

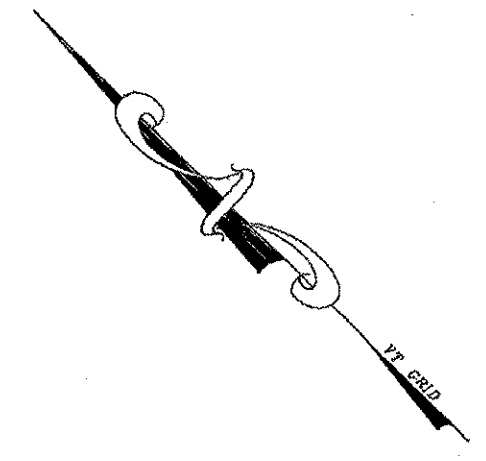
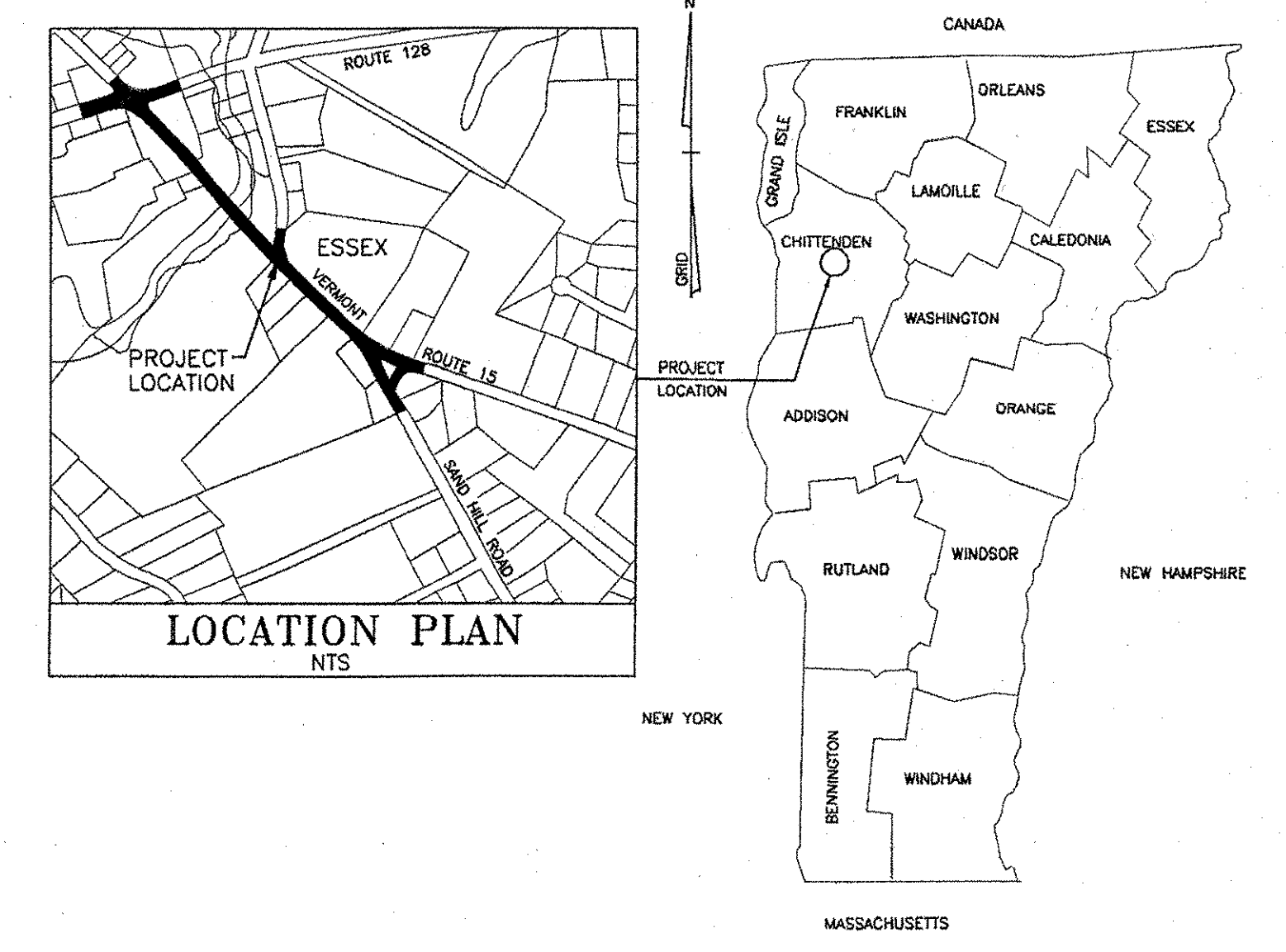
ESSEX STP WALK (9)

ESSEX CENTER SIDEWALK ESSEX, VERMONT

LENGTH OF PROJECT IS 1,668 FEET = 0.32 MILES

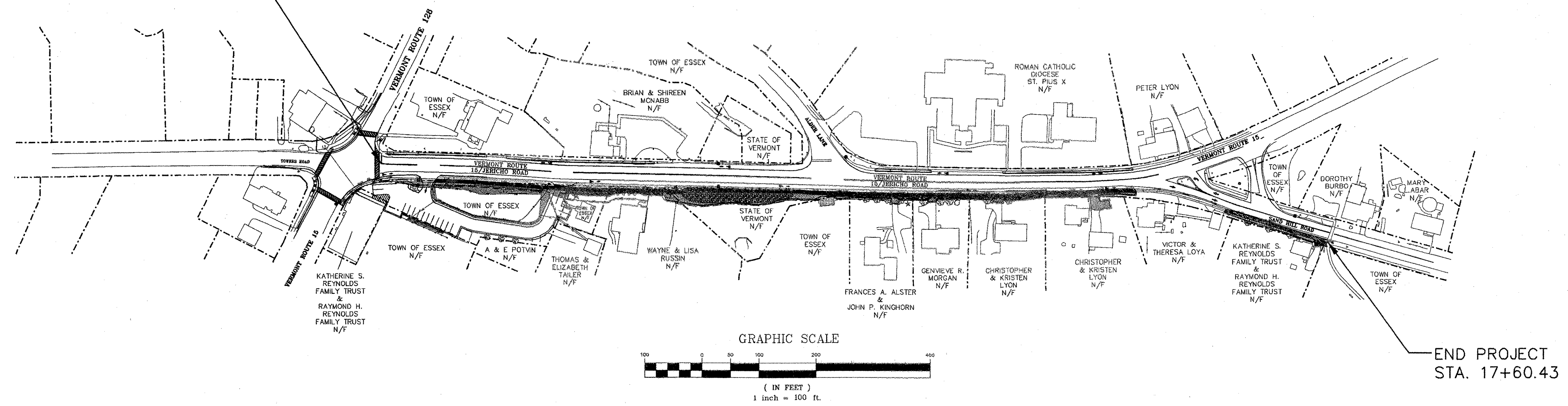
THE PROJECT BEGINS IN ESSEX NEAR THE INTERSECTION OF VERMONT ROUTES 15 AND TOWN COMMONS ROAD, AND PROCEEDS SOUTHEASTERLY FOR A DISTANCE OF 1,668 FEET ALONG VERMONT ROUTE 15 AND SAND HILL ROAD.

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES NEW CONCRETE SIDEWALK, CATCH BASINS, FENCING, ROADWAY WIDENING, NEW BASE, ASSOCIATED PAVEMENT MARKINGS, SIGNS, AND INCIDENTAL ITEMS.



BEGIN PROJECT
STA. 0+92

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT
1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.



INDEX OF SHEETS

SHEET #	TITLE	DATE	SHEET #	TITLE	DATE
1	TITLE SHEET		D-11	CATCH BASIN COVER	6-1-94R
2-4	DETAILS & SPECIFICATIONS		D-15	PRECAST REINFORCED CONCRETE CATCH BASIN W/CAST IRON GRATE	6-1-94R
5-6	QUANTITY SHEETS		E-100	CONSTRUCTION APPROACH SIGNS	1-2-04R
7	PLAN SHEET STA. 0+00 TO STA. 5+75		E-100A	SIDE ROAD CONSTRUCTION APPROACH SIGNS	1-2-04R
8	PLAN SHEET STA. 5+75 TO STA. 12+25		E-102	CONSTRUCTION SIGN DETAILS	6-30-03R
9	PLAN SHEET STA. 12+25 TO STA. 17+60.43		E-108	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS	8-18-95R
10-17	CROSS SECTIONS		E-111	MINOR MAINTENANCE OPERATION	3-11-97R
18	PROJECT PROFILE		E-121	STANDARD SIGN PLACEMENT CONVENTIONAL ROAD	8-8-95R
19	CONSTRUCTION APPROACH SIGNING		E-123	GUIDE SIGN PLACEMENT MISC. DETAILS	3-16-04R
20-22	LANDSCAPING AND SIGNAGE SHEETS		E-131B	BICYCLE GUIDE SIGN DETAILS	5-30-03
23	SIGN SUMMARY SHEET		E-160	FLANGED CHANNEL STEEL SIGN POST	5-20-99R
24	SIGN DETAIL SHEET		E-162	TUBULAR ALUMINUM SIGN POST	5-20-99R
25A-25H	EPSC PLANS		E-191	PAVEMENT MARKING DETAILS	2-1-99R
25J-25L	EPSC PLANS		E-192	PAVEMENT MARKING DETAILS	10-12-00R
26-30	RIGHT OF WAY PLANS		E-193	PAVEMENT MARKING DETAILS	8-18-95
			E-194	BICYCLE PAVEMENT MARKINGS	3-15-05R
B-5	EMBANKMENT AND SLOPE STANDARDS	6-1-94R	F-2	CHAIN LINK FENCE	6-1-94R
C-1	CURBS	1-3-00R	G-1	GUARD RAIL	1-3-00R
C-2A	CONCRETE SIDEWALK	1-3-00R	G-1D	GUARD RAIL	1-3-00R
C-2B	CONCRETE SIDEWALK	1-3-00R	G-17A	MELT	9-27-02R
C-3A	SIDEWALK RAMPS	9-1-04R	G-17B	MELT	9-27-02R
D-1	CATCH BASIN	6-1-94R	J-3	MAILBOX SUPPORT DETAIL	8-7-95
D-6	CATCH BASIN	6-1-94R	T-1	TEMPORARY EROSION CONTROL DETAILS	6-1-94R
D-8	CATCH BASIN	1-3-00R	T-2	TEMPORARY EROSION CONTROL DETAILS	6-1-94R
D-9	CATCH BASIN	6-1-94R	EPSC-1	EROSION PREVENTION & SEDIMENT CONTROL DETAILS - SILT FENCE	5-12-04
			EPSC-2	EROSION PREVENTION & SEDIMENT CONTROL DETAILS - DROP INLET PROTECTION	5-11-04
			EPSC-3	EROSION PREVENTION & SEDIMENT CONTROL DETAILS - DITCH & SLOPE PREVENTION	5-11-04

NOTE:
THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE TOWN ENGINEER. CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE VERMONT STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

FUNDING ASSISTANCE FOR THIS PROJECT IS
BEING FURNISHED BY VTRANS AND FHWA

TOWN OF ESSEX
APPROVED _____ DATE _____
TOWN ENGINEER

DATUM
VERTICAL NAVD 1988
HORIZONTAL NAD 1983

RECORD DRAWINGS 03-14-07
~~CONTRACT PLANS 10-20-05~~

DATE	REVISION	BY
12-19-05	REVISED FOR BIDDERS	BH/DH
10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
09-09-05	REVISED FOR FINAL PLANS	BH/DB/DH

THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:

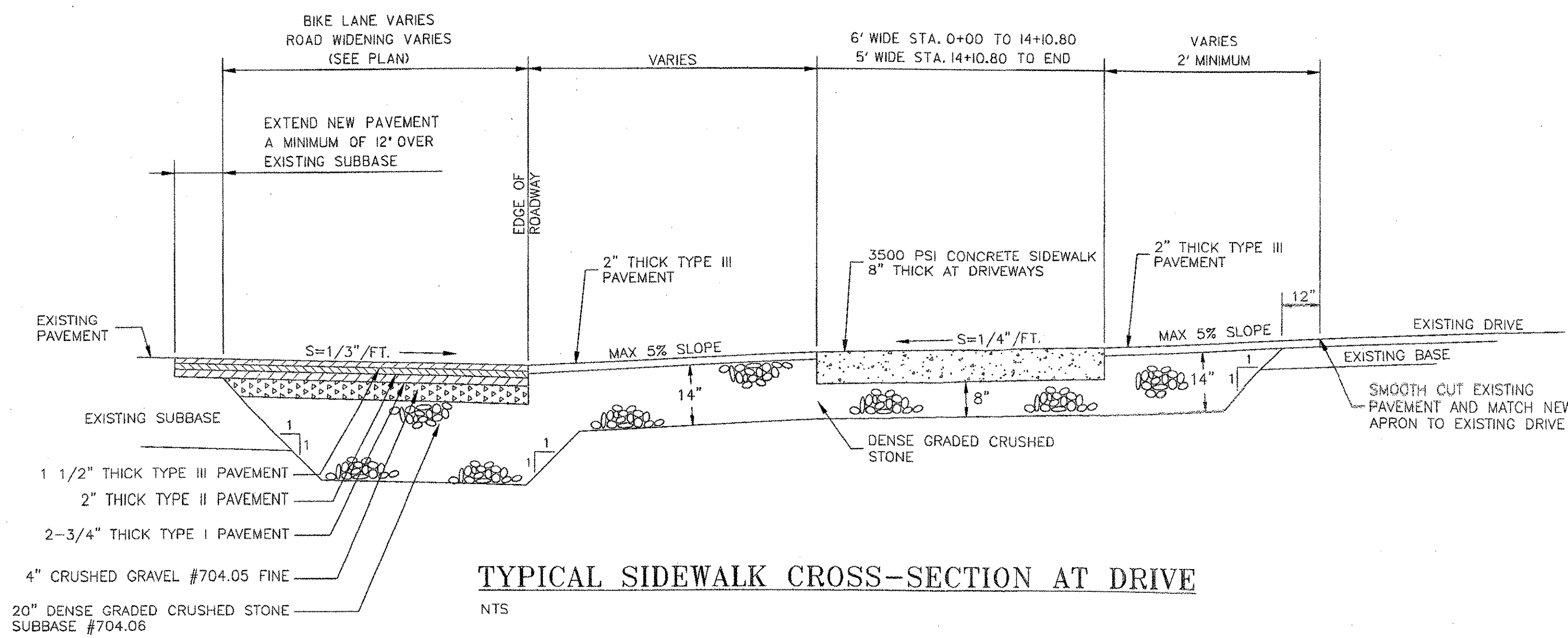
proj. no. 02-132	# OF SHEETS
survey	
L&D/OTHERS	
design	
DLH/LAL	
drawn	
DB	
checked	
LAL/DLH	
date	
03/01/04	
scale	
1" = 100'	
sht. no.	
1	

**STP WALK (9)
TOWN OF ESSEX
ROUTE 15 IN ESSEX CENTER, VT**

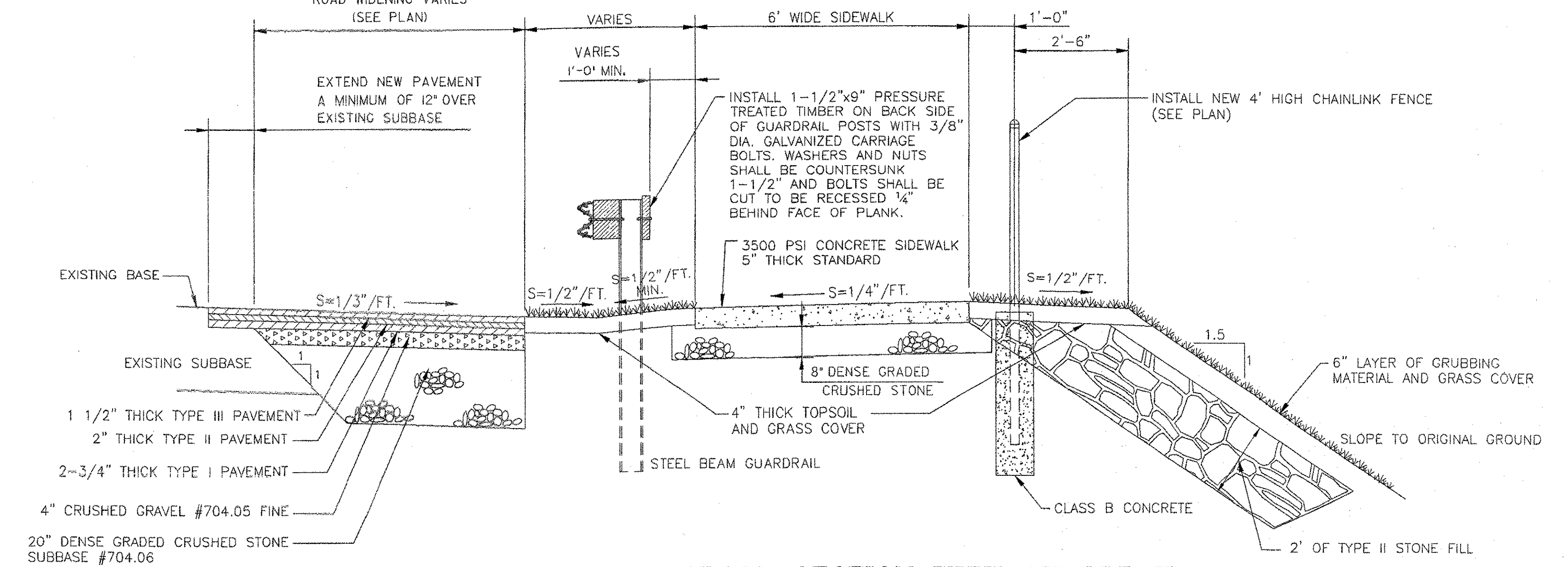
**OVERALL
SITE PLAN**

LD LAMOUREUX & DICKINSON
Consulting Engineers, Inc.
14 Morse Drive
Essex Junction, VT 05452
Tel: 802-878-4450

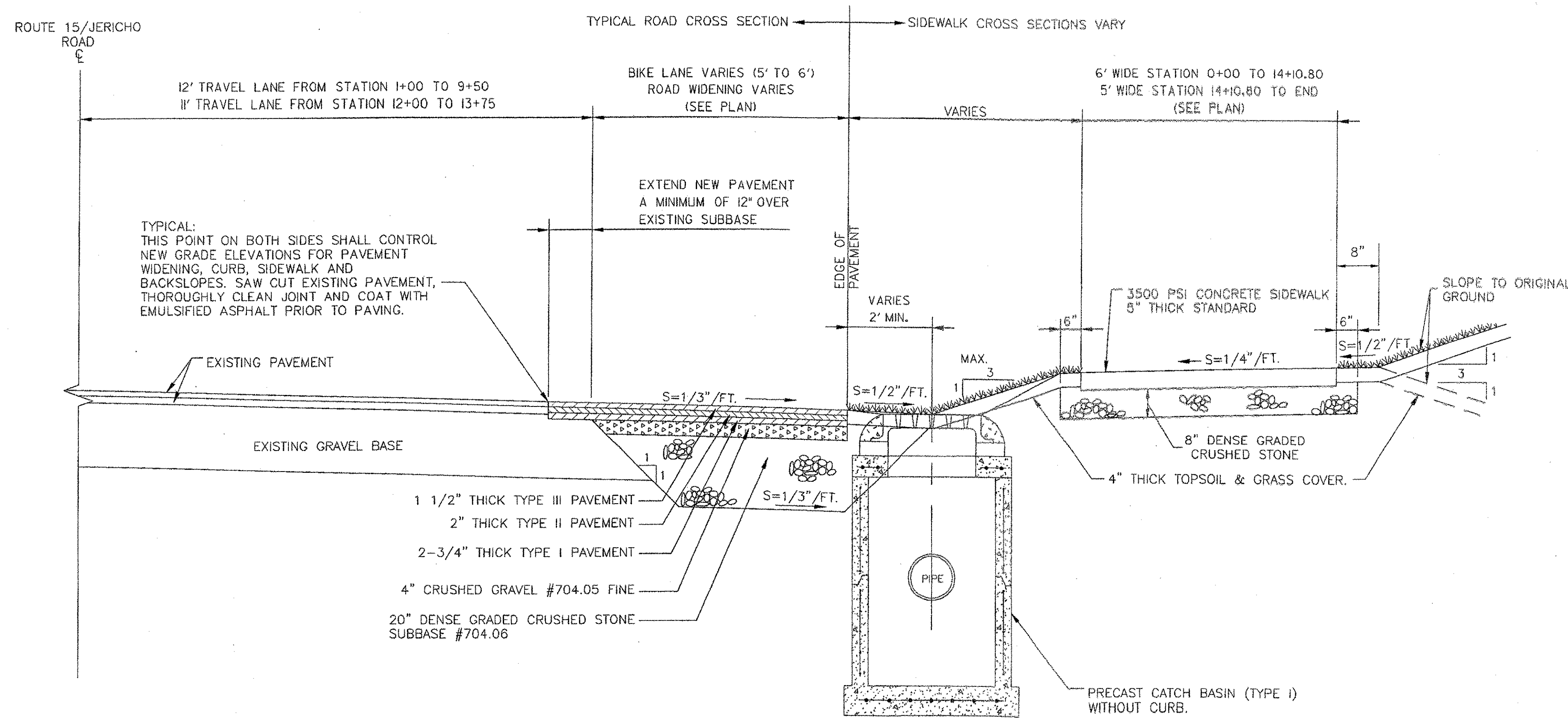
#3



TYPICAL SIDEWALK CROSS-SECTION AT DRIVE



TYPICAL SIDEWALK CROSS-SECTION WITH GUARDRAIL
(STATION 6+00 TO STATION 8+90)

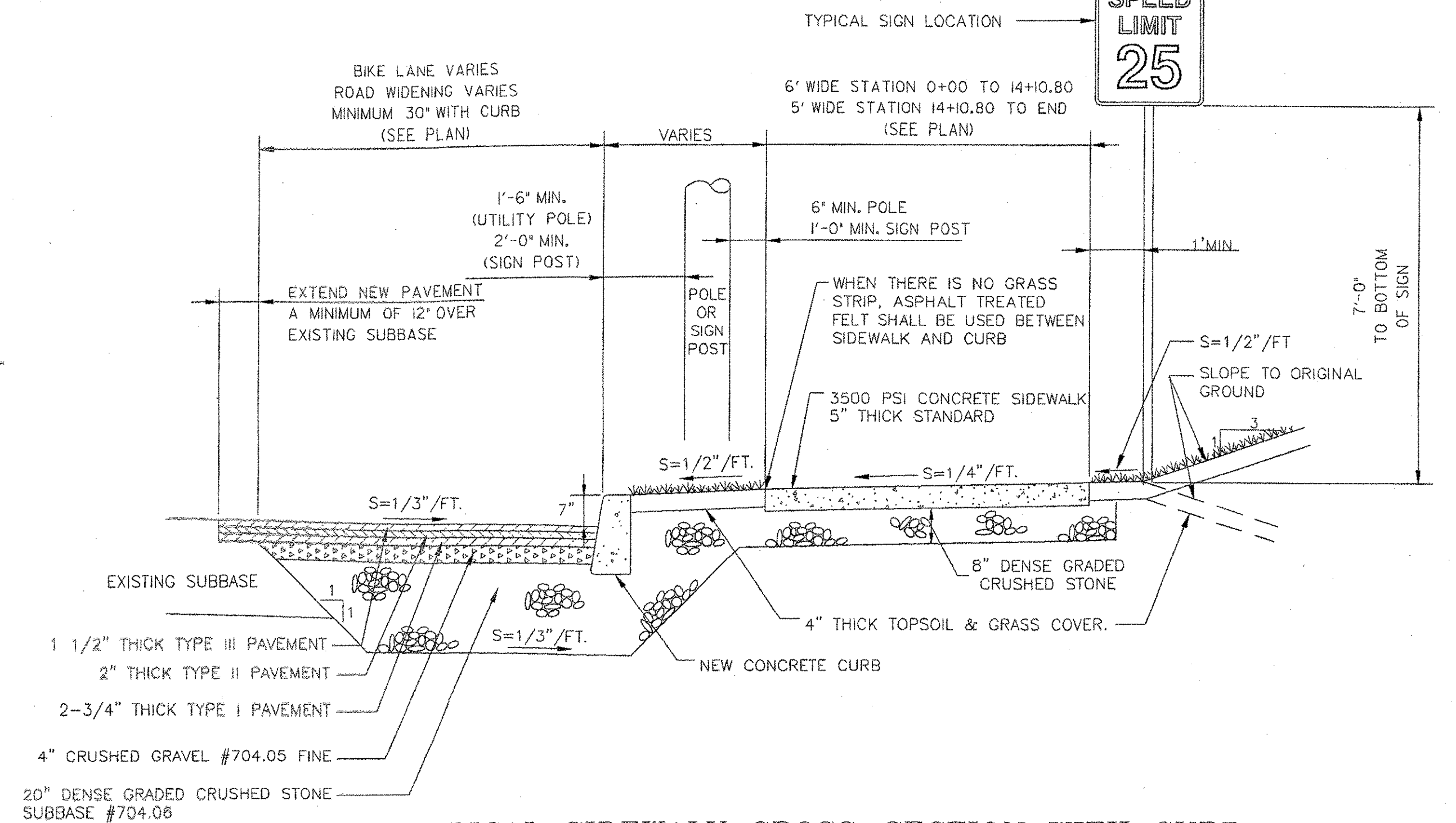


TYPICAL ROADWAY CROSS-SECTION

NTS

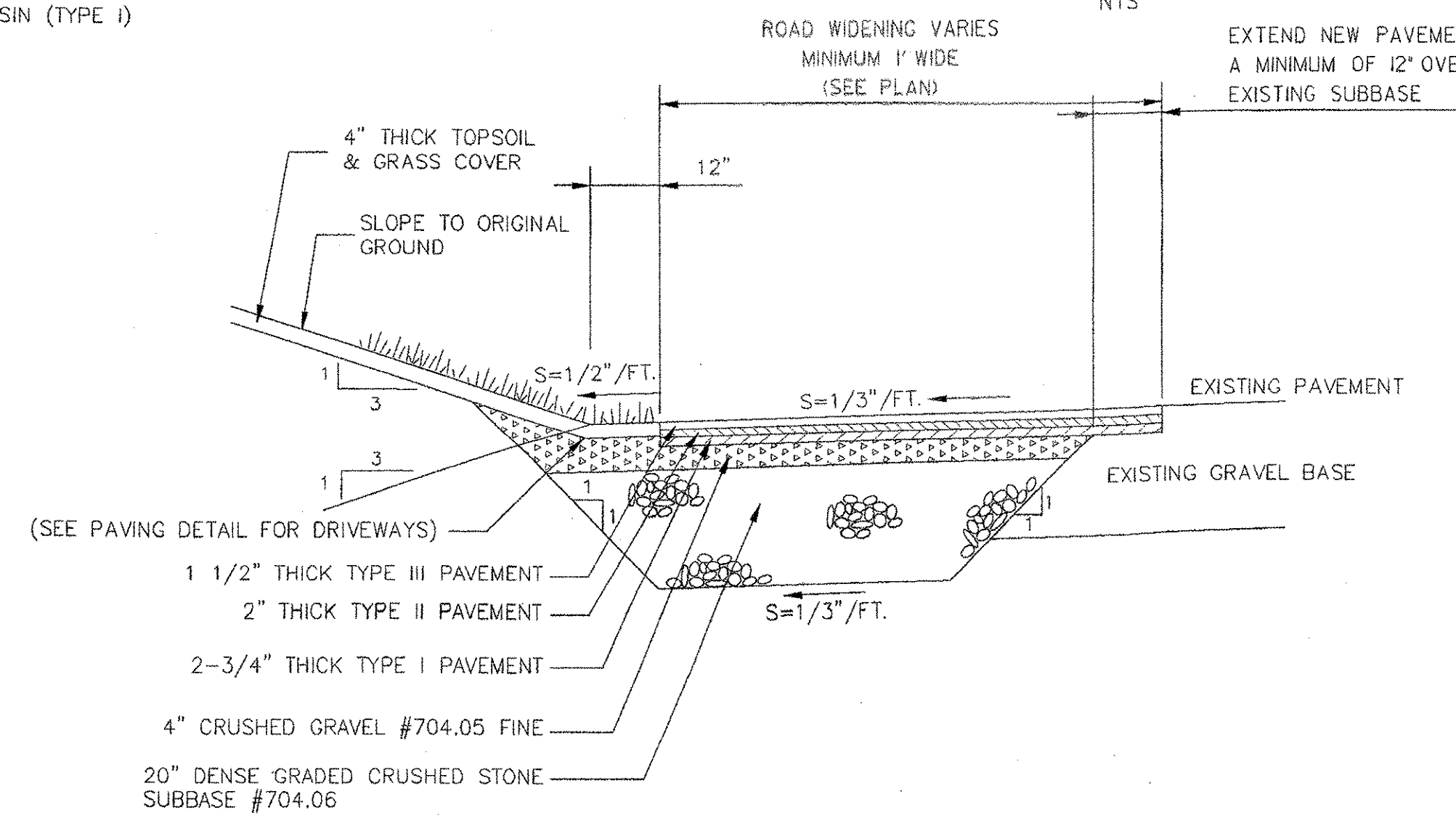
PAVING NOTES

1. IF THE TOP COURSE OF PAVEMENT IS NOT INSTALLED WITHIN 60 DAYS OF THE BASE COURSE, THE CONTRACTOR SHALL APPLY EMULSION TO THE FULL WIDTH OF THE BASE COURSE BEFORE INSTALLING THE TOP COURSE. EMULSIFIED ASPHALT, TO BE APPLIED AT THE RATE OF 0.015 GAL./SQ. YD.
2. EMULSION SHALL BE PLACED ON THE FACE OF THE CURB WHERE IT WILL BE IN CONTACT WITH THE PAVEMENT.
3. THE NEW APRONS AT DRIVEWAYS SHALL BE 2" THICK TYPE III PAVEMENT OVER 14" THICK DENSE GRADED CRUSHED STONE BASE. MATCH INTO EXISTING PAVEMENT WITH SAW CUT JOINTS COATED WITH EMULSIFIED ASPHALT.
4. BITUMINOUS CONCRETE PAVEMENT TOLERANCE = ±1/4" (FOR TOTAL THICKNESS OF BINDER AND/OR WEARING COURSE).
5. WHERE WIDENING THE PAVEMENT, RAISE THE SHOULDERS WITH AGGREGATE AT 1:4 SLOPE FROM THE EDGE OF NEW PAVEMENT.



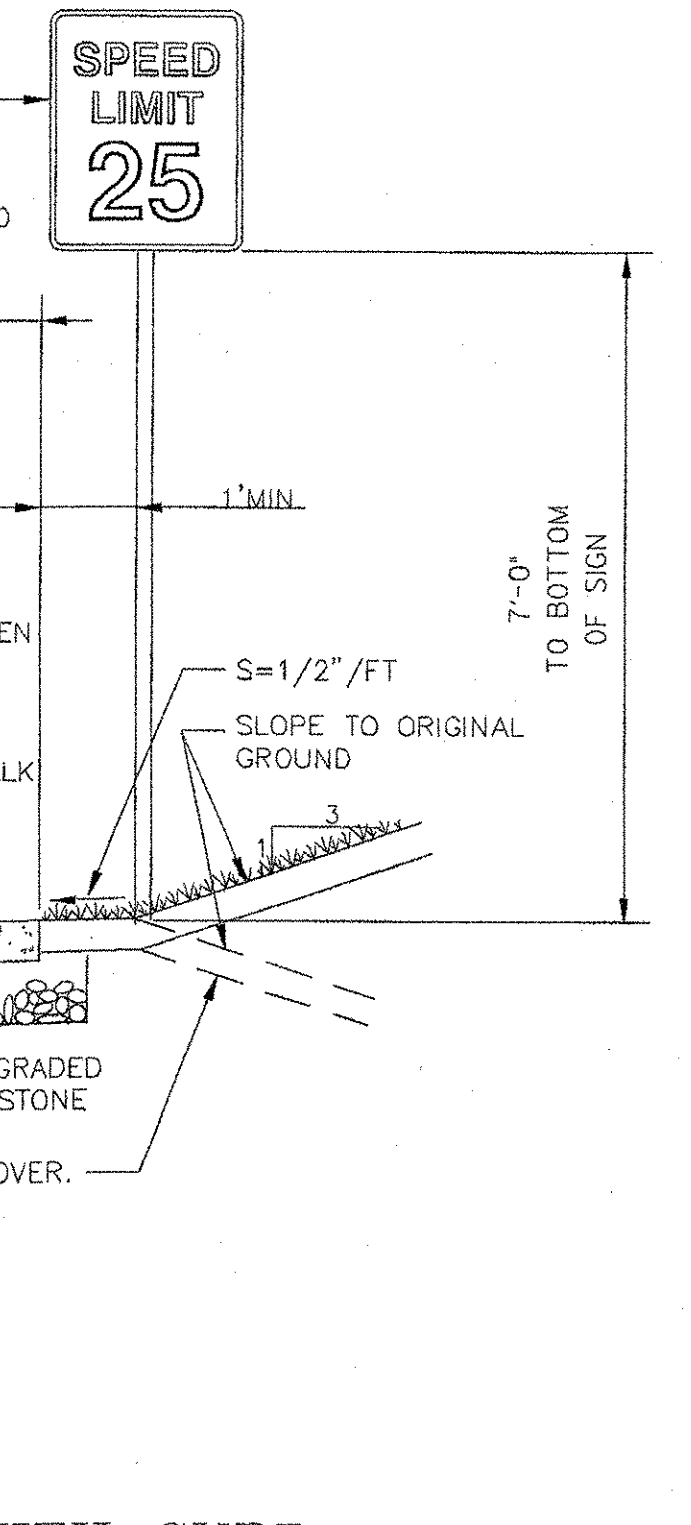
TYPICAL SIDEWALK CROSS-SECTION WITH CURB

NTS



TYPICAL WIDENING ON EAST SIDE OF ROADWAY

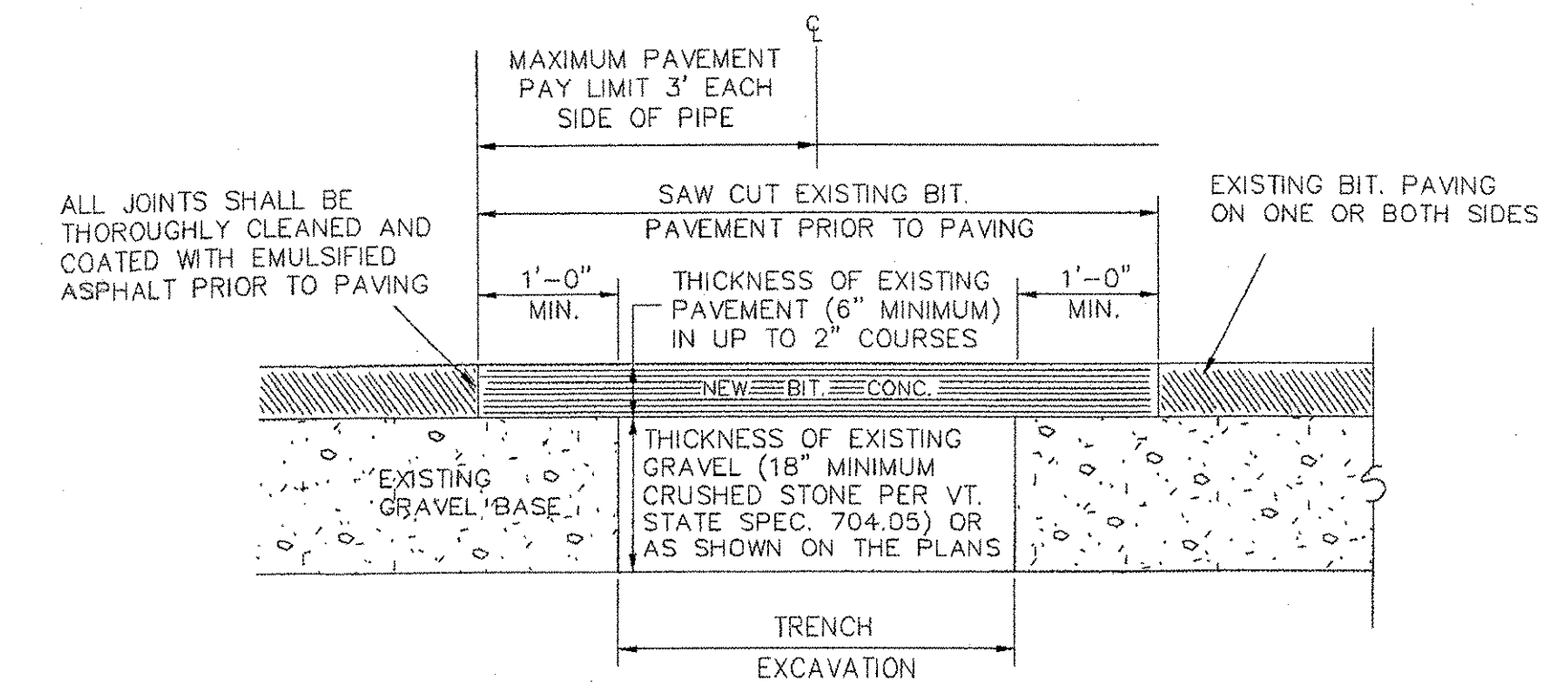
NTS



10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		# OF SHEETS 02-132
DETAILS & SPECIFICATIONS		proj. no. L&D/OTHERS design DLH/LAL drawn DB checked LAL/DLH date 01-24-03 scale
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 (802) 878-4460		AS NOTED sht. no. 2

GENERAL CONSTRUCTION SPECIFICATIONS

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2001 VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2003 EDITION, THE PROJECT SPECIFICATIONS AND THESE PLANS.
- THE CONTRACTOR SHALL CONTACT ALL UTILITIES BEFORE EXCAVATION TO VERIFY THE LOCATION OF ANY UNDERGROUND LINES. THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION. PRIOR TO CALLING DIG SAFE IT IS A REQUIREMENT TO PREMARK PROPOSED EXCAVATION AREAS USING WHITE PAINT, STAKES OR OTHER SUITABLE WHITE MARKINGS, IN A MANNER THAT WILL ENABLE THE OPERATORS OF THE UNDERGROUND UTILITY FACILITIES TO KNOW THE BOUNDARIES OF THE PROPOSED EXCAVATION ACTIVITIES. PREMARKING IS NOT REQUIRED IF THE ACTUAL EXCAVATION WILL BE CONTINUOUS AND WILL EXCEED 500 FEET IN LENGTH.
- UTILITIES INFORMATION SHOWN HEREON WERE OBTAINED FROM BEST AVAILABLE SOURCE AND MAY OR MAY NOT BE EITHER ACCURATE OR COMPLETE. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, SHOWN OR NOT SHOWN HEREON. CONTRACTOR SHALL CONNECT OR RECONNECT ALL UTILITIES TO THE NEAREST SOURCE THROUGH COORDINATION WITH UTILITY OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL EXISTING VEGETATION, PAVEMENT AND STRUCTURES NECESSARY TO CONSTRUCT THIS PROJECT UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL, DEBRIS AND TRASH FROM THE SITE UPON COMPLETION OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE DUST CREATED AS A RESULT OF CONSTRUCTION DOES NOT CREATE A NUISANCE OR A SAFETY HAZARD. WHERE AND WHEN DEEMED NECESSARY BY THE ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO WET SECTIONS OF THE CONSTRUCTION AREA WITH WATER, APPLY CALCIUM CHLORIDE, OR SWEEP THE ROADWAY.
- ANY SURFACES, LINES, MARKERS OR STRUCTURES WHICH HAVE BEEN DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR AT HIS OR HER EXPENSE, TO THE CONDITION AT LEAST EQUAL TO THAT IN WHICH THEY WERE FOUND IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS.
- FOR ANY WORK WITHIN THE HIGHWAY RIGHT-OF-WAY A MINIMUM OF ONE-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. CONTINUOUS TWO-WAY TRAFFIC WILL BE REQUIRED AT NIGHT, DURING PEAK-HOURS, AND WHENEVER POSSIBLE DURING ACTUAL CONSTRUCTION ACTIVITIES. UNIFORMED TRAFFIC CONTROL OFFICERS SHALL DIRECT TRAFFIC WHEN THERE IS ONE-WAY TRAFFIC AND WHEN DEEMED NECESSARY BY THE TOWN. TEMPORARY CONSTRUCTION SIGNS AND TRAFFIC CONTROL SIGNS SHALL BE ERRECTED BY THE CONTRACTOR IN ACCORDANCE WITH STATE AND TOWN STANDARDS AND THESE PLANS.
- TO ENSURE COMPLIANCE WITH THE PLANS AND OTHER REQUIREMENTS, THE DESIGN ON THESE PLANS SHALL BE INSPECTED BY LAMOUREUX AND DICKINSON CONSULTING ENGINEERS, INC., ESSEX JUNCTION, VERMONT. LAMOUREUX AND DICKINSON WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT MAY ARISE FROM THE FAILURE OF THE CONTRACTOR TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THAT THE PLANS CONVEY, AND FROM THE FAILURE TO HAVE BEEN RETAINED OR NOTIFIED TO INSPECT THE WORK AND TESTS IN PROGRESS. AT A MINIMUM, THE CONTRACTOR SHALL NOTIFY THE ENGINEER 24 HOURS IN ADVANCE OF STARTING ANY WORK, CUTTING THE PAVEMENT, BEGINNING THE INSTALLATION OF ANY UTILITIES, PRIOR TO BRINGING IN ANY NEW GRAVEL FOR THE NEW BASE, TO VERIFY LEDGE BLASTING AND REMOVAL, PAVING AND SIGNALS TO VERIFY QUANTITIES, AND FINAL INSPECTION.
- HEALTHY EXISTING TREES ON AND ADJACENT TO THE SITE SHALL BE PROTECTED BY THE CONTRACTOR.
- THE FINISH GRADE SLOPES SHALL BE AS SHOWN ON THE PLANS. FINISH SLOPES, DITCHES AND DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL AND SHALL BE FERTILIZED, SEED, LIMED, AND MULCHED. TURF ESTABLISHMENT SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 OF THE VERMONT AGENCY OF TRANSPORTATION SPECIFICATIONS AND THE SPECIFICATIONS INCLUDED ON THESE PLANS.
- ALL FILL SHALL BE PLACED IN 6 INCH LIFTS AND THOROUGHLY COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 STANDARD PROCTOR, UNLESS OTHERWISE SPECIFIED.
- THE EROSION CONTROL METHODS USED DURING CONSTRUCTION OF THE PROJECT SHALL PROCEED IN THE FOLLOWING SEQUENCE:
 - THE CONTRACTOR SHALL INSTALL AND MAINTAIN STONE FILTERS, SILT FENCES, DITCHES AND OTHER EROSION CONTROL DEVICES AS SHOWN ON THE PLANS. THEY SHALL BE MAINTAINED AND REPAIRED AFTER EVERY RAINFALL UNTIL THE NEW IMPROVEMENTS ARE PAVED AND ALL DISTURBED AREAS HAVE BEEN GRASSSED AND APPROVED BY THE ENGINEER. THE MAINTENANCE OF THE EROSION CONTROL DEVICES WILL INCLUDE REMOVAL OF ANY ACCUMULATED SEDIMENTATION.
 - THE TOPSOIL SHALL BE REMOVED FROM THE AREAS TO BE GRADED AND STOCKPILED. HAY BALES SHALL BE PLACED CONTINUOUSLY AROUND THE BOTTOM OF THE PILE.
 - THE CONTRACTOR WILL TOPSOIL, SEED, AND MULCH THE DISTURBED AREAS AS SOON AS POSSIBLE FOLLOWING COMPLETION OF ADJACENT CONSTRUCTION.
 - AT COMPLETION OF GRADING, THE SLOPES, DITCHES, AND ALL DISTURBED AREAS SHALL BE SMOOTH AND FREE OF POCKETS WITH SUFFICIENT SLOPE TO ENSURE DRAINAGE.
- NEW PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH NOTE #1 ABOVE. ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THE NEW IMPROVEMENTS SHALL BE REMOVED BY GRINDING.
- PRIOR TO PAVING, ALL MANHOLES, CATCH BASINS, AND VALVE TOPS SHALL BE RAISED TO FINISH GRADE.
- NEW PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH NOTE #1 ABOVE. ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THE NEW IMPROVEMENTS SHALL BE REMOVED BY GRINDING.
- BACKFILL UNDER PIPES IN FILL AREAS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY. A MINIMUM OF (2) COMPACTION TESTS SHALL BE TAKEN AT THE CONTRACTOR'S EXPENSE UNDER EACH RUN OF PIPE PRIOR TO INSTALLATION. THE PIPES SHALL ONLY BE INSTALLED OVER ADEQUATELY COMPACTED SOILS.



- SETUP AND MAINTAIN SIGNS AND OTHER SAFETY CONTROL DEVICES.
- RESHAPE HOLE AND PATCH AREA BY CUTTING WITH A CONCRETE SAW INTO SQUARE OR RECTANGULAR SHAPE AND CUT SIDE FACES VERTICALLY. RESHAPE DOWNWARD TO SOLID MATERIAL AND AROUND HOLE TO SOUND PAVEMENT.
- BACKFILL TRENCH IN 6" LIFTS AND COMPACT EACH LIFT TO 95% OF MAXIMUM DENSITY OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 STANDARD PROCTOR.
- REMOVE ALL LOOSE MATERIAL AND THOROUGHLY SWEEP THE HOLE AREA CLEAN OF MUD AND STANDING WATER.
- APPLY LIQUID ASPHALT TACK TO VERTICAL FACES IN A UNIFORM MANNER. DO NOT PUDDLE TACK COAT ON BOTTOM OF HOLE.
- FILL TOP OF HOLE WITH TYPE III BITUMINOUS CONCRETE AND COMPACT IN LIFTS NO MORE THAN 2" THICK. FINAL UNCOMPACTED LIFT SHOULD BE 1/2" TO 1" ABOVE ADJOINING PAVEMENT SO THAT AFTER COMPACTION THE PATCH IS LEVEL WITH THE ORIGINAL PAVEMENT. EACH LIFT SHOULD BE THOROUGHLY COMPACTED WITH A VIBRATORY PLATE COMPACTOR OR A PORTABLE ROLLER. EXPERIENCE HAS SHOWN THAT 15 TO 20 PASSES WITH A VIBRATORY ROLLER AND MIX TEMPERATURE ABOVE 250 F (121 C) ARE NECESSARY TO ENSURE GOOD COMPACTION. HAND TAMP SHOULD ONLY BE USED FOR SMALL AREAS (LESS THAN 1 S.F.).
- CLEAN UP AREA. DO NOT LEAVE EXCESS FILL OR EXCAVATED MATERIAL ON THE PAVEMENT. REMOVE SAFETY SIGNS.

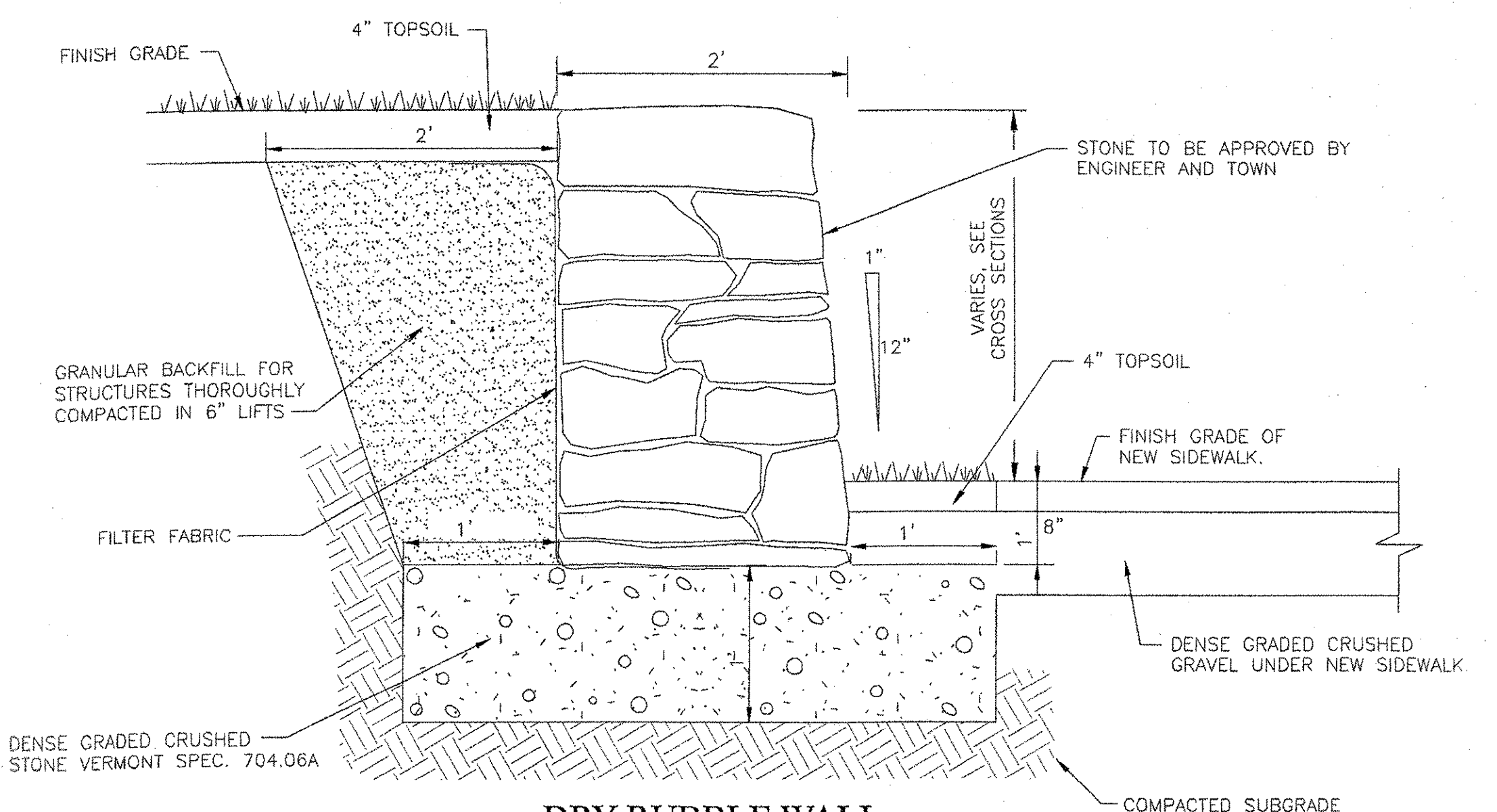
REPLACEMENT OF EXISTING BITUMINOUS PAVEMENT

NTS

GRADATION REQUIREMENTS		
MATERIAL	SIEVE SIZE	PERCENT (%) PASSING
CRUSHED GRAVEL FOR SUBBASE VAOT SPEC 704.05A FINE	2"	100 %
	1 1/2"	90-100 %
	#4	30-60 %
	#100	0-12 %
DENSE GRADED CRUSHED STONE VAOT SPEC 704.06	#200	0-6 %
	3 1/2"	100 %
	3"	90-100%
	2"	75-100%
	1"	50-80%
	1/2"	30-60%
	#4	15-40%
	#200	0-6 %

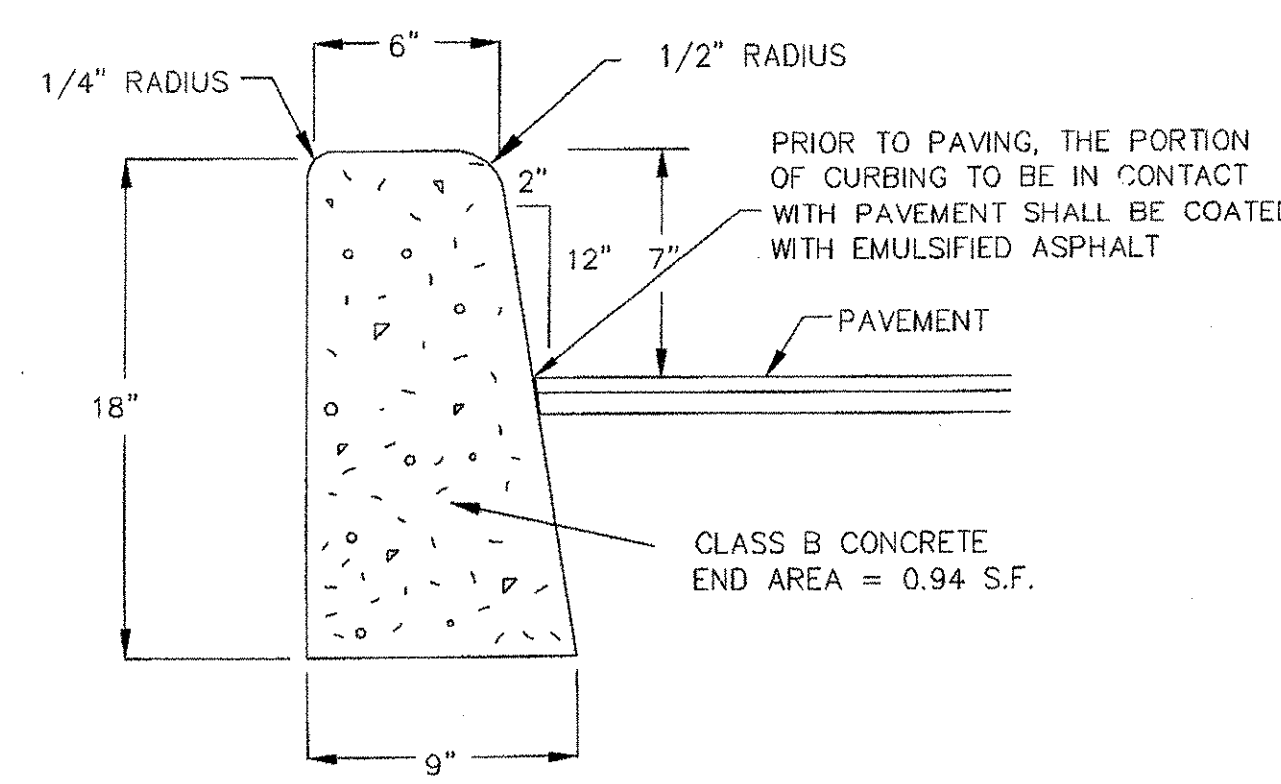
FIELD STONE NOTES

- FIELD STONE SHALL BE NATIVE TO THE AREA ROUGHLY RECTANGULAR AND HAVE AT LEAST ONE WEATHERED FACE.
- FIELD STONE FACES SHALL MEASURE BETWEEN 8"-20" ON ALL FACES.
- WEATHERED SIDE OF FIELD STONE TO BE PLACED ON WALL FACE.
- HORIZONTAL AND VERTICAL JOINT WIDTH NOT TO EXCEED 3" MAXIMUM. HORIZONTAL JOINTS SHALL BE PARALLEL. STAGER VERTICAL JOINTS 3" MINIMUM.
- FIELD STONE SHALL BE FOR UNDER ITEM 602.20, DRY RUBBLE MASONRY.
- TOP OF WALL SHALL SLOPE TO PARALLEL ADJACENT FINISH GRADE. TOP OF WALL FINISH GRADE SLOPE SHALL NOT EXCEED 0.050. FIELD STONE COURSING BEDS SHALL BE ROUGHLY PARALLEL TO THE TOP OF WALL.
- THE LARGEST STONES SHALL BE USED AT THE BASE OF THE WALL AND THE SIZE OF THE STONES SHALL DECREASE AS COURSES ARE LAID. STONES USED IN THE TOP COURSE BELOW THE CAP STONE SHALL NOT BE SMALLER IN HEIGHT THAN THE SPECIFIED CAP STONE.
- CAP STONE SHALL BE 6" X 24" X 24" MINIMUM (2" TOLERANCE).



DRY RUBBLE WALL

NTS

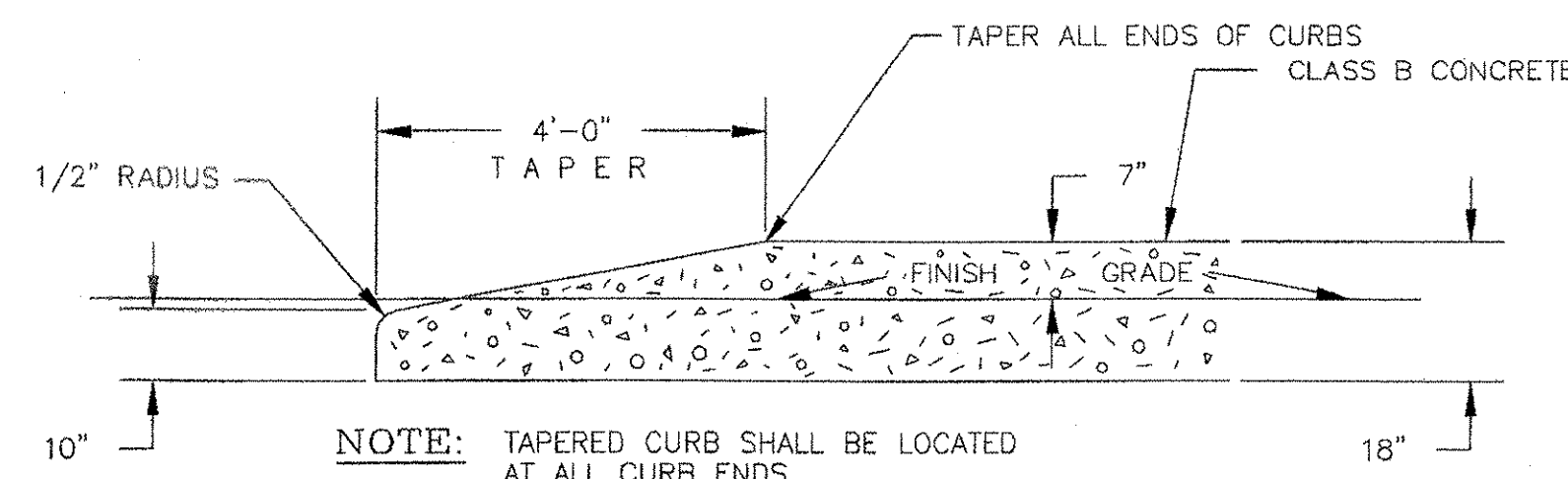


NOTES:

- CURBING SHALL BE CONSTRUCTED IN 10' SECTIONS WITH 1/8" JOINT BETWEEN SECTIONS.
- CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153 (1/2" SPONGE RUBBER OR CORK.)
- ALL CONCRETE SHALL BE AIR ENTRAINED NOT LESS THAN 5% AND NOT MORE THAN 7%
- SLIP FORMING SHALL NOT BE USED IN CURB CONSTRUCTION

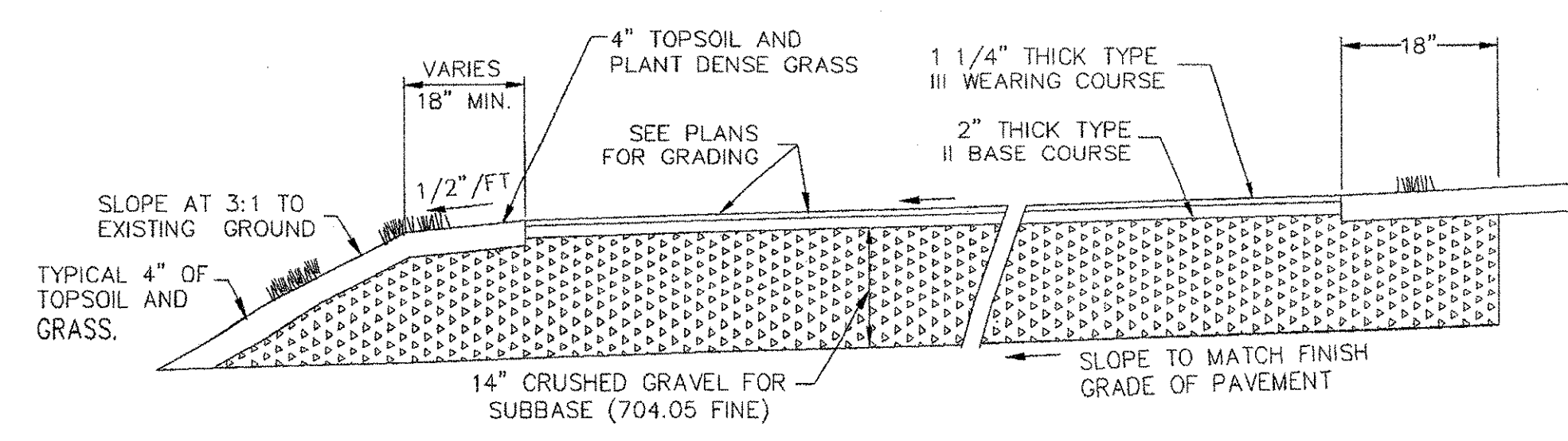
CONCRETE CURB

N.T.S.



TYPICAL TAPERED CURB

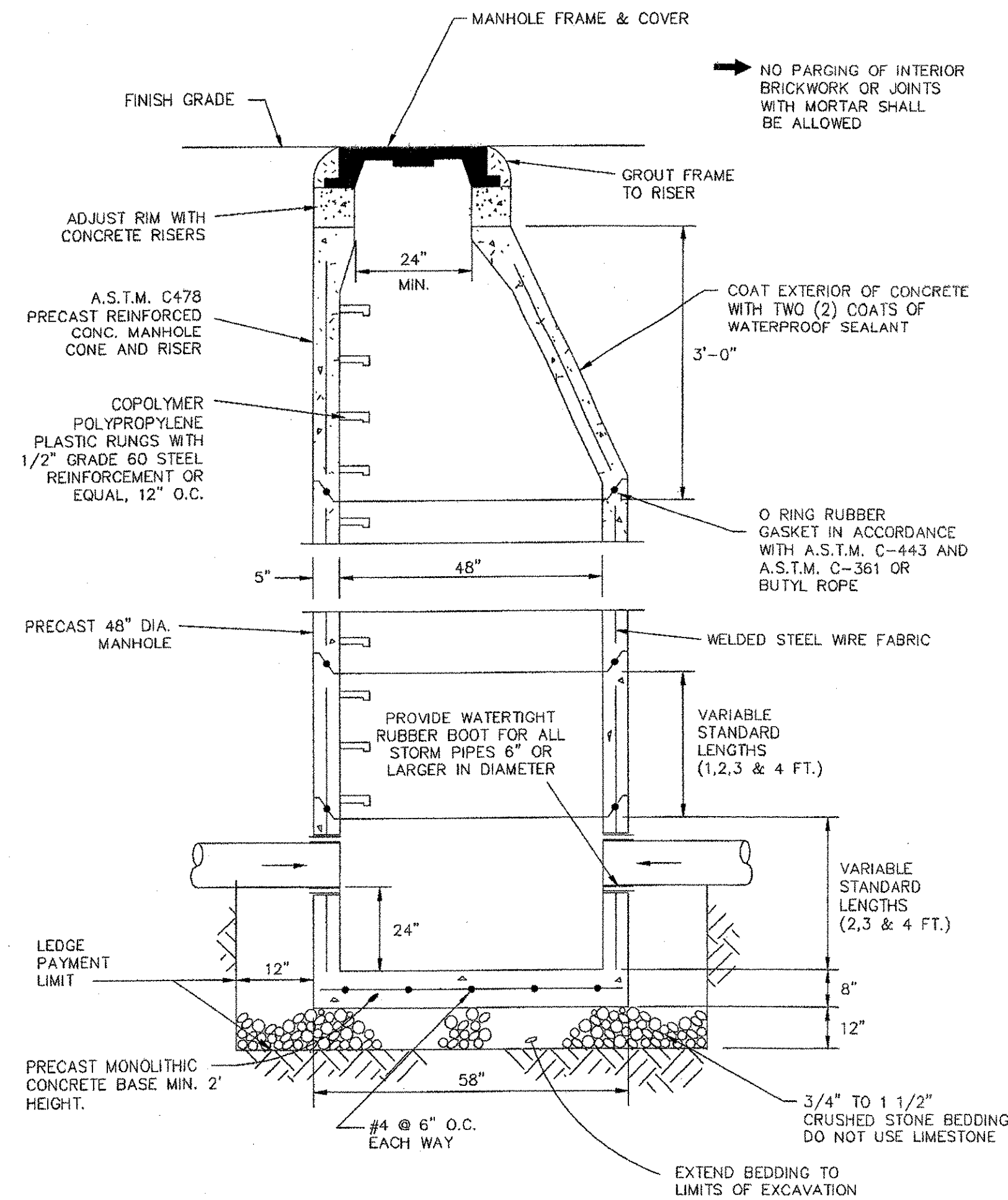
N.T.S.



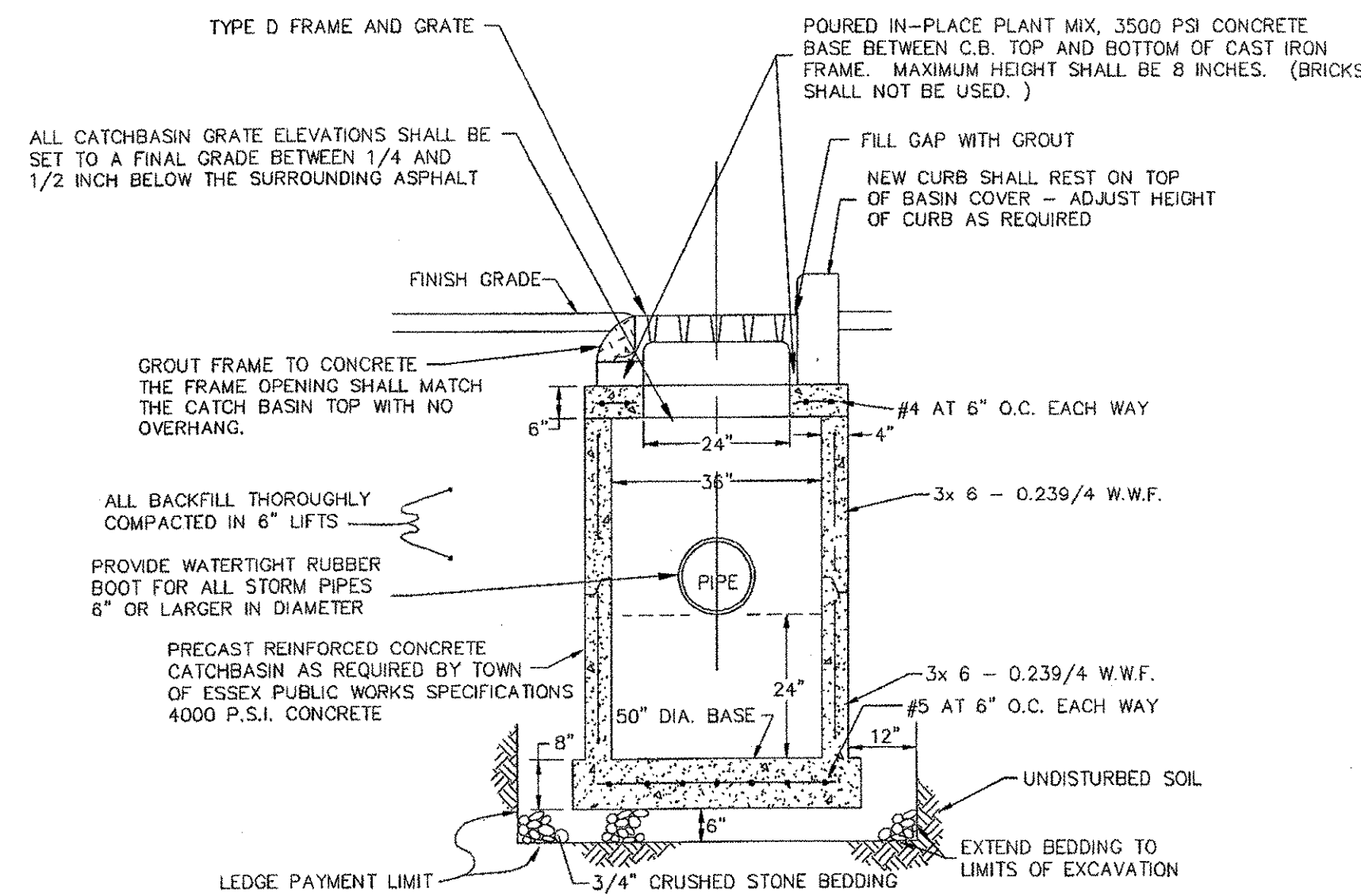
DRIVE/PARKING AREA DETAIL

N.T.S.

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9) TOWN OF ESSEX		proj. no. 02-132
ROUTE 15 IN ESSEX CENTER, VT		survey L&D/OTHERS
DETAILS & SPECIFICATIONS		design DLH/LAL
		drawn DB
		checked LAL/DLH
		date 01-24-03
		scale
		AS NOTED sht. no.
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 (802) 878-4450		3



TYPICAL PRECAST STORM MANHOLE
N.T.S.



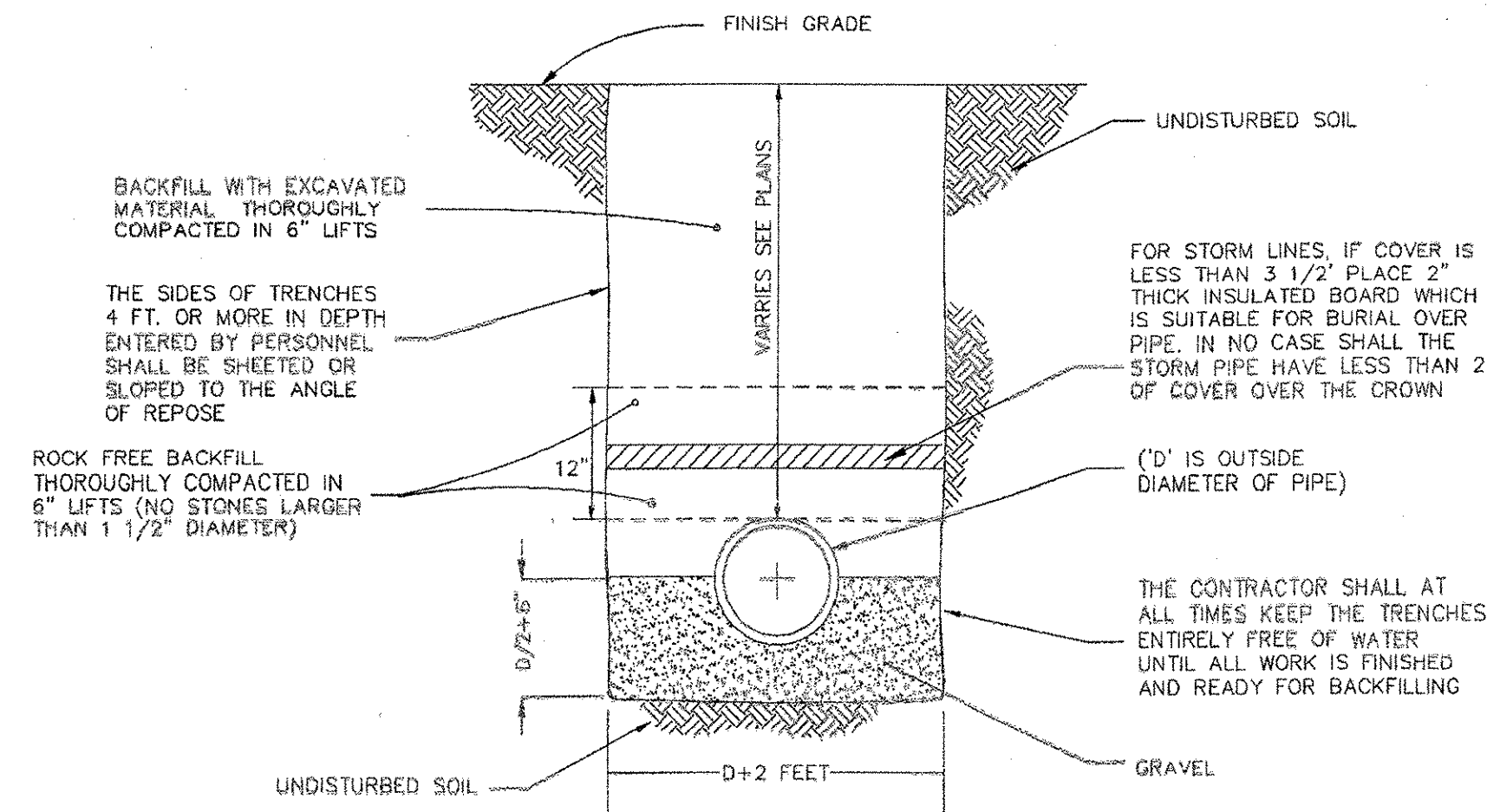
PRECAST CATCH BASIN (TYPE I)
N.T.S.

TYPE	CATCH BASIN DIAMETER	LARGEST PIPE DIA. ALLOWED	SIDEWALL THICKNESS	CONCRETE COVER THICKNESS	BASE DIAMETER
I	36"	18"	4"	6"	50"
II	48"	30"	5"	10"	72"
III	60"	36"	6"	12"	84"
IV	72"	48"	7"	18"	96"

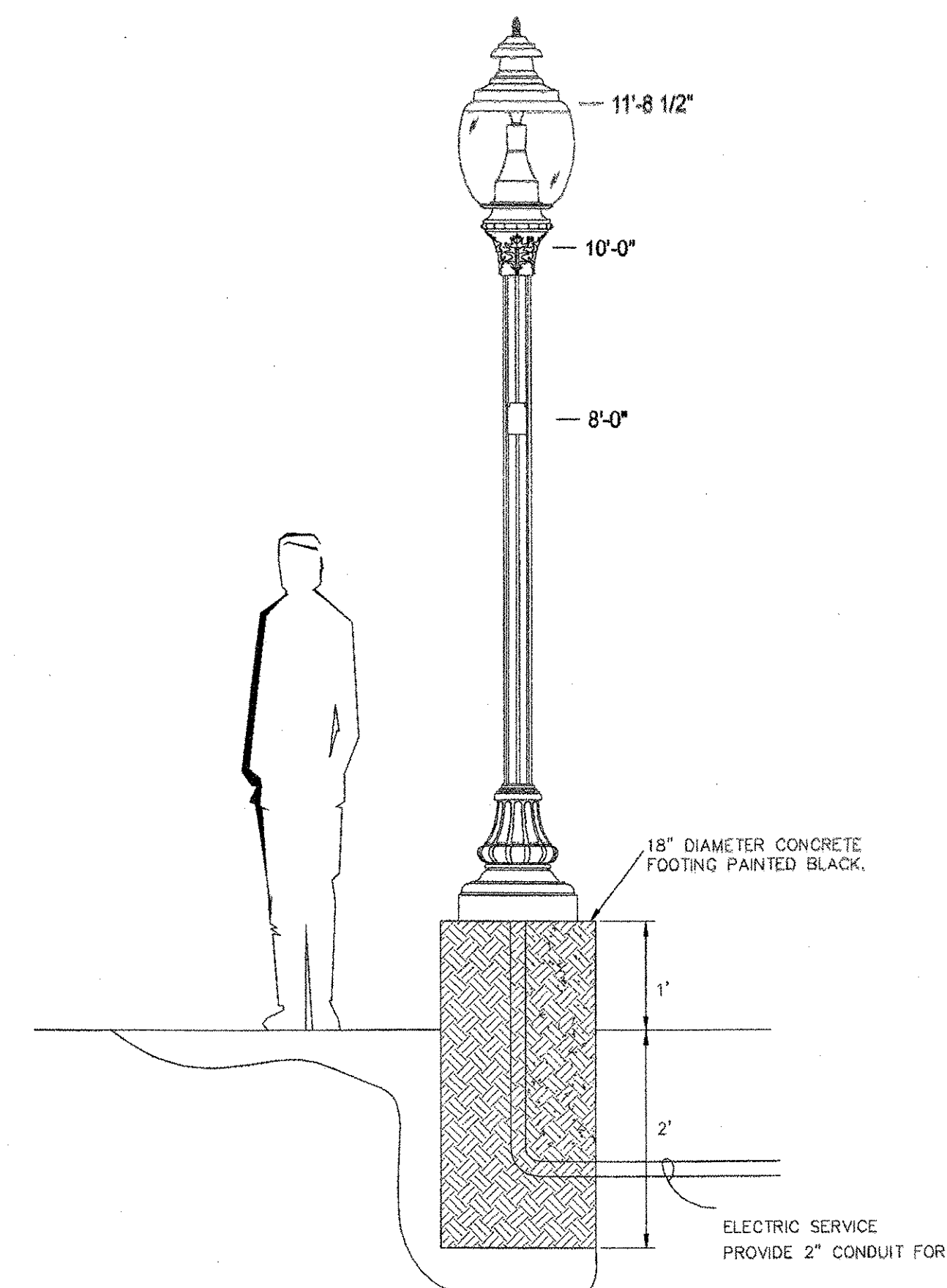
* CATCH BASIN TYPE MAY BE LARGER THAN SHOWN ON THIS TABLE WITH MULTIPLE PIPES IN ONE BASIN.

NOTE:

THE NEW CURB INLETS AT STATION 8+93 AND STATION 15+84 SHALL BE NEENAH R-3303 OR APPROVED EQUAL.



TYPICAL STORM TRENCH
N.T.S.



NOTE:

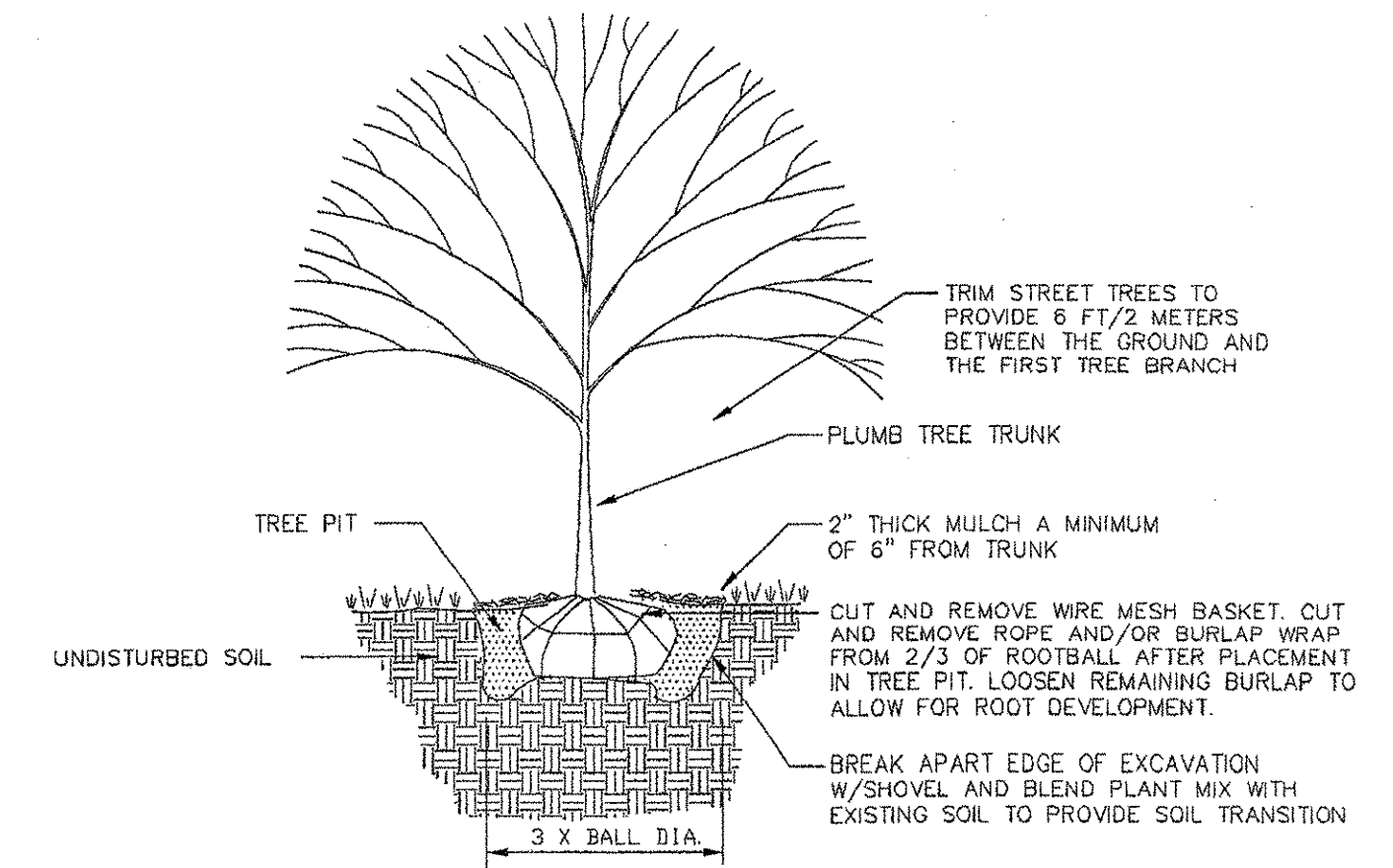
- Light Fixture to be LUMEC Traditional Globe Series, 10' Mounting Height, 100 Watt Metal Halide.
- LUMEC Fixture Order Number: L50-100MH-PC-FC-SE3-QTA/120-SFO-FN8-HS-BKTX, RA41-10-GF1-BKTX.

STREET LIGHT
N.T.S.

LAMP	LUMINAIRE	OPTICAL SYSTEM	MOUNTING & CONFIGURATION	POLE	HEIGHT	FINISH	OPTIONS
100 WATT MH	L50-PCFC	SEC	SFO-1	RA43-B	12'	TX. BLACK	FN8
100 WATT MH	L50-PCFC	SEC	SFO-1	RA43-B	12'	TX. BLACK	FN8, RCO

LIGHT STATISTICS:
MAXIMUM = 2.32
MINIMUM = 0.07
AVERAGE = 0.60
UNIFORMITY RATIO = 8.57

FN8 = DECORATIVE FINISH
RCO = REAR CUT-OFF



NOTES:

- EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.
- STAKING REQUIRED ONLY IN SITUATIONS WHERE TREES WILL BE SUBJECTED TO WINDY CONDITIONS AS DETERMINED BY THE PROJECT LANDSCAPE ARCHITECT. STAKES SHALL BE REMOVED BY THE CONTRACTOR AT THE END OF THE WARRANTY PERIOD.
- TREES SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER PLANTING.
- EXAMINE ENTIRE TREE AND REMOVE ALL NURSERY TAGS, TREE WRAP, ROPE, STRING AND SURVEYOR TAPE PRIOR TO PLANTING TO PREVENT GIRDLING.
- THERE SHALL BE NO WATERING BERM INSTALLED AROUND TREES.
- PLANT MIX SHALL CONSIST OF THE FOLLOWING RATIO: 3 PARTS EXISTING SOIL, 1 PART TOPSOIL.
- TREE PIT TO BE 3 TIMES AS WIDE AS ROOT BALL.
- PRUNE ONLY DEAD OR CRUSHED ROOTS AND DEAD OR INJURED BRANCHES.

TREE PLANTING DETAIL
N.T.S.

URBAN MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
37.5	45	CREeping RED FESCUE
31.25	37.5	KENTUCKY BLUEGRASS
31.25	37.5	WINTER HARDY, PERENNIAL RYE
100	120 # LIVE SEED PER ACRE	

LANDSCAPING SPECIFICATIONS

ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEEDING AND MULCHING PRIOR TO SEPTEMBER 15 OF EACH YEAR. ANY DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED WITHIN 15 DAYS. ANY WORK PERFORMED AFTER OCTOBER 15 OF EACH YEAR SHALL BE STABILIZED WITH MULCH OR NETTING SUFFICIENT TO PREVENT EROSION AND SHALL BE IMMEDIATELY SEEDED AND REMULCHED AS SOON AS WEATHER PERMITS IN THE SPRING. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4\"/>

- SEED MIXTURE SHALL BE URBAN MIX CONFORMING TO THE TABLE SHOWN ON THE PLANS, FOR SEEDING BETWEEN SEPTEMBER 1 AND NOVEMBER 1, WINTER RYE SHALL BE USED AT AN APPLICATION RATE OF 100 POUNDS PER ACRE.
- FERTILIZER SHALL BE STANDARD COMMERCIAL GRADE CONFORMING TO THE STATE FERTILIZER LAW AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. DRY FERTILIZER, IF USED, SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. LIQUID FERTILIZER, IF USED, SHALL BE APPLIED IN A 1-2-1 RATIO WITH THE MINIMUM RATE TO INCLUDE 100 POUNDS OF NITROGEN, 200 POUNDS OF PHOSPHATE, AND 100 POUNDS OF POTASH PER ACRE.
- LIMESTONE SHALL CONFORM TO ALL STATE AND FEDERAL REGULATIONS AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. THE LIMESTONE SHALL BE APPLIED AT A RATE OF TWO TONS PER ACRE OR AS DIRECTED.
- WITHIN 24 HOURS OF APPLICATION OF FERTILIZER, LIME, AND SEED, THE SURFACE SHALL BE MULCHED WITH A HAY MULCH. MULCH SHALL BE SPREAD UNIFORMLY OVER THE AREA AT A RATE OF TWO TONS PER ACRE OR AS ORDERED BY THE ENGINEER.

GENERAL STORM SPECIFICATIONS

- STORM SEWER PIPES SHALL BE OF THE SIZE AND TYPE INDICATED ON THE PLANS. PVC PIPE SHALL BE SDR 35 CONFORMING TO ASTM D-3034, ASTM-D3212, AND ASTM F-477. CORRUGATED POLYETHYLENE PIPE SHALL CONFORM TO AASHTO M294-90, TYPE S (SMOOTH LINED).

12-19-05	REVISED FOR BIDDERS	BH/DH
10-20-05	REVISED FOR CONTRACT PLANS	BH/DH

REVISIONS

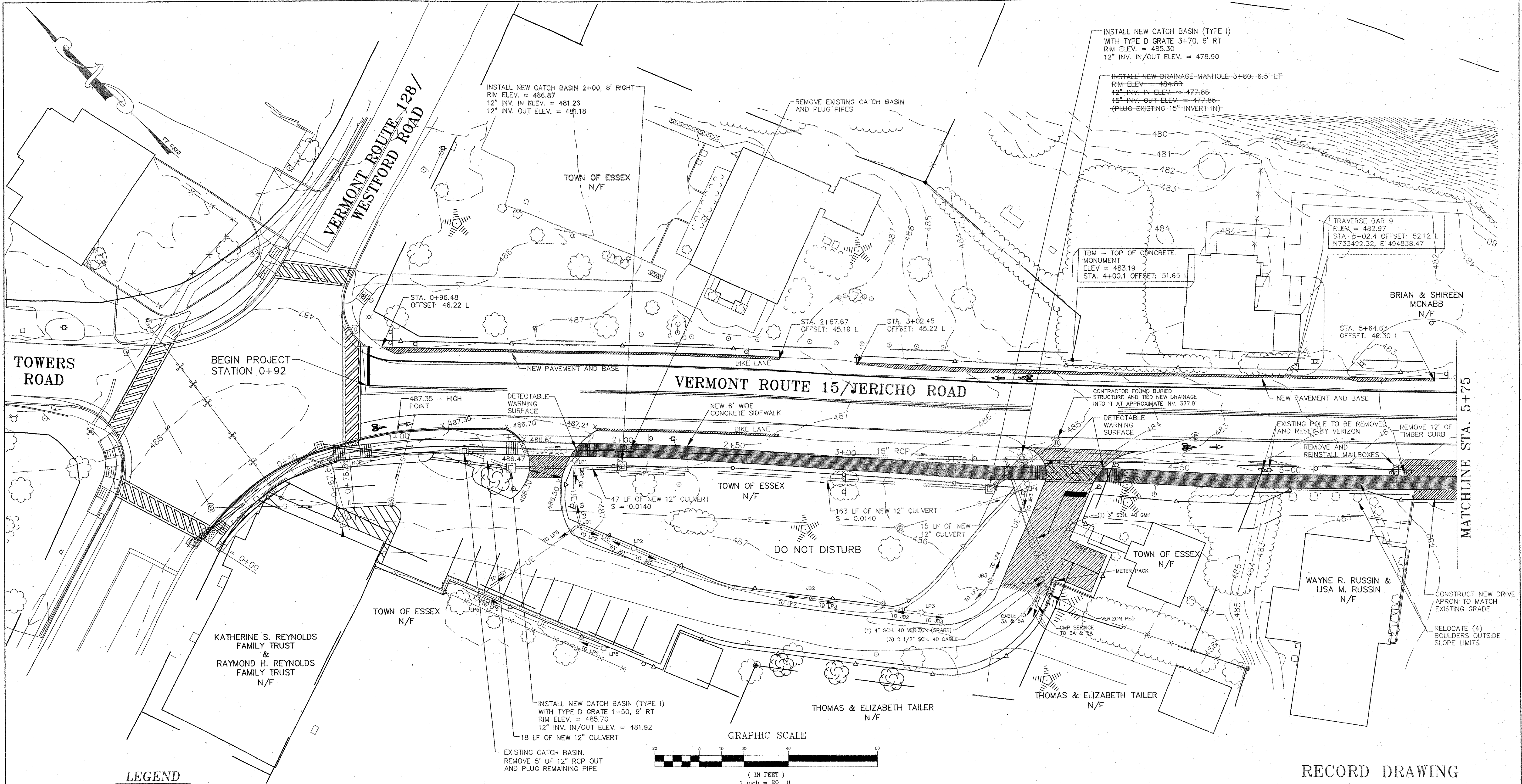
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:

**STP WALK (9)
TOWN OF ESSEX
ROUTE 15 IN ESSEX CENTER, VT**

**DETAILS &
SPECIFICATIONS**

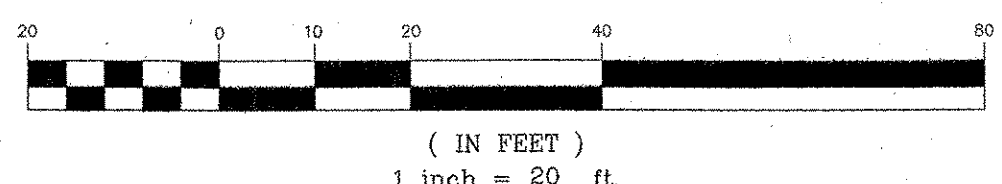
LAMOUREUX & DICKINSON
Consulting Engineers, Inc.
14 Morse Drive
Essex Junction, VT 05452
(802) 878-4450

OF SHEETS
proj. no. 02-132
survey L&D/OTHERS
design DLH/LAL
drawn DB
checked LAL/DLH
date 01-24-03
scale
AS NOTED
sh. no. 4
02132-03



LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- EXISTING LIGHT POLE
- EXISTING HYDRANT
- EXISTING TELEPHONE MANHOLE
- EXISTING SEWER MH W/SEWER PIPE
- EXISTING MAILBOX
- EXISTING CB W/STORMWATER PIPE
- EXISTING SIGNS
- EXISTING WOOD RAIL FENCE
- EXISTING UTILITY POLE & GUY WIRE
- EXISTING TREES
- EXISTING TREE LINE
- EXISTING CONTOUR
- EXISTING WHITE LINE
- EXISTING ROAD CENTERLINE
- EXISTING FACE OF BUILDING
- LIMIT OF CONSTRUCTION
- PROPOSED MAILBOX
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CB W/STORMWATER PIPE
- PROPOSED TREES
- PROPOSED TREE LINE
- PROPOSED WHITE LINE
- PROPOSED ROAD CENTERLINE
- PROPOSED PAVEMENT AND BASE
- PROPOSED SIDEWALK
- PROPOSED JUNCTION BOX, UNDERGROUND ELECTRIC & LIGHT POLE
- PROPERTY LINE
- SLOPE LIMIT (FILL)
- SLOPE LIMIT (CUT)
- FINISH GRADE ELEVATION
- PROPOSED UTILITY POLE



CENTERLINE DATA

TO			
14-07.15	2+22.64	S43°40'14"E	
2+22.64	3+72.63	S41°02'13"E	
3+72.63	3+92.16	S44°54'21"E	
3+92.16	4+69.65	S42°03'26"E	
4+69.65	5+87.99	S44°23'37"E	

NOTE:
 NEW 6' WIDE CONCRETE SIDEWALK AND GRANITE CURB AND RELATED ITEMS FROM STATION 0+92 TO STATION 1+80 AND THE NON-ELECTRICAL WORK SOUTHERLY OF THE LIMITS OF CONSTRUCTION ARE TO BE CONSTRUCTED BY OTHERS.

INSTALL NEW CATCH BASIN (TYPE I) WITH TYPE D GRATE 3+70, 6' RT RIM ELEV. = 485.30 12" INV. IN/OUT ELEV. = 478.90

INSTALL NEW DRAINAGE MANHOLE 3+80, 6.5' LT RIM ELEV. = 484.80 12" INV. IN ELEV. = 477.85 15" INV. OUT ELEV. = 477.85 (PLUG EXISTING 15" INVERT IN)

INSTALL NEW CATCH BASIN 2+00, 8' RIGHT RIM ELEV. = 486.87 12" INV. IN ELEV. = 481.26 12" INV. OUT ELEV. = 481.18

INSTALL NEW CATCH BASIN (TYPE I) WITH TYPE D GRATE 1+50, 9' RT RIM ELEV. = 485.70 12" INV. IN/OUT ELEV. = 481.92

18 LF OF NEW 12" CULVERT

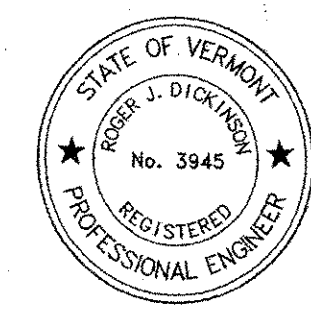
RECORD DRAWING

3-14-07	REVISED FOR RECORD INFORMATION	SA
2-3-06	REVISED CONSTRUCTION AREA	BH/DH
12-19-05	REVISED FOR BIDDERS	BH/DH
10-20-05	REVISED FOR CONTRACT PLANS	BH/DH

THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:

STP WALK (9)
TOWN OF ESSEX
 ROUTE 15 IN ESSEX CENTER, VT

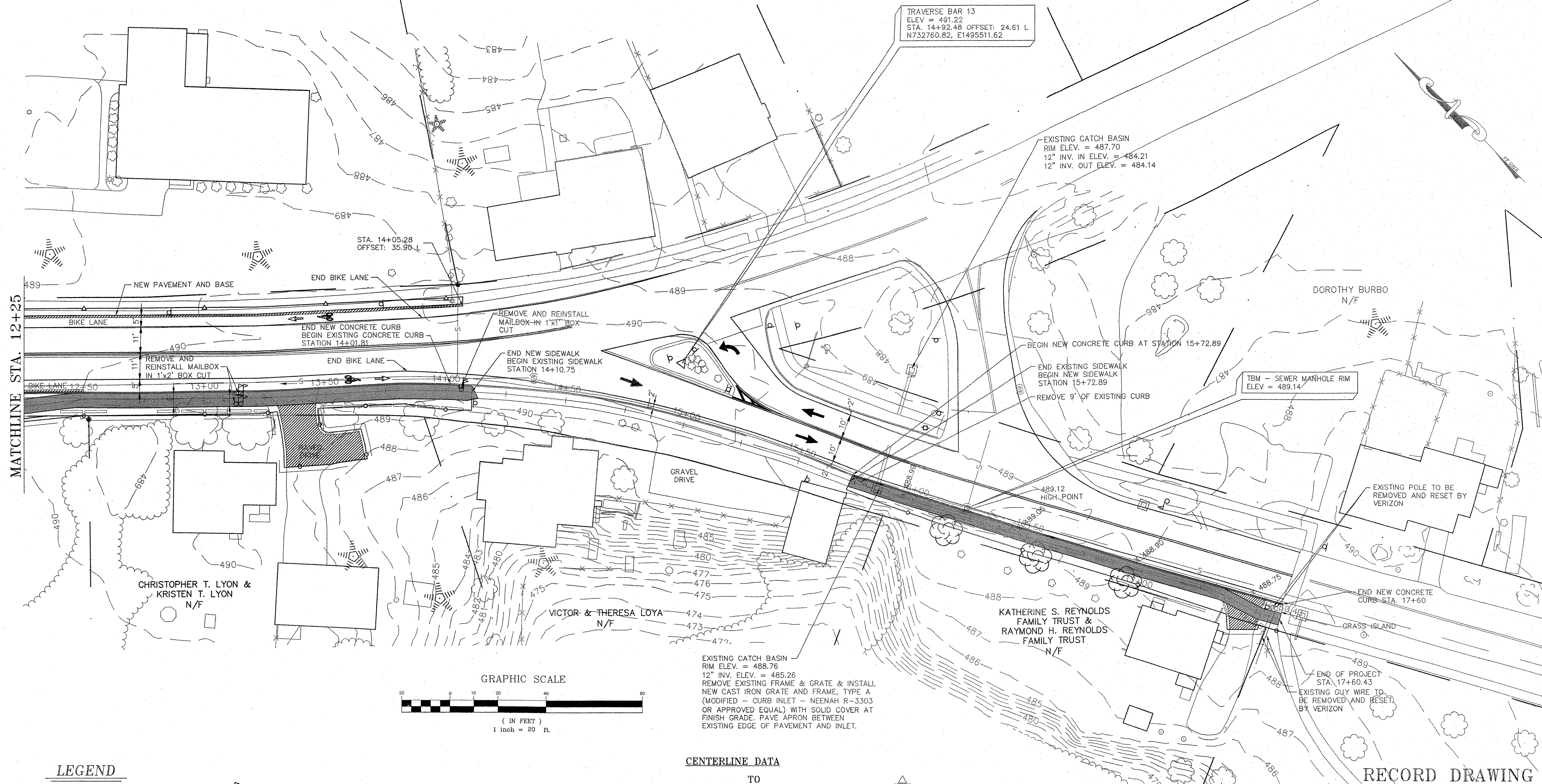
SITE PLAN
 STATION 0+00 TO 5+75



DATUM
 VERTICAL NAVD 1988
 HORIZONTAL NAD 1983

LAMOUREUX & DICKINSON
 Consulting Engineers, Inc.
 14 Morse Drive
 Essex Junction, VT 05452
 Tel. 802-878-4450

OF SHEETS
 02-132
 survey
 L&D/OTHERS
 design
 DLH/LAL
 drawn
 DB
 checked
 LAL/DLH
 date
 03/01/04
 scale
 1" = 20'
 sht. no.
7R
 02132-S1-REC

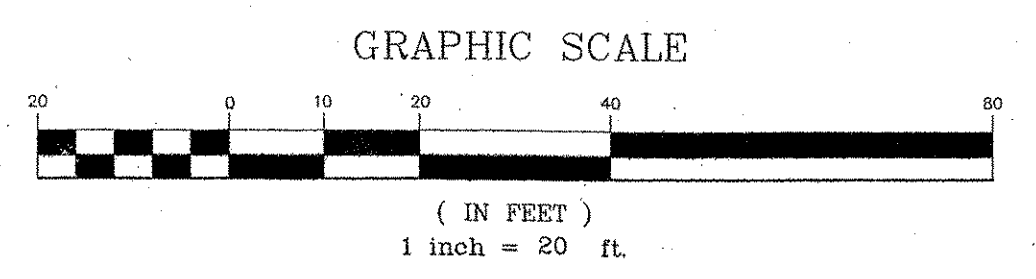


TRAVERSE BAR 13
 ELEV = 491.22
 STA. 14+92.48 OFFSET: 24.61 L
 N732760.82, E1495511.62

EXISTING CATCH BASIN
 RIM ELEV. = 487.70
 12" INV. IN ELEV. = 484.21
 12" INV. OUT ELEV. = 484.14

TBM - SEWER MANHOLE RIM
 ELEV = 489.14

EXISTING CATCH BASIN
 RIM ELEV. = 488.75
 12" INV. ELEV. = 485.28
 REMOVE EXISTING FRAME & GRATE & INSTALL
 NEW CAST IRON GRATE AND FRAME, TYPE A
 (MODIFIED - CURB INLET - NEENAH R-3303
 OR APPROVED EQUAL) WITH SOLID COVER AT
 FINISH GRADE. PAVE APRON BETWEEN
 EXISTING EDGE OF PAVEMENT AND INLET.



MATCHLINE STA. 12+25

RECORD DRAWING

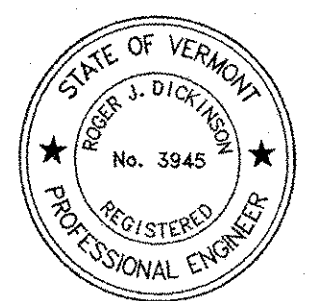
LEGEND

- | | | | |
|---|----------------------------------|-----|-------------------------------|
| ■ | CONCRETE MONUMENT FOUND | ⊕ | PROPOSED MAILBOX |
| ○ | IRON PIN FOUND | ⊙ | PROPOSED DRAINAGE MANHOLE |
| ☆ | EXISTING LIGHT POLE | — — | PROPOSED CB W/STORMWATER PIPE |
| ⊕ | EXISTING HYDRANT | ⊕ | PROPOSED TREES |
| ⊕ | EXISTING TELEPHONE MANHOLE | — — | PROPOSED TREE LINE |
| ⊕ | EXISTING SEWER MH W/SEWER PIPE | — — | PROPOSED WHITE LINE |
| ⊕ | EXISTING MAILBOX | — — | PROPOSED ROAD CENTERLINE |
| ⊕ | EXISTING CB W/STORMWATER PIPE | — — | PROPOSED PAVEMENT AND BASE |
| ⊕ | EXISTING SIGNS | — — | PROPOSED SIDEWALK |
| ⊕ | EXISTING WOOD RAIL FENCE | — — | PROPERTY LINE |
| ⊕ | EXISTING UTILITY POLE & GUY WIRE | — — | SLOPE LIMIT (FILL) |
| ⊕ | EXISTING TREES | — — | SLOPE LIMIT (CUT) |
| ⊕ | EXISTING TREE LINE | — — | FINISH GRADE ELEVATION |
| ⊕ | EXISTING CONTOUR | — — | PROPOSED UTILITY POLE |
| ⊕ | EXISTING WHITE LINE | — — | |
| ⊕ | EXISTING ROAD CENTERLINE | | |
| ⊕ | EXISTING FACE OF BUILDING | | |
| ⊕ | LIMIT OF CONSTRUCTION | | |

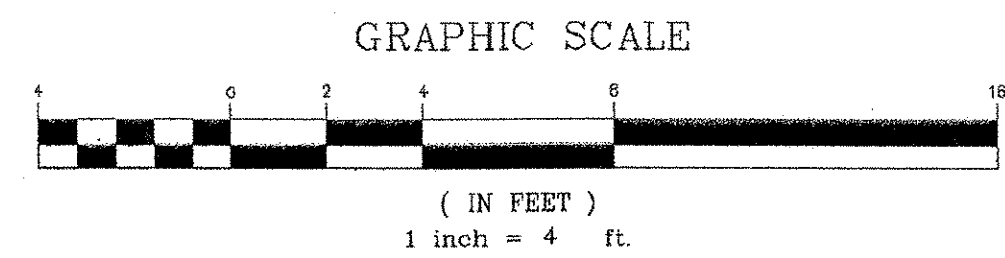
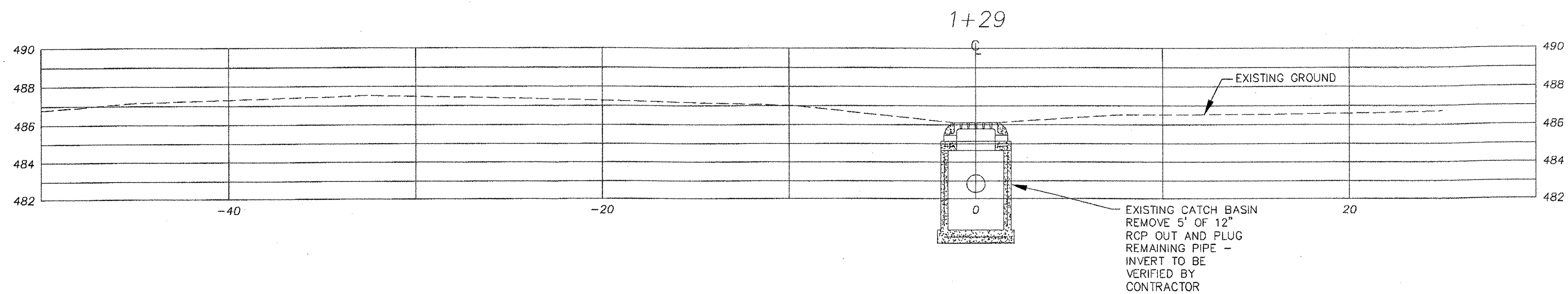
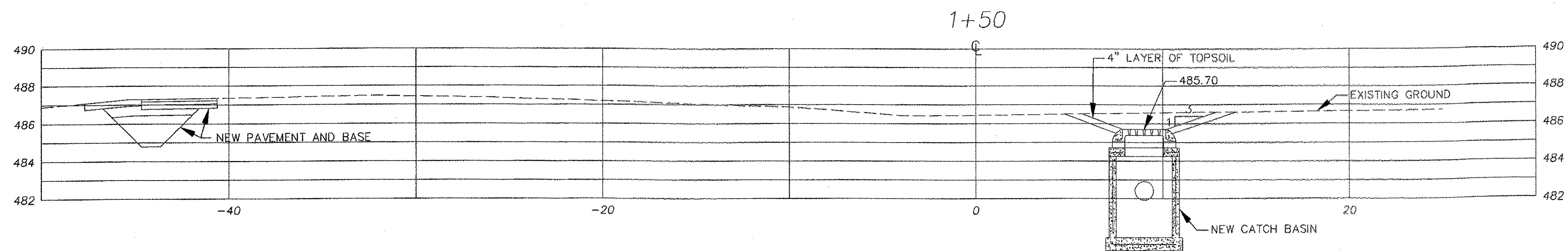
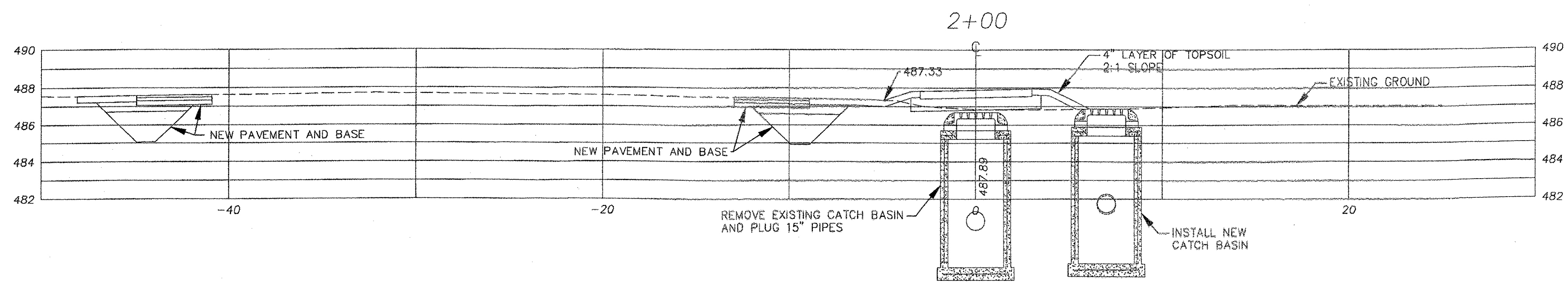
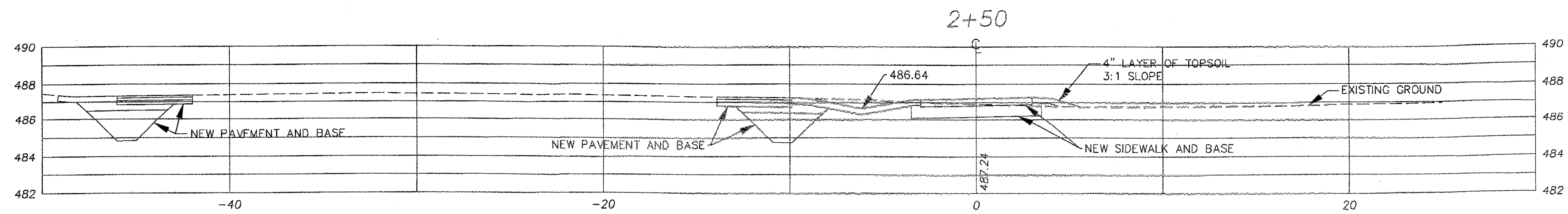
CENTERLINE DATA

TO		
11+99.95	12+49.98	S51°33'35"E
12+49.98	12+72.77	S44°41'19"E
12+72.77	12+81.42	S45°04'20"E
12+81.42	13+01.68	S45°50'31"E
13+01.68	13+21.44	S45°13'54"E
13+21.44	13+35.23	S47°09'02"E
13+35.23	13+47.43	S48°18'05"E
13+47.43	13+67.42	S47°56'04"E
13+67.42	13+80.44	S47°59'26"E
13+80.44	13+90.99	S45°00'52"E
13+90.99	14+01.73	S44°03'22"E
14+01.73	14+03.51	S42°21'38"E
14+03.51	14+05.54	S42°21'25"E
14+05.54	14+08.57	S42°21'43"E
14+08.57	14+10.75	S42°08'04"E
14+10.75		
EXISTING SIDEWALK		
15+72.89	15+75.43	S23°28'14"E
15+75.43	16+99.39	S27°18'18"E
16+99.39	17+14.98	S29°09'25"E
17+14.98	17+29.45	S29°14'05"E
17+29.45	17+34.21	S28°27'57"E
17+34.21	17+51.95	S17°38'29"E
17+51.95	17+56.14	S28°37'56"E
17+56.14	17+60.43	S29°36'56"E

DATUM
 VERTICAL NAVD 1988
 HORIZONTAL NAD 1983

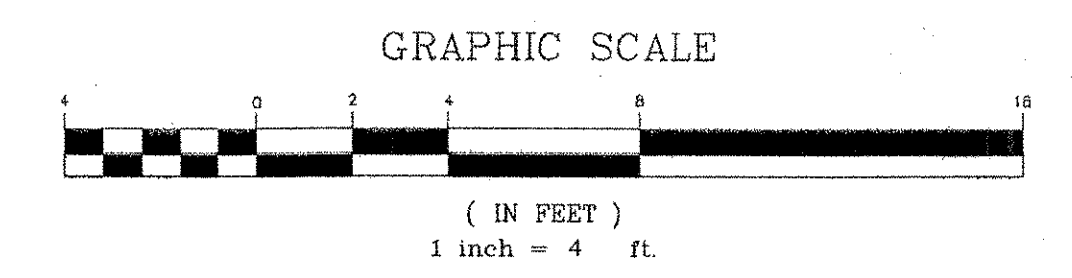
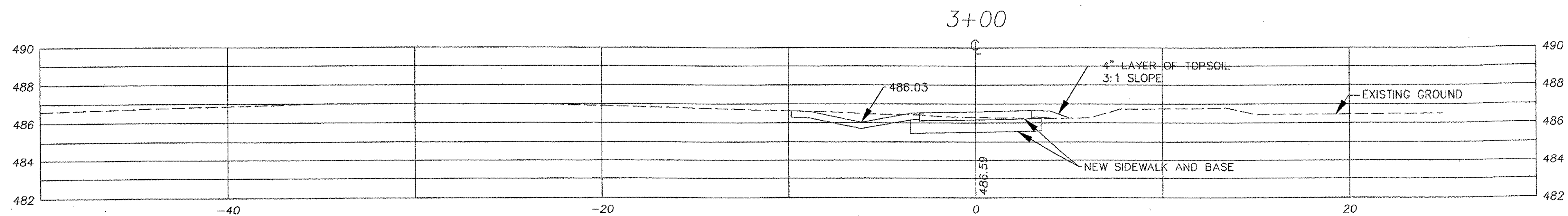
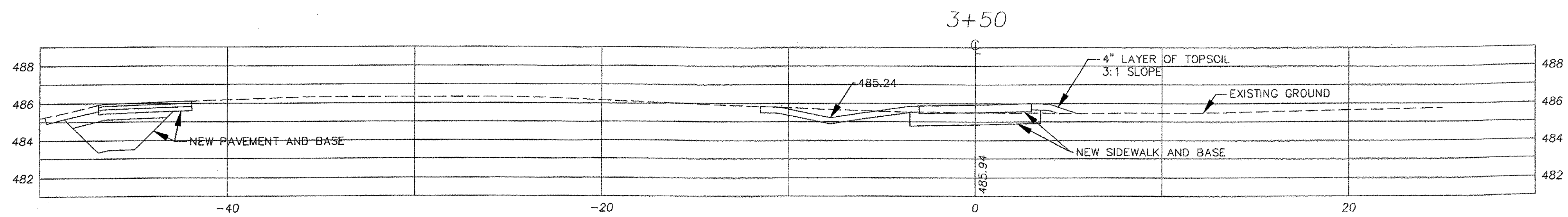
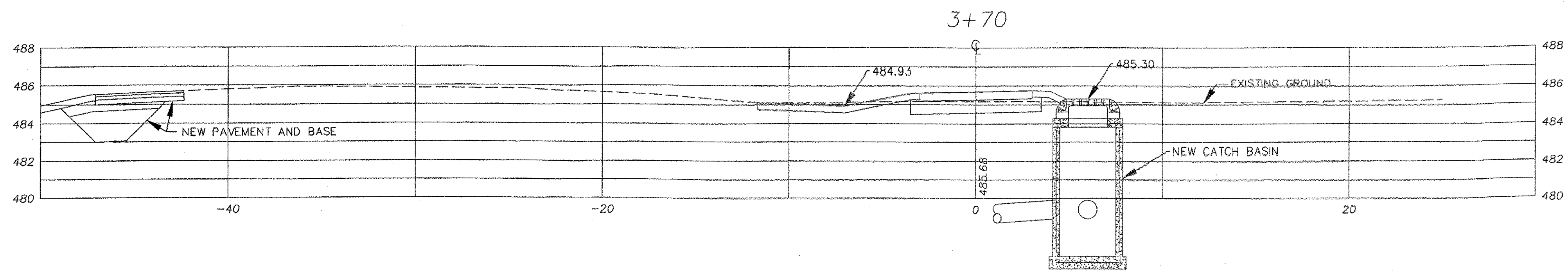
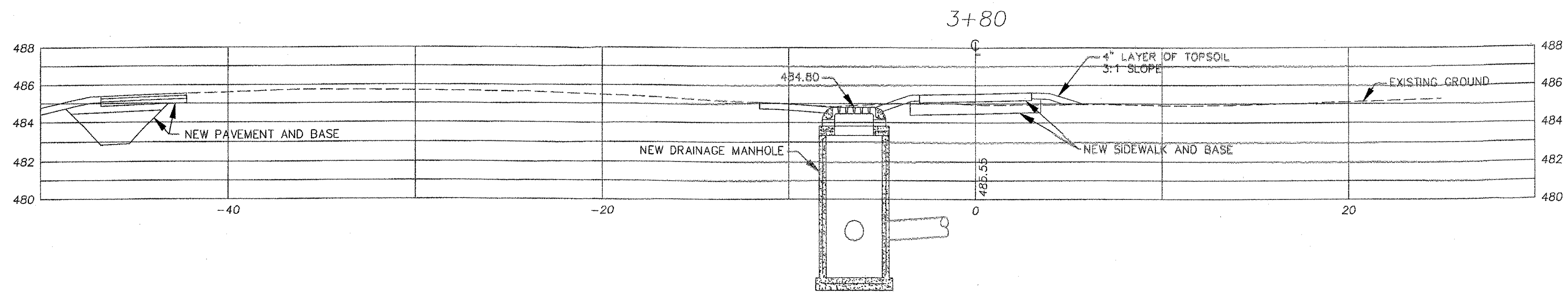
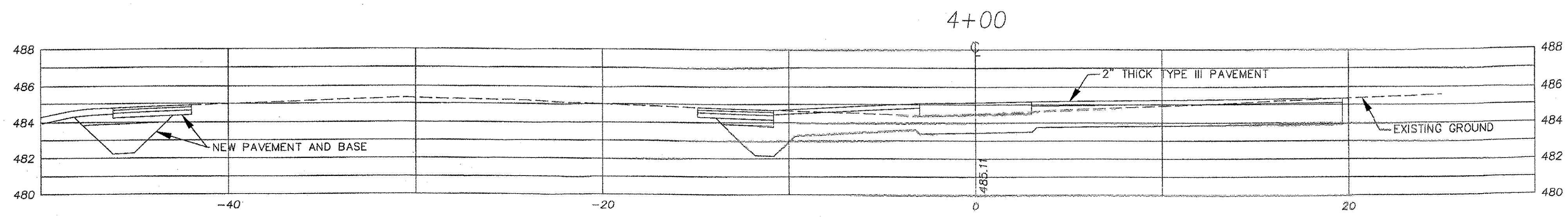


3-14-07	REVISED FOR RECORD INFORMATION	SA
12-19-05	REVISED FOR BIDDERS	BH/DH
10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		# OF SHEETS 02-132
SITE PLAN STATION 12+25 TO 17+60.43		proj. no. 02-132
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 Tel: 802-878-4450		survey L&D/OTHERS design DLH/LAL drawn DB checked LAL/DLH date 03/01/04 scale 1" = 20' sht. no. 9R 02132-53



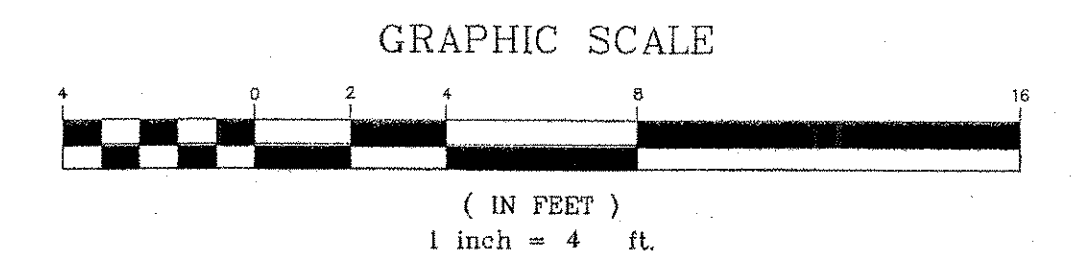
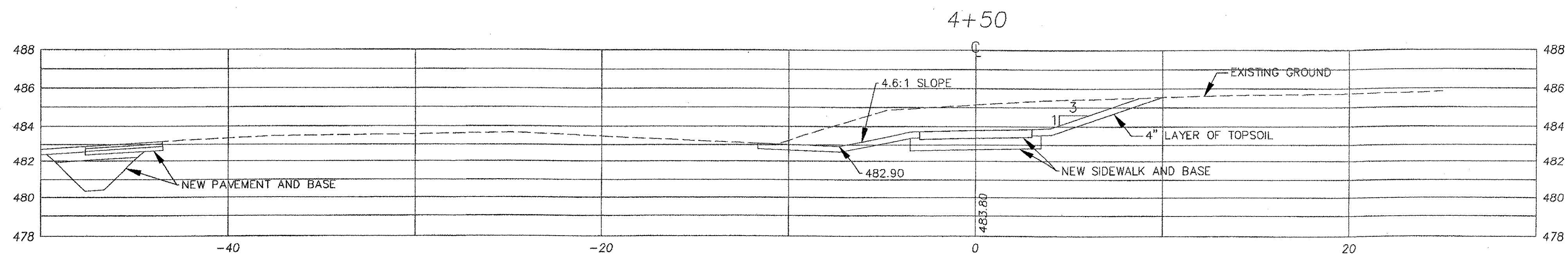
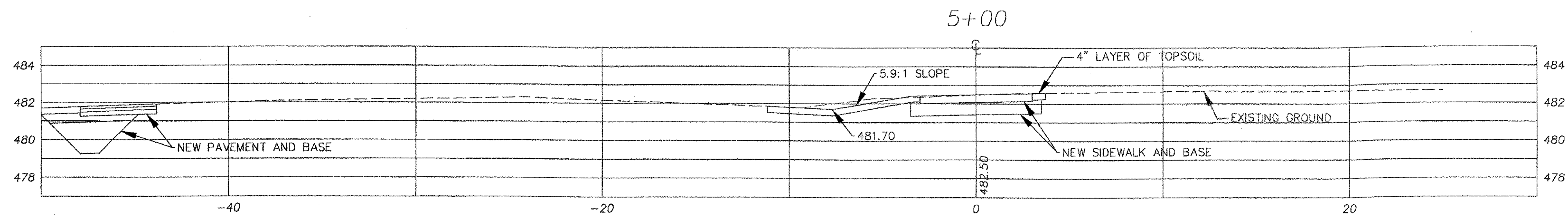
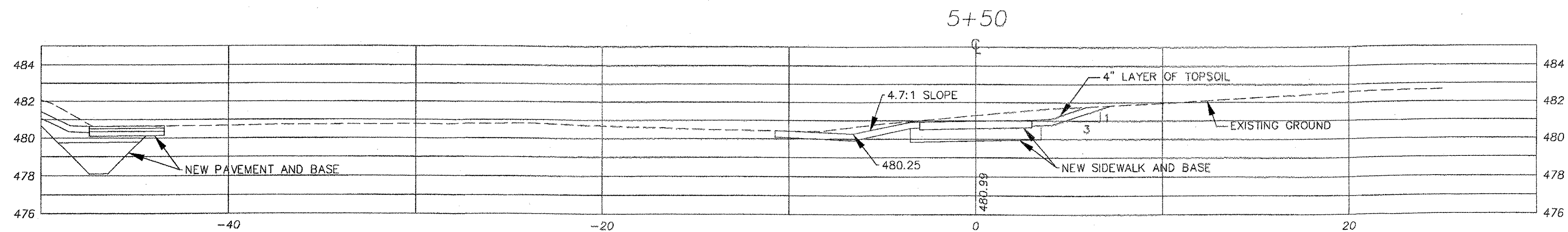
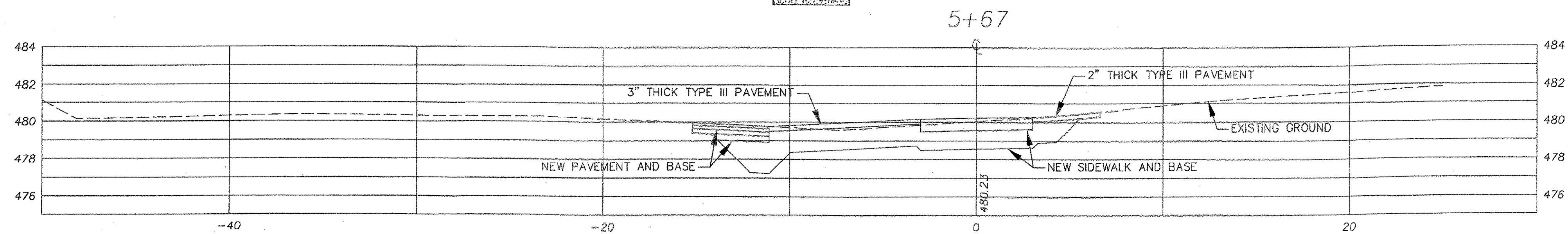
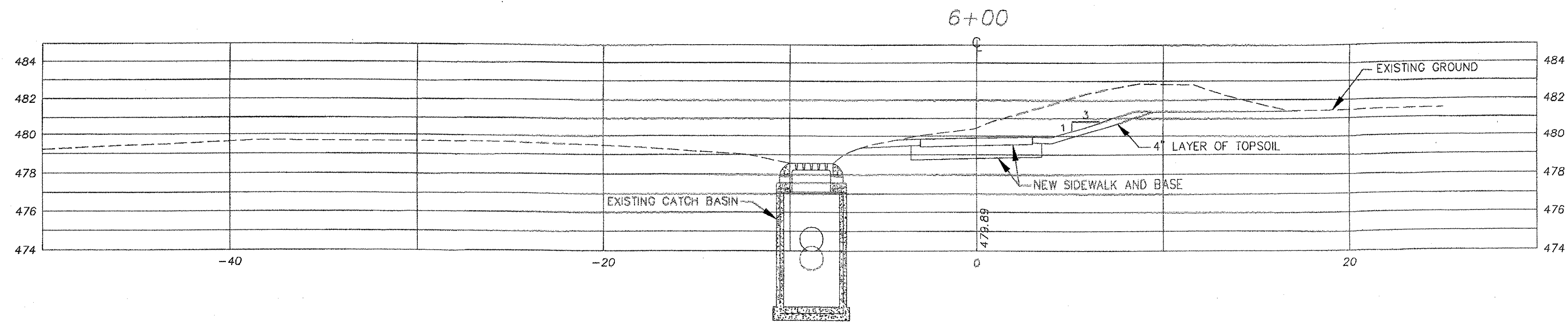
HORIZONTAL SCALE: 1"=4'
VERTICAL SCALE: 1"=4'

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		# OF SHEETS
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		proj. no. 02-132
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		survey L&D/OTHERS
CROSS SECTIONS STATION 1+29 TO 2+50		design DLH/LAL
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 (802) 878-4450		drawn DB
		checked LAL/DLH
		date 01-24-03
		scale 1" = 4'
		sht. no. 10



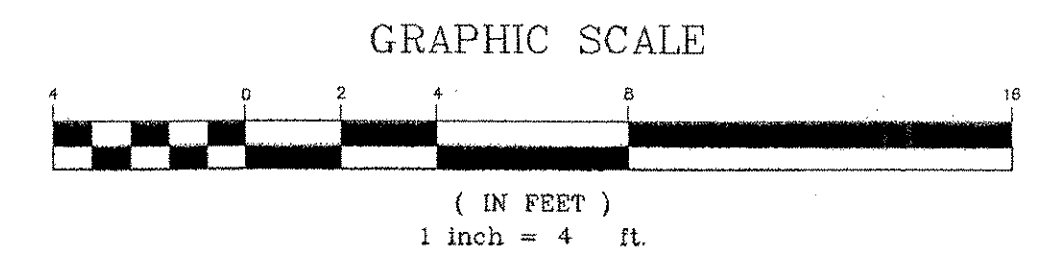
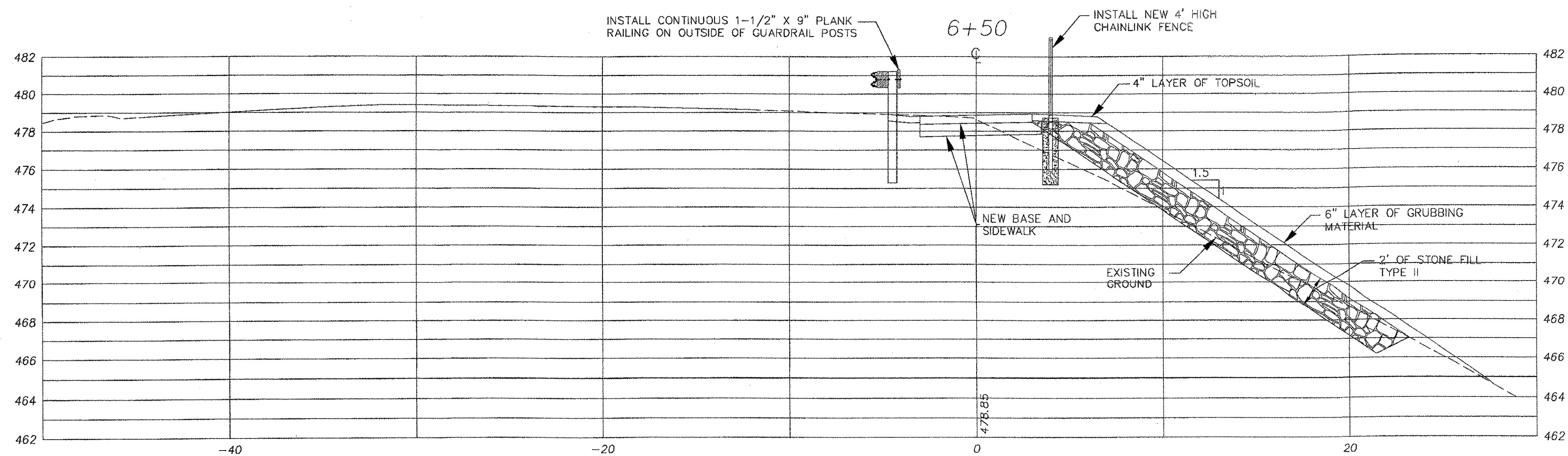
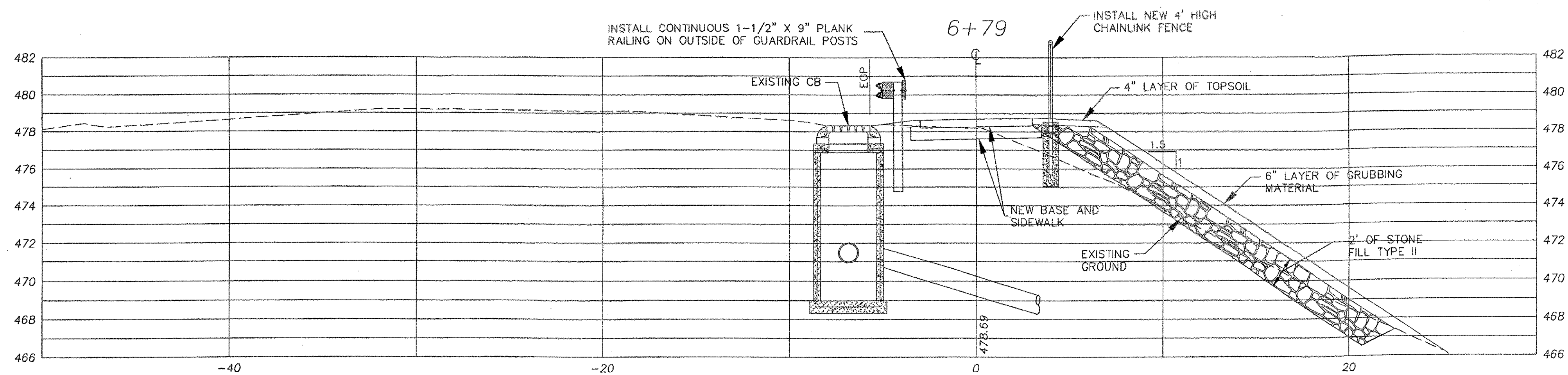
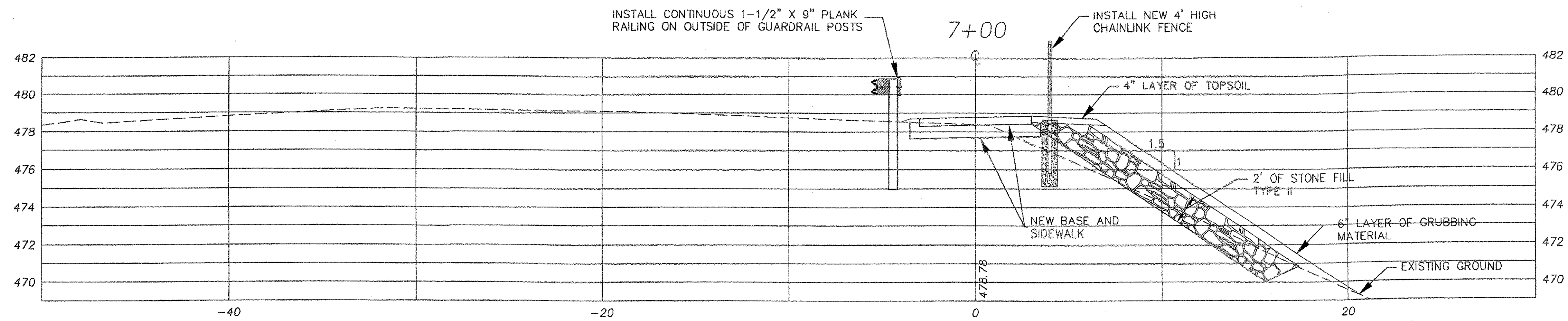
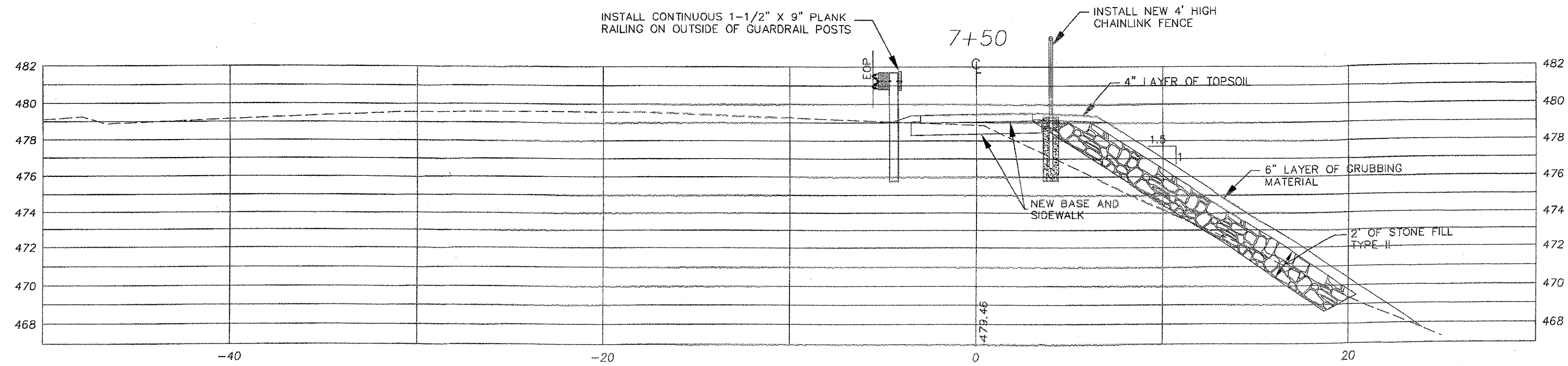
HORIZONTAL SCALE: 1"=4'
VERTICAL SCALE: 1"=4'

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
		survey L&D/OTHERS
CROSS SECTIONS STATION 3+00 TO 4+00		design DLH/LAL
		drawn DB
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 (802) 878-4450		checked LAL/DLH
		gate 01-24-03
scale 1" = 4'		sht. no. 11



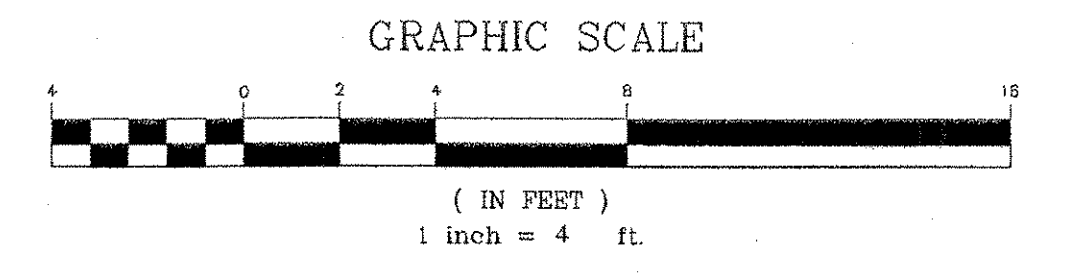
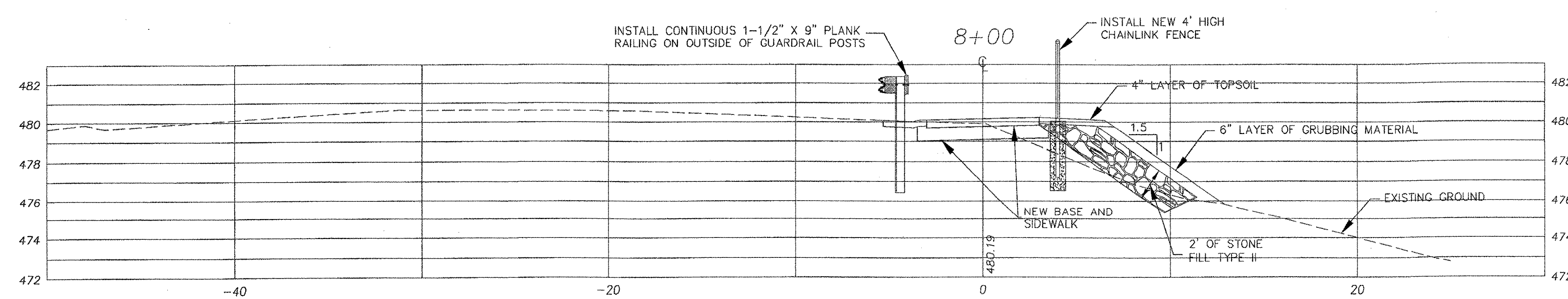
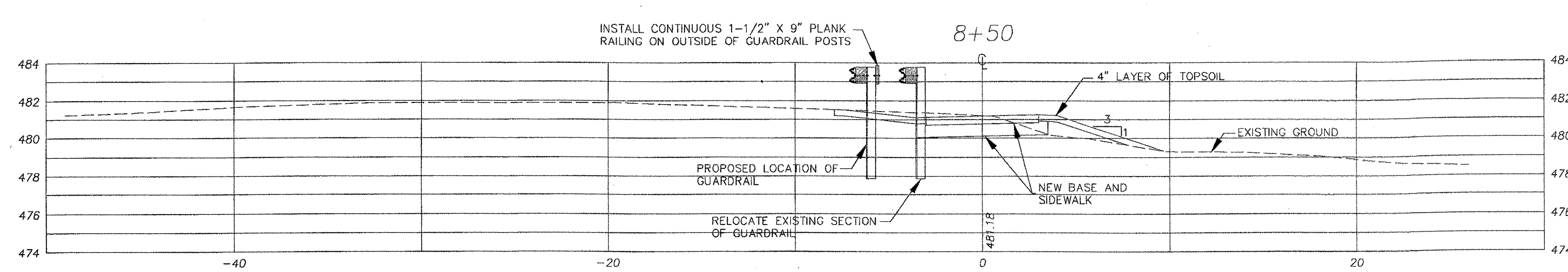
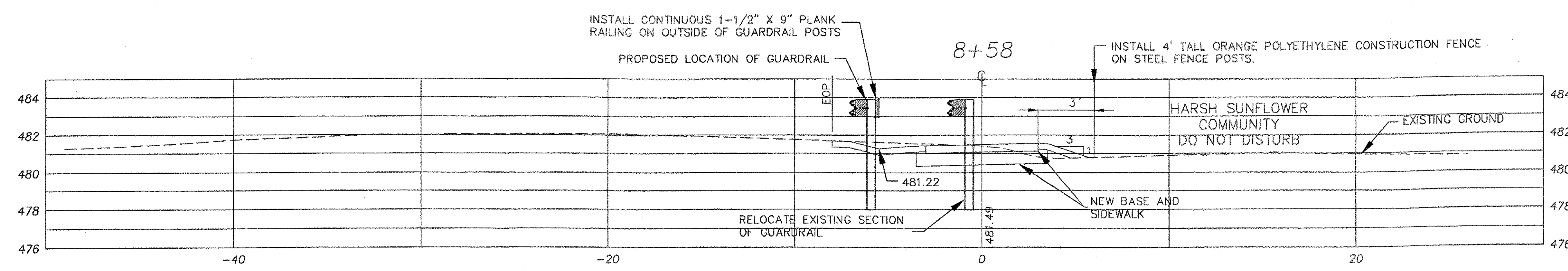
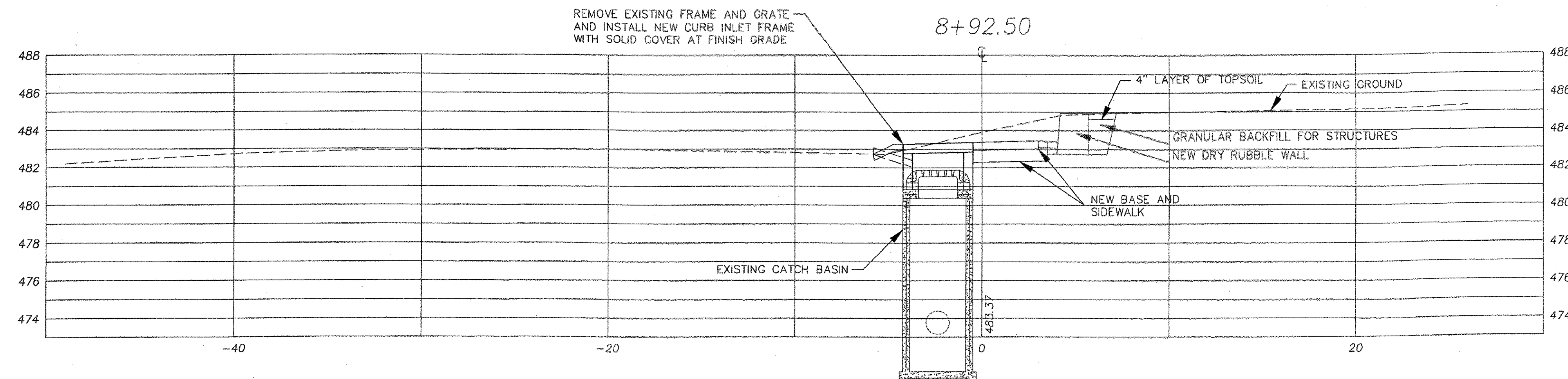
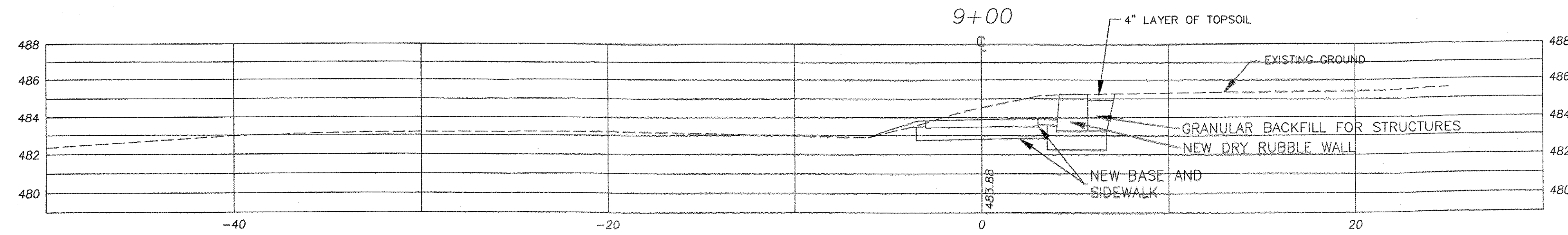
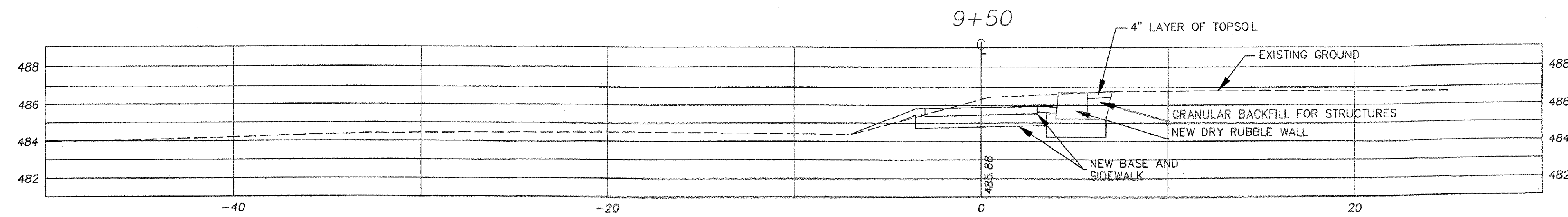
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VERTICAL SCALE: 1"=4'

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9)		proj. no. 02-132
TOWN OF ESSEX		survey L&D/OTHERS
ROUTE 15 IN ESSEX CENTER, VT		design DLH/LAL
CROSS SECTIONS		drawn DB
STATION 4+50 TO 6+00		checked LAL/DLH
		date 01-24-03
		scale 1" = 4'
LAMOREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 (802) 878-4450		sht. no. 12



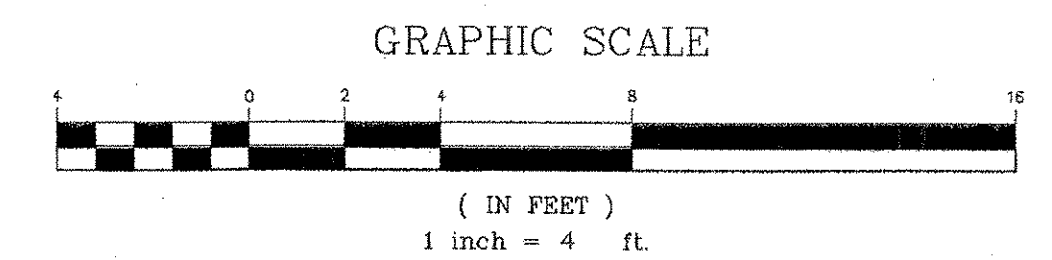
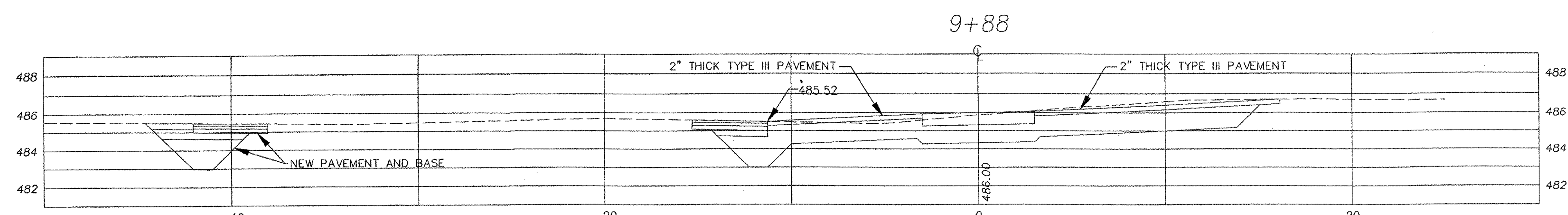
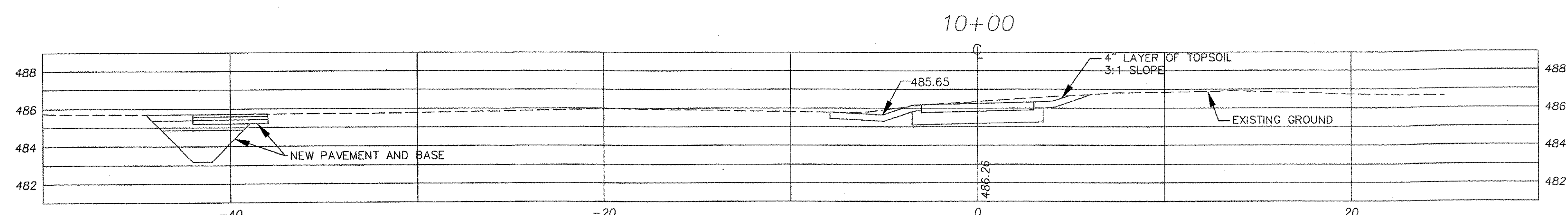
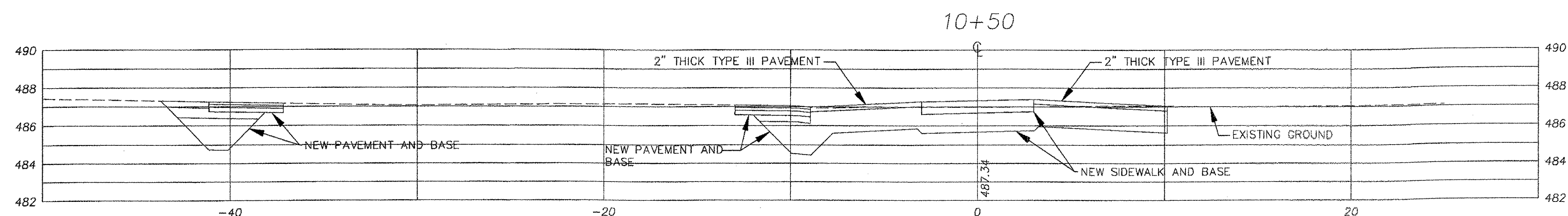
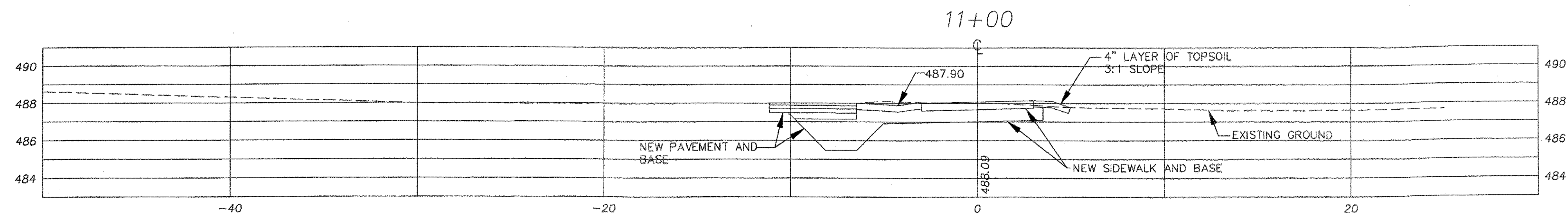
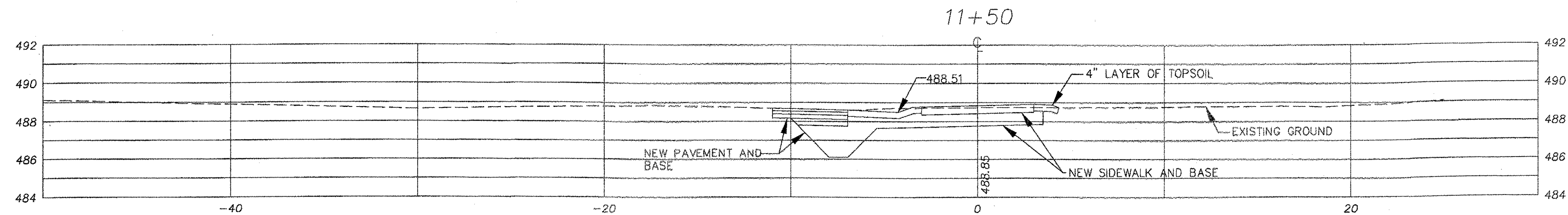
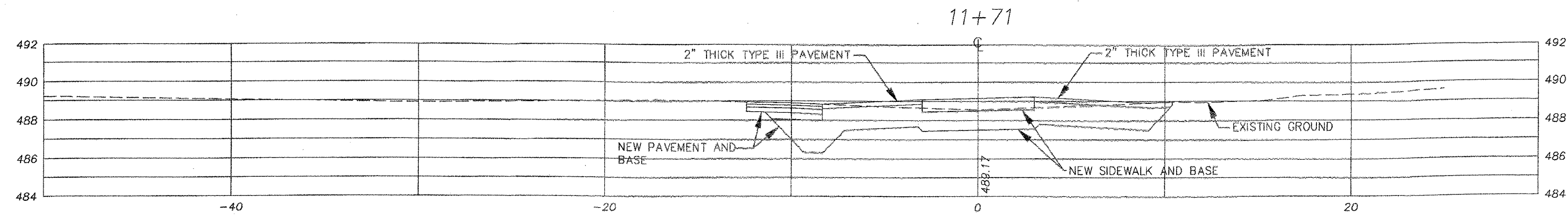
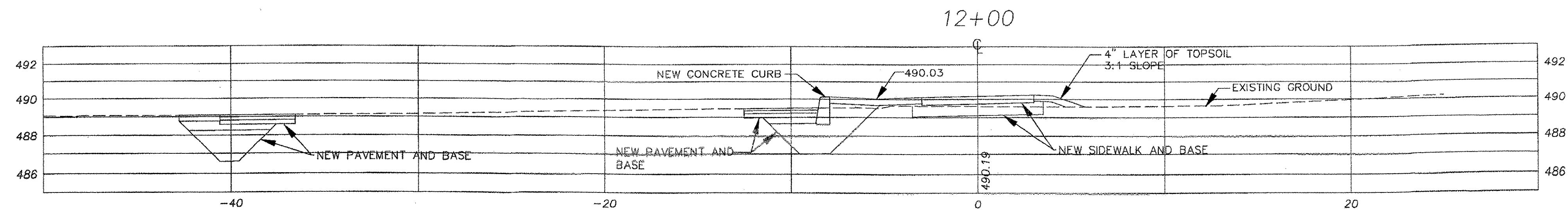
HORIZONTAL SCALE: 1"=4'
VERTICAL SCALE: 1"=4'

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
		survey L&D/OTHERS
		design DLH/LAL
		drawn DB
		checked LAL/DLH
		date 01-24-03
		scale 1" = 4'
		sht. no. 13



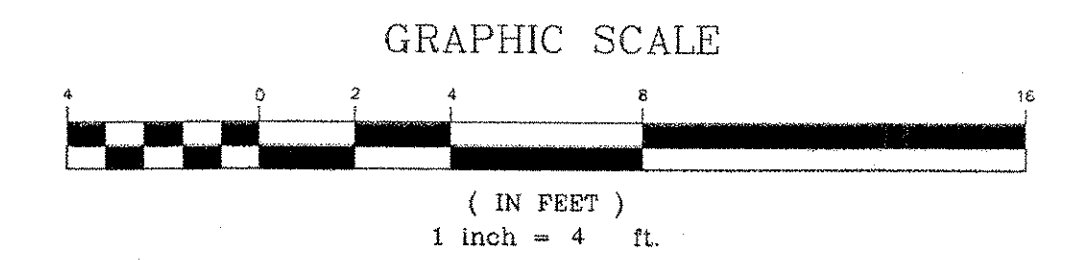
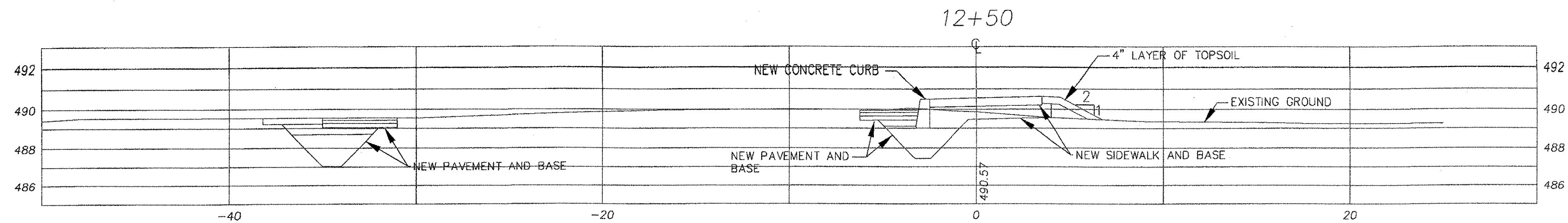
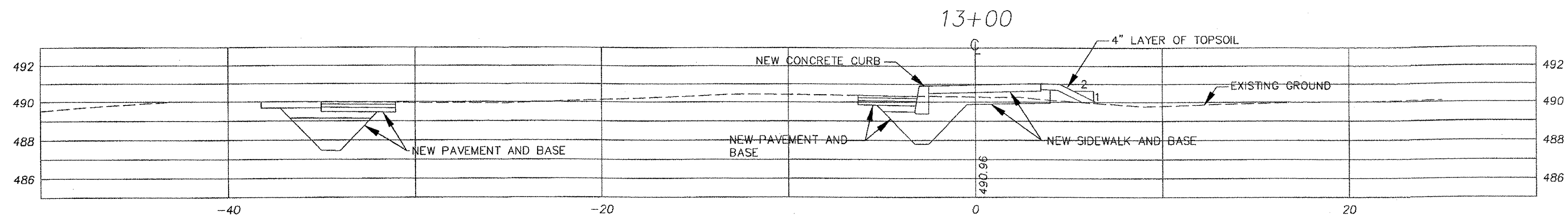
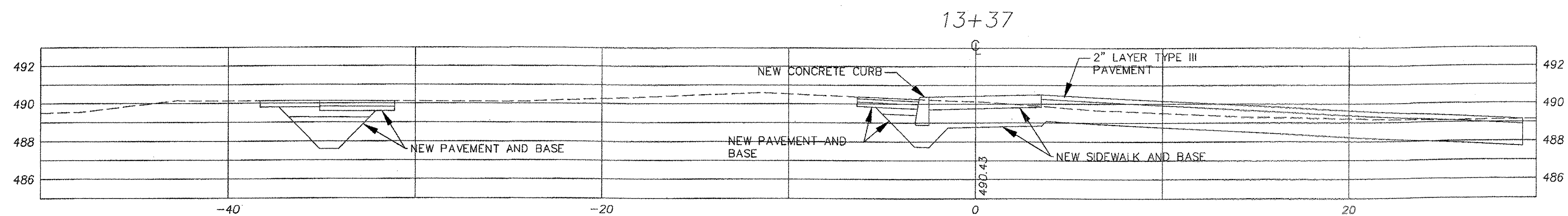
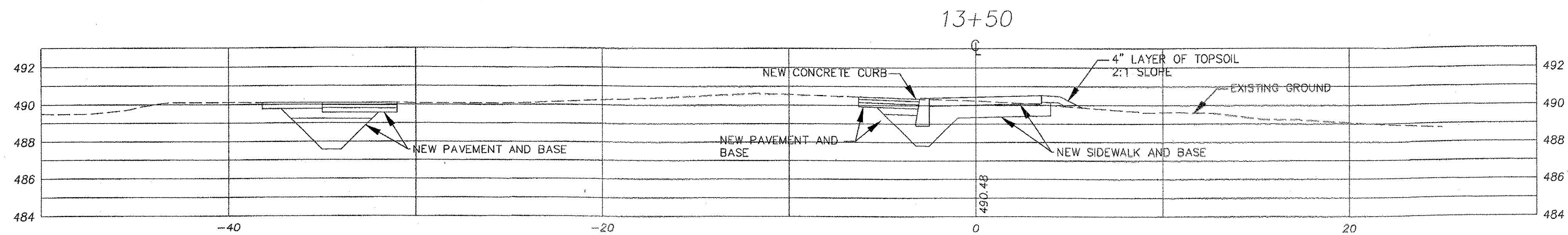
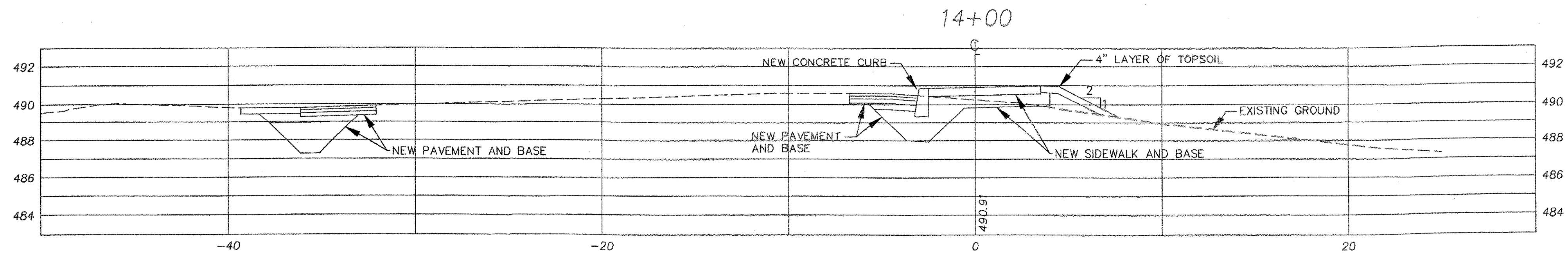
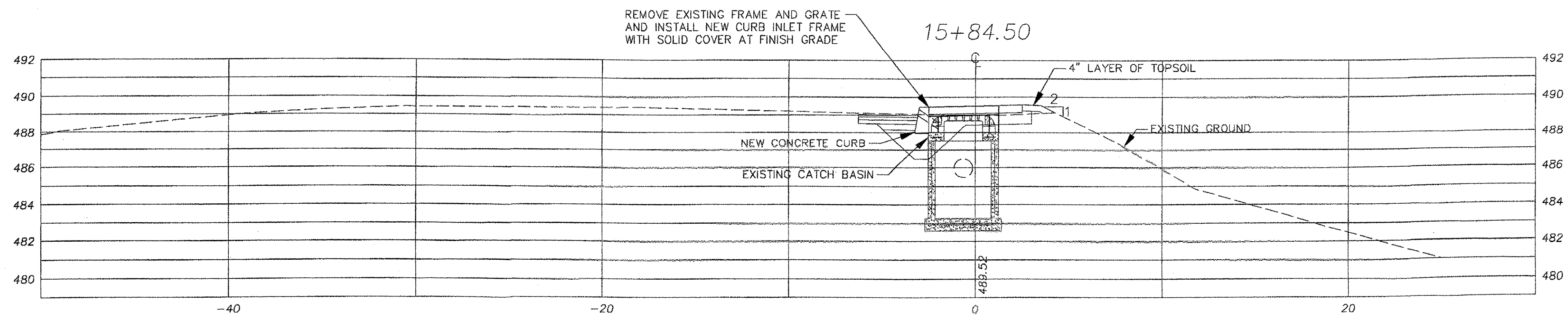
HORIZONTAL SCALE: 1"=4'
VERTICAL SCALE: 1"=4'

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9)		proj. no. 02-132
TOWN OF ESSEX		survey
ROUTE 15 IN ESSEX CENTER, VT		L&D/OTHERS
CROSS SECTIONS		design DLH/LAL
STATION 8+00 TO 9+50		drown DB
		checked LAL/DLH
		date 01-24-03
		scale 1" = 4'
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05462 (802) 878-4450		sht. no. 14



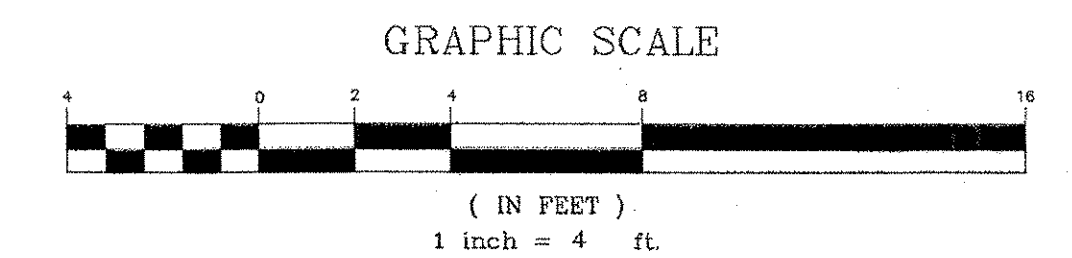
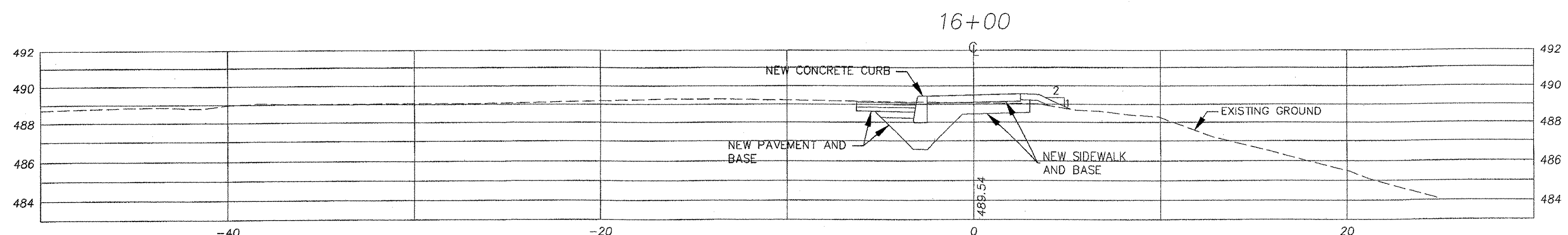
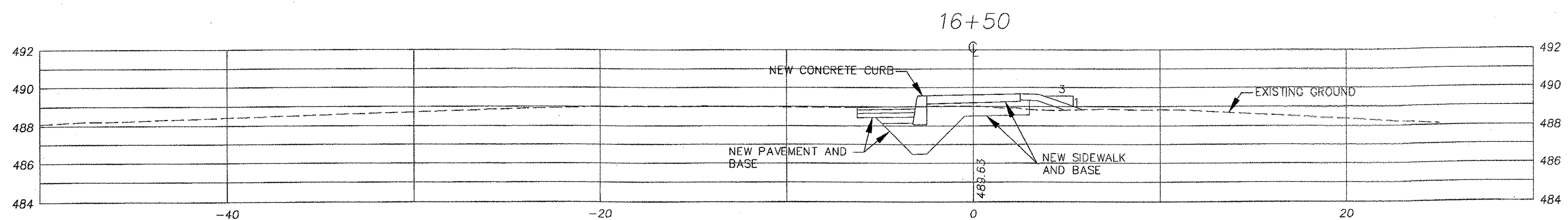
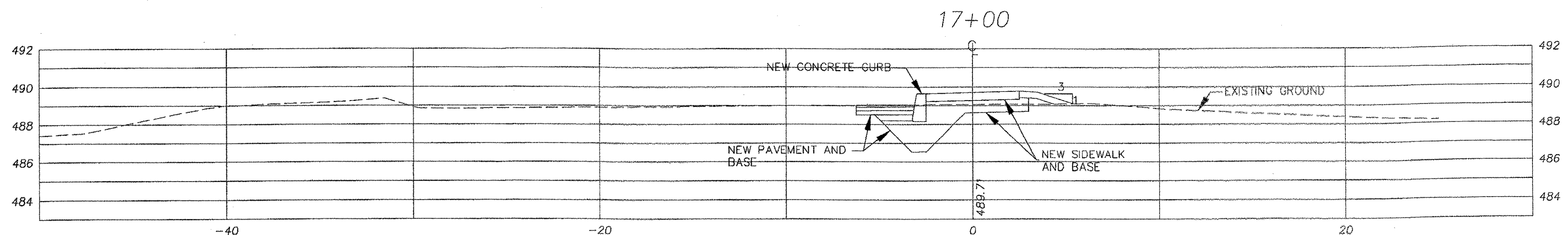
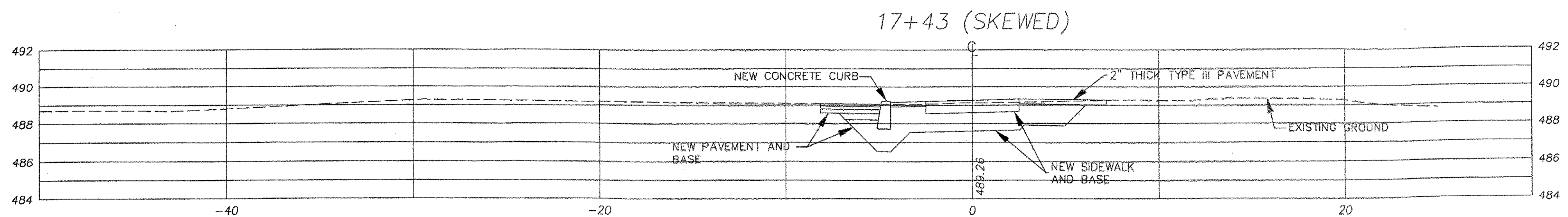
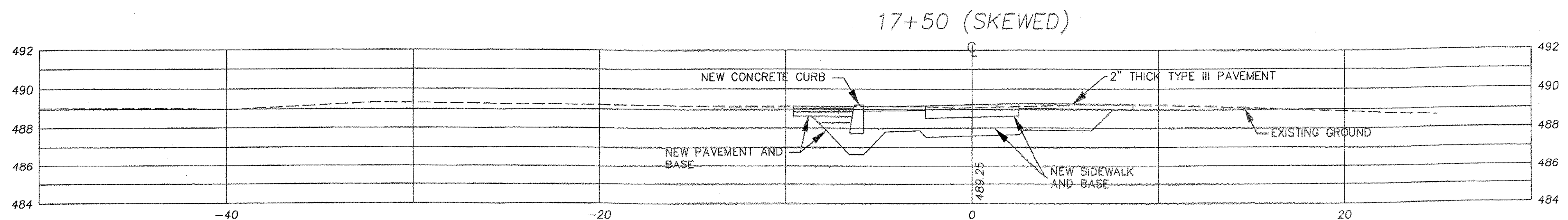
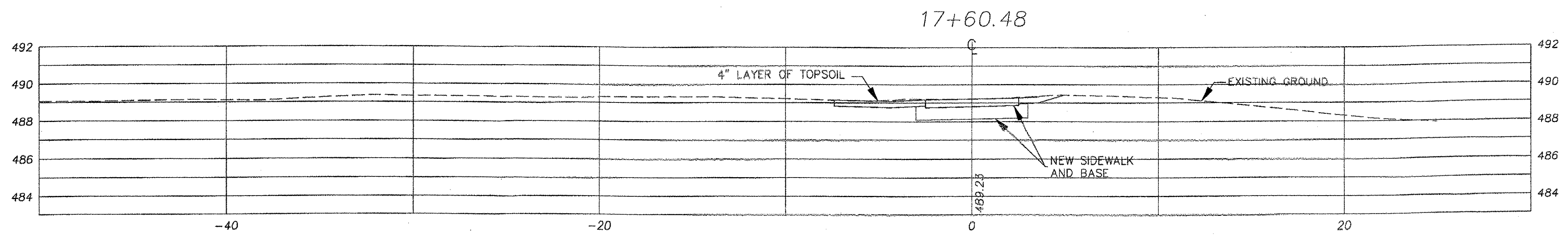
HORIZONTAL SCALE: 1"=4'
VERTICAL SCALE: 1"=4'

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
		survey L&D/OTHERS
CROSS SECTIONS STATION 9+88 TO 12+00		design DLH/LAL
		drawn DB
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 (802) 878-4450		checked LAL/DLH
		date 01-24-03
scale 1" = 4'		15
		sht. no.



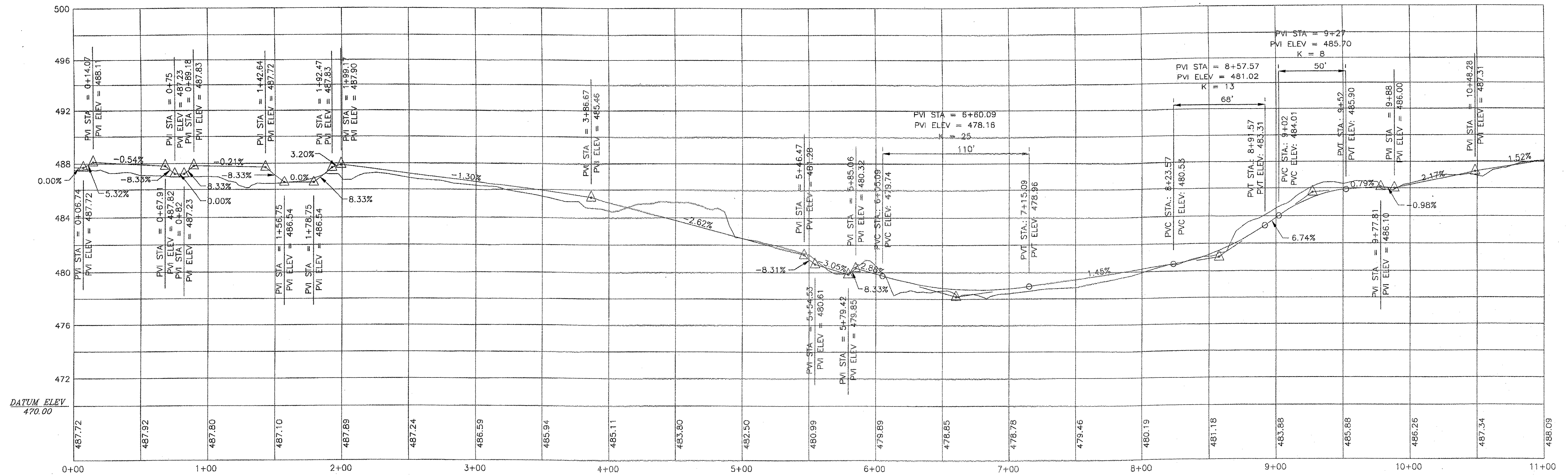
HORIZONTAL SCALE: 1"=4'
VERTICAL SCALE: 1"=4'

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		# OF SHEETS
CROSS SECTIONS STATION 12+50 TO 15+86		proj. no. 02-132
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 (802) 878-4450		survey L&D/OTHERS
		design DLH/LAL
		drawn DB
		checked LAL/DLH
		date 01-24-03
		scale 1" = 4'
		sht. no. 16

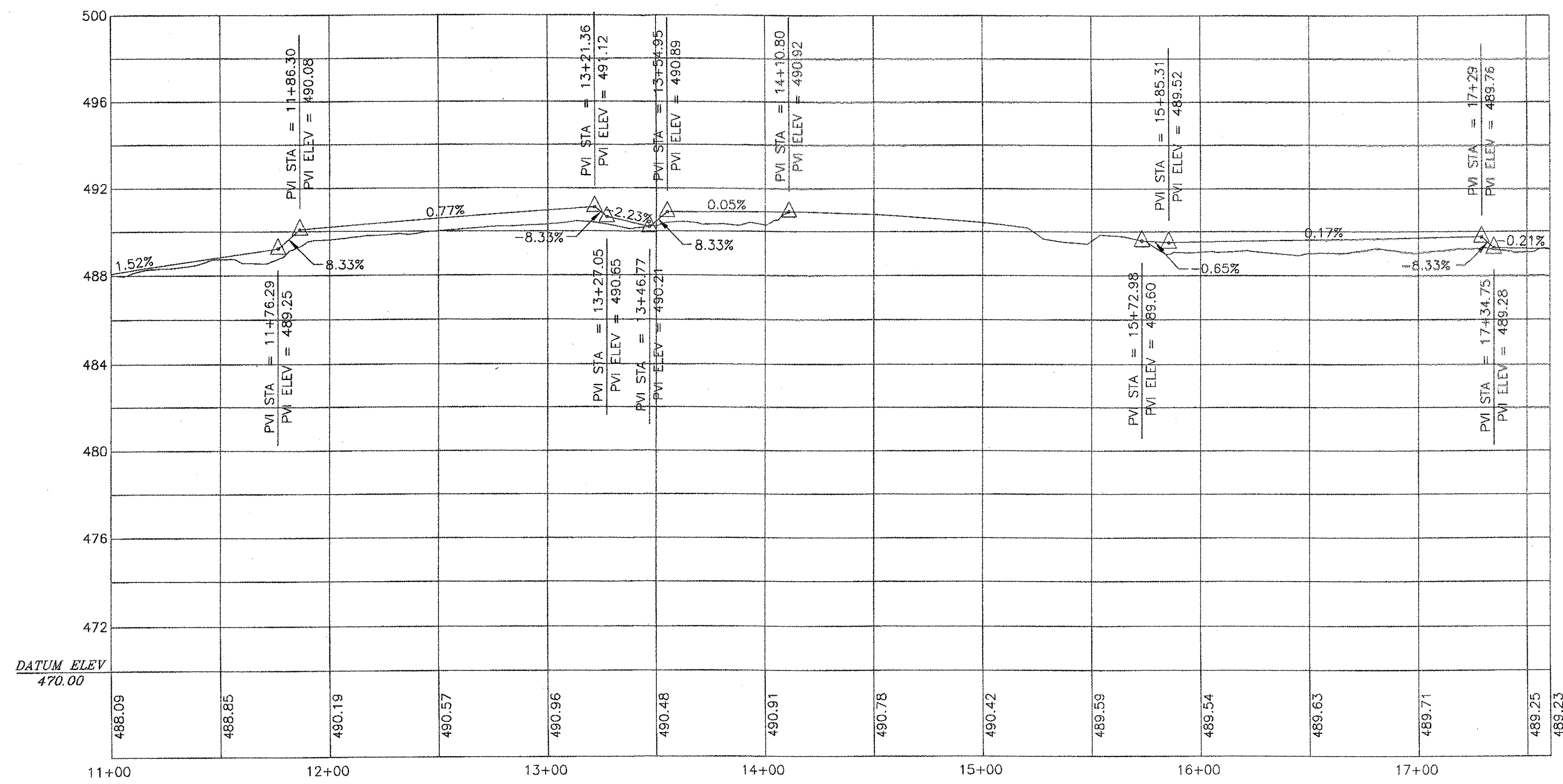


HORIZONTAL SCALE: 1"=4'
VERTICAL SCALE: 1"=4'

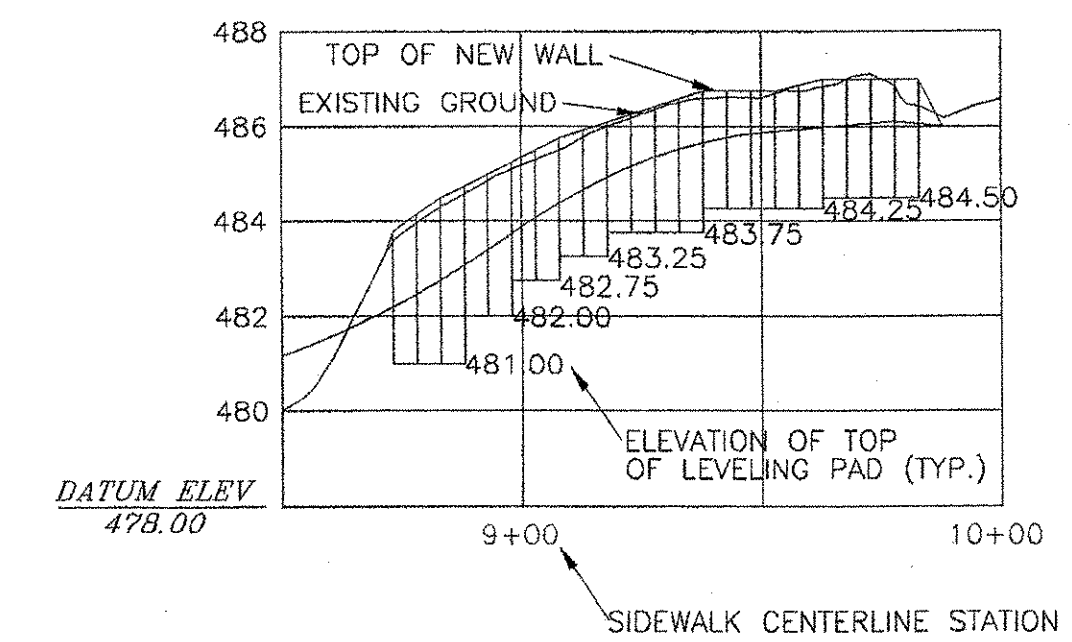
10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
		survey L&D/OTHERS
CROSS SECTIONS STATION 16+00 TO 17+62		design DLH/LAL
		drawn DB
checked LAL/DLH		date 01-24-03
scale 1" = 4'		sheet no. 17
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 (802) 878-4450		



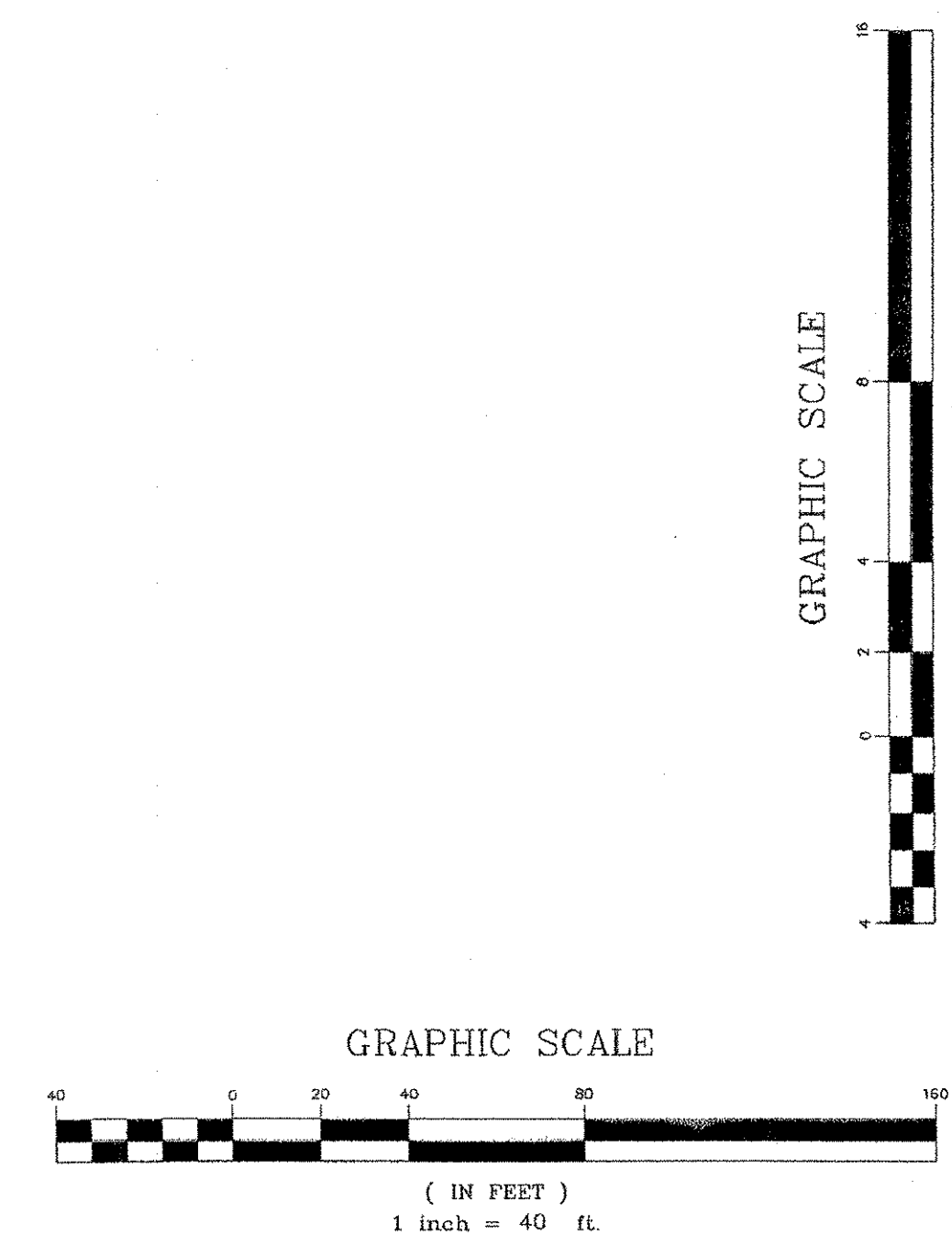
SIDEWALK PROFILE



SIDEWALK PROFILE

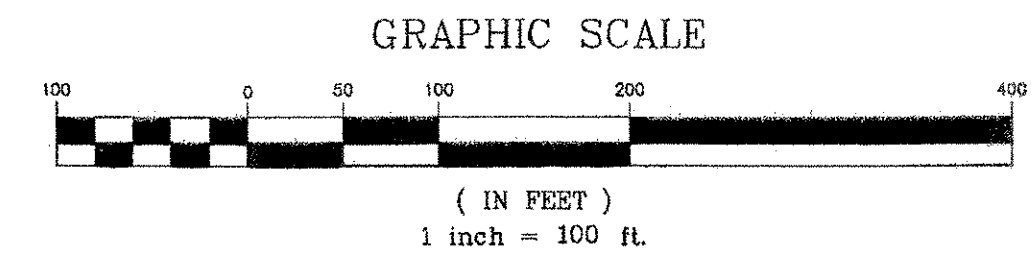
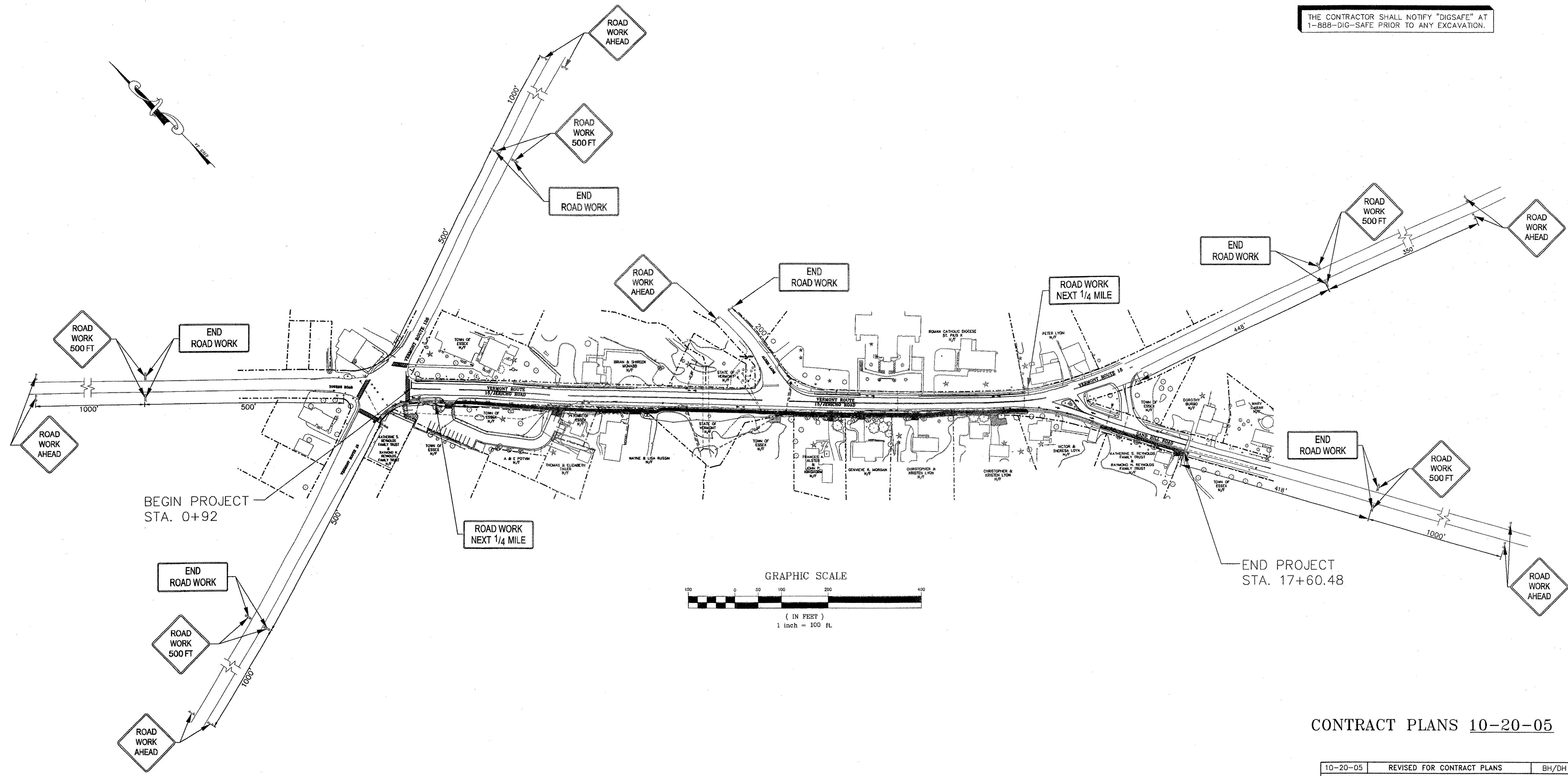


RETAINING WALL PROFILE



10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		# OF SHEETS
ESSEX STP WALK (9) PROJECT CENTERLINE PROFILE		1
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 Tel: 802-878-4150		proj. no. 02-132 survey L&D/OTHERS design DLH/LAL drawn DB checked LAL/DLH date 03/01/04 scale H: 1"=40' V: 1"=4' sh. no.
		18

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

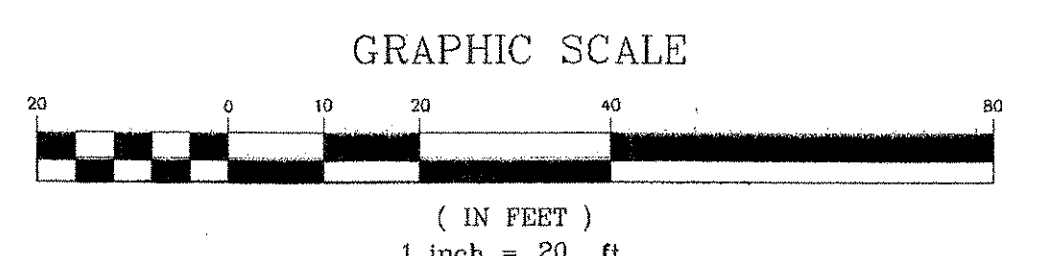
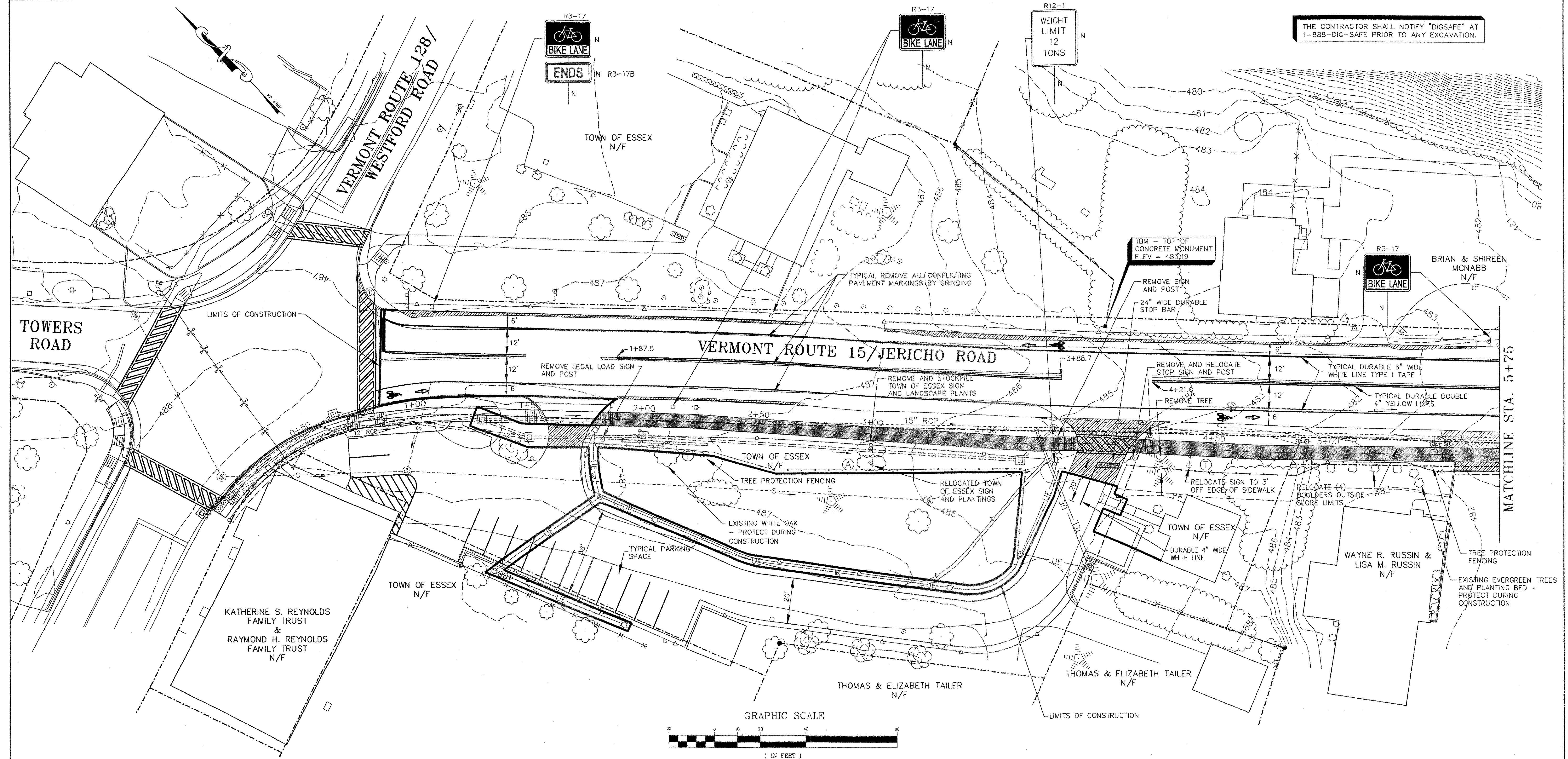


- NOTES:**
- CONSTRUCTION APPROACH AND PERMANENT SIGNING AND STRIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE MUTCD 2003, THE STATE OF VERMONT DESIGN STANDARDS AND SPECIFICATIONS, AND THE LAMOUREUX & DICKINSON PLANS AND SPECIFICATIONS. IF THERE IS A CONFLICT BETWEEN THESE DOCUMENTS, THE MUTCD SHALL CONTROL.
 - THE CONSTRUCTION APPROACH SIGNING DISTANCES ARE APPROXIMATE. THE SIGNS SHALL NOT BE PLACED IN A LOCATION WHICH WILL BLOCK ACCESS OR IN ANY OTHER WAY INCONVENIENCE THE ADJACENT PROPERTY OWNERS.

CONTRACT PLANS 10-20-05

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		# OF SHEETS 02-132
CONSTRUCTION APPROACH SIGNING		survey L&D/OTHERS design DLH/LAL drawn DB checked LAL/DLH date 03/01/04 scale 1" = 100'
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 Tel: 802-878-4450		sh. no. 19

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

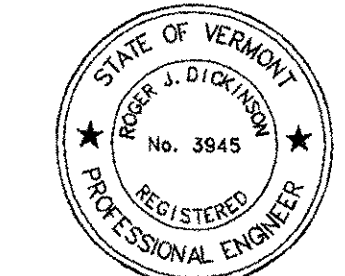


LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- ⊕ EXISTING LIGHT POLE
- ⊕ EXISTING HYDRANT
- ⊕ EXISTING TELEPHONE MANHOLE
- ⊕ EXISTING SEWER MH W/SEWER PIPE
- ⊕ EXISTING MAILBOX
- ⊕ EXISTING CB W/STORMWATER PIPE
- ⊕ EXISTING SIGNS
- ⊕ EXISTING WOOD RAIL FENCE
- ⊕ EXISTING UTILITY POLE & GUY WIRE
- ⊕ EXISTING TREES
- ⊕ EXISTING TREE LINE
- ⊕ EXISTING CONTOUR
- ⊕ EXISTING WHITE LINE
- ⊕ EXISTING ROAD CENTERLINE
- ⊕ EXISTING FACE OF BUILDING
- ⊕ PROPOSED MAILBOX
- ⊕ PROPOSED DRAINAGE MANHOLE
- ⊕ PROPOSED CB W/STORMWATER PIPE
- ⊕ PROPOSED TREES
- ⊕ PROPOSED TREE LINE
- ⊕ PROPOSED WHITE LINE
- ⊕ PROPOSED ROAD CENTERLINE
- ⊕ PROPOSED PAVEMENT AND BASE
- ⊕ PROPOSED SIDEWALK
- ⊕ PROPERTY LINE
- ⊕ SLOPE LIMIT (FILL)
- ⊕ SLOPE LIMIT (CUT)
- ⊕ FINISH GRADE ELEVATION
- ⊕ NEW SIGN OR POST
- ⊕ SALVAGED SIGN OR POST
- ⊕ BIKE LANE SYMBOL PAVEMENT MARKINGS - DURABLE WHITE TYPE I TAPE
- ⊕ PROPOSED SILT FENCE

Plants to be Relocated			
Key	Existing Plants	Quantity	Remarks
A	Town of Essex on Town Green: 3 Daylily clumps, 3 Sedum 'Autumn Joy', 2 Creeping Phlox, 2 Geranium Sanguinum, 1 Shasta Daisy, 4 Violets	15 plants	Stockpile sign and plants with bark mulch and water regularly until ready for final planting
B	All About Hair Sign at entrance to Russin Property: 7 Bearded Iris clumps, 1 Daylily, 1 Creeping Phlox, 2 Euonymus Alatus 'Compactus'	12 plants	Stockpile sign and plants with bark mulch and water regularly until ready for final planting
C	Existing 6" Diameter White Spruce	1 plant	White Spruce tree to be dug and stockpiled with bark mulch and watered until ready for final planting
D	4 Large clumps of Hybrid Daylilies (approximately 30 plants), 2 Siberian Iris	32 plants	Stockpile sign and plants with bark mulch and water regularly until ready for final planting
E	Existing clump of Hybrid Daylilies (approximately 15 plants), 1 Weeping Spruce (Picea abies forma pendula) specimen tree	16 plants	Stockpile sign and plants with bark mulch and water regularly until ready for final planting
F	Existing plantings by fence: 3 Potentilla fruticosa, 2 Spiraea bumalda 'Anthony Waterer'	5 plants	Stockpile sign and plants with bark mulch and water regularly until ready for final planting
G	Existing plantings by fence: 2 Potentilla fruticosa, 2 Spiraea bumalda 'Anthony Waterer'	4 plants	Stockpile sign and plants with bark mulch and water regularly until ready for final planting
T	Branches which face construction area to be protected by tying towards trunk of tree		Follow General Specifications for tree protection

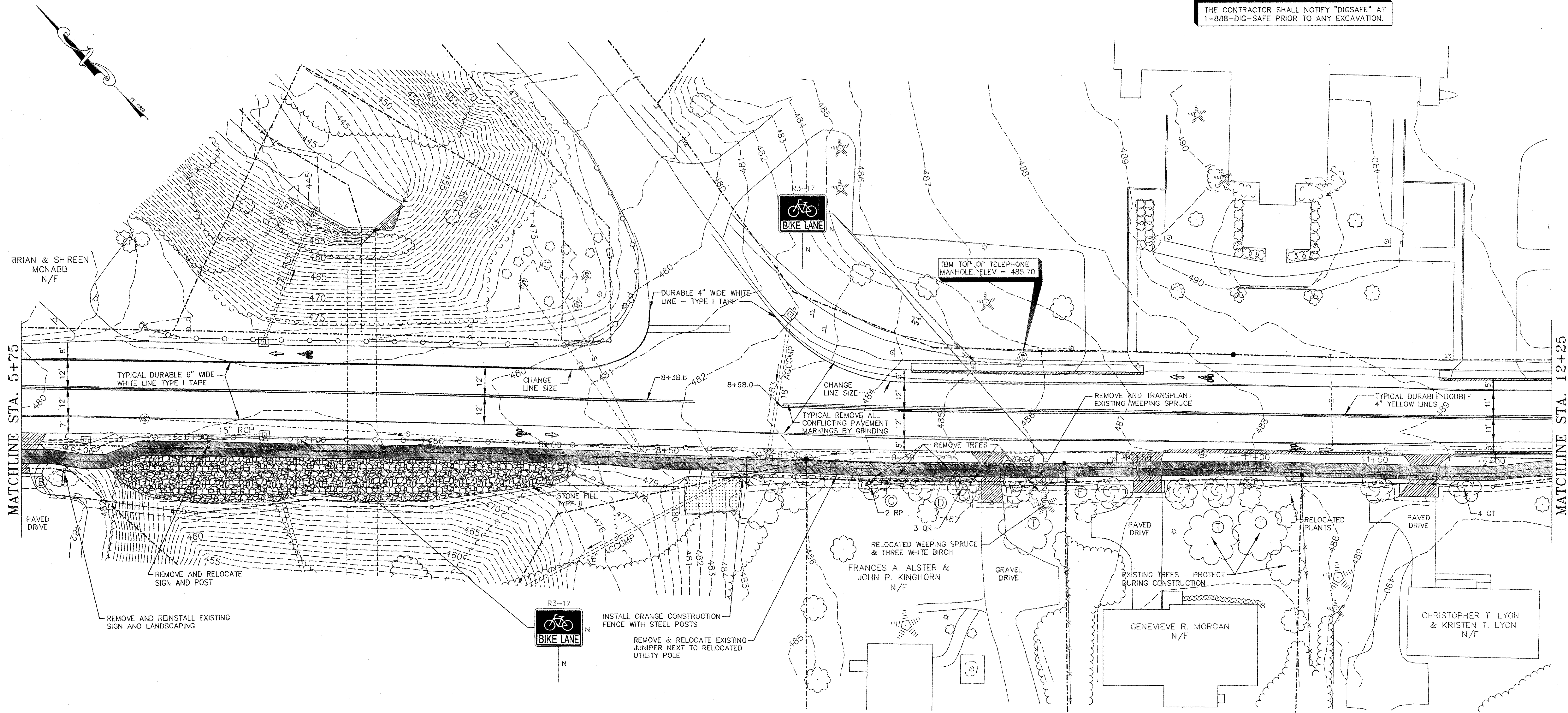
Key	Botanical Name	Common Name	Quantity	Size	Remarks
TREES					
EP	Fraxinus Pennsylvanica 'Marshall's Seedless'	Marshall's Seedless Ash	4	2 1/2" - 3" CAL.	B & B, Specimens only
GT	Gleditsia Triacanthos 'Halka'	Halka Honeylocust	4	2 1/2" - 3" CAL.	B & B, Specimens only
PA	Picea Abies	Norway Spruce	1	6" - 8" HEIGHT	B & B, Specimens only
QR	Quercus Rubra	Northern Red Oak	3	2 1/2" - 3" CAL.	B & B, Specimens only
RP	Robinia Pseudacacia	Black Locust	2	2 1/2" - 3" CAL.	B & B, Specimens only



DATUM
VERTICAL NAVD 1988
HORIZONTAL NAD 1983

12-19-05	REVISED FOR BIDDERS	BH/DH
10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX		# OF SHEETS
ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
LANDSCAPING AND SIGNAGE SHEETS		survey & D/OTHERS design
STATION 0+00 TO 5+75		DLH/LAL drawn
LAMOUREUX & DICKINSON		DB checked
Consulting Engineers, Inc.		LAL/DLH checked
14 Morse Drive Essex Junction, VT 05452 Tel: 802-878-4450		date 03/01/04
1" = 20'		scale
sh. no. 20		
02132-101		

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

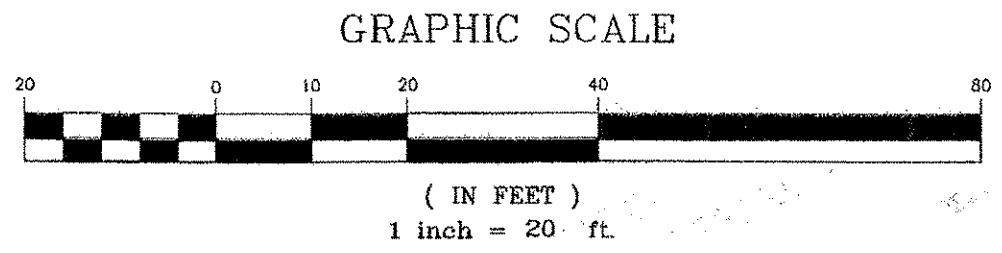


MATCHLINE STA. 5+75

MATCHLINE STA. 12+25

LEGEND

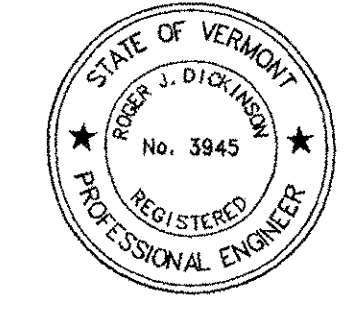
- | | |
|------------------------------------|--|
| ■ CONCRETE MONUMENT FOUND | Ⓜ PROPOSED MAILBOX |
| ○ IRON PIN FOUND | Ⓜ PROPOSED DRAINAGE MANHOLE |
| ☆ EXISTING LIGHT POLE | Ⓜ PROPOSED CB W/STORMWATER PIPE |
| ⊕ EXISTING HYDRANT | Ⓜ PROPOSED TREES |
| Ⓜ EXISTING TELEPHONE MANHOLE | Ⓜ PROPOSED TREE LINE |
| Ⓜ EXISTING SEWER MH W/SEWER PIPE | Ⓜ PROPOSED WHITE LINE |
| Ⓜ EXISTING MAILBOX | Ⓜ PROPOSED ROAD CENTERLINE |
| Ⓜ EXISTING CB W/STORMWATER PIPE | ▨ PROPOSED PAVEMENT AND BASE |
| Ⓜ EXISTING SIGNS | ▨ PROPOSED SIDEWALK |
| Ⓜ EXISTING WOOD RAIL FENCE | — PROPERTY LINE |
| Ⓜ EXISTING UTILITY POLE & GUY WIRE | — SLOPE LIMIT (FILL) |
| Ⓜ EXISTING TREES | — SLOPE LIMIT (CUT) |
| Ⓜ EXISTING TREE LINE | — FINISH GRADE ELEVATION |
| Ⓜ EXISTING CONTOUR | — LIMIT OF CONSTRUCTION |
| Ⓜ EXISTING WHITE LINE | — NEW SIGN OR POST |
| Ⓜ EXISTING ROAD CENTERLINE | — SALVAGED SIGN OR POST |
| Ⓜ EXISTING FACE OF BUILDING | Ⓜ BIKE LANE SYMBOL PAVEMENT MARKINGS - DURABLE WHITE TYPE I TAPE |



CENTERLINE DATA

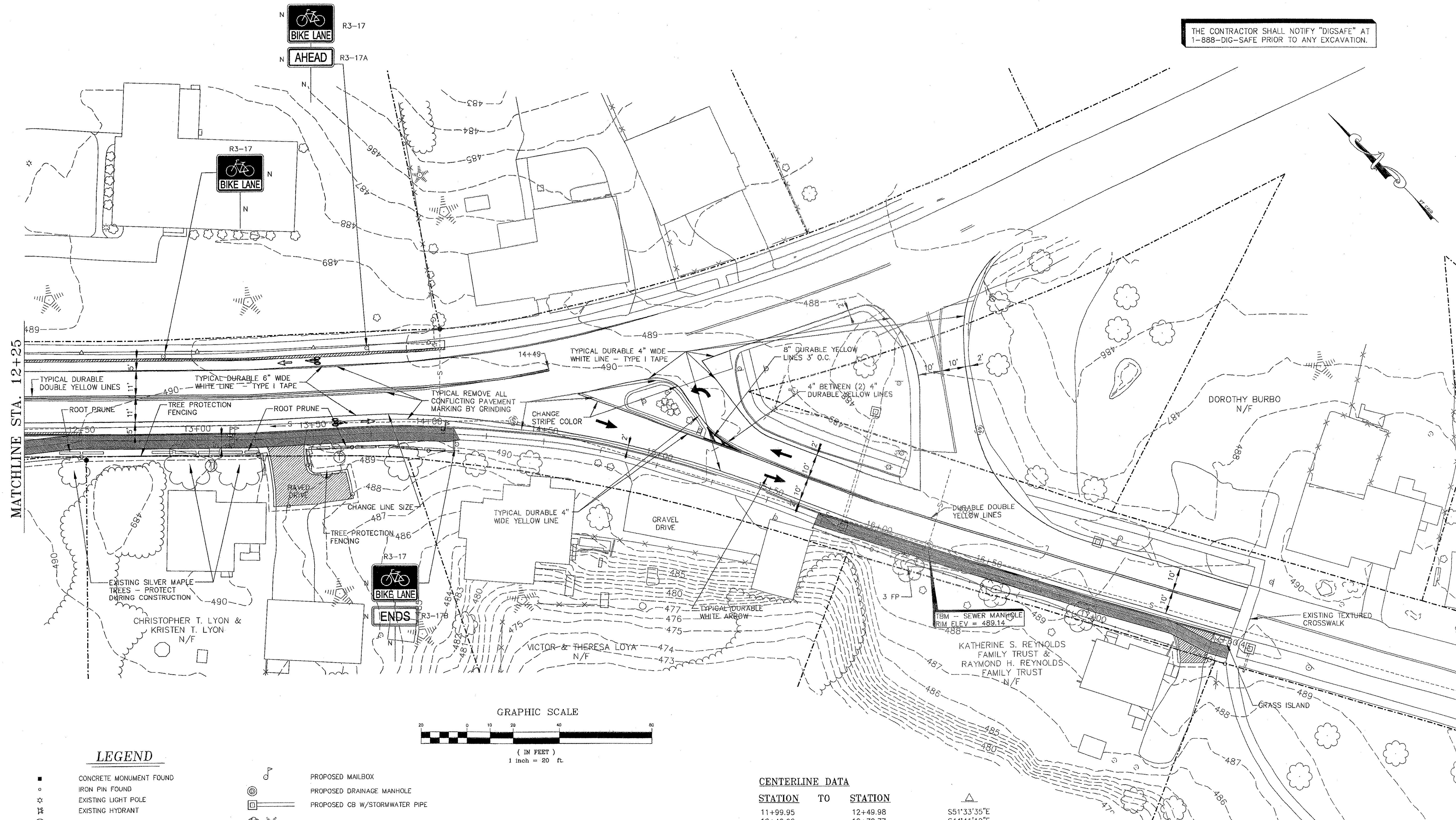
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4+69.65		5+87.99	S44°23'37"E
5+87.99		6+01.06	S34°44'28"E
6+01.06		6+11.33	S45°00'00"E
6+11.33		6+26.20	S67°05'17"E
6+26.20		6+50.00	S44°21'48"E
6+50.00		7+01.31	S43°18'58"E
7+01.31		7+51.31	S44°01'41"E
7+51.31		8+26.32	S43°25'26"E
8+26.32		8+40.22	S38°28'41"E
8+40.22		8+74.73	S43°35'32"E
8+74.73		9+29.80	S42°52'08"E
9+29.80		10+21.10	S44°04'32"E
10+21.10		10+88.24	S45°33'36"E
10+88.24		11+87.47	S43°42'05"E
11+87.47		11+99.95	S45°04'20"E
11+99.95		12+49.98	S51°33'35"E

DATUM
 VERTICAL NAVD 1988
 HORIZONTAL NAD 1983



12-19-05	REVISED FOR BIDDERS	BH/DH
10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX		# OF SHEETS
ROUTE 15 IN ESSEX CENTER, VT		02-132
LANDSCAPING AND SIGNAGE SHEETS		proj. no.
STATION 5+75 TO 12+25		02-132
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Moose Drive Essex Junction, VT 05452 Tel: 802-878-4450		survey &D/OTHERS design DLH/LAL drawn DB checked LAL/DLH date 03/01/04 scale 1" = 20' sht. no. 21 02132-102

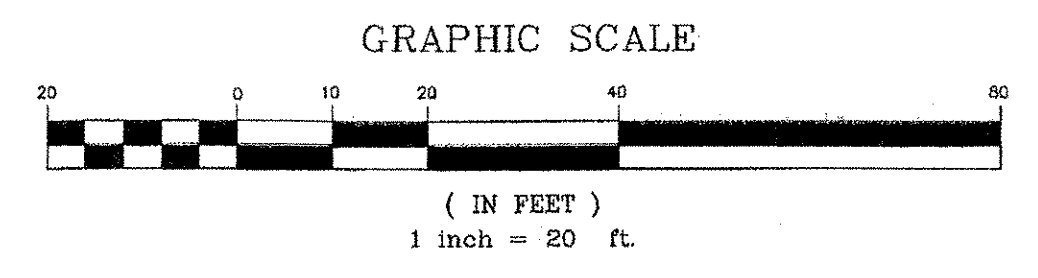
THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.



MATCHLINE STA. 12+25

- LEGEND**
- CONCRETE MONUMENT FOUND
 - IRON PIN FOUND
 - ⊙ EXISTING LIGHT POLE
 - ⊕ EXISTING HYDRANT
 - ⊗ EXISTING TELEPHONE MANHOLE
 - ⊙-S EXISTING SEWER MH W/SEWER PIPE
 - ⊙ EXISTING MAILBOX
 - ⊙ EXISTING CB W/STORMWATER PIPE
 - ⊙ EXISTING SIGNS
 - ⊗ EXISTING WOOD RAIL FENCE
 - ⊗ EXISTING UTILITY POLE & GUY WIRE
 - ⊗ EXISTING TREES
 - ⊗ EXISTING TREE LINE
 - ⊗ EXISTING CONTOUR
 - ⊗ EXISTING WHITE LINE
 - ⊗ EXISTING ROAD CENTERLINE
 - ⊗ EXISTING FACE OF BUILDING

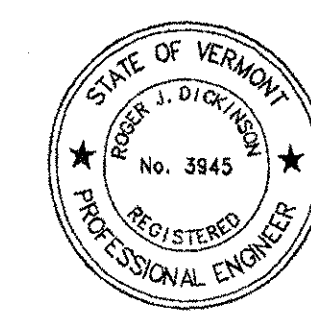
- ⊙ PROPOSED MAILBOX
- ⊙ PROPOSED DRAINAGE MANHOLE
- ⊙ PROPOSED CB W/STORMWATER PIPE
- ⊙ PROPOSED TREES
- ⊙ PROPOSED TREE LINE
- ⊙ PROPOSED WHITE LINE
- ⊙ PROPOSED ROAD CENTERLINE
- ⊙ PROPOSED PAVEMENT AND BASE
- ⊙ PROPOSED SIDEWALK
- ⊙ PROPERTY LINE
- ⊙ SLOPE LIMIT (FILL)
- ⊙ SLOPE LIMIT (CUT)
- ⊙ FINISH GRADE ELEVATION
- ⊙ LIMIT OF CONSTRUCTION
- ⊙ NEW SIGN OR POST
- ⊙ SALVAGED SIGN OR POST
- ⊙ BIKE LANE SYMBOL PAVEMENT MARKINGS - DURABLE WHITE TYPE I TAPE



CENTERLINE DATA

STATION	TO	STATION	
11+99.95		12+49.98	S51°33'35"E
12+49.98		12+72.77	S44°41'19"E
12+72.77		12+81.42	S45°04'20"E
12+81.42		13+01.68	S45°50'31"E
13+01.68		13+21.44	S45°13'54"E
13+21.44		13+35.23	S47°09'02"E
13+35.23		13+47.43	S48°19'15"E
13+47.43		13+67.42	S47°56'04"E
13+67.42		13+80.44	S47°59'26"E
13+80.44		13+80.99	S45°00'52"E
13+80.99		14+01.73	S44°03'22"E
14+01.73		14+03.51	S42°21'38"E
14+03.51		14+05.54	S42°21'25"E
14+05.54		14+08.57	S42°21'43"E
14+08.57		14+10.75	S42°08'04"E
14+10.75			
15+72.89			
15+72.89		15+75.43	S23°28'14"E
15+75.43		16+99.39	S27°18'18"E
16+99.39		17+14.98	S29°09'25"E
17+14.98		17+29.45	S29°14'05"E
17+29.45		17+34.21	S28°27'57"E
17+34.21		17+51.95	S17°38'29"E
17+51.95		17+56.14	S28°37'56"E
17+56.14		17+60.43	S29°36'56"E

EXISTING SIDEWALK





DATUM


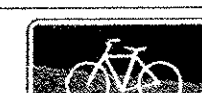




VERTICAL NAVD 1988

HORIZONTAL NAD 1983


10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9)		proj. no. 02-132
TOWN OF ESSEX		survey
ROUTE 15 IN ESSEX CENTER, VT		L&D/OTHERS design
LANDSCAPING AND SIGNAGE SHEETS		DLH/LAL
STATION 12+25 TO 17+60.43		drawn DB
		checked LAL/DLH
		date 03/01/04
		scale 1" = 20'
		shl. no. 22
		02132-53

LAMOUREUX & DICKINSON
 Consulting Engineers, Inc.
 14 Moss Drive
 Essex Junction, VT 05452
 Tel: 802-878-4450

STATION	SIGN LEGEND	NEW SIGNS			NEW SIGN POSTS			REMARKS		
		SIGN DIMENSIONS	MUTCD NO.	SHEET NO.	AREA FT ²	NUMBER OF POSTS	FLANGED CHANNEL LB/FT			
							2.0		2.5	3.0
-1+50 RT.	  	30" X 24"	R3-17						SEE DETAIL ON SHEET 24	
		30" X 12"	R3-17A	20	8.25	1			10'	
		12" X 9"	M7-1							SEE STANDARD SHEET E-131B
1+10 LT.	 	30" X 24"	R3-17	20	7.5	1			10'	SEE DETAIL ON SHEET 24
		30" X 12"	R3-17B							
2+11 LT.		30" X 24"	R3-17	20	5.0	1			10'	SEE DETAIL ON SHEET 24
2+53 LT.		30" X 24"	R3-17	20	5.0	1			10'	SEE DETAIL ON SHEET 24
3+81 RT.		24" X 30"	R12-1	20	5.0	1			10'	SEE DETAIL ON SHEET 24
4+15 RT.			R1-1	20						REMOVE AND REINSTALL
5+70 LT.		30" X 24"	R3-17	20	5.0	1			10'	SEE DETAIL ON SHEET 24
6+94 LT.		30" X 24"	R3-17	21	5.0	1			10'	SEE DETAIL ON SHEET 24
9+80 LT.		30" X 24"	R3-17	21	5.0	1			10'	SEE DETAIL ON SHEET 24
10+10 LT.		30" X 24"	R3-17	21	5.0	1			10'	SEE DETAIL ON SHEET 24

STATION	SIGN LEGEND	NEW SIGNS				NEW SIGN POSTS			REMARKS	
		SIGN DIMENSIONS	MUTCD NO.	SHEET NO.	AREA FT ²	NUMBER OF POSTS	FLANGED CHANNEL LB/FT			
							2.0	2.5		3.0
12+85 LT	 	30" X 24"	R3-17	22	5.0	1			10'	SEE DETAIL ON SHEET 24
13+75 LT	 	30" X 24"	R3-17	22	7.5	1			10'	SEE DETAIL ON SHEET 24
		30" X 12"	R3-17A							
14+12 RT	 	30" X 24"	R3-17	22	7.5	1			10'	SEE DETAIL ON SHEET 24
		30" X 12"	R3-17B							

	AREA FT ²	FLANGED CHANNEL FT 3.0 LB/FT
COLUMN 1	50.75	90
COLUMN 2	20	30
TOTAL	70.75	120

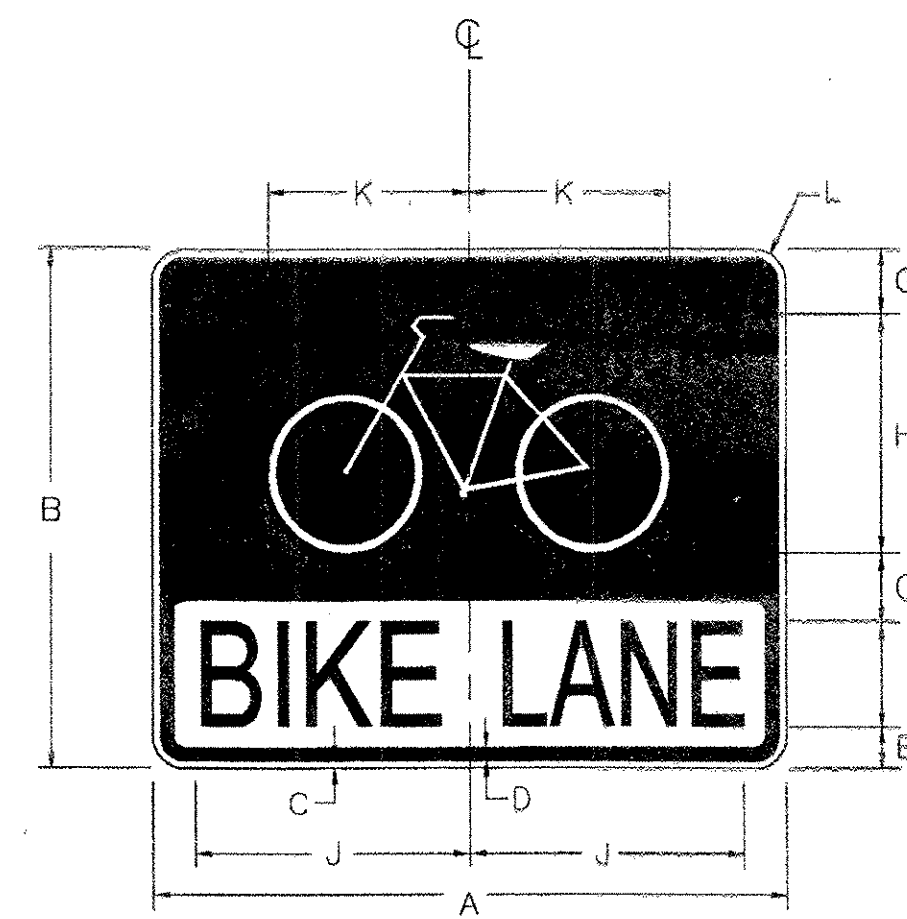
10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132 survey &D/OTHERS design DLH/LAL drawn DB checked LAL/DLH date 01-24-03 scale
SIGN SUMMARY SHEET		
 LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 (802) 878-4450		NTS sht. no. 23



R7-8

COLORS
 LEGEND AND BORDER - BLUE
 WHITE SYMBOL ON BLUE BACKGROUND
 BACKGROUND - WHITE

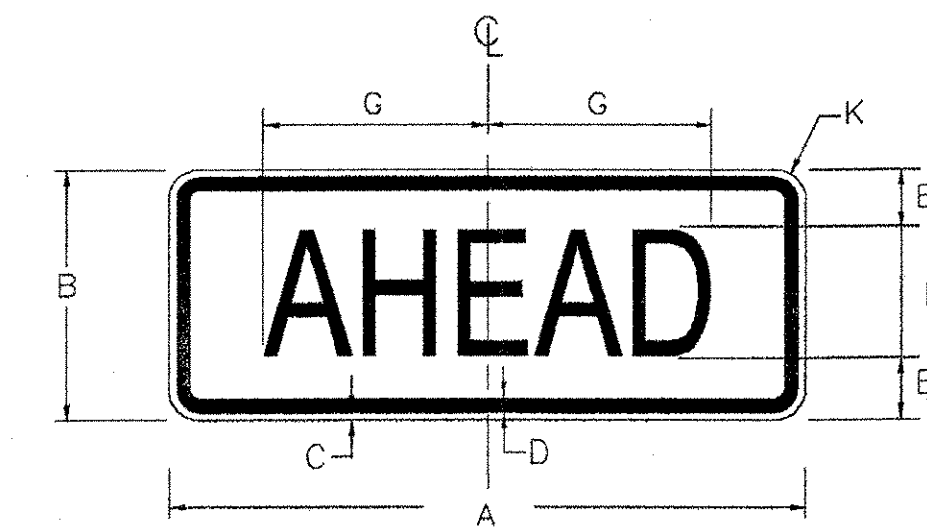
DIMENSIONS (INCHES)									
A	B	C	D	E	F	G	H	J	K
12	18	3/8	3/8	2 1/2	1 1/2	1	4	3	
K	L	M	O	P	Q	R	S		
3 7/8	1 1/2	4 1/4	4 7/8	5	2C	2	1/2		



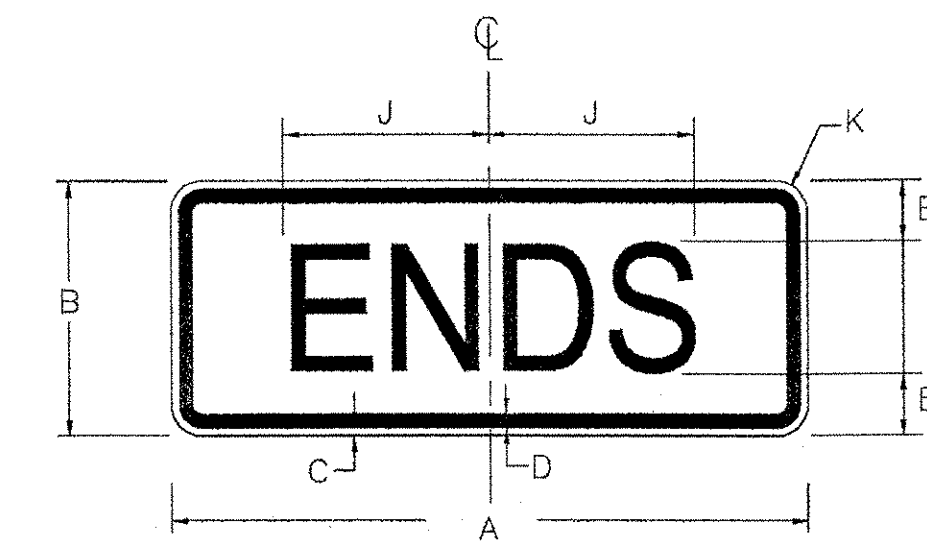
R3-17

COLORS
 TOP LEGEND - WHITE (RETROREFLECTIVE)
 BACKGROUND - BLACK
 BOTTOM LEGEND - BLACK
 BACKGROUND - WHITE (RETROREFLECTIVE)

DIMENSIONS (INCHES)										
A	B	C	D	E	F	G	H	J	K	L
30	24	.375	.625	2	5C	3	11	13	9.5	1.5



R3-17a



R3-17b

COLORS
 LEGEND AND BORDER - BLACK
 BACKGROUND - WHITE (RETROREFLECTIVE)

DIMENSIONS (INCHES)										
A	B	C	D	E	F	G	H	J	K	
30	12	.375	.625	3	6C	10.5	6D	9.7	1.5	



R12-1

COLORS
 LEGEND - BLACK (NON-REFL)
 BACKGROUND - WHITE (REFL)

DIMENSIONS (INCHES)									
A	B	C	D	E	F	G	H	J	K
24	30	3/8	5/8	3	4D	1 3/4	2 1/8	5E	
K	L	M	N	P	Q				
5D	9	9 1/2	6 5/16	8 1/4	1 1/2				

* SEE VAOT STANDARD SHEET E-144 FOR SIGN MATERIALS

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
		survey
		&D/OTHERS
		design DLH/LAL
		drawn DB
		checked LAL/DLH
		date 01-24-03
		scale
		NTS
		sht. no.
		24

LD LAMOUREUX & DICKINSON
 Consulting Engineers, Inc.
 14 Morse Drive
 Essex Junction, VT 05452
 (802) 878-4450

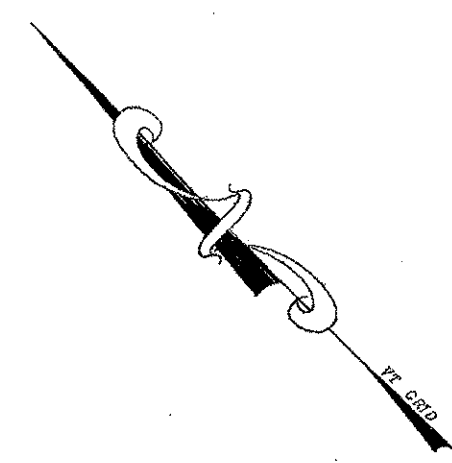
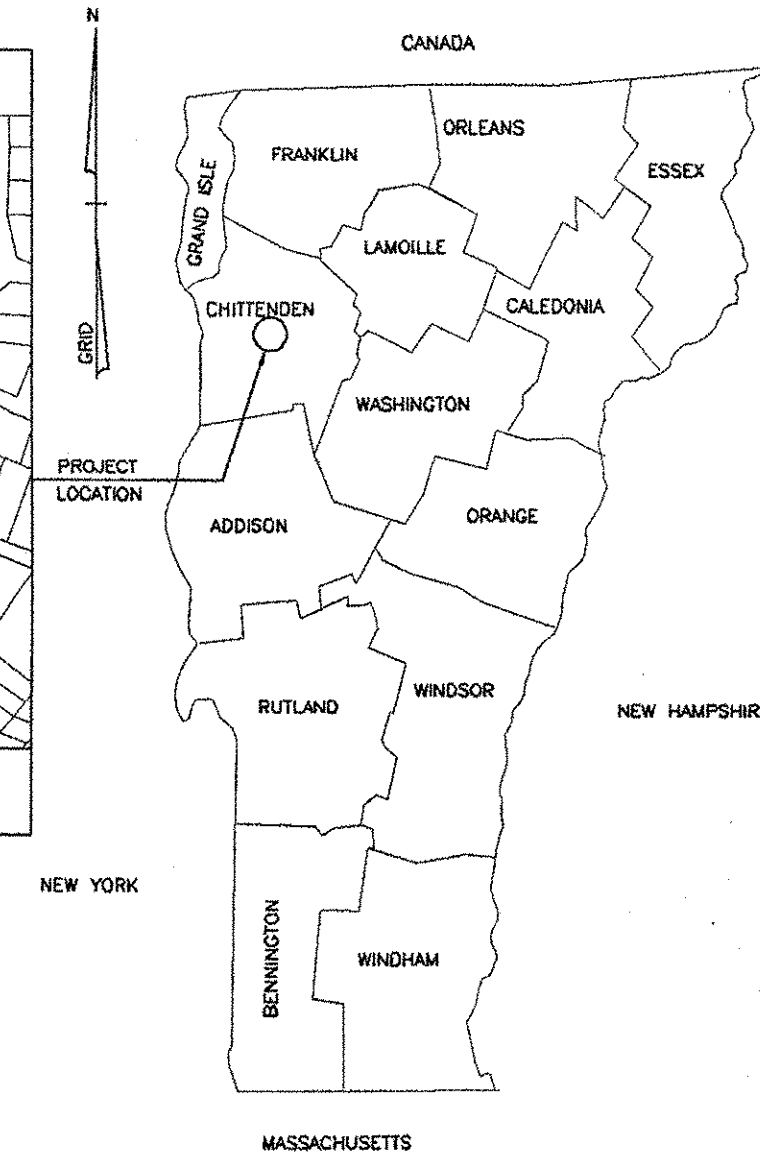
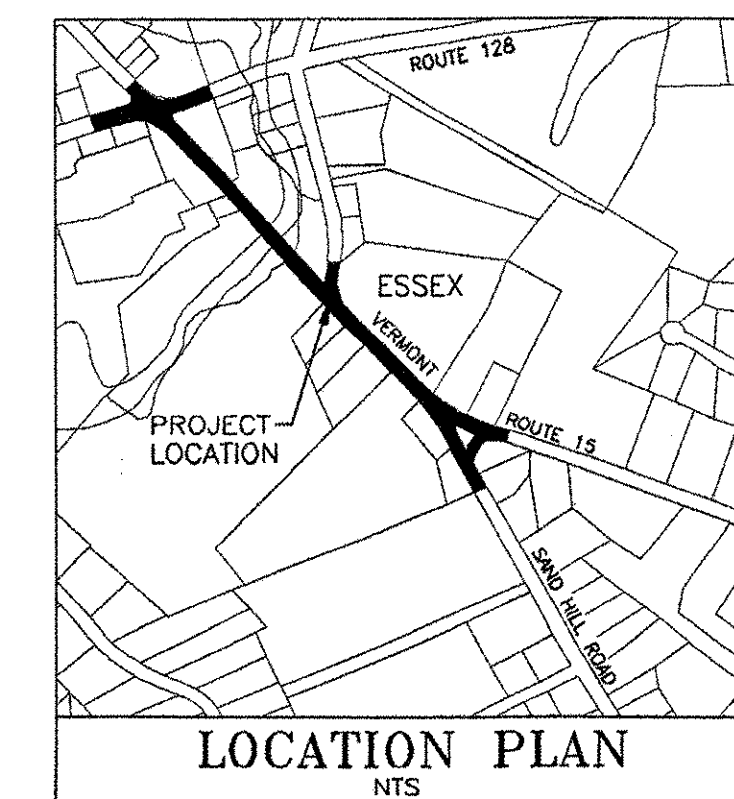
ESSEX STP WALK (9)

ESSEX CENTER SIDEWALK ESSEX, VERMONT

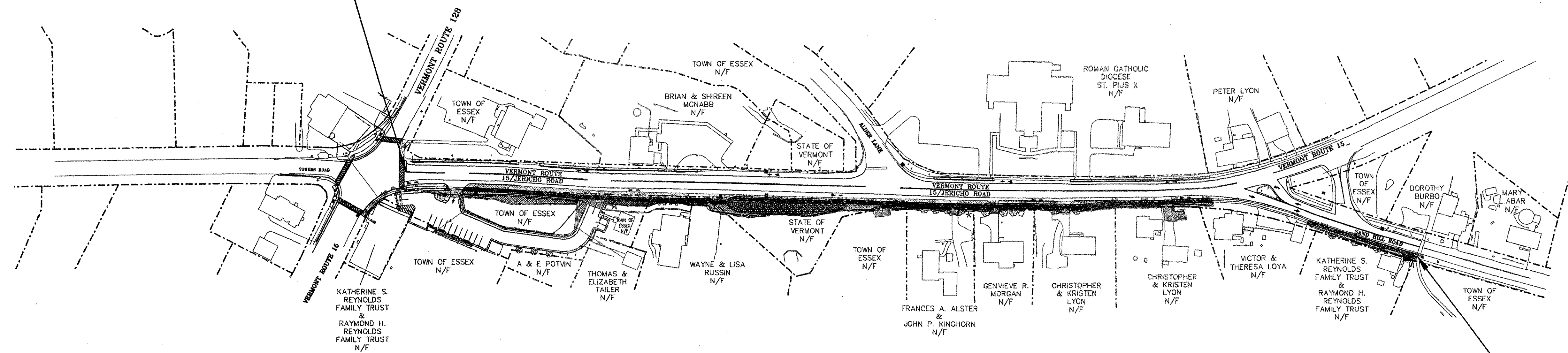
LENGTH OF PROJECT IS 1761 FEET = 0.33 MILES

THE PROJECT BEGINS IN ESSEX AT THE INTERSECTION OF VERMONT ROUTES 15 AND 128, AND PROCEEDS SOUTHEASTERLY FOR A DISTANCE OF 1,761 FEET ALONG VERMONT ROUTE 15 AND SAND HILL ROAD.

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES NEW CONCRETE SIDEWALK, CATCH BASINS, FENCING, ROADWAY WIDENING, NEW BASE, ASSOCIATED PAVEMENT MARKINGS, SIGNS, AND INCIDENTAL ITEMS.

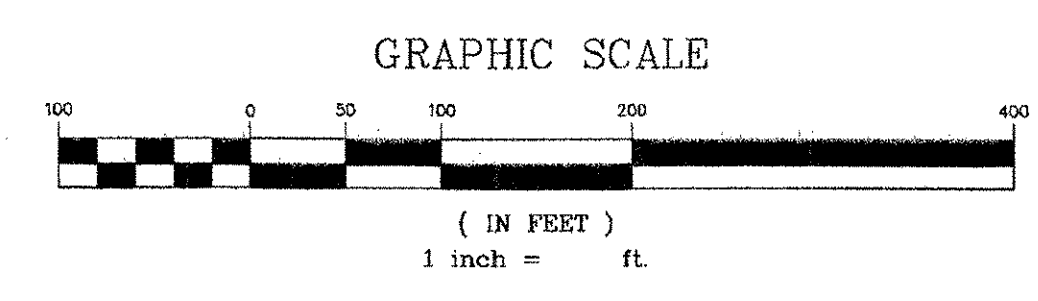


BEGIN PROJECT
STA. 0+92



THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

END PROJECT
STA. 17+60.43



EROSION PREVENTION & SEDIMENT CONTROL PLANS

INDEX OF SHEETS

SHEET #	TITLE	DATE
25A	EROSION AND SEDIMENT CONTROL TITLE SHEET	
25B	DESIGNER EROSION PREVENTION AND SEDIMENT CONTROL CHECKLIST	
25C	EXISTING CONDITIONS PLAN STA. 0+00 TO STA. 5+75	
25D	EXISTING CONDITIONS PLAN STA. 5+75 TO STA. 12+25	
25E	EXISTING CONDITIONS PLAN STA. 12+25 TO STA. 17+61.22	
25F	EROSION PREVENTION AND SEDIMENT CONTROL PLAN STA. 0+00 TO STA. 5+75	
25G	EROSION PREVENTION AND SEDIMENT CONTROL PLAN STA. 5+75 TO STA. 12+25	
25H	EROSION PREVENTION AND SEDIMENT CONTROL PLAN STA. 12+25 TO STA. 17+61.22	
25J	FINAL CONDITIONS PLAN STA. 0+00 TO STA. 5+75	
25K	FINAL CONDITIONS PLAN STA. 5+75 TO STA. 12+25	
25L	FINAL CONDITIONS PLAN STA. 12+25 TO STA. 17+61.22	
EPSC-1	EROSION PREVENTION & SEDIMENT CONTROL DETAILS - SILT FENCE	5-12-04
EPSC-2	EROSION PREVENTION & SEDIMENT CONTROL DETAILS - DROP INLET PROTECTION	5-11-04
EPSC-3	EROSION PREVENTION & SEDIMENT CONTROL DETAILS - DITCH & SLOPE PREVENTION	5-11-04

THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION FOR APPROVAL AND INCLUSION IN THE EROSION AND SEDIMENT CONTROL PLANS:

THE LOCATION OF WASTE, BORROW AND STAGING AREAS, MATERIAL STOCKPILES, REFUELING AND MAINTENANCE AREAS AND CONCRETE TRUCK WASHOUT LOCATION (ATTACH MAP IF NECESSARY).

DISCUSSION AND ADDITIONAL DETAILS NEEDED FOR THE PROTECTION AND STABILIZATION OF THE ABOVE.

FINAL MODIFICATIONS AS/ IF REQUIRED TO THESE EROSION AND SEDIMENT CONTROL PLANS.

FINAL DATES ASSOCIATED WITH JOB MILESTONES AS INDICATED ON THE SEQUENCE CONSISTENT WITH PROJECT CPM SCHEDULE.

NAME, PHONE NUMBER, ADDRESS AND QUALIFICATIONS OF ON-SITE COORDINATOR.

INFORMATION SHALL BE CONSISTENT WITH GUIDANCE PROVIDED IN THE LATEST REVISION OF THE VERMONT HANDBOOK FOR THE EROSION AND SEDIMENT CONTROL ON CONSTRUCTION SITES.

NOTE:
THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE TOWN ENGINEER. CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE VERMONT STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

FUNDING ASSISTANCE FOR THIS PROJECT IS BEING FURNISHED BY VTRANS AND FHWA

TOWN OF ESSEX	DATUM
APPROVED _____ DATE _____	VERTICAL NAVD 1988
TOWN ENGINEER	HORIZONTAL NAD 1983

CONTRACT PLANS 10-20-05

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
09-09-05	REVISED FOR FINAL PLANS	BH/DB/DH
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
		survey L&D/OTHERS design DLH/LAL drawn DB checked LAL/DLH date 03/01/04 scale 1" = 100' sht. no.
OVERALL EROSION CONTROL PLAN		25A

L LAMOUREUX & DICKINSON
Consulting Engineers, Inc.
14 Morse Drive
Essex Junction, VT 05452
Tel: 802-878-4450

25A
02132-25A

Designer Erosion Prevention and Sediment Control Checklist
Essex STP WALK (9)S

1. Narrative

1.1 Project Description

This project involves the construction of 1,230 linear feet of 6 foot wide and 188 linear feet of 5 foot wide concrete sidewalk with 404 linear feet of concrete curbing along the south side of Vermont Route 15/Jericho Road from the intersection of Vermont Route 15 and Vermont 128 to Sand Hill Road and along the west side of Sand Hill Road to the existing concrete sidewalk on Sand Hill Road. Construction of the project will include new drainage structures and stormpipes, roadway widening, relocating steel beam guardrail, relocating fence, pavement overlay, associated pavement markings, signage and landscaping in the project area. Construction will disturb approximately 0.17 acres of land outside the paved roadway of Jericho and Sand Hill Roads with minimal grade change proposed in this area. The project area presently consists of 52,790 square feet (1.2 acres) of impervious area. At completion of the project, the project area will consist of 60,586 square feet (1.39) acres of impervious area. The increase is due to the addition of widened shoulders and the construction of the sidewalk.

1.2 Site Inventory and Analysis

1.2.1 Off site drainage characteristics (up and down-gradient) - Existing drainage for Vermont Route 15 consists of a closed drainage system with catch basins and stormpipes directing stormwater to outlets along the northeast bank of Alder Brook where Vermont Route 15 crosses. The proposed project maintains this existing drainage pattern. The installation of four new drainage basins will be needed to replace four existing drainage basins that will be removed to construct the new concrete sidewalk.

1.2.2 Drainage, waterways, and bodies of water - Alder Brook crosses the project location at approximate station 7+20 flowing in a southerly direction to the Winooski River. The drainage from the project area currently all drains toward Alder Brook, and will continue to do so.

1.2.3 Topography, existing roads, buildings, utilities - The project will begin at the Vermont 128 intersection and continue along Vermont Route 15 remaining relatively level until station 2+00, with the exception of sidewalk ramps. From station 2+00 the sidewalk falls to the east at a 1.3% grade until station 3+87, where the slope then increases to 2.62% until the Alder Brook crossing. After the Alder Brook crossing, the sidewalk rises at a 1.45% grade to station 8+58 where it increases to reach a maximum of 6.74% at 8+97 and then flattens back out by 9+50 to 2%. From 9+50 there is a rise of 2% until 12+50 where it levels out until reaching the intersection of Sand Hill Road. From the beginning of Sand Hill Road, the sidewalk is relatively level throughout the remainder of the project area, falling with grades less of than 1.0%.

Route 15 is lined by residential and commercial buildings along most of the project area from the intersection of Vermont 128 to the end of the project on Sand Hill Road. There is one intersecting residential street, Alder Lane, along the section of Route 15 opposite the proposed sidewalk.

The portion of existing sidewalk along the south side of the intersection of Vermont Route 15 and Sand Hill Road from Station 14+11 - 17+60 will be retained. A 9 foot section of curb beginning at 15+73 along Sand Hill Road will be removed in order to construct the new 5 foot wide sidewalk.

The segment of new 6 feet wide sidewalk being constructed from 1+80 - 14+11 and the portion of sidewalk that will be added to Sand Hill Road between stations 15+73 - 17+60 will be constructed along the edge of the paved roadway. The roadway on Vermont Route 15 is being widened in several locations including portions of the north side between stations 0+96 - 2+68, 3+02 - 5+65, 9+53 - 10+53 and 11+76 - 14+05 as well as sections along the south side including sections between stations 1+88 - 2+70, 10+61 - 11+62, and 11+83 - 12+50.

1.2.4 Vegetation - The area between the buildings and Vermont Route 15 consists of paved drives, paved parking areas, concrete sidewalk along Vermont Route 15 and Sand Hill Road, curbing, grassed areas and sporadic street trees. Several trees will be removed or replaced within the project area. These trees include one spruce at station 4+26 to be moved and replaced and eight trees between stations 9+40 - 10+00 to be removed. All other trees will be retained and protected during construction and seventeen new trees will be planted.

1.2.5 Soils - The USDA soil survey data delineates three soil types within the project area including Munson and Belgrade Silt Loam (MuD) .40, Adams and Windsor Loamy Sands (AdA) .17, and Hartland Very Fine Sandy Loam (HIE) .49. The location of these soils in the project area is shown on plan sheets 25C, 25D, and 25E. Also included on these sheets are tables describing the properties of each soil type. The first and third soil types are rated as being *highly erodable*. The Adams and Windsor Loamy Sands soil is rated as *having low erodability*.

1.2.6 Sensitive resources areas - There is a harsh sunflower community at approximate station 8+56 which will be protected by fence as a condition of the Endangered and Threatened Species Permit issued for the project. There are no known archaeological sites, prime agricultural land, wetlands or critical habitats in the project area.

1.2.7 Proximity to natural or man-made water features - The new sidewalk construction crosses Alder Brook at approximately station 7+20.

1.2.8 This project meets the goals to the Town of Essex Stormwater Management Plan and the Town MS4 requirements by minimizing the increase in curbing and by not altering the existing drainage patterns.

1.3 Temporary Erosion and Sediment Control

1.3.1 Description of all temporary structural erosion and sediment control measures - As specified on plan sheets 25F, 25G and 25H:

The project will be constructed in phases in an attempt to reduce the time that soil is left disturbed.

A Project Demarcation Fence (PDF) will be installed along the limits of required soil disturbance to prevent construction equipment from disrupting soil or vegetation unnecessarily.

Topsoil stockpiles will be mulched and continuously staked haybales or silt fence will be installed around the stockpile.

Erosion matting will be installed in all disturbed areas with slopes steeper than 3:1.

Stone filters will be constructed around all new catch basins to provide inlet protection during construction.

Seeding and mulching will be required within 48 hours of final grading.

1.3.2 Design calculations for all temporary structural control measures - not applicable (there are no structural control devices designed for this project).

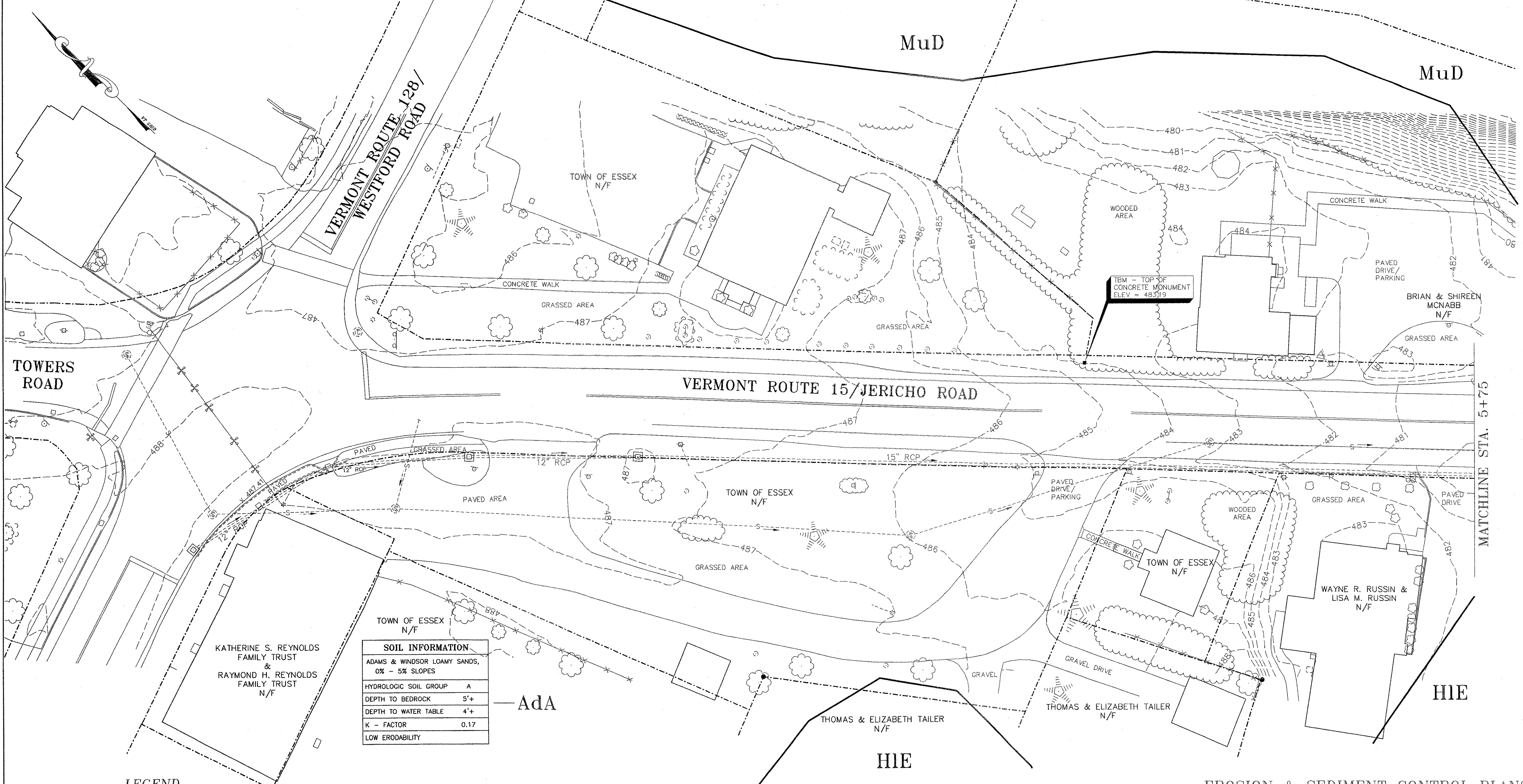
1.4 Final Erosion Control Measures

1.4.1 Description of permanent erosion and sediment control measures - All disturbed areas will either be covered with concrete sidewalk pavement, curbing or will be re-vegetated with seed, fertilizer and mulch as shown on the plan and detail sheets 25J, 25K and 25L. All new catch basins will have a 2 foot sediment sump.

EROSION & SEDIMENT CONTROL PLANS

10-20-05	REVISED FOR CONTRACT PLANS	BH/DH
REVISIONS		
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		survey
		&D/OTHERS
		design
		DLH/LAL
		drawn
		DB
		checked
		LAL/DLH
		date
		03/01/04
		scale
		1" = 100'
		sht. no.
		25B
		02132-25B

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14 Morse Drive
Essex Junction, VT 05452
Tel: 802-878-4450



MuD

MuD

TOWERS ROAD

VERMONT ROUTE 128/
WESTFORD ROAD

VERMONT ROUTE 15/JERICH ROAD

MATCHLINE STA. 5+75

SOIL INFORMATION	
ADAMS & WINDSOR LOAMY SANDS, 0% - 5% SLOPES	
HYDROLOGIC SOIL GROUP	A
DEPTH TO BEDROCK	5'+
DEPTH TO WATER TABLE	4'+
K - FACTOR	0.17
LOW ERODABILITY	

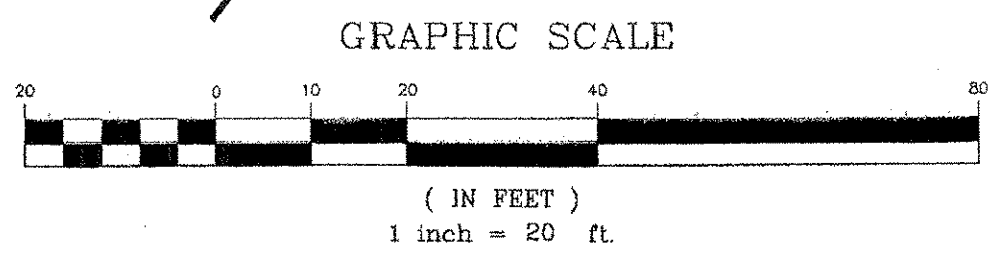
Ada

HIE

HIE

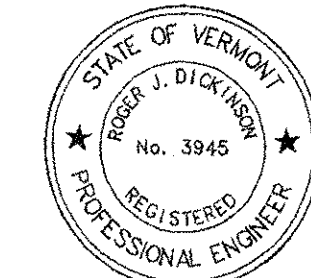
LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- ☆ EXISTING LIGHT POLE
- ⊕ EXISTING HYDRANT
- ⊙ EXISTING TELEPHONE MANHOLE
- ⊖ EXISTING SEWER MH W/SEWER PIPE
- ⊕ EXISTING MAILBOX
- ⊖ EXISTING CB W/STORMWATER PIPE
- ⊕ EXISTING SIGNS
- ⊕ EXISTING WOOD RAIL FENCE
- ⊕ EXISTING UTILITY POLE & GUY WIRE
- ⊕ EXISTING TREES
- ⊕ EXISTING TREE LINE
- ⊕ EXISTING CONTOUR
- ⊕ EXISTING WHITE LINE
- ⊕ EXISTING ROAD CENTERLINE
- ⊕ EXISTING FACE OF BUILDING
- ⊕ PROPERTY LINE



NOTE:
WITH THE EXCEPTION OF THE PAVED, CONCRETE & WOODED AREAS NOTED ABOVE, THE VEGETATION COVER IS GRASS IN THE AREA BETWEEN THE BUILDINGS AND THE ROAD.

NOTE:
SOIL PROPERTIES AND BOUNDARIES WERE APPROXIMATED BASED ON USDA SOIL SURVEY, ACTUAL FIELD CONDITIONS MAY VARY.



DATUM
VERTICAL NAVD 1988
HORIZONTAL NAD 1983

REVISIONS	
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EXISTING CONDITIONS STATION 0+00 TO 5+75	1" = 20' shl. no.

L LAMOUREUX & DICKINSON
Consulting Engineers, Inc.
14 Morse Drive
Essex Junction, VT 05452
Tel: 802-878-4450

25C
02132-25C

EROSION & SEDIMENT CONTROL PLANS

MUNSON AND BELGRADE SILT LOAMS, 12 TO 25 PERCENT SLOPES	
HYDROLOGIC SOIL GROUP	D
DEPTH TO BEDROCK	5'+
DEPTH TO WATER TABLE	0.5'-2.0'
K - FACTOR	0.49
HIGHLY ERODIBLE	

ADAMS & WINDSOR LOAMY SANDS, 0%-5% SLOPES	
HYDROLOGIC SOIL GROUP	A
DEPTH TO BEDROCK	5'+
DEPTH TO WATER TABLE	4'+
K - FACTOR	0.17
LOW ERODIBILITY	

HARTLAND VERY FINE SANDY LOAM, 25 TO 60 PERCENT SLOPES	
HYDROLOGIC SOIL GROUP	B
DEPTH TO BEDROCK	5'+
DEPTH TO WATER TABLE	3'+
K - FACTOR	0.49
HIGHLY ERODIBLE	

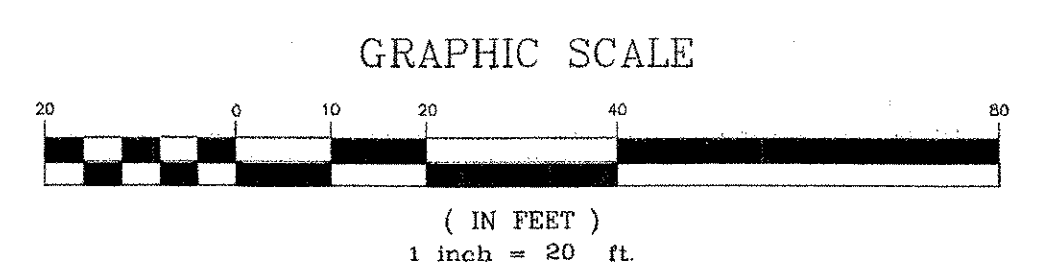
MuD

Ada

HIE

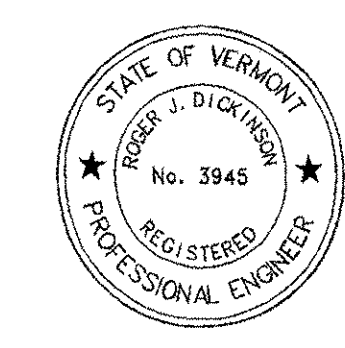
LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- ☆ EXISTING LIGHT POLE
- ⊕ EXISTING HYDRANT
- ⊙ EXISTING TELEPHONE MANHOLE
- ⊙-S EXISTING SEWER MH W/SEWER PIPE
- ⊙-P EXISTING MAILBOX
- ⊙-W EXISTING CB W/STORMWATER PIPE
- ⊙ EXISTING SIGNS
- x-x-x-x EXISTING WOOD RAIL FENCE
- ⊕ EXISTING UTILITY POLE & GUY WIRE
- ⊕ EXISTING TREES
- ⊕ EXISTING TREE LINE
- 487 EXISTING CONTOUR
- EXISTING WHITE LINE
- EXISTING ROAD CENTERLINE
- ▨ EXISTING FACE OF BUILDING
- - - - - PROPERTY LINE



NOTE: WITH THE EXCEPTION OF THE PAVED, CONCRETE & WOODED AREAS NOTED ABOVE, THE VEGETATION COVER IS GRASS IN THE AREA BETWEEN THE BUILDINGS AND THE ROAD.

NOTE: SOIL PROPERTIES AND BOUNDARIES WERE APPROXIMATED BASED ON USDA SOIL SURVEY, ACTUAL FIELD CONDITIONS MAY VARY.

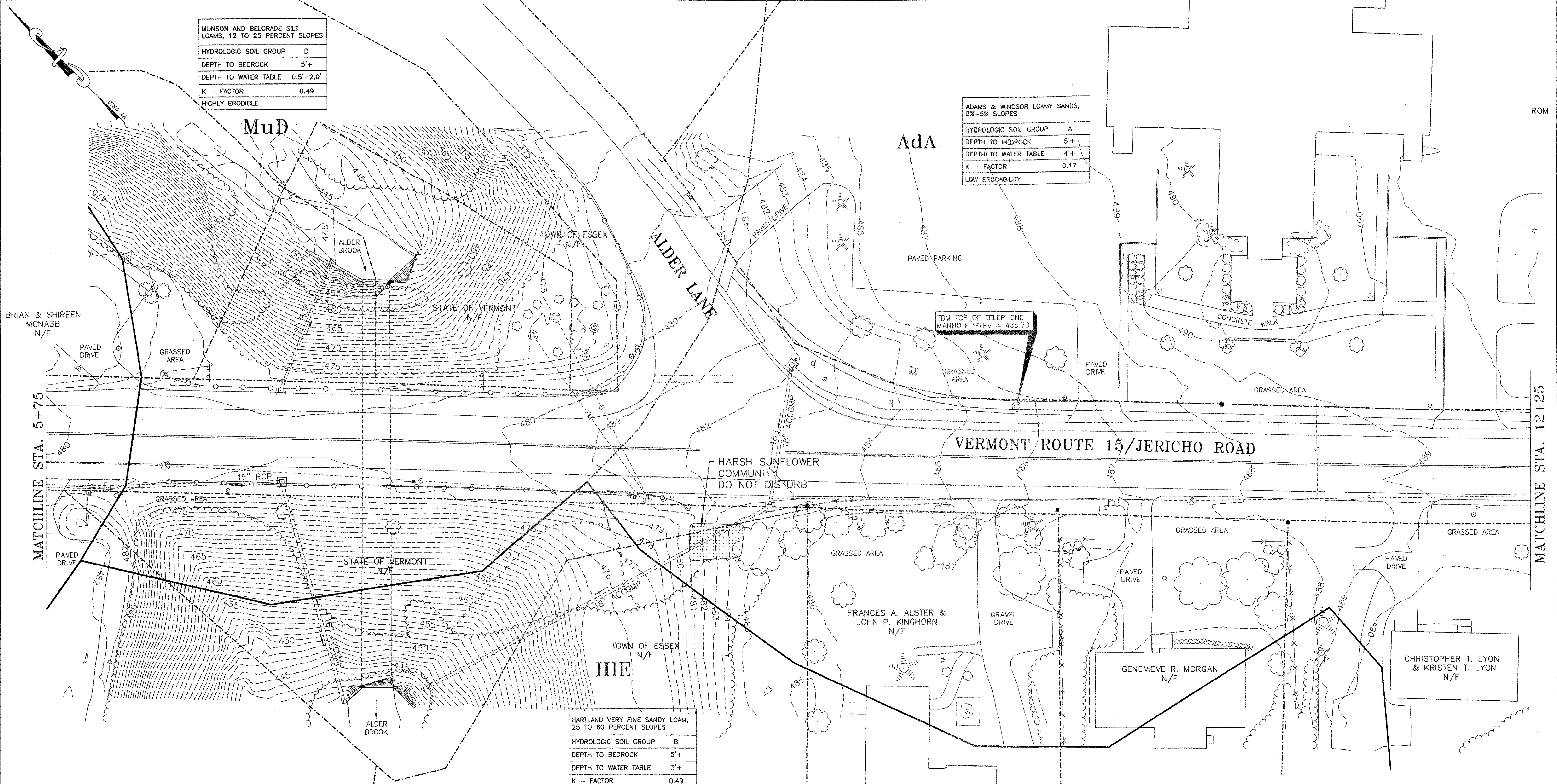


DATUM
VERTICAL NAVD 1988
HORIZONTAL NAD 1983

REVISIONS		# OF SHEETS
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STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
EXISTING CONDITIONS		survey &D/OTHERS
STATION 5+75 TO 12+25		design DLH/LAL
		drawn DB
		checked LAL/DLH
		date 03/01/04
		scale 1" = 20'
		sht. no. 25D
		02132-25D

LAMOREUX & DICKINSON
Consulting Engineers, Inc.
14 Morse Drive
Essex Junction, VT 05452
Tel: 802-878-4450

EROSION & SEDIMENT CONTROL PLANS



ROMAN CATHOLIC DIOCESE
ST. PIUS X
N/F

PETER LYON
N/F

AdA

ADAMS & WINDSOR LOAMY SANDS, 0% - 5% SLOPES	
HYDROLOGIC SOIL GROUP	A
DEPTH TO BEDROCK	5'+
DEPTH TO WATER TABLE	4'+
K - FACTOR	0.17
LOW ERODABILITY	

MATCHLINE STA. 12+25

VERMONT ROUTE 15

SAND HILL ROAD

CHRISTOPHER T. LYON &
KRISTEN T. LYON
N/F

VICTOR & THERESA LOYA
N/F

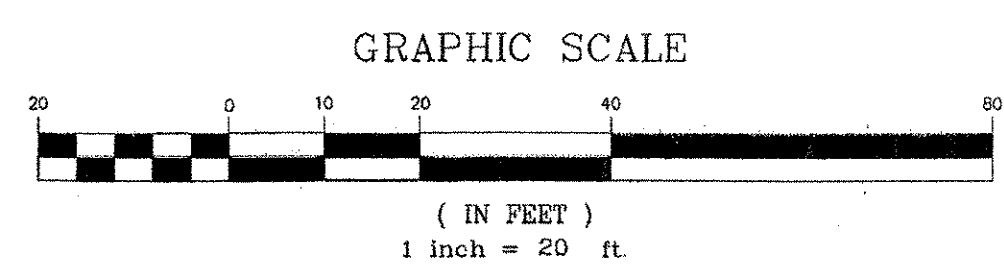
KATHERINE S. REYNOLDS
FAMILY TRUST &
RAYMOND H. REYNOLDS
FAMILY TRUST
N/F

DOROTHY BURBO
N/F

TOWN OF ESSEX
N/F

LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- ☆ EXISTING LIGHT POLE
- ⊕ EXISTING HYDRANT
- ⊙ EXISTING TELEPHONE MANHOLE
- ⊖ EXISTING SEWER MH W/SEWER PIPE
- ⊖ EXISTING MAILBOX
- ⊖ EXISTING CB W/STORMWATER PIPE
- ⊖ EXISTING SIGNS
- ⊖ EXISTING WOOD RAIL FENCE
- ⊖ EXISTING UTILITY POLE & GUY WIRE
- ⊖ EXISTING TREES
- ⊖ EXISTING TREE LINE
- ⊖ EXISTING CONTOUR
- ⊖ EXISTING WHITE LINE
- ⊖ EXISTING ROAD CENTERLINE
- ⊖ EXISTING FACE OF BUILDING
- ⊖ PROPERTY LINE



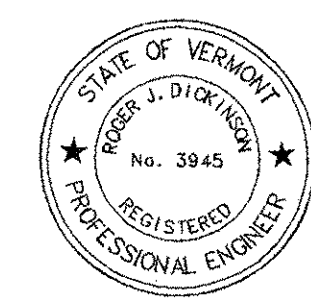
EROSION & SEDIMENT CONTROL PLANS

NOTE:
WITH THE EXCEPTION OF THE PAVED, CONCRETE & WOODED AREAS NOTED ABOVE, THE VEGETATION COVER IS GRASS IN THE AREA BETWEEN THE BUILDINGS AND THE ROAD.

NOTE:
SOIL PROPERTIES AND BOUNDARIES WERE APPROXIMATED BASED ON USDA SOIL SURVEY, ACTUAL FIELD CONDITIONS MAY VARY.

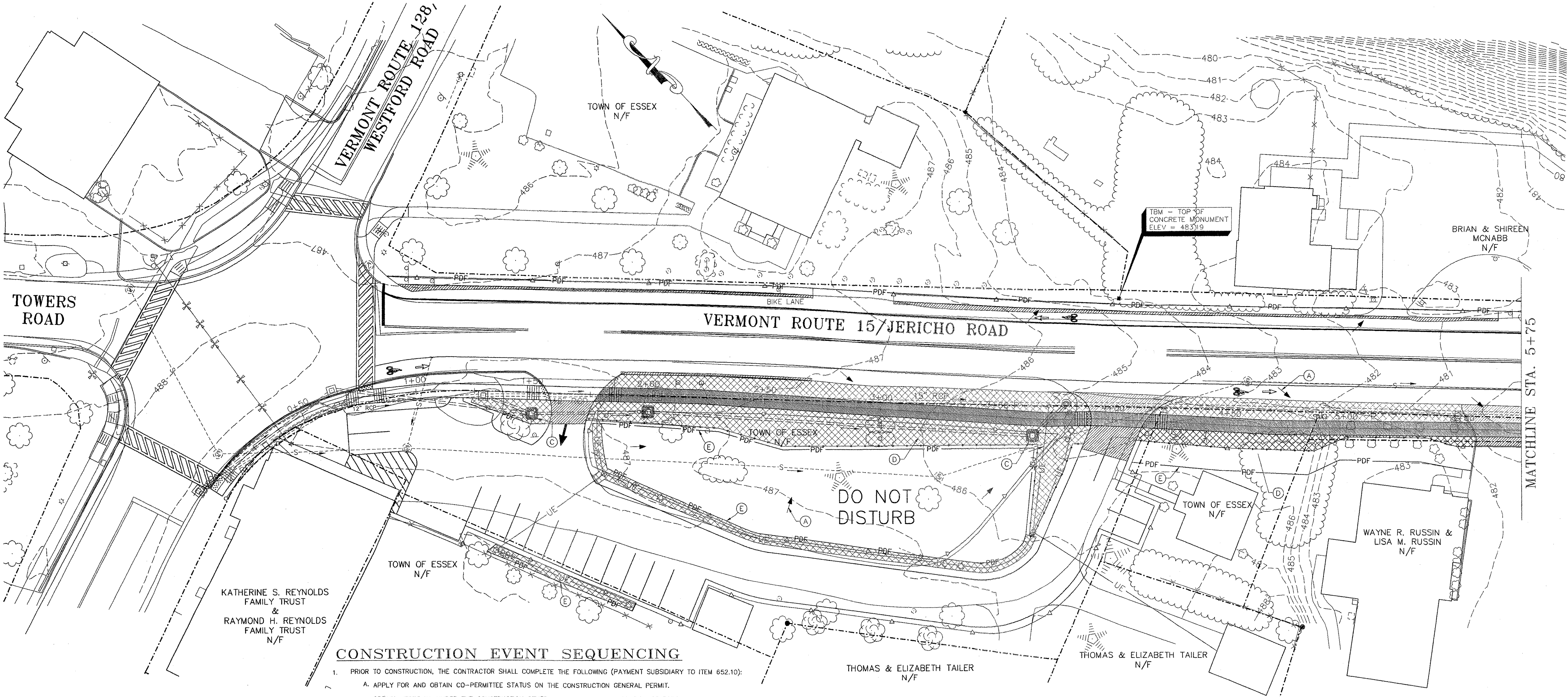
HARTLAND VERY FINE SANDY LOAM, 25 TO 60 PERCENT SLOPES	
HYDROLOGIC SOIL GROUP	B
DEPTH TO BEDROCK	5'+
DEPTH TO WATER TABLE	3'+
K - FACTOR	0.49
HIGHLY ERODIBLE	

H1E



DATUM
VERTICAL NAVD 1988
HORIZONTAL NAD 1983

REVISIONS		# OF SHEETS
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
EXISTING CONDITIONS STATION 12+25 TO 17+61.22		survey &D/OTHERS
LAMOUREUX & DICKINSON Consulting Engineers, Inc. 14 Morse Drive Essex Junction, VT 05452 Tel: 802-878-4450		design DLH/LAL drawn DB checked LAL/DLH date 03/01/04 scale 1" = 20' sh. no. 25E 02132-25E



EROSION PREVENTION AND SEDIMENT CONTROL PLAN GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION PREVENTION AND SEDIMENT CONTROL IN ACCORDANCE WITH SECTION 652 OF THE VTTRANS SPECIFICATIONS AND THESE PLANS AND SHALL OBTAIN APPROVAL FROM THE VTTRANS CONSTRUCTION ENGINEER UNDER THE EPSC CHECKLIST PRIOR TO CONSTRUCTION.
2. THE OBJECTIVE OF THIS PLAN IS TO (1) MINIMIZE THE AREA OF DISTURBED SOILS AND THE DURATION OF EXPOSURE; (2) PREVENT AND CONTROL EROSION CAUSED BY RUNOFF; AND (3) CONTROL SEDIMENT RESULTING FROM EROSION ON THE CONSTRUCTION SITE.
3. A COPY OF THE MEMORANDUM OF AGREEMENT, THE AUTHORIZATION TO DISCHARGE, A BRIEF DESCRIPTION OF THE PROJECT, THE LOCATION WHERE THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN IS AVAILABLE, AND ALL COPIES OF THE EROSION PREVENTION AND SEDIMENT CONTROL MONITORING REPORTS SHALL BE POSTED AT A LOCATION ON THE PROJECT SITE THAT IS ACCESSIBLE TO THE PUBLIC.
4. THE ON-SITE COORDINATOR SHALL INSPECT THE EROSION AND SEDIMENT CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS, AFTER ANY STORM EVENT WHICH GENERATES A DISCHARGE OF STORMWATER FROM THE CONSTRUCTION SITE.
5. THE ON-SITE COORDINATOR SHALL KEEP A WRITTEN RECORD OF INSPECTIONS AND ANY MONITORING DATA FOR A MINIMUM OF 3 YEARS FOLLOWING COMPLETION OF CONSTRUCTION. THE RECORDS SHALL NOTE ALL PROBLEM AREAS AND THE MEASURES TAKEN TO CORRECT THOSE PROBLEMS AND PREVENT FUTURE PROBLEMS.
6. SEE OTHER PLANS FOR ADDITIONAL INFORMATION, INCLUDING CONSTRUCTION DETAILS, RELATIVE TO EROSION PREVENTION AND SEDIMENT CONTROL.
7. IN THE CASE OF AN EMERGENCY STORM RESPONSE, WHEN SIGNIFICANT RUNOFF IS OCCURRING WITHOUT BEING EFFECTIVELY CONTROLLED BY THE MEASURES SHOWN, THE ON-SITE COORDINATOR AND THE SITE CONTRACTOR SHALL RECTIFY THE PROBLEM.

CONSTRUCTION EVENT SEQUENCING

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COMPLETE THE FOLLOWING (PAYMENT SUBSIDIARY TO ITEM 652.10):
 - A. APPLY FOR AND OBTAIN CO-PERMITTEE STATUS ON THE CONSTRUCTION GENERAL PERMIT.
 - B. OBTAIN APPROVAL UNDER THE CONSTRUCTION GENERAL PERMIT FOR THE LOCATION OF TOPSOIL STOCKPILES, STAGING AREAS, EQUIPMENT STORAGE, REFUELING/MAINTENANCE AREAS AND STUMP DISPOSAL AREAS.
 - C. OBTAIN APPROVAL UNDER THE CONSTRUCTION GENERAL PERMIT FOR THE LOCATION OF DISPOSAL AREAS FOR EXCESS SOILS.
 - D. REVIEW THE CONSTRUCTION TIMETABLE SUBMITTED IN THE APPLICATION FOR THE CONSTRUCTION GENERAL PERMIT AND SHALL OBTAIN APPROVAL FOR ANY NECESSARY MODIFICATIONS TO THAT TIMETABLE.
2. PROTECT THE ENDANGERED AND THREATENED SPECIES WITH PROTECTIVE FENCING.
3. IF A CONSTRUCTION GENERAL PERMIT IS REQUIRED, THE AREA OF DISTURBED SOILS AND THE DURATION OF EXPOSURE OF THE DISTURBED SOILS SHALL BE MINIMIZED. TO ACCOMPLISH THIS, WORK EFFORT SHOULD BE FOCUSED ON THE COMPLETION AND STABILIZATION OF ONE WORK ITEM COMPONENT BEFORE PROCEEDING TO THE NEXT WORK ITEM COMPONENT. SEE THE TABLE ON THIS SHEET FOR MAJOR SITE WORK STABILIZATION MILESTONES.
4. FOR CONSTRUCTION OF THE SIDEWALK AND UTILITIES ONLY THAT AREA NECESSARY FOR INSTALLATION SHALL BE DISTURBED.
5. THE LIMITS OF DISTURBANCE WILL BE MARKED BY SNOW FENCING (MODIFIED PDF). EXISTING VEGETATION OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE LEFT UNDISTURBED. THE AREA CLEARED/GRUBBED SHALL BE MINIMIZED TO MAINTAIN EXISTING VEGETATION WHERE POSSIBLE.
6. IN OPEN AREAS, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO GRUBBING. (STABILIZED CONSTRUCTION AT ENTRANCE TO STAGING AREA, DIVERSION SWALES, SILT FENCE, STONE CHECK DAMS, STONE FILTERS - SEE PLAN)
7. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AS NOTED ABOVE AND SHALL BE PROMPTLY REPAIRED, REPLACED, OR ADDITIONAL MEASURES TAKEN TO CORRECT DEFICIENCIES.
8. FOLLOWING CLEARING AND GRUBBING, THE TOPSOIL SHALL BE STOCKPILED. THE TOPSOIL STOCKPILES SHALL BE MULCHED, AND CONTINUOUSLY STAKED HAY BALES OR SILT FENCE INSTALLED AROUND THE STOCKPILES.
9. DURING CONSTRUCTION, AREAS OF COMPLETED WORK SHALL BE SEEDING AND MULCHED WITHIN 48 HOURS OF FINISH GRADING. THIS SHALL INCLUDE CUT OR FILL SLOPES, AND STREET GREEN STRIPS.
10. STONE CHECK DAMS AND STONE FILTERS SHALL BE INSTALLED AT STORMWATER INLETS AND OUTLETS AS SHOWN ON THESE PLANS.
11. ALL FINISHED SLOPES SHALL BE 3H:1V OR FLATTER. WHERE EROSION OCCURS FOLLOWING MULCHING, EROSION MATTING SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
12. DISTURBED AREAS THAT ARE NOT BEING ACTIVELY WORKED SHALL BE STABILIZED WITHIN 10 DAYS WITH TEMPORARY SEED AND MULCH OR MATTING.
13. ALL SIDEWALK AND UTILITY CONSTRUCTION (EXCLUDING PAVING) SHALL TAKE PLACE BETWEEN APRIL 15 AND OCTOBER 15. TO ASSURE A VIGOROUS CATCH OF VEGETATIVE COVER, SEEDING AND MULCHING SHALL BE COMPLETED BY SEPTEMBER 15. ALL DRIVEWAYS SHALL BE PAVED BY OCTOBER 15.
14. THE CONTRACTOR SHALL REMOVE ALL BARRIER FENCING UPON STABILIZATION AND REVEGETATION.
15. DUST SHALL BE CONTROLLED IN ALL AREAS USING WATER AS NEEDED.

LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- ⊙ EXISTING LIGHT POLE
- ⊕ EXISTING HYDRANT
- ⊗ EXISTING TELEPHONE MANHOLE
- ⊖ EXISTING SEWER MH W/SEWER PIPE
- ⊘ EXISTING CB W/STORMWATER PIPE
- ⊙ EXISTING CB W/STORMWATER PIPE
- ⊙ EXISTING SIGNS
- ⊗ EXISTING WOOD RAIL FENCE
- ⊗ EXISTING UTILITY POLE & GUY WIRE
- ⊗ EXISTING TREES
- ⊗ EXISTING TREE LINE
- 487 EXISTING CONTOUR
- EXISTING WHITE LINE
- EXISTING ROAD CENTERLINE
- EXISTING FACE OF BUILDING
- ⊙ PROPOSED MAILBOX
- ⊙ PROPOSED DRAINAGE MANHOLE
- ⊖ PROPOSED CB W/STORMWATER PIPE
- ⊖ PROPOSED TREES
- ⊖ PROPOSED TREE LINE
- ⊖ PROPOSED ROAD CENTERLINE
- ▨ PROPOSED PAVEMENT AND BASE
- ▨ PROPOSED SIDEWALK
- ⊙ PROPOSED JUNCTION BOX, UNDERGROUND ELECTRIC & LIGHT POLE
- PROPERTY LINE
- SLOPE LIMIT (FILL)
- SLOPE LIMIT (CUT)
- FINISH GRADE ELEVATION
- PROPOSED UTILITY POLE

EROSION & SEDIMENT CONTROL KEY

- ⊙ STORMWATER PATHWAY
- DIRECTIONAL FLOW ARROW
- ⊙ TEMPORARY SILT FENCE
- ⊙ INLET PROTECTION AT CATCH BASINS
- ⊙ AREA TO BE SEEDING AND MULCHED
- ⊙ PROJECT DEMARCATION FENCE SET AT LIMITS OF DISTURBANCE - DELINEATED WITH SNOW FENCE (MODIFIED) EXCEPT ACROSS DRIVEWAYS, PARKING AREAS, ROADS AND PAVED WALKS.
- PDF

MAJOR SITEWORK STABILIZATION MILESTONES

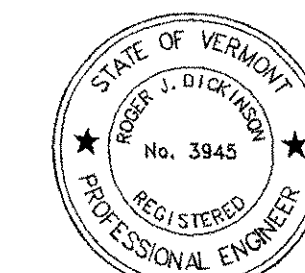
WHERE THE CONSTRUCTION AREA FOR MAJOR WORK ITEMS DO NOT OVERLAP, THE DISTURBED AREA SHALL BE STABILIZED PROMPTLY UPON FINAL GRADING, AND PRIOR TO COMMENCING WORK ON ANOTHER MAJOR SITEWORK ITEM.

PHASE I - NEW STORM DRAINAGE
 PHASE II - EAST SIDE ROADWAY WIDENING
 PHASE III - WEST SIDE SIDEWALK CONSTRUCTION
 PHASE IV - PAVEMENT MARKINGS AND SIGNS

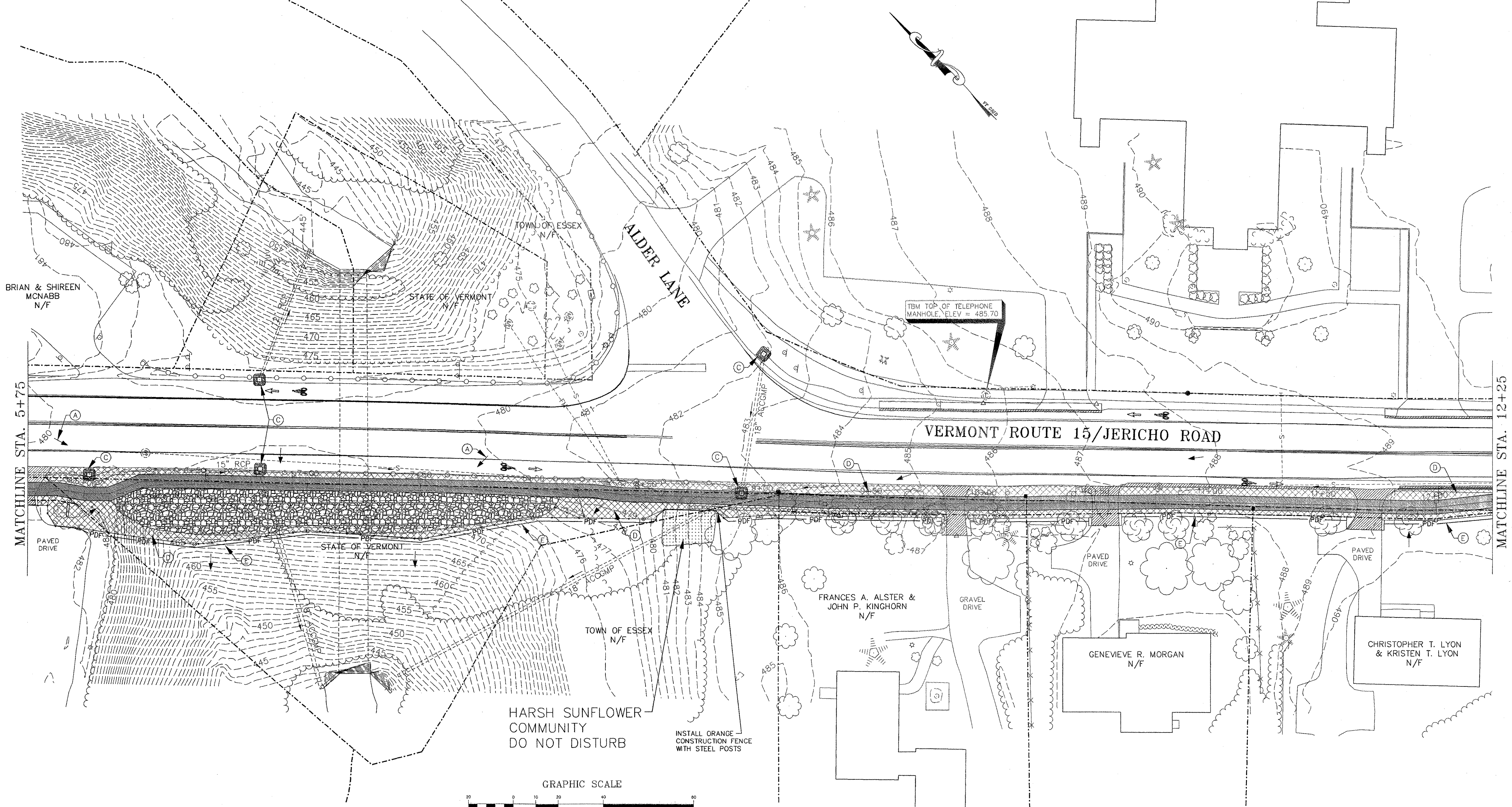
EROSION & SEDIMENT CONTROL PLANS

10-20-05	REVISED FOR CONTRACT PLANS	BH/DLH
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
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		survey L&D/OTHERS
EROSION PREVENTION AND SEDIMENT CONTROL PLAN STATION 0+00 TO 5+75		design DLH/LAL
		drawn DB
		checked LAL/DLH
		date 03/01/04
		scale 1" = 20'
		sht. no. 25F
		02132-25F

DATUM
 VERTICAL NAVD 1988
 HORIZONTAL NAD 1983

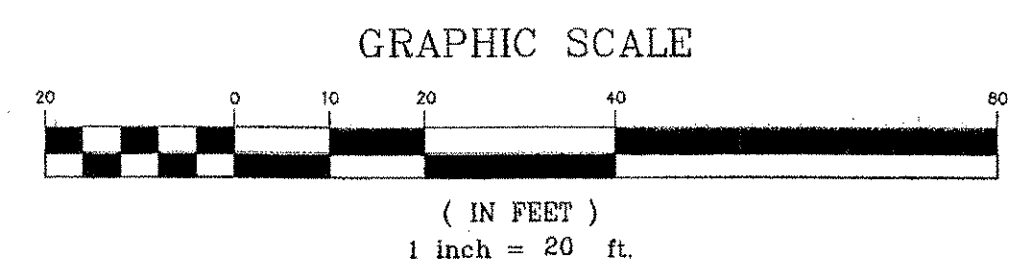


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 Tel: 802-878-4450



MATCHLINE STA. 5+75

MATCHLINE STA. 12+25



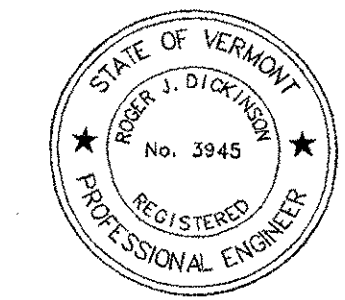
LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- EXISTING LIGHT POLE
- EXISTING HYDRANT
- EXISTING TELEPHONE MANHOLE
- EXISTING SEWER MH W/SEWER PIPE
- EXISTING CB W/STORMWATER PIPE
- EXISTING SIGNS
- EXISTING WOOD RAIL FENCE
- EXISTING UTILITY POLE & GUY WIRE
- EXISTING TREES
- EXISTING TREE LINE
- EXISTING CONTOUR
- EXISTING WHITE LINE
- EXISTING ROAD CENTERLINE
- EXISTING FACE OF BUILDING
- PROPOSED MAILBOX
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CB W/STORMWATER PIPE
- PROPOSED TREES
- PROPOSED TREE LINE
- PROPOSED ROAD CENTERLINE
- PROPOSED PAVEMENT AND BASE
- PROPOSED SIDEWALK
- PROPOSED JUNCTION BOX, UNDERGROUND ELECTRIC & LIGHT POLE
- PROPERTY LINE
- SLOPE LIMIT (FILL)
- SLOPE LIMIT (CUT)
- FINISH GRADE ELEVATION
- PROPOSED UTILITY POLE
- PROPOSED STONE FILL

EROSION & SEDIMENT CONTROL PLANS

EROSION & SEDIMENT CONTROL KEY

- (A) DIRECTIONAL FLOW ARROW
- (B) TEMPORARY SILT FENCE
- (C) INLET PROTECTION AT CATCH BASINS
- (D) AREA TO BE SEEDED AND MULCHED
- (E) PROJECT DEMARCATION FENCE SET AT LIMITS OF DISTURBANCE - DELINEATED WITH SNOW FENCE (MODIFIED) EXCEPT ACROSS DRIVEWAYS, PARKING AREAS, ROADS AND PAVED WALKS.



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EROSION PREVENTION AND SEDIMENT CONTROL PLAN		survey L&D/OTHERS
STATION 5+75 TO STA. 12+25		design DLH/LAL
		drawn DB/BH
		checked LAL/DLH
		date 03/01/04
		scale 1" = 20'
		sht. no. 25G
		02132-25G

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ROMAN CATHOLIC DIOCESE
ST. PIUS X
N/F

PETER LYON
N/F

VERMONT ROUTE 15

TOWN OF ESSEX
N/F

DOROTHY BURBO
N/F

MATCHLINE STA. 12+25

CHRISTOPHER T. LYON &
KRISTEN T. LYON
N/F

VICTOR & THERESA LOYA
N/F

KATHERINE S. REYNOLDS
FAMILY TRUST &
RAYMOND H. REYNOLDS
FAMILY TRUST
N/F

END OF PROJECT
STA. 17+60.43

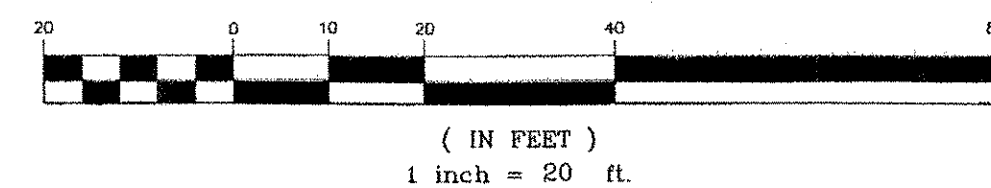
TOWN OF ESSEX
N/F

SAND HILL ROAD

LEGEND

- | | |
|---|--|
| <ul style="list-style-type: none"> ■ CONCRETE MONUMENT FOUND ○ IRON PIN FOUND ⊕ EXISTING LIGHT POLE ⊕ EXISTING HYDRANT ⊕ EXISTING TELEPHONE MANHOLE ⊕ EXISTING SEWER MH W/SEWER PIPE ⊕ EXISTING CB W/STORMWATER PIPE ⊕ EXISTING SIGNS ⊕ EXISTING WOOD RAIL FENCE ⊕ EXISTING UTILITY POLE & GUY WIRE ⊕ EXISTING TREES ⊕ EXISTING TREE LINE ⊕ EXISTING CONTOUR ⊕ EXISTING WHITE LINE ⊕ EXISTING ROAD CENTERLINE ⊕ EXISTING FACE OF BUILDING | <ul style="list-style-type: none"> ⊕ PROPOSED MAILBOX ⊕ PROPOSED DRAINAGE MANHOLE ⊕ PROPOSED CB W/STORMWATER PIPE ⊕ PROPOSED TREES ⊕ PROPOSED TREE LINE ⊕ PROPOSED ROAD CENTERLINE ⊕ PROPOSED PAVEMENT AND BASE ⊕ PROPOSED SIDEWALK ⊕ PROPOSED JUNCTION BOX, UNDERGROUND ELECTRIC & LIGHT POLE ⊕ PROPERTY LINE ⊕ SLOPE LIMIT (FILL) ⊕ SLOPE LIMIT (CUT) ⊕ FINISH GRADE ELEVATION ⊕ PROPOSED UTILITY POLE |
|---|--|

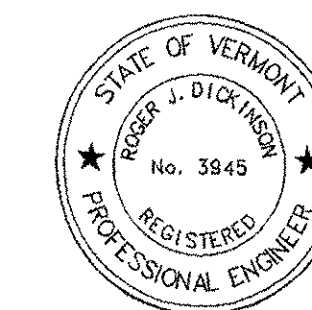
GRAPHIC SCALE



EROSION & SEDIMENT CONTROL PLANS

EROSION & SEDIMENT CONTROL KEY

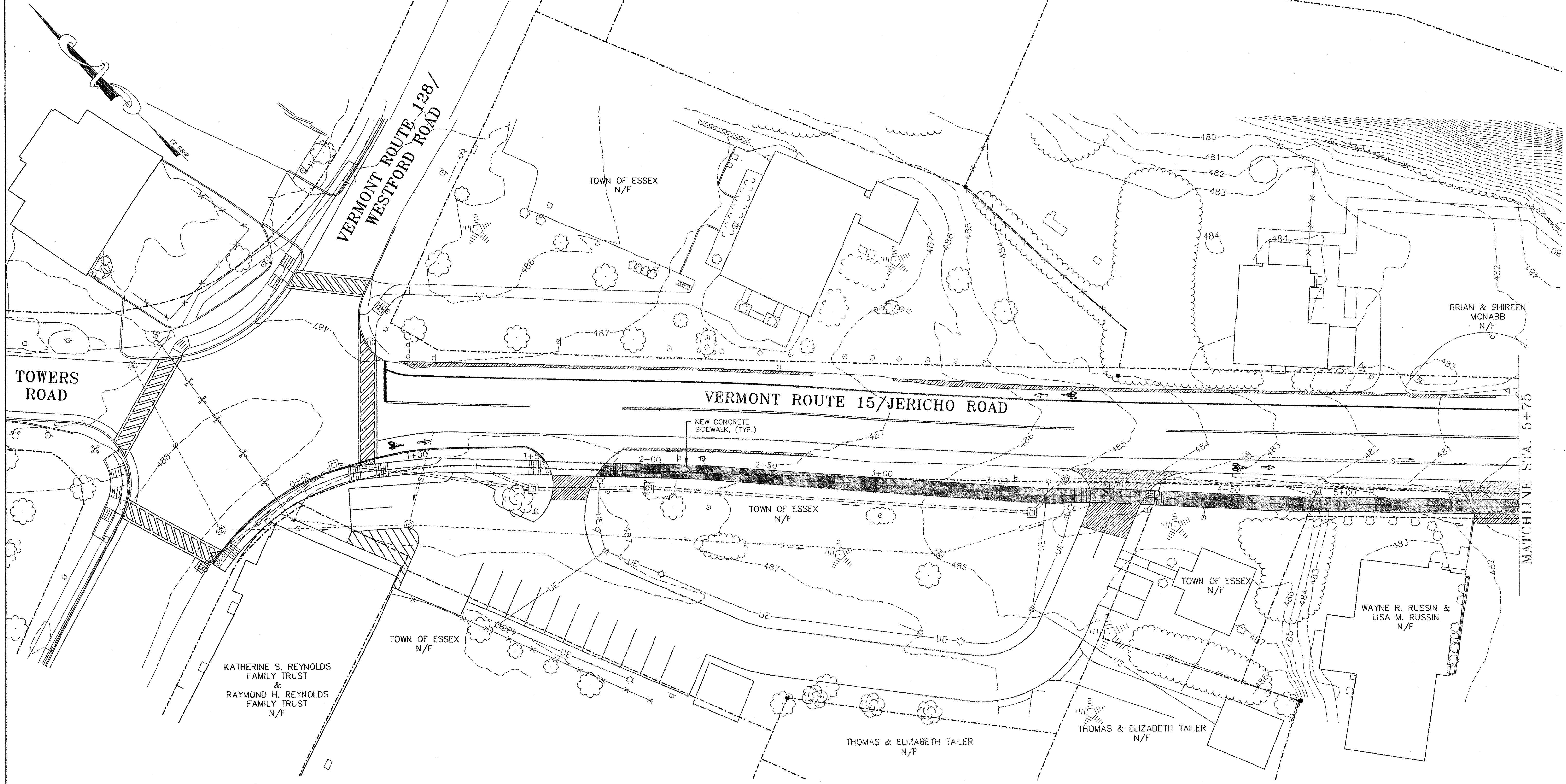
- | | |
|---------|---|
| ← | (A) DIRECTIONAL FLOW ARROW |
| — | (B) TEMPORARY SILT FENCE |
| ⊕ | (C) INLET PROTECTION AT CATCH BASINS |
| ⊕ | (D) AREA TO BE SEEDED AND MULCHED |
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ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132
EROSION PREVENTION AND SEDIMENT CONTROL PLAN		survey I&O/OTHERS
STATION 12+25 TO 17+60.43		design DLH/LAL
date 03/01/04		drawn DB
checked LAL/DLH		scale 1" = 20'
date 03/01/04		sht. no. 25H
scale 1" = 20'		02132-25H

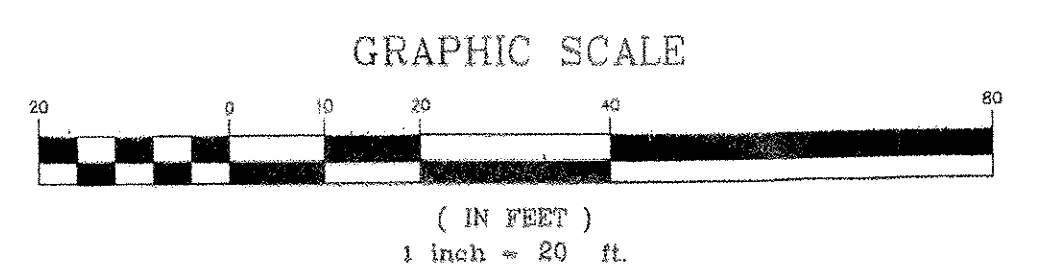
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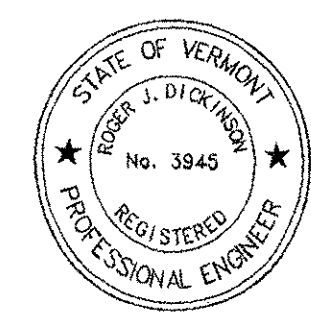
LEGEND

- | | |
|---|---|
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|---|---|

NOTE: CROSS SECTIONS ARE BEING USED TO SHOW CHANGES IN CONTOURS. SEE PLAN SHEETS 25A-25L.



EROSION & SEDIMENT CONTROL PLANS



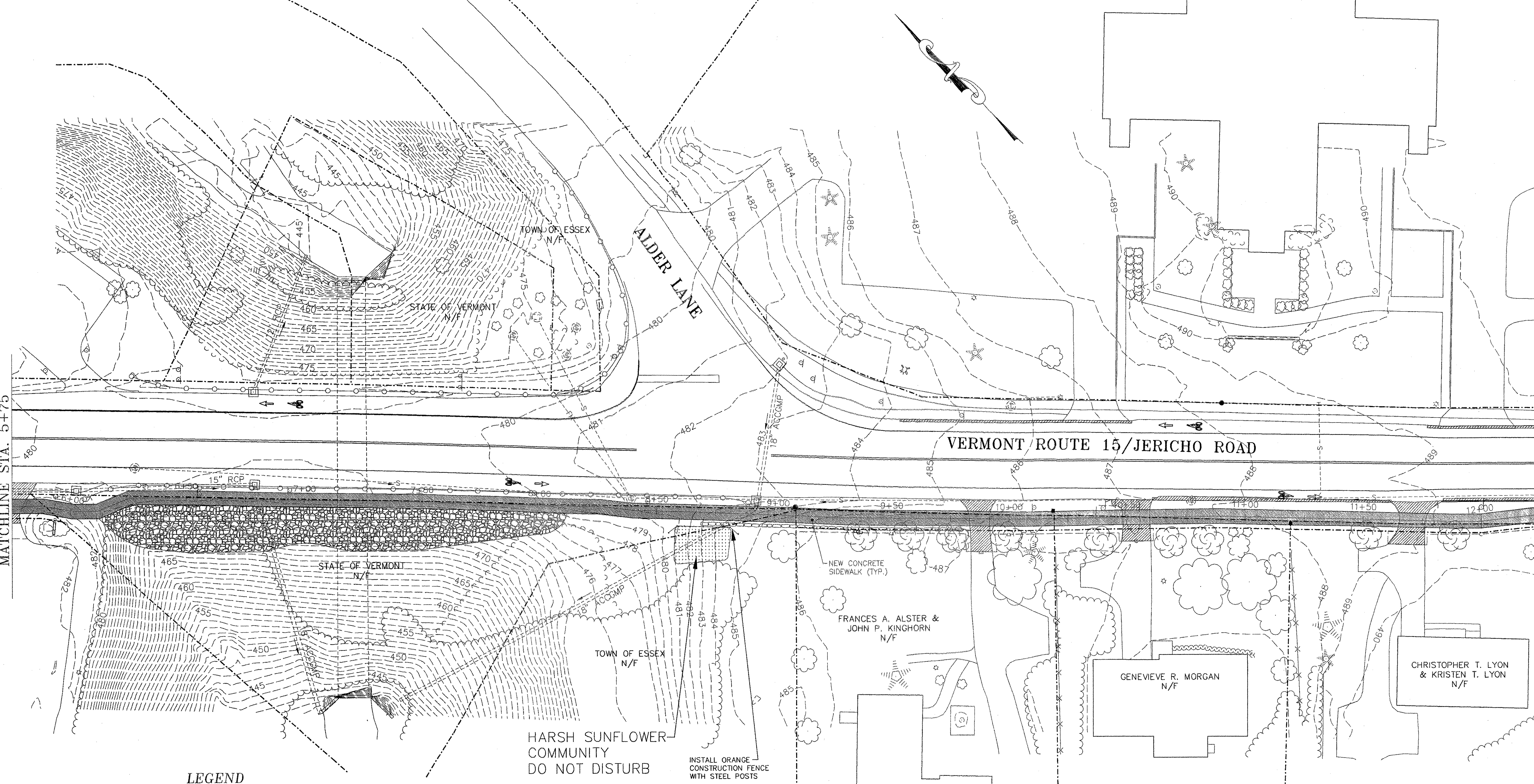
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REVISIONS		# OF SHEETS
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TOWN OF ESSEX		survey
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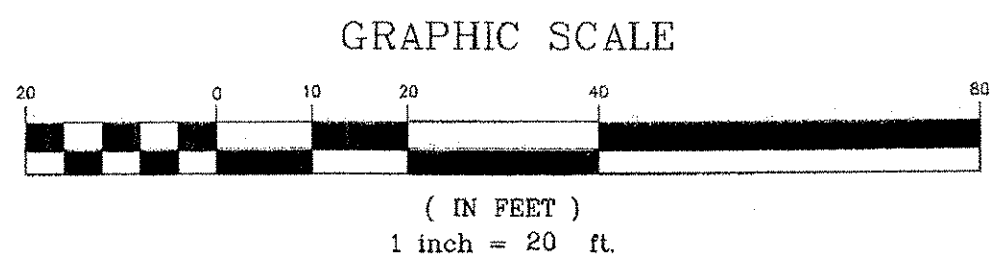
MATCHLINE STA. 5+75

MATCHLINE STA. 12+25

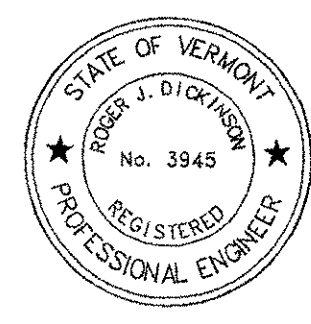


LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- ☆ EXISTING LIGHT POLE
- ⊕ EXISTING HYDRANT
- ⊙ EXISTING TELEPHONE MANHOLE
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- ⊙ BIKEWAY SYMBOL PAVEMENT MARKINGS - DURABLE WHITE AND GRITTED SUITABLE FOR BIKES



EROSION & SEDIMENT CONTROL PLANS



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		date 03/01/04
		scale 1" = 20'
		sht. no. 25K
		02132-25K

LD LAMOUREUX & DICKINSON
Consulting Engineers, Inc.
14 Morse Drive
Essex Junction, VT 05452
Tel: 802-878-4450

ROMAN CATHOLIC DIOCESE
ST. PIUS X
N/F

PETER LYON
N/F

VERMONT ROUTE 15

SAND HILL ROAD

TOWN OF ESSEX
N/F

DOROTHY BURBO
N/F

CHRISTOPHER T. LYON &
KRISTEN T. LYON
N/F

VICTOR & THERESA LOYA
N/F

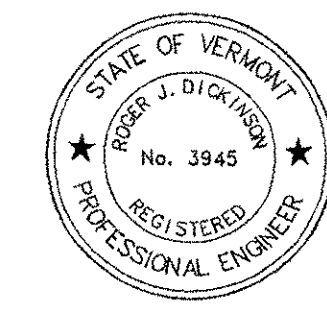
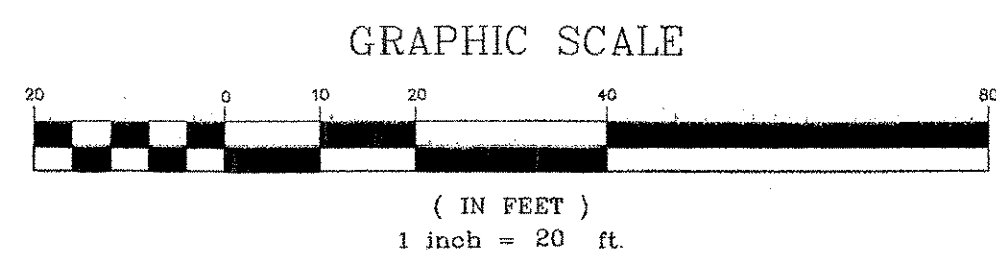
KATHERINE S. REYNOLDS
FAMILY TRUST &
RAYMOND H. REYNOLDS
FAMILY TRUST
N/F

TOWN OF ESSEX
N/F

EROSION & SEDIMENT CONTROL PLANS

LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- ⊙ EXISTING LIGHT POLE
- ⊕ EXISTING HYDRANT
- ⊙ EXISTING TELEPHONE MANHOLE
- ⊙ EXISTING SEWER MH W/SEWER PIPE
- ⊙ EXISTING MAILBOX
- ⊙ EXISTING CB W/STORMWATER PIPE
- ⊙ EXISTING SIGNS
- ⊙ EXISTING WOOD RAIL FENCE
- ⊙ EXISTING UTILITY POLE & GUY WIRE
- ⊙ EXISTING TREES
- ⊙ EXISTING TREE LINE
- ⊙ EXISTING CONTOUR
- ⊙ EXISTING WHITE LINE
- ⊙ EXISTING ROAD CENTERLINE
- ⊙ EXISTING FACE OF BUILDING
- ⊙ PROPOSED MAILBOX
- ⊙ PROPOSED DRAINAGE MANHOLE
- ⊙ PROPOSED CB W/STORMWATER PIPE
- ⊙ PROPOSED TREES
- ⊙ PROPOSED TREE LINE
- ⊙ PROPOSED WHITE LINE
- ⊙ PROPOSED ROAD CENTERLINE
- ⊙ PROPOSED PAVEMENT AND BASE
- ⊙ PROPOSED SIDEWALK
- ⊙ PROPERTY LINE
- ⊙ SLOPE LIMIT (FILL)
- ⊙ SLOPE LIMIT (CUT)
- ⊙ FINISH GRADE ELEVATION
- ⊙ LIMIT OF CONSTRUCTION
- ⊙ NEW SIGN OR POST
- ⊙ SALVAGED SIGN OR POST
- ⊙ BIKEWAY SYMBOL PAVEMENT MARKINGS - DURABLE WHITE AND CRITTED SUITABLE FOR BIKES



DATUM
VERTICAL NAVD 1988
HORIZONTAL NAD 1983

REVISIONS		# OF SHEETS
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		proj. no. 02-132
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		survey & D/OTHERS
FINAL CONDITIONS STATION 12+25 TO 17+60.43		design DLH/LAL
		drawn DB
		checked LAL/DLH
		date 03/01/04
		scale 1" = 20'
		sht. no. 25L
		02132-25L

L LAMOUREUX & DICKINSON
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14 Morse Drive
Essex Junction, VT 05452
Tel: 802-878-4450

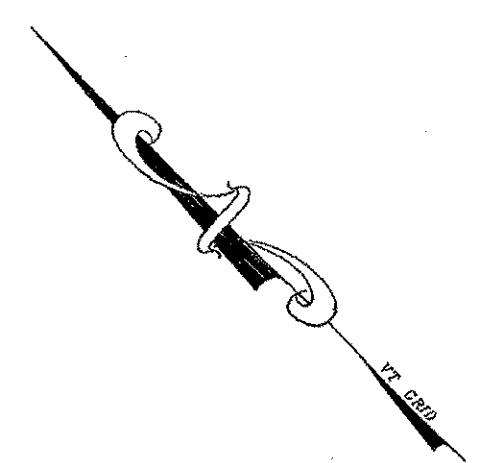
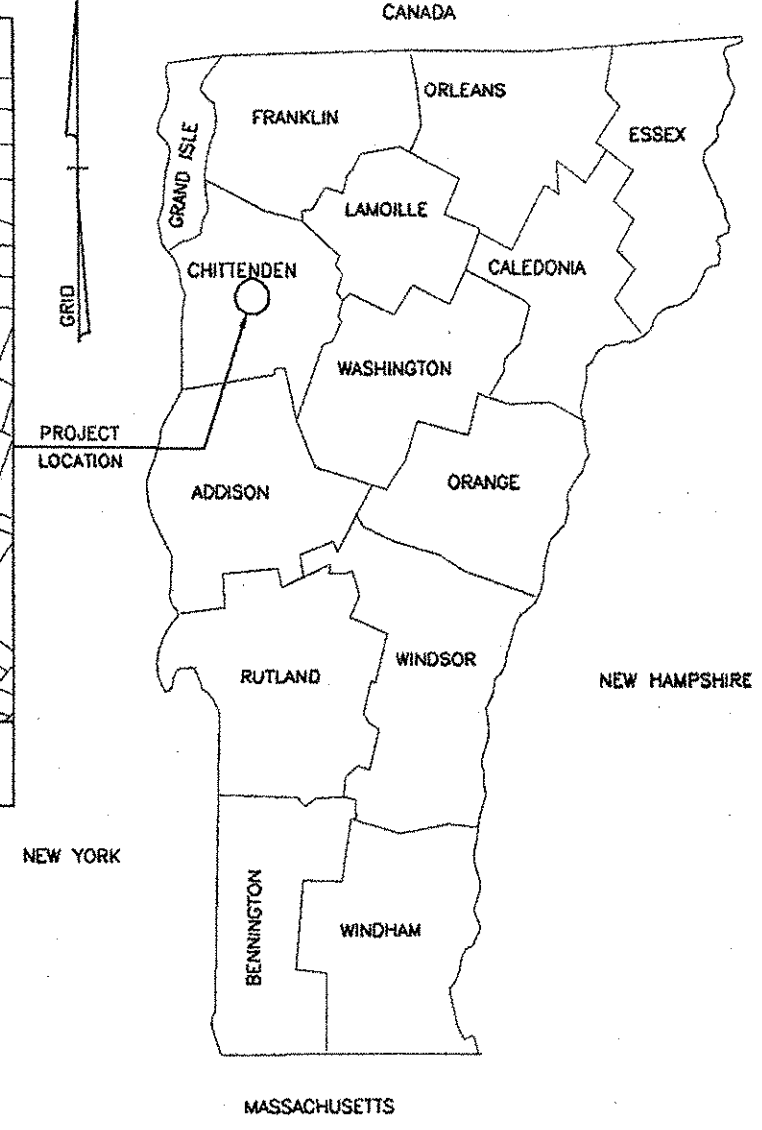
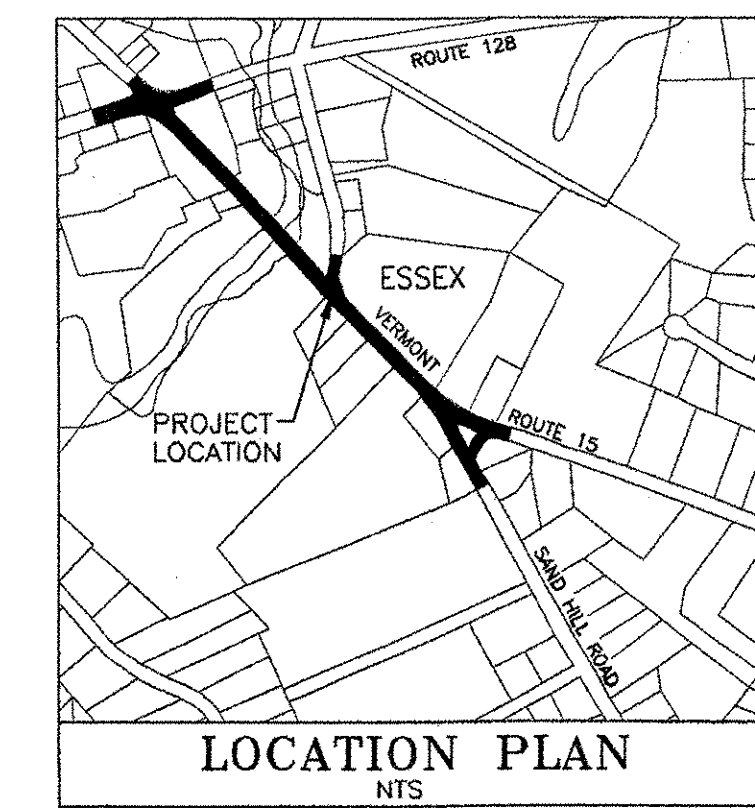
ESSEX STP WALK (9)

ESSEX CENTER SIDEWALK ESSEX, VERMONT

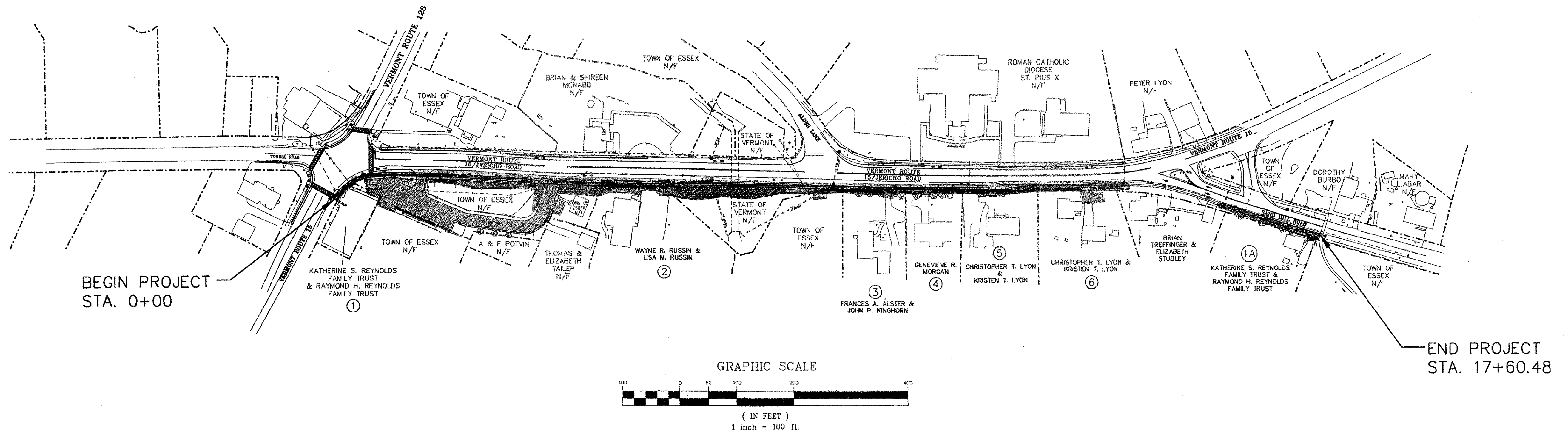
LENGTH OF PROJECT IS 1761 FEET = 0.33 MILES

THE PROJECT BEGINS IN ESSEX AT THE INTERSECTION OF VERMONT ROUTES 15 AND 128, AND PROCEEDS SOUTHEASTERLY FOR A DISTANCE OF 1,761 FEET ALONG VERMONT ROUTE 15 AND SAND HILL ROAD.

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES NEW CONCRETE SIDEWALK, CATCH BASINS, FENCING, ROADWAY WIDENING, NEW BASE, ASSOCIATED PAVEMENT MARKINGS, SIGNS, AND INCIDENTAL ITEMS.



THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.



INDEX OF SHEETS

SHEET #	TITLE
26	TITLE SHEET
27	PROPERTY ACQUISITION TABLE
28	PLAN SHEET STA. 0+00 TO STA. 5+75
29	PLAN SHEET STA. 5+75 TO STA. 12+25
30	PLAN SHEET STA. 12+25 TO STA. 17+61.22

NOTE:

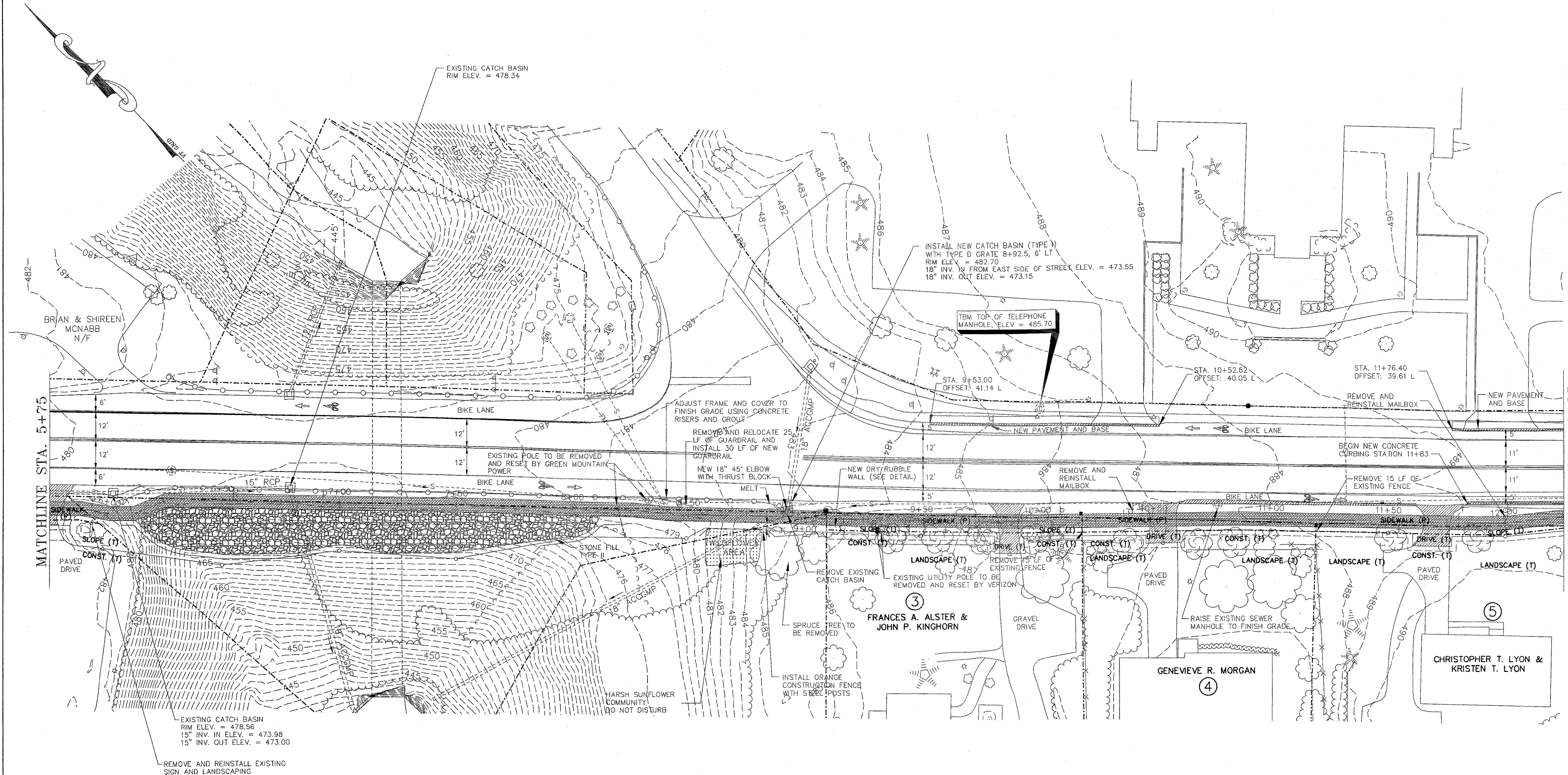
THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE TOWN ENGINEER. CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE VERMONT STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

FUNDING ASSISTANCE FOR THIS PROJECT IS BEING FURNISHED BY VTRANS AND FHWA

THIS SHEET FOR
RIGHT-OF-WAY USE ONLY

REVISIONS		# OF SHEETS
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		
STP WALK (9) TOWN OF ESSEX		proj. no. 02-132
ROUTE 15 IN ESSEX CENTER, VT		survey &D/OTHERS design DLH/LAL drawn
OVERALL SITE PLAN		DB checked LAL/DLH date 03/01/04 scale
		1" = 100' sht. no. 26 ROW SHEET 1 OF 3

TOWN OF ESSEX		DATUM	
APPROVED _____	DATE _____	VERTICAL	NAVD 1988
TOWN ENGINEER		HORIZONTAL	NAD 1983

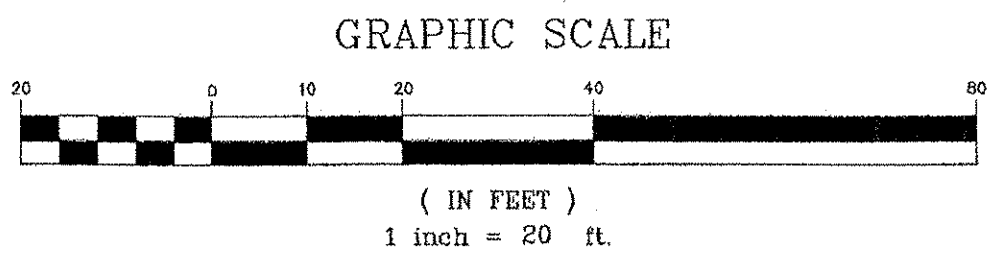


MATCHLINE STA. 5+75

MATCHLINE STA. 12+25

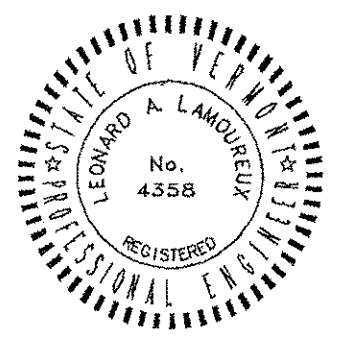
LEGEND

- CONCRETE MONUMENT FOUND
- IRON PIN FOUND
- ☆ EXISTING LIGHT POLE
- ⊕ EXISTING HYDRANT
- ⊙ EXISTING TELEPHONE MANHOLE
- ⊙ EXISTING SEWER MH W/SEWER PIPE
- ⊙ EXISTING MAILBOX
- ⊙ EXISTING CB W/STORMWATER PIPE
- ⊙ EXISTING SIGNS
- ⊙ EXISTING WOOD RAIL FENCE
- ⊙ EXISTING UTILITY POLE & GUY WIRE
- ⊙ EXISTING TREES
- ⊙ EXISTING TREE LINE
- ⊙ EXISTING CONTOUR
- ⊙ EXISTING WHITE LINE
- ⊙ EXISTING ROAD CENTERLINE
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- ⊙ PROPOSED SIDEWALK
- ⊙ PROPERTY LINE
- ⊙ SLOPE LIMIT (FILL)
- ⊙ SLOPE LIMIT (CUT)
- ⊙ FINISH GRADE ELEVATION
- ⊙ PROPOSED UTILITY POLE



CENTERLINE DATA

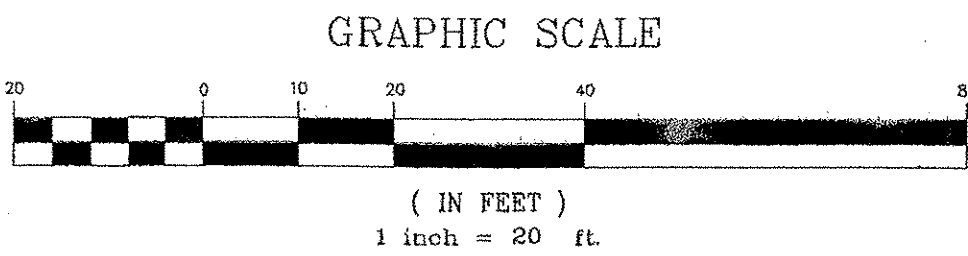
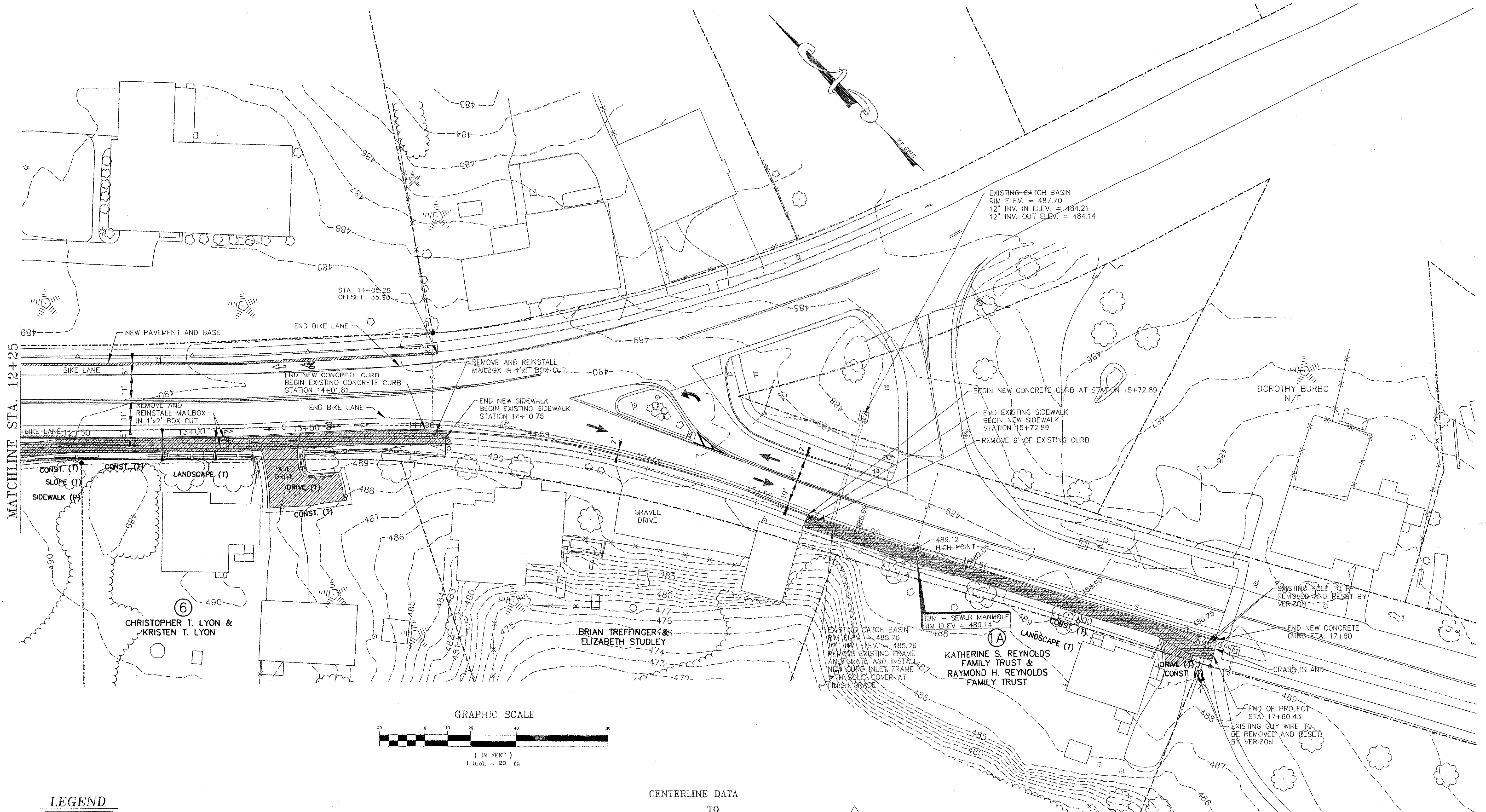
TO		
4+69.65	5+87.99	S44°23'37"E
5+87.99	6+01.06	S34°44'28"E
6+01.06	6+11.33	S45°00'00"E
6+11.33	6+26.20	S67°05'17"E
6+26.20	6+50.00	S44°21'48"E
6+50.00	7+01.31	S43°18'58"E
7+01.31	7+51.31	S44°01'41"E
7+51.31	8+26.32	S43°25'26"E
8+26.32	8+40.22	S38°28'41"E
8+40.22	8+74.73	S43°35'32"E
8+74.73	9+29.80	S42°52'08"E
9+29.80	10+21.10	S44°04'32"E
10+21.10	10+88.24	S45°33'36"E
10+88.24	11+87.47	S43°42'05"E
11+87.47	11+99.95	S45°04'20"E
	12+49.98	S51°33'35"E



REVISIONS	
THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:	# OF SHEETS
STP WALK (9)	02-132
TOWN OF ESSEX	survey
ROUTE 15 IN ESSEX CENTER, VT	&D/OTHERS
	design
	DLH/LAL
	drawn
	DB
	checked
	LAL/DLH
	date
	03/01/04
	scale
	1" = 20'
	sht. no.
	29

DATUM
 VERTICAL NAVD 1988
 HORIZONTAL NAD 1983

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 Consulting Engineers, Inc.
 14 Morse Drive
 Essex Junction, VT 05452
 Tel: 802-878-4450



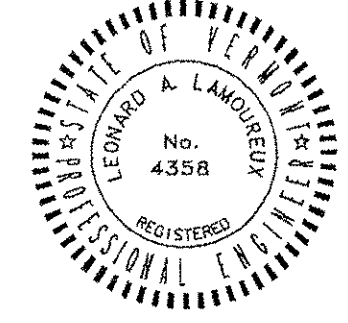
LEGEND

- | | | | |
|---|----------------------------------|---|-------------------------------|
| ■ | CONCRETE MONUMENT FOUND | ⊕ | PROPOSED MAILBOX |
| ○ | IRON PIN FOUND | ⊙ | PROPOSED DRAINAGE MANHOLE |
| ☆ | EXISTING LIGHT POLE | ⊞ | PROPOSED CB W/STORMWATER PIPE |
| ⊞ | EXISTING HYDRANT | ⊗ | PROPOSED TREES |
| ⊙ | EXISTING TELEPHONE MANHOLE | ⊘ | PROPOSED TREE LINE |
| ⊞ | EXISTING SEWER MH W/SEWER PIPE | ⊘ | PROPOSED WHITE LINE |
| ⊞ | EXISTING MAILBOX | ⊘ | PROPOSED ROAD CENTERLINE |
| ⊞ | EXISTING CB W/STORMWATER PIPE | ⊘ | PROPOSED PAVEMENT AND BASE |
| ⊞ | EXISTING SIGNS | ⊘ | PROPOSED SIDEWALK |
| ⊞ | EXISTING WOOD RAIL FENCE | ⊘ | PROPERTY LINE |
| ⊞ | EXISTING UTILITY POLE & GUY WIRE | ⊘ | SLOPE LIMIT (FILL) |
| ⊞ | EXISTING TREES | ⊘ | SLOPE LIMIT (CUT) |
| ⊞ | EXISTING TREE LINE | ⊘ | FINISH GRADE ELEVATION |
| ⊞ | EXISTING CONTOUR | ⊘ | PROPOSED UTILITY POLE |
| ⊞ | EXISTING WHITE LINE | | |
| ⊞ | EXISTING ROAD CENTERLINE | | |
| ⊞ | EXISTING FACE OF BUILDING | | |
| ⊞ | LIMIT OF CONSTRUCTION | | |

CENTERLINE DATA

TO	TO	TO
11+99.95	12+49.98	S51°33'35"E
12+49.98	12+72.77	S44°41'19"E
12+72.77	12+81.42	S45°04'20"E
12+81.42	13+01.68	S45°50'31"E
13+01.68	13+21.44	S45°13'54"E
13+21.44	13+35.23	S47°09'02"E
13+35.23	13+47.43	S48°19'15"E
13+47.43	13+67.42	S47°56'04"E
13+67.42	13+80.44	S47°59'26"E
13+80.44	13+90.99	S45°00'52"E
13+90.99	14+01.73	S44°03'22"E
14+01.73	14+03.51	S42°21'38"E
14+03.51	14+05.54	S42°21'25"E
14+05.54	14+08.57	S42°21'43"E
14+08.57	14+10.75	S42°08'04"E
14+10.75	15+72.89	
15+72.89	15+75.43	S23°28'14"E
15+75.43	16+99.39	S27°18'18"E
16+99.39	17+14.98	S29°09'25"E
17+14.98	17+29.45	S29°14'05"E
17+29.45	17+34.21	S28°27'57"E
17+34.21	17+51.95	S17°38'29"E
17+51.95	17+56.14	S28°37'56"E
17+56.14	17+60.43	S29°36'56"E

EXISTING SIDEWALK

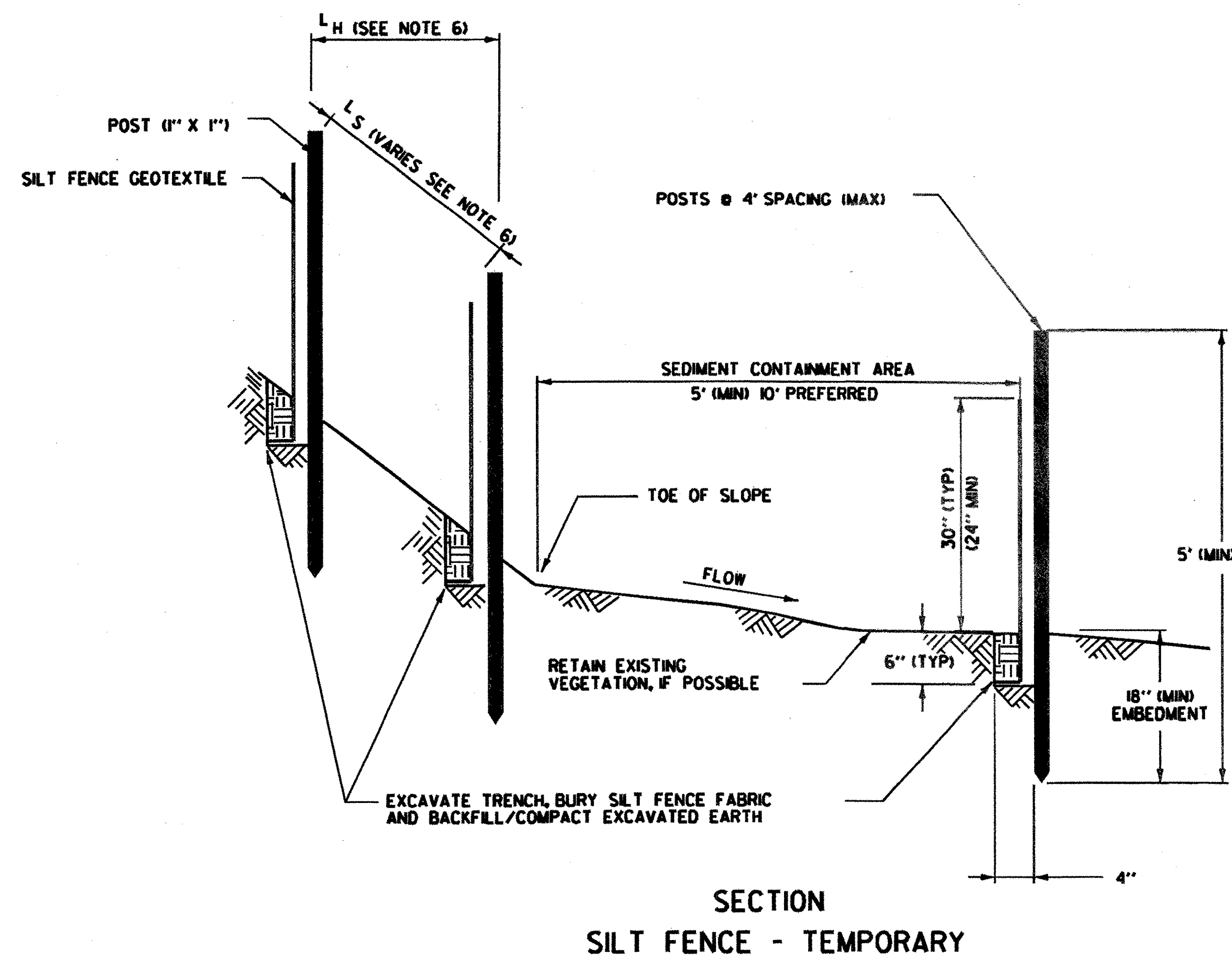
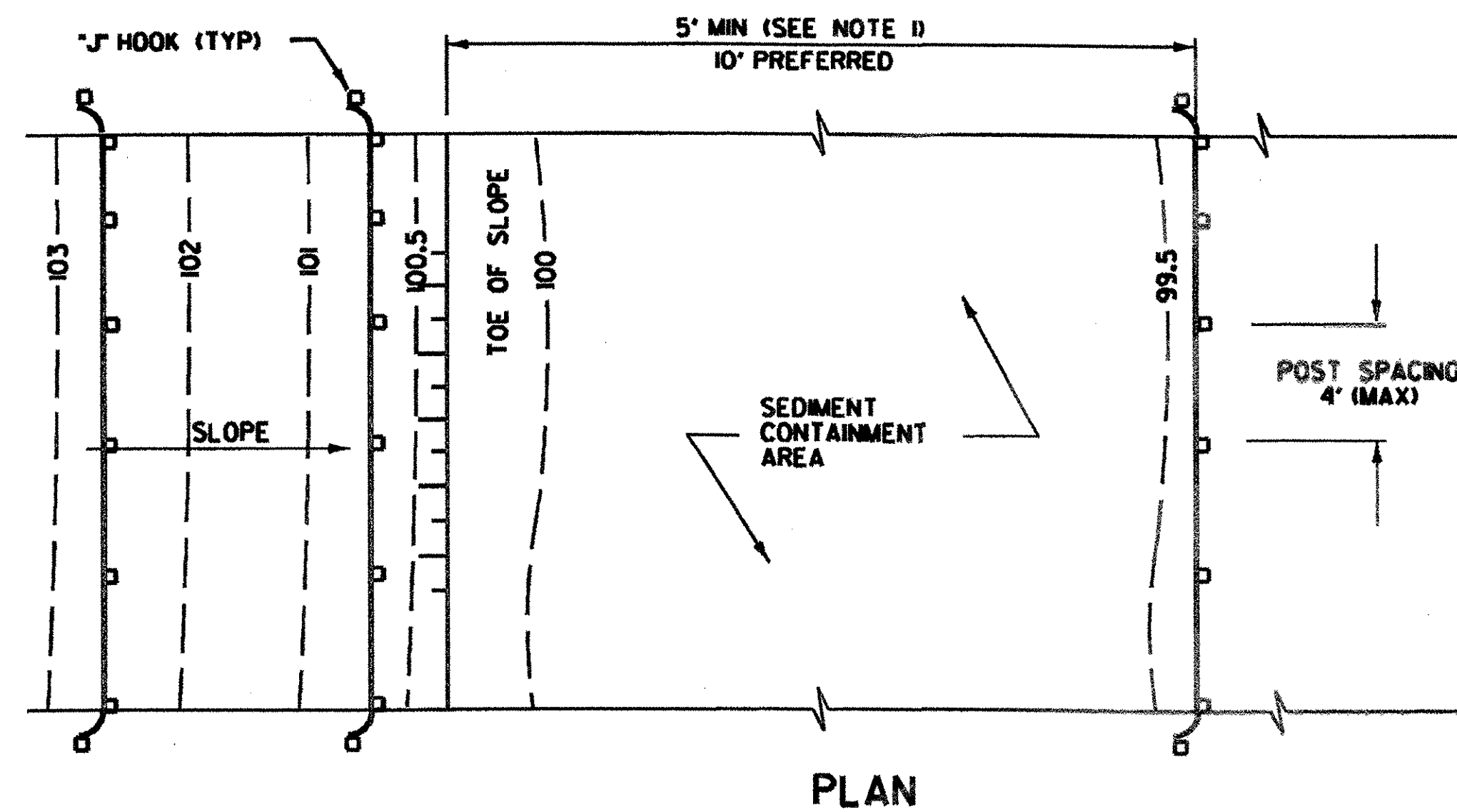


REVISIONS THESE PLANS WITH LATEST REVISIONS SHOULD ONLY BE USED FOR THE PURPOSE SHOWN BELOW:		# OF SHEETS
STP WALK (9) TOWN OF ESSEX ROUTE 15 IN ESSEX CENTER, VT		proj. no. 02-132 survey &D/OTHERS design DLH/LAL drawn DB checked LAL/DLH date 03/01/04 scale 1" = 20' sht. no.
SITE PLAN STATION 12+25 TO 17+61.22		30

DATUM
 VERTICAL NAVD 1988
 HORIZONTAL NAD 1983

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 Consulting Engineers, Inc.
 14 Morse Drive
 Essex Junction, VT 05452
 Tel: 802-878-4450

SILT FENCE



APPLICATION NOTES:

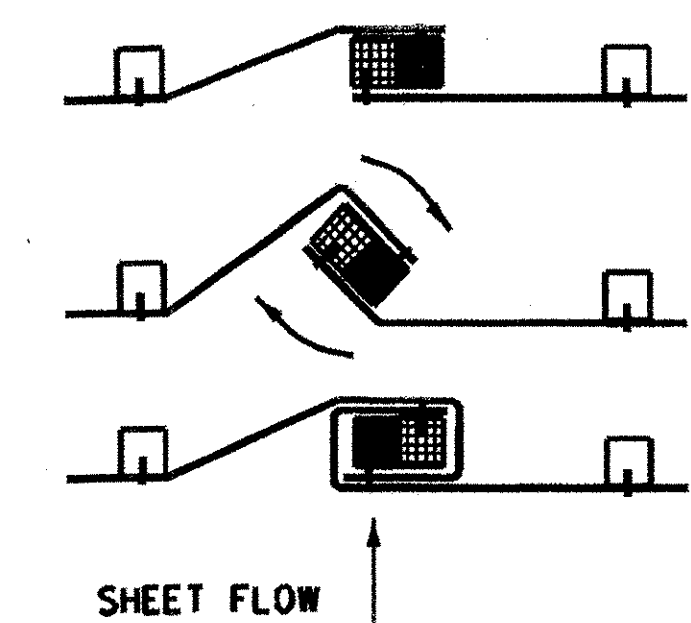
- A. THE PRIMARY PURPOSE OF SILT FENCE IS TO REDUCE RUNOFF VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE MEASURE, AND SEDIMENT FALLS OUT OF SUSPENSION.
- B. SILT FENCE SHALL BE INSTALLED ON A LINE OF EQUAL ELEVATION (CONTOUR). IT MAY BE INSTALLED AT INTERMEDIATE POINTS UP SLOPES AS WELL AS AT THE BOTTOM, AS SHOWN IN THE DETAIL.
- C. SILT FENCE SHALL NOT BE USED ACROSS CONCENTRATED FLOW.

GENERAL NOTES:

1. SILT FENCE SHALL GENERALLY BE PLACED A MINIMUM OF 5 FEET BEYOND TOE OF SLOPE, 10 FEET PREFERRED, TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF SEDIMENT CONTAINMENT AREA.
2. ALL ENDS SHALL BE 'J' HOOKED TO TRAP SEDIMENT.
3. IN AREAS WITH TWO SLOPES, SILT FENCE SHALL BE USED TO ERECT A DAM AND TRAP SEDIMENT AT THE BASE OF THE STEEPER SLOPE.
4. THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 6 INCHES BELOW GROUND, AND KEYED IN 4 INCHES. THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC.
5. MAXIMUM DRAINAGE AREA TRIBUTARY TO 100 FEET OF SILT FENCE SHALL BE 0.25 ACRES.
6. THE FOLLOWING ARE MAXIMUM SLOPE LENGTHS FOR THESE MEASURES:

CONSTRUCTED SLOPE	SLOPE LENGTH (LS) FT	HORIZONTAL LENGTH (LH) FT
3 : 1	80	75
4 : 1	130	125
5 : 1	200	200
> 5 : 1	250	250

7. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
8. MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
9. SILT FENCE SHALL BE REMOVED WHEN THE AREA HAS BEEN STABILIZED. AT TIME OF REMOVAL OF THE SILT FENCE, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.
10. PAYMENT FOR INSTALLATION AND REMOVAL OF SILT FENCE SHALL BE MADE UNDER THE GEOTEXTILE FOR SILT FENCE ITEM.
11. PAYMENT FOR MONITORING SILT FENCE SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
12. PAYMENT FOR MAINTAINING INLET PROTECTION SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.

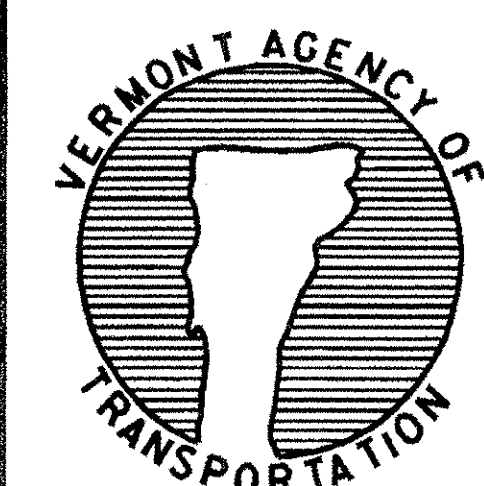


1. PLACE THE END POST OF ONE FENCE INSIDE THE END POST OF THE OTHER FENCE.
2. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
3. DRIVE BOTH POSTS 18 INCHES INTO THE GROUND AND BURY THE FLAP IN THE TRENCH.

SPlicing DETAIL

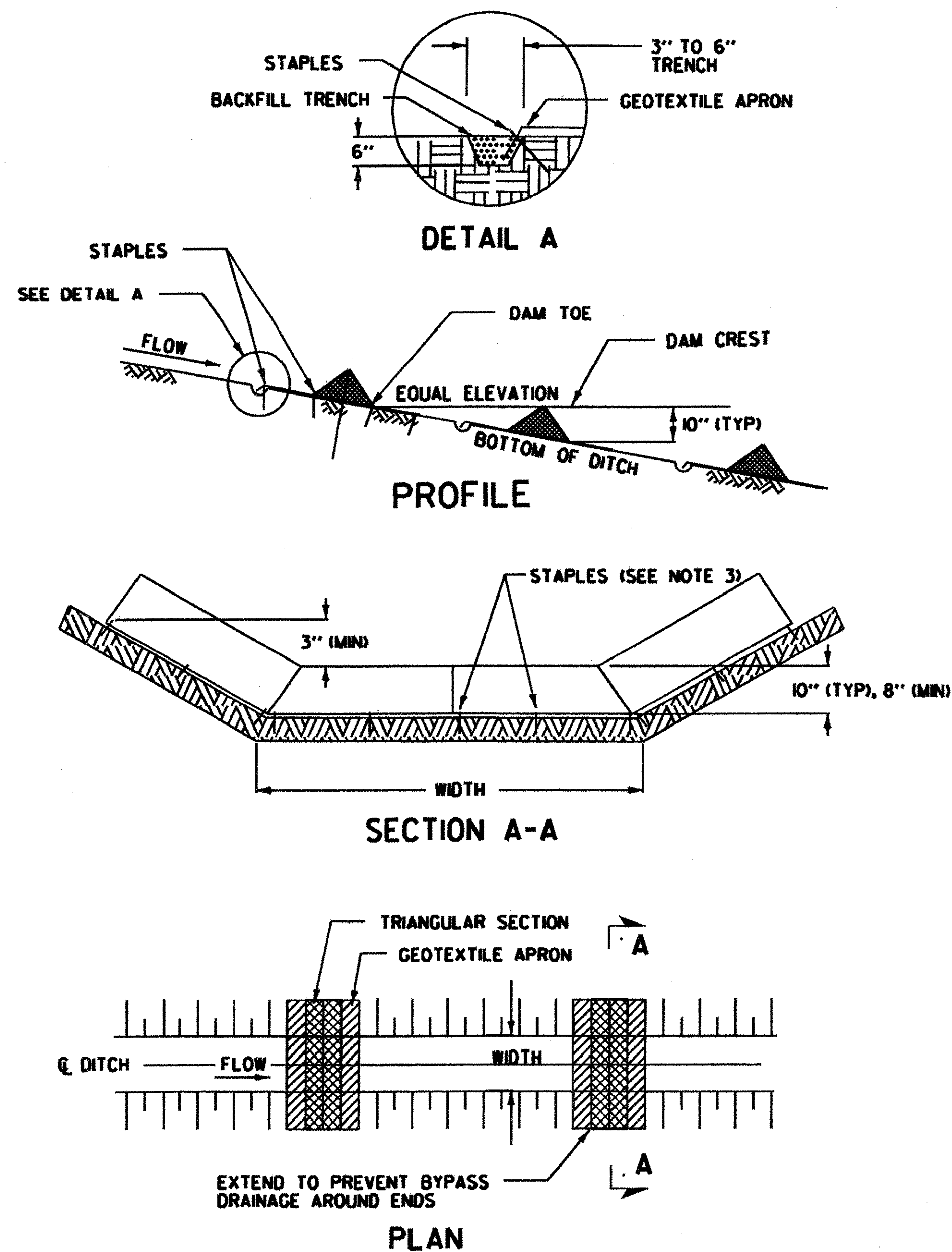
REVISIONS AND CORRECTIONS
MAY 12, 2004 N. GARBACK

EROSION PREVENTION & SEDIMENT CONTROL DETAILS SILT FENCE



DETAIL
EPSC-1

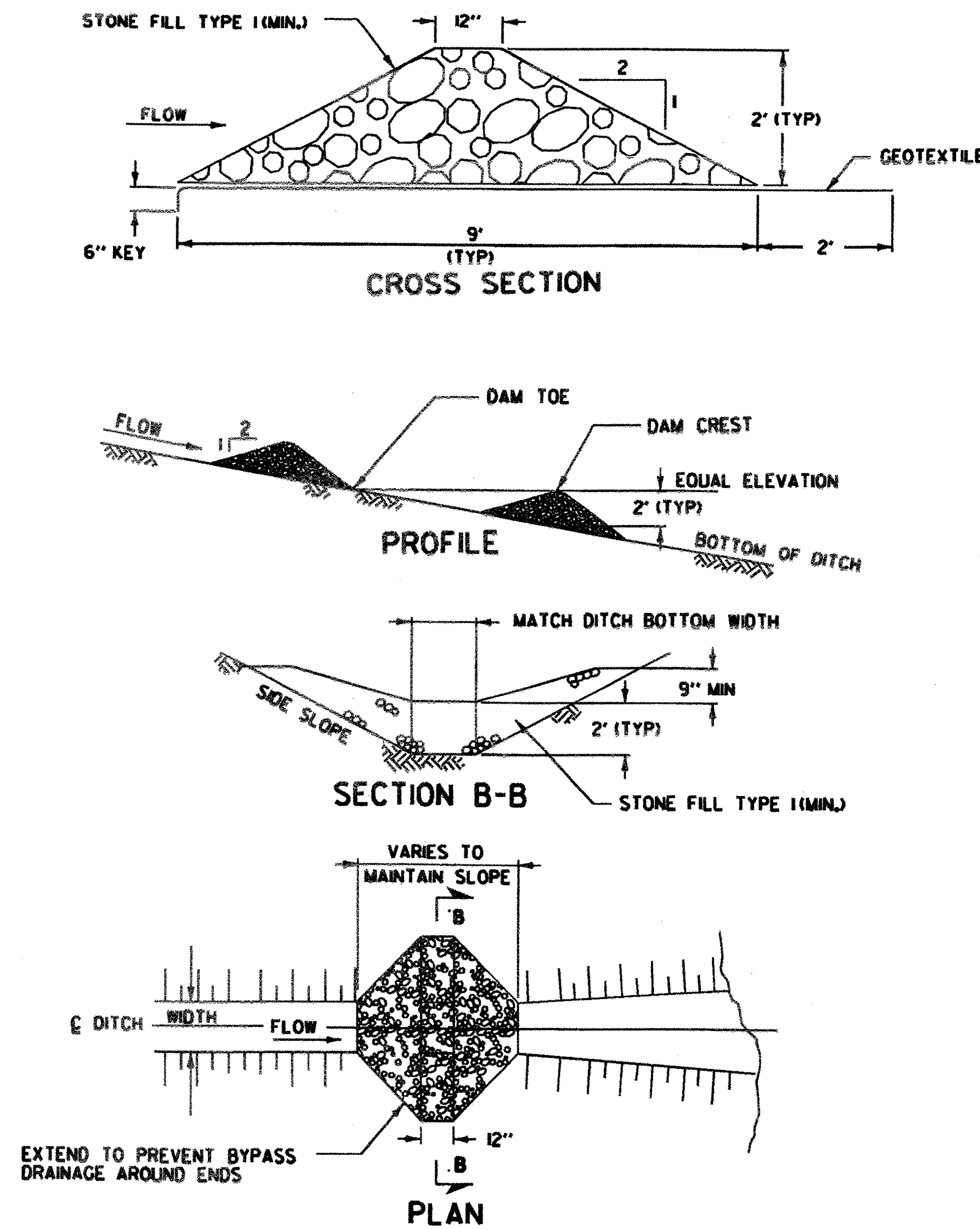
CHECK DAMS



CHECK DAM - TEMPORARY (PREFABRICATED)

DITCH SLOPE	PLACEMENT INTERVAL **
1 %	50 FT
2 %	40 FT
3 %	25 FT
4 %	20 FT
5 %	15 FT

** BASED ON 10" TYPICAL HEIGHT



CHECK DAM - TEMPORARY (STONE)

DITCH SLOPE	PLACEMENT INTERVAL **
1 %	200 FT
2 %	100 FT
3 %	65 FT
4 %	50 FT
5 %	40 FT
6 %	30 FT
8 %	25 FT
10 %	20 FT

** BASED ON 2' TYPICAL HEIGHT

APPLICATION NOTES:

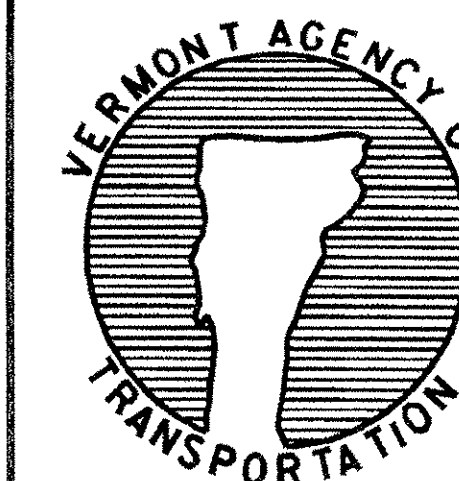
- THE PRIMARY PURPOSE OF A CHECK DAM IS TO REDUCE EROSION IN A CHANNEL BY REDUCING FLOW VELOCITY.
- CHECK DAMS WILL CAPTURE SEDIMENT THAT FALLS OUT OF SUSPENSION BEHIND THE CHECK DAM DUE TO DECREASED VELOCITY.
- CHECK DAMS ARE NOT INTENDED TO FILTER SEDIMENT FROM TURBID WATER.
- DETAILS SHOWN SHALL BE USED FOR TEMPORARY INSTALLATION ONLY.
- PREFABRICATED DAMS ARE NOT TO BE USED ON SLOPES GREATER THAN 5% OR PER MANUFACTURER'S SPECIFICATIONS.
- PREFABRICATED DAM SPECIFICATIONS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.

GENERAL NOTES:

- GEOTEXTILE SHALL BE INSTALLED UNDER STONE FILL. IT SHALL BE KEYED IN ON THE UP HILL END AND SHALL EXTEND 2 FEET BEYOND THE STONE ON THE DOWN HILL END.
- CORE MATERIAL FOR THE STONE CHECK DAM SHALL MEET THE GRADATION REQUIREMENTS OF STONE FILL TYPE 1 (MIN.). STONE SIZE SHOULD BE INCREASED WITH INCREASED SLOPE AND VELOCITY.
- THE UPHILL END OF THE APRON FOR THE PREFABRICATED CHECK DAM SHALL BE STAPLED AND BURIED AS SHOWN IN DETAIL "A" OR AS RECOMMENDED BY THE MANUFACTURER'S LITERATURE.
- MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
- MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
- AT TIME OF REMOVAL OF THE CHECK DAMS, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.
- PAYMENT FOR INSTALLATION AND REMOVAL OF CHECK DAMS SHALL BE MADE UNDER APPLICABLE ITEMS INCLUDED IN THE CONTRACT PLANS OR UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MONITORING CHECK DAMS SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MAINTAINING INLET PROTECTION SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.

REVISIONS AND CORRECTIONS
MAY 11, 2004 N. GARBACK

EROSION PREVENTION & SEDIMENT CONTROL DETAILS CHECK DAMS



DETAIL
EPSC-2

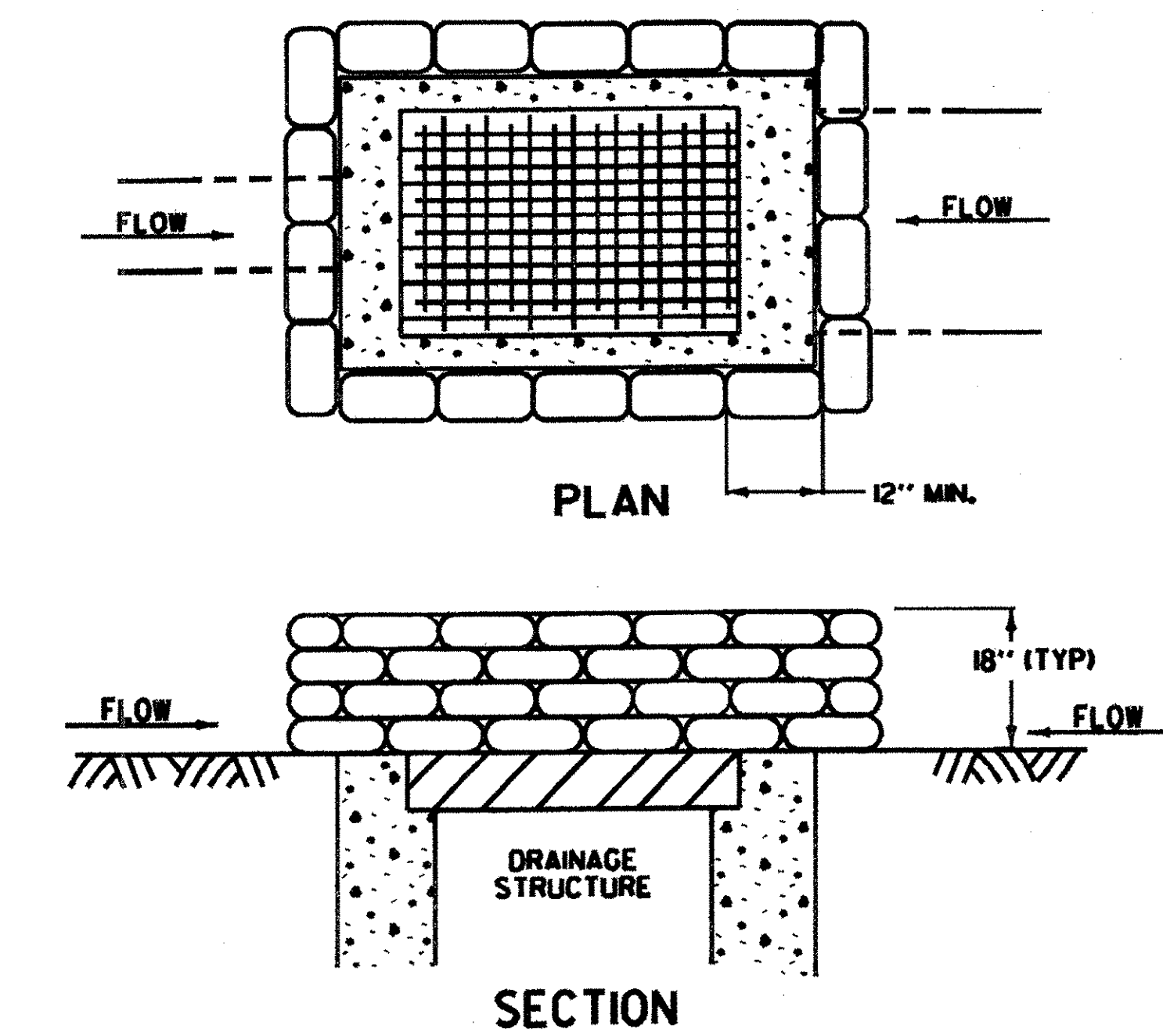
DROP INLET PROTECTION

APPLICATION NOTES:

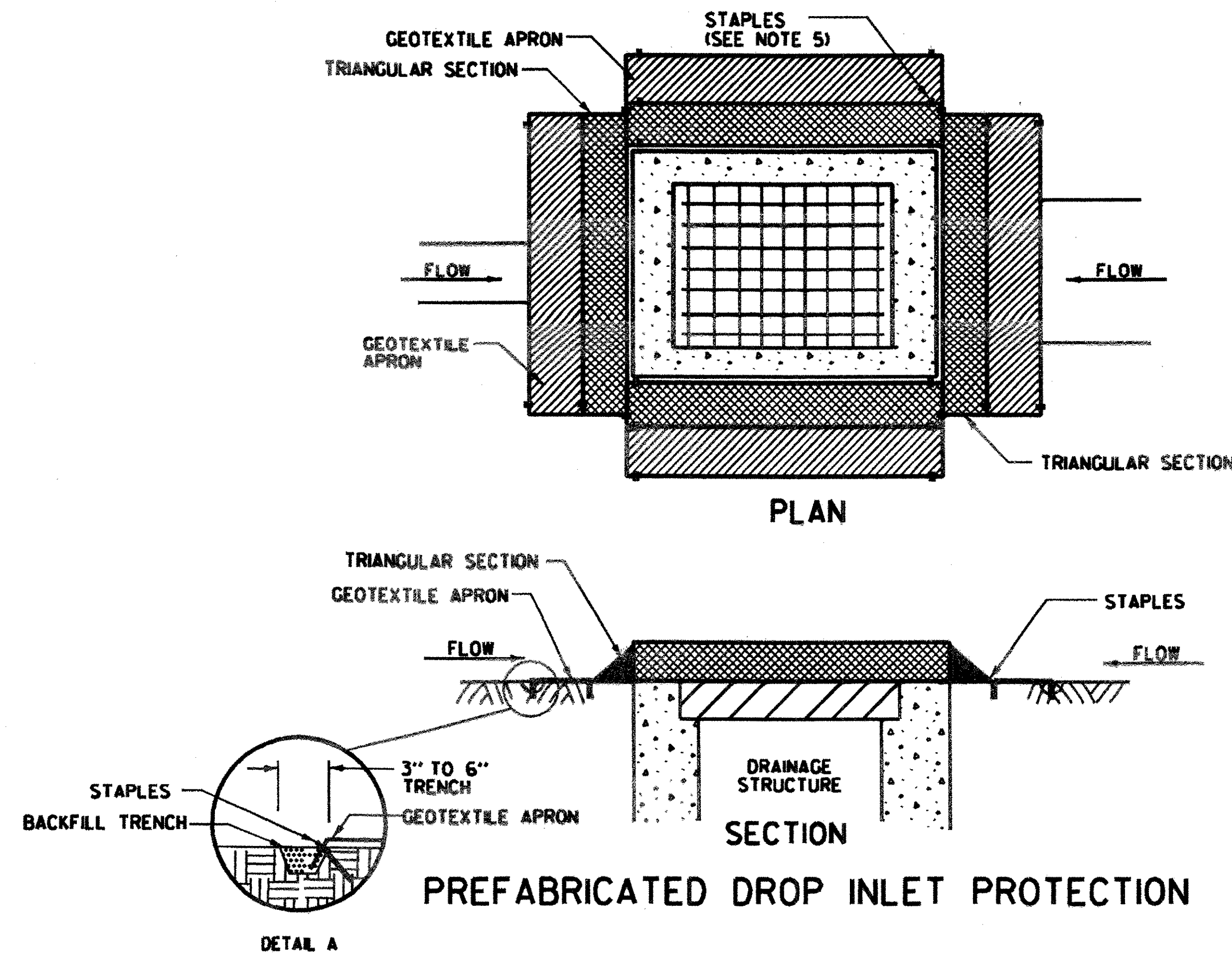
- A. THE PRIMARY PURPOSE OF DRAINAGE STRUCTURE INLET PROTECTION IS TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM BY PONDING WATER WHICH ALLOWS SEDIMENT TO FALL OUT OF SUSPENSION.
- B. THESE EXAMPLES OF DROP INLET PROTECTION ARE NOT INTENDED FOR USE ON GRADES. ON GRADE THEY MAY CAUSE WATER TO BYPASS THE STRUCTURE, CREATING ADDITIONAL EROSION OR FLOODING.
- C. POSSIBLE MODIFICATIONS FOR USE ON GRADE INCLUDE ADDING A BERM DOWNSTREAM OF THE INLET TO CREATE PONDING. CHECK DAMS MAY ALSO BE USED UPSTREAM OF THE INLET TO SLOW VELOCITIES.
- D. PREFABRICATED DROP INLET PROTECTION SPECIFICATIONS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.

GENERAL NOTES:

1. THE TOP OF THE INLET PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL, BASED ON FIELD LOCATION AND CONDITIONS.
2. SILT FENCE GEOTEXTILE SHALL BE A SINGLE CONTINUOUS PIECE TO ELIMINATE JOINTS.
3. SPACE SILT FENCE POSTS EVENLY AROUND INLET WITH A MAXIMUM SPACING OF 3 FEET. DRIVE POSTS A MINIMUM OF 18 INCHES INTO GROUND. WIRE MESH MAY BE REQUIRED BEHIND GEOTEXTILE TO PROVIDE SUPPORT.
4. SILT FENCE GEOTEXTILE SHALL BE EMBEDDED A MINIMUM OF 6 INCHES AND BACKFILLED. GEOTEXTILE SHALL BE SECURELY FASTENED TO POSTS AND FRAME.
5. GRAVEL BAGS SHALL BE FILLED WITH CLEAN STONE, RATHER THAN SAND, TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM IF BAGS ARE DAMAGED DURING USE.
6. GRAVEL BAGS SHALL BE INDIVIDUALLY TIED, DOUBLE BAGGED AND INVERSELY INSERTED. GRAVEL BAGS SHALL LAP THE JOINTS BETWEEN THE BAGS IN THE LAYER BELOW.
7. SECURE THE ENDS OF THE APRON FOR THE PREFABRICATED DRAINAGE STRUCTURE INLET PROTECTION WITH STAPLES AS DETAILED IN THE PLAN VIEW OR AS RECOMMENDED BY THE MANUFACTURERS LITERATURE.
8. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
9. MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
10. PAYMENT OF INLET PROTECTION SHALL BE MADE UNDER APPLICABLE ITEMS INCLUDED IN THE CONTRACT PLANS OR UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM.
11. PAYMENT FOR MONITORING INLET PROTECTION SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
12. PAYMENT FOR MAINTAINING INLET PROTECTION SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.

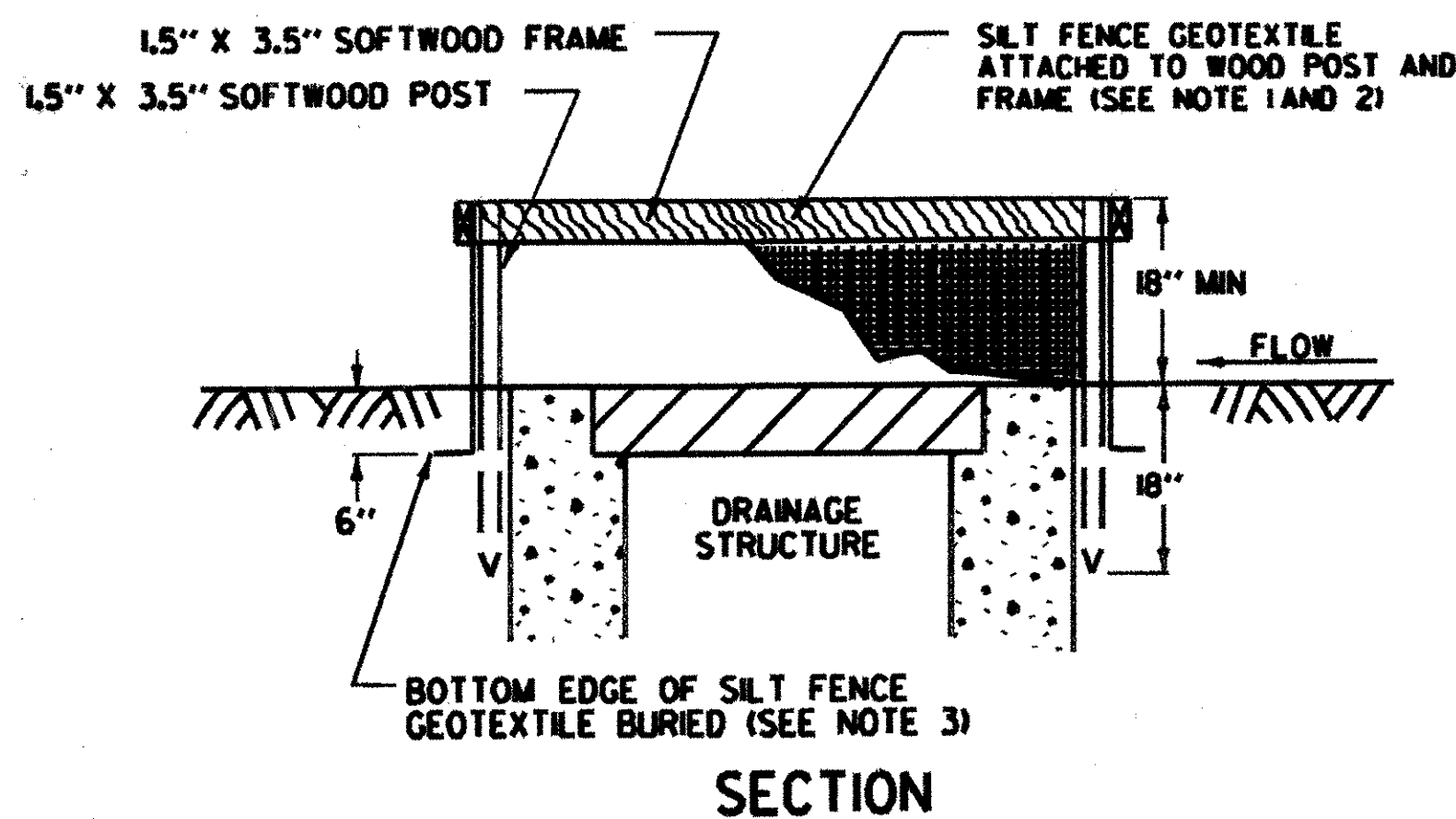
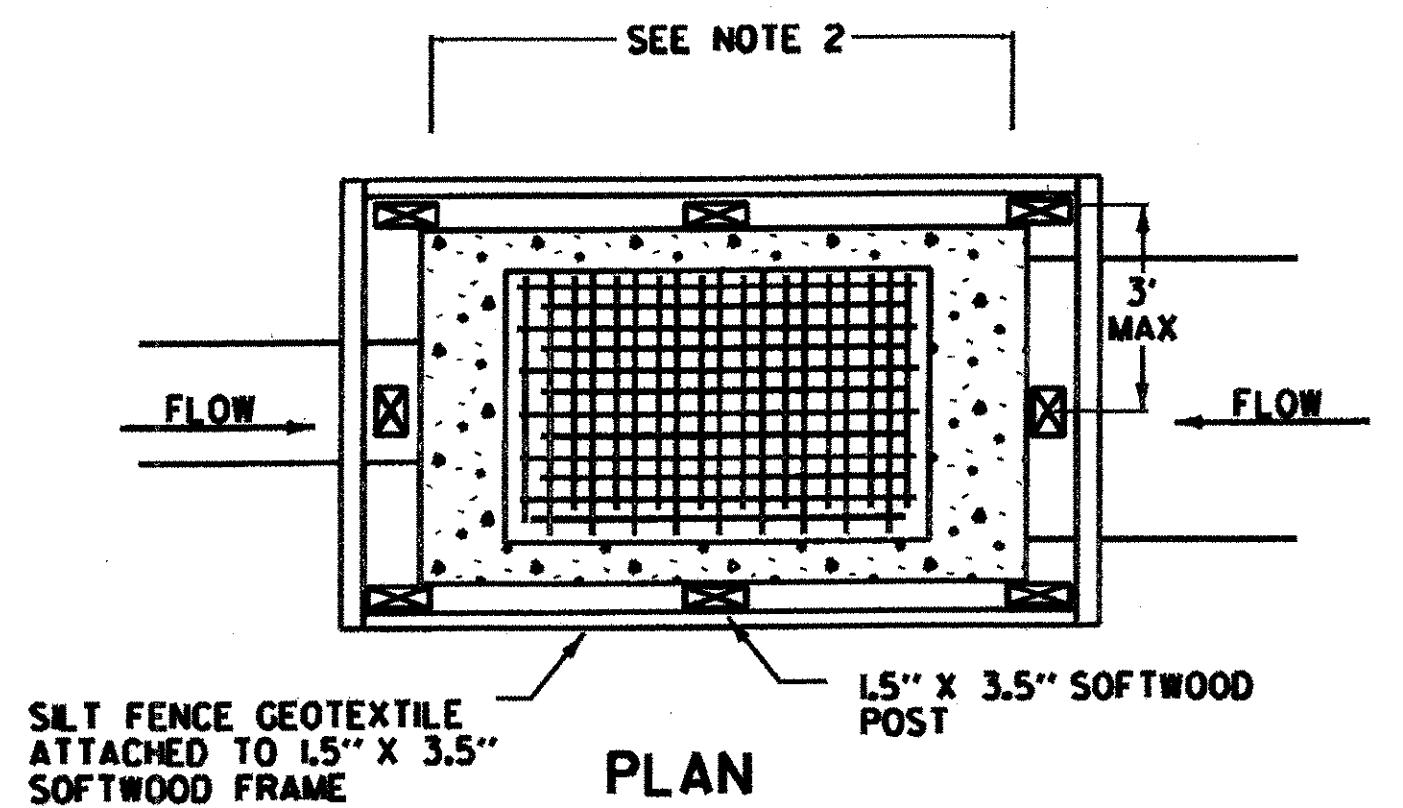


GRAVEL BAG DROP INLET PROTECTION

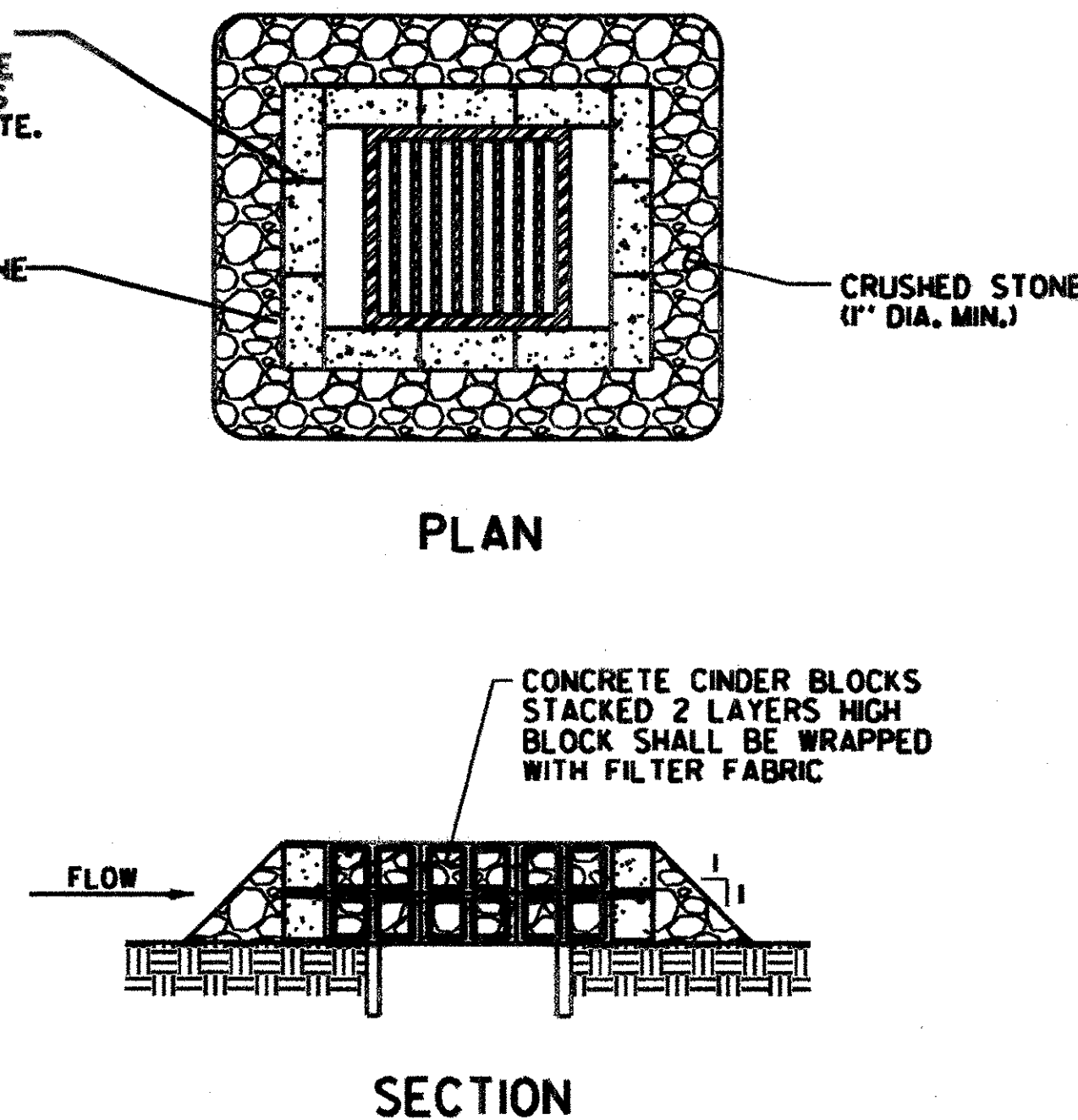


PLACE CONCRETE "CINDER" BLOCKS AROUND THE DRAINAGE STRUCTURE SO THAT OPEN AREAS OF BLOCKS ALLOW FLOW TO REACH THE GRATE.

PLACE FILTER FABRIC AROUND THE CONCRETE BLOCKS TO PREVENT CRUSHED STONE FROM ENTERING OPEN AREAS OF BLOCKS.



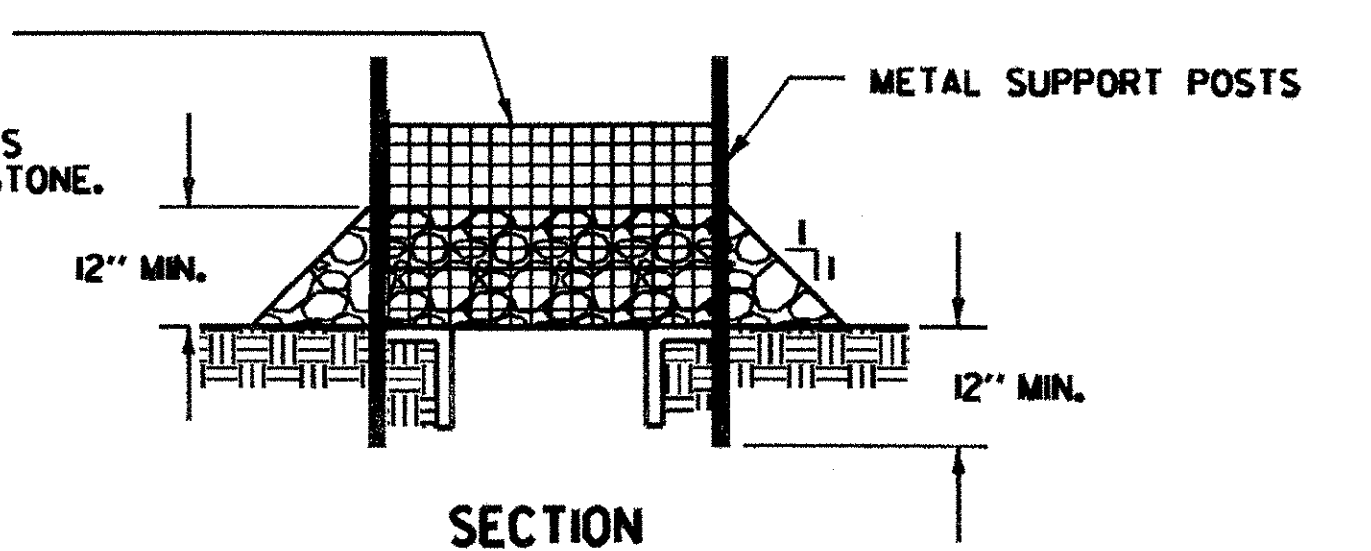
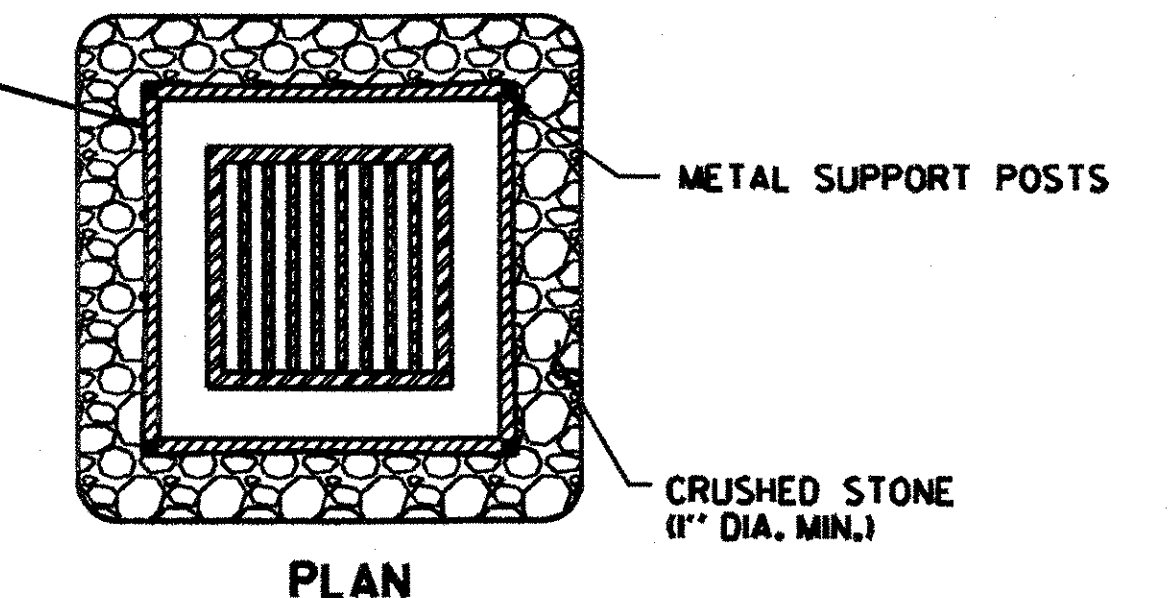
SILT FENCE DROP INLET PROTECTION



ROCK BARRIER DROP INLET PROTECTION
TEMPORARY PAVED AREAS

PLACE FILTER FABRIC AROUND THE WIRE MESH TO PREVENT CRUSHED STONE FROM ENTERING THE DROP INLET.

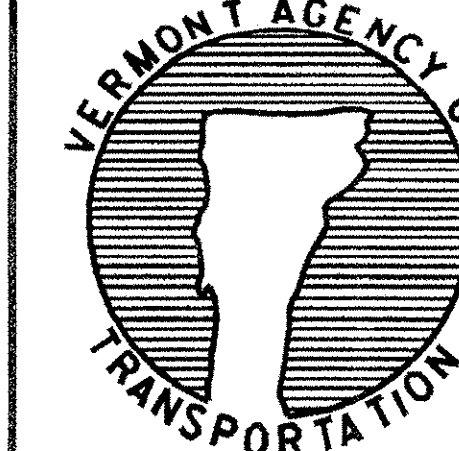
WIRE MESH FENCE WITH 0.5" MAX. OPENINGS. FENCE WILL BE WRAPPED WITH FILTER FABRIC. SECURE TIGHTLY TO METAL SUPPORT POSTS BEFORE PLACEMENT OF CRUSHED STONE.



ROCK BARRIER INLET PROTECTION
TEMPORARY UNPAVED AREAS

REVISIONS AND CORRECTIONS
MAY 11, 2004 N. GARBACK

EROSION PREVENTION & SEDIMENT CONTROL DETAILS DROP INLET PROTECTION



DETAIL
EPSC-3