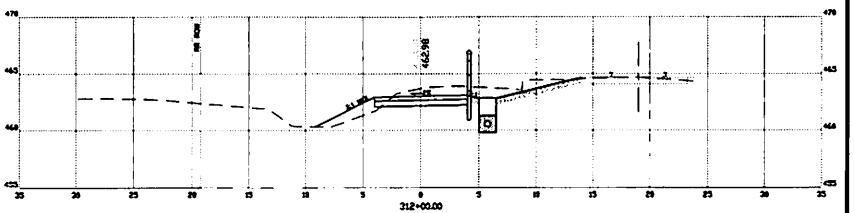


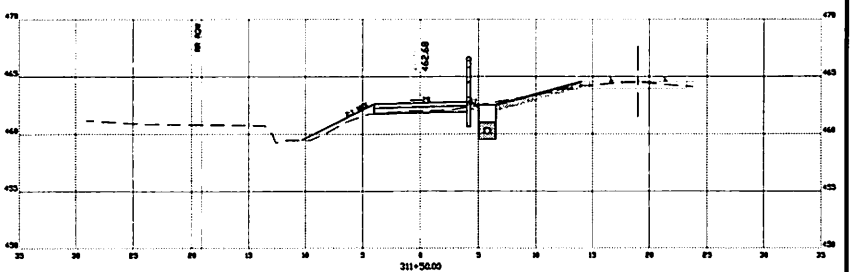












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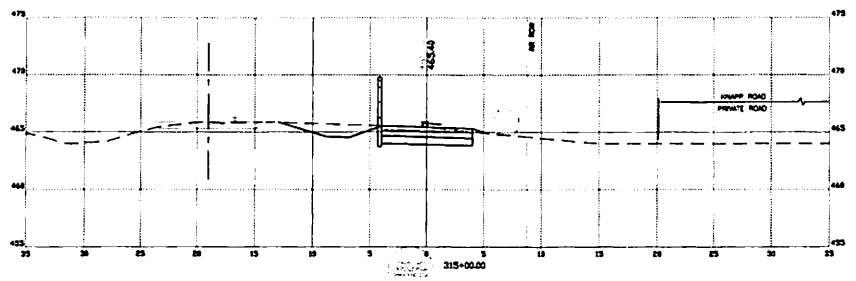
TOWN OF NORTHFIELD

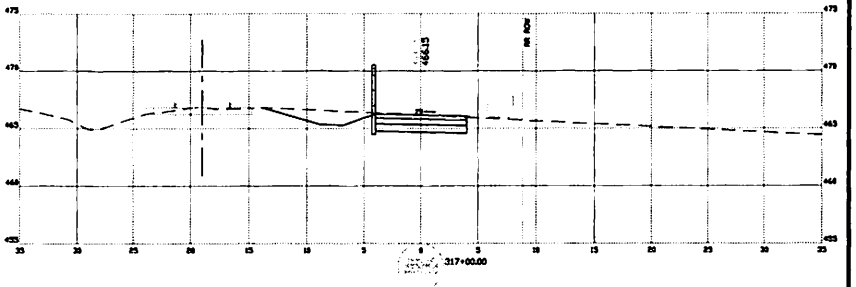
WINNIPESAUKEE RIVER TRAIL – PHASE IIA

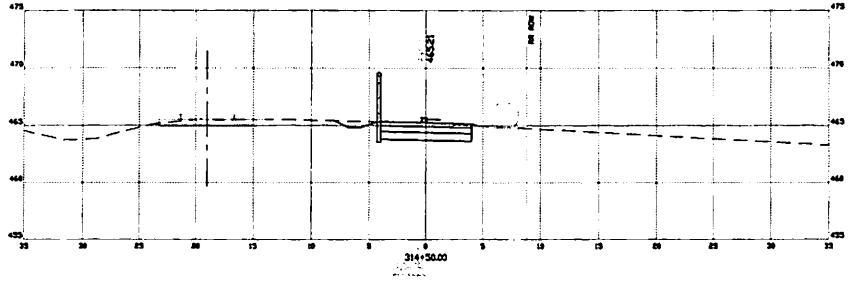
NHDOT PROJECT NO. X-A000(567), #14839

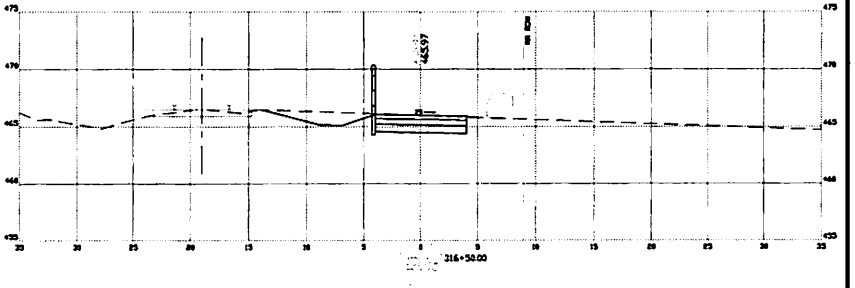
CROSS SECTIONS

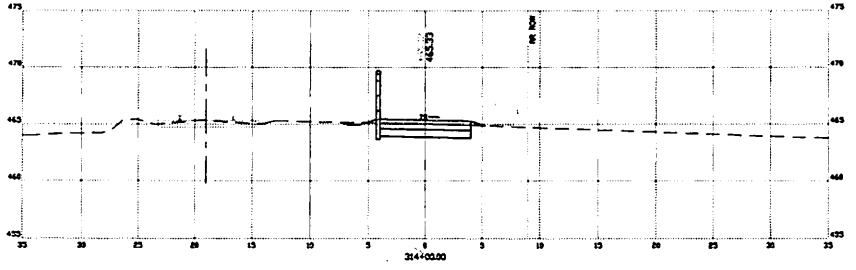
T3

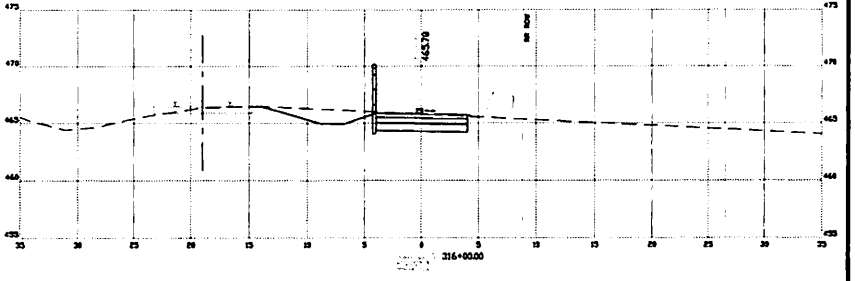


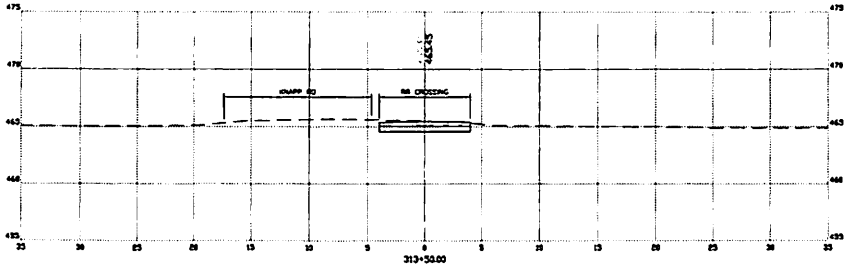


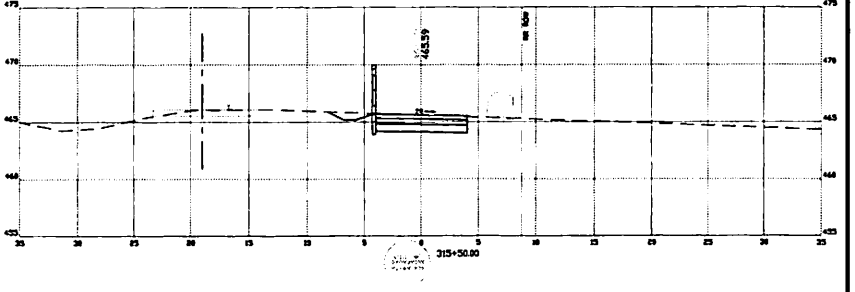












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●	PRELIMINARY PLANS
	FINAL DESIGN
	APPROVED
	BID
●	NOT FOR CONSTRUCTION

REVISIONS

SET PLAN

TOWN OF NORTHFIELD

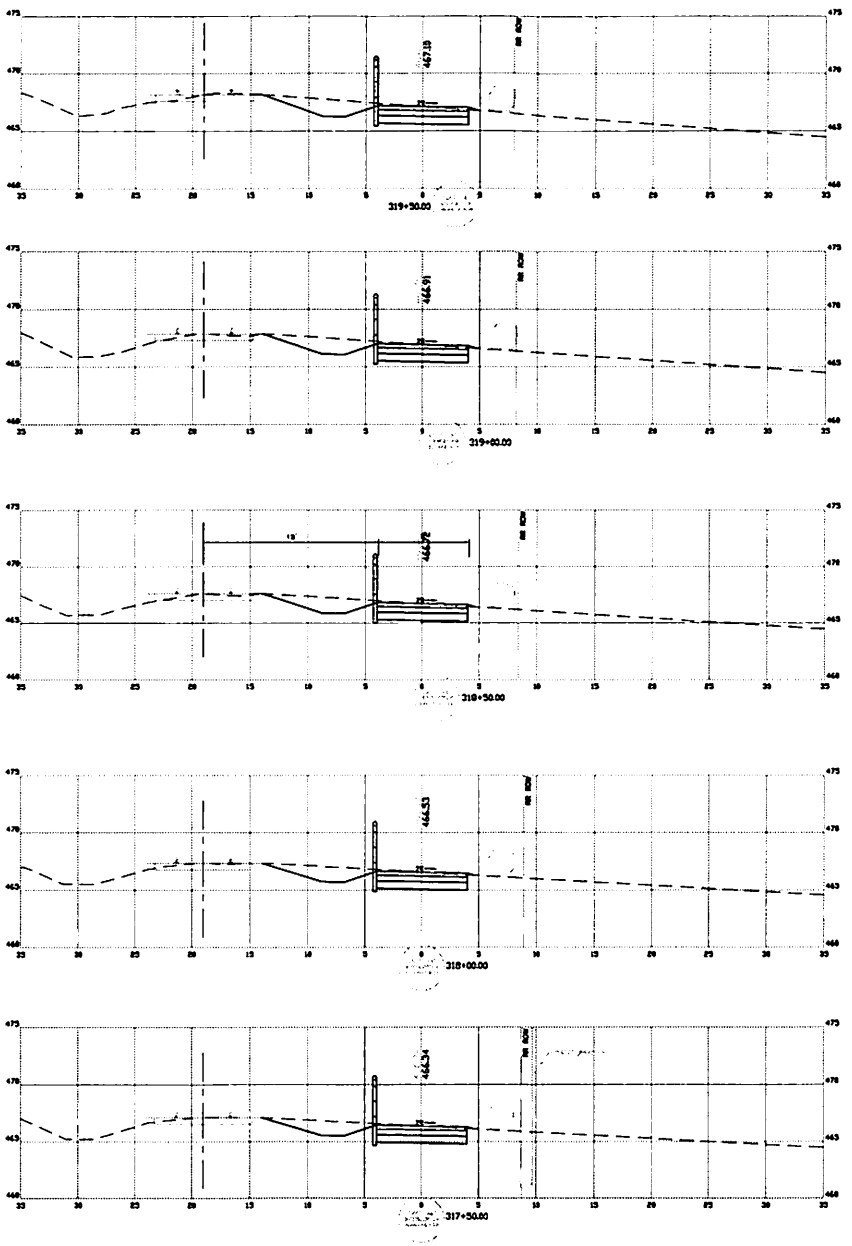
WINNIPESAUKEE RIVER TRAIL – PHASE IIA

NHDOT PROJECT NO. X-A000(567), #14839

DRAWN BY

CROSS SECTIONS

T4



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	CONSTRUCTION
	AS-BUILT
●	NOT FOR CONSTRUCTION

REVISIONS

CITY PLAN

PROJECT TITLE / ADDRESS

TOWN OF NORTHFIELD

WINNIPESAUKEE RIVER TRAIL – PHASE IIA

NHDOT PROJECT NO.
X-A000(567), #14839

FILE NO.: 0307
SCALE: 1"=40'
DESIGN BY: JCD
DRAWN BY: MHP
CHKD BY: LMH
DATE: 07/30/14

REVISIONS

CROSS SECTIONS

T5

DIRECTORY FILEAD

EROSION AND SEDIMENT CONTROL PLAN

SITE DESCRIPTION:

PROJECT NAME: PROPOSED MULTI-PURPOSE PATH
WINNIPESAUKEE RIVER TRAIL – PHASE IIA
TILTON, NH

OWNER NAME: THE TOWN OF TILTON, NEW HAMPSHIRE

CONTRACTOR: --

PROJECT DESCRIPTION: THIS PROJECT INCLUDES THE CONSTRUCTION OF A MULTI-PURPOSE PATH PROVIDING CONNECTION BETWEEN PREVIOUSLY CONSTRUCTED PHASES OF THE WINNIPESAUKEE RIVER TRAIL. CONSTRUCTION IS SCHEDULED FOR -- TO -- AND WILL TAKE APPROXIMATELY -- WEEKS.

SOIL DISTURBING ACTIVITIES WILL INCLUDE: PATH CONSTRUCTION, CULVERT INSTALLATION, RAILROAD CROSSING AND SITE REGRADING.

CONSTRUCTION ACTIVITIES WILL INCLUDE: CLEARING AND GRUBBING, INSTALLATION OF SEDIMENT CONTROLS, TRANSPORT AND STOCKPILING OF EXCAVATION MATERIALS, IMPORTATION AND PLACEMENT OF GRANULAR MATERIALS, NEW CULVERT INSTALLATION, ROADWAY REPAVING, AND PREPARATION FOR TEMPORARY AND FINAL SEEDING.

RUNOFF COEFFICIENT: THE FINAL COEFFICIENT OF RUNOFF WILL BE SAME AS EXISTING.

CRITICAL AREAS: THESE AREAS ARE SUBJECT TO POTENTIAL SIGNIFICANT EROSION PROBLEMS:

1. EXCAVATION FOR CULVERT
2. EXCAVATION FOR PATH
3. EMBANKMENT REGRADING
4. PLACEMENT OF GRANULAR MATERIALS

NAME OF RECEIVING WATERS: WINNIPESAUKEE RIVER

GENERAL NOTES:

1. ALL BEST MANAGEMENT PRACTICES CONTAINED HEREIN ARE TO BE REVIEWED AND MONITORED BY THE CONSTRUCTION SUPERINTENDENT. THE PROJECT ADMINISTRATOR RETAINS THE RIGHT TO MODIFY, TERMINATE, OR REQUIRE ADDITIONAL PRACTICES AS REQUIRED BY THE SITE CONDITIONS.

EROSION & SEDIMENT CONTROL NOTES:

A. GENERAL

1. EROSION AND SILTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO START OF WORK, SHALL BE MAINTAINED, AND SHALL REMAIN IN PLACE DURING CONSTRUCTION UNTIL ALL DISTURBED SURFACES ARE STABILIZED.

2. EROSION AND SILTATION CONTROL MEASURES INDICATED ON THIS PLAN ARE APPROPRIATE TO THE SIZE AND NATURE OF THE PROJECT AND TO THE PHYSICAL CHARACTERISTICS OF THE SITE, INCLUDING SLOPE, SOIL TYPE, VEGETATIVE COVER, AND PROXIMITY TO WETLANDS OR SURFACE WATERS.

3. CONSTRUCTION SHALL NOT CAUSE VIOLATIONS OF SURFACE WATER QUALITY STANDARDS, SPECIFIED IN NH DES RULE ENV-WS 1700.

4. TEMPORARY WATER CONTROL DEVICES SHALL BE REMOVED UPON COMPLETION OF THE PROJECTS.

B. DREDGING

1. DREDGE SPOILS SHALL BE DISPOSED OF OUT OF THE AREAS UNDER THE JURISDICTION OF THE DEPARTMENT UNLESS OTHER DISPOSITION IS SPECIFICALLY PERMITTED. DREDGE SPOILS MEANS MATERIAL REMOVED AS THE RESULT OF DREDGING.

2. DREDGING IN FRESHWATER BROOKS SHALL BE DONE SO AS NOT TO IMPEDE FISH MIGRATIONS OR INTERFERE WITH SPAWNING AREAS FOR FISH.

3. THE CONTRACTOR SHALL INSTALL APPROPRIATE CONTROLS, SUCH AS SILTATION CURTAINS OR NON POROUS CURTAINS TO CONTAIN TURBIDITY.

4. IF THE CONTRACTOR STOCKPILES IN UPLANDS AT THE PROJECT SITE IT SHALL BE DEWATERED IN SEDIMENTATION BASINS LINED WITH SILTATION AND EROSION CONTROLS, AND LOCATED OUTSIDE JURISDICTION TO PREVENT WATER QUALITY DEGRADATION.

C. PROTECTION & STABILIZATION

1. AREAS REMAINING TEMPORARILY UNSTABILIZED FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED.

2. PERMANENT SEEDING SHALL OCCUR BETWEEN APRIL 1 AND JUNE 1 AND/OR BETWEEN AUGUST 15 AND OCTOBER 15. ALL SEEDING FROM SEPTEMBER 15 TO OCTOBER 15 SHALL BE HAY MULCHED.

3. WITHIN THREE (3) DAYS OF FINAL GRADING IN AN AREA THAT IS IN OR ADJACENT TO WETLANDS OR SURFACE WATERS, ALL EXPOSED SOIL AREAS SHALL BE STABILIZED BY SEEDING DURING THE GROWING SEASON, OR IF NOT DURING THE GROWING SEASON, BY MULCHING WITH TACK OR NETTING OR PINNED ON SLOPES STEEPER THAN 3:1.

4. DISTURBED AREAS NOT IN PAVEMENT SHALL RECEIVE 6 INCHES OF LOAM AND SEED.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION CONTROL MEASURES IN ORDER TO PREVENT OFF-SITE TRACKING OF EARTH, SEDIMENT AND DEBRIS.

6. DUST SHALL BE CONTROLLED AS NECESSARY THROUGH THE USE OF WATER OR CALCIUM CHLORIDE.

7. SOILS TO BE STOCKPILED FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED.

8. ALL TEMPORARY SEEDING SHALL USE PERENNIAL RYES AND PERMANENT SEEDING SHALL BE NHDOT SEEDING MIXTURE TYPE 44 UNLESS OTHERWISE NOTED, AND CONFORM TO THE STORMWATER MANAGEMENT AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE, DATED AUGUST 1992.

9. REPAIR, CLEAN, AND REPLACE ANY SEDIMENT CONTROLS DAMAGED DURING AND/OR AFTER RAINFALL EVENTS.

CONSTRUCTION MATERIALS INVENTORY:

THE FOLLOWING MATERIALS ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION: CONCRETE, PETROLEUM BASED PRODUCTS, WOOD.

CONTROLS:

EROSION AND SEDIMENT CONTROLS:

1. SILTATION FENCING – WILL BE INSTALLED CONTINUOUSLY AT SLOPE LIMITS.

2. SEDIMENTATION BARRIERS – WILL BE INSTALLED PERPENDICULAR TO ANTICIPATED SHEET FLOW PATTERNS. THE BARRIER WILL INTERCEPT AND DETAIN SEDIMENTS FROM STABILIZED CONSTRUCTION ENTRANCES, AND LIMITED UNPROTECTED WORK AREAS UPSLOPE.

3. STONE CHECK DAMS – SHALL BE CONSTRUCTED TO THE LINES, GRADES, AND LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED. REMOVE STONE AS DIRECTED WHEN NO LONGER NEEDED. STABILIZE AREA WITH VEGETATION ANY SEDIMENT WHICH IS PERMITTED TO REMAIN IN PLACE.

4. GRATE INLET PROTECTION – INSPECT DEVICES WEEKLY AND AFTER EVERY RAINFALL EVENT. REPLACE, CLEAN, OR REMOVE MEASURES AS DIRECTED.

5. EROSION CONTROL MATTING – SHALL BE INSTALLED WHERE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. MATTING SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

6. STABILIZED CONSTRUCTION ENTRANCE – WILL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DIRECTED IN THE FIELD. MAINTAIN ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENTS ONTO PUBLIC RIGHTS-OF-WAY.

7. WORK AREA DEWATERING SYSTEMS – WILL BE CONSTRUCTED WITHIN THE LIMITS OF THE WORK AREA. DEWATERING SYSTEMS SHALL BE ONE OR MULTIPLE APPLICATIONS OF THE DETAILS INCLUDED HEREIN.

8. TEMPORARY SEDIMENTATION DEVICES – WILL BE CONSTRUCTED/INSTALLED TO PROVIDE FOR THE INTERCEPTION OF SEDIMENT-LADEN DISCHARGE FROM DEWATERING OPERATIONS.

CONTRACTOR'S ATTENTION IS ALSO DIRECTED TO THE CONTRACT DRAWINGS FOR ADDITIONAL TEMPORARY EROSION CONTROL MEASURES.

STABILIZATION PRACTICES:

9. TEMPORARY STABILIZATION – TOPSOIL STOCKPILES, EARTH BERMS, AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 14 DAYS WILL BE STABILIZED WITH TEMPORARY SEED AND MULCH DURING THE GROWING SEASON. THE TEMPORARY SEED WILL BE PERENNIAL RYEGRASS APPLIED AT THE RATE OF 30 POUNDS PER ACRE. PRIOR TO SEEDING, THE SOIL SHALL BE CONDITIONED WITH 300 POUNDS PER ACRE OF 10-10-10 FERTILIZER. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH CLEAN HAY OR STRAW MULCH, APPLIED AT THE RATE OF 3.2 TONS PER ACRE. OUTSIDE THE GROWING SEASON STABILIZE BY MULCHING WITH TACK OR NETTING AND PINNING ON SLOPES STEEPER THAN 3:1.

10. PERMANENT STABILIZATION – DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED WILL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE PERMANENT SEED MIX SHALL CONSIST OF SLOPE SEED TYPE 44. PERMANENT SOIL CONDITIONING, SEEDING, AND MULCHING SHALL BE IN CONFORMANCE WITH THE PROJECT SPECIFICATIONS.

OTHER CONTROLS:

11. HAULING – DUMP TRUCKS IMPORTING OR REMOVING MATERIALS FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

12. CONCRETE TRUCKS – CONCRETE TRUCKS WILL CONDUCT WASHOUT AND DISCHARGE EXCESS CONCRETE TO A TEMPORARY RETENTION BASIN. ONCE HARDENED, THE MATERIAL WILL BE REMOVED AND DISPOSED OF.

13. WASTE MATERIALS – ALL CONSTRUCTION WASTE MATERIALS WILL BE COLLECTED AND STORED IN A COVERED METAL VESSEL PROVIDED BY A LICENSED SOLID WASTE MANAGEMENT COMPANY IN NEW HAMPSHIRE. THE CONTAINER SHALL BE EMPTIED A MINIMUM OF TWICE PER WEEK OR MORE OFTEN IF NECESSARY. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ONSITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED IN THE OFFICE TRAILER AND THE CONSTRUCTION SUPERINTENDENT WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

14. HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF ACCORDING TO LOCAL OR STATE REGULATIONS OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE CONSTRUCTION SUPERINTENDENT WILL BE RESPONSIBLE FOR ENSURING COMPLIANCE.

15. SANITARY WASTE: ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR A MINIMUM OF THREE TIMES PER WEEK OR AS REQUIRED BY LOCAL REGULATIONS.

16. DUST CONTROL – THE HAUL ROADS AND CONSTRUCTION SITE SUBJECT TO VEHICLE TRAFFIC AND ACTIVITIES WILL BE TREATED WITH WATER OR CALCIUM CHLORIDE APPLICATION TO RESTRICT BLOWING AND MOVEMENT OF DUST PARTICLES. WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 3 DAYS, OR WHERE CONTINUED TREATMENT IS NOT FEASIBLE FOLLOWING TEMPORARY TERMINATION OF ACTIVITIES, TEMPORARY VEGETATION OR MULCHING WILL BE UTILIZED.

17. OFFSITE VEHICLE TRACKING – A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT, OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

18. NON-STORMWATER DISCHARGES – IT IS ANTICIPATED THAT THE FOLLOWING NON-STORMWATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:
A. WATER FROM WATER AND DRAIN LINE FLUSHINGS
B. PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED)
C. EQUIPMENT WASH WATERS (EXCLUDING CONCRETE TRUCK WASHOUTS)
D. UNCONTAMINATED GROUNDWATER FROM DEWATERING EXCAVATION

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

INSPECTION / MAINTENANCE PROCEDURES:

THESE ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE IMPLEMENTED TO MAINTAIN EROSION AND SEDIMENT CONTROLS. INSPECTIONS SHALL BE CONDUCTED BY THE CONSTRUCTION SUPERINTENDENT. THE CONSTRUCTION SUPERINTENDENT SHALL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE, AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT. REPAIRS AND MAINTENANCE TO EROSION CONTROL DEVICES SHALL BE EXECUTED BY THE CONTRACTOR.

1. LESS THAN ONE HALF OF THE SITE WILL BE DENUDED AT ONE TIME.

2. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE PER WEEK AND FOLLOWING ANY STORM OF 0.5 INCHES OR GREATER.

3. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER, AND REPAIRED IMMEDIATELY AS REQUIRED.

4. SEDIMENTS WILL BE REMOVED FROM SILTATION FENCING WHEN ONE-THIRD OF FENCE HEIGHT IS OBSCURED, AND/OR WHEN BULGES DEVELOP IN THE SILT FENCE. SILT FENCING WILL BE INSPECTED REGULARLY FOR SEDIMENT DEPTHS, TEARS, AND SECUREMENT TO SUPPORT POSTS AND PROPER ANCHORAGE.

5. THE SEDIMENTATION BASIN WILL BE INSPECTED FOR DEPTH OF SEDIMENT, AND BUILT-UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB.

6. HAYBALES, IF REQUIRED, SHALL BE INSPECTED AND MAINTAINED FREQUENTLY, INCLUDING DURING AND AFTER RUNOFF EVENTS. REPAIR OR REPLACE PROMPTLY AS NEEDED OR DIRECTED. REMOVE SEDIMENT WHEN ACCUMULATION REACHES ONE HALF THE BALE HEIGHT OR AS DIRECTED.

7. SEDIMENT FILTER GRATE INLETS SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL EVENT. REPLACE, CLEAN, OR REMOVE SEDIMENT FILTER BAG ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR AS DIRECTED.

8. STABILIZED CONSTRUCTION ENTRANCES WILL BE INSPECTED DAILY AND MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE IMMEDIATELY REMOVED. WHEN SOIL AND DEBRIS OBSTRUCT VOIDS IN THE TOPDRESSING STONE, RENDERING THE PADS EFFECTIVENESS UNSATISFACTORY, THE ENTRANCE SHALL BE TOPDRESSED WITH NEW STONE. REMOVAL AND REPLACEMENT MAY OCCUR WHEN PAD IS COMPLETELY CLOGGED. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE.

9. TEMPORARY AND PERMANENT SEEDING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS AND POOR GROWTH. SAID AREAS OCCURRING WILL BE REESTABLISHED WITHIN 14 DAYS.

10. TEMPORARY SEDIMENT DEVICES WILL BE INSPECTED DAILY DURING ANY CONSTRUCTION DEWATERING PROCESSES. REMOVE OR RECONSTRUCT DEVICES WHEN SEDIMENT IS 50% OF TOTAL VOLUME.

SPILL PREVENTION:

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

1. GOOD HOUSEKEEPING – THE FOLLOWING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT:

A. STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB
B. ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE
C. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
D. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
E. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
F. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
G. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

2. HAZARDOUS PRODUCTS – THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

A. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
B. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
C. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

3. PRODUCT SPECIFIC PRACTICES – THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

A. PETROLEUM PRODUCTS – ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS THAT ARE CLEARLY LABELED. ANY FUEL STORAGE TANKS STORED ONSITE SHALL HAVE A SECONDARY CONTAINMENT. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
B. FERTILIZER MANAGEMENT – FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
C. PAINTS – ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS AND/OR STATE AND LOCAL REGULATIONS.

4. SPILL CONTROL PRACTICES – IN ADDITION TO THE PRACTICES PREVIOUSLY DISCUSSED, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

A. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
D. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SPILL SIZE. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING, AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES TAKEN WILL ALSO BE INCLUDED.
E. THE CONSTRUCTION SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE OTHER SITE PERSONNEL AS REQUIRED WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

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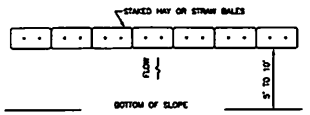
- ● PRELIMINARY PLANS
- FINAL DESIGN
- PERMITTING
- BID
- ● NOT FOR CONSTRUCTION

TOWN OF NORTHFIELD
WINNIPESAUKEE RIVER TRAIL – PHASE IIA
NHDOT PROJECT NO. X-A000(567), #14839

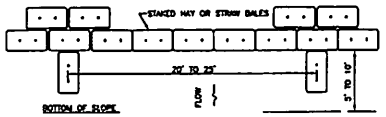
TEMPORARY EROSION CONTROL NOTES

TECN



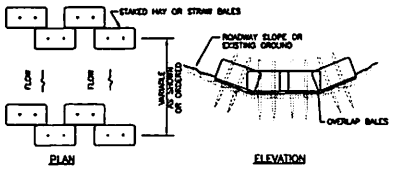
NOTE: NORMAL USE AT BOTTOM OF FILL SLOPE

TYPE – A



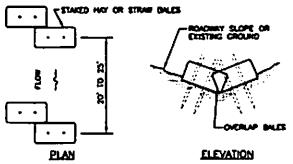
NOTE: NORMAL USE AT BOTTOM OF FILL SLOPE WHERE HEAVY FLOW MAY BE ANTICIPATED.

TYPE – B



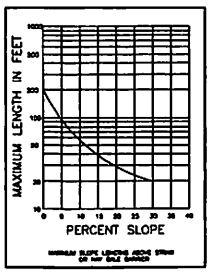
NOTE: NORMAL USE IN WIDE DITCH SECTION

TYPE – C



NOTE: NORMAL USE IN NARROW DITCH SECTION

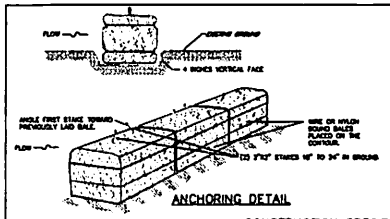
TYPE – D



GENERAL NOTES:

1. WHEN STAKES MUST BE DRIVEN INTO PAVEMENT THE CONTRACTOR SHALL DRILL HOLES AND INSTALL WOOD OR METAL STAKES.
2. HAY BALE CHECK DAMS FOR EROSION CONTROL SHALL BE LOCATED IN ALL DITCHES, SWALES, AND AT THE BASE OF CUT AND FILL SLOPES, AS ORDERED OR SHOWN.
3. STAKES TO HOLD BALES SHALL BE 2" BY 2" OR EQUIVALENT SAPLINGS AND SHALL BE LONG ENOUGH TO EXTEND 12" MINIMUM INTO THE GROUND.
4. BALES SHALL BE SET 4" + BELOW GROUND SURFACE OR AS ORDERED. ANY REQUIRED EXCAVATION TO SET BALES WILL BE ELIGIBLE.
5. HAY BALES WILL BE ALLOWED TO ROT IN PLACE EXCEPT IN HIGHLY VISIBLE AREAS WHERE THE ENGINEER MAY ORDER REMOVAL.

1 TEC1 | TEC1 TYPICAL HAYBALE STAKEOUT
SCALE: NONE

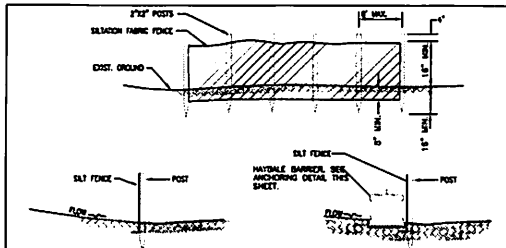


ANCHORING DETAIL

CONSTRUCTION SPECIFICATIONS

1) BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. SEE STAKEOUT PATTERN DETAILS THIS SHEET.
2) EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES.
3) BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4) INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5) BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

2 TEC1 | TEC1 HAYBALE BARRIER
SCALE: NONE



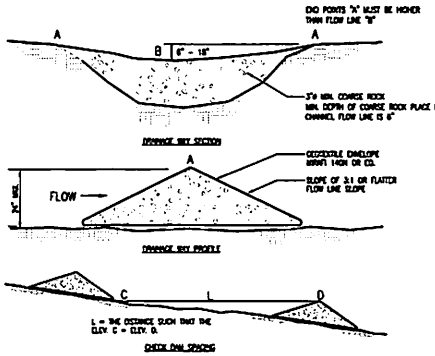
SILT FENCE BARRIER

SILT FENCE/HAYBALE BARRIER

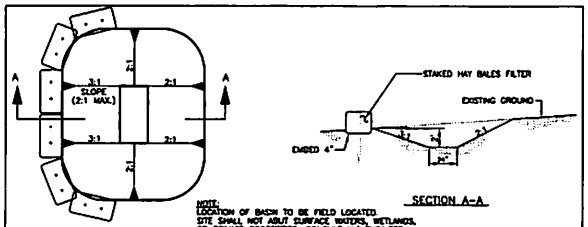
NOTES:

1. SILT FENCE MUST BE MAINTAINED ON A REGULAR BASIS.
2. INSPECT DAILY AND REMOVE SILT OR REPAIR FENCE, AS NEEDED.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVER LAPPED BY 6", FOLDED AND STAPLED.
4. REMOVE FENCE WHEN VEGETATION HAS ESTABLISHED ITSELF.
5. SEE DETAIL 6 THIS SHEET FOR ALTERNATE FILTRATION BARRIER.

3 TEC1 | TEC1 TYPICAL SILT FENCE DETAIL
SCALE: NONE

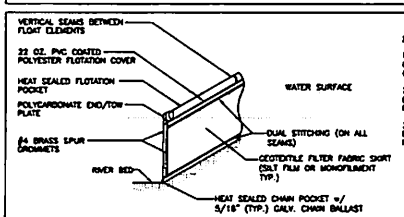


5 TEC1 | TEC1 STONE CHECK DAM
SCALE: NONE



NOTE:
LOCATION OF BASIN TO BE FIELD LOCATED. SITE SHALL NOT ABUT SURFACE WATERS, WETLANDS, OR PRIVATE PROPERTIES. CONSULT W/ ENGINEER TO PROPERLY LOCATE BASIN.

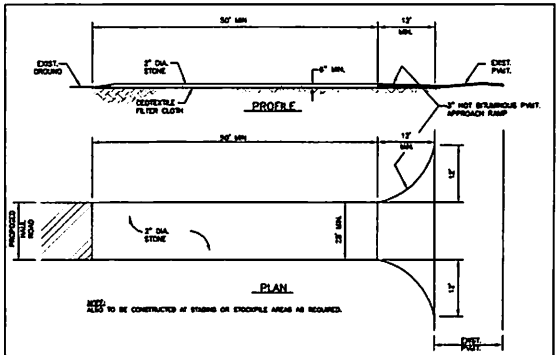
6 TEC1 | TEC1 CONCRETE TRUCK WASHOUT BASIN
SCALE: NONE



NOTES:

1. BARRIER SHALL BE SUPPLIED WITH MINIMUM 5/16"ø STEEL TOP TENSION CABLE.
2. BARRIER TO BE ANCHORED AT BOTH ENDS PER MANUFACTURER'S RECOMMENDATIONS.
3. DEPTH TO BE FIELD VERIFIED. BARRIER SHALL REST ON BOTTOM FOR ITS FULL LENGTH.

7 TEC1 | TEC1 TURBIDITY BARRIER DETAIL
SCALE: NONE



NOTE:
TO BE CONSTRUCTED AT STAGING OR ENCROACHMENT AREAS AS REQUIRED.

8 TEC1 | TEC1 STABILIZED CONSTRUCTION ENTRY
SCALE: NONE

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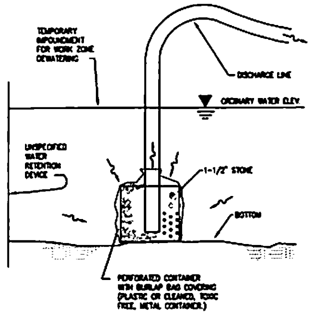
TOWN OF NORTHFIELD

WINNIPESAUKEE RIVER TRAIL – PHASE IIA

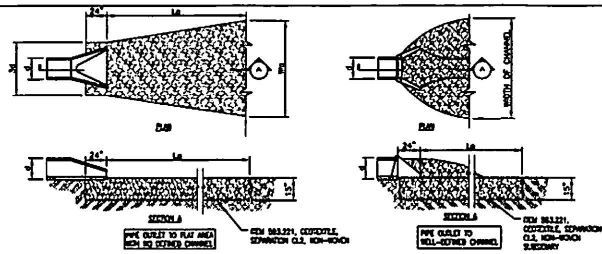
NHDOT PROJECT NO. X-A000(587), #14839

TEMPORARY EROSION CONTROL DETAILS

TEC1



1 TEC2 TEC1 DEWATERING OPTION
SCALE: NONE



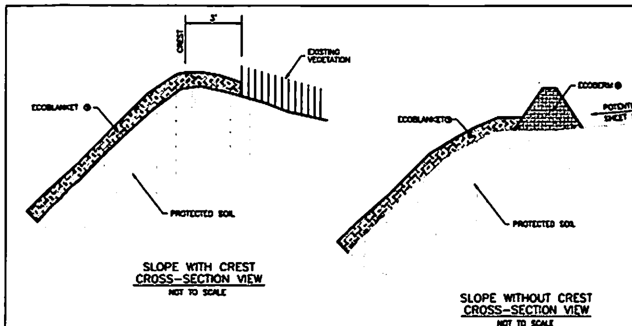
NOTES:

1. RIPRAP STONES SHALL BE INDIVIDUALLY LAID UPWARD FROM THE TOE OF THE SLOPE WITH THE LARGER STONES AT THE TOE OF THE SLOPE. THE STONES SHALL BE LAID WITH CLOSE JOINTS ROUGHLY PERPENDICULAR TO THE SLOPE. OPEN JOINTS SHALL BE FILLED WITH SPALLS.

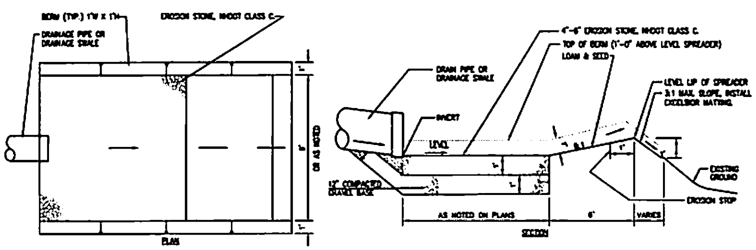
2. THE FINISHED SURFACE SHALL BE REASONABLY UNIFORM IN APPEARANCE, APPROXIMATELY PARALLEL TO AND WITHIN 150 mm. (6 in.) OF THE LINES AND GRADES SHOWN OR ORDERED.

12"	8'	4'	587.213	CLASS C
15"	10'	5'	587.215	CLASS C
18"	12'	6'	587.218	CLASS C
24"	15'	8'	587.224	CLASS C
30"	18'	9'	587.230	CLASS C
36"	20'	10'	587.236	CLASS C

5 CD1 CD1 TYPICAL PIPE OUTLET PROTECTION DETAIL
SCALE: NONE



10 TEC2 TEC1 SLOPE STABILIZATION- COMPOST BLANKET
SCALE: NONE



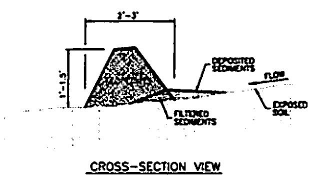
NOTES:

1. CONSTRUCT THE LEVEL SPREADER LIP ON A ZERO PERCENT GRADE TO INSURE UNIFORM SPREADING OF RUN-OFF.
2. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL AND NOT ON FILL.
3. AN EROSION STOP SHALL BE PLACED VERTICALLY A MINIMUM OF SIX INCHES DEEP IN A SLIT TRENCH ONE FOOT BACK OF THE LEVEL LIP AND PARALLEL TO THE LIP. THE EROSION STOP SHALL EXTEND THE ENTIRE LENGTH OF THE LEVEL LIP.
4. THE ENTIRE LEVEL LIP AREA SHALL BE PROTECTED BY PLACING TWO STRIPS OF JUTE OR EXCELSIOR MATTING ALONG THE LIP. EACH STRIP SHALL OVERLAP THE EROSION STOP BY AT LEAST SIX INCHES.
5. THE ENTRANCE CHANNEL TO THE LEVEL SPREADER SHALL NOT EXCEED A 1 PERCENT GRADE FOR AT LEAST 50 FEET BEFORE ENTERING INTO THE SPREADER.
6. THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET INTO STABILIZED AREAS. WATER SHOULD NOT RECONCENTRATE IMMEDIATELY BELOW THE SPREADER.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PREFORMED.

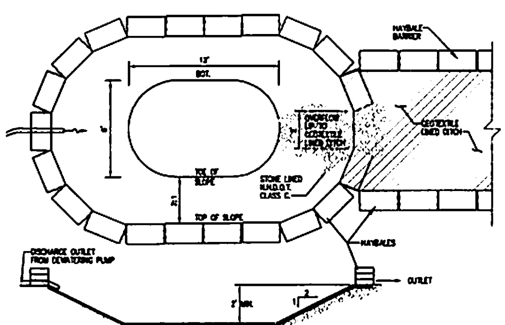
8 TEC2 TEC1 LEVEL SPREADER
SCALE: NONE

INSTALLATION NOTES:

1. ECOBERM SHALL BE INSTALLED BY A REXIUS CERTIFIED INSTALLER AND CONSTRUCTED USING FILTERING MATERIAL MEETING THE REXIUS SPECIFICATIONS FOR PARTICLE SIZE AND COMPOST QUALITY.
2. ECOBERM SHOULD BE PLACED ALONG A LEVEL CONTOUR SO THAT IT WILL NOT CHANNEL RUNOFF AND CREATE CONCENTRATED FLOWS.

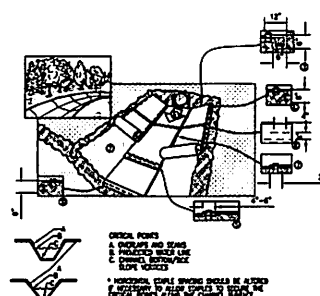


4 TEC2 TEC1 ECOBERM SEDIMENT FILTER BARRIER
SCALE: NONE



NOTE:
IF REQUIRED, LOCATION OF BASIN TO BE FIELD LOCATED. CONSULT W/ ENGINEER TO PROPERLY LOCATE BASIN.

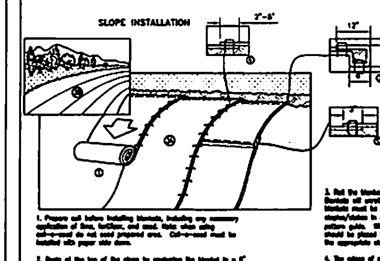
9 TEC2 TEC1 TEMPORARY SEDIMENTATION BASIN
SCALE: NONE



CHANNEL INSTALLATION SPECIFICATIONS

1. Install product in accordance with manufacturer's specifications.
2. Prepare soil before installing blankets, including any necessary application of lime, fertilizer, and seed. Note: when using cell-o-seed, do not seed prepared area. Cell-o-seed must be installed with the paper side down.
3. Begin at the top of the channel by anchoring the blanket in a 6" deep x 6" wide trench with approximately 12" of blanket extended beyond the up-slope portion of the trench. Anchor the blanket with a row of staples/stakes approximately 12" apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to compacted soil and fold remaining 12" portion of blanket over seed and compacted soil. Secure blanket over compacted soil with a row of staples/stakes spaced approximately 12" apart across the width of the blanket.
4. Roll center blanket in direction of water flow in bottom of channel. Blankets will unroll with appropriate side against the soil surface. All blankets must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide. When using optional dot system, staples/stakes should be placed through each of the colored dots corresponding to the appropriate staple pattern.
5. Place consecutive blankets end over end (shingle style) with a 4"-6" overlap. Use a double row of staples staggered 4" apart and 4" (10") on center to secure blankets.
6. Full-length edge of blankets at top of side slopes must be anchored with a row of staples/stakes approximately 12" apart in a 6" deep x 6" wide trench. Backfill and compact the trench after stapling.
7. Adjacent blankets must be overlapped approximately 2"-5" (depending on blanket type) and stapled to ensure proper seam alignment, place the edge of the overlapping blanket (blanket being installed on top) even with the colored seam stitch on the blanket being overlapped.
8. In high flow channel applications, a staple check slot is recommended at 30' to 40' intervals. Use a double row of staples staggered 4" apart and 4" on center over entire width of channel.
9. The terminal end of the blankets must be anchored with a row of staples/stakes approximately 12" apart in a 6" deep x 6" wide trench. Backfill and compact the trench after stapling.

6 TEC2 TEC1 ROLLED EROSION CONTROL MATTING
SCALE: NONE



7 TEC2 TEC1 SLOPE PROTECTION EROSION CONTROL MATTING
SCALE: NONE C1014A

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TEMPORARY EROSION CONTROL DETAILS

TEC2