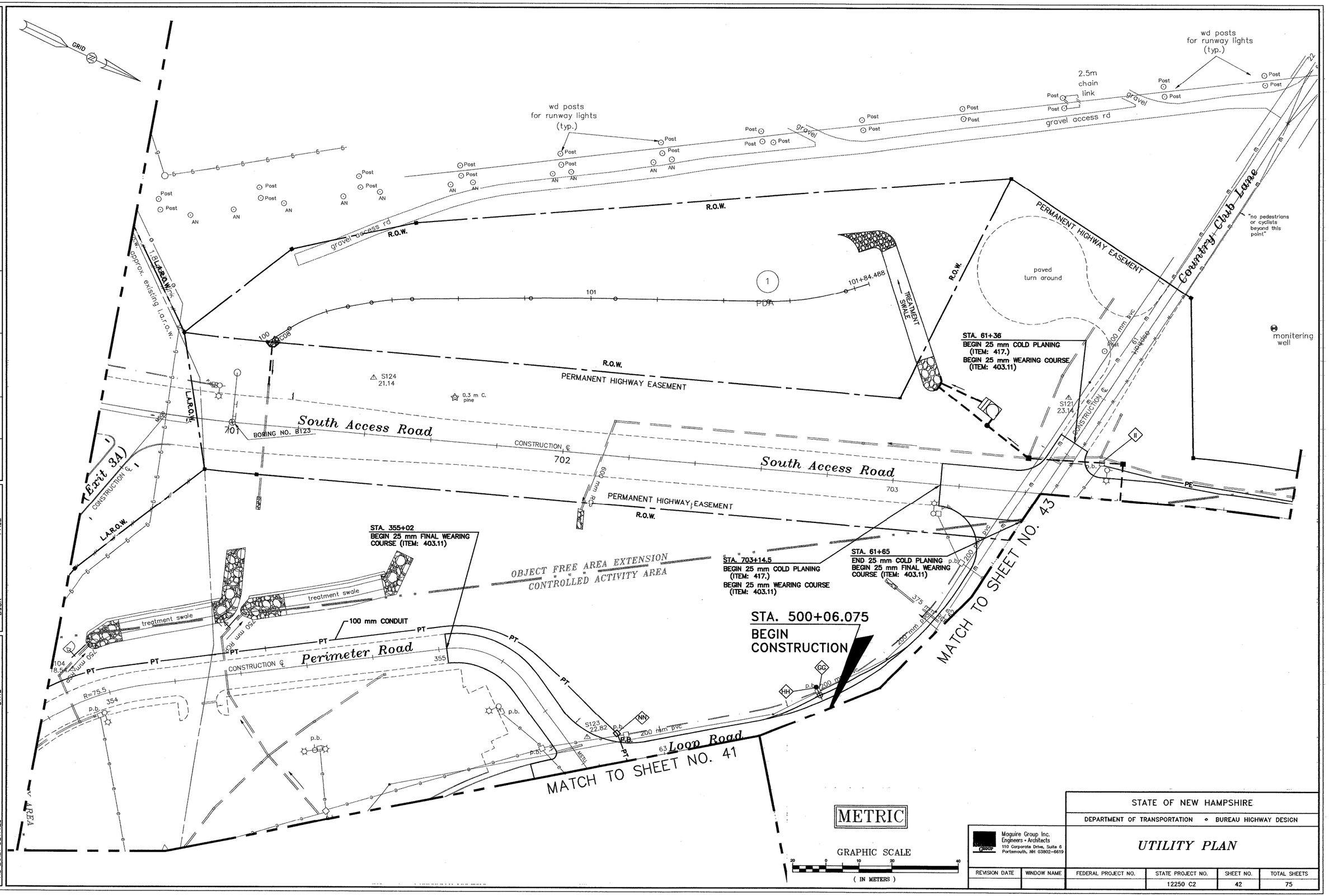
REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE



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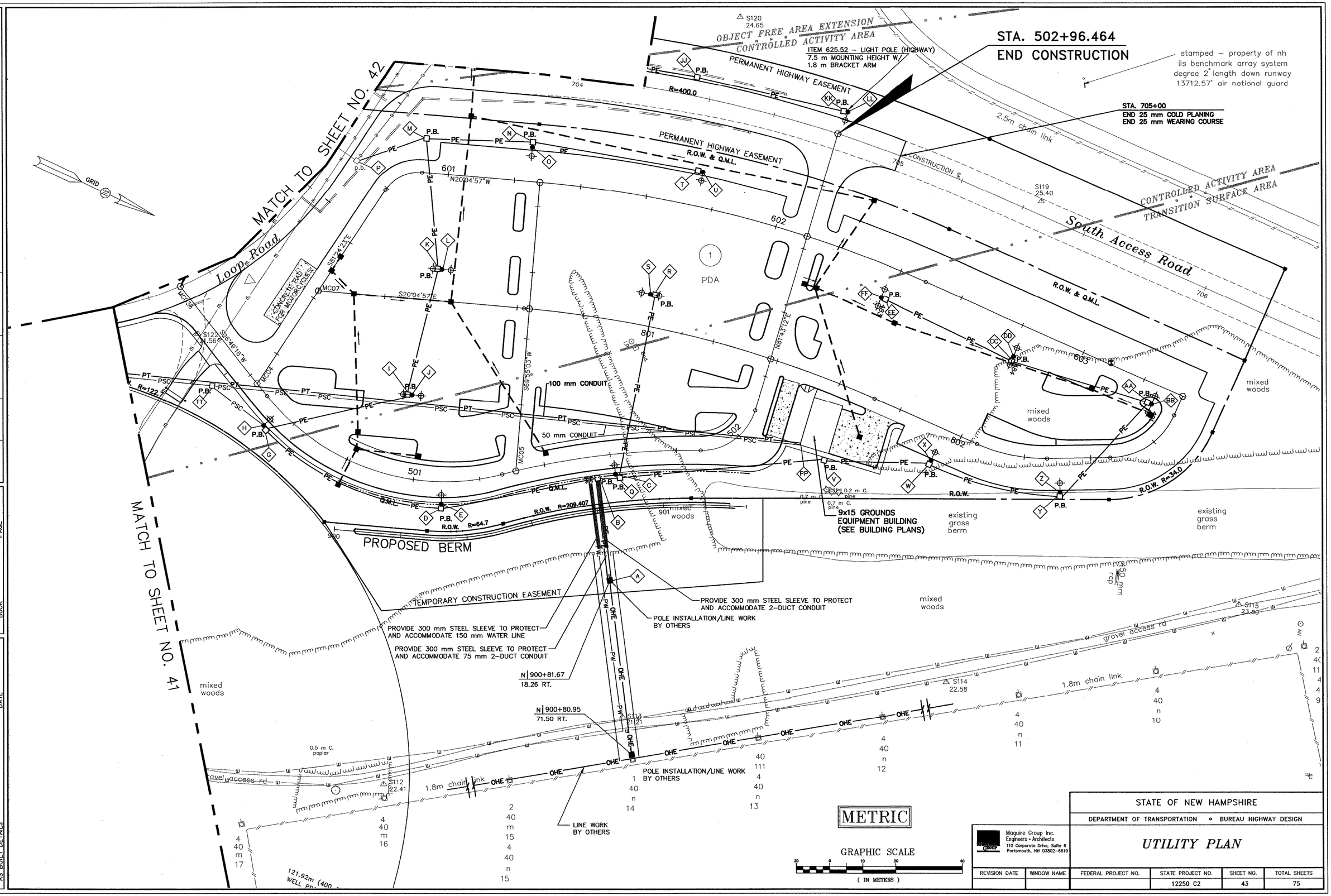
Portsmouth, NH 03802-6619

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

UTILITY PLAN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	42	75



REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

NOTEBOOKS		
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BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE	5/1/2000
PROPOSED DESIGN	RAB	DATE	5/4/2000
SHEET CHECKED	ADC	DATE	
AS BUILT DETAILS		DATE	

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

Maguire Group Inc.
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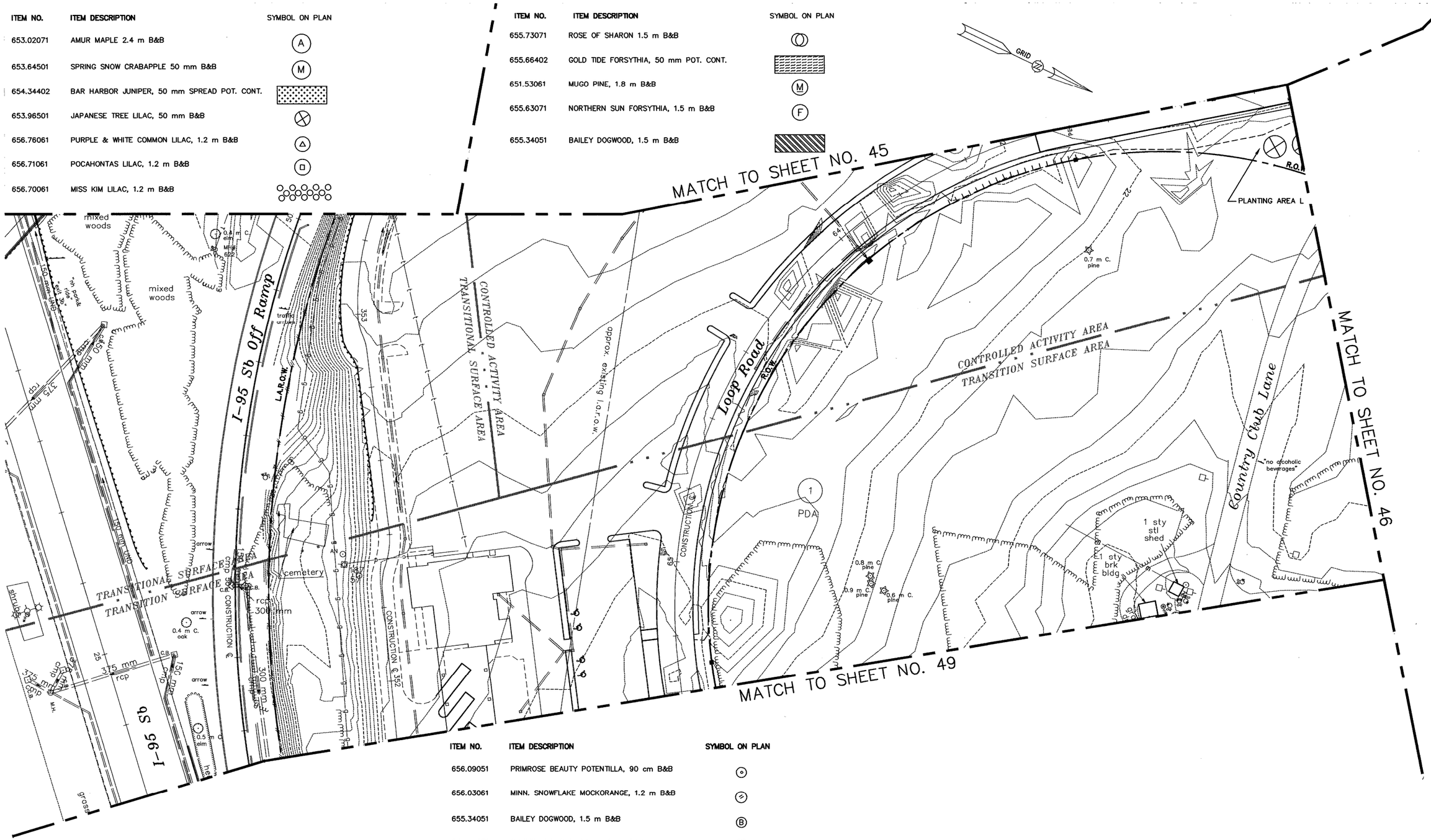
Portsmouth, NH 03802-6619

UTILITY PLAN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	43	75

ITEM NO.	ITEM DESCRIPTION	SYMBOL ON PLAN
653.02071	AMUR MAPLE 2.4 m B&B	A
653.64501	SPRING SNOW CRABAPPLE 50 mm B&B	M
654.34402	BAR HARBOR JUNIPER, 50 mm SPREAD POT. CONT.	
653.96501	JAPANESE TREE LILAC, 50 mm B&B	
656.76061	PURPLE & WHITE COMMON LILAC, 1.2 m B&B	△
656.71061	POCAHONTAS LILAC, 1.2 m B&B	□
656.70061	MISS KIM LILAC, 1.2 m B&B	

ITEM NO.	ITEM DESCRIPTION	SYMBOL ON PLAN
655.73071	ROSE OF SHARON 1.5 m B&B	
655.66402	GOLD TIDE FORSYTHIA, 50 mm POT. CONT.	
651.53061	MUGO PINE, 1.8 m B&B	M
655.63071	NORTHERN SUN FORSYTHIA, 1.5 m B&B	F
655.34051	BAILEY DOGWOOD, 1.5 m B&B	



ITEM NO.	ITEM DESCRIPTION	SYMBOL ON PLAN
656.09051	PRIMROSE BEAUTY POTENTILLA, 90 cm B&B	
656.03061	MINN. SNOWFLAKE MOCKORANGE, 1.2 m B&B	
655.34051	BAILEY DOGWOOD, 1.5 m B&B	B
656.76061	COMMON LILAC PURPLE, 1.2 m B&B	P
656.76061	COMMON LILAC WHITE, 1.2 m B&B	W
651.57061	AUSTRIAN PINE, 1.8 m B&B	
651.61081	RED PINE, 2.4 m B&B	

METRIC

GRAPHIC SCALE

20 0 10 20 40

(IN METERS)

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

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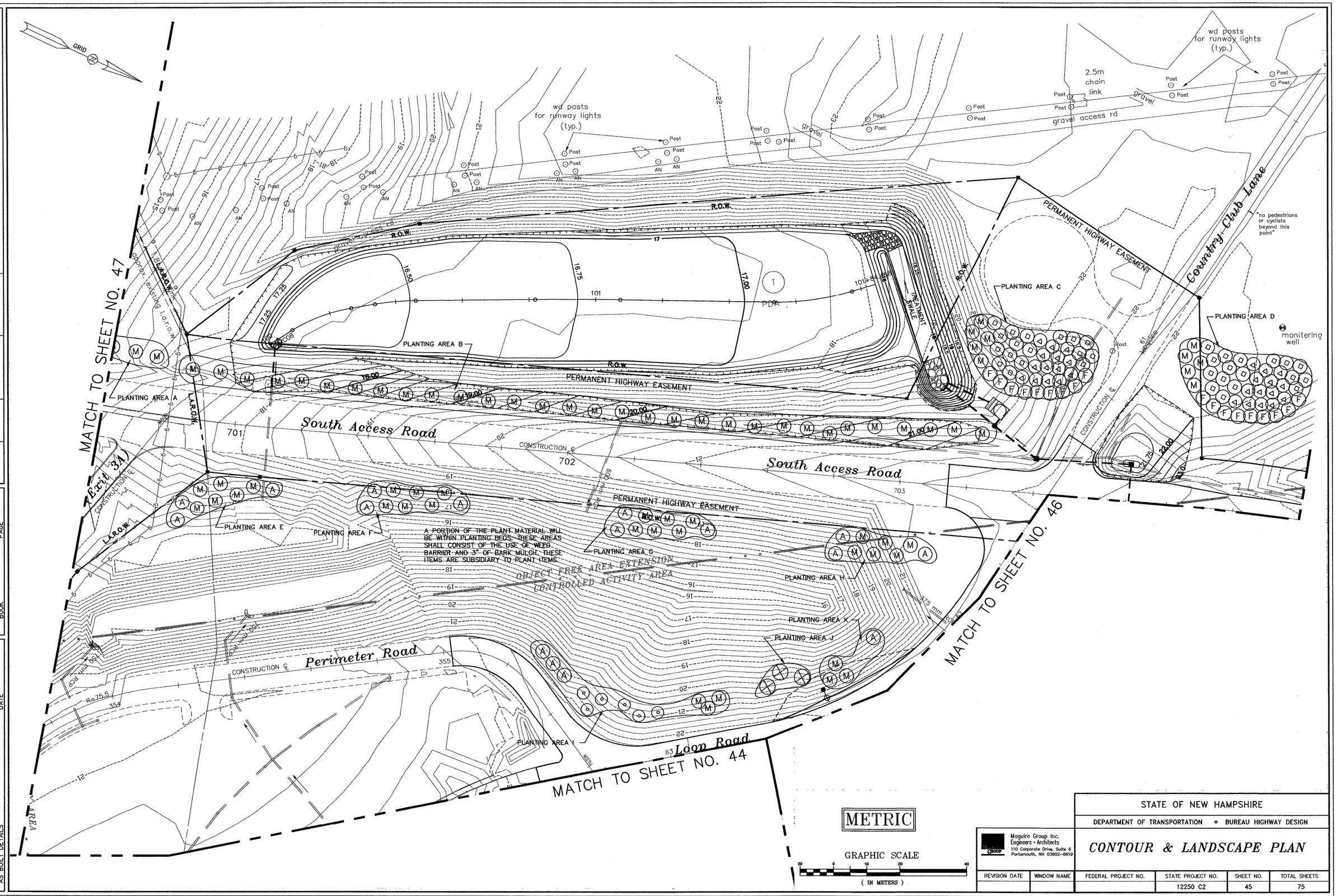
REVISION DATE	WINDOW NAME

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

CONTOUR & LANDSCAPE PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	12250 C2	44	75



REVISIONS AFTER PROPOSAL				
NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
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BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

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CONTOUR & LANDSCAPE PLAN

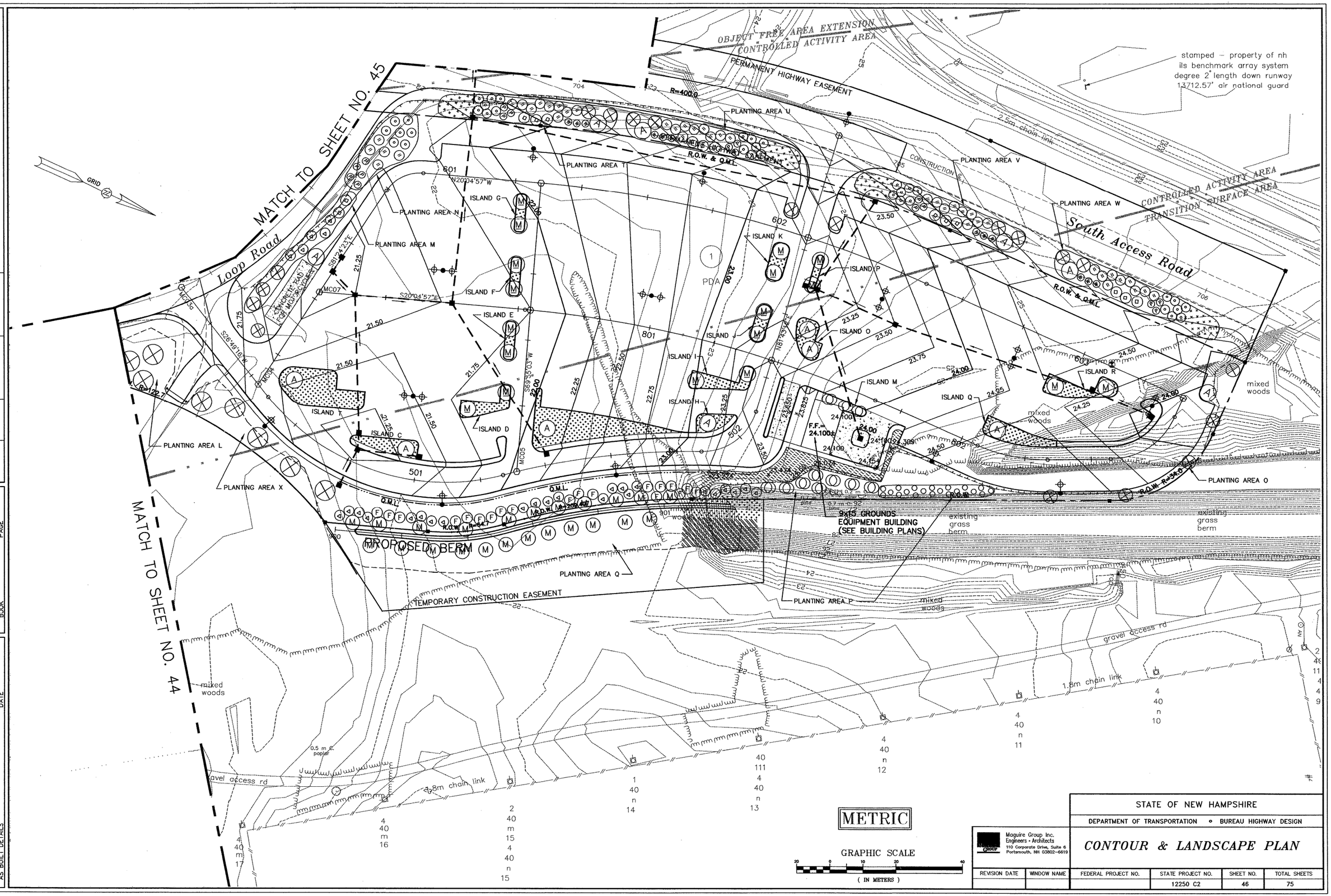
REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	45	75

NUMBER	DATE	STATION	STATION	DESCRIPTION

REVISIONS AFTER PROPOSAL

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WCY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE



METRIC

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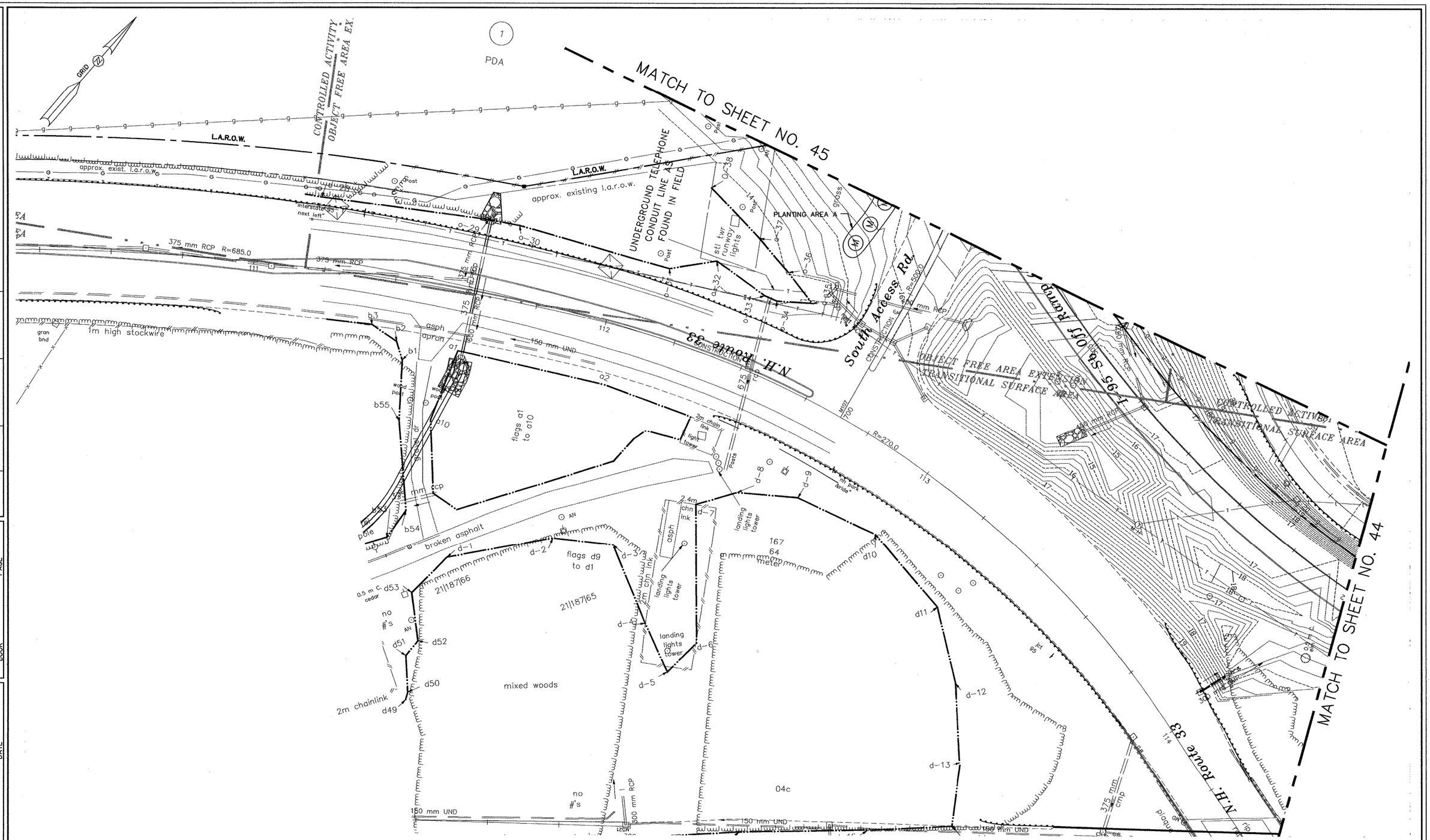
CONTOUR & LANDSCAPE PLAN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	46	75



METRIC

GRAPHIC SCALE

20 0 10 20 40

(IN METERS)

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STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

CONTOUR & LANDSCAPE PLAN

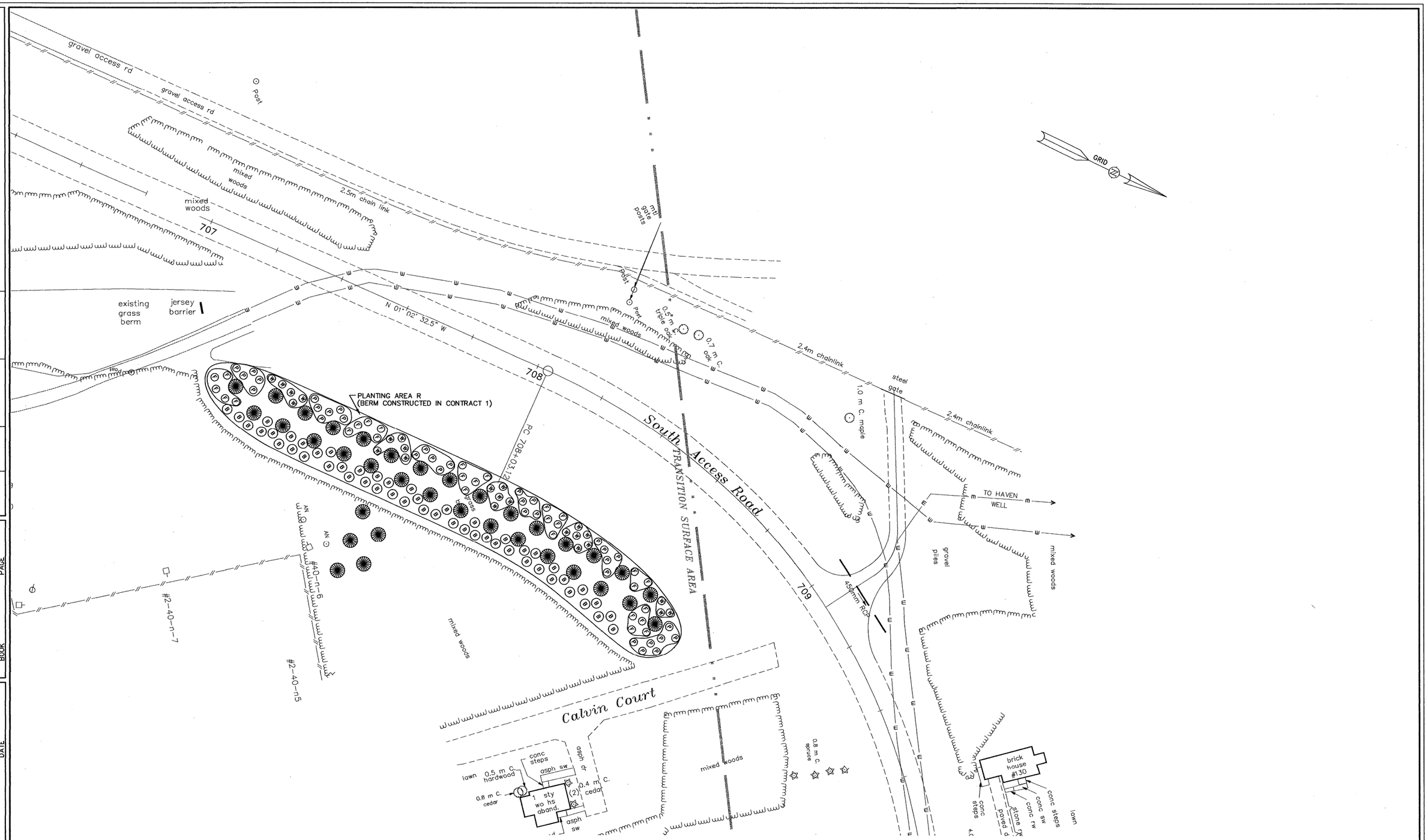
REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	47	75

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE



REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE	5/1/2000
PROPOSED DESIGN	RAB	DATE	5/4/2000
SHEET CHECKED	ADC	DATE	
AS BUILT DETAILS		DATE	

METRIC

GRAPHIC SCALE

20 0 10 20 40

(IN METERS)

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REVISION DATE	WINDOW NAME

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

LANDSCAPE PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	12250 C2	48	75

REVISIONS AFTER PROPOSAL				
NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS	
BOOK	PAGE
BOOK	PAGE
BOOK	PAGE

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

METRIC

GRAPHIC SCALE

20 0 10 20 40

(IN METERS)

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STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

LANDSCAPE PLAN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	49	75

ITEM NO.	IDENT NO.	SIGN SIZE HEIGHT	SIGN SIZE WIDTH	TEXT	TEXT DIMENSIONS LETTER HEIGHT UC	LETTER HEIGHT LC	LETTER HEIGHT CAPS	RTE. MKR. NO. OR SHIELD	ARROW	NUMERAL	NO. SIGNS REQ'D	SIGN AREA (m^2) NOM AREA	SIGN AREA (m^2) TOTAL AREA	POSTS BREAKAWAY	POSTS STEEL I-BEAM	POSTS 100 mm ALUMINUM	POSTS 75 mm ALUMINUM	POSTS U-CHANNEL	REMARKS
615.03	D4-2L	900	750	NH PARK & RIDE ←			100D 100D 100D		100x350		1	0.675	0.675				X		SILVER/GREEN
615.03	D4-2R	900	750	NH PARK & RIDE →			100D 100D 100D		100x350		2	0.675	1.35				X		SILVER/GREEN
615.03	D4-2S	900	750	NH PARK & RIDE ↑			100D 100D 100D		100x150		1	0.675	0.675				X		SILVER/GREEN
615.06	D4-2A	450	750	BUS SERVICE			100D 100D				4	0.3375	1.35						GREEN/SILVER ATTACH BELOW D4-2S, D4-2R, D4-2L
615.03	CP-2	900	1200	COMMUTER PARKING →			150C 150C		150X300		1	1.44	1.44				X		SILVER/GREEN
615.03	CP-3	900	1200	COMMUTER PARKING ←			150C 150C		150X300		2	1.44	2.88				X		SILVER/GREEN
615.03	CP-4L	1200	1500	TERMINAL DROP OFFS & PICK UPS ONLY ←			200C 150C 150C 150C		150X300		1	1.8	1.8				X		GREEN/SILVER

ITEM NO.	IDENT NO.	SIGN SIZE HEIGHT	SIGN SIZE WIDTH	TEXT	TEXT DIMENSIONS LETTER HEIGHT UC	LETTER HEIGHT LC	LETTER HEIGHT CAPS	RTE. MKR. NO. OR SHIELD	ARROW	NUMERAL	NO. SIGNS REQ'D	SIGN AREA (m^2) NOM AREA	SIGN AREA (m^2) TOTAL AREA	POSTS BREAKAWAY	POSTS STEEL I-BEAM	POSTS 100 mm ALUMINUM	POSTS 75 mm ALUMINUM	POSTS U-CHANNEL	REMARKS
615.03	CP-4R	1200	1500	TERMINAL DROP OFFS & PICK UPS ONLY →			200C 150C 150C 150C		150X300		1	1.8	1.8				X		GREEN/SILVER
615.03	CP-9	1200	1200	ALL BUSES ↑			200C 200C		200X300		1	1.44	1.44				X		SILVER/GREEN
615.03	CP-15	750	900	NOTICE THIS LOT IS PROVIDED FOR THE CONVENIENCE OF COMMUTERS. PARK AT YOUR OWN RISK			100C 75B 75B 75B 75B				2	0.675	1.35				X		BLACK/SILVER

GENERAL NOTES

1. ALL GO & GA SERIES SIGNS SHALL HAVE FLAT SHEET DEMOUNTABLE TEXT AND BORDER COVERED WITH TYPE III SILVER SHEETING. BACKGROUND SHALL BE TYPE III GREEN, UNLESS OTHERWISE SPECIFIED. ALL OTHER GUIDE SIGNS SHALL HAVE TYPE III SILVER TEXT AND BORDER WITH TYPE I BACKGROUND SHEETING, UNLESS OTHERWISE SPECIFIED. THERE SHALL BE NO GAPS IN THE BORDER ON THE MAIN SIGN OF GO & GA SERIES SIGNS WITH THE EXIT PANELS.

2. ALL REGULATORY AND WARNING SIGNS SHALL HAVE TYPE I BACKGROUND SHEETING, UNLESS OTHERWISE SPECIFIED.

3. ALL SHEETING SHALL CONFORM TO AASHTO M268 (ASTM D 4956).

4. SHEETING SPECIFICALLY INTENDED FOR USE ON CONSTRUCTION SIGNS SHALL NOT BE PERMITTED.

5. ALL GO & GA SERIES PLANK SIGNS SHALL CONTAIN THE SIZE AND DATE OF MANUFACTURE, LOCATED IN THE LOWER LEFT CORNER OF THE FRONT FACE. THESE LETTERS AND NUMBERS SHALL BE 50 mm NON-REFLECTIVE WHITE (I.E., 3-98 3.0 x 4.5 m).

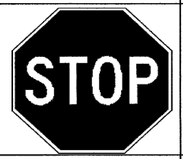
6. REFER TO THE *STANDARD HIGHWAY SIGNS MANUAL* AS PUBLISHED BY THE USDOT-FHWA FOR EXACT DETAILS OF BORDERS, ETC.

7. ALL DIMENSIONS ARE IN MILLIMETERS OR METERS. WHOLE NUMBERS INDICATE MILLIMETERS, DECIMAL NUMBERS INDICATE METERS, UNLESS OTHERWISE NOTED.

METRIC

SIGN TEXT LAYOUT

EXCEL SHEET NAME	EXCEL FILE NAME	STATE PROJECT NO.	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
		12250 C2		50	75

ITEM NO.	IDENT NO.	SIGN SIZE HEIGHT	SIGN SIZE WIDTH	TEXT	TEXT DIMENSIONS LETTER HEIGHT UC	LC	CAPS	RTE. MKR. NO. OR SHIELD	ARROW	NUMERAL	NO. SIGNS REQ'D	SIGN AREA (m^2) NOM AREA	TOTAL AREA	POSTS BREAKAWAY	STEEL I-BEAM	100 mm ALUMINUM	75 mm ALUMINUM	U-CHANNEL	REMARKS
615.03	R1-1	750	750				250C				11	0.5625	6.1875				X		SILVER/RED
615.03	R7-8	450	600				75B 75B				13	0.27	3.51				X		GREEN/BLUE/SILVER
615.06	R7-8A	225	450				50D 37.5D				2	0.1012	0.2024						GREEN/SILVER ATTACH BELOW R7-8
615.06	GO-1	450	900				250D 200D				4	4.05	16.2						SILVER/GREEN
615.06	GO-2	450	900				250D 200D				4	4.05	16.2						SILVER/GREEN

ITEM NO.	IDENT NO.	SIGN SIZE HEIGHT	SIGN SIZE WIDTH	TEXT	TEXT DIMENSIONS LETTER HEIGHT UC	LC	CAPS	RTE. MKR. NO. OR SHIELD	ARROW	NUMERAL	NO. SIGNS REQ'D	SIGN AREA (m^2) NOM AREA	TOTAL AREA	POSTS BREAKAWAY	STEEL I-BEAM	100 mm ALUMINUM	75 mm ALUMINUM	U-CHANNEL	REMARKS

ATTACH "EAST" PANEL TO COVER "NORTH" ON EXISTING SIGNS GO-1, GO-2,GO-4A,G0-6 FROM THE PORTSMOUTH 12250 CONTRACT #2

ATTACH "WEST" PANEL TO COVER "SOUTH" ON EXISTING SIGNS GO-2C, GO-3A,GO-4A,G0-6 FROM THE PORTSMOUTH 12250 CONTRACT #1

GENERAL NOTES

1. ALL GO & GA SERIES SIGNS SHALL HAVE FLAT SHEET DEMOUNTABLE TEXT AND BORDER COVERED WITH TYPE III SILVER SHEETING. BACKGROUND SHALL BE TYPE III GREEN, UNLESS OTHERWISE SPECIFIED. ALL OTHER GUIDE SIGNS SHALL HAVE TYPE III SILVER TEXT AND BORDER WITH TYPE I BACKGROUND SHEETING, UNLESS OTHERWISE SPECIFIED. THERE SHALL BE NO GAPS IN THE BORDER ON THE MAIN SIGN OF GO & GA SERIES SIGNS WITH THE EXIT PANELS.
2. ALL REGULATORY AND WARNING SIGNS SHALL HAVE TYPE I BACKGROUND SHEETING, UNLESS OTHERWISE SPECIFIED.
3. ALL SHEETING SHALL CONFORM TO AASHTO M268 (ASTM D 4956).
4. SHEETING SPECIFICALLY INTENDED FOR USE ON CONSTRUCTION SIGNS SHALL NOT BE PERMITTED.
5. ALL GO & GA SERIES PLANK SIGNS SHALL CONTAIN THE SIZE AND DATE OF MANUFACTURE, LOCATED IN THE LOWER LEFT CORNER OF THE FRONT FACE. THESE LETTERS AND NUMBERS SHALL BE 50 mm NON-REFLECTIVE WHITE (I.E., 3-98 3.0 x 4.5 m).
6. REFER TO THE *STANDARD HIGHWAY SIGNS MANUAL* AS PUBLISHED BY THE USDOT-FHWA FOR EXACT DETAILS OF BORDERS, ETC.
7. ALL DIMENSIONS ARE IN MILLIMETERS OR METERS. WHOLE NUMBERS INDICATE MILLIMETERS, DECIMAL NUMBERS INDICATE METERS, UNLESS OTHERWISE NOTED.

METRIC

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DESIGN

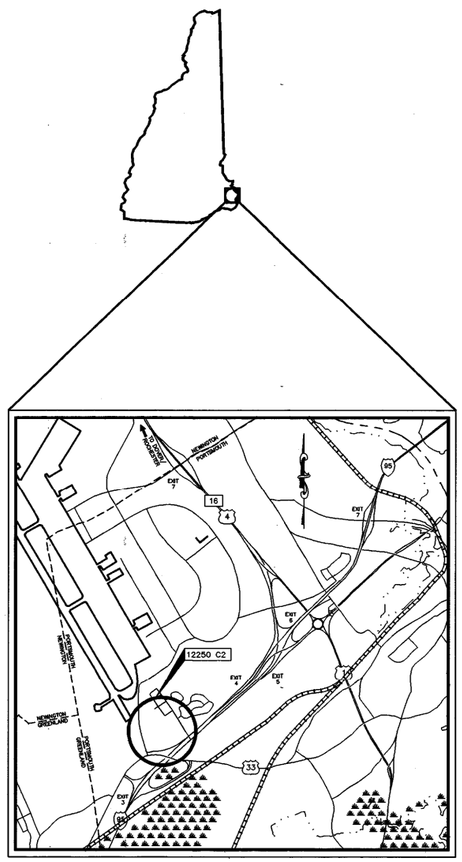
SIGN TEXT LAYOUT

EXCEL SHEET NAME	EXCEL FILE NAME	STATE PROJECT NO.	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
		12250		51	75

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS
OF PROPOSED FEDERAL AID PROJECT

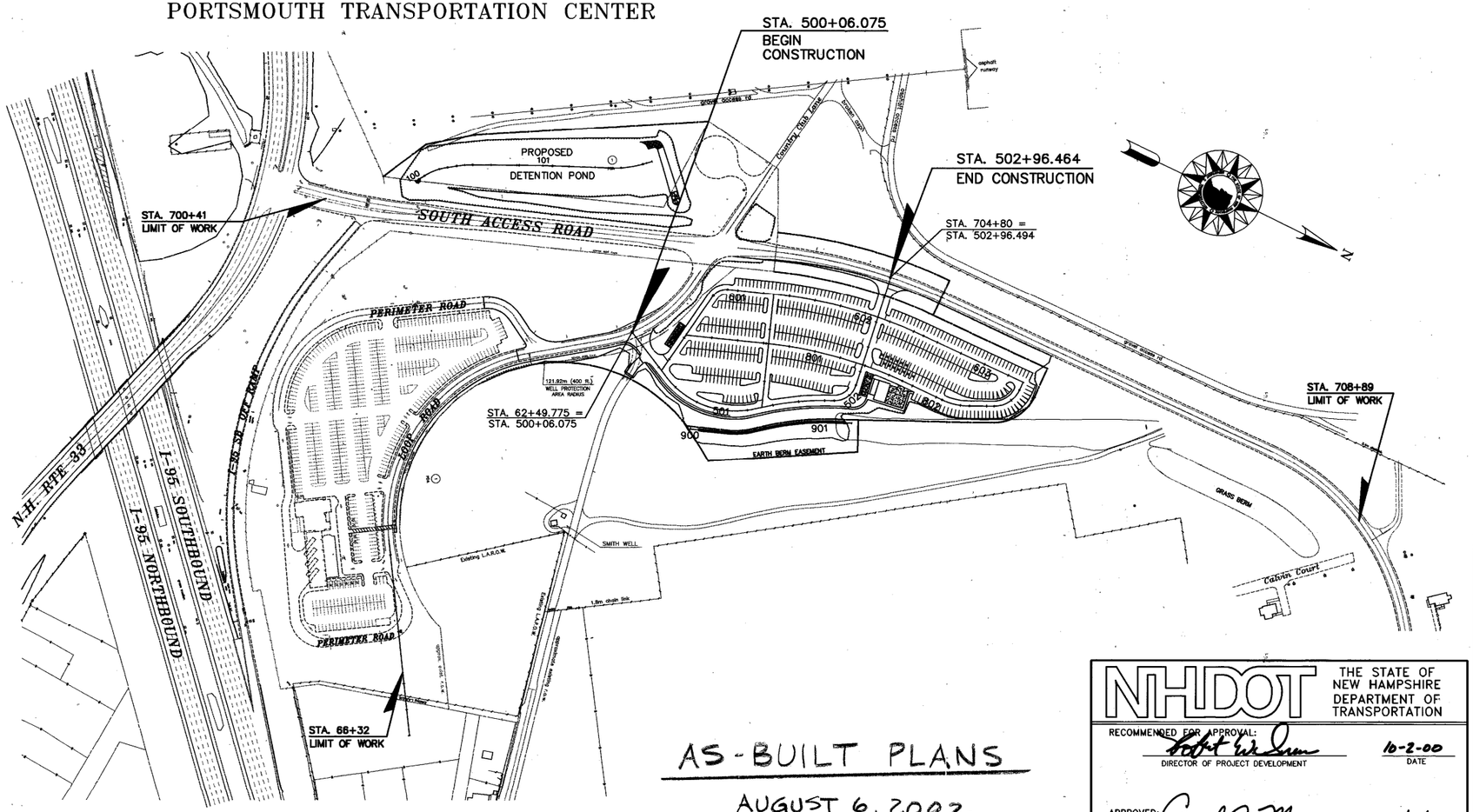
OAD-CM-X-5379(017)
N.H. PROJECT NO. 12250, CONTRACT 2
PORTSMOUTH TRANSPORTATION CENTER



LOCATION MAP

2 1 0 1 2 3 km

GRAPHIC SCALE: 1:50,000



AS-BUILT PLANS

AUGUST 6, 2002

REVISED

Date OCT 2 2000

CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
SCALE 1 : 2000

METRIC

PLANS PREPARED BY

Maguire Group Inc.
Engineers • Architects
•110 Corporate Drive, Suite 6
Portsmouth, NH 03802-6619

BY Royd A. Benjamin

THE STATE OF NEW HAMPSHIRE
ROYD A. BENJAMIN
No. 6500
LICENSED
PROFESSIONAL ENGINEER

DRAWN BY J. BAILEY	DATE 4/28/00		
CHECKED BY W. YOUNG	DATE 5/01/00		

NHDOT THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL: Robert W. Scott — DIRECTOR OF PROJECT DEVELOPMENT — 10-2-00 DATE

APPROVED: Carol A. Murray — ASSISTANT COMMISSIONER — 10/3/00 DATE

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: DIVISION ADMINISTRATOR — DATE

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
OAD-CM-X-5379(017)	12250 C2	1	75

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS AND GENERAL NOTES
3	INDEX OF NHDOT STANDARD PLANS
4–5	STANDARD SYMBOLS
6–7	TYPICAL SECTIONS OF IMPROVEMENT
8–12	SUMMARY OF QUANTITIES
	SPECIAL USE PLANS
13	RUNWAY PROTECTION ZONE
14	RUNWAY PROTECTION ZONES PROFILE AND SECITON VIEWS
15	INTERMEDIATE COMPLETION REQUIREMENT
16	MISCELLANEOUS DETAILS & AQUIFER PROTECTION BASIN
17	DRAINAGE DETAILS
18	UTILITY & TRAFFIC SIGNAL EQUIPMENT DETAILS
19	HANDICAP PARKING DETAILS
20	WORDS AND SYMBOLS
21	TOLERANCES FOR PAVEMENT MARKINGS LINES
22	PAVEMENT MARKINGS AT MINOR INTERSECTIONS
23	PORTABLE CONRETE BARRIER
24–25	PLANTING DETAILS
26	DRAINAGE NOTES
	ROADWAY PLANS
27–29	GENERAL PLANS
30–37	PROFILES
38–40	SIGNING, CURBING, PAVEMENT LAYOUT & MARKING PLANS
41–43	UTILITY PLANS
44–49	CONTOUR & LANDSCAPING PLANS
50–51	SIGN TEXT LAYOUT
	CROSS SECTIONS
52–75	CROSS SECTIONS

THE FOLLOWING GENERAL NOTES WILL BE USED ON THIS PROJECT:

1	2		4		6	7		9	10		12
13		15	16		18						

GENERAL NOTES

1. CONSTRUCT THIS PROJECT IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 1997, CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL

2. ADJUSTING, ALTERING, AND RELOCATING THE PROPERTY OF ANY PUBLIC UTILITY SHALL BE DONE BY THE OWNER, NOT A PART OF THIS CONTRACT. THE CONTRACTOR SHALL COOPERATE WITH THE OWNER IN THE PERFORMANCE OF THE WORK.

3. HIGH TENSION OVERHEAD TRANSMISSION LINES ARE LOCATED THROUGHOUT THE PROJECT WITH CROSSINGS AT VARIOUS LOCATONS AND RUNNING ALONG THE ROAD THROUGHOUT THE PROJECT EVEN ON REGULAR POLES. THE CONTRACTOR IS ADVISED THAT CAUTION WILL BE REQUIRED IN THE OPERATION OF EQUIPMENT, ESPECIALLY CRANES AND PILE DRIVING EQUIPMENT.

4. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE EXACT LOCATION SHOULD BE ESTABLISHED IN THE FIELD BY THE UTILITY COMPANY PRIOR TO ANY EXCAVATION OR POST DRIVING.

5. DRIVES SHALL BE REPLACED IN KIND EXCEPT AT THOSE LOCATIONS WHERE DRIVES HAVE BEEN STEEPENED TO THE EXTENT THAT A MORE STABLE SURFACE IS WARRANTED. ALL GRAVEL DRIVES TO RESIDENCES AND OTHER GRAVEL DRIVES, WHEN ORDERED, SHALL BE CONSTRUCTED WITH A PAVED APRON ADJACENT TO THE SHOULDER.

6. TOPSOIL SHALL BE REMOVED FOR ITS TOTAL DEPTH WITHIN THE LIMITS OF THE SLOPE LINES. UNLESS OTHERWISE DIRECTED, THE TOPSOIL SHALL BE STOCKPILED AND USED IN ITS ENTIRETY UNDER SECTION 641–LOAM AND/OR SECTION 647–HUMUS.

7. UNSUITABLE MATERIAL, ROOTS AND STUMPS WITHIN THE LIMITS OF THE ROAD BED, SHALL BE REMOVED AS ORDERED.

8. MUCK SHALL BE REMOVED BY EXCAVATION UNDER ITEM (203.1), (203.4), OR BY DISPLACEMENT, AS ORDERED.

9. HUMUS SHALL BE APPLIED TO ALL EARTH SLOPES NOT LOAMED TO A NORMAL DEPTH OF 90 mm (890 m^3 /HECTARE), UNLESS OTHERWISE ORDERED.

10. THE SLOPES AROUND EXTENDED PIPES SHALL BE FLATTENED AND GRADED AS SHOWN OR ORDERED.

11. ADJUSTMENT OF CATCH BASINS AND DROP INLETS OR SIMILAR STRUCTURES TO THE NEW PAVEMENT GRADE SHALL BE DONE AS ORDERED. PAYMENT WILL BE UNDER ITEM 604.45 – ADJUSTING CATCH BASIN AND DROP INLET GRATES AND FRAMES SET BY OTHERS.

12. EXISTING DELINEATORS AND WITNESS MARKERS THAT ARE DISTURBED SHALL BE RESET. THIS WORK WILL BE SUBSIDIARY. ADDITIONAL DELINEATORS ORDERED WILL BE PAID UNDER APPROPRIATE ITEMS OF THE CONTRACT.

13. NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.

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

15. ALL CATCH BASINS AND DROP INLETS USED IN CONJUNCTION WITH GRANITE CURB SHALL BE FURNISHED WITH 3–FLANGE FRAMES.

16. ALL PROPOSED TYPE B DROP INLETS AND CATCH BASINS SHALL BE CONSTRUCTED WITH ALTERNATE 1 GRATES.

17. REMOVE UNPROTECTED PROJECT MARKERS (SUBSIDIARY).

18. COORDINATES FOR THIS PROJECT ARE STATE PLANE AND THE BEARINGS SHOW ARE GRID.

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STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

INDEX OF SHEETS AND GENERAL NOTES

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	2	75

WORK ZONE TRAFFIC CONTROL STANDARD PLANS

TC-1	AMENDMENTS TO REVISION 3 (PART VI) OF THE MUTCD	REVISED	MAY 19, 1997
TC-2	PERMANENT CONSTRUCTION SIGNING	REVISED	MAY 19, 1997
TC-3	TWO-WAY TRAFFIC LANE SHIFT	REVISED	MAY 19, 1997
TC-4	BRIDGE REHABILITATION: STOP/YIELD CONTROL	REVISED	MAY 19, 1997
TC-5	BRIDGE REHABILITATION: SIGNALIZED CONTROL	REVISED	MAY 19, 1997
TC-6	TWO LANE CLOSURE UTILIZING BREAKDOWN LANE (DIVIDED HIGHWAY) SINGLE LANE CLOSURE (DIVIDED HIGHWAY)	REVISED	MAY 19, 1997
TC-7	LANE CLOSURE WITH LANE SHIFT FOR SPEED REDUCTION (DIVIDED HIGHWAY) SINGLE LANE SHIFT (DIVIDED HIGHWAY)	REVISED	MAY 19, 1997
TC-8	MULTI-LANE CLOSURE (DIVIDED HIGHWAY)	REVISED	MAY 19, 1997

NOTE:
SHEETS TC-1 THROUGH TC-8 AMEND PART VI (REVISION 3) OF THE *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)*. THEREFORE, THESE SHEETS ARE TO BE USED IN CONJUNCTION WITH THE *MUTCD* AND SECTION 619 OF THE STANDARD SPECIFICATIONS FOR WORK ZONE TRAFFIC CONTROL ON ALL PROJECTS.

STANDARD PLANS

STANDARD NO. 1	CONCRETE AND M.R.M. HEADWALLS	REVISED	MARCH 24, 1977
STANDARD NO. 1A	CONCRETE AND M.R.M. HEADWALLS	REVISED	MAY 8, 1970
STANDARD NO. 2	STEEL ARCH PIPES, SLOPE PAVING, UNDERDRAIN HEADWALL	REVISED	MARCH 1, 1983
STANDARD NO. 2A	CORRUGATED ALUMINUM PIPE, PIPE ARCH, UNDERDRAIN FLUSHING BASIN	REVISED	DECEMBER 20, 1982
STANDARD NO. 3	CATCH BASINS, DROP INLETS	REVISED	OCTOBER 17, 1983
STANDARD NO. 3A	GRATES FOR C.B.'S & D.I.'S	REVISED	OCTOBER 17, 1983
STANDARD NO. 3B	CATCH BASINS, DROP INLETS, TRAP	REVISED	OCTOBER 17, 1983
STANDARD NO. 4	CURBING	REVISED	APRIL 21, 1982
STANDARD NO. 5	CONCRETE BOUND, STEPS	REVISED	NOVEMBER 1, 1984
STANDARD NO. 5A	GUTTERS, SLUICE, SLOPES, MUCK EXCAVATION	REVISED	FEBRUARY 26, 1975
STANDARD NO. GR-1	BEAM GUARDRAIL, STD. SECTION-WOOD POSTS & HARDWARE DETAILS	REVISED	MAY 1, 1995
STANDARD NO. GR-1A	BEAM GUARDRAIL, STD. SECTION-STEEL POSTS & HARDWARE DETAILS	REVISED	MAY 1, 1995
STANDARD NO. GR-2		DELETED	
STANDARD NO. GR-2A		DELETED	
STANDARD NO. GR-2B		DELETED	
STANDARD NO. GR-3	BEAM GUARDRAIL, TERMINAL UNIT TYPE G-2	REVISED	MAY 1, 1995
STANDARD NO. GR-4	PRECAST CONC. MEDIAN BARRIER 1070 mm F-SHAPE (DOUBLE-FACED)	REVISED	MAY 1, 1995
STANDARD NO. 9	WOVEN WIRE & CHAIN LINK FENCE	REVISED	AUGUST 2, 1977
STANDARD NO. 9A	STEEL WITNESS MARKER, STEEL SIGN POST, DELINEATOR POST	REVISED	MAY 15, 1985
STANDARD NO. 10		DELETED	
STANDARD NO. 10A		DELETED	
STANDARD NO. 11	END SECTIONS FOR PIPES	REVISED	MAY 21, 1975
STANDARD NO. 12	DELINEATORS FOR GUARDRAIL, MEDIAN BARRIERS	REVISED	MAY 15, 1985
STANDARD NO. 12A	DELINEATOR SPACING FOR RAMPS AND LOOPS	REVISED	MAY 15, 1985
STANDARD NO. 13		DELETED	
STANDARD NO. 14		DELETED	
STANDARD NO. 15		DELETED	
STANDARD NO. 16		DELETED	

THE FOLLOWING STANDARD PLANS WILL BE USED ON THIS PROJECT:

1	1A			3	3A	3B	4	5	5A					9A							

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STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

INDEX OF NHDOT STANDARD PLANS

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
12-17-98			12250 C2	3	75

EDGE OF PAVEMENT (ep)

TRAVELED WAY (tw)

(pavement removed outside slope lines)

DRIVEWAYS

(label surface type)

BUILDINGS

(porch)

(building to be removed)

(label house or type of building)

FOUNDATION

(label type)

GUARDRAIL (LABEL TYPE)

(NEW)

(existing)

bgr

cgr

CURB

(NEW)

(existing)

(label type)

STEPS AND WALK

(label type)

INTERMITTENT WATER COURSE

SHORE LINE

river/stream

pond

(label name of water body)

BRUSH OR WOODS LINE

TREES (PLANS)

(deciduous)

(coniferous)

(stump)

TREES (CROSS-SECTIONS)

(show circumference in mm & type)

HEDGE

(label type)

WELL

W

FLAG POLE

fp

GENERAL CULTURE

LEACH FIELD

leach field

GAS PUMP

gp

FUEL TANK (ABOVE GROUND)

ft

(label size & type)

SEPTIC TANK

S

GRAVE

gr

BRIDGE CROSSING STREAM

HIGHWAY OVERPASS

ROCK OUTCROP

ORIGINAL GROUND (TYPICALS)

ROCK LINE (TYPICALS & SECTIONS ONLY)

STONE WALL

(NEW)

(existing)

RETAINING WALL (LABEL TYPE)

FENCE (BARBED WIRE)

(points toward retained ground)

FENCE (OTHER)

(existing)

(NEW)

(label fence type)

SIGNS

(single post)

(double post)

MAILBOX

mb

SATELLITE DISH ANTENNA

dp

WETLANDS

WETLAND DESIGNATION NUMBER

6

PUB2E

DELINEATED WETLAND

POTENTIAL WET AREA SYMBOL

ENGINEERING

CONSTRUCTION BASELINE

30

31

PC, PT, POT (ON CONST BASELINE)

PI (IN CONSTRUCTION BASELINES)

INTERSECTION OR EQUATION OF TWO LINES

ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)

PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)

SLOPE LINE (FILL)

SLOPE LINE (CUT)

PROFILES AND CROSS SECTIONS:

ORIGINAL GROUND ELEVATION (LEFT)

FINISHED GRADE ELEVATION (RIGHT)

22.10

24.123

INTERSTATE NUMBERED HIGHWAY

INTERSTATE 93

UNITED STATES NUMBERED HIGHWAY

3

STATE NUMBERED HIGHWAY

25

BORING LOCATION

B1

TEST PIT

TP1

STATE OF NEW HAMPSHIRE

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STANDARD SYMBOLS

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-9-99			12250 C2	4	75

DRAINAGE

MANHOLE — mh
CATCH BASIN — cb
DROP INLET — d
(existing)

MANHOLE
CATCH BASIN
DROP INLET
(NEW)

DRAINAGE PIPE (existing) — (label size + type)
DRAINAGE PIPE (NEW)
UNDERDRAIN (existing) — (label size + type)
UNDERDRAIN (NEW)
show direction of flow
HEADER (existing + NEW)
END SECTION (existing + NEW)
OPEN DITCH (NEW)
EROSION CONTROL/ STONE SLOPE PROTECTION

FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY
100 YEAR FLOODPLAIN BOUNDARY
FLOODWAY
100 YEAR FLOODPLAIN BOUNDARY
500 YEAR FLOODPLAIN BOUNDARY
APPROXIMATE 100 YEAR FLOOD BOUNDARY

BOUNDARIES / RIGHT-OF-WAY

RIGHT-OF-WAY LINE — (label type)
PROPERTY LINE — pl HATFIELD / McCOY
TOWN LINE — TOWN LINE / BOW CONCORD
COUNTY LINE — COUNTY LINE / COOS GRAFTON
STATE LINE — STATE LINE / MAINE NEW HAMPSHIRE
BOUND — Bnd / NH Bnd
STATE LINE/ TOWN LINE MONUMENT — S/L / T/L
NHDOT PROJECT MARKER
IRON PIPE OR PIN — ip
DRILL HOLE IN ROCK — dh
NATIONAL FOREST
PROPERTY PARCEL NUMBER — 2
HISTORIC PROPERTY — H

UTILITIES

TELEPHONE POLE
POWER POLE
JOINT OCCUPANCY
MISCELLANEOUS/UNKNOWN POLE
GUY POLE OR STUB
(plot point at face not center of symbol)

POLE STATUS:
REMOVE, NEW, LEAVE, OR TEMPORARY AS APPLICABLE e.g.:
R — N +22.0 4.80 — L — T +22.0 4.80

LIGHT POLE
LIGHT ON POWER POLE
LIGHT ON JOINT POLE
existing — NEW

RAILROAD — (label ownership)
RAILROAD SIGN
RAILROAD SIGNAL
GROUND LIGHT/LAMP POST — gl — lp

UNDERGROUND UTILITIES

WATER (existing) — w
WATER (PROPOSED) — PW
SEWER (existing) — s
SEWER (PROPOSED) — PS
TELEPHONE (existing) — T
TELEPHONE (PROPOSED) — PT
ELECTRIC (existing) — E
ELECTRIC (PROPOSED) — PE
GAS (existing) — G
GAS (PROPOSED) — PG
LIGHTING (existing)
LIGHTING (PROPOSED) — PL
OVERHEAD ELECTRIC TRANSMISSION LINE — OE
(label size, type and noted if abandoned on existing lines)

UTILITY JUNCTION BOX — jb (existing) — JB (NEW)

WATER GATE
WATER SHUT OFF
GAS SHUT OFF
(existing) — (NEW)

MANHOLE (SEWER, DRAINAGE, ETC.) — S MH — (label type)

HYDRANT — HYD

TRAFFIC SIGNALS

MAST ARM (existing)
MAST-ARM (NEW) (WITH TRAFFIC SIGNAL HEADS) — 9.0 MA — (note angle from ℄ to arm)
OPTICOM RECEIVER
OPTICOM STROBE
TRAFFIC SIGNAL (existing) — (existing) — (NEW)
PEDESTAL WITH PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON UNIT
STEEL SPAN WIRE POLES
SIGNAL CONDUIT (existing)
SIGNAL CONDUIT (NEW)
CONTROLLER CABINET — (existing) cc — (NEW) CC
METER PEDESTAL — mp — MP
PULL BOX — pb — PB
HAND HOLE — hh
LOOP DETECTOR (QUADRUPOLE) — (existing) — (label size) (NEW)
LOOP DETECTOR (RECTANGULAR) — (existing)
LOOP DETECTOR — (label size) (NEW)

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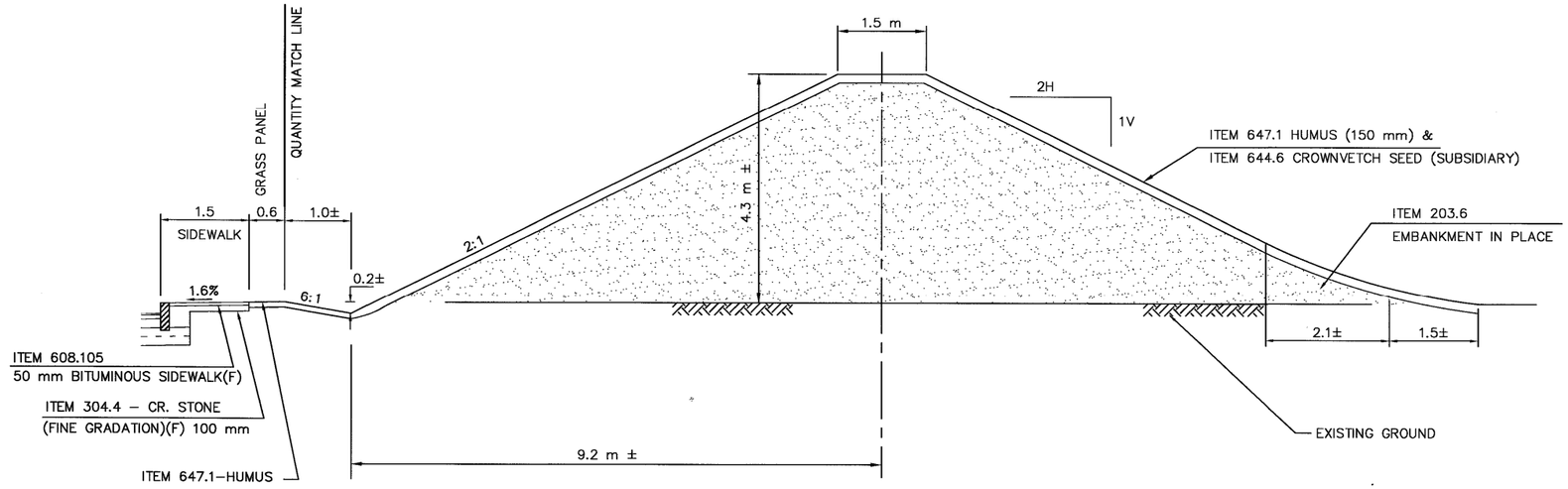
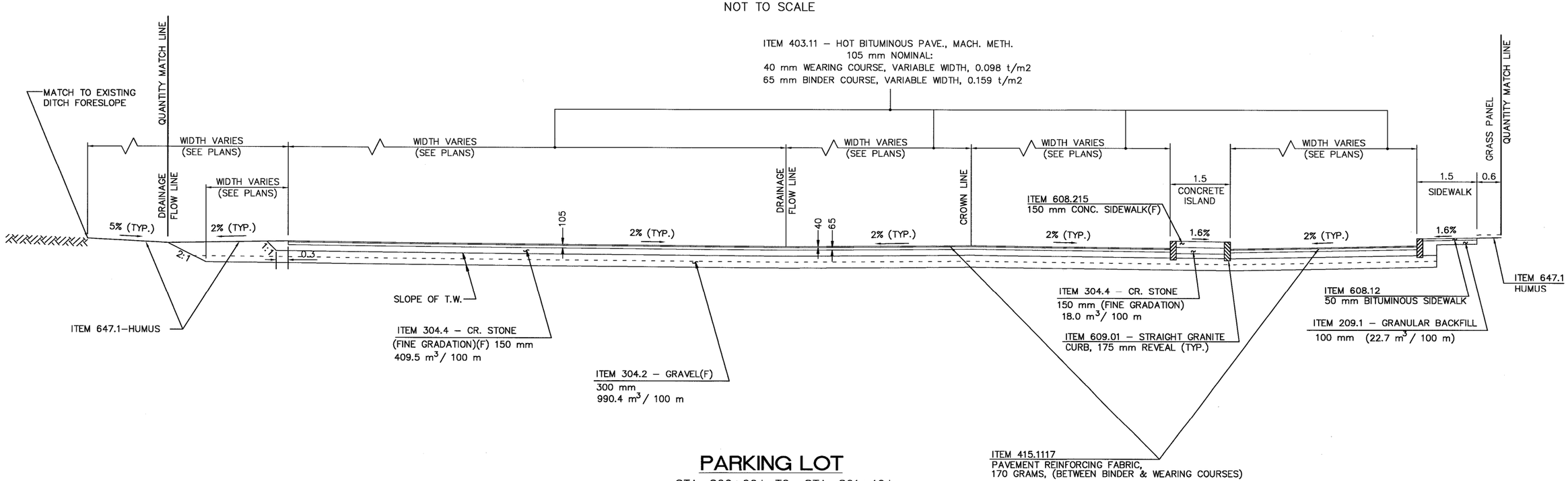
STANDARD SYMBOLS

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
6-9-99			12250 C2	5	75



BERM SECTION

PARKING LOT
STA. 500+75 RT. TO STA. 501+90 RT.
NOT TO SCALE



PARKING LOT

STA. 800+00± TO STA. 801+40±
STA. 602+13± TO STA. 603+33±
SCALE: 1:50

METRIC

NUMBER	DATE	STATION	STATION	DESCRIPTION

REVISIONS AFTER PROPOSAL

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

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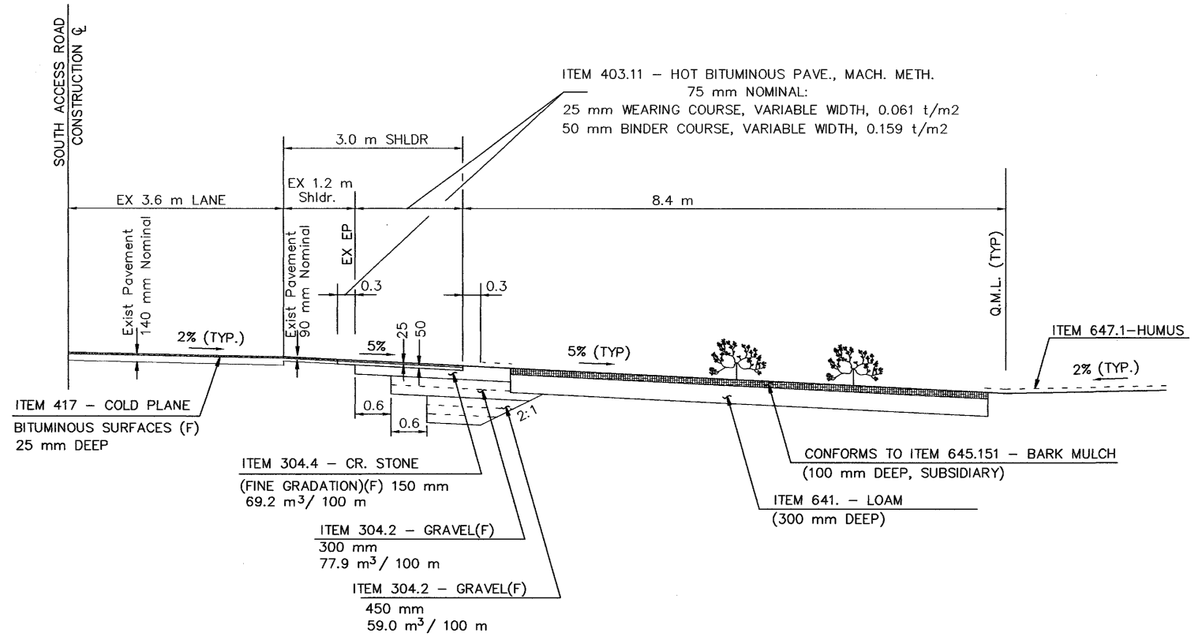
TYPICAL SECTIONS OF IMPROVEMENT

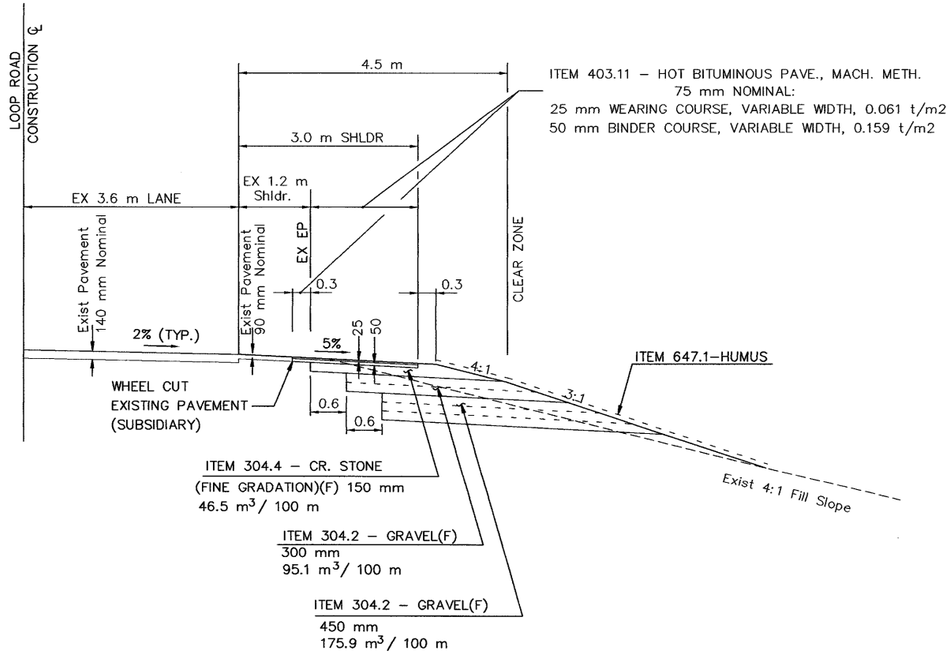
REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	6	75



SOUTH ACCESS ROAD SHOULDER WIDENING

STA. 703+60± TO STA. 704+70±

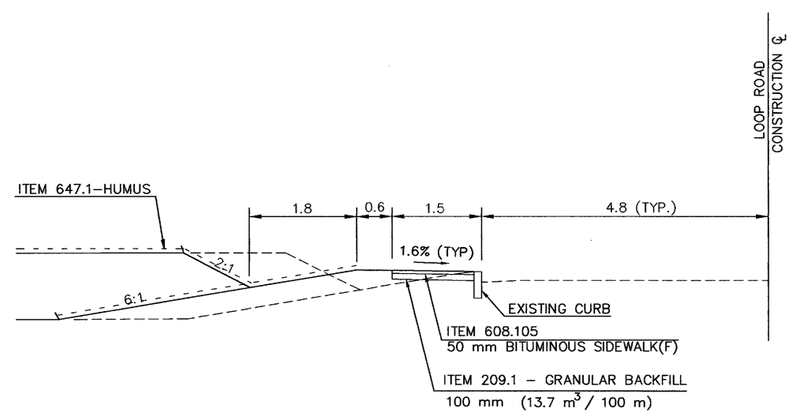
SCALE: 1:50



LOOP ROAD WIDENING

STA. 62+16.57± TO STA. 62+67.80±

SCALE: 1:50



LOOP ROAD PROPOSED SIDEWALK

SCALE: 1:50

METRIC

NUMBER	DATE	STATION	STATION	DESCRIPTION

REVISIONS AFTER PROPOSAL

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

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TYPICAL SECTIONS OF IMPROVEMENT

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	7	75

SUMMARY OF QUANTITIES (ESTIMATE)

THIS INFORMATION IS FOR BIDDING PURPOSES ONLY

BOUNDS

ITEM NO.	622.2
ITEM	CONCRETE BOUNDS
LOCATION	EA
701+13.38 LT 53.8	1
701+50 LT 64.93	1
705+22.43 LT 15	1
705+22.43 RT 15	1
706+19.45 RT 15	1
706+19.45 RT 38.9	1
802+45.27 RT 12.6	1
501+84.44 RT 14.4	1
501+24.06 RT 14.50	1
501+05.11 RT 14.97	1
500+80.65 RT 20.01	1
SUBTOTAL	11
ROUNDING	0
TOTAL	11

EARTHWORK

ITEM NO.	ITEM DESCRIPTION	m3
	COMMON EXCAVATION IN SECTIONS	33608
	DRIVE AND APPROACH EXCAVATION	0
	TOPSOIL REMOVED BENEATH FILL SECTIONS	0
203.1	**COMMON EXCAVATION FOR ESTIMATE**	**34500**
	BOULDERS IN SECTIONS	339
	TOTAL ROCK EXCAVATION	339
203.2	**ROCK EXCAVATION FOR ESTIMATE**	**350**
	TOPSOIL REPLACEMENT	0
	SECTION FILL	5562
	TOTAL FILL	5562
203.6	**EMBANKMENT-IN-PLACE (F)**	**5600**
206.1	**COMMON STRUCTURE EXCAVATION**	**90**
206.19	**COMMON STRUCTURE EXCAVATION EXPLORATORY**	**20**

INCIDENTAL ITEMS

ITEM NO.		UNIT	QUANTITY
214.	FINE GRADING	U	1
218.2	AQUIFER PROTECTION BASIN	m2	7200.0
* 603.29903	300 MM STEEL PIPE SLEEVE (FOR WATER)	lm	19.6
607.99	BAR WAY (7.0 m)	U	1.0
611.05215	150 MM CEMENT LINED DUCTILE IRON WATER PIPE, CL.52	lm	80.0
611.715	200 MM X 150 MM TAPPING SLEEVE, VALVE & BOX	U	1.0
611.81	HYDRANTS	EA	1
615.03	TRAFFIC SIGN TYPE C	m2	23.2
615.06	TRAFFIC SIGN TYPE CC	m2	34.0
618.7	FLAGGERS	HR	1500
619.1	MAINTENANCE OF TRAFFIC	U	1
619.25	PORTABLE CHANGEABLE MESSAGE SIGN	U	2
622.1	STEEL WITNESS MARKERS	EA	2
645.7	EROSION AND SEDIMENT CONTROL STORMWATER MANAGEMENT PLA	U	1
645.71	MONITORING EROSION AND SEDIMENT CONTROL	HR	50
660.75	BUILDING	U	1
670.101	TEMPORARY LIGHTING	U	1
670.200	SPILL PREVENTION AND CONTAINMENT PLAN	U	1
692.	MOBILIZATION	U	1
698.13	FIELD OFFICE TYPE C	U	1
699.	TEMPORARY PROJECT WATER POLLUTION CONTROL	$	1

* NOT AN ITEM TOTAL (SEE CONDUIT SUMMARY)

CLEARING & GRUBBING

ITEM NO.	201.1
DESCRIPTION	CLEARING AND GRUBBING (F)
UNIT	HA
LOCATION	
A	0.078
B	0.271
C	0.030
SUBTOTAL	0.379
ROUNDING	0.001
TOTAL	0.380

WORK DONE BY OTHERS

PSNH- LIGHTING AND SUPPORTING ELECTRICAL WORK

VERIZON- TELEPHONE AND LINE INSTALLATION

SUBSIDIARY ITEMS

WHEEL CUT OF BITUMINOUS PAVEMENT FOR PIPE TRENCHES AND SHOULDER WIDENINGS, (SUBSIDIARY TO ITEM 403.11, HOT BITUMINOUS PAVEMENT, MACHINE METHOD)

SAND FOR CONSTRUCTION OF AQUIFER PROTECTION BASIN AND TREATMENT SWALE (SUBSIDIARY TO ITEM: 218.2, AQUIFER PROTECTION BASIN)

SEE LANDSCAPING SUMMARY FOR SUBSIDIARY LANDSCAPING ITEMS

TEMPORARY PAVEMENT FOR INTERMEDIATE CONSTRUCTION IN PROPOSED BUS STOP AREA (SUBSIDIARY TO ITEM 403.11, HOT BITUMINOUS PAVEMENT, MACHINE METHOD)

CONSTRUCTION SIGNS AND WARNING DEVICES

SIGN NUMBER	DESCRIPTION	SIZE	m2	NO. REQ.	TOTAL AREA	POSTS REQ.	EASELS REQ	REMARKS
G20-2a	END ROAD WORK	600 X 1200	0.72	3	2.16		3	
R11-2	ROAD (BRIDGE) CLOSED	750 X 1200	0.9	2	1.80			
W20-1b	ROAD WORK 500 FT	1200 X 1200	1.44	3	4.32		3	FLUORESCENT ORANGE
W20-1c	ROAD WORK 1000 FT	1200 X 1200	1.44	2	2.88		2	FLUORESCENT ORANGE

The estimated quantities of "Permanent Controls" are hereby listed. The Contractor is responsible for all "Operational Controls" required under Section 619 of the NHDOT Specifications and the Manual of Uniform Traffic Control Devices (MUTCD), Part VI.

SURFACING MATERIALS

ITEM NO.	304.2	304.4	403.11	403.12	415.1117	417	608.105	608.210	608.220	628.2
DESCRIPTION	GRAVEL (F)	CRUSHED STONE (FINE GRADATION) (F)	HOT BITUMINOUS PAVEMENT, MACHINE METHOD	HOT BITUMINOUS PAVEMENT, HAND METHOD	PAVEMENT REINFORCING FABRIC, 170 GRAM	COLD PLANING BITUMINOUS SURFACES (F)	50 MM BITUMINOUS SIDEWALK (F)	100 MM CONCRETE SIDEWALK (F)	200 MM CONCRETE SIDEWALK (F)	SAWED BITUMINOUS PAVEMENT
UNIT	m3	m3	TONS	TONS	m2	m2	m2	m2	m2	lm
LOCATION										
MACHINE PAVED LOT	5932.53	3015.45	4911.4	86.5	19111					
BUS SLAB 801+44.3 RT 22.2	26.59	13.30							88.64	
MAINTENANCE BUILDING SLAB 801+65.1 RT 20.8	68.03	34.01							226.76	
MOTORCYCLE PARKING SLAB 601+37 LT.	28.93	28.93							115.71	
CONCRETE ISLANDS	102.99	102.99						411.97		
BITUMINOUS SIDEWALK**							682.2			
S. ACCESS RD. SHOULDER WIDENING	75.30	38.06	13.9							83.91
LOOP RD. SHLDR. WIDENING	84.00	14.42	9.1							48.79
LOOP RD. LOT ENTRANCE	(SEE MACH. PAVED LOT)	(SEE MACH. PAVED LOT)	(SEE MACH. PAVED LOT)							31.33
S. ACCESS RD. LOT ENTRANCE	(SEE MACH. PAVED LOT)	(SEE MACH. PAVED LOT)	(SEE MACH. PAVED LOT)							33.38
LOOP RD. TEL. CONDUIT CROSSING	0.98	1.95		1.0						21.70
S. ACCESS RD. DRAIN PIPE CROSSING	5.72	11.45		6.1						
25 mm OVERLAY AND COLD PLANE AREAS (INCLUDES WEARING COURSE FOR WIDENINGS)			220.6			2417.00				
SUB TOTAL	6325.07	3260.56	5155.0	93.6	19110.54	2417.00	682.2	411.97	431.11	219.11
ROUNDING	74.93	89.44	45.0	6.4	89.5	33.0	17.8	3.0	3.9	0.9
TOTAL	6400	3350	5200.0	100.0	19200	2450	700	415	435	220

PAVEMENT MARKINGS

ITEM NO.	632.0110	632.0145	632.3115	632.3145	632.02
DESCRIPTION	RETROREFLECTIVE PAINT PAVEMENT MARKING, 100 MM LINE	RETROREFLECTIVE PAINT PAVEMENT MARKING, 450 MM LINE	RETROREFLECT. THERMOPLAS. PAVE. MARKING 150 MM LINE	RETROREFLECT. THERMOPLAS. PAVE. MARKING 450 MM LINE	RETROREFLECTIVE PAINT PAVEMENT MARKING, SYMBOL OR WORD
UNIT	lm	lm	lm	lm	m2
LOCATION					
PARKING LOT	4229.1			55.0	3.1
LOOP ROAD	650.0		90.0	7.0	
COUNTRY CLUB LANE	40.0			5.0	
SO. ACCESS ROAD	652.0				
PERIMETER ROAD	218.0			5.0	
(FOR INTERMEDIATE COMPLETION)	2012.3	28.0			
SUBTOTAL	7801.4	28.0	90.0	72.0	3.1
ROUNDING	98.6	2.0	5.0	3.0	0.9
TOTAL	7900.0	30.0	95.0	75.0	4.0

SUMMARY OF QUANTITIES (ESTIMATE)

THIS INFORMATION IS FOR BIDDING PURPOSES ONLY

CURBING (1)

ITEM NO.			609.01	609.02
ITEM	MARK NO.	RADIUS	STRAIGHT GRANITE CURB (F)	CURVED GRANITE CURB (F)
UNIT			m	m
LOCATION				
LARGE LOT				
500+77.8 LT 7.7 - 500+97.9 LT 11.8	C-1		17.59	
500+97.9 LT 11.8 - 500+99.8 LT 10.3	C-2	1.50		2.50
500+99.8 LT 10.3 - 500+99.6 LT 6.3	C-3		3.97	
500+74.1 LT 6.3 - 501+9.0 LT 6.3	C-4	61.83	17.26	
501+26.0 LT 5.7 - 501+27.7 LT 5.7	C-5	62.30	8.42	
501+27.7 LT 5.7 - 501+27.7 LT 10.4	C-6		4.69	
501+27.7 LT 10.4 - 501+28.6 LT 11.4	C-7	1.00		1.57
501+28.6 LT 11.4 - 501+29.6 LT 11.4	C-8		1.00	
501+29.6 LT 11.4 - 501+30.5 LT 10.1	C-9	1.00		1.90
501+29.2 LT 6.2 - 501+30.5 LT 10.1	C-10		4.09	
501+26.4 LT 4.2 - 501+29.2 LT 6.2	C-11	3.00		3.68
501+18.5 LT 4.2 - 501+26.4 LT 4.2	C-12	64.63	7.38	
501+00.4 LT 4.8 - 501+18.5 LT 4.2	C-13	63.28	16.92	
500+8.4 LT 4.8 - 501+00.4 LT 4.8	C-14	63.20	20.45	
500+77.8 LT 7.7 - 500+78.4 LT 4.8	C-15	1.50		4.15
800+45.2 RT 28.8 - 800+56.8 RT 28.8	D-1		11.60	
800+56.8 RT 28.8 - 800 56.8 RT 24.1	D-2		4.70	
800+56.8 RT 28.8 - 800+56.8 RT 24.1	D-3	1.00		1.57
800+57.8 RT 23.1 - 800+58.8 RT 23.1	D-4		1.00	
800+58.8 RT 23.1 - 800+59.8 RT 24.1	D-5	1.00		1.57
800+59.8 RT 24.1 - 800+59.8 RT 29.4	D-6		5.31	
800+59.1 RT 30.4 - 800+59.8 RT 29.4	D-7	1.00		1.26
800+52.2 RT 32.7 - 800+59.1 RT 30.4	D-8		7.23	
800+46.3 RT 34.2 - 800+52.2 RT 32.7	D-9	30.50	6.12	
800+45.2 RT 33.2 - 800+46.3 RT 34.2	D-10	1.00		1.71
800+45.2 RT 28.8 - 800+45.2 RT 33.2	D-11		4.39	
800+56.8 RT 14.3 - 800+56.8 RT 4.9	E-1		9.40	
800+56.8 RT 4.9 - 800+57.8 RT 4.9	E-2	1.00		1.57
800+57.8 RT 3.9 - 800+58.8 RT 3.9	E-3		1.00	
800+58.8 RT 3.9 - 800+59.8 RT 4.9	E-4	1.00		1.57
800+59.8 RT 4.9 - 800+59.8 RT 14.3	E-5		9.40	
800+58.8 RT 15.3 - 800+59.8 RT 14.3	E-6	1.00		1.57
800+57.8 RT 15.3 - 800+58.8 RT 15.3	E-7		1.00	
800+56.8 RT 14.3 - 800+57.8 RT 15.3	E-8	1.00		1.57
800+56.8 LT 4.9 - 800+56.8 LT 14.3	F-1		9.40	
800+56.8 LT 14.3 - 800+57.8 LT 15.3	F-2	1.00		1.57
800+57.8 LT 15.3 - 800+58.8 LT 15.3	F-3		1.00	
800+58.8 LT 15.3 - 800+59.8 LT 14.3	F-4	1.00		1.57
800+59.8 LT 4.9 - 800+59.8 LT 14.3	F-5		9.40	
800+58.8 LT 3.9 - 800+59.8 LT 4.9	F-6	1.00		1.57
800+57.8 LT 3.9 - 800+58.8 LT 3.9	F-7		1.00	
800+56.8 LT 4.9 - 800+57.8 LT 3.9	F-8	1.00		1.57
800+56.8 LT 24.1 - 800+56.8 LT 33.5	G-1		9.40	
800+56.8 LT 33.5 - 800+57.8 LT 34.5	G-2	1.00		1.57
800+57.8 LT 34.5 - 800+58.8 LT 34.5	G-3		1.00	
800+58.8 LT 34.5 - 800+59.8 LT 33.5	G-4	1.00		1.57
800+59.8 LT 33.5 - 800+59.8 LT 24.1	G-5		9.40	
800+58.8 LT 23.1 - 800+59.8 LT 24.1	G-6	1.00		1.57
800+57.8 LT 23.1 - 800+58.8 LT 23.1	G-7		1.00	
800+56.8 LT 24.1 - 800+57.8 LT 23.1	G-8	1.00		1.57
SUBTOTAL (1)			204.52	38.75

CURBING (2)

ITEM NO.			609.01	609.02
ITEM	MARK NO.	RADIUS	STRAIGHT GRANITE CURB (F)	CURVED GRANITE CURB (F)
UNIT			m	m
LOCATION				
501+37.7 LT 8.0 - 501+41.7 LT 22.8	H-1		15.41	
501+41.7 LT 22.8 - 501+43.2 LT 22.4	H-2	0.80		2.55
501+43.2 LT 22.4 - 501+41.9 LT 17.7	H-3		4.89	
501+41.9 LT 17.7 - 501+78.4 LT 6.5	H-4	300.30	40.05	
501+78.4 LT 6.5 - 501+84.4 LT 5.7	H-5	25.45	6.23	
501+84.4 LT 5.7 - 501+85.7 LT 5.7	H-6		1.42	
501+85.7 LT 5.7 - 501+85.7 LT 9.4	H-7		3.69	
501+85.7 LT 9.4 - 501+88.4 LT 11.4	H-8	2.00		3.16
501+88.4 LT 11.4 - 502+04.8 LT 5.7	H-9	226.01	9.30	
502+04.8 LT 5.7 - 502+03.6 LT 4.2	H-10	1.00		2.14
501+87.3 LT 4.2 - 502+3.6 LT 4.2	H-11	12.70	12.21	
501+40.5 LT 4.2 - 501+87.3 LT 4.2	H-12	228.00	47.71	
501+37.7 LT 8.0 - 501+40.5 LT 4.2	H-13	3.00		5.55
801+15.6 RT 9.6 - 801+30.6 RT 9.6	I-1		14.50	
801+30.6 RT 9.6 - 801+30.6 RT 9.6	I-2		4.70	
801+30.6 RT 4.9 - 801+31.6 RT 3.9	I-3	1.00		1.57
801+31.6 RT 3.9 - 801+32.8 RT 3.9	I-4	325.20	1.21	
801+32.8 RT 3.9 - 801+33.8 RT 4.9	I-5	1.00		1.56
801+33.8 RT 4.9 - 801+33.9 RT 9.2	I-6		4.38	
801+32.2 RT 11.2 - 801+33.9 RT 9.2	I-7	2.00		2.69
801+16.9 RT 14.9 - 801+32.3 RT 11.2	I-8	243.01	15.20	
801+15.6 RT 13.9 - 801+16.9 RT 14.9	I-9	1.00		1.82
801+15.6 RT 9.6 - 801+15.6 RT 13.9	I-10		4.30	
801+29.6 LT 5.9 - 801+29.6 LT 13.3	J-1		7.40	
801+29.6 LT 13.3 - 801+31.6 LT 15.3	J-2	2.00		3.15
801+31.6 LT 15.3 - 801+31.7 LT 15.3	J-3	344.40	0.13	
801+31.7 LT 15.3 - 801+33.6 LT 13.3	J-4	2.00		3.13
801+33.6 LT 13.3 - 801+33.7 LT 5.9	J-5		7.40	
801+31.7 LT 3.9 - 801+33.7 LT 5.9	J-6	2.00		3.15
801+31.6 LT 3.9 - 801+31.7 LT 3.9	J-7	333.00	0.12	
801+29.6 LT 5.9 - 801+31.6 LT 3.9	J-8	2.00		3.13
801+28.8 LT 25.1 - 801+28.8 LT 32.5	K-1		7.40	
801+28.8 LT 32.5 - 801+30.6 LT 34.5	K-2	2.00		3.15
801+30.6 LT 34.5 - 801+31.6 LT 34.5	K-3	363.60	1.05	
801+31.6 LT 34.5 - 801+33.4 LT 32.5	K-4	2.00		3.13
801+33.4 LT 32.5 - 801+33.5 LT 25.1	K-5		7.40	
801+31.6 LT 23.1 - 801+33.5 LT 25.1	K-6	2.00		3.15
801+30.7 LT 23.1 - 801+31.6 LT 23.1	K-7	352.20	1.02	
801+28.8 LT 25.1 - 801+30.7 LT 23.1	K-8	2.00		3.13
801+43.0 RT 22.2 - 801+42.3 RT 4.5	L-1		17.73	
801+42.3 RT 4.5 - 801+43.5 RT 4.5	L-2	0.60		1.88
801+43.5 RT 4.5 - 801+44.3 RT 22.2	L-3		17.73	
801+43.0 RT 22.2 - 801+44.3 RT 22.2	L-4	0.60		1.88
SUBTOTAL (2)			252.58	49.92

CURBING (3)

ITEM NO.			609.01	609.02
ITEM	MARK NO.	RADIUS	STRAIGHT GRANITE CURB (F)	CURVED GRANITE CURB (F)
UNIT			m	m
LOCATION				
500+03.9 RT 12.8 - 500+18.7 RT 4.8	M-1	12.70	18.05	
500+18.7 RT 4.8 - 500+21.7 RT 4.8	M-2		15.15	
500+33.3 RT 4.8 - 500+48.1 RT 4.8	M-5		14.83	
500+48.1 RT 4.8 - 501+06.5 RT 4.8	M-6	72.80	62.50	
501+06.5 RT 4.8 - 501+24.2 RT 4.3	M-7	60.00	18.86	
501+24.2 RT 4.3 - 501+87.3 RT 4.2	M-8	218.98	62.21	
501+87.3 RT 4.2 - 501+90.0 RT 4.5	M-9		3.33	
501+90.0 RT 4.5 - 501+98.01 RT 8.8	M-10	219.61	10.74	
501+89.9 RT 4.5 - 501+97.1 RT 8.8	M-10	219.61	10.74	
501+97.1 RT 8.8 - 502+4.9 RT 11.3	M-11	10.00		13.58
502+4.9 RT 11.3 - 502+19.1 RT 10.4	M-12		17.04	
502+19.1 RT 10.4 - 502+21.1 RT 12.5	M-13	2.00		3.27
502+19.4 RT 30.8 - 502+21.1 RT 12.5	M-14	325.20	18.38	
502+17.1 RT 30.7 - 502+19.4 RT 30.8	M-15	1.18		3.57
502+17.1 RT 24.9 - 502+17.1 RT 30.7	M-16		5.78	
502+6.7 RT 25.3 - 502+7.4 RT 40.2	N-1		15.00	
502+7.4 RT 40.2 - 502+14.9 RT 39.9	N-2		11.80	
502+14.9 RT 39.9 - 502+17.9 RT 43.3	N-3	3.00		5.09
502+17.7 RT 44.4 - 502+17.9 RT 43.3	N-4		1.16	
801+41.7 LT 13.1 - 801+43.6 LT 15.3	O-1	2.00		3.35
801+43.6 LT 15.4 - 801+46.3 LT 15.3	O-2	344.40	2.81	
801+46.3 LT 15.3 - 801+48.2 LT 13.3	O-3	2.00		3.15
801+48.2 LT 9.6 - 801+48.2 LT 13.3	O-4		3.69	
801+48.2 LT 9.6 - 801+50.7 LT 9.6	O-5	338.70	2.50	
801+50.7 LT 5.9 - 801+50.7 LT 9.6	O-6		3.73	
801+48.8 LT 3.9 - 801+50.7 LT 5.9	O-7	2.00		3.00
801+44.7 LT 5.6 - 801+48.8 LT 3.9	O-8	5.00		4.68
801+41.7 LT 13.1 - 801+44.7 LT 5.6	O-9	14.00	8.19	
801+41.3 LT 24.1 - 801+41.0 LT 33.3	P-1		9.23	
801+41.0 LT 33.3 - 801+43.2 LT 33.3	P-2	1.19		3.78
801 +43.2 LT 24.1 - 801+43.2 LT 33.3	P-3		9.23	
801+41.3 LT 24.1 - 801+43.2 LT 24.1	P-4	1.00		3.11
802+4.5 LT 9.6 - 802+4.6 LT 5.8	Q-1		3.68	
802+4.6 LT 5.8 - 802+6.7 LT 3.9	Q-2	2.00		3.20
802+6.7 LT 3.9 - 802+26.9 LT 3.9	Q-3	46.10	18.59	
802+26.9 LT 3.9 - 802+45.8 LT 3.9	Q-4		18.99	
802+45.8 LT 3.9 - 802+68.5 LT 3.9	Q-5	17.50	18.52	
802+68.5 LT 3.9 - 802+70.4 LT 10.9	Q-6	3.60		10.31
802+68.0 LT 10.2 - 802+70.4 LT 10.9	Q-7	1.00		1.69
802+67.1 LT 5.4 - 802+68.0 LT 10.2	Q-8		4.78	
802+45.8 LT 5.4 - 802+67.1 LT 5.4	Q-9	16.00	15.93	
802+34.9 LT 5.4 - 802+67.1 LT 5.4	Q-10		10.92	
802+18.6 LT 8.1 - 802+34.9 LT 5.4	Q-11	35.70	15.46	
802+4.5 LT 9.6 - 802+18.6 LT 8.1	Q-12		11.76	
SUBTOTAL (3)			443.58	61.78

CURBING (4)

ITEM NO.			609.01	609.02
ITEM	MARK NO.	RADIUS	STRAIGHT GRANITE CURB (F)	CURVED GRANITE CURB (F)
UNIT			lm	lm
LOCATION				
802+25.1 LT 21.9 - 802+27.8 LT 26.2	R-1		4.68	
802+25.1 LT 21.9 - 802+26.1 LT 20.6	R-2	1.00		1.61
802+26.1 LT 20.6 - 802+34.9 LT 18.9	R-3	22.20	8.73	
802+34.9 LT 18.9 - 802+45.8 LT 18.9	R-4		10.92	
802+45.8 LT 18.9 - 802+72.7 LT 21.4	R-5	2.50		6.77
802+72.7 LT 21.4 - 802+72.7 LT 24.2	R-6		2.84	
802+43.0 LT 24.4 - 802+72.7 LT 24.2	R-7	1.00		1.57
802+41.0 LT 20.1 - 802+43.0 LT 24.4	R-8		4.70	
802+27.8 LT 26.2 - 802+41.0 LT 20.1	R-9		14.50	
65+18.1, RT. 9.42 - 65+17.80, RT. 4.8	S-1		4.63	
65+20.7, RT 9.20 - 65+20.50, RT. 4.8	S-2		4.44	
500+45.8 LT 11.7 - 500+48.9 LT 4.8	T-1	4.10		9.57
500+45.8 LT 11.7 - 500+55.6 LT 19.6	T-2		11.22	
500+55.6 LT 19.6 - 500+59.6 LT 19.3	T-3	2.00		3.14
500+59.6 LT 19.3 - 500+62.5 LT 16.3	T-4		3.70	
500+62.5 LT 16.3 - 500+72.8 LT 20.7	T-5		8.70	
500+72.8 LT 20.7 - 500+75.0 LT 17.4	T-6		3.70	
500+73.8 LT 14.7 - 500+75.0 LT 17.4	T-7	2.00		3.14
500+58.1 LT 6.5 - 500+73.8 LT 14.7	T-8		15.48	
500+52.9 LT 4.8 - 500+58.1 LT 6.5	T-9	7.00		5.24
500+48.9 LT 4.8 - 500+52.9 LT 4.8	T-10		3.69	
SUBTOTAL (4)			101.93	31.04
		SUBTOTAL (4)	101.93	31.04
		SUBTOTAL (3)	443.58	61.78
		SUBTOTAL (2)	252.58	49.92
		SUBTOTAL (1)	204.52	38.75
		SUBTOTAL	1002.61	181.49
		ROUNDING	7.39	8.51
		GRAND TOTAL	1010.00	190.00

CURBING (5)

ITEM NO.			609.811
ITEM	MARK NO.	RADIUS	BITUMINOUS CURB TYPE B (100 MM REVEAL)
UNIT			lm
LOCATION			
FOR USE DURING INTERMEDIATE COMPLETION			239.0
SUBTOTAL			239.0
ROUNDING			6.0
TOTAL			245.0

SUMMARY OF QUANTITIES (ESTIMATE)

THIS INFORMATION IS FOR BIDDING PURPOSES ONLY

LANDSCAPING AND SLOPE PROTECTION

ITEM NO.	641	642	643.12	643.22	644.15	644.44	644.82	645.111	645.151	645.23	645.51	646.3	647.1	650	651.53061	651.57061	651.61081	653.02071	653.64501	653.96501	654.34402	655.34051	655.63071	655.66402	655.73071	656.03061	656.09051	656.70061	656.71061	656.76061	
ITEM	LOAM	LIMESTONE	FERTILIZER FOR INITIAL APPLICATION	FERTILIZER FOR REFERTILIZATION	PARK SEED TYPE 15	SLOPE SEED TYPE 44	SALT TOLERANT GRASS SEED, TYPE 82	MULCH	BARK MULCH 100 MM DEEP	CHANNEL STABILIZATION (LOW VELOCITY)	HAY BALES FOR TEMPORARY EROSION CONTROL	TURF ESTABLISHMENT WITH MULCH AND TACKIFIERS	HUMUS	WEED BARRIER	PINUS MUGO MUGO PINE 1.8 M B&B	PINUS NIGRA AUSTRIAN PINE 1.8 M B&B	PINUS RESINOSA RED PINE 2.4 M B&B	ACER GINNALA AMUR MAPLE 2.4 M B&B	MALUS 'SPRING SNOW, SPRING SNOW CRABAPPLE, 50 MM B&B	SYRINGA RETICULATA JAPANESE TREE LILAC 50MM B&B	JUNIPEROUS HORIZONTALIS, BAR HARBOR JUNIPER, 50 MM SPREAD POT. CONT.	CORNUS BAILEY, BAILEY DOGWOOD, 1.5M B&B	FORSYTHIA NORTHERN SUN, NORTHERN SUN FORYSYTHIA 1.5 M B&B	FORSYTHIA X.I. 'GOLD TIDE' GOLD TIDE FORSYTHIA 50 MM POT. CONT.	HIBISCUS SYRIACUS ROSE OF SHARON 1.5 M B&B	PHILADELPHUS X. VIRGINALIS MINN. SNOWFLAKE MOCKORANGE 1.2 M B&B	POTENTILLA 'PRIMROSE BEAUTY', PRIMROSE BEAUTY PONTENTILLA, 90 CM B&B	SYRINGA PATULA 'MISS KIM' MISS KIM LILAC, 1.2M B&B	SYRINGA XH. 'POCAHONTAS' POCAHONTAS LILAC, 1.2M B&B	SYRINGA VULGARIS, PURPLE & WHITE COMMON LILAC, 1.2M B&B	COMMENTS
UNIT	m3	t	t	t	kg	kg	kg	m2	m2	m2	EA	HA	m3	m2	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	
LOCATION																															
PLANTING AREA A	69.5								231.5					231.5					5												
PLANTING AREA B	550.9								1836.3					1836.3					31												
PLANTING AREA C	218.3								727.7					727.7					5				9						17	14	
PLANTING AREA D	218.3								727.7					727.7					5				9						17	14	
PLANTING AREA E	81.5								271.5					271.5				3	6												
PLANTING AREA F	84.3								280.9					280.9				3	6												
PLANTING AREA G	80.5								268.3					268.3				3	6												
PLANTING AREA H	80.5								268.3					268.3				3	6												
PLANTING AREA I	128.0								426.6					426.6				3	3								6				
PLANTING AREA J	31.7								105.7					105.7						3											
PLANTING AREA K	50.4								167.9					167.9				1	3												
PLANTING AREA L		0.14	0.30	0.30		2.7		304.5				0.030	27.4							4											
PLANTING AREA M	64.1								213.6					213.6				1		4									2	5	
PLANTING AREA N	78.5								261.8					261.8												7				5	5 PURPLE LILACS
PLANTING AREA O		0.14	0.30	0.30		2.8		310.0				0.031	27.9					1		5											
PLANTING AREA P	290.2	0.02	0.04	0.04		0.4		45.0	967.4			0.005	4.1	967.4							8	89		210	8			21		6	
PLANTING AREA Q		1.09	2.37	2.37		21.7		2414.5				0.241	217.3						23	1			19							17	
PLANTING AREA R	251.6								838.7					838.7		35						50	28							57	
PLANTING AREA S																	8														
PLANTING AREA T	119.3								397.6					397.6				1		2	86					9	7		3	6	3 WHITE & 3 PURPLE LILACS
PLANTING AREA U	119.3								397.6					397.6				1		2	86					9	7		3	6	3 WHITE & 3 PURPLE LILACS
PLANTING AREA V	119.3								397.6					397.6				1		2	86					9	7		3	6	3 WHITE & 3 PURPLE LILACS
PLANTING AREA W	119.3								397.6					397.6				1		2	86					9	7		3	6	3 WHITE & 3 PURPLE LILACS
PLANTING AREA X		0.10	0.23	0.23		2.1		232.2				0.023	20.9							4											
PLANTING AREA M, N, T & U		0.85	1.84	1.84		16.9		1879.1				0.188	169.1																		
PLANTING AREA V & W		0.69	1.51	1.51		13.9		1543.9				0.154	139.0																		
ISLAND C	23.5								78.4					78.4				1			65										
ISLAND D	21.1								70.2					70.2	2						42										
ISLAND E	10.0								33.3					33.3	2						8										
ISLAND F	10.0								33.3					33.3	2						8										
ISLAND G	10.0								33.3					33.3	2						8										
ISLAND H	106.5								355.0					355.0				2			328										
ISLAND I	23.1								76.9					76.9	2						40										
ISLAND J	13.1								43.6					43.6	2						5										
ISLAND K	16.2								54.0					54.0	2						16										
ISLAND M	4.8	0.02	0.05	0.05	0.6			47.8				0.005													4						
ISLAND O	21.7								72.5					72.5				2			36										
ISLAND P	7.2								24.0					24.0	2						6										
ISLAND Q	28.2								94.0					94.0				1			84										
ISLAND R	28.0								93.3					93.3	2						61										
ISLAND T	67.4								224.5					224.5				1			228										
WELL RADIUS AREA		0.51	1.11	1.11		10.2		1132.1				0.113	101.9																		
DETENTION AREA		4.05	8.81	8.81		80.9		8994.0				0.899	809.5																		
TREATMENT SWALE		0.08	0.18	0.18			1.7	185.0		185.0		0.019	16.7																		
SUBTOTAL	3146.0	7.69	16.75	16.75	0.6	151.7	1.7	17088.1	10470.8	185.0	200	1.71	1533.6	10470.8	18	35	8	29	99	29	1287	139	65	210	12	43	34	21	48	142	
ROUNDING	54.0	*	*	*	*	*	*	*	*	5.0	0	0.29	66.4	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL	3200.0									190.0	200	2.00	1600.0		18	35	8	29	99	29	1287	139	65	210	12	43	34	21	48	142	

* NOT A PAY QUANTITY (SUBSIDIARY TO ITEM 646.3)

SUMMARY OF QUANTITIES (ESTIMATE)

THIS INFORMATION IS FOR BIDDING PURPOSES ONLY

CONDUIT, PULL BOXES, AND LIGHT POLE BASES

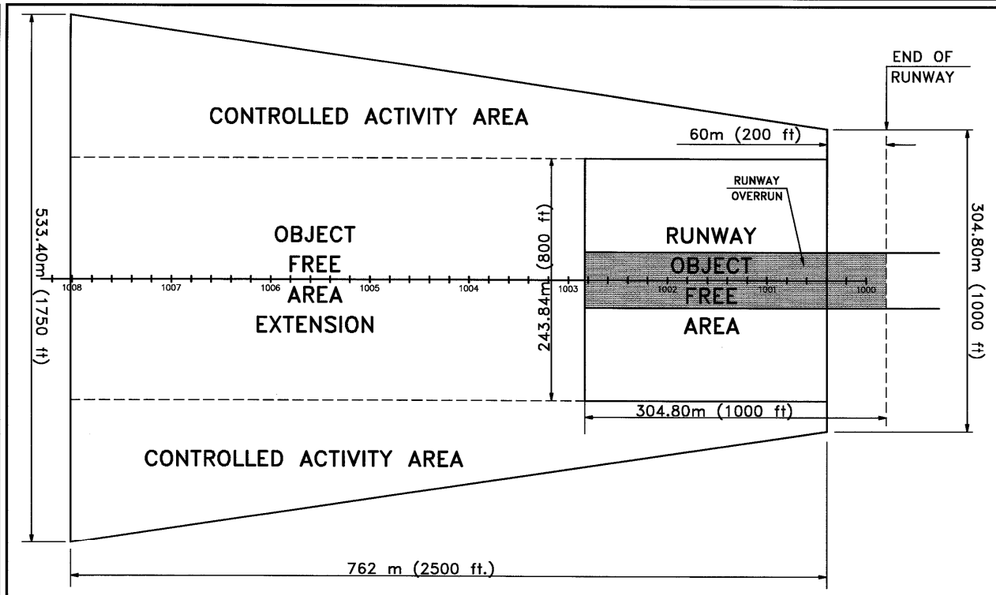
REF. #	REF. LINE FOR CONDUIT RUN	LOCATION	603.29903 300 MM STEEL PIPE SLEEVE	614.3081 75 mm STEEL CONDUIT	614.511 CONCRETE PULL BOX 350 mm	614.522 MOLDED PULL BOX 325 mm X 600 mm	614.523 MOLDED PULL BOX (425 mm X 750 mm)	614.70514 50 MM PVC PLASTIC CONDUIT, SCHEDULE 40	614.70518 50 MM PVC PLASTIC CONDUIT, SCHEDULE 80	614.70814 75 MM PVC PLASTIC CONDUIT, SCHEDULE 40	614.70818 75 MM PVC PLASTIC CONDUIT, SCHEDULE 80	614.70828 75 MM 2-DUCT PVC PLASTIC CONDUIT, SCHEDULE 80	614.71014 100 MM PVC PLASTIC CONDUIT, SCHEDULE 40	614.71018 100 MM PVC PLASTIC CONDUIT, SCHEDULE 80	625.22 CONCRETE LIGHT POLE BASES, TYPE B (FOR HIGHWAY LIGHTING)	625.25 CONCRETE LIGHT POLE BASES, TYPE B 600mm REVEAL	625.52 LIGHT POLE (HIGHWAY)	625.5525 ORNAMENTAL LIGHT POLE, 7.6 m (25ft) HEIGHT	625.5535 ORNAMENTAL LIGHT POLE, 10.5 m (35 ft) HEIGHT	COMMENTS
			lm	lm	EA	EA	EA	lm	lm	lm	lm	lm	lm	lm	EA	EA	U	U	U	
A	A-B	STA. 501+55.0, RT. 37.54 - 501+55.4, RT. 6.62	19.6	7.4			1					29.4								
B	B-D	STA. 501+55.4, RT. 6.62 - 501+08.4, RT. 8.16				1				48.1										
C		STA. 501+61.0, RT. 6.00														1			1	
D	D-G	STA. 501+08.4, RT. 8.16 - 500+55.4, RT. 7.09				1				57.4										80 m CONDUIT RADIUS
E		STA. 501+08.0, RT. 6.70														1			1	
G	G-I	STA. 500+55.4, RT. 7.09 - 800+29.3, RT 28.80				1					43.9									
H		STA. 500+54.0, RT. 6.70														1			1	
I	I-K	STA. 800+29.3, RT. 28.80 - 800+35.2, LT. 9.61			1						38.9									
J		STA. 800+30.7, RT. 28.80														1			1	
K	K-M	STA. 800+35.2, LT. 9.61 - 800+28.6, LT. 48.77			1						39.7									
L		STA. 800+36.5, LT. 9.60														1			1	
M	M-N	STA. 800+28.6, LT. 48.77 - 800+60.6, LT. 50.40				1				32.0										
N		STA. 800+60.6, LT. 50.40				1														
O		STA. 800+60.5, LT. 48.90														1			1	
P	M-P	STA. 800+28.6, LT. 48.77 - 800+08.3, LT. 40.30								22.0										CONNECT TO EXISTING LOOP
Q	B-Q	STA. 501+55.4, RT. 6.62 - 501+62.2, RT. 7.23				1				6.7										
R	Q-R	STA. 501+62.2, RT. 7.23 - 801+00.0, LT. 9.67			1						56.2									
S		STA. 800+98.6, LT. 9.60														1			1	
T	N-T	STA. 800+60.6, RT. 50.40 - 801+04.6, LT. 49.19			1						50.4									
U		STA. 801+05.9, LT. 49.10														1		1		
V	Q-V	STA. 800+98.8, RT 45.68 - 801+64.7, RT 23.2				1				61.7										
W	V-W	STA. 801+64.7, RT. 23.2 - 801+94.5, RT. 10.75				1				31.8										
X		STA. 801+94.5, RT. 10.75														1		1		
Y	W-Y	STA. 801+94.5, RT. 10.75 - 802+30.5, RT. 10.71				1				70.2										
Z		STA. 802+30.5, RT. 10.71														1		1		
AA	Y-AA	STA. 802+30.5, RT. 10.71 - 802+70.6, LT. 7.59				1					38.3									
BB		STA. 802+70.6, LT. 7.59														1		1		
CC	AA-CC	STA. 802+70.6, LT. 7.59 - 802+04.5, LT. 28.75			1						43.1									
DD		STA. 802+04.5, LT. 28.75														1		1		
EE	CC-EE	STA. 802+04.5, LT. 28.75 - 801+61.8, LT. 28.78			1						42.7									
FF		STA. 801+61.8, LT. 28.78														1		1		
GG		STA. 62+49.0, RT. 7.98																		CONNECT NOTE GG POWER POLE TO EXIST. PULLBOX
HH		STA. 62+49.0, RT. 7.98														1			1	
II	II-JJ	STA. 703+62.2, LT. 10.81 - 704+35.0, LT. 5.75								44.4										CONNECT TO EXISTING PULLBOX
JJ	JJ-KK	STA. 704+35.0, LT. 5.75 - 704+80.3, LT. 6.94								45.7										
KK		STA. 704+80.3, LT. 6.94				1														
LL		STA. 704+80.3, LT. 6.94													1		1			7.5 m MOUNTING HEIGHT W/ 1.8 m BRACKET ARM
MM	MM-NN	STA. 353+44.3, LT. 5.82 - 63+12.0, RT. 8.84											228.0							
NN	NN-00	STA. 63+12.0, RT. 8.84 - 63+10.5, LT. 7.96				1								16.70						
OO	00-PP	STA. 63+10.5, LT. 7.96 - 801+55.5, RT. 21.10				1								245.20						
PP		STA. 801+55.5, RT. 21.10				1														CONNECT TO BUILDING
QQ		STA. 65+17.64, RT. 7.08 - 65+20.8, RT. 6.92																		ADJUST CONDUIT IF NEEDED
RR	RR-SS	STA. 65+14.1, LT. 6.8 - STA. 63+18.3, LT. 6.6				1		187.3												
SS	SS-TT	STA. 63+18.3, LT. 6.6 - STA. 500+28.7, RT. 7.7				1		70.2												
TT	TT-PP	STA. 500+35.4, RT 11.0 - STA. 801+55.5, RT 21.1				1			177.7											
	TT-H	STA. 500+35.4, RT 11.0 - STA. 500+54.0, RT. 6.7						19.7												
		FROM INCIDENTAL ITEMS SUMMARY	19.6																	
		SUBTOTAL	39.2	7.4	6	17	1	277.2	177.7	420.0	353.2	29.4	228.0	261.9	1	14	1	6	8	
		ROUNDING	0.8	0.6	0	1	0	2.8	2.3	10.0	6.8	0.6	2.0	3.1	0	0	0	0	0	
		TOTAL	40.0	8.0	6	18	1	280.0	180.0	430.0	360.0	30.0	230.0	265.0	1	14	1	6	8	

SUMMARY OF QUANTITIES (ESTIMATE)

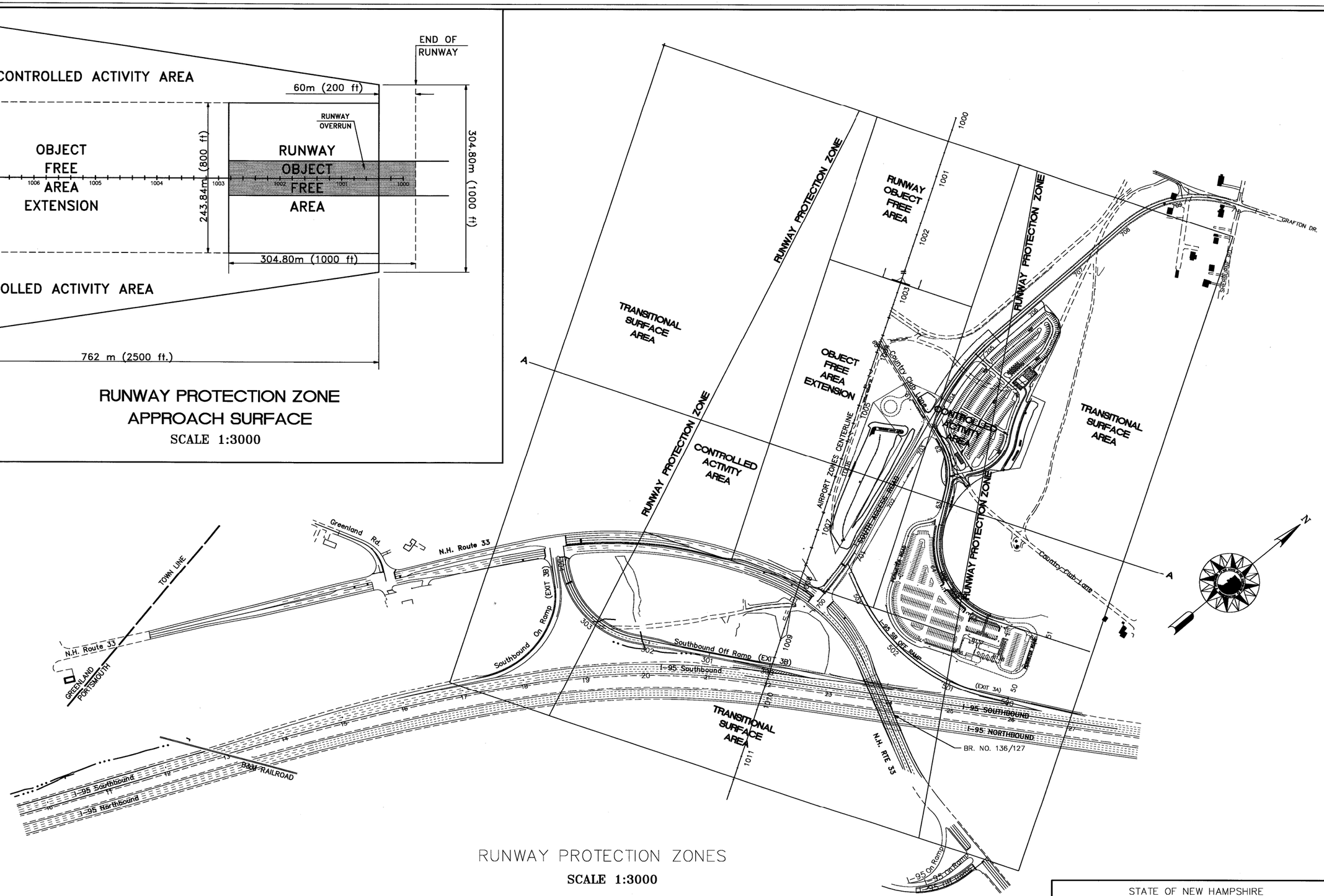
THIS INFORMATION IS FOR BIDDING PURPOSES ONLY

DRAINAGE

REF. NO.	ITEM NO. / ITEM	202.41 REMOVAL OF EXISTING PIPE 0-600 MM DIA.	202.5 REMOVAL OF CATCH BASINS, DROP INLETS AND MANHOLES	209.1 GRANULAR BACKFILL	570.4 MORTAR RUBBLE MASONRY (F)	585.2 STONE FILL, CLASS B	585.3 STONE FILL, CLASS C	593.21 LOW STRENGTH GEOTEXTILE, NON-WOVEN	593.22 MEDIUM STRENGTH GEOTEXTILE, NON-WOVEN	603.00203 300 MM R.C. PIPE, CLASS III	603.00204 375 MM R.C. PIPE, CLASS III	603.00206 600 MM R.C. PIPE, CLASS III	603.00208 750 MM R.C. PIPE, CLASS III	604.0007 POLYETHYLENE LINER	604.12 CATCH BASINS TYPE B	604.1515 CATCH BASINS TYPE E, 1.5 M DIA	613.41 STORMWATER TREATMENT SYSTEM	COMMENTS
	UNIT	lm	EA	m3	m3	m3	m3	m2	m2	lm	lm	lm	lm	EA	U	U	U	
	LOCATION																	
R1	63+98 LT 7.5 - 60+98 LT 8.31									1.27								
R2	702+07, RT 23.22 - 702+15.3, LT 10.5		1															
R3	702+15.3, LT 10.5 - 702+90, LT 10.5	75.0	1															
R4	702+90, LT 10.5 - 703+40, LT 10.5	50.0	1															
R5	703+40, LT 10.5 - 703+62, LT 12.6	22.0	1															
R6	703+62, LT 12.6 - 61+21, LT 6.9	17.0	1															
R7	703+62, LT 12.6 - 703+68.6, LT 11.32	7.4																
R8	703+54, RT 10.5 - 704+54, RT 6.9																	
R9	62+04, LT 7.10 - 703+54, RT 10.5	46.5	1															
R10	62+04, LT 7.10																	
1	701+10.0, LT 12.33 - 701+10.0, LT 23.61			10.0	4.0		2.7	4.5		10.7								
2	702+82.3, LT 70.63 - 703+11.5, LT 29.32					50.5	39.2	65.4	84.1									
3a.	703+11.5, LT 29.32 - 703+26.8, LT 19.22			20.0	7.0												1	
3b.	703+26.8, LT 19.22 - 703+40.0, LT 10.49												14.3			1.5		
4	703+40.0, LT 10.49 - 703+68.6, LT 11.32												27.4			1.6		
5	703+68.6, LT 11.32 - 703+68.9, RT 14.30												24.4			1.7		
6	703+68.9, RT 14.30 - 800+40.0											55.4		1	1.4			
7	800+43.0 - 800+10.8											28.1		1	1.2			
8	800+10.8 - 600+49.9										8.5			1	1.0			
9	600+49.9 - 600+54.9									3.8				1	1.0			
10	800+10.8 - 800+15.4, RT 41.4										40.5			1	1.0			
11	800+15.4, RT 41.4 - 800+15.4, RT 46.57									3.8				1	1.0			
12	800+15.4, RT 46.57 - 800+18.8, RT 57.72									10.9				1	1.0			
13	800+43.0 - 800+73.7, RT 42.82									52.5				1	1.0			
14	703+68.9 RT 14.30 - 704+97.3 RT 15.57										122.7			1	1.0			
15	704+97.3 RT 15.57 - 801+43.5 LT 24.57										30.6			1	1.0			
16	801+43.5 LT 24.57 - 801+40.6 LT 24.51									1.6				1	1.0			
17	801+43.5, LT 24.57 - 801+72.0, RT 12.49									45.9				1	1.0			
18	801+43.5, LT 24.57 - 801+68.0, LT 23.31										25.1			1	1.0			
19	801+68.0, LT 23.31 - 802+40.8, LT 20.60									61.5				1	1.0			
20	802+40.8, LT 20.60 - 802+66.7, LT 5.78									18.4				1	1.0			
21	800+15.4, RT 46.57 - 800+34.2, RT 47.07									17.5				1	1.0			
	FOR SIDEWALK CONSTRUCTION			90.6														
	SUBTOTAL	217.9	6.0	120.6	11.0	50.5	41.9	69.9	84.1	227.8	227.5	83.5	66.1	16.0	16.6	4.8	1.0	
	ROUNDING	2.1	0.0	4.4	1.0	4.5	3.1	10.1	10.9	2.2	2.6	1.5	19.9	0.0	0.4	1.2	0.0	
	TOTAL	220	6	125	12.0	55	45	80	95	230	230	85	86	16	17	6	1	



RUNWAY PROTECTION ZONE
APPROACH SURFACE
SCALE 1:3000



RUNWAY PROTECTION ZONES
SCALE 1:3000

METRIC

REVISIONS AFTER PROPOSAL				
NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	DATE	
PROPOSED DESIGN	DATE	
SHEET CHECKED	DATE	5/26/00
CADD PLOT:	DATE	5/26/00
AS BUILT DETAILS	DATE	

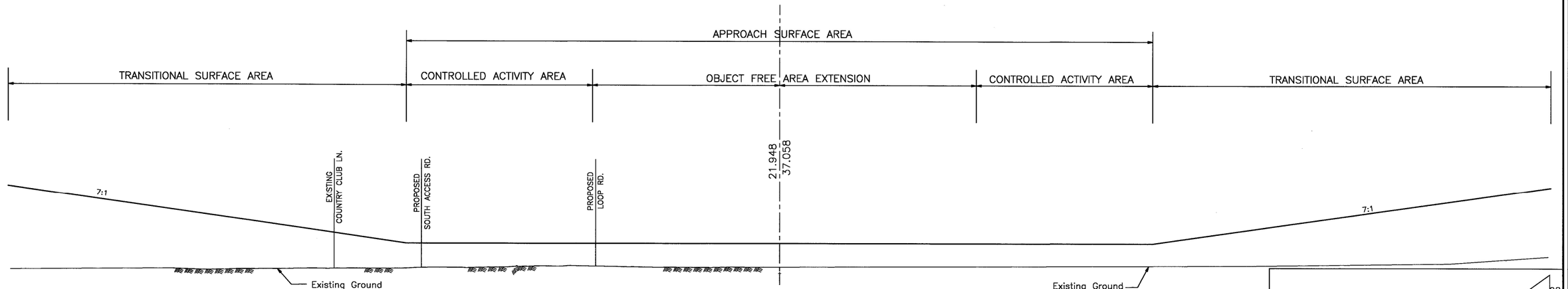
STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

Maguire Group Inc.
Engineers • Architects
110 Corporate Drive, Suite 6
Portsmouth, NH 03802-6819

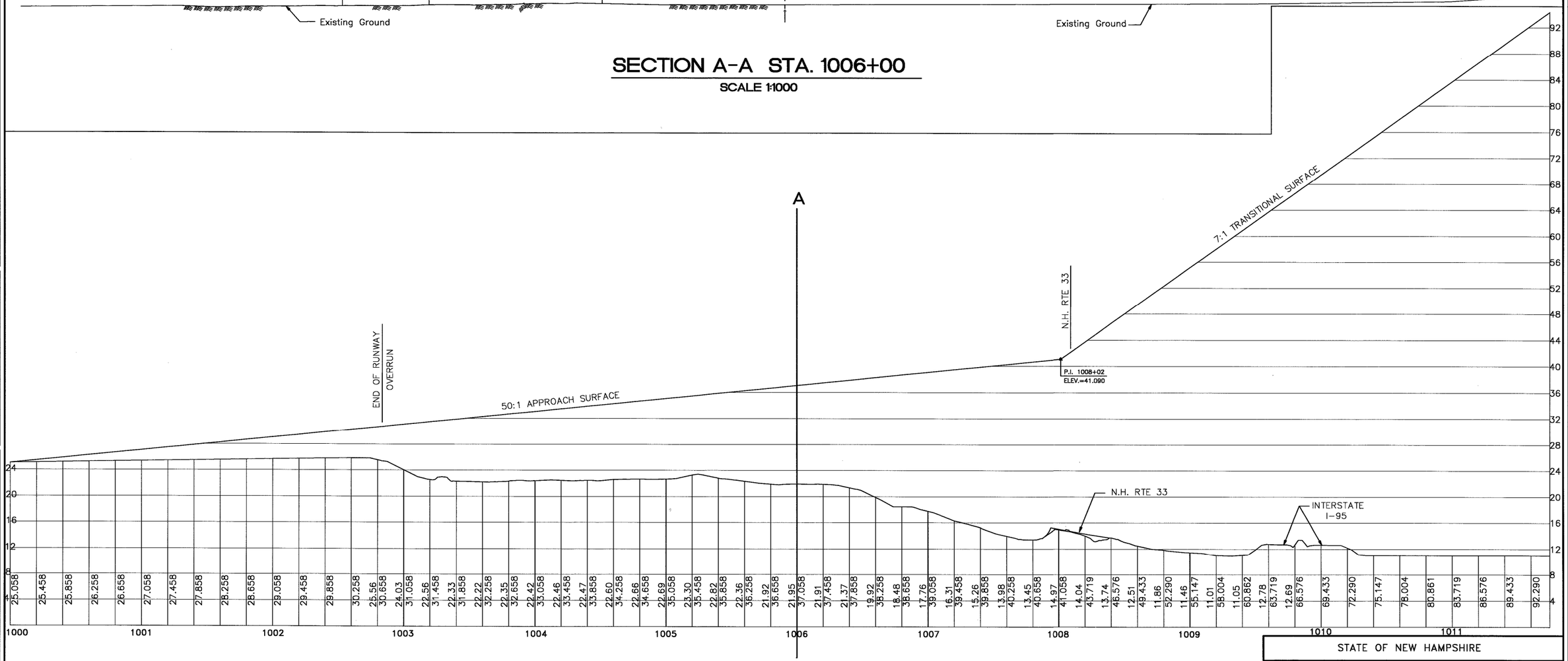
RUNWAY PROTECTION ZONE

MULTI-PLOT	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
—				12250 C2	13	75



SECTION A-A STA. 1006+00

SCALE 1:1000



PROFILE VIEW OF RUNWAY APPROACH ZONES

HORIZ. SCALE 1:1500
VERT. SCALE 1:300

METRIC

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	DATE
PROPOSED DESIGN	DATE
SHEET CHECKED	DATE
CADD PLOT	DATE
AS BUILT DETAILS	DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

Maguire Group Inc.
Engineers • Architects
110 Corporate Drive, Suite 6
Portsmouth, NH 03802-6619

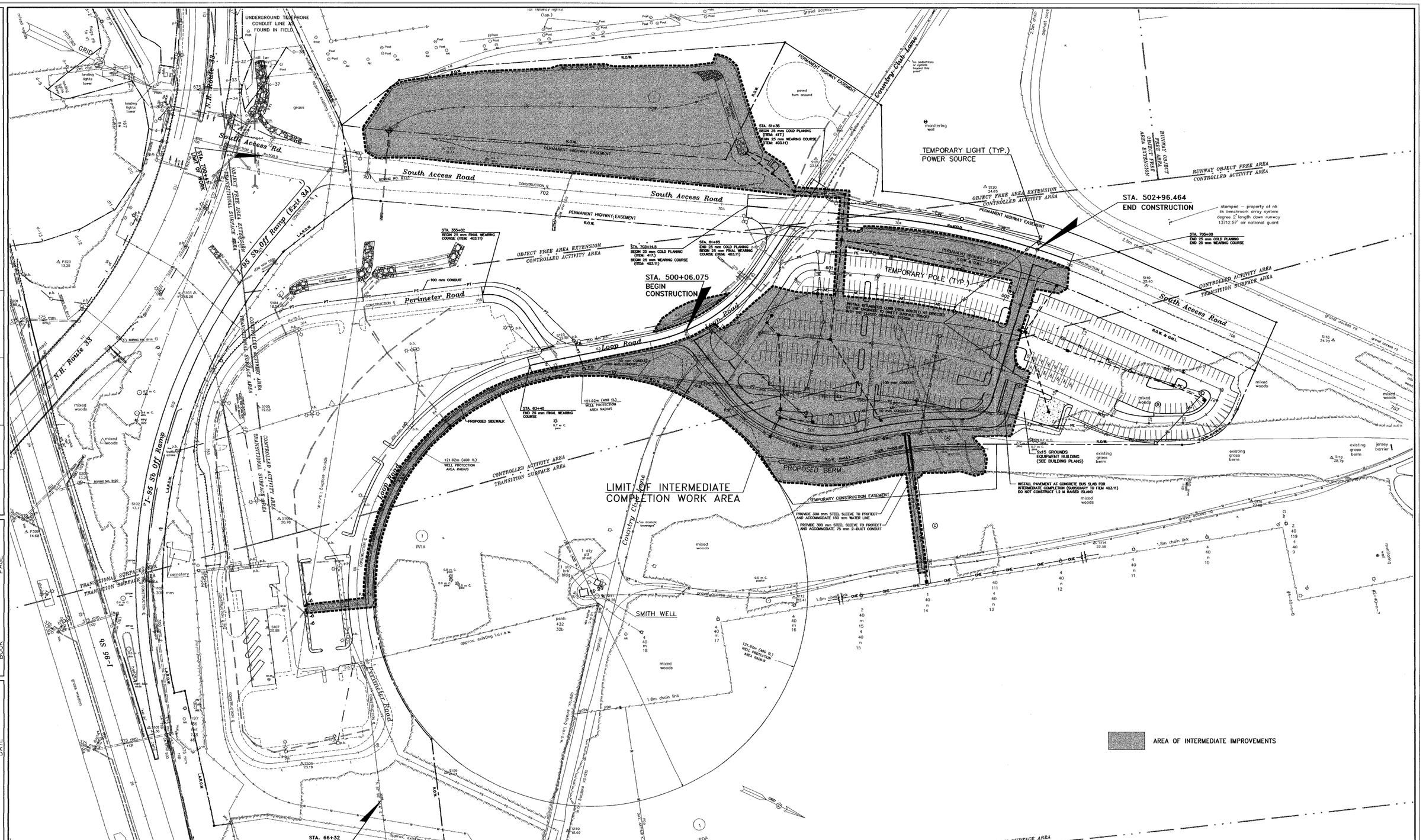
RUNWAY PROTECTION ZONES
PROFILE AND SECTION VIEWS

MULTIPLOT NAME	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
				12250 C2	14	75

REVISIONS AFTER PROPOSAL				
NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE



GENERAL NOTES

1. CONSTRUCT A PORTION OF THE PARKING LOT AND THE LOOP ROAD ACCESS TO BINDER
2. CONSTRUCT THE EARTH BERM AS EARLY WORK
3. CONSTRUCT PROPOSED SIDEWALK EXCEPT IN THE BUILDING AREA.
4. CONSTRUCT TEMPORARY LIGHTING. MAXIMUM TEMPORARY POLE HEIGHTS NOT TO EXCEED THE RESTRICTIONS NOTED ON RUNWAY PROTECTION ZONE SHEETS 12&13.
5. INSTALL PAINT STRIPING
6. PERFORM WORK FOR DRAINAGE NOTES 1–14. INSTALL 2.44 m OF NOTE 15 AND PLUG FOR COMPLETION IN THE SPRING.
7. PERFORM WORK FOR DRAINAGE NOTES R1–R9
8. INSTALL ALL PERMANENT CONDUIT, PULL BOXES, LIGHT POLE BASES AND STEEL SLEEVES FOR CONDUIT WITHIN THE INTERMEDIATE COMPLETION WORK AREA
9. INSTALL WATER LINE, HYDRANT AND STEEL SLEEVE FOR WATER LINE.

METRIC

GRAPHIC SCALE

20 0 20 40 80

(IN METERS)

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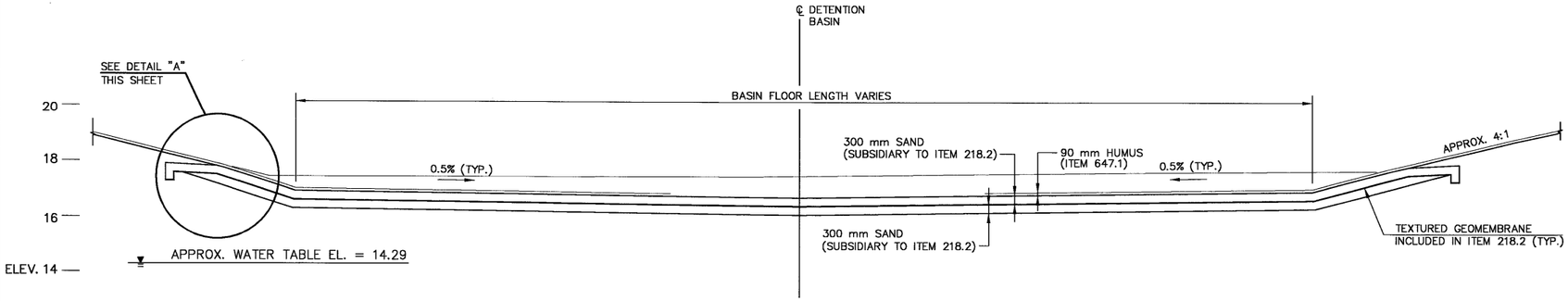
STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

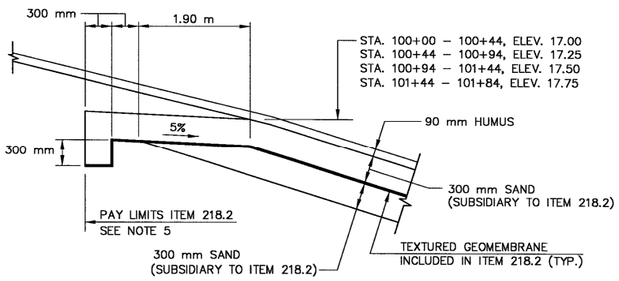
INTERMEDIATE COMPLETION REQUIREMENTS

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	15	75



SECTION @ 101+00

NOT TO SCALE



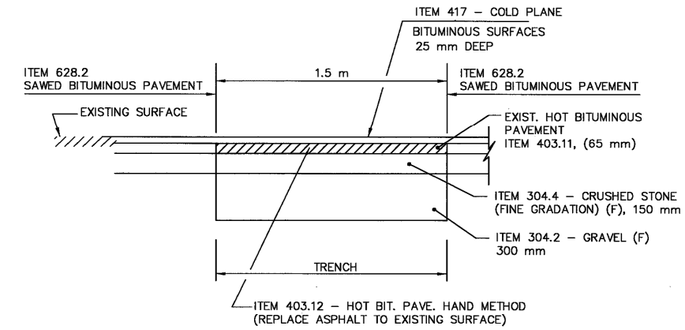
ANCHORAGE TREATMENT FOR 30 MIL TEXTURED GEOMEMBRANE

DETAIL "A"

NOT TO SCALE

NOTES:

1. SEE CONTOUR & LANDSCAPING PLAN FOR SIDE SLOPES OF BASIN. GENERALLY, BASIN SIDE SLOPES ARE 4:1.
2. BASIN AND SLOPES TO BE SEEDED IN ACCORDANCE WITH SPECIFICATION FOR ITEM 647.1, HUMUS.
3. AT POND OUTLET (STONE FILL CLASS "C"), DEPRESS TEXTURED GEOMEMBRANE BELOW STONE FILL WITH 150 mm OF SAND ABOVE GEOMEMBRANE AND 300 mm OF SAND BELOW GEOMEMBRANE.
4. AT POND OUTLET, WRAP TEXTURED GEOMEMBRANE UP VERTICAL FACE OF STONE FILL CLASS "C" ALONG WITH GEOTEXTILE NON–WOVEN.
5. GEOMEMBRANE MANUFACTURER TO VERIFY REQUIRED DETAIL FOR THEIR PRODUCT. PAY LIMITS FOR ITEM 218.2 WILL NOT CHANGE FOR INCREASED ANCHORAGE LENGTHS.
6. SEE DRAINAGE DETAILS SHEET FOR ADDITIONAL GEOMEMBRANE DETAILS.

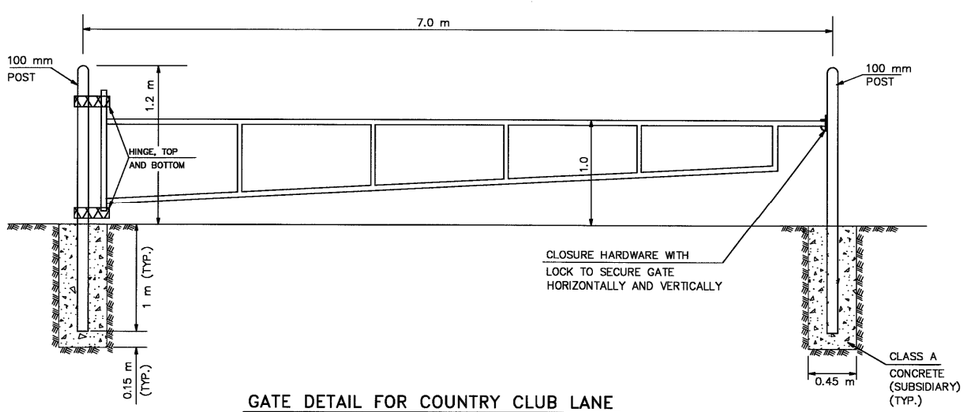


PAVEMENT TRENCH REPAIR DETAIL

NOT TO SCALE

NOTES:

1. CONSTRUCT GATE USING SCHEDULE 40 GALVANIZED STEEL PIPE (INTERNALLY AND EXTERNALLY GALVANIZED TO A WEIGHT OF 0.55 kg/m2, ASTM F1083). TREAT WELDS AND AREAS OF DAMAGED GALVANIZING PER ASTM A780 AFTER FABRICATION
2. TOP RAIL AND DIAGONAL BRACE SHALL BE 50 mm OUTSIDE DIAMETER (MINIMUM). OTHER BRACING SHALL BE 40 mm OUTSIDE DIAMETER (MINIMUM)
3. BRACING ARRANGEMENT MAY VARY FROM THAT SHOWN; DIAGONAL BRACE SHALL EXTEND FROM HINGE POST TO (AT MINIMUM) MIDPOINT OF TOP OF BAR. FREE END OF TOP BAR SHALL NOT DEFLECT MORE THAN 50 mm VERTICALLY UNDER WEIGHT OF GATE.
4. PAINT GATE AS DESCRIBED IN THE SPECIFICATION.
5. PLACE A REFLECTOR EVERY METER ON CROSS BARS OF GATE.



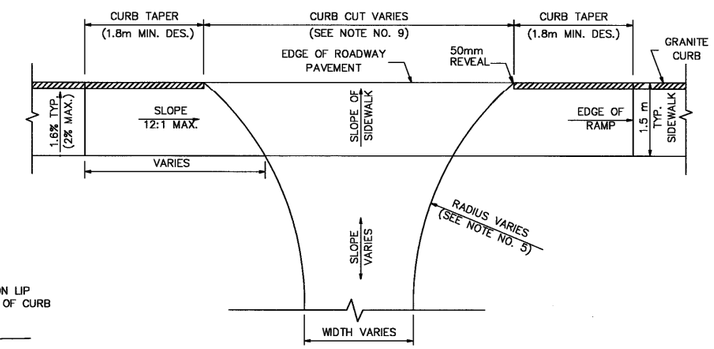
GATE DETAIL FOR COUNTRY CLUB LANE

BAR WAY (ITEM NO. 607.99)

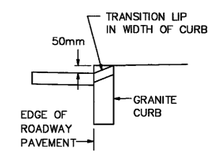
NOT TO SCALE

GENERAL NOTES

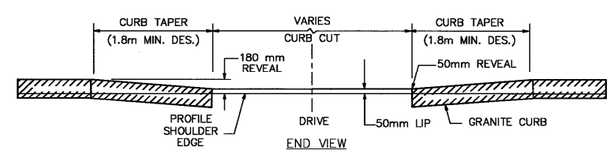
1. GRADES OF MAJOR ENTRANCES BEYOND THE PLATFORM SHOULD NOT EXCEED 8%.
2. GRADES OF OTHER DRIVES BEYOND THE PLATFORM SHOULD NOT EXCEED 15%.
3. THE ALGEBRAIC DIFFERENCE BETWEEN TWO ADJACENT GRADES SHOULD NOT EXCEED 10%.
4. PAVEMENT & BASE COURSE DEPTHS FOR RESIDENTIAL DRIVES ARE TYPICALLY 200 mm CRUSHED GRAVEL WITH 50 mm H.B.P. (HAND METHOD) SINGLE COURSE. FOR COMMERCIAL/INDUSTRIAL DRIVES WITH FREQUENT HEAVY TRUCK TRAFFIC, 300 mm CRUSHED GRAVEL WITH 75 mm H.B.P. SHOULD BE USED.
5. FOR DESIGN CRITERIA AND OTHER ADDITIONAL INFORMATION, REFER TO THE NHDOT DRIVEWAY MANUAL.
6. DITCHES ARE RECOMMENDED FOR UNCURBED DRIVEWAYS IN CUT SLOPES.
7. USE SLOPED END SECTIONS ON DRIVE PIPES FOR UNCURBED DRIVEWAYS.
8. CURBING CAN BE FLARED TO FIT DRIVE RADII IF APPROPRIATE OR ENDED AS DETAILED ABOVE.
9. CURB CUTS FOR RESIDENTIAL DRIVES WITH ANGLES OF ENTRY OF 75°–90° ARE TYPICALLY 7.7 m.
10. FOR UNPAVED DRIVES, THE PAVED APRON NORMALLY ENDS AT THE RADIUS TANGENT POINT. SEE PAVEMENT LAYOUT PLANS.



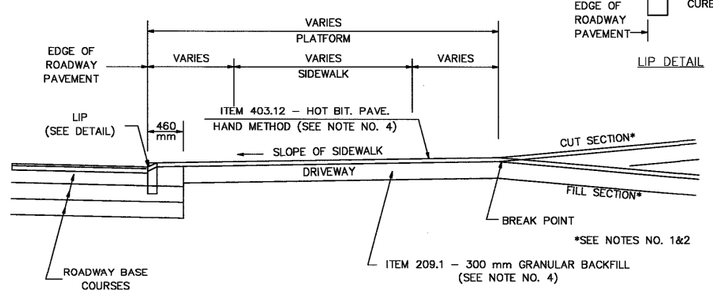
PLAN VIEW WITH SIDEWALK RAMP



LIP DETAIL



END VIEW



TYPICAL URBAN CURBED DRIVE IN CUT/FILL SECTION

NOT TO SCALE

METRIC

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

Maguire Group Inc.
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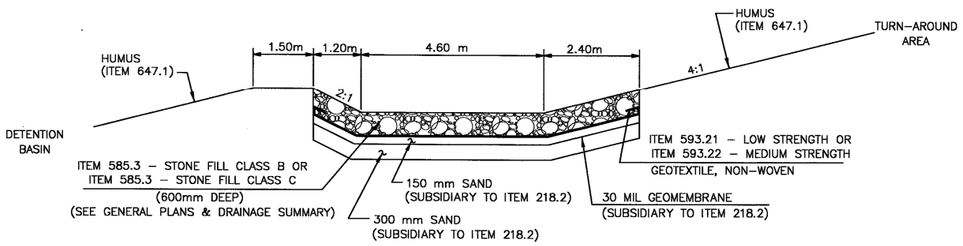
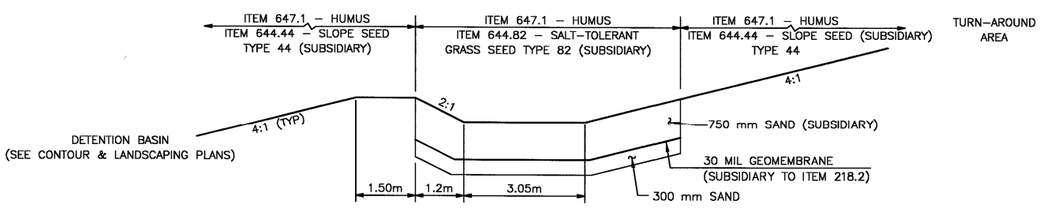
MISCELLANEOUS DETAILS & AQUIFER PROTECTION BASIN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	16	75



SECTION A–A

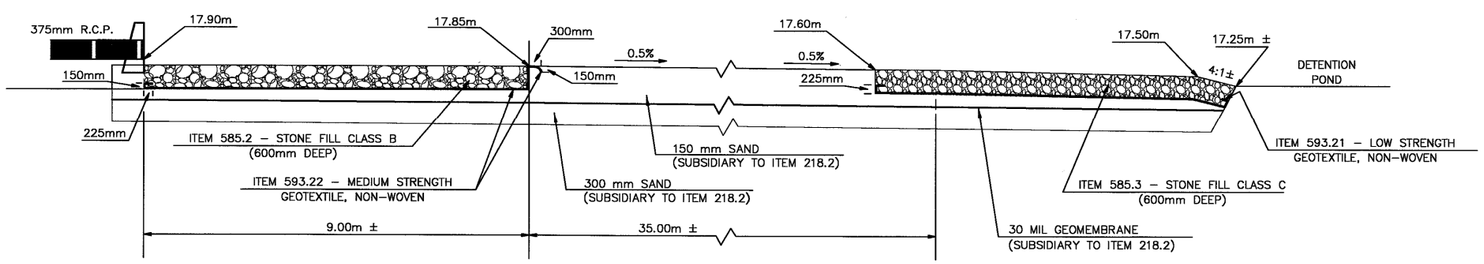


SECTION B–B

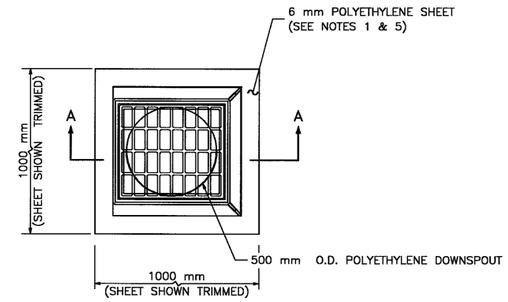
***NOTE**

SEE SHEET 28 FOR PLAN VIEW OF DETAIL

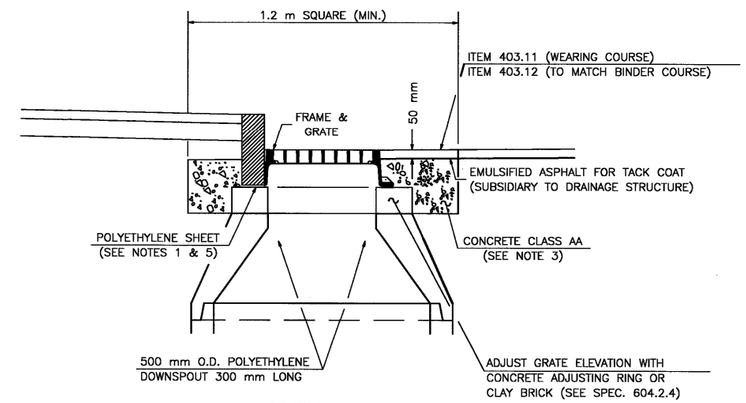
TYPICAL TREATMENT
SWALE SECTION VIEWS
SCALE : 1:75



TYPICAL TREATMENT
SWALE PROFILE VIEWS
SCALE : 1:75



PLAN



SECTION A–A

GENERAL NOTES

1. POLYETHYLENE LINER SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
2. PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT BETWEEN FRAME AND POLETHYLENE SHEET.
3. PLACE CLASS AA CONCRETE TO 50 mm BELOW THE TOP OF GRATE ELEVATION (SUBSIDIARY TO DRAINAGE STRUCTURE).
4. USE ON DRAINAGE STRUCTURES 1.2 m MIN. DIAMETER ONLY.
5. TRIM POLYETHYLENE SHEET A MAXIMUM OF 100 mm OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE (EXCEPT AS SHOWN WHEN USED WITH CURB).
6. THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 150 mm FROM THE CENTER OF THE DOWNSPOUT IN ANY DIRECTION.

POLYETHYLENE LINER DETAIL

ITEM 604.0007

METRIC

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

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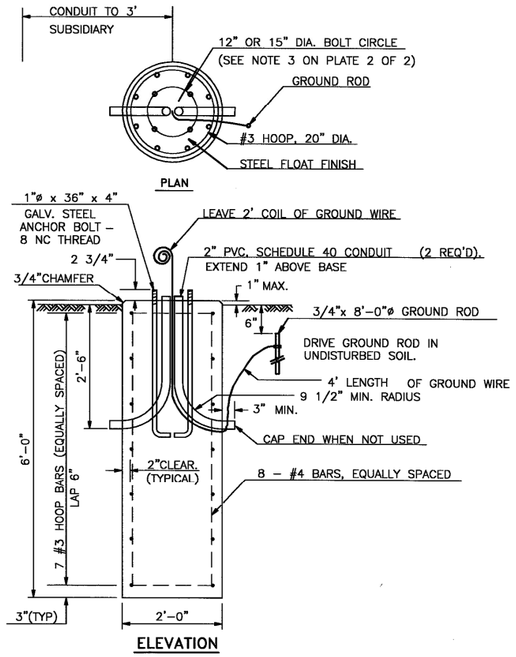
DRAINAGE DETAILS

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	17	75

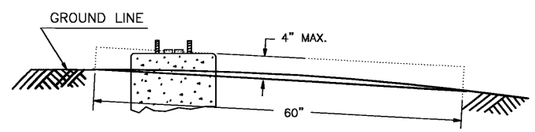


CONCRETE LIGHT POLE BASE

1 OF 2

NOTES:

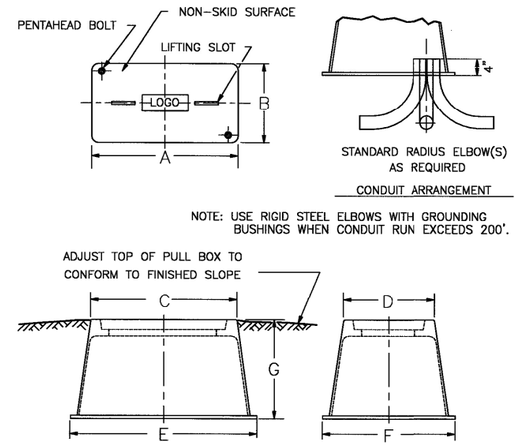
1. ALL STANDARDS, LUMINAIRES, AND WIRE TO BE FURNISHED AND INSTALLED BY THE POWER COMPANY, UNLESS OTHERWISE DIRECTED.
2. ANCHOR BOLTS, GROUND ROD, & GROUND WIRE TO BE FURNISHED BY THE POWER COMPANY AND INSTALLED BY THE CONTRACTOR, UNLESS OTHERWISE DIRECTED.
3. BOLT CIRCLE DIAMETER SHALL BE VERIFIED WITH THE POWER COMPANY.
4. CONCRETE SHALL BE CLASS B(0.7 C.Y. PER BASE)
5. ALL BASES SHALL BE LOCATED 10'-0" (TO CENTER) FROM FACE OF CURB OR EDGE OF PAVED SHOULDER,UNLESS OTHERWISE SPECIFIED.
6. ALL BASES SHALL BE BACKFILLED WITH GRANULAR BACKFILL (GRAVEL) CONFORMING TO SECTION 209.
7. ALL BASES SHALL BE PRECAST OR CAST IN PLACE–SEE SECTION 625. CAST IN PLACE BASES SHALL BE FORMED FOR THE TOP 3 FEET.
8. REINFORCEMENT SHALL CONFORM TO SECTION 544.
9. ANY ANCHOR BOLTS DAMAGED DURING INSTALLATION SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER.
10. UPON INSTALLATION, ANCHOR BOLT THREADS SHALL BE CLEANED WITH A WIRE BRUSH.
11. TERRAIN SURROUNDING BASE MUST BE GRADED AS SHOWN BELOW TO PREVENT IMPACTING VEHICLES FROM SNAGGING ON BASE.



BREAKAWAY SUPPORT STUB HEIGHT MEASUREMENT

CONCRETE LIGHT POLE BASE

2 OF 2



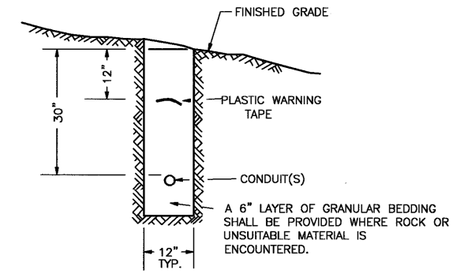
NOTE: USE RIGID STEEL ELBOWS WITH GROUNDING BUSHINGS WHEN CONDUIT RUN EXCEEDS 200'.

DIMENSIONS IN INCHES

	A	B	C	D	E	F	G
TYPE A	23	13	25	15	31	22	16 to 18
TYPE B	30	17	32	19	39	26	26

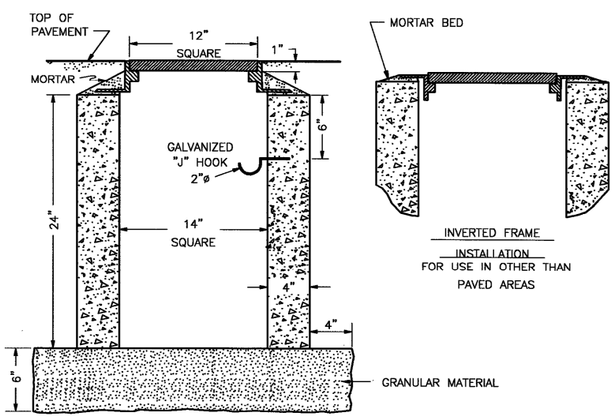
NOTES:
1. NOT FOR USE IN PAVED AREAS
2. LOGO = SIGNAL OR POWER AS REQUIRED
3. PROVIDE CAPTIVE BOLT IF AVAILABLE FROM MANUFACTURER
4. DIMENSIONS NOMINAL, MAY VARY BY 1/2 INCH
5. FRAMES & COVERS SHALL BE SUITABLE FOR INCIDENTAL VEHICULAR TRAFFIC

MOLDED PULL BOX
TYPE A and B

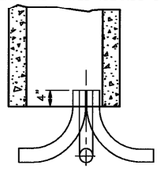


NOTE: BACKFILL ABOVE CONDUIT SHALL BE IN ACCORDANCE WITH 614.

CONDUIT INSTALLATION
TRENCH DETAIL



FOR USE IN PAVED AREAS
(SIDEWALKS AND PAVED ISLANDS ONLY)



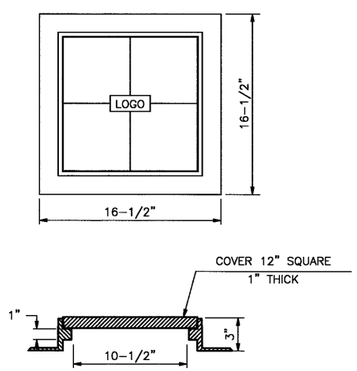
STANDARD RADIUS ELBOW(S) AS REQUIRED
CONDUIT ARRANGEMENT

NOTE: USE RIGID STEEL ELBOWS WITH GROUNDING BUSHINGS WHEN CONDUIT RUN EXCEEDS 200'.

NOTES:
1. GENERALLY USED FOR SIGNAL INSTALLATIONS.
2. DIMENSIONS SHOWN ARE NOMINAL.
3. COVER AND FRAME SHALL BE ADJUSTED SO THAT DRAINAGE WILL BE AWAY FROM PULL BOX.

CONCRETE PULL BOX
TYPE A –14" x 14"

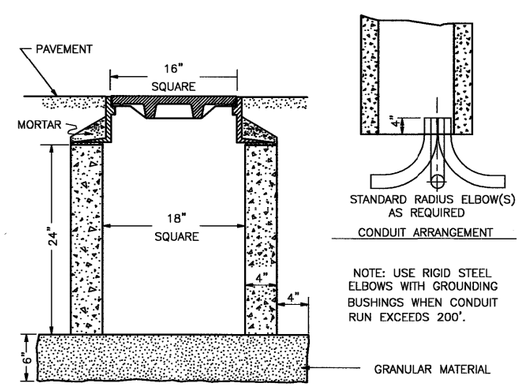
1 OF 2



NOTES:
1. FRAME AND COVER SHALL BE SUITABLE FOR INCIDENTAL VEHICULAR TRAFFIC.
2. DIMENSIONS SHOWN ARE NOMINAL.
3. LOGO = SIGNAL OR POWER AS REQUIRED, ON CENTER OF COVER.
4. APPROXIMATE WEIGHT OF FRAME AND COVER IS 60 LBS.

FRAME & COVER FOR CONCRETE
PULL BOXES TYPE A

2 OF 2



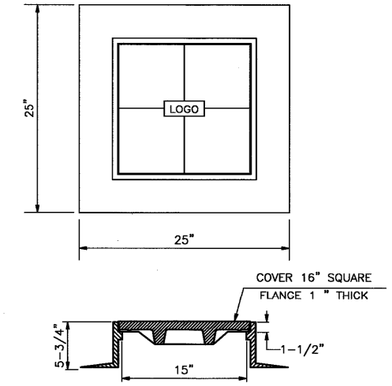
NOTE: USE RIGID STEEL ELBOWS WITH GROUNDING BUSHINGS WHEN CONDUIT RUN EXCEEDS 200'.

FOR USE IN PAVED AREAS
(SIDEWALKS AND PAVED ISLANDS ONLY)

NOTE:
1. USED FOR POWER INSTALLATIONS.
2. DIMENSIONS SHOWN ARE NOMINAL.
3. COVER AND FRAME SHALL BE ADJUSTED SO THAT DRAINAGE WILL BE AWAY FROM PULL BOX.

CONCRETE PULL BOX
TYPE B –18" x 18"

1 OF 2



NOTES:
1. FRAME AND COVER SHALL BE SUITABLE FOR INCIDENTAL VEHICULAR TRAFFIC.
2. DIMENSIONS SHOWN ARE NOMINAL.
3. LOGO = POWER ON CENTER OF COVER.
4. APPROXIMATE WEIGHT OF FRAME AND COVER IS 230 LBS.

FRAME & COVER FOR CONCRETE
PULL BOXES TYPE B

2 OF 2

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

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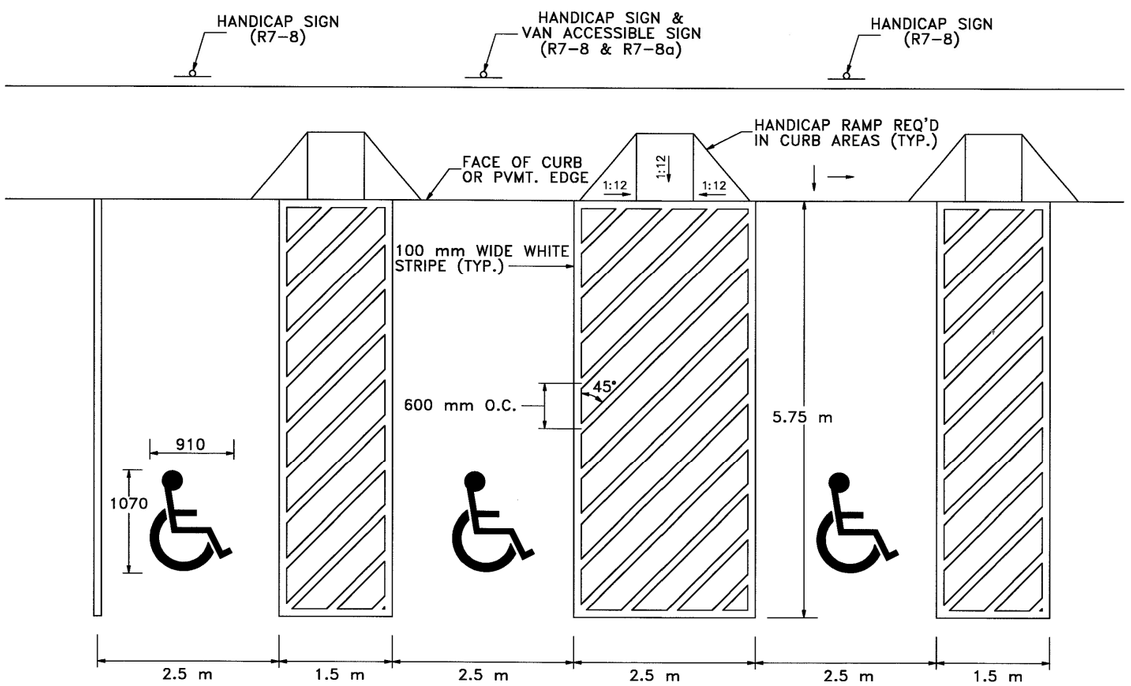
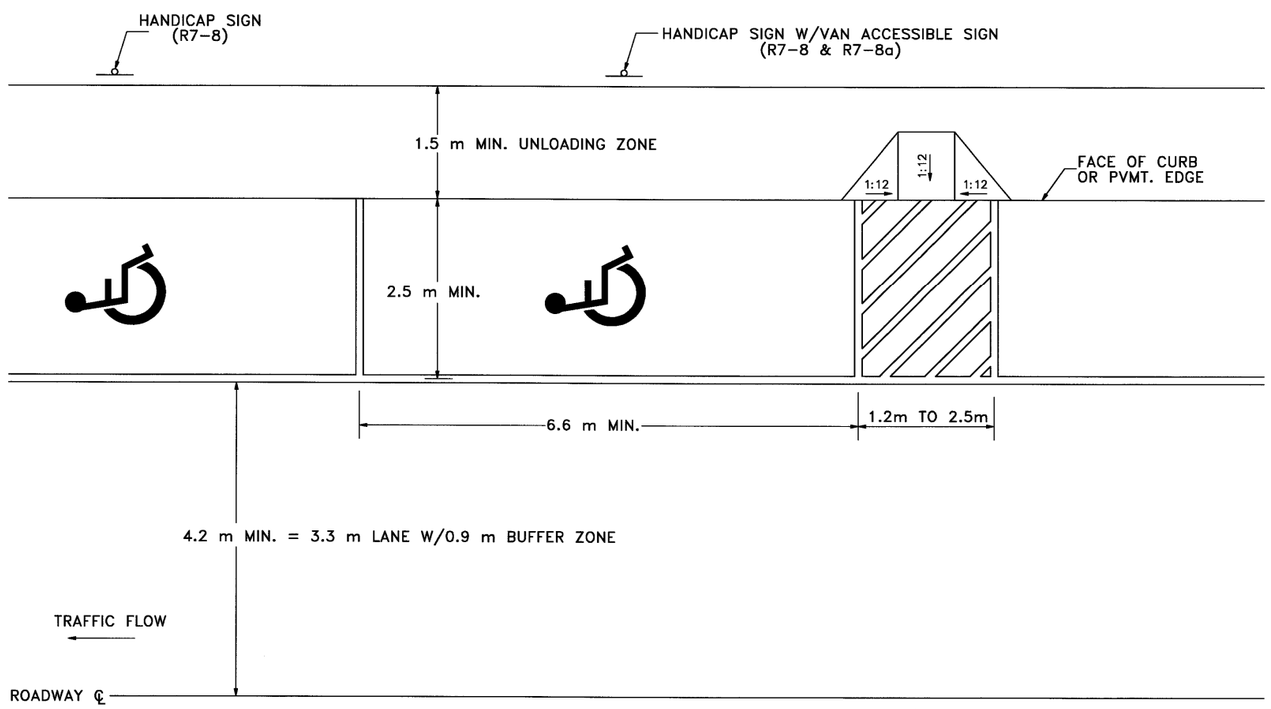
UTILITY & TRAFFIC SIGNAL EQUIPMENT DETAILS

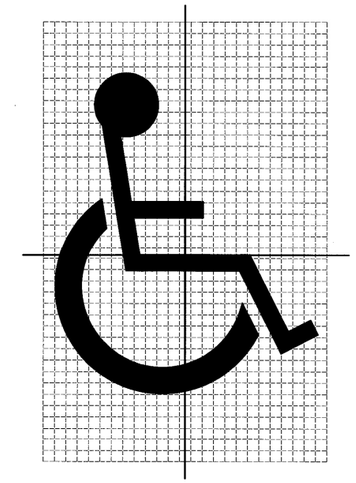
WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-4-97	S10A		12250 C2	18	75



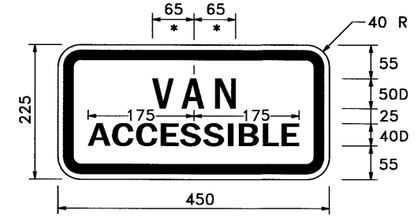


R7-8

COLORS
LEGEND AND BORDERS – GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND – WHITE



HANDICAP SYMBOL DESIGN
PAY QUANTITY FOR EACH PAVEMENT
MARKING SYMBOL = 0.24 m2



* INCREASE SPACING 50%

R7-8a

REGULATORY SIGN COLORS
LEGEND AND BORDERS – GREEN
BACKGROUND – WHITE

DIRECTIONAL SIGN COLORS
LEGEND – WHITE
BACKGROUND – BLUE

GENERAL NOTES

SIGNING & PAVEMENT MARKING STANDARD

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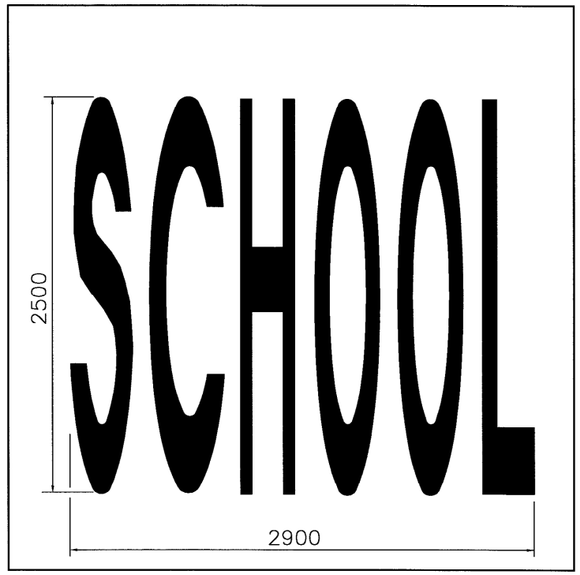
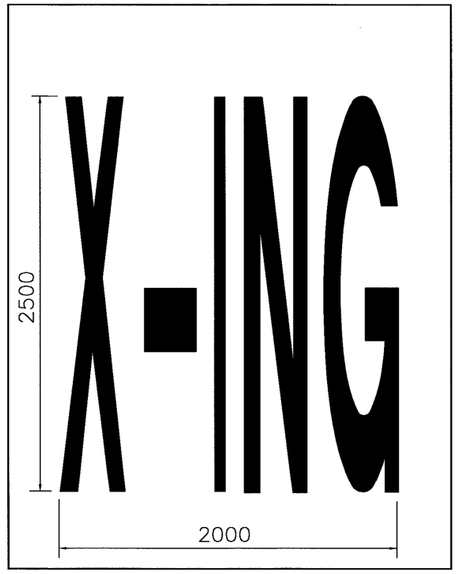
HANDICAP PARKING DETAILS

REVISION DATE	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
1-24-94	HANDICAP	USER		12250 C2	19	75

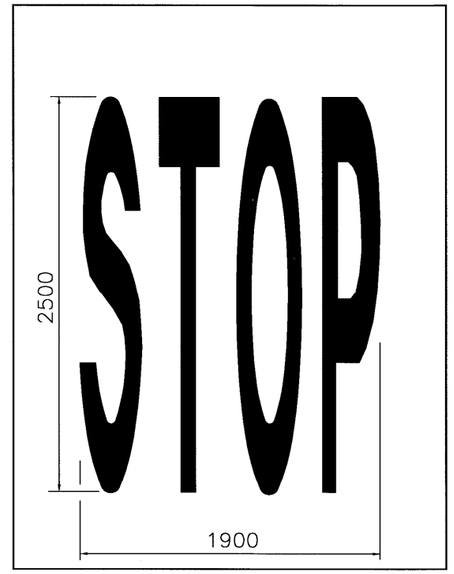
STANDARD WORDS AND SYMBOLS



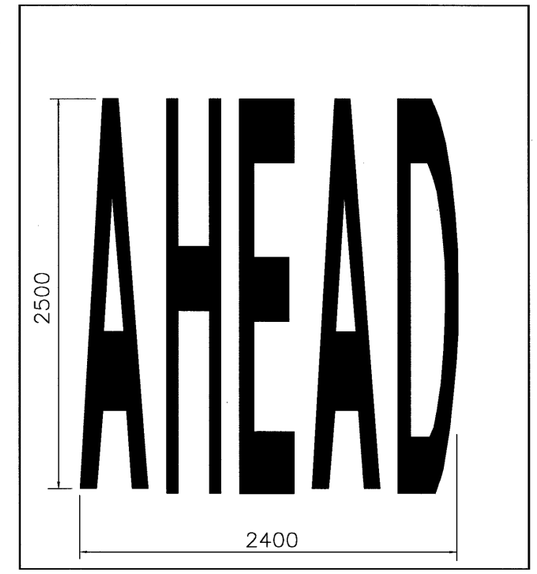
PAY QUANTITY= 3.23 sq. m



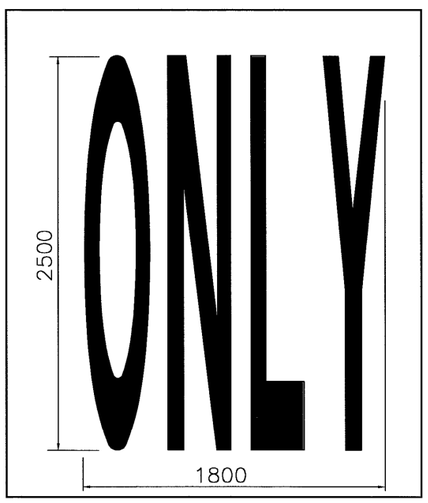
PAY QUANTITY= 1.92 sq. m



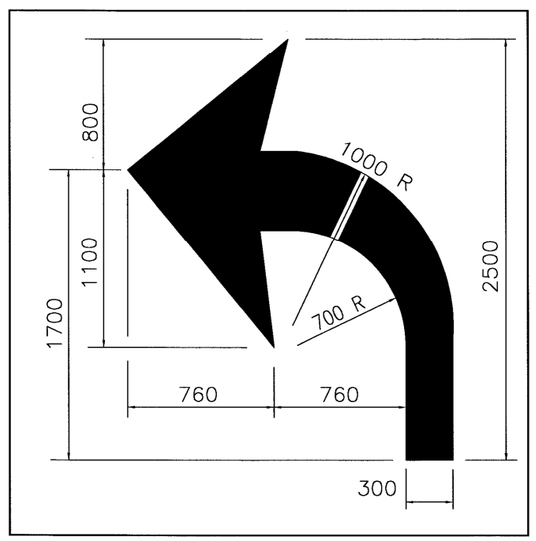
PAY QUANTITY= 2.07 sq. m



PAY QUANTITY= 2.91 sq. m



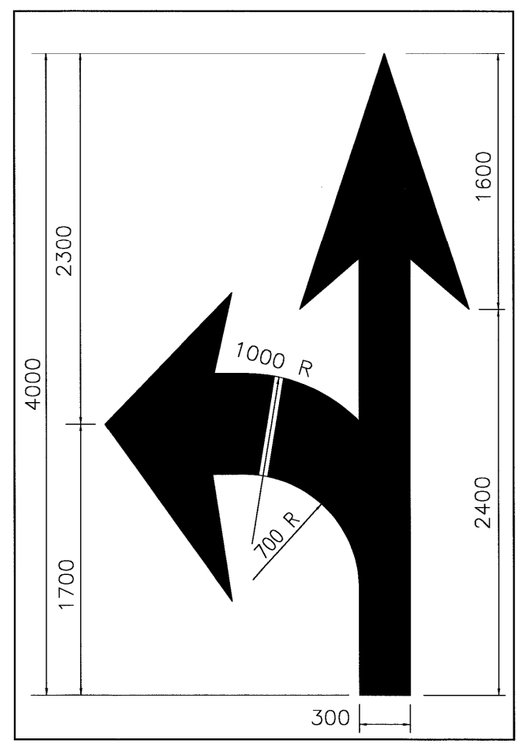
PAY QUANTITY= 2.08 sq. m



TURN ARROW

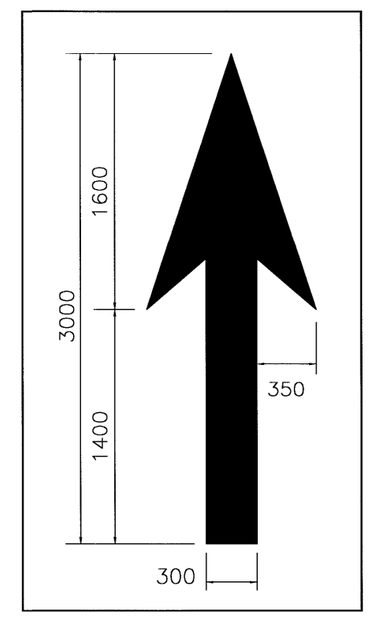
(RIGHT TURN OPPOSITE IN KIND)

PAY QUANTITY= 1.58 sq. m



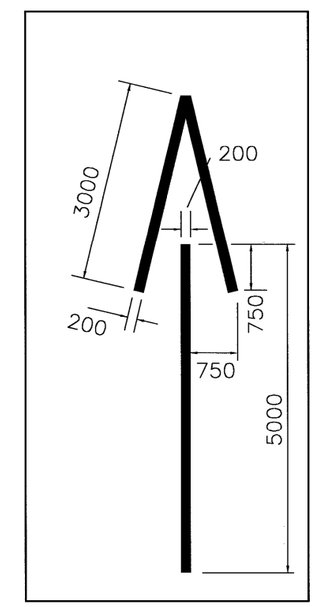
COMBINATION ARROW

PAY QUANTITY= 2.68 sq. m



THROUGH (STRAIGHT) ARROW

PAY QUANTITY= 1.16 sq. m



WRONG–WAY ARROW

PAY QUANTITY= 2.20 sq. m

GENERAL NOTES :

1. ALL WORDS AND SYMBOLS SHALL BE RETROREFLECTIVE WHITE AND SHALL CONFORM TO THE **MUTCD.**
2. WORDS AND SYMBOLS SHALL BE CENTERED LATERALLY WITHIN THE LANE. THE LONGITUDINAL DIMENSION SHALL BE PARALLEL TO THE LANE.
3. MULTI–WORD MESSAGES SHALL READ "UP"; THAT IS, THE FIRST WORD SHALL BE NEAREST THE APPROACHING DRIVER.
4. THE WORD "ONLY" SHALL NOT BE USED WITH THROUGH OR COMBINATION ARROWS, AND SHALL NOT BE USED ADJACENT TO A BROKEN LANE LINE. A TURN ARROW SHALL PROCEED THE WORD "ONLY".
5. COMBINATION ARROWS MAY BE COMPRISED OF 2 SINGLE ARROWS (e.g. TURN AND THROUGH ARROWS). HOWEVER, THE SHAFTS OF THE ARROWS SHALL COINCIDE AS SHOWN.
6. PREFORMED TAPE WORDS AND SYMBOLS SHALL BE PRECUT BY THE MANUFACTURER.
7. WRONG–WAY ARROWS SHALL NOT BE SUBSTITUTED FOR THROUGH ARROWS.
8. LONGITUDINAL SPACING BETWEEN SUCCESSIVE WORDS AND/OR SYMBOLS SHOULD BE AT LEAST 4 TIMES THE HEIGHT OF THE LARGEST CHARACTER.
9. THE WORD OR SYMBOL NEAREST THE INTERSECTION SHALL BE 6.0 m FROM THE END OF THE ADJACENT LANE LINE OR STOP LINE (IF PRESENT).

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STATE OF NEW HAMPSHIRE

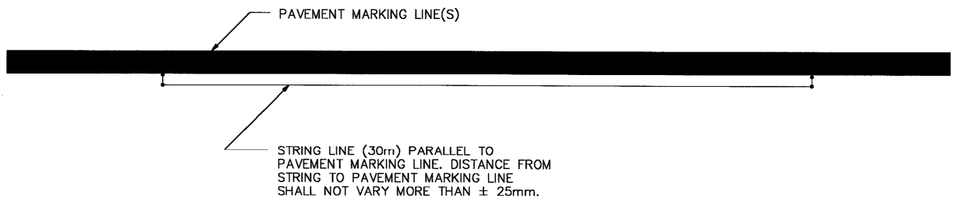
DEPARTMENT OF TRANSPORTATION * BUREAU OF TRAFFIC

PAVEMENT MARKING STANDARDS

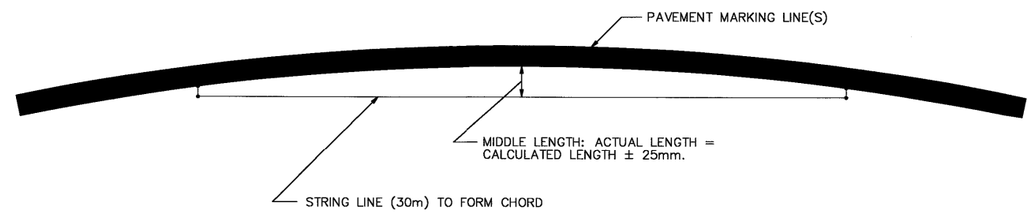
WORDS AND SYMBOLS

REVISION DATE	WINDOW NAME	.FBG FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
OCT–1–97	SYMBOLS	USER		12250 C2	20	75

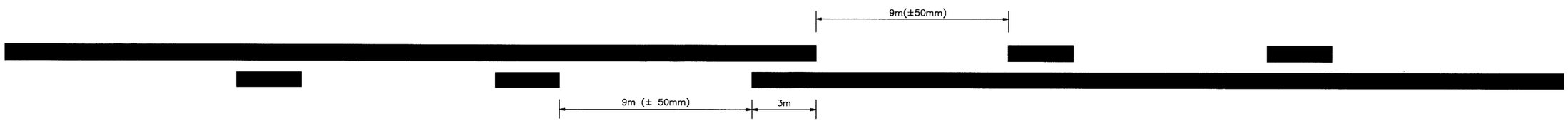
TOLERANCES FOR PAVEMENT MARKING LINES



TANGENT SECTION



CURVED SECTION



TYPICAL "CROSS-SWITCH" PASSING ZONE

TYPICAL BROKEN LINE

DISTANCE BETWEEN DOUBLE LINES
(BROKEN OR SOLID)

DOUBLE LINES

GENERAL NOTES

1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THESE STANDARDS AND THE CURRENT EDITION OF **MUTCD.**
2. WIDTH OF LINES SHALL VARY NO MORE THAN ± 6mm FROM THAT SPECIFIED.
3. THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 500 MICROMETERS THROUGHOUT THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED. OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.
4. BROKEN LINES SHALL BEGIN AND END WITH THE NEAREST FULL CYCLE OF BROKEN LINE.
5. SOLID LONGITUDINAL LINES SHALL BEGIN AND END WITHIN 50mm OF A LAYOUT SYMBOL INDICATING THE END OF THE LINE, OR WITH A FULL CYCLE OF BROKEN LINE (IF APPROPRIATE).

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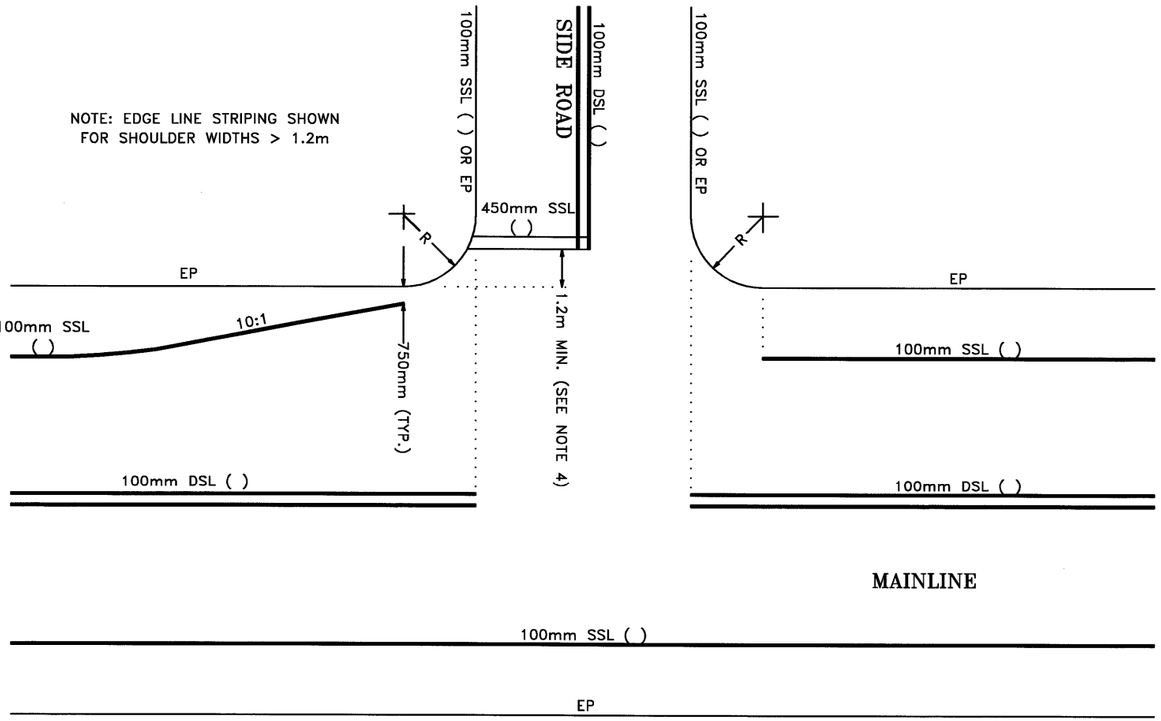
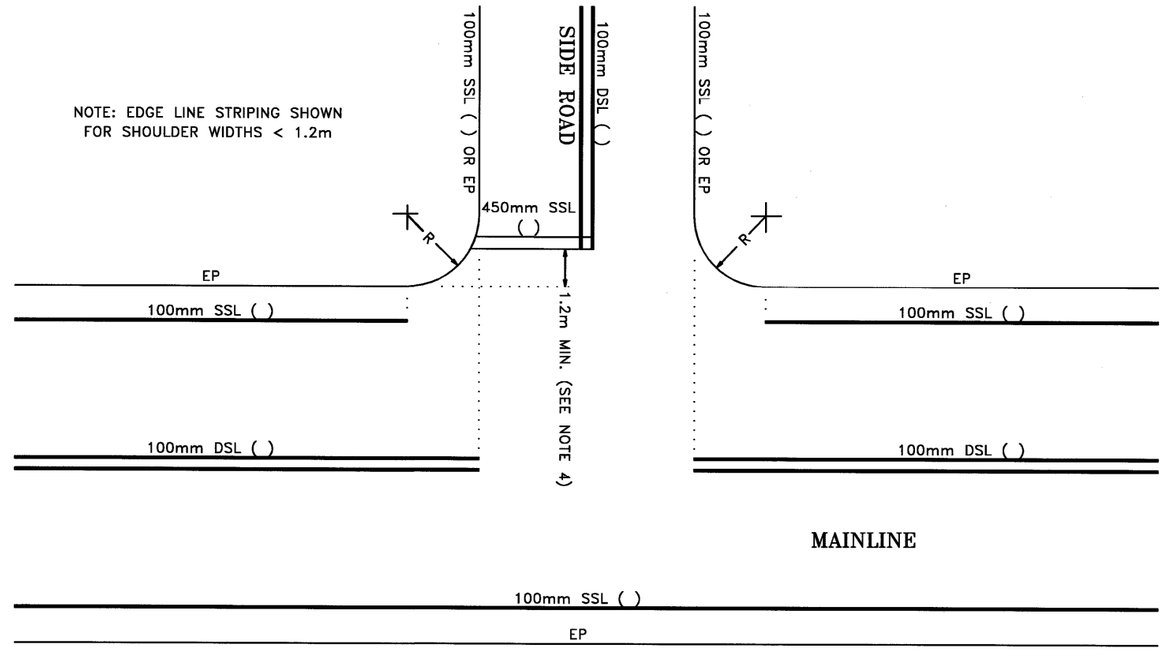
TOLERANCES FOR PAVEMENT MARKING LINES

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
OCT-1-97			12250 C2	21	75

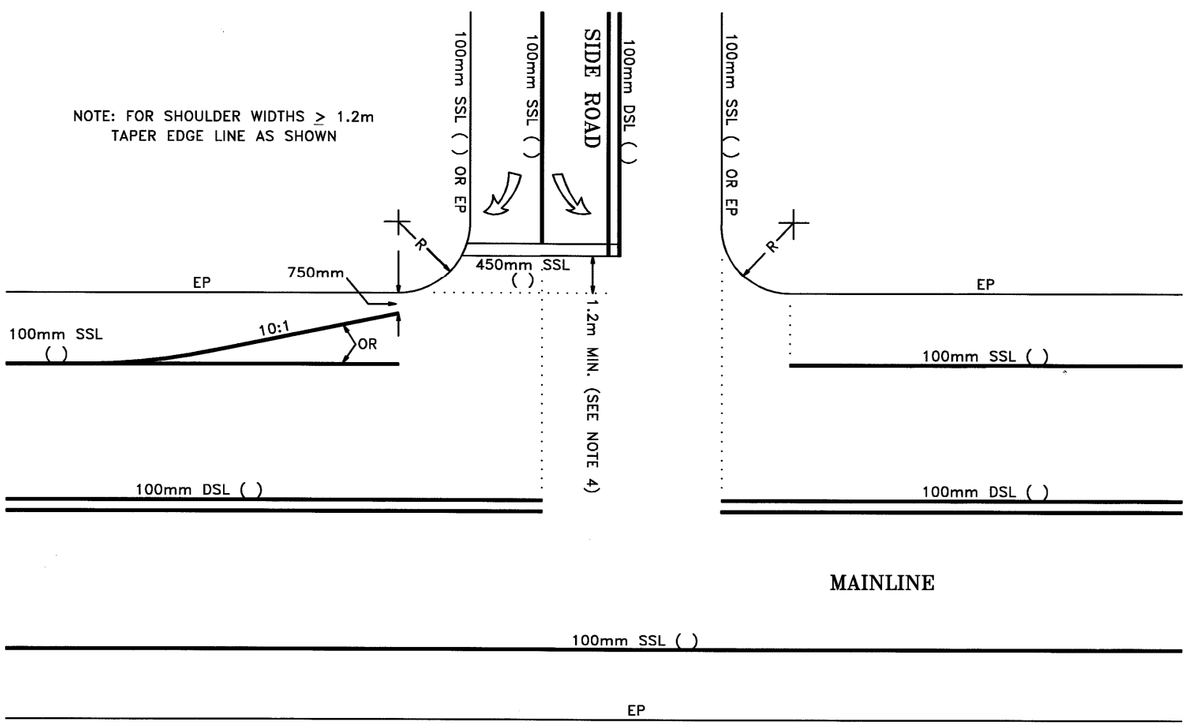
CENTERLINE AND EDGE LINE "CUTS" AT SIDE ROAD



CENTERLINE AND EDGE LINE "CUTS" AT SIDE ROAD



CENTERLINE AND EDGE LINE "CUTS" AT SIDE ROAD WITH TURN LANES



GENERAL NOTES

1. EDGE LINE DETAILS SHOWN ARE FOR MAINLINE ROADWAYS WITHOUT TURN LANES. THE PRESENCE OF TURN LANES MAY REQUIRE DIFFERENT EDGE LINE TREATMENTS.
2. EDGE LINES ON SIDE ROADS, WHEN CALLED FOR, SHALL FOLLOW THE ABOVE MAINLINE TYPICALS. EDGE LINES SHALL NOT BE CONTINUOUS AROUND THE MAINLINE/ SIDE ROAD RADIUS.
3. CENTERLINE SHALL BE CONTINUOUS PAST DRIVEWAYS. CENTERLINE MAY OR NOT MAY BE CONTINUOUS THROUGH MINOR SIDE ROAD OR PRIVATE ROAD INTERSECTIONS. CONTACT BUREAU OF TRAFFIC.
4. LOCATION OF THE STOP LINE MAY VARY DUE TO INTERSECTION SIGHT DISTANCE AND VEHICLE TURNING RADIUS, AND MAY NOT COINCIDE WITH THE LOCATION OF THE STOP SIGN.

LEGEND

SSL = SINGLE SOLID LINE (COLOR)
DSL = DOUBLE SOLID LINE (COLOR)
DL = DOUBLE LINE – SOLID W/BROKEN (COLOR), (NOT SHOWN)
SBL = SINGLE BROKEN LINE (COLOR), (NOT SHOWN)
DBL = DOUBLE BROKEN LINE (COLOR), (NOT SHOWN)
EP = EDGE OF PAVEMENT

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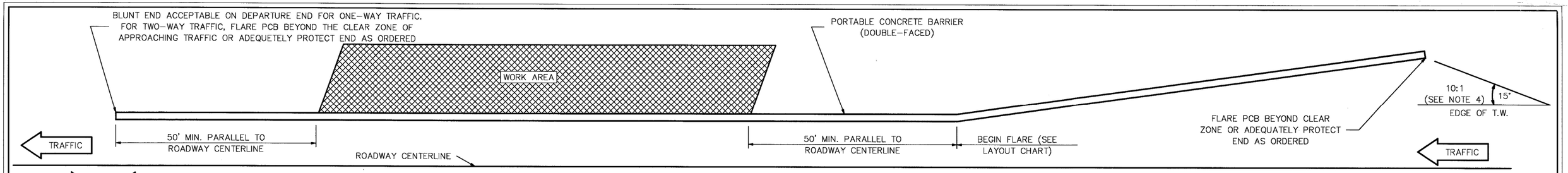
Portsmouth, NH 03802-6819

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF TRAFFIC
PAVEMENT MARKING STANDARDS

PAVEMENT MARKINGS AT MINOR INTERSECTIONS

REVISION DATE	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
DEC-7-99	MINORINT			12250 C2	22	75



TRAFFIC OR TRAFFIC

(SEE NOTE ABOVE)

LAYOUT OF PORTABLE CONCRETE BARRIER

(NTS)

PORTABLE CONCRETE BARRIER LAYOUT

OPERATING SPEED	DESIRABLE LATERAL OFFSET FROM T.W. **	MAXIMUM FLARE RATE * (FREE-STANDING)	MINIMUM LENGTH OF PCB SYSTEM
≤ 30 MPH	2'	7:1	
40 MPH	5'	9:1	
50 MPH	6.5'	11:1	
60 MPH	8'	13:1	
70 MPH	10'	15:1	
ALL SPEEDS	15'MAX ***		100'

* MEASURE FLARE FROM A LINE PARALLEL TO THE ROADWAY WHETHER ON A CURVE OR A TANGENT.

** FOR RESTRICTED SITE CONDITIONS, LESSER OFFSETS MAY BE PERMITTED BY THE ENGINEER.

*** TO REDUCE POTENTIAL FOR HIGH-ANGLE IMPACTS (>15°)

GENERAL NOTES

1. CONCRETE BARRIER SHALL BE FURNISHED BY THE CONTRACTOR AND PAID AS ITEM 606.417 – PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL. END TREATMENTS AND CONNECTIONS TO EXISTING BARRIERS, WHEN REQUIRED, SHALL BE SUBSIDIARY TO ITEM 606.417.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL APPROVED RETROREFLECTIVE DELINEATORS AT 25-FOOT INTERVALS ALONG THE TOP AND/OR ONE FOOT DOWN THE SIDE OF THE PORTABLE CONCRETE BARRIER, SUBSIDIARY TO ITEM 606.417. THE COLOR OF DELINEATORS SHALL, IN ALL CASES, CONFORM TO THE COLOR OF EDGE LINE MARKINGS. (DELINEATORS SUPPLEMENT, BUT DO NOT REPLACE, THE NEED FOR RETROREFLECTIVE SOLID EDGE LINE MARKINGS.)
3. UNPROTECTED OPENINGS IN PORTABLE CONCRETE BARRIER WILL NOT BE PERMITTED, UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER.
4. A 10:1 OR FLATTER FORESLOPE SHALL BE PROVIDED IN ADVANCE OF ALL PORTABLE CONCRETE BARRIER SYSTEMS WITHIN THE CLEAR ZONE. (REFER TO THE ***ROADSIDE DESIGN GUIDE*** – AASHTO, 1989, FOR CLEAR ZONE WIDTHS AND ADDITIONAL INFORMATION.)
5. WHEN PORTABLE CONCRETE BARRIER IS INSTALLED ON BOTH SIDES OF TRAFFIC, THE BEGINNINGS OF THE BARRIER SHALL BE STAGGERED BY AT LEAST 50 FEET.
6. OTHER BARRIER CONFIGURATIONS AND END CONNECTIONS ARE SUBJECT TO APPROVAL BY THE ENGINEER. BARRIERS OF DIFFERENT GEOMETRIC SHAPES SHALL NOT BE MIXED ON THE SAME RUN.
7. PLACE RETROREFLECTORIZED DRUMS OR BARRICADES IN ACCORDANCE WITH 6C-2 OF THE MUTCD IN ADVANCE OF PORTABLE CONCRETE BARRIER TO WARN AND ALERT DRIVERS.

MATERIAL NOTES

(1) BARRIERS SHALL BE LIGHT COLORED CLASS "AA" CONCRETE HAVING A MINIMUM 28 DAY COMPRESSION STRENGTH OF 4,000 PSI. BARRIERS SHALL HAVE A SMOOTH UNIFORM SURFACE FREE OF DEFECTS AND IRREGULARITIES. CASTING DATE SHALL BE SHOWN ON BARRIER. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED " UNLESS OTHERWISE NOTED.

(2) ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM-A615) GRADE 60. THE REINFORCEMENT SHOWN IS THE MINIMUM REQUIRED.

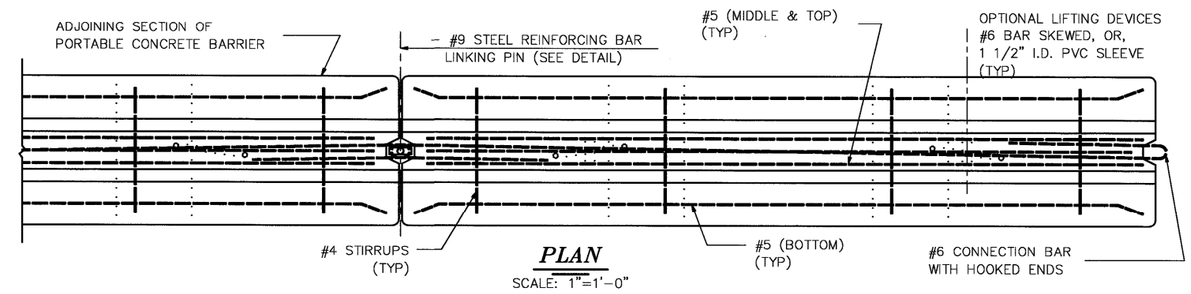
(3) EACH BARRIER UNIT SHALL INCLUDE ONE LINKING PIN, IF PIN AND LOOP CONNECTION SYSTEM IS USED (SEE DETAIL).

(4) LIFTING OPTIONS SHOWN ARE ADVISORY ONLY. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO PROVIDE ADEQUATE LIFTING POINTS ON EACH BARRIER.

(5) CONNECTING DEVICES SHALL BE COMPATIBLE WITH OTHER UNITS AND SHALL ALLOW PLACEMENT ON A 110' RADIUS. BARRIERS OF DIFFERING GEOMETRIC SHAPES SHALL NOT BE MIXED.

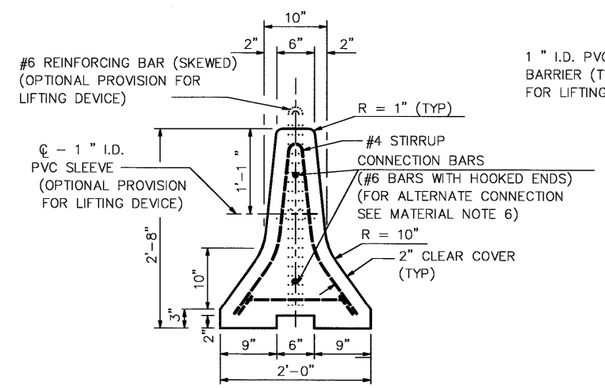
(6) J-J HOOK CONNECTION SYSTEM FROM EASI-SET INDUSTRIES MAY BE USED AS AN ALTERNATE CONNECTING SYSTEM BETWEEN BARRIER UNITS.

(7) DELINEATORS SHALL BE ATTACHED TO THE BARRIER USING AN APPROVED ADHESIVE MATERIAL OR BY BOLTS AND ANCHORS AS SHOWN ON STANDARD NO.12.



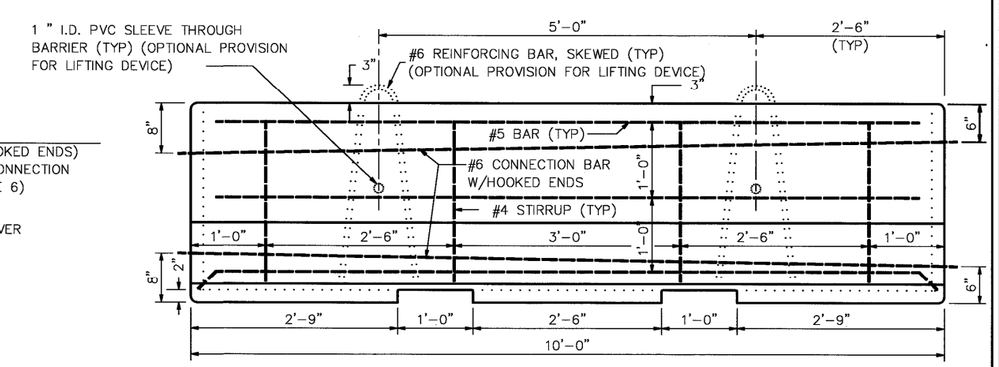
PLAN

SCALE: 1"=1'-0"



TYPICAL SECTION

SCALE: 1"=1'-0"

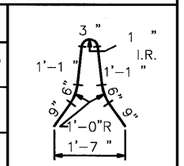


ELEVATION

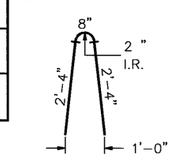
SCALE: 1"=1'-0"

PORTABLE CONCRETE BARRIER REINFORCING SCHEDULE

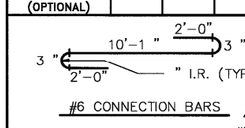
DESCRIPTION	SIZE	NO.	UNBENT LENGTH	TYPE
CONNECTION BARS	#6	2	14'-8 "	
BOTTOM LONGITUDINAL	#5	2	9'-10"	
CENTER & TOP LONGITUDINAL	#5	3	9'-4"	
BOTTOM TRANSVERSE	#5	4	1'-4"	
STIRRUPS	#4	4	5'-0"	
LIFTING DEVICE (OPTIONAL)	#6	2	5'-4"	



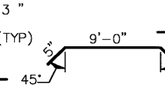
#4 STIRRUP BARS



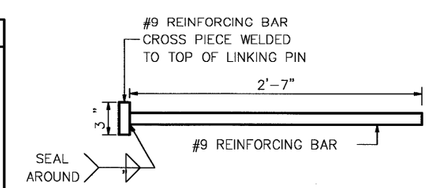
#6 LIFTING DEVICES (OPTIONAL)



#6 CONNECTION BARS

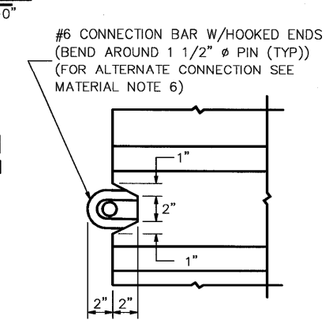


#5 BOTTOM LONGITUDINAL BARS



LINKING PIN

SCALE: 1"=1'-0"



END NOTCH DETAIL

SCALE: 1" = 6"

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

Maguire Group Inc. Engineers • Architects 110 Corporate Drive, Suite 8 Portsmouth, NH 03802-6619

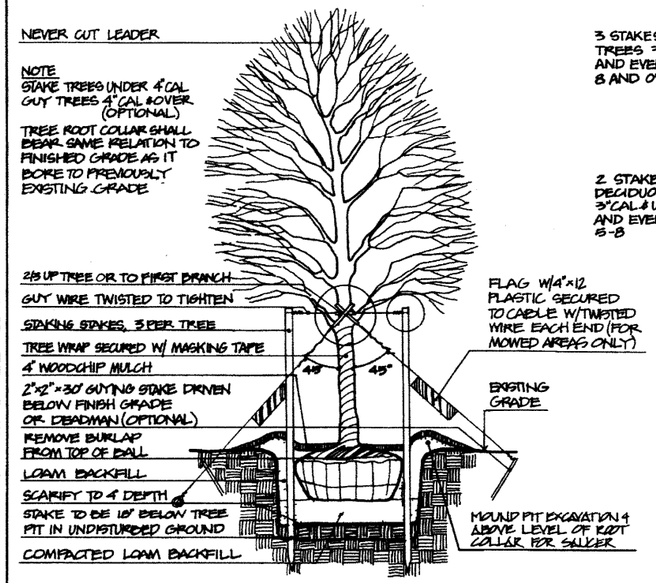
PORTABLE CONCRETE BARRIER

REVISION DATE	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
2-7-95	PCB4	USER		12250 C2	23	75

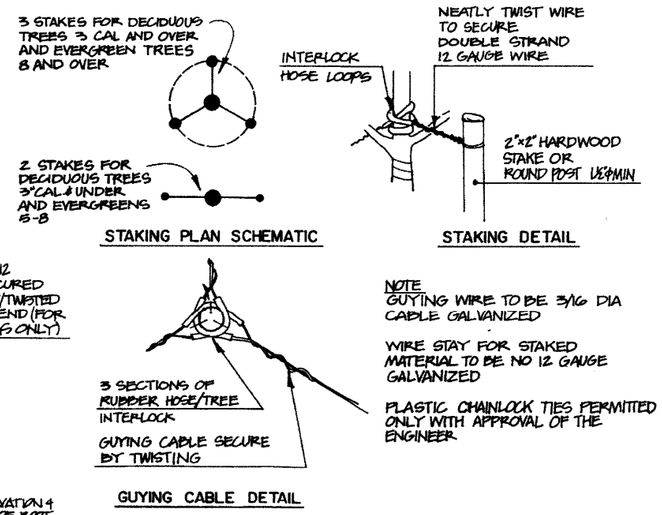
PLANTING DETAILS

Not To Scale

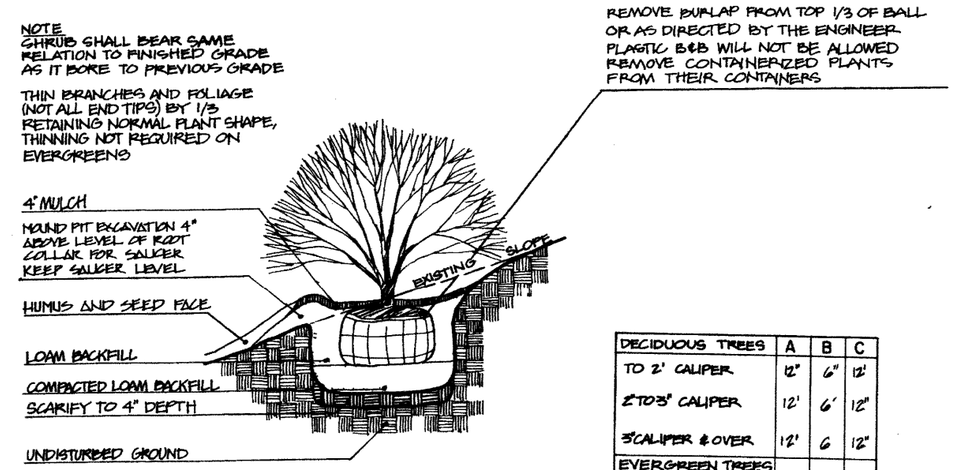
NHDOT
NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DESIGN
ROADSIDE DEVELOPMENT



TREE PLANTING



TREE STAKING AND GUYING

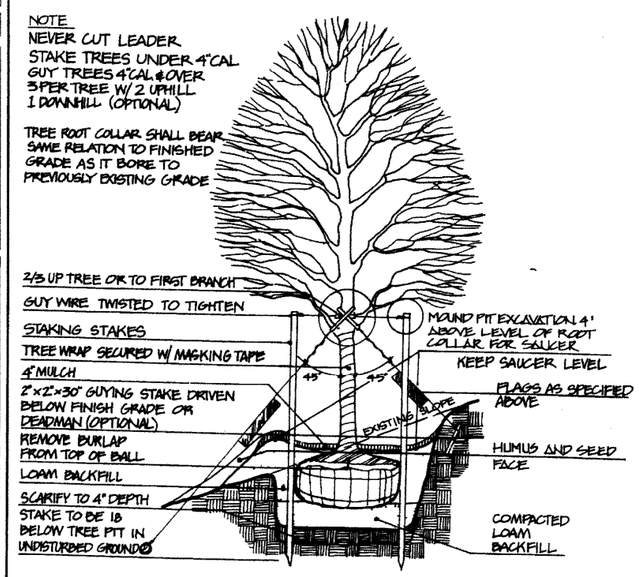


SHRUB PLANTING

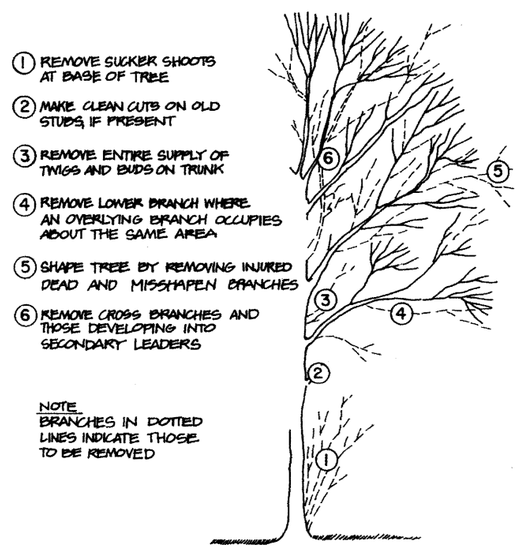
DECIDUOUS TREES	A	B	C
TO 2" CALIPER	12"	6"	12"
2" TO 3" CALIPER	12"	6"	12"
3" CALIPER & OVER	12"	6	12"
EVERGREEN TREES			
TO 8'	12"	6"	12
8' AND OVER	12"	6"	12"
SHRUBS	12	6"	12
VINES GROUNDCOVER AND PLANTING BEDS	AS PER PLANS & SPECIFICATIONS		

PLANTING PIT SIZES

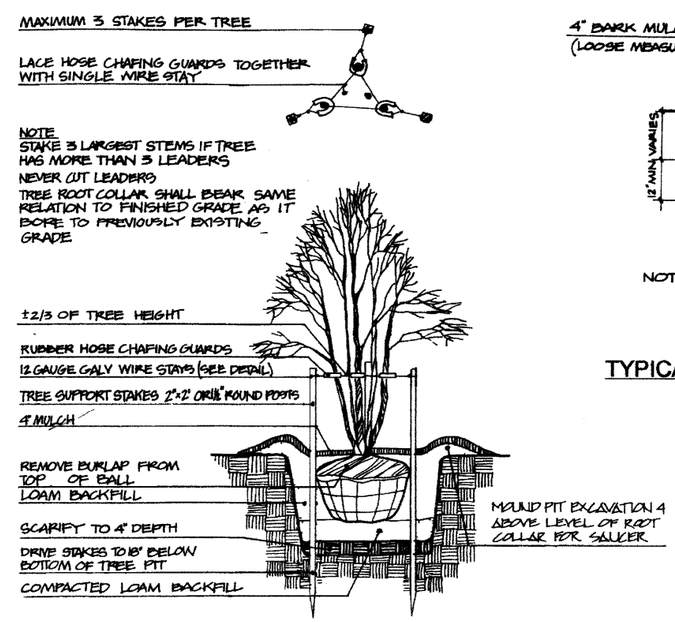
NOTE GUYING TREES OPTIONAL FOR USE WITH 4" TREES ONLY AT THE PROJECT ENGINEERS DISCRETION



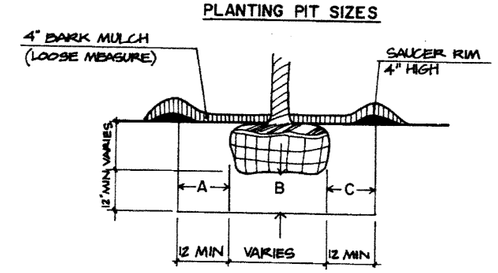
TREE PLANTING ON SLOPE



TREE PRUNING



MULTI-STEM TREE PLANTING



NOTE • SAUCERS TO BE TAMPED
NO PLASTIC BALL WRAP TO BE USED

TYPICAL PLANTING PIT INFORMATION

FEDERAL PROJECT NO	STATE PROJECT NO	SHEET NO	TOTAL SHEETS
	12250 C2	27	75

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

BOOK ____ PAGE ____
BOOK ____ PAGE ____
BOOK ____ PAGE ____

EXISTING DETAIL	DATE	
PROPOSED DESIGN	DATE	
SHEET CHECKED	DATE	
AS BUILT DETAILS	DATE	

BRUNING 44 242 75734

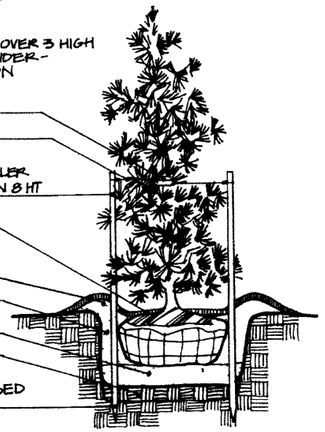
PLANTING DETAILS

Not To Scale

NHDOT
NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DESIGN
ROADSIDE DEVELOPMENT

NOTE
TREE ROOT COLLAR SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE

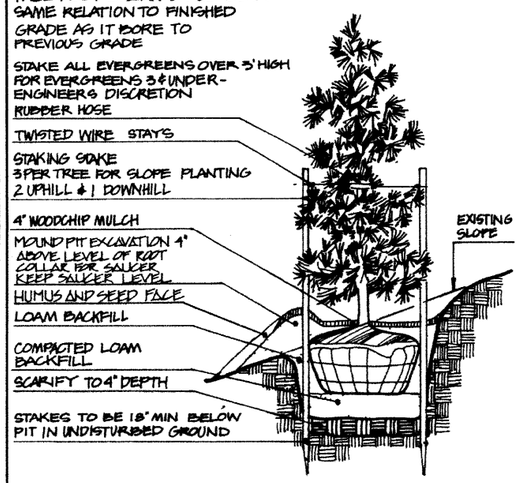
STAKE ALL EVERGREENS OVER 3 HIGH FOR EVERGREENS 3' & UNDER - ENGINEER'S DISCRETION



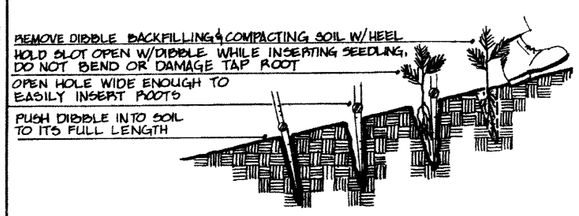
EVERGREEN TREE PLANTING

NOTE
TREE ROOT COLLAR SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE

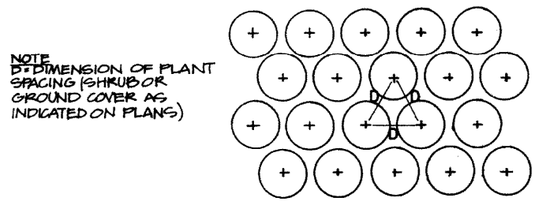
STAKE ALL EVERGREENS OVER 3' HIGH FOR EVERGREENS 3' & UNDER - ENGINEER'S DISCRETION



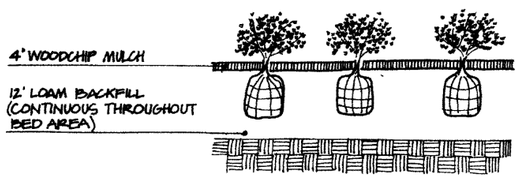
EVERGREEN TREE PLANTING ON SLOPE



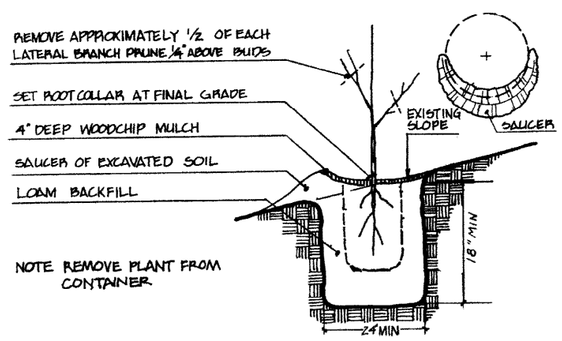
SEEDLINGS (EVERGREEN)



TYPICAL BED PLANT SPACING

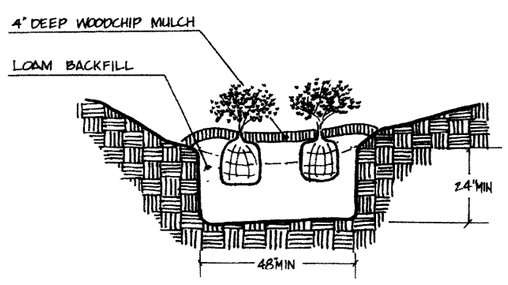


GROUNDCOVER BED PLANTING



NOTE REMOVE PLANT FROM CONTAINER.

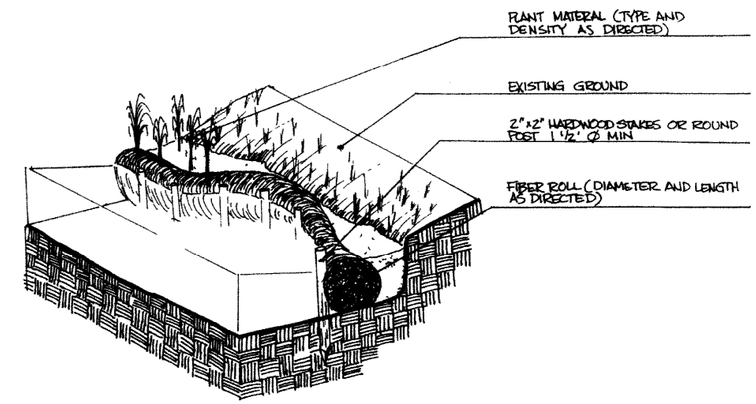
LINER PLANTING (DECIDUOUS)



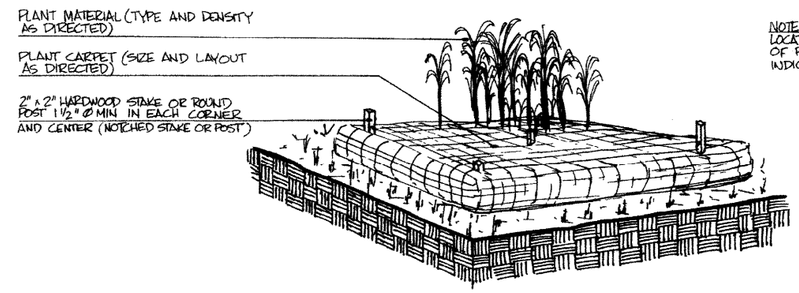
TRENCH NARROW MEDIAN PLANTING

SOIL MIX FOR LINERS OR SPECIAL USE

1 c y LOAM
2 c y PEAT
2 c y COW MANURE (WELL ROTTED)
200 lbs LIMESTONE
150 lbs FERTILIZER 10-6-4 (50% WIN)
5 GAL OF THIS MIXTURE SHALL BE INCORPORATED INTO THE EXISTING SOIL AT EACH PLANT PIT

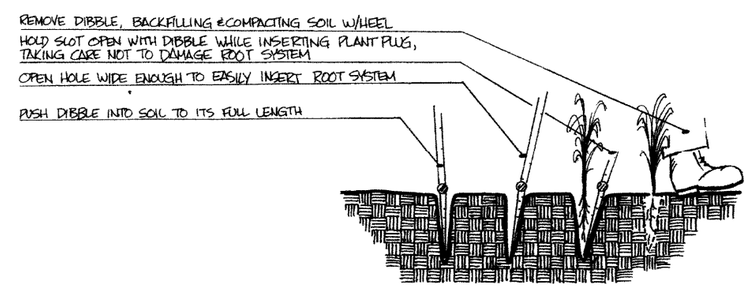


WETLAND FIBER ROLL PLACEMENT



NOTE
LOCATION DIMENSIONS AND LAYOUT OF PLANT CARPETS ARE AS INDICATED ON PLAN SHEETS

WETLAND PLANT PALLET PLACEMENT



NOTE
LOCATION, SIZE AND SPACING OF PLANT PLUGS ARE AS INDICATED ON PLAN SHEETS

WETLAND PLANT PLUG PLACEMENT

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION
DESCRIPTION			

NOTEBOOKS			
BOOK	PAGE	BOOK	PAGE
BOOK	PAGE	BOOK	PAGE

EXISTING DETAIL	DATE		
PROPOSED DESIGN	DATE		
SHEET CHECKED	DATE		
AS BUILT DETAILS	DATE		

FEDERAL PROJECT NO	STATE PROJECT NO	SHEET NO	TOTAL SHEETS
	12250 C2	23	75

BRUNING 44 242 75734

(R1) STA. 63+98.0, LT. 7.50 TO STA. 63+98.0, LT. 8.31
REMOVE EXISTING CB–B (SUBSIDIARY)
CONST. 1.27 m x 300 mm RCP (CONNECT TO EXISTING RCP)
CONST. CB–B @ +98.0, LT. 8.31

(R2) STA. 702+07.0, RT. 23.22, TO STA. 702+15.3, LT. 10.50
PLUG & ABANDON EXIST. 600 mm RCP (SUBSIDIARY)
REMOVE EXISTING CB

(R3) STA. 702+15.3, LT. 10.50, TO STA. 702+90.0, LT. 10.50
REMOVE EXIST. 75.0 m x 600 mm RCP
REMOVE EXIST. CB

(R4) STA. 702+90.0, LT. 10.50 TO STA. 703+40.0, LT 10.50
REMOVE EXIST. 50.0 m x 450 mm RCP
REMOVE EXIST. CB

(R5) STA. 703+40.0, LT 10.50 TO STA. 703+62.0, LT. 12.60
REMOVE EXIST. 22.0 m x 375 mm RCP
REMOVE EXIST. CB

(R6) STA. 703+62.0. LT. 12.60 TO STA. 61+21, LT. 6.90
REMOVE EXIST. 17.0 m x 300 mm RCP AND SALVAGE TO STATE
REMOVE EXIST. CB

(R7) STA. 703+62.0, LT. 12.60 TO STA. 703+68.6, LT. 11.32
REMOVE EXIST. 7.4 m± x 300 mm RCP

(R8) STA. 703+54.0, RT. 10.50 TO STA. 704+54.0, RT. 6.90
PLUG & ABANDON EXIST. 300 mm RCP (SUBSIDIARY)
WRECK AND FILL EXIST. CB (SUBSIDIARY TO 203.1)

(R9) STA. 62+04.0, LT. 7.10 TO STA. 703+54.0, RT. 10.50
REMOVE EXIST. 46.5 m x 375 mm RCP
REMOVE EXIST. CB

(R10) STA. 62+04.0, LT. 7.10
CATCH BASIN AND DOWNSTREAM SYSTEM TO REMAIN AS IS.
PLUG EXISTING HOLE IN UPSTREAM SIDE OF BASIN

(1) STA 701+10.0, LT 12.33 TO STA 701+10.0, LT 23.61
CONSTRUCT 10.7 m x 300 mm RCP
CONSTRUCT MRM HEADWALL @ +10.0, LT 23.61
CONSTRUCT 1.5 m x 3.0 m STONE FILL, CLASS C, AT INLET
300 mm INV. IN @ HEADWALL= 16.273
CUT HOLE IN EXIST. CB–E @ +10.0, LT 12.33 FOR NEW 300 mm PIPE
REPLACE TYPE E FRAME & GRATE WITH A D.M.H. COVER
(SUBSIDIARY TO PIPE INSTALLATION)
300 mm INV. OUT @ EXIST. CB = 16.230
RIM ELEV. = 17.35

(2) STA 702+82.3, LT 70.63 TO STA 703+11.5, LT 29.32
CONSTRUCT 57 m x 4.6 m TREATMENT SWALE (SEE DRAINAGE DETAILS SHEET)
CONSTRUCT STONE FILL, CLASS C @ SWALE OUTLET
CONSTRUCT STONE FILL, CLASS B @ SWALE INLET
(SEE DRAINAGE DETAILS SHEET)
TREATMENT SWALE INV. @ ENTRANCE = 17.900
TREATMENT SWALE INV. @ OUTLET = 17.25
TREATMENT SWALE SLOPE = 0.005 m/m

(3a) STA 703+11.5, LT 29.32 TO STA. 703+26.8, LT. 19.22
CONSTRUCT STORMWATER TREATMENT SYSTEM (ITEM 613.41)
(SEE SPECIAL PROVISION, SECTION 613 –– STORMWATER TREATMENT)
(DUAL 375 mm OUTLET PIPES SUBSIDIARY)
(SPECIAL FLOW REGULATING D.M.H. SUBSIDIARY)
750 mm INV. IN = 18.090
INVERTS FOR TREATMENT SYSTEM TO BE SPECIFIED BY MANUFACTURER
SPECIAL D.M.H. RIM ELEV. = 21.05
CONSTRUCT MRM HEADWALL @ +11.5, LT. 29.32
BOTH 375 mm INV. @ HEADWALL = 17.900

(3b) STA 703+26.8, LT 19.22 TO STA. 703+40.0, LT. 10.49
CONSTRUCT 14.3 m x 750 mm RCP
CONSTRUCT 1.5 m DIA. CB–E @ +40.0, LT. 10.49
750 mm INV. IN = 18.090
EXIST. 300 mm INV. IN = 19.46
750 mm INV. OUT = 18.060
GRATE ELEV. = 21.100

(4) STA. 703+40.0, LT. 10.49 TO STA. 703+68.6, LT. 11.32
CONSTRUCT 27.4 m x 750 mm RCP UNDER ROADBED (ITEM 603.00208)
CONSTRUCT 1.5 m DIA. CB–E @ +68.6, LT. 11.32
750 mm INV. IN = 18.260
EXIST. 300 mm INV. IN = 20.05
750 mm INV. OUT = 18.230
GRATE ELEV. = 21.510

(5) STA. 703+68.6, LT. 11.32 TO STA. 703+68.9, RT. 14.30
CONSTRUCT 24.4 m x 750 mm RCP UNDER ROADBED (ITEM 603.00208)
CONSTRUCT 1.5 m DIA. CB–E @ +68.9, RT. 14.30
600 mm INV. IN = 18.410
375 mm INV. IN = 18.410
750 mm INV. OUT = 18.380
GRATE ELEV. = 21.780

(6) STA. 703+68.9, RT. 14.30 TO STA. 800+40.0
CONSTRUCT 55.4 m x 600 mm RCP
CONSTRUCT CB–B @ +40.0
600 mm INV. IN = 18.899
300 mm INV. IN = 19.972
600 mm INV. OUT = 18.869
GRATE ELEV. = 21.522

(7) STA. 800+43.0 TO STA. 800+10.8
CONSTRUCT 28.1 m x 600 mm RCP
CONSTRUCT CB–B @ +10.8
375 mm INV. IN = 19.332 (NOTE 8)
375 mm INV. IN = 19.162 (NOTE 10)
600 mm INV. OUT = 19.132
GRATE ELEV. = 21.249

(8) STA. 800+10.8 TO STA. 600+49.9
CONSTRUCT 8.5 m x 375 mm RCP
CONSTRUCT CB–B @ +49.9
300 mm INV. IN = 19.537
375 mm INV. OUT = 19.501
GRATE ELEV. = 21.139

(9) STA. 600+49.9 TO STA. 600+54.9
CONSTRUCT 3.8 m x 300 mm RCP
CONSTRUCT CB–B @ +54.9
300 mm INV. OUT = 19.613
GRATE ELEV. = 21.163

(10) STA. 800+10.8 TO STA. 800+15.4, RT. 41.40
CONSTRUCT 40.5 m x 375 mm RCP
CONSTRUCT CB–B @ +15.4, RT. 41.40
375 mm INV. IN = 19.394
375 mm INV. OUT = 19.364
GRATE ELEV. = 21.096

(11) STA. 800+15.4, RT. 41.40 TO STA. 800+15.4, RT. 46.57
CONSTRUCT 3.8 m x 300 mm RCP
CONSTRUCT CB–B @ +15.4 RT. 46.57
300 mm INV. IN = 19.443
300 mm INV. IN = 19.443
375 mm INV. OUT = 19.413
GRATE ELEV. = 21.163

(12) STA. 800+15.4, RT. 46.57 TO STA. 800+10.8, RT. 57.72
CONSTRUCT 10.9 m x 300 mm RCP
CONSTRUCT CB–B @ +10.8 RT. 57.72
300 mm INV. OUT = 19.497
GRATE ELEV. = 21.047

(13) STA. 800+43.0 TO STA. 800+73.7, RT. 42.82
CONSTRUCT 52.5 m x 300 mm RCP
CONSTRUCT CB–B @ +73.7, RT. 42.82
300 mm INV. OUT = 20.603
GRATE ELEV. = 22.153

(14) STA. 703+68.9, RT. 14.30 TO STA. 704+97.3, RT. 15.57
CONSTRUCT 122.72 m x 375 mm RCP
CONSTRUCT CB–E @ +97.3, RT. 15.57
375 mm INV. IN = 20.830
375 mm INV. OUT = 20.800
GRATE ELEV. = 23.350

(15) STA. 704+97.3, RT. 15.57 TO STA. 801+43.5, LT. 24.57
CONSTRUCT 30.61 m x 375 mm RCP
CONSTRUCT CB–B @ +43.5, LT. 24.57
300 mm INV. IN = 21.440
300 mm INV. IN = 21.440
375 mm INV. IN = 21.440
375 mm INV. OUT = 21.410
GRATE ELEV. = 23.060

(16) STA. 801+43.5, LT. 24.57 TO STA. 801+40.6, LT. 24.51
CONSTRUCT 1.57 m x 300 mm RCP
CONSTRUCT CB–B @ +40.6, LT. 24.51
300 mm INV. OUT = 21.480
GRATE ELEV. = 23.030

(17) STA. 801+43.5, LT. 24.57 TO STA. 801+72.0, RT. 12.49
CONSTRUCT 45.86 m x 300 mm RCP
CONSTRUCT CB–B @ +72.0, RT. 12.49
300 mm INV. OUT = 22.350
GRATE ELEV. = 23.950

(18) STA. 801+43.5, LT. 24.57 TO STA. 801+68.0, LT. 23.31
CONSTRUCT 25.12 m x 375 mm RCP
CONSTRUCT CB–B @ +68.0, LT. 23.31
300 mm INV. IN = 21.890
375 mm INV. OUT = 21.860
GRATE ELEV. = 23.500

(19) STA. 801+68.0, LT. 23.31 TO STA. 802+40.8, LT. 20.60
CONSTRUCT 61.51 m x 300 mm RCP
CONSTRUCT CB–B @ +40.8, LT. 20.61
300 mm INV. IN = 22.228
300 mm INV. OUT = 22.198
GRATE ELEV. = 24.287

(20) STA. 802+40.8, LT. 20.60 TO STA. 802+66.7, LT. 5.78
CONSTRUCT 18.43 m x 300 mm RCP
CONSTRUCT CB–B @ +66.7, LT. 5.78
300 mm INV. OUT = 22.320
GRATE ELEV. = 23.809

(21) STA. 800+15.4, RT. 46.57 TO STA. 800+34.2, RT. 47.07
CONSTRUCT 17.5 m x 300 mm RCP
CONSTRUCT CB–B @ +34.2 RT. 47.07
300 mm INV. OUT = 19.736
GRATE ELEV. = 21.286

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

BOOK		PAGE
BOOK		PAGE
BOOK		PAGE

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

METRIC

Maguire Group Inc.
Engineers • Architects
110 Corporate Drive, Suite 6
Portsmouth, NH 03802–6619

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

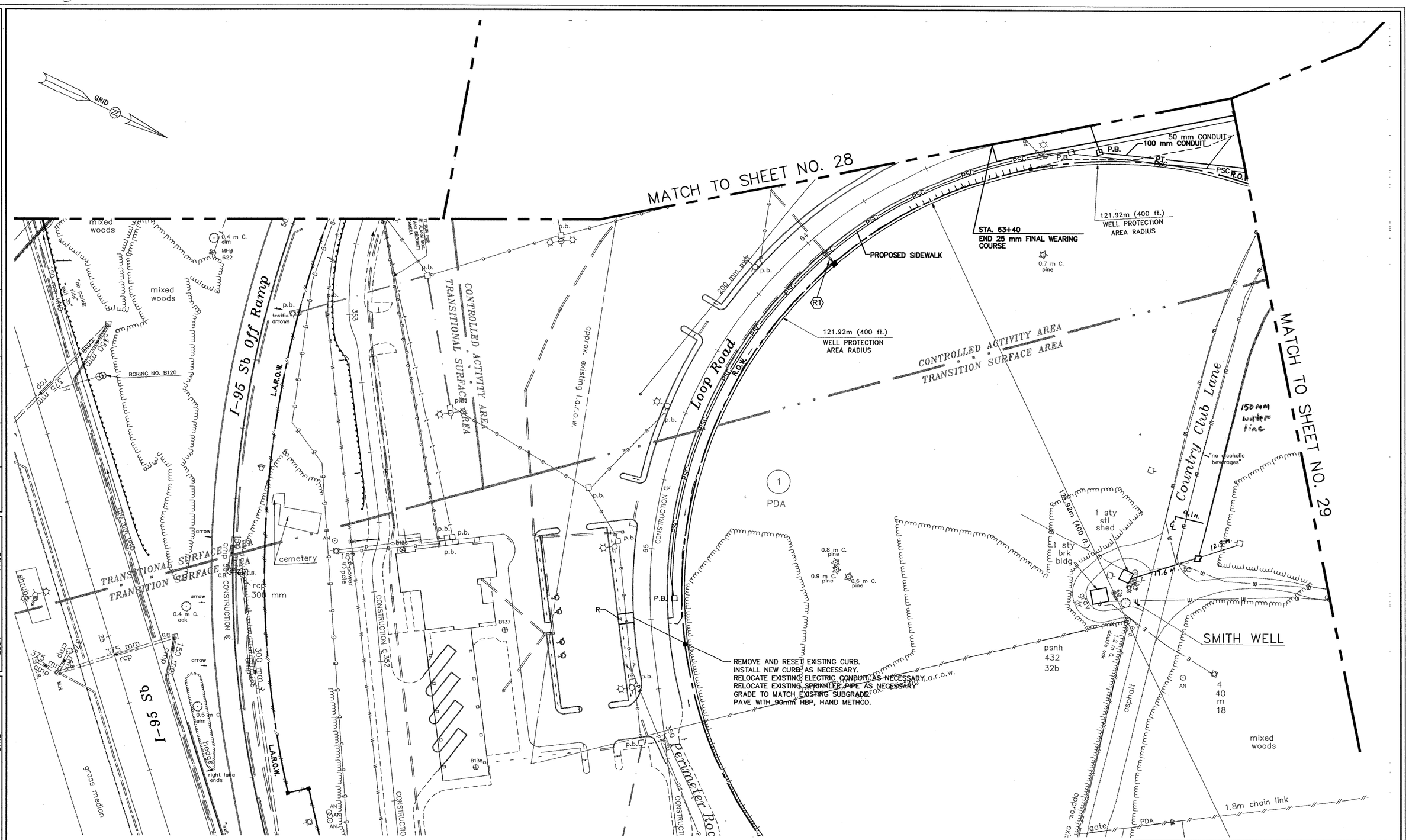
DRAINAGE NOTES

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	26	75

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

NOTEBOOKS		
BOOK	PAGE	STATION
BOOK	PAGE	STATION
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE



AS-BUILT PLANS
AUGUST 6, 2002

METRIC

GRAPHIC SCALE
20 0 10 20 40
(IN METERS)

Maguire Group Inc.
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110 Corporate Drive, Suite 6
Portsmouth, NH 03802-6619

REVISION DATE	WINDOW NAME

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

GENERAL PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	12250 C2	27	75

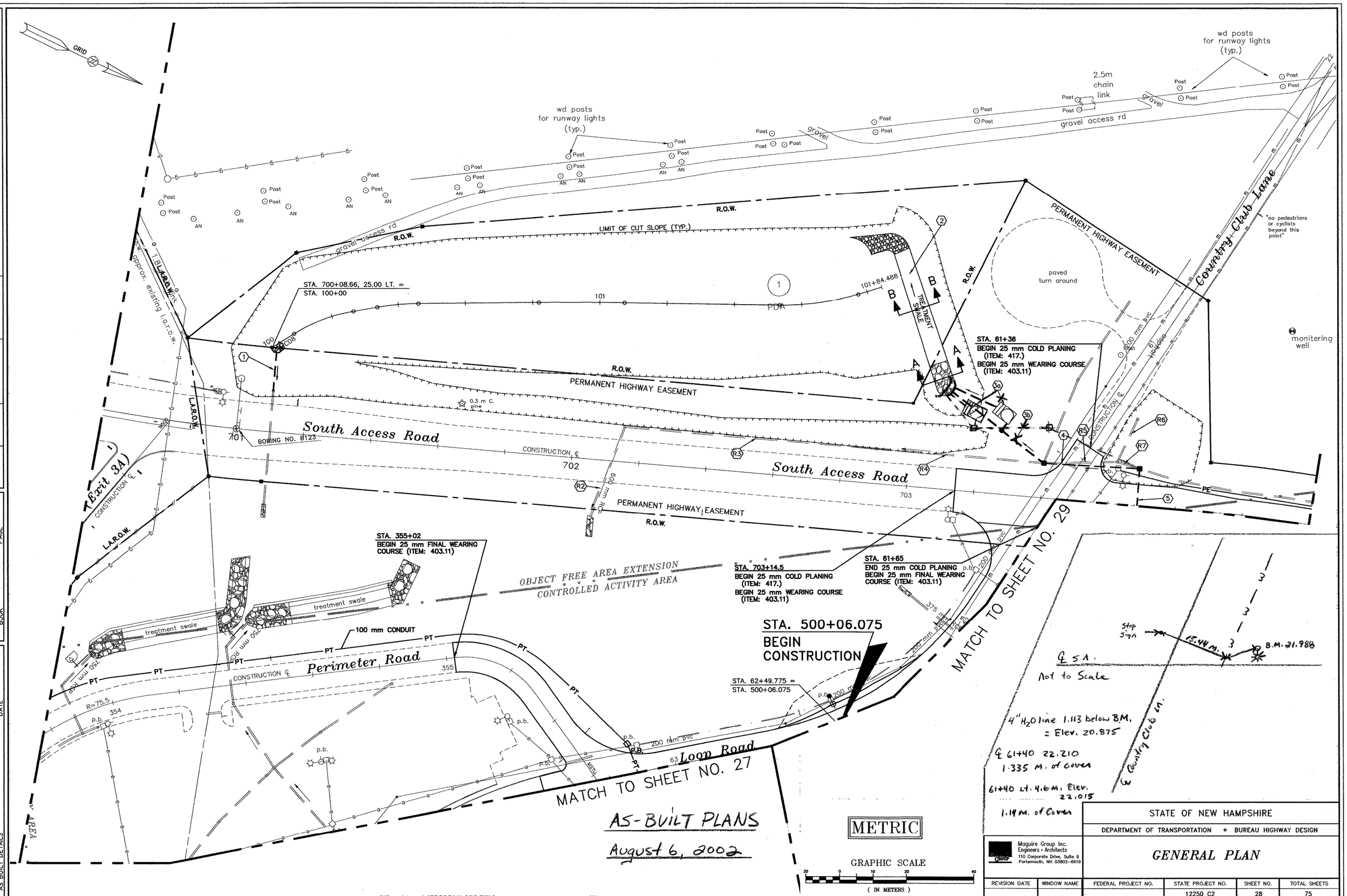
REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE	5/1/2000
PROPOSED DESIGN	RAB	DATE	5/4/2000
SHEET CHECKED	ADC	DATE	
AS BUILT DETAILS		DATE	



STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

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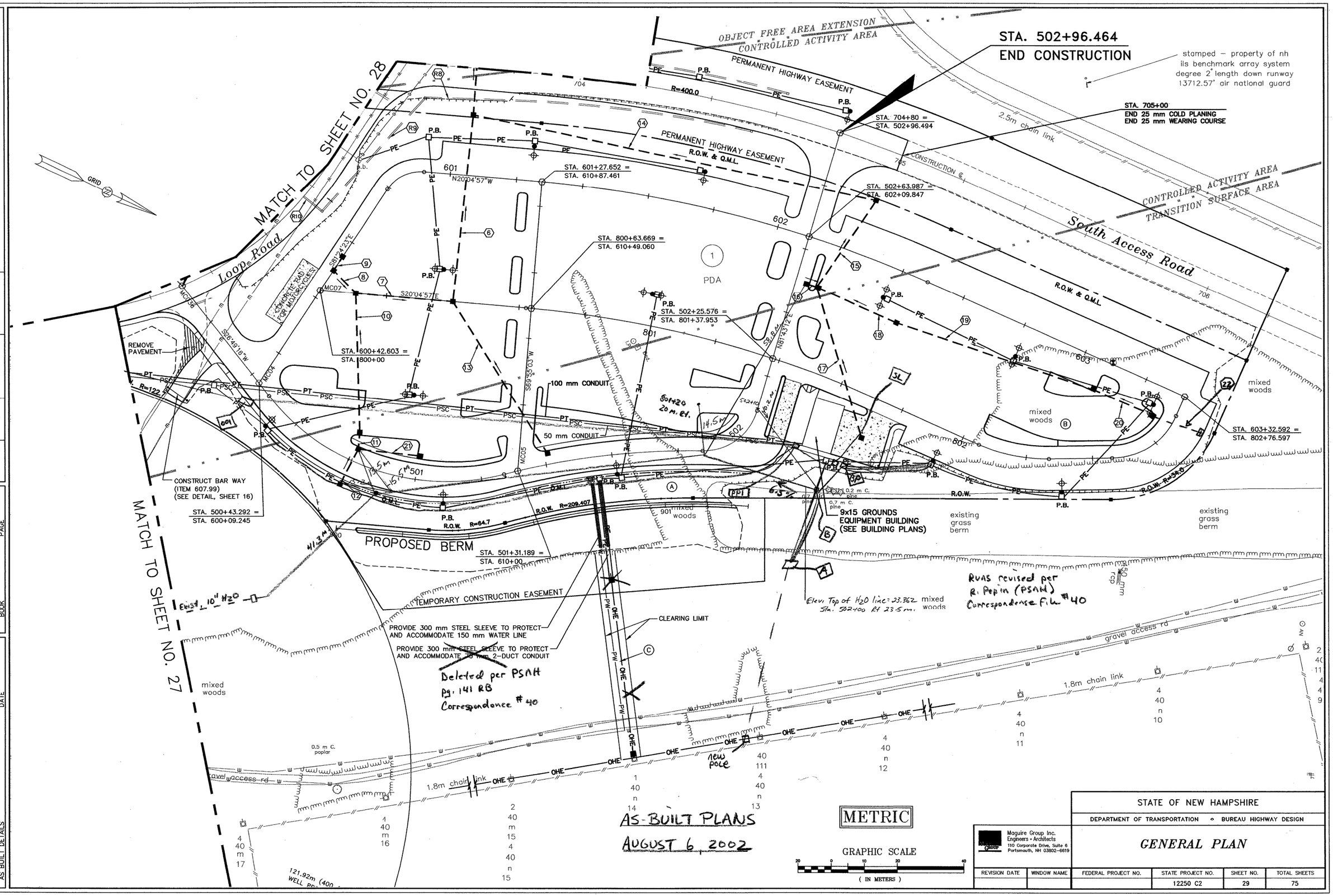
GENERAL PLAN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	28	75



REVISIONS AFTER PROPOSAL					
NUMBER	DATE	STATION	STATION	DESCRIPTION	

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

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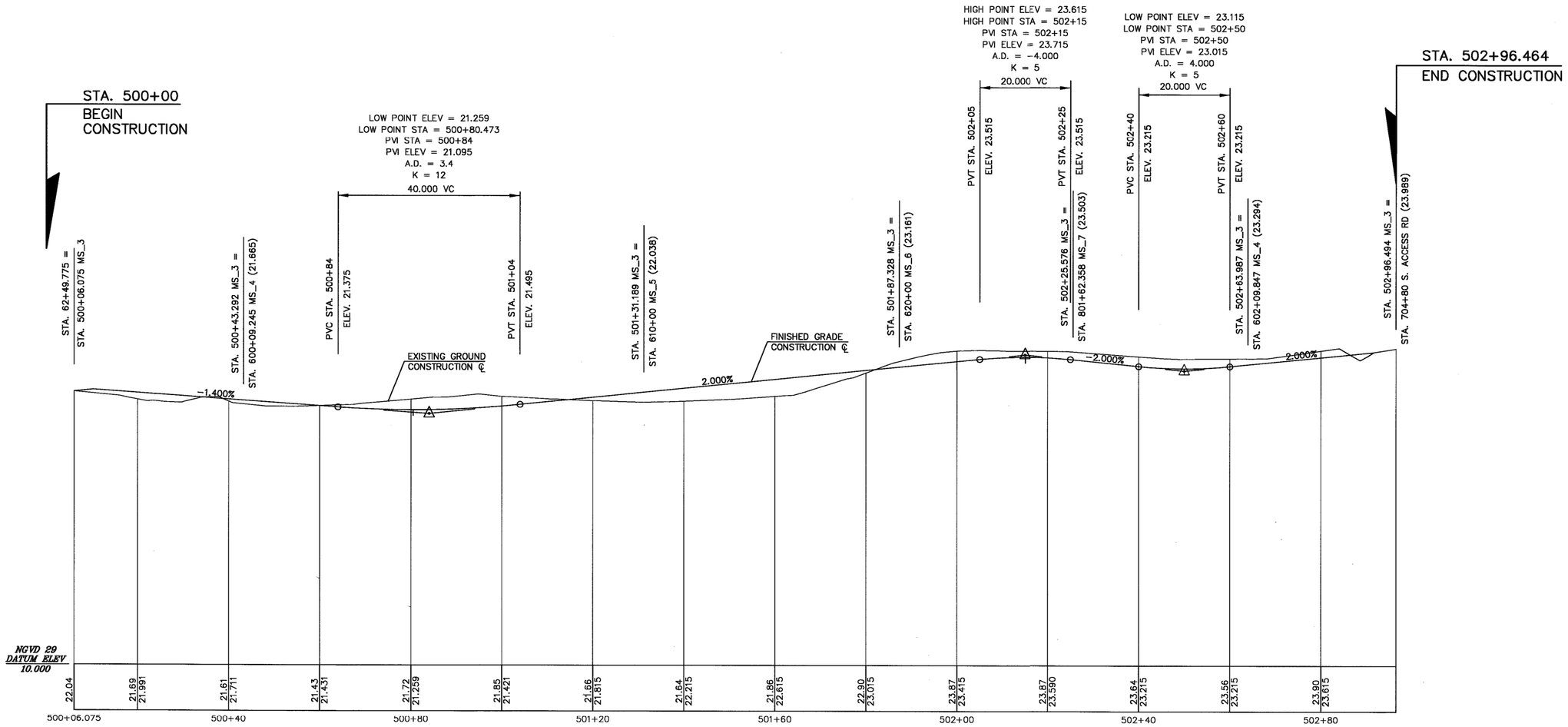
STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

GENERAL PLAN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	29	75



PROFILE MS_3

REVISIONS AFTER PROPOSAL				
NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

GRAPHIC SCALE

5 0 5 10 20 (HORIZONTAL)

0 1 2 3 4 5 (VERTICAL)

(IN METERS)

METRIC

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110 Corporate Drive, Suite 6
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STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

PROFILES

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	30	75

PROFILE MS_4

GRAPHIC SCALE

5 0 5 10 20 (HORIZONTAL)

0 1 2 3 4 5 (VERTICAL)

(IN METERS)

METRIC

NUMBER	DATE	STATION	STATION	DESCRIPTION

REVISIONS AFTER PROPOSAL

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

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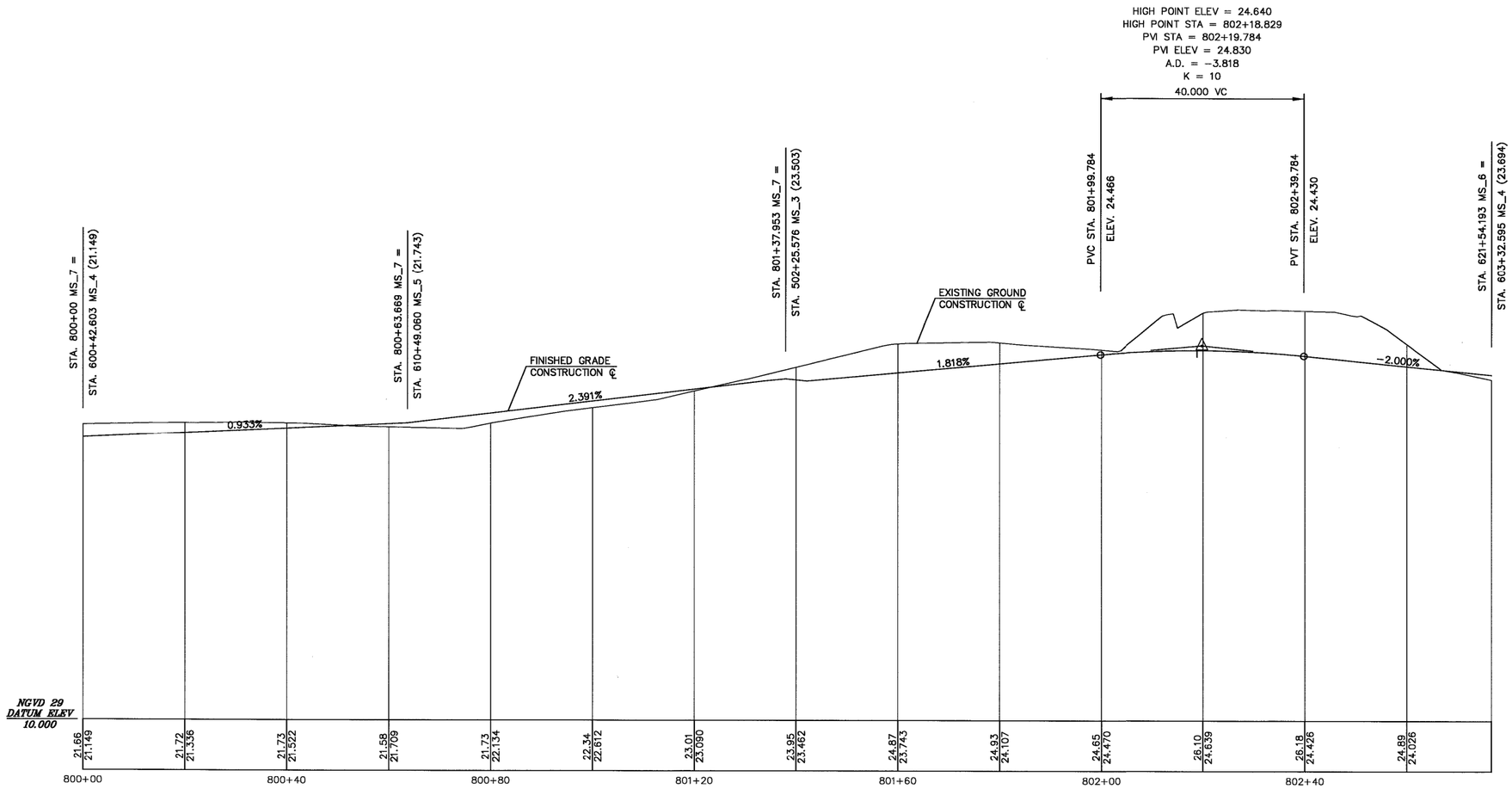
STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

PROFILES

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	31	75



PROFILE MS_7

GRAPHIC SCALE

5 0 5 10 20 (HORIZONTAL)

0 1 2 3 4 5 (VERTICAL)

(IN METERS)

METRIC

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

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STATE OF NEW HAMPSHIRE

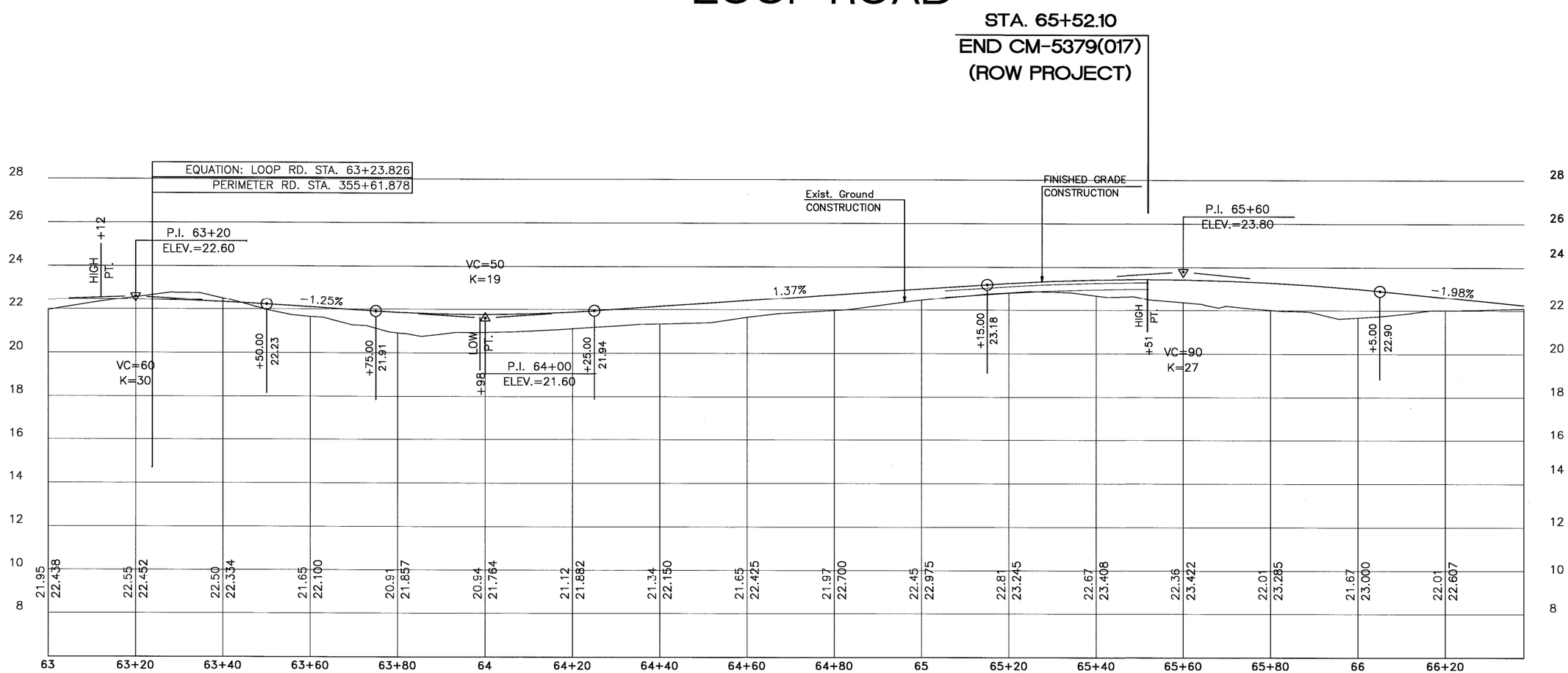
DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

PROFILES

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	32	75

FOR INFORMATIONAL PURPOSES ONLY

LOOP ROAD



SCALE: 1:500 HORIZONTAL
1:100 VERTICAL

METRIC

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION

DESCRIPTION

NOTEBOOKS		
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BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	DATE
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AS BUILT DETAILS	DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

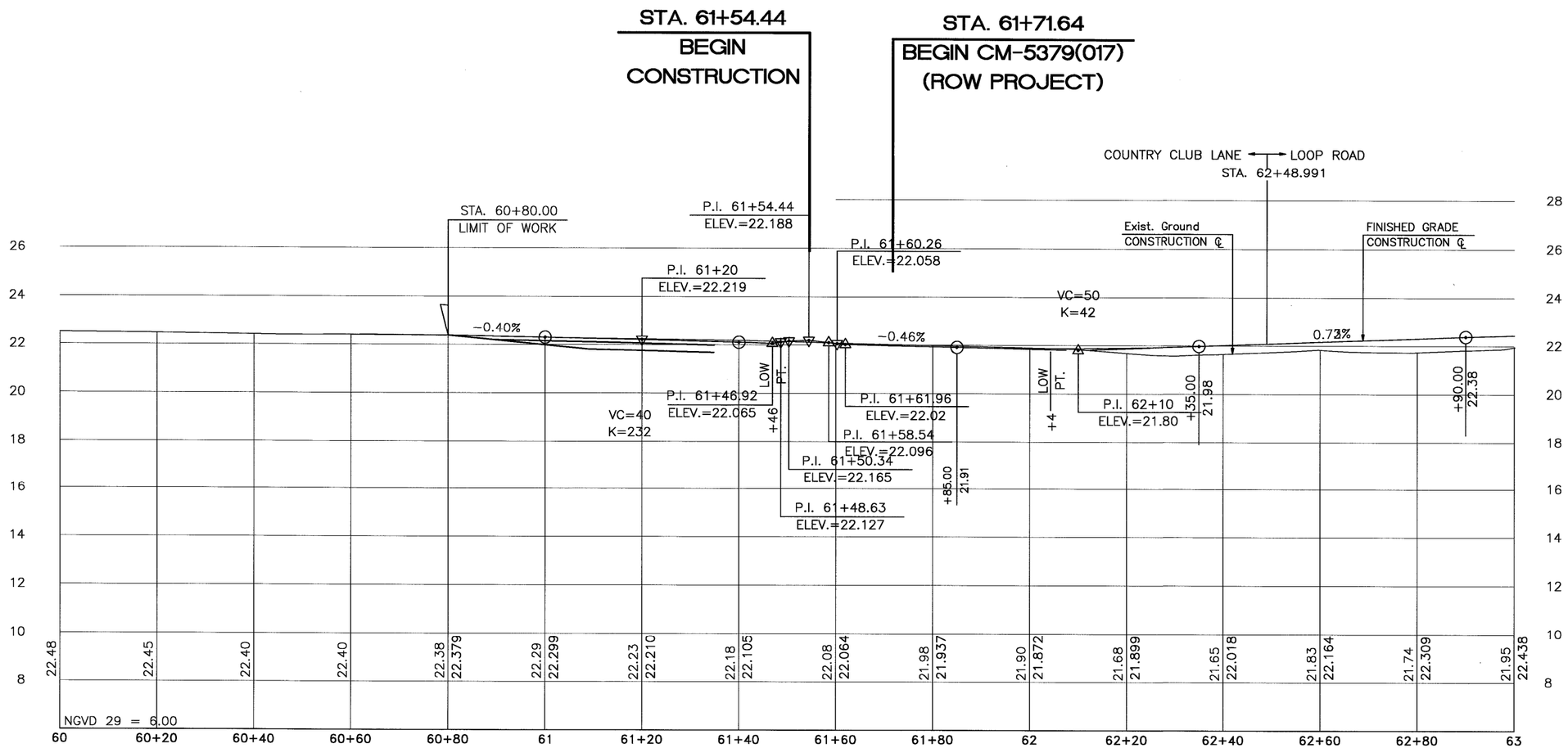
PROFILE PLANS

LOOP ROAD

MULTIPLOT NAME	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
M146SH02	M146	PROFILES		12250 C2	33	75

FOR INFORMATIONAL PURPOSES ONLY

COUNTRY CLUB LANE / LOOP ROAD



SCALE: 1:500 HORIZONTAL
1:100 VERTICAL

METRIC

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

PROFILE PLANS

COUNTRY CLUB LANE / LOOP ROAD

MULTIPLOT NAME	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
M146SH01	M146	PROFILES		12250 C2	34	75

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

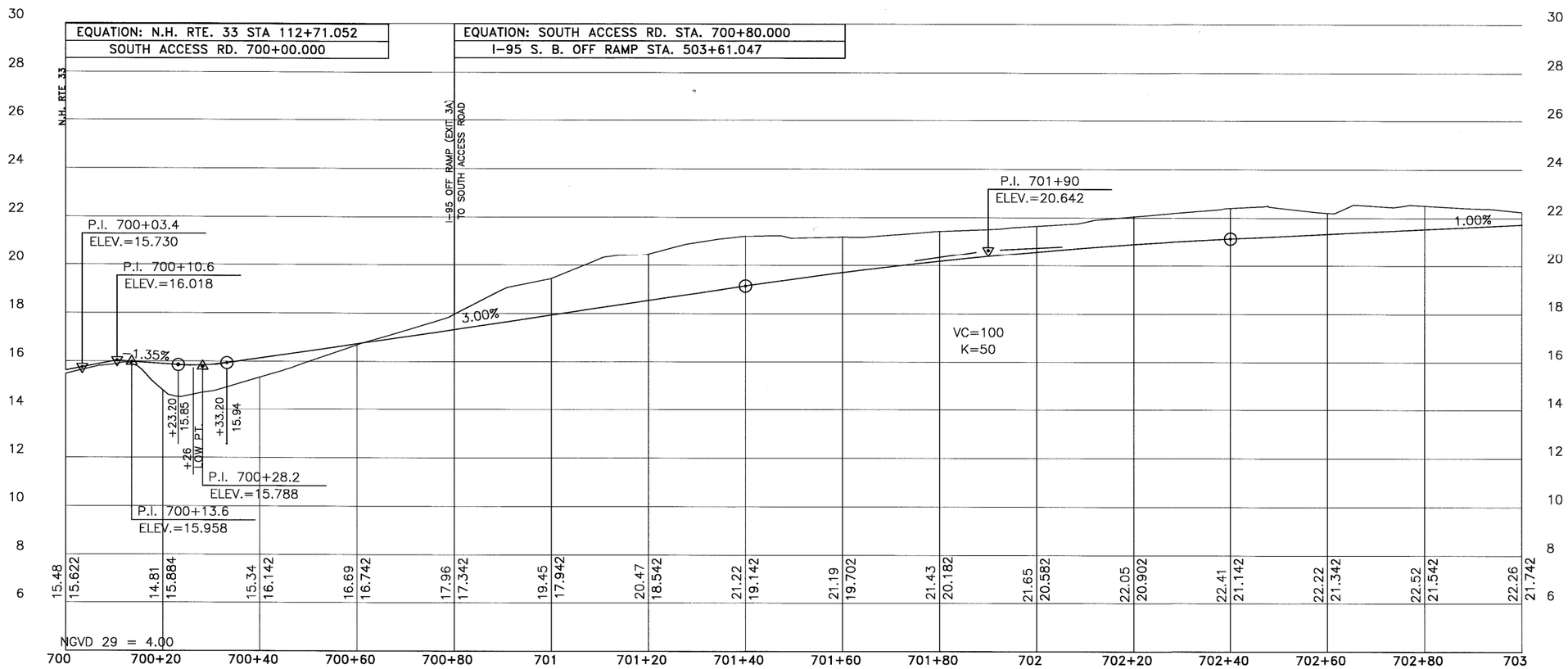
BOOK PAGE
BOOK PAGE
BOOK PAGE

EXISTING DETAIL DATE
PROPOSED DESIGN DATE
SHEET CHECKED DATE

AS BUILT DETAILS DATE

FOR INFORMATIONAL PURPOSES ONLY

SOUTH ACCESS ROAD



SCALE: 1:500 HORIZONTAL
1:100 VERTICAL

METRIC

Maguire Group Inc.
Engineers • Architects
100 Griffin Road, Unit D
Portsmouth, NH 03801

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

PROFILE PLANS
SOUTH ACCESS RD

MULTIPLOT NAME	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
M107SH01	M107	PROFILES		12250 C2	35	75

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

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BOOK	PAGE

EXISTING DETAIL DATE
PROPOSED DESIGN DATE
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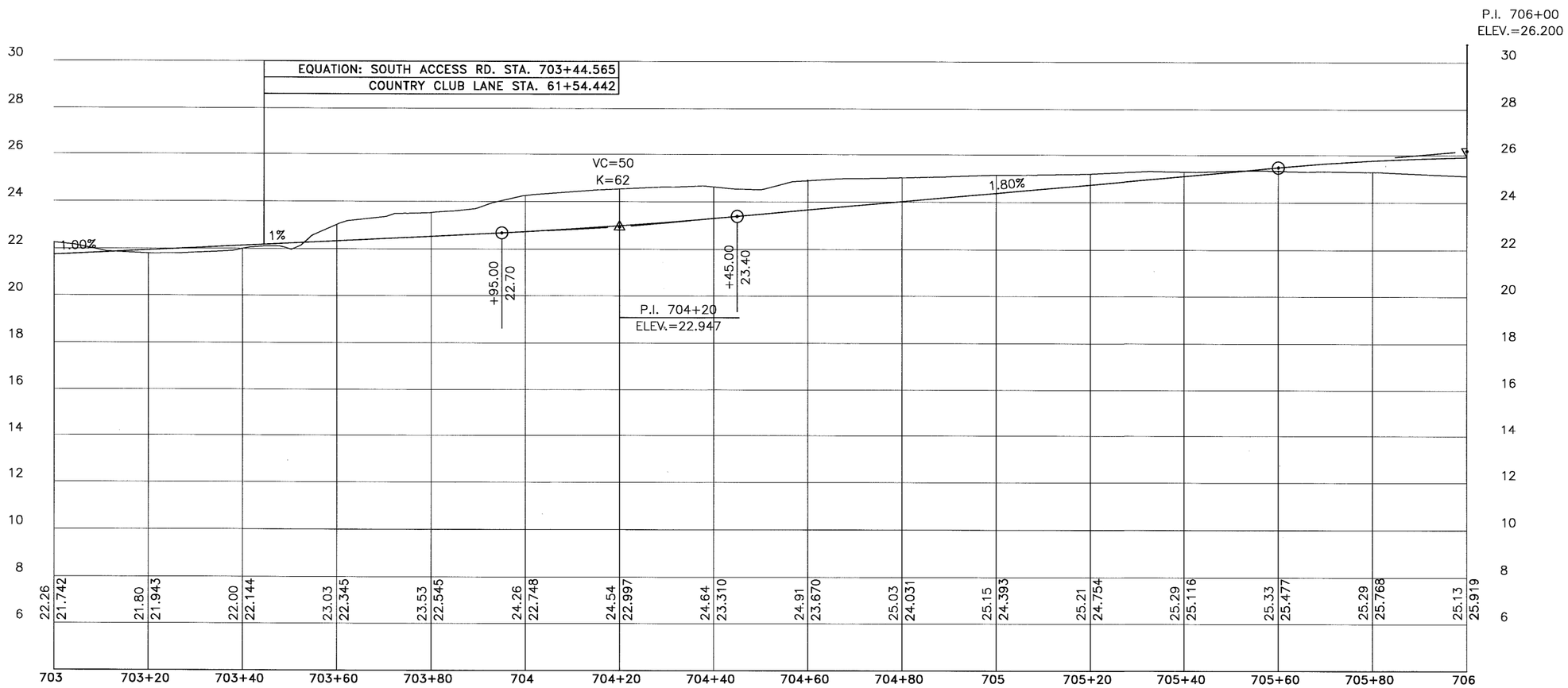
AS BUILT DETAILS DATE

FOR INFORMATIONAL PURPOSES ONLY

SOUTH ACCESS ROAD



SCALE: 1:500 HORIZONTAL
1:100 VERTICAL

METRIC

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

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BOOK	PAGE	

EXISTING DETAIL DATE
PROPOSED DESIGN DATE
SHEET CHECKED DATE

AS BUILT DETAILS DATE

Maguire Group Inc.
Engineers • Architects
100 Griffin Road, Unit D
Portsmouth, NH 03801

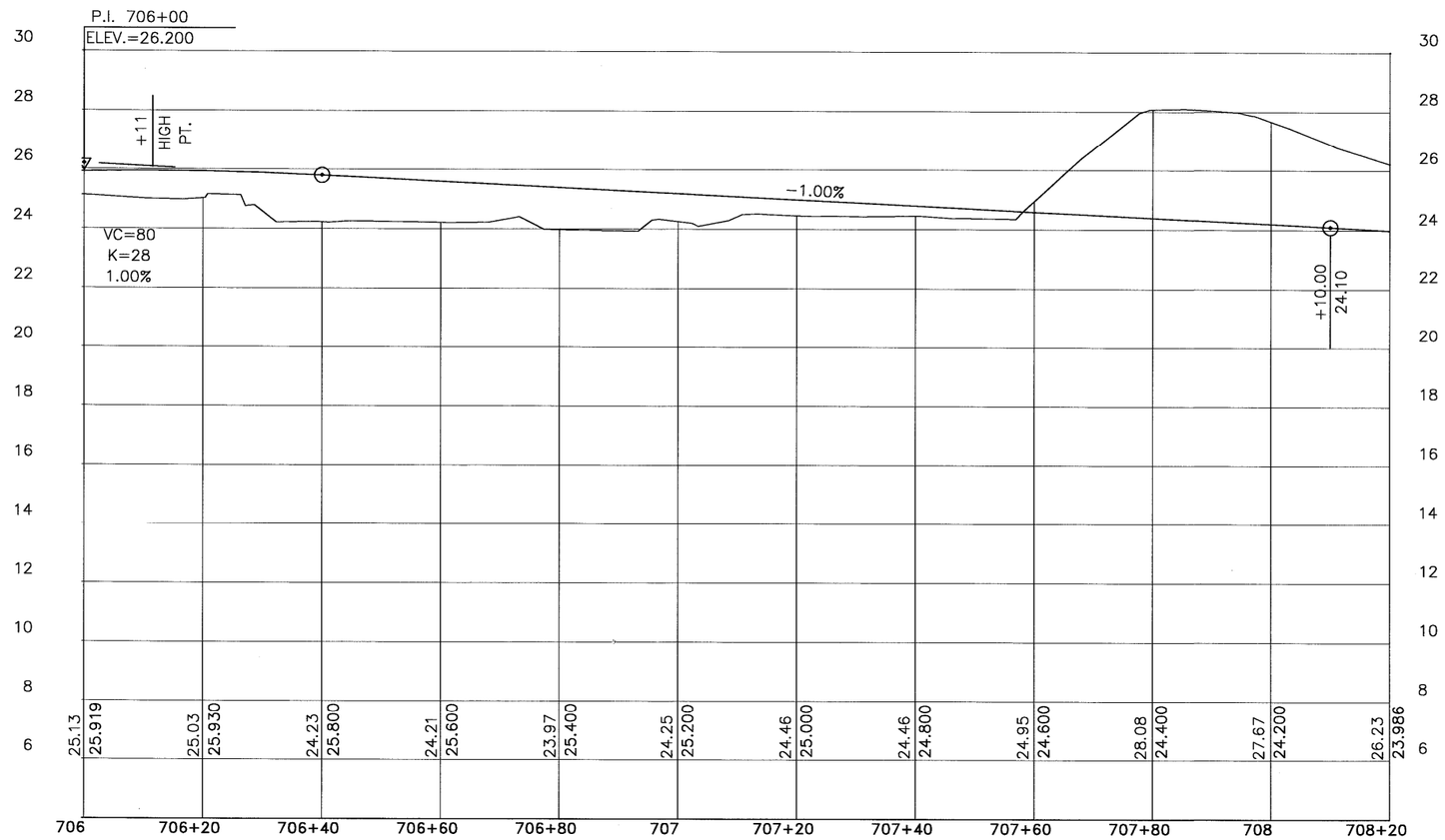
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

PROFILE PLANS
SOUTH ACCESS RD

MULTIPLOT NAME	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
M107SH02	M107	PROFILES		12250 C2	36	75

FOR INFORMATIONAL PURPOSES ONLY

SOUTH ACCESS ROAD



SCALE: 1:500 HORIZONTAL
1:100 VERTICAL

METRIC

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
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BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	DATE
PROPOSED DESIGN	DATE
SHEET CHECKED	DATE
AS BUILT DETAILS	DATE

Maguire Group Inc.
Engineers • Architects
100 Griffin Road, Unit D
Portsmouth, NH 03801

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

PROFILE PLANS
SOUTH ACCESS ROAD

MULTIPLOT NAME	WINDOW NAME	.FGB FILENAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
M107SH03	M107	PROFILES		12250	37	75

REVISIONS AFTER PROPOSAL				
NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
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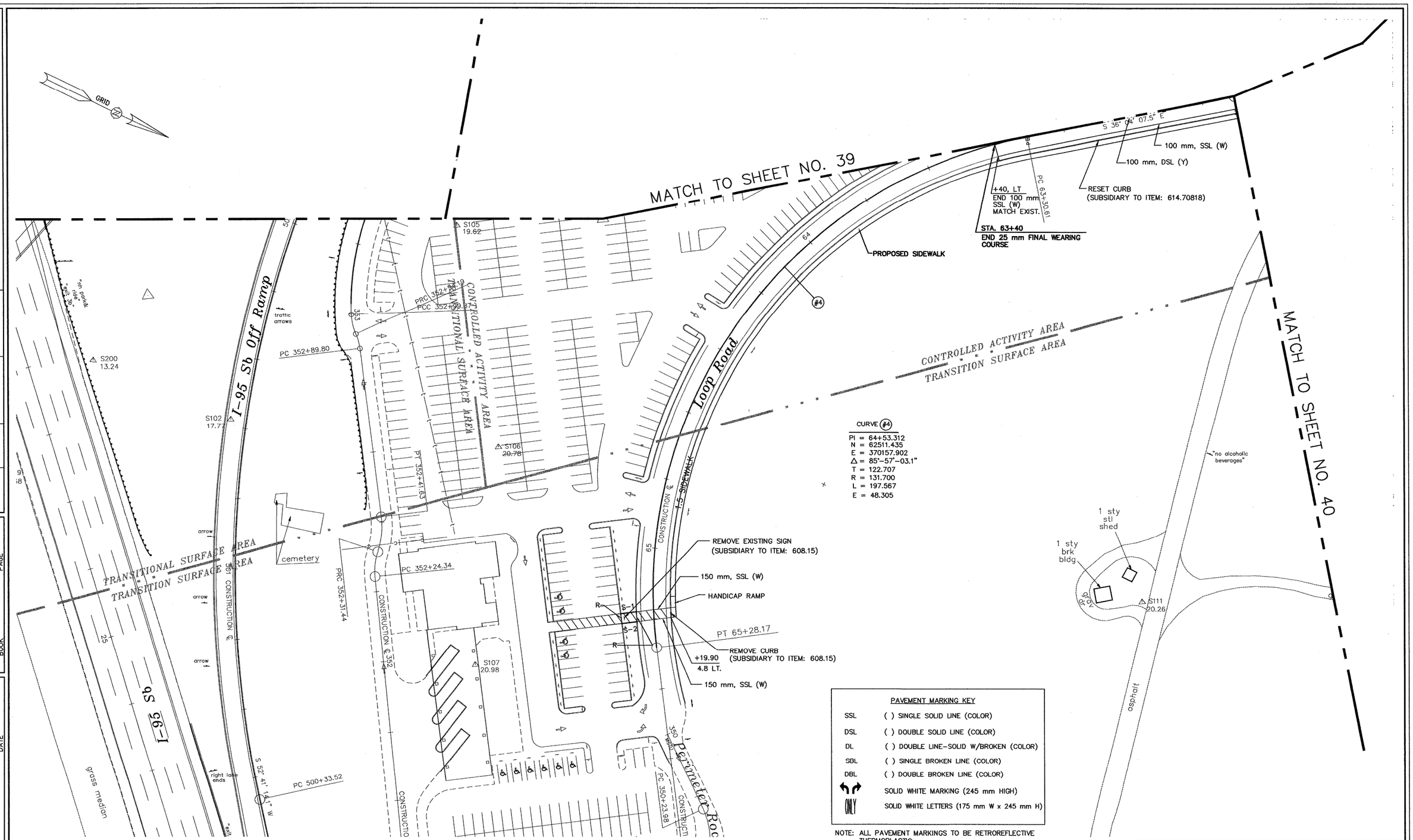
BOOK		PAGE

EXISTING DETAIL	WGY	DATE	5/1/2000
PROPOSED DESIGN	RAB	DATE	5/4/2000
SHEET CHECKED	ADC	DATE	
AS BUILT DETAILS		DATE	



CURVE #4

PI = 64+53.312
N = 62511.435
E = 370157.902
Δ = 85°-57'-03.1"
T = 122.707
R = 131.700
L = 197.567
E = 48.305

PAVEMENT MARKING KEY

SSL	( ) SINGLE SOLID LINE (COLOR)
DSL	( ) DOUBLE SOLID LINE (COLOR)
DL	( ) DOUBLE LINE-SOLID W/BROKEN (COLOR)
SBL	( ) SINGLE BROKEN LINE (COLOR)
DBL	( ) DOUBLE BROKEN LINE (COLOR)
	SOLID WHITE MARKING (245 mm HIGH)
ONLY	SOLID WHITE LETTERS (175 mm W x 245 mm H)

NOTE: ALL PAVEMENT MARKINGS TO BE RETROREFLECTIVE THERMOPLASTIC.

METRIC

GRAPHIC SCALE

20 0 10 20 40

(IN METERS)

Maguire Group Inc.
Engineers • Architects
110 Corporate Drive, Suite 6
Portsmouth, NH 03802-6619

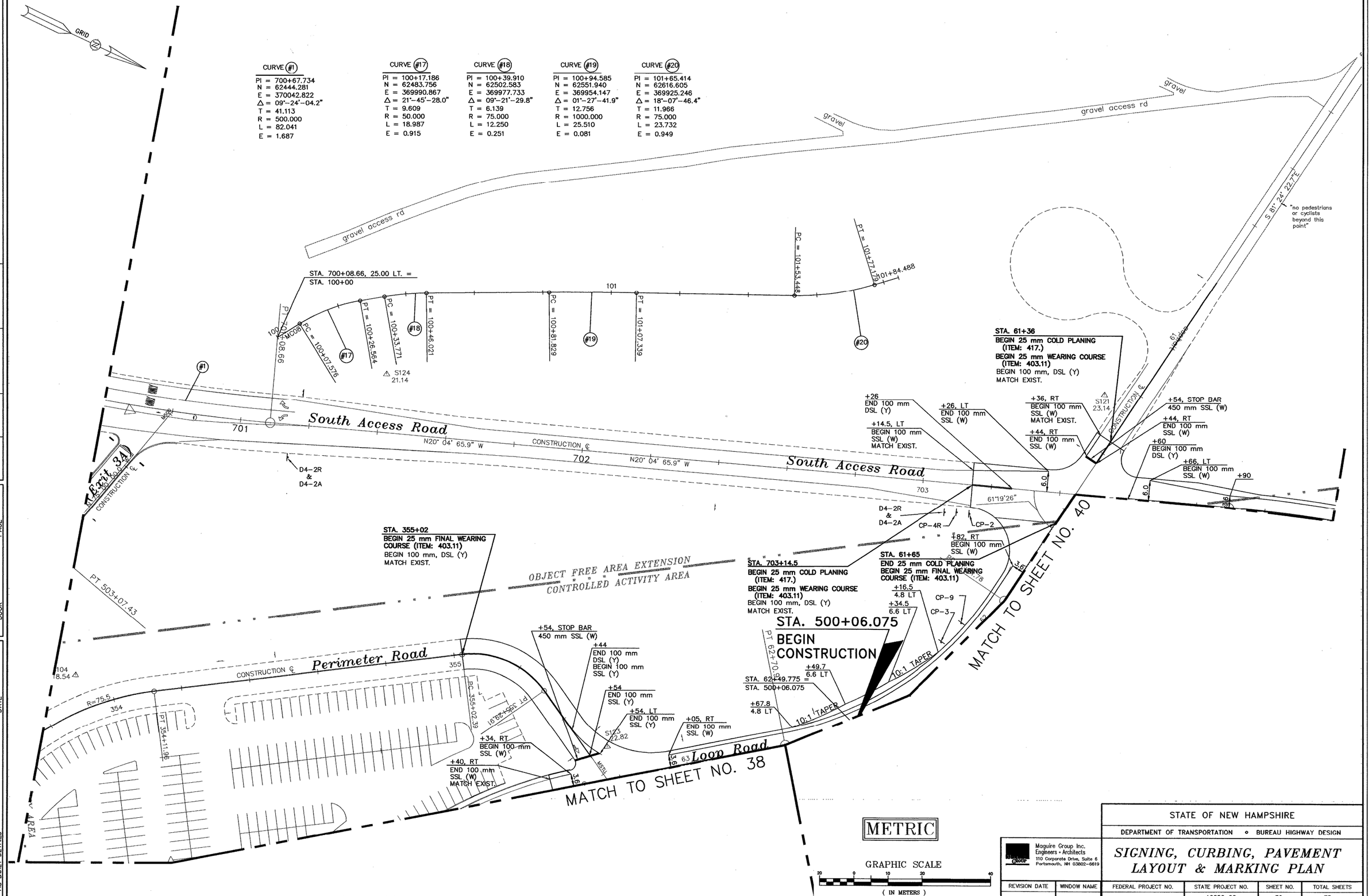
STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

SIGNING, CURBING, PAVEMENT LAYOUT & MARKING PLAN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	38	75

CURVE #1	CURVE #17	CURVE #18	CURVE #19	CURVE #20
PI = 700+67.734	PI = 100+17.186	PI = 100+39.910	PI = 100+94.585	PI = 101+65.414
N = 62444.281	N = 62483.756	N = 62502.583	N = 62551.940	N = 62616.605
E = 370042.822	E = 369990.867	E = 369977.733	E = 369954.147	E = 369925.246
Δ = 09°-24'-04.2"	Δ = 21°-45'-28.0"	Δ = 09°-21'-29.8"	Δ = 01°-27'-41.9"	Δ = 18°-07'-46.4"
T = 41.113	T = 9.609	T = 6.139	T = 12.756	T = 11.966
R = 500.000	R = 50.000	R = 75.000	R = 1000.000	R = 75.000
L = 82.041	L = 18.987	L = 12.250	L = 25.510	L = 23.732
E = 1.687	E = 0.915	E = 0.251	E = 0.081	E = 0.949



NUMBER	DATE	STATION	STATION	DESCRIPTION

REVISIONS AFTER PROPOSAL

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE	5/1/2000
PROPOSED DESIGN	RAB	DATE	5/4/2000
SHEET CHECKED	ADC	DATE	
AS BUILT DETAILS		DATE	

Maguire Group Inc.
Engineers • Architects
110 Corporate Drive, Suite 6
Portsmouth, NH 03802-6819

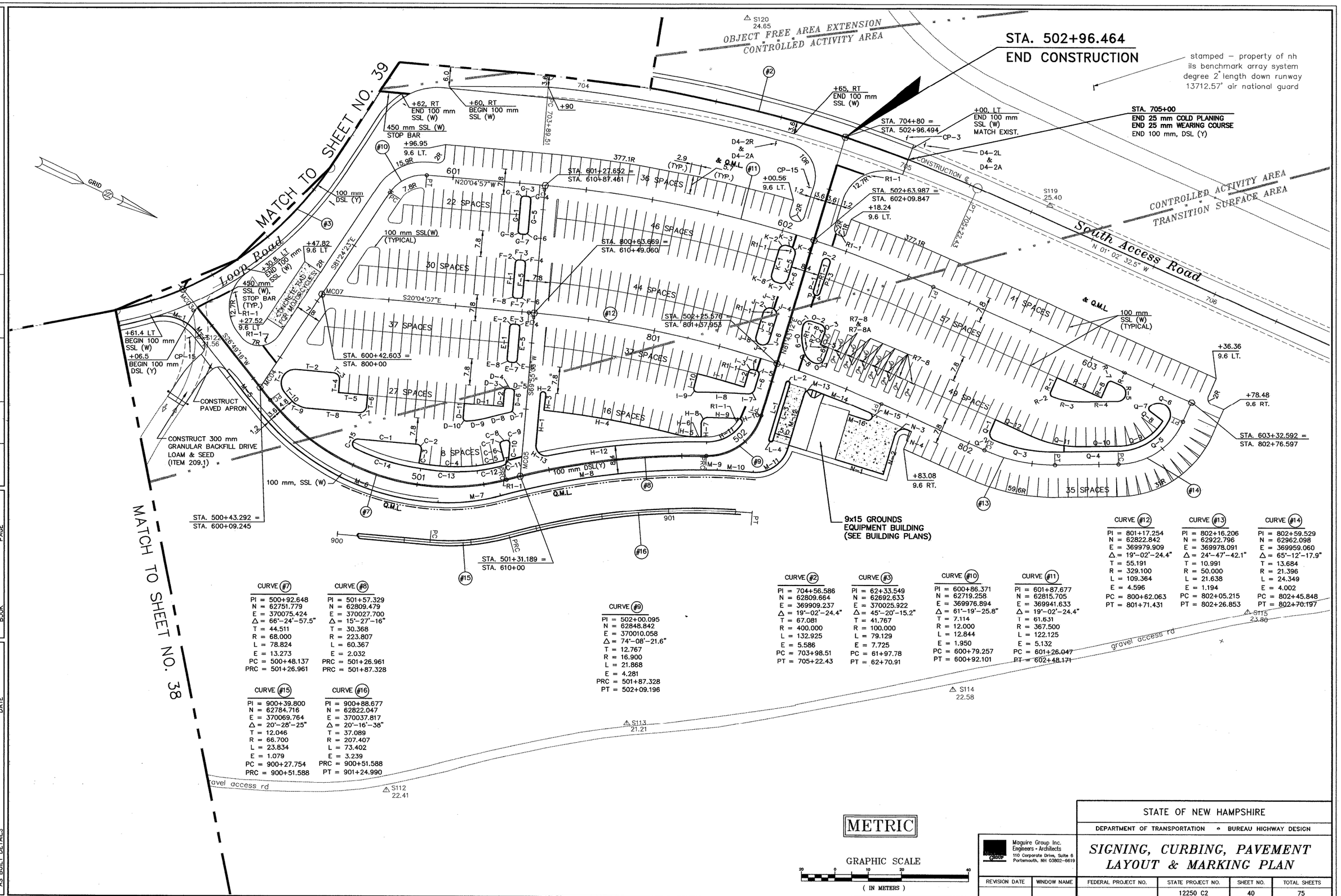
REVISION DATE	WINDOW NAME

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

SIGNING, CURBING, PAVEMENT LAYOUT & MARKING PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	12250 C2	39	75



CURVE #7
PI = 500+92.648
N = 62751.779
E = 370075.424
Δ = 66°-24'-57.5"
T = 44.511
R = 68.000
L = 78.824
E = 13.273
PC = 500+48.137
PRC = 501+26.961

CURVE #8
PI = 501+57.329
N = 62809.479
E = 370027.700
Δ = 15°-27'-16"
T = 30.368
R = 223.807
L = 60.367
E = 2.032
PRC = 501+26.961
PRC = 501+87.328

CURVE #15
PI = 900+39.800
N = 62784.716
E = 370069.764
Δ = 20°-28'-25"
T = 12.046
R = 66.700
L = 23.834
E = 1.079
PC = 900+27.754
PRC = 900+51.588

CURVE #16
PI = 900+88.677
N = 62822.047
E = 370037.817
Δ = 20°-16'-38"
T = 37.089
R = 207.407
L = 73.402
E = 3.239
PRC = 900+51.588
PT = 901+24.990

CURVE #9
PI = 502+00.095
N = 62848.842
E = 370010.058
Δ = 74°-08'-21.6"
T = 12.767
R = 16.900
L = 21.868
E = 4.281
PRC = 501+87.328
PT = 502+09.196

CURVE #2
PI = 704+56.586
N = 62809.664
E = 369909.237
Δ = 19°-02'-24.4"
T = 67.081
R = 400.000
L = 132.925
E = 5.586
PC = 703+98.51
PT = 705+22.43

CURVE #3
PI = 62+33.549
N = 62692.633
E = 370025.922
Δ = 45°-20'-15.2"
T = 41.767
R = 100.000
L = 79.129
E = 7.725
PC = 61+97.78
PT = 62+70.91

CURVE #10
PI = 600+86.371
N = 62719.258
E = 369976.894
Δ = 61°-19'-25.8"
T = 7.114
R = 12.000
L = 12.844
E = 1.950
PC = 600+79.257
PT = 600+92.101

CURVE #11
PI = 601+87.677
N = 62815.705
E = 369941.633
Δ = 19°-02'-24.4"
T = 61.631
R = 367.500
L = 122.125
E = 5.132
PC = 601+26.047
PT = 602+48.171

CURVE #12
PI = 801+17.254
N = 62822.842
E = 369979.909
Δ = 19°-02'-24.4"
T = 55.191
R = 329.100
L = 109.364
E = 4.596
PC = 800+62.063
PT = 801+71.431

CURVE #13
PI = 802+16.206
N = 62922.796
E = 369978.091
Δ = 24°-47'-42.1"
T = 10.991
R = 50.000
L = 21.638
E = 1.194
PC = 802+05.215
PT = 802+26.853

CURVE #14
PI = 802+59.529
N = 62962.098
E = 369959.060
Δ = 65°-12'-17.9"
T = 13.684
R = 21.396
L = 24.349
E = 4.002
PC = 802+45.848
PT = 802+70.197

METRIC

GRAPHIC SCALE
20 0 10 20 40
(IN METERS)

Maguire Group Inc.
Engineers • Architects
110 Corporate Drive, Suite 6
Portsmouth, NH 03802-6619

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

SIGNING, CURBING, PAVEMENT LAYOUT & MARKING PLAN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	40	75

NUMBER	DATE	STATION	STATION	DESCRIPTION

REVISIONS AFTER PROPOSAL

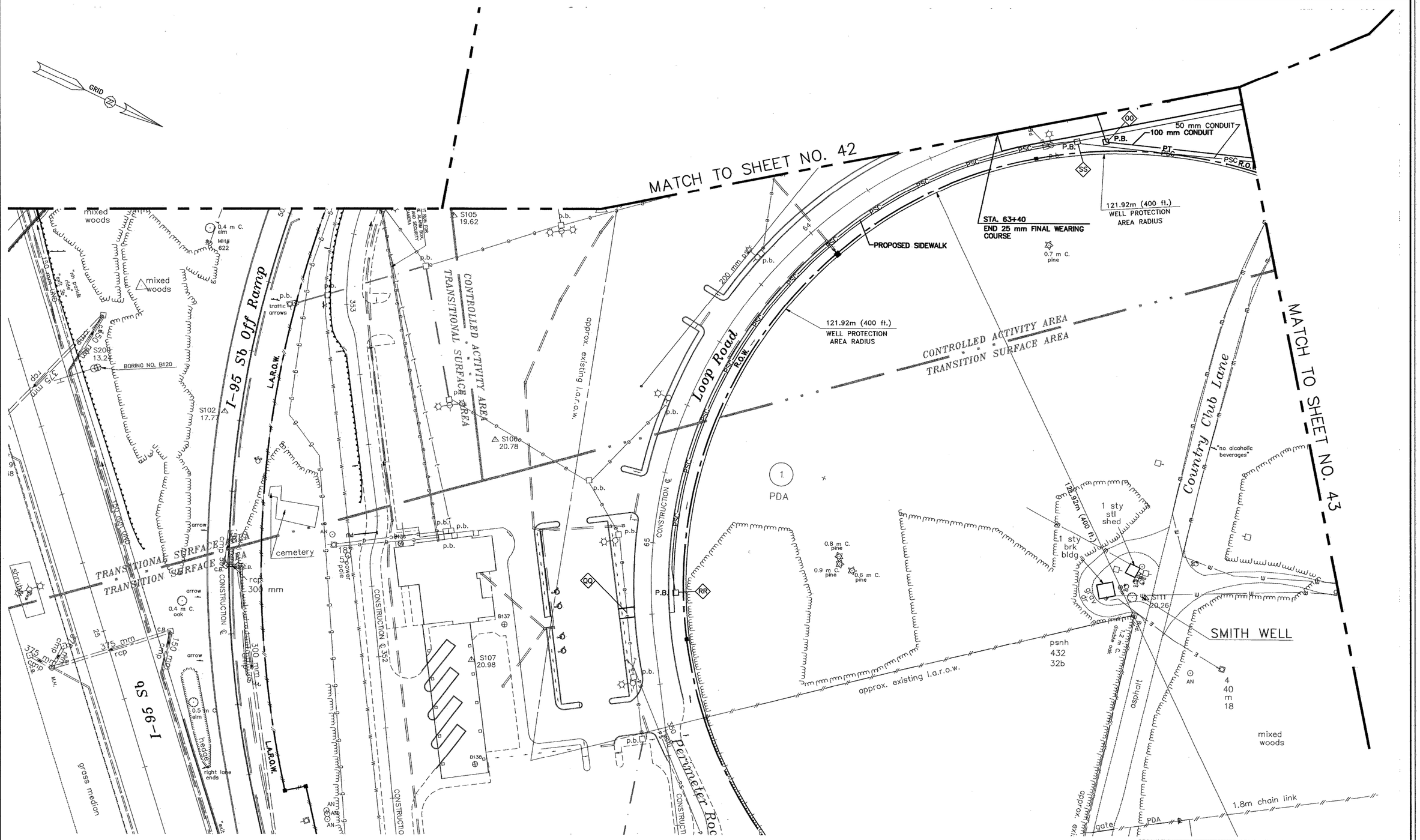
NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS		
BOOK	PAGE	
BOOK	PAGE	
BOOK	PAGE	

EXISTING DETAIL	WGY	DATE 5/1/2000
PROPOSED DESIGN	RAB	DATE 5/4/2000
SHEET CHECKED	ADC	DATE
AS BUILT DETAILS		DATE



METRIC

GRAPHIC SCALE

20 0 10 20 40

(IN METERS)

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Portsmouth, NH 03802-6619

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

UTILITY PLAN

REVISION DATE	WINDOW NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
			12250 C2	41	75