CONTRACT PLANS

THESE PLANS DO NOT REFLECT
CHANGES MADE ON THE PROJECT.

State of Vermont
Agency of Transportation

WATERFORD
WELCOME CENTER

In the Town of Waterford on Interstate 93

Project consists of renovating the existing Welcome Center and associated site work.

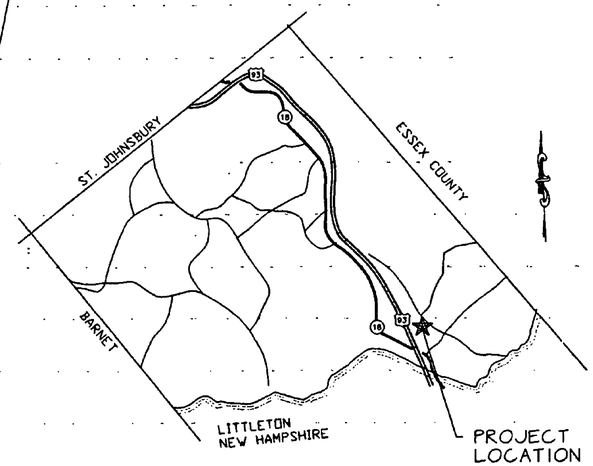
Howard Dean, M.D.
Governor

AGENCY OF ADMINISTRATION
DEPARTMENT OF STATE BUILDINGS
2 GOVERNOR AIKEN AVENUE
MONTPELIER, VERMONT 05602
JOHN J. ZAMPIERI, COMMISSIONER

AGENCY OF TRANSPORTATION
133 STATE STREET
MONTPELIER, VERMONT 05602
GLENN M. GERSHANECK, SECRETARY

INDEX OF SHEETS

PROJECT LOCATION



TOWN OF WATERFORD

A.O.T. – STANDARDS

C-1	GRANITE SLOPED EDGING, VERTICAL GRANITE CURB, PRECAST REINFORCED CONCRETE CURB, CAST IN PLACE CONCRETE CURB, BITUMINOUS CONCRETE CURB, TREATED TIMBERCURB 6-1-94
C-3	SIDEWALK RAMPS 6-1-94
E-105	TRAFFIC CONTROL FOR CONSTRUCTION VEHICLE U-TURNS ON DIVIDED HIGHWAYS 8-8-95
E-106	TRAFFIC CONTROL MISCELLANEOUS DETAILS 8-8-95
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS 8-8-95
E-107A	BREAKAWAY BARRIER DETAILS 8-8-95
E-142	REGULATORY SIGN DETAILS 09-20-95
E-143	REGULATORY SIGN DETAILS 09-20-95
E-146	REGULATORY SIGN DETAILS 09-20-95
E-150	WARNING SIGN DETAILS 08-08-95
E-160	FLANGED CHANNEL STEEL SIGN POST 8-18-95
E-191	PAVEMENT MARKING DETAILS 8-18-95
E-193	PAVEMENT MARKING DETAILS 8-18-95
E-197	DELINEATOR PLACEMENT TYPICAL 08-18-95
E-198	DELINEATORS AND MILEPOSTS 8-18-95

DEC 2 3 1996
Date

SPATES CONSTRUCTION, INC.
Contractor

Signature

PRESIDENT
Title

Secretary of Transportation's Signature

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF CONSTRUCTION AND MAINTENANCE. CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR THE CONSTRUCTION DATED 1990. AS APPROVED BY THE FEDRAL HIGHWAY ADMINISTRATION ON MARCH 15, 1990 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

APPROVED Frank D. MacDuffie DATE 9/30/96
DIRECTOR OF CONSTRUCTION & MAINTENANCE

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED for Mark D. Kuhl DATE 9-20-96
DIVISION ADMINISTRATOR

PROJECT WATERFORD WELCOME CENTER

SHEET 1 OF 24 SHEETS

QUANTITY SHEET

QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION

SUMMARY OF ESTIMATED QUANTITIES

QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
1	EA	DEMOLITION AND DISPOSAL OF BUILDING (PARTIAL)	202.10	EST.
200	CY	UNCLASSIFIED EXCAVATION	203.17	
* 200	CY	SOLID ROCK EXCAVATION	203.16	EST.
550	CY	EXCAVATION OF SURFACES AND PAVEMENTS	203.28	
50	CY	EARTH BORROW	203.30	EST.
425	CY	SAND BORROW	203.31	
90	CY	TRENCH EXCAVATION OF EARTH	204.20	
175	CY	SUBBASE DENSE GRADED CRUSHED STONE	301.35	EST.
7	CWT	EMULSIFIED ASPHALT	404.65	EST.
400	TON	BITUMINOUS CONCRETE PAVING	406.25	EST.
1	EA	REHABILITATION OF DROP INLETS, CATCH BASINS, OR MANHOLES	604.41	
1000	LF	6" UNDERDRAIN	605.10	EST.
2	EA	UNDERDRAIN FLUSHING BASIN	605.95	EST.
100	LF	VERTICAL GRANITE CURB	616.21	EST.
2100	LF	REMOVING AND RESETTING CURB	616.40	
30	SY	BRICK PAVING (CONCRETE GRID) (MODIFIED)	618.20	3
475	SY	BRICK PAVING (SOLID PAVERS)	618.20	2
1	LS	FIELD OFFICE - ENGINEERS	631.10	
1	LS	TESTING EQUIPMENT - CONCRETE	631.16	
1	LS	TESTING EQUIPMENT - BITUMINOUS	631.17	
1	LS	FIELD OFFICE - TELEPHONE	631.25	
1	LS	MOBILIZATION	635.10	EST
70	LF	PAINTED CURB	646.27	
2000	LF	4" DURABLE WHITE LINE	646.40	EST.
2500	LF	4" DURABLE YELLOW LINE	646.41	EST.
1000	LF	8" DURABLE WHITE LINE	646.42	
2	EA	DURABLE LETTER OR SYMBOL	646.50	
160	SY	GEOTEXTILE FABRIC FOR ROADBED SUBGRADE SEPARATOR	649.11	EST.
1150	SY	GEOTEXTILE FOR UNDERDRAIN TRENCH LINING	649.41	
50	LB	SEED	651.15	EST
450	SY	SODDING	651.30	EST.
50	CY	TOPSOIL	651.35	
1	LS	ROADSIDE REST FACILITIES (BLDG. REND)- MAIN BLDG.	658.15	
1	LS	ROADSIDE REST FACILITIES (BLDG. REND)- STORAGE BLDG.	658.15	
90	SF	TRAFFIC SIGNS, TYPE A	675.20	4.6
575	LB	FLANGED CHANNEL SIGN POST	675.30	17
15	EA	REMOVING SIGNS	675.50	
50	EA	DELINEATORS WITH STEEL POSTS	676.10	
28	EA	REMOVAL OF EXISTING DELINEATORS	676.12	
* 250	LB	FERTILIZER	651.18	EST.
* 1	TON	AGRICULTURAL LIMESTONE	651.20	EST.
* 1	TON	HAY MULCH	651.25	EST.

* ITEMS OUT OF ORDER

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

SEEDING FORMULA
RURAL AREAS

% WT.	LBS./A.	NAME	PUR %	GERM. %
37.5	22.5	CREEPING RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3.0	RED TOP	95	90
15.0	9.0	BIRDSFOOT TREFOIL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

GENERAL NOTES

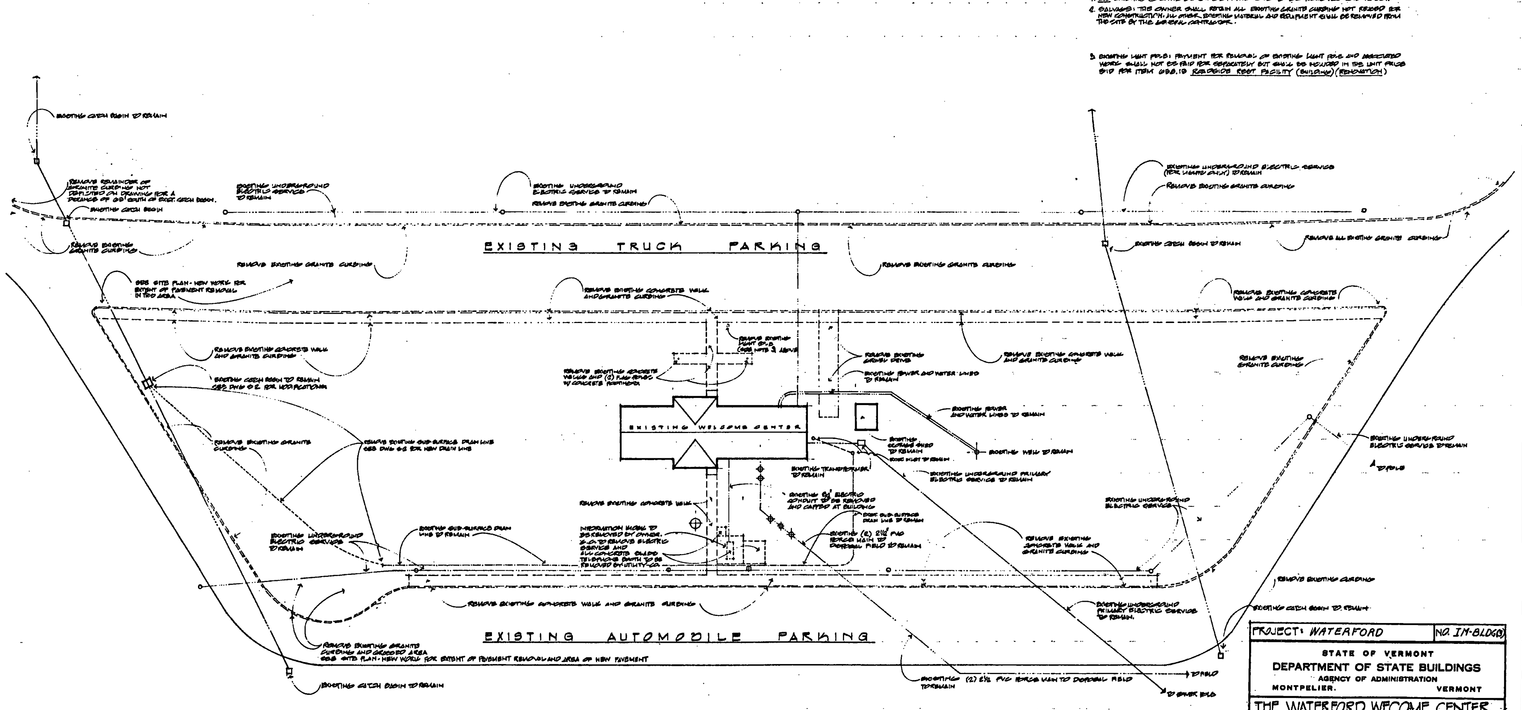
SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

SURVEYED BY _____ DATE _____
DRAWN BY _____ DATE _____
SQUAD LEADER _____
DESIGN FILE NO. _____
IPARM FILE _____ DATE PLOTTED _____
PROJ. NAME WATERFORD WELCOME CENTER
PROJ. NO. IM-BLDG (3)
SHEET 2 OF 24 SHEETS

NOTE:

1. ALL EXISTING GRANITE CURBING ON THIS SITE TO BE REMOVED AND RESET.
2. CONTRACTOR TO CONFER WITH ENGINEER ON ALL EXISTING GRANITE CURBING NOT NEEDED FOR NEW CONSTRUCTION TO MAKE EXISTING MATERIAL AND EQUIPMENT AVAILABLE FOR THE CITY OF THE GENERAL CONTRACTOR.
3. EXISTING LIGHT POLES REMOVED FOR REMOVAL OF EXISTING LIGHT POLE AND ASSOCIATED WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 658.10 REMOVE FOOT FACILITY (LIGHTING) (FOUNDATION)



SITE PLAN · REMOVALS

SCALE 1" = 20'

CHARLES E. METZ
ARCHITECT
THE 1820 RICHARD DOE HOUSE
NEWBURY, VERMONT 05051-0278

PROJECT: WATERFORD — NO. IN-BLDG(1)

STATE OF VERMONT
DEPARTMENT OF STATE BUILDINGS
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

THE WATERFORD WELCOME CENTER
WATERFORD VERMONT

SITE PLAN · REMOVALS

DATE: JANUARY 1990	SCALE: 1" = 20'	REVISIONS: 31 JANUARY 1990	DWG. NO. S1
DRAWN BY: Conn	APPROVED BY:		3 OF 24

SIDEWALK TYPE A

SECTION (1) 3/4"=1'-0"

SIDEWALK TYPE B

SECTION (2) 3/4"=1'-0"

SIDEWALK TYPE C

SECTION (3) 3/4"=1'-0"

SECTION (4) 3/4"=1'-0" TYPICAL

RESETTING EXISTING GRANITE CURBING

PARTIAL PLAN 3/16"=1'-0"

TYPICAL WALKWAY PARALLEL TO AUTO OR TRUCK PARKING.

PARTIAL PLAN 3/16"=1'-0"

ENTRANCE PLAZA AND ADA PICNIC AREA

PARTIAL PLAN 3/16"=1'-0"

WALKWAY TO ENTRY FROM NEW TRUCK PARKING AND WALKWAY FROM NEW AUTO PARKING TO ADA PICNIC AREA.

DETAIL (7) UNDERDRAIN CONSTRUCTION

NEW FERRITRATED SUBSURFACES DRAIN LINE

SECTION (5) SLOPED GRANITE CURB @ 45°

TYPICAL

NOTES:
TYPICAL FOR SECTIONS 1, 2 & 3

1. LEVELING SAND SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 618.20 - BRICK PAVING.
2. LEVELING SAND SHALL MEET THE FOLLOWING GRADATION (608 A.O.T. SPECIFICATIONS).
3. EXCAVATION FOR BRICK PAVING SYSTEM SHALL BE ITEM 203.11 - TRENCH EXCAVATION OF EARTH.

SITE PLAN • NEW WORK

Scale 1"=60'

NEW AUTOMOBILE PARKING

NEW TRUCK PARKING

SIDEWALK TYPE A

SIDEWALK TYPE B

SIDEWALK TYPE C

NEW ADA PICNIC AREA

NEW ADDITION

NEW DRIVEWAY

EXISTING WELCOME CENTER

NOTE:
SALVAGE: THE OWNER SHALL RETAIN ALL EXISTING GRANITE CURBING NOT REUSED FOR NEW CONSTRUCTION. ALL OTHER EXISTING MATERIALS AND EQUIPMENT NOT REUSED SHALL BE REMOVED FROM THE SITE BY THE GENERAL CONTRACTOR.

L.P. GAS TANK DETAIL

NOT TO SCALE

L.P. GAS LINE TRENCH DETAIL

NOT TO SCALE

SECTION (6) 1/2"=1'-0"

NEW DRIVEWAY

KEY

- RESET EXISTING GRANITE CURBING
- NEW GRANITE CURBING CUT TO RADIUS
- AREA OF NEW PAVED WALK
- AREA OF NEW DRIVE W/ OPEN VOIDS GRID
- NEW 6" ø PERFORATED DRAINAGE LINE UNDER NEW CONCRETE PAVER WALKWAY OR SUB SURFACE DRAIN LINE TO NEW CATCH BASIN.
- EXISTING SPOT ELEVATION

N

CHARLES E. METZ
ARCHITECT
THE 1820 RICHARD DOE HOUSE
NEWBURY, VERMONT 05051-0878

REGISTERED ARCHITECT CHARLES E. METZ No. 000 STATE OF VERMONT

PROJECT: WATERFORD | NO. IM-BLDG(3)

STATE OF VERMONT
DEPARTMENT OF STATE BUILDINGS
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

THE WATERFORD WELCOME CENTER
WATERFORD VERMONT

SITE PLAN • NEW WORK

DATE: JANUARY 1990	SCALE: 1"=20'	REVISIONS: 31 JANUARY 1990	DWG. NO. S2
DRAWN BY:	APPROVED BY:		1 OF 24

PLAN OF ADA PICNIC AREA
SCALE 1/4"=1'-0"
(2)

CONCRETE ANCHOR FOR PICNIC TABLE
NTS
(3)

DETAIL (6)
OPEN WAFFLE CONCRETE GRID

FLOOR PLAN
SCALE 1/8"=1'-0"
(1)

NEW FOUNDATION FOR EXISTING FLAGPOLES
(4)

NEW DRIVEWAY
WITH OPEN WEFFLE CONCRETE GRID PAVING

NOTE
ALL EXISTING GRASS AREAS DISTURBED BY NEW SITE WORK AND CONSTRUCTION SHALL BE REPLACED BY SOD (SEE SPECIFICATIONS)

CHARLES E. METZ
ARCHITECT
THE 1820 RICHARD DOE HOUSE
NEWBURY, VERMONT, 05051-0278

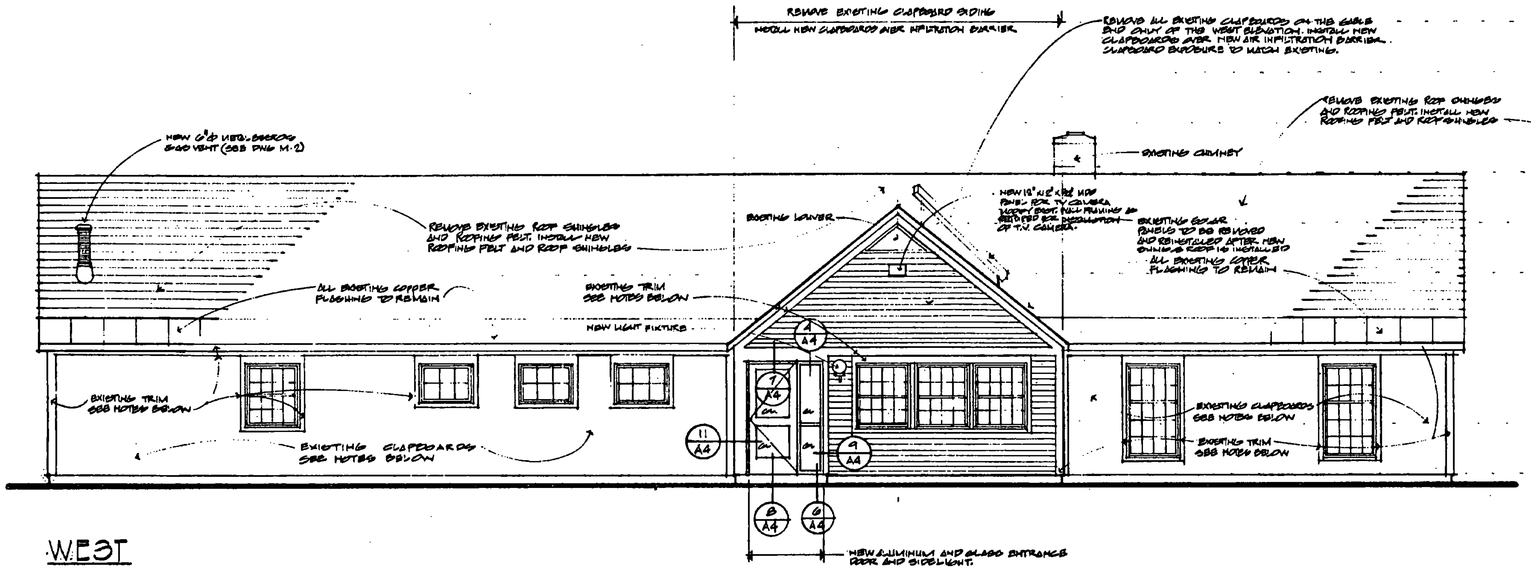
PROJECT: WATERFORD — NO. IM-BLDG(9)

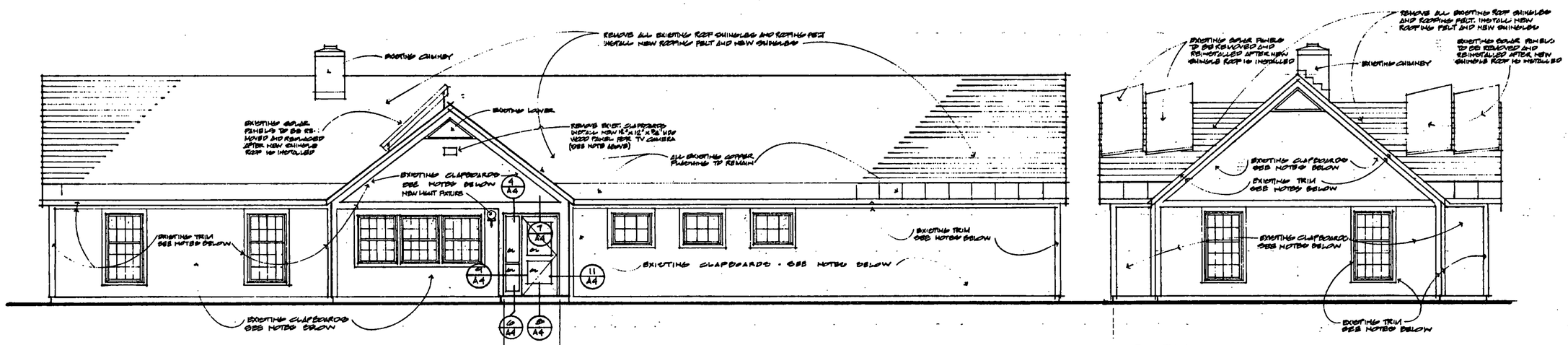
STATE OF VERMONT
DEPARTMENT OF STATE BUILDINGS
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

THE WATERFORD WELCOME CENTER
WATERFORD VERMONT

FLOOR PLAN · PAVING PLAN

DATE: JANUARY, 1990	SCALE: 1/4"=1'-0"	REVISIONS: 9 JANUARY 1990	DWG. NO. A1
DRAWN BY: CEM	APPROVED BY:		5 OF 24



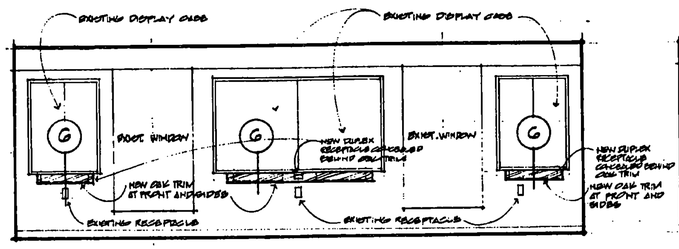


NOTES:

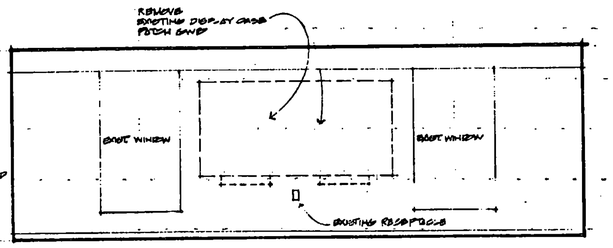
1. A DETAILED INSPECTION OF THE CONDITION OF EXISTING CLAPBOARDS, BY A REPRESENTATIVE OF THE OWNER, SHALL DETERMINE AREAS OF CLAPBOARDS WHICH REQUIRE REMOVAL AND THE INSTALLATION OF NEW CLAPBOARDS. THE GENERAL CONTRACTOR SHALL REMOVE AND REPLACE UP TO 1,000 L.F. OF CLAPBOARD SIDING WHERE AND AS DIRECTED. THE REMOVAL AND INSTALLATION OF THE NEW CLAPBOARD SIDING ON THE GABLE WALL OF THE WEST ELEVATION IS NOT INCLUDED IN THE 1,000 LINEAL FEET.
2. ALL LOOSE AND MISSING NAILS SHALL BE RESET OR REPLACED WHERE THE EXISTING CLAPBOARD SIDING REMAINS IN PLACE
3. ALL WOOD TRIM: SILLS AT CORNER BOARDS, FASCIAS, SOFFITS, KNEE BOARDS, WINDOW AND DOOR CASINGS, WINDOW MULLIONS, LOUVERS ETC. SHALL BE PREPARED FOR AND RECEIVE (2) COATS PAINT.
4. ALL EXISTING CLAPBOARDS TO BE PREPARED FOR AND RECEIVE (2) COATS OF PAINT OVER 1 COAT OF PRIMER.
5. ALL NEW CLAPBOARD TO RECEIVE (1) PRIME COAT AND (2) COATS OF PAINT.

CHARLES E. METZ ARCHITECT
THE 1820 RICHARD DOE HOUSE
NEWBURY, VERMONT, 05051-0878

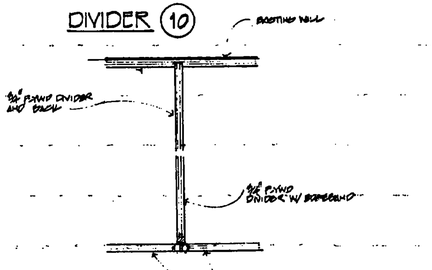
PROJECT: WATERFORD			NO. IM-BLDG(3)
STATE OF VERMONT DEPARTMENT OF STATE BUILDINGS AGENCY OF ADMINISTRATION MONTPELIER. VERMONT			
THE WATERFORD WELCOME CENTER WATERFORD VERMONT ELEVATIONS			
DATE: JANUARY 1990	SCALE: 1/4"=1'-0"	REVISIONS:	DWG. NO. A2
DRAWN BY:	APPROVED BY:		6 OF 24

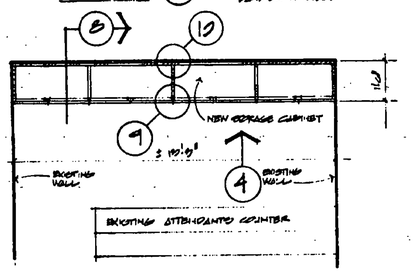


DISPLAY LOUNGE INTERIOR ELEVATION (1)

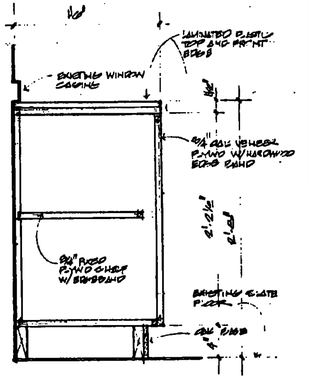


DISPLAY LOUNGE INTERIOR ELEVATION (2)

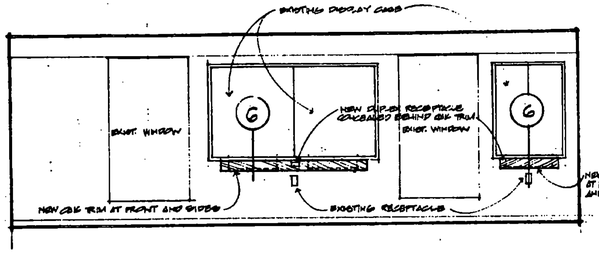




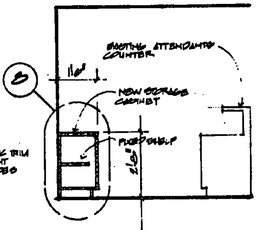
PLAN · ATTENDANTS AREA
NEW STORAGE CABINET



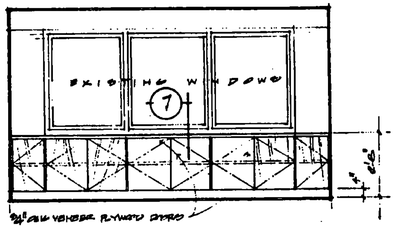
SECTION (8)
NEW STORAGE CABINET



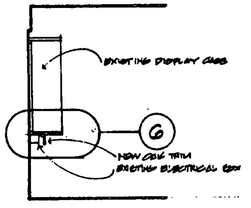
DISPLAY LOUNGE INTERIOR ELEVATION (3)



SECTION (7)
NEW STORAGE CABINET



ELEVATION (4)
NEW STORAGE CABINET



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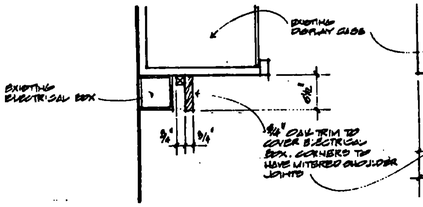
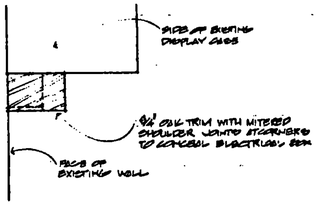


DETAIL (6)

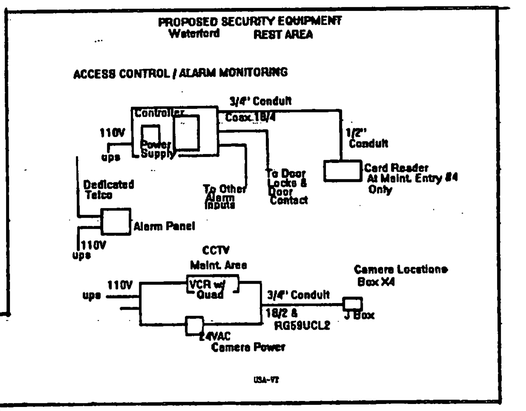


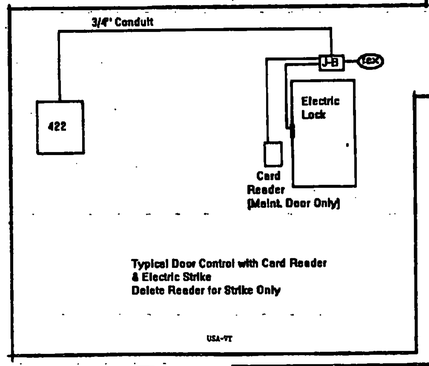
PARTIAL FRONT ELEVATION

SIDE ELEVATION

MODIFICATIONS TO EXISTING DISPLAY CASES · ELEVATIONS AND DETAILS

INSTALLATION OF CAULK TRIM TO CONCEAL EXPOSED ELECTRICAL WORK.





NOTE:
INTERIOR VESTIBULE DOORS, FRAMES AND SIDELIGHTS TO HAVE NEW PAINT FINISH
DOORS AND FRAMES TO MEN AND WOMEN TO HAVE NEW PAINT FINISH

SCHEDULE OF ROOM FINISHES

SPACE	FLOOR	BASE	WALLS NORTH	WALLS SOUTH	WALLS EAST	WALLS WEST	CEILING	NOTES
NEW MECHANICAL RM.	EXIST. CONC. NO CHANGE	WOOD	2 LAYERS ⅝" TYPE X GWB	2 LAYERS ⅝" TYPE X GWB	⅝" TYPE X GYP. BOARD	2 LAYERS ⅝" TYPE X GWB	2 LAYERS ⅝" TYPE X GWB	NEW PAINT ALL WALLS & CEILING NEW PAINT @ DOOR, DOOR & FRAME
NEW VESTIBULE	EXIST. CONC. NO CHANGE	NEW WOOD WAINT WALL	EXISTING	EXISTING	EXISTING	⅝" TYPE X GYP. BOARD	EXISTING NEW PAINT	NEW PAINT @ DOOR, DOOR & FRAME
VESTIBULE	EXIST. SLATE NO CHANGE	EXIST. WOOD NEW PAINT	EXISTING	EXISTING	EXISTING	EXISTING	PATCH EXIST. NEW PAINT	NEW PAINT ALL EXISTING TRIM WORK
LOBBY	↓	↓	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING NEW PAINT	REPAIR ALL BLOWINGS AT CEILING NEW PAINT ALL EXISTING TRIM WORK
ATTENDANT			EXISTING	EXISTING	EXISTING COUNTER	EXISTING	EXISTING NEW PAINT	REPAIR ALL BLOWINGS AT CEILING NEW PAINT ALL EXISTING TRIM WORK
LOUNGE	↓	↓	EXISTING NEW PAINT	PATCH EXIST. NEW PAINT	EXISTING NEW PAINT	EXISTING NEW PAINT	EXISTING NEW PAINT	NEW PAINT ALL EXISTING TRIM WORK
MEN	EXIST. TILE	EXIST. TILE	EXIST. TILE	EXIST. TILE	EXIST. TILE	EXIST. TILE	PATCH EXIST. NEW PAINT	NEW PAINT ALL EXISTING TRIM WORK
WOMEN	EXIST. TILE	EXIST. TILE	EXIST. TILE	EXIST. TILE	EXIST. TILE	EXIST. TILE	PATCH EXIST. NEW PAINT	NEW PAINT ALL EXISTING TRIM WORK
PLUMBING ACCESS	EXIST. CONC. NO CHANGE	EXIST. WOOD NO CHANGE	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	
STORAGE	EXIST. CONC. NO CHANGE	EXIST. WOOD NO CHANGE	EXISTING	NEW 16" GWB NEW PAINT	EXISTING	EXISTING	PATCH EXIST. NEW PAINT	
MECHANICAL	EXIST. CONC. NO CHANGE	EXIST. WOOD NO CHANGE	EXISTING	EXISTING	EXISTING	EXISTING	PATCH EXIST. NEW PAINT	

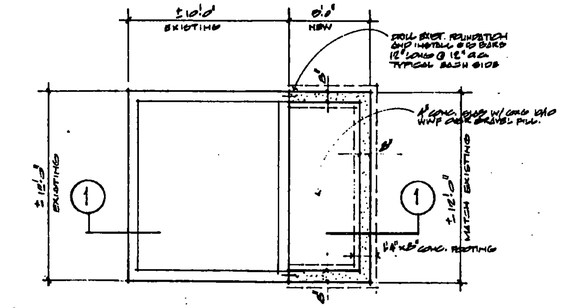
CHARLES E. METZ ARCHITECT
THE 1820 RICHARD DOE HOUSE
NEWBURY, VERMONT 05051-0878

PROJECT: WATERFORD NO. IM-BLDG(3)

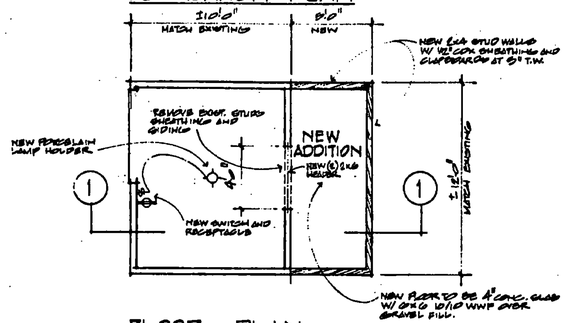
STATE OF VERMONT
DEPARTMENT OF STATE BUILDINGS
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

THE WATERFORD WELCOME CENTER
WATERFORD VERMONT
INTERIOR ELEVATION · DETAILS

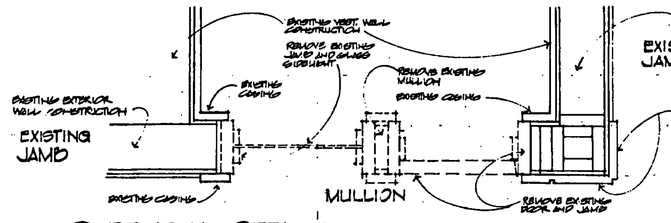
DATE: JANUARY 1996	SCALE: AS NOTED	REVISIONS:	DWG. NO. A2
DRAWN BY:	APPROVED BY:		7 OF 24



FOUNDATION PLAN

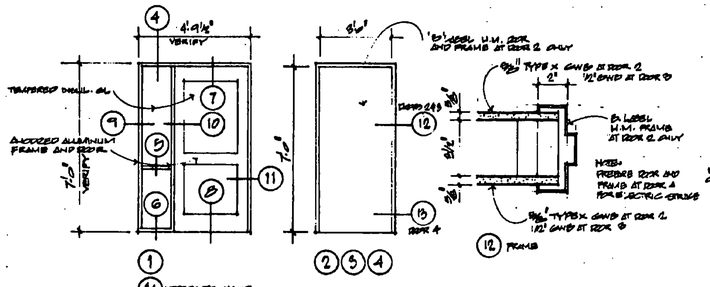


FLOOR PLAN



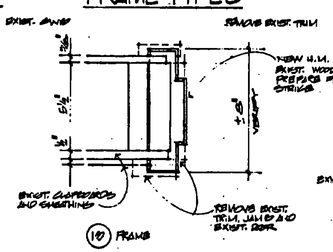
3 REMOVAL DETAILS EXISTING WOOD & GLASS ENTRANCES

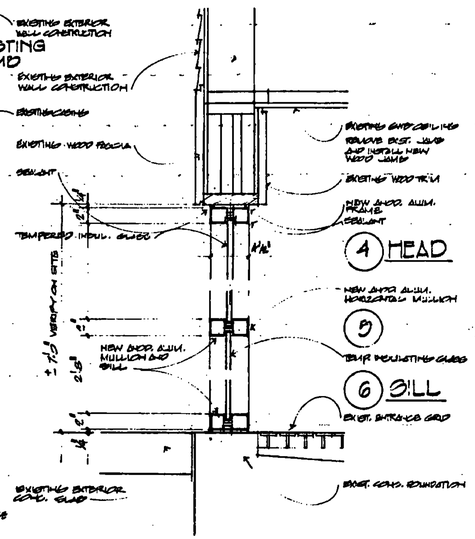
NOTE: REMOVAL DETAILS FOR HEAD AND SILL VARIABLE SIMILAR



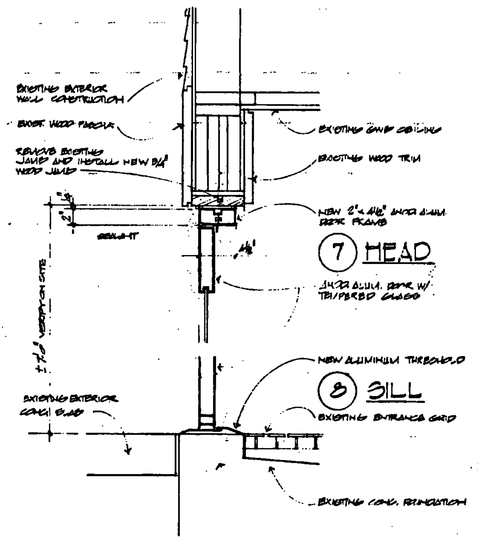
DOOR TYPES

FRAME TYPES

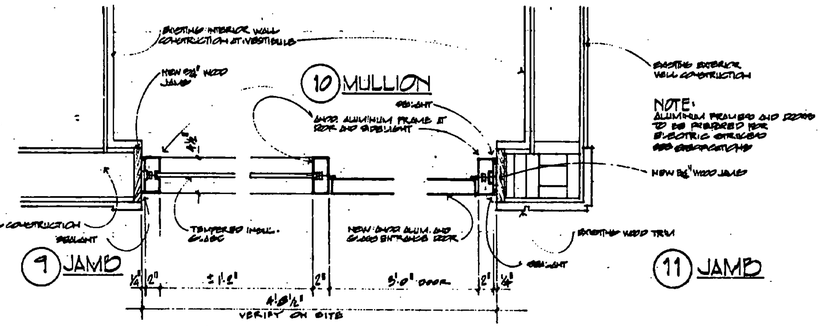




SECTION AT SIDELIGHT



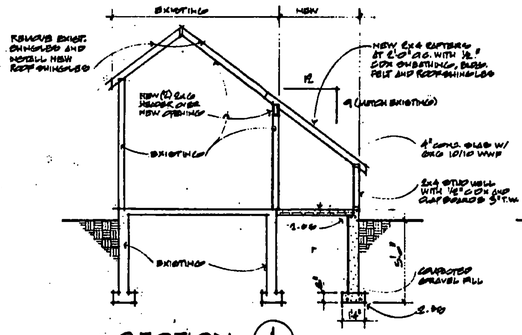
SECTION AT DOOR



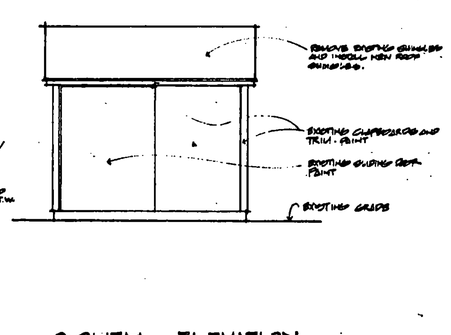
2 NEW ALUMINUM ENTRANCE AND SIDELIGHT DETAILS

SCALE 1½" = 1'-0"

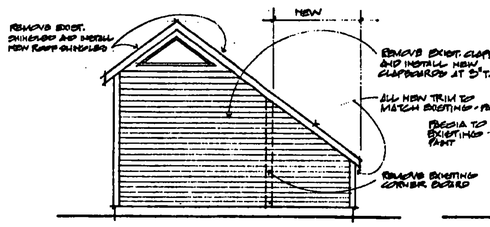
SEE REMOVAL DETAILS ABOVE



SECTION 1

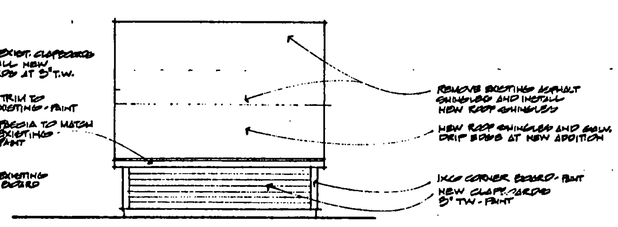


SOUTH ELEVATION



EAST ELEVATION

WEST ELEVATION SIMILAR OPPOSITE HAND



NORTH ELEVATION

ADDITION TO EXISTING STORAGE SHED 1/4" = 1'-0"

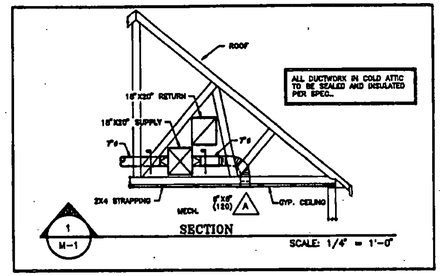
REGISTERED ARCHITECT CHARLES E. METZ STATE OF VERMONT NO. 002

CHARLES E. METZ ARCHITECT

THE 1820 RICHARD DOE HOUSE

NEWBURY, VERMONT 05051-0278

PROJECT: WATERFORD			NO. IM-BLDG(2)
STATE OF VERMONT DEPARTMENT OF STATE BUILDINGS AGENCY OF ADMINISTRATION MONTPELIER, VERMONT			
THE WATERFORD WELCOME CENTER WATERFORD VERMONT ADDITION TO SHED - DETAILS			
DATE: JANUARY 1990	SCALE: AS NOTED	REVISIONS:	DWG. NO. A4
DRAWN BY: CEM	APPROVED BY:		8 OF 24



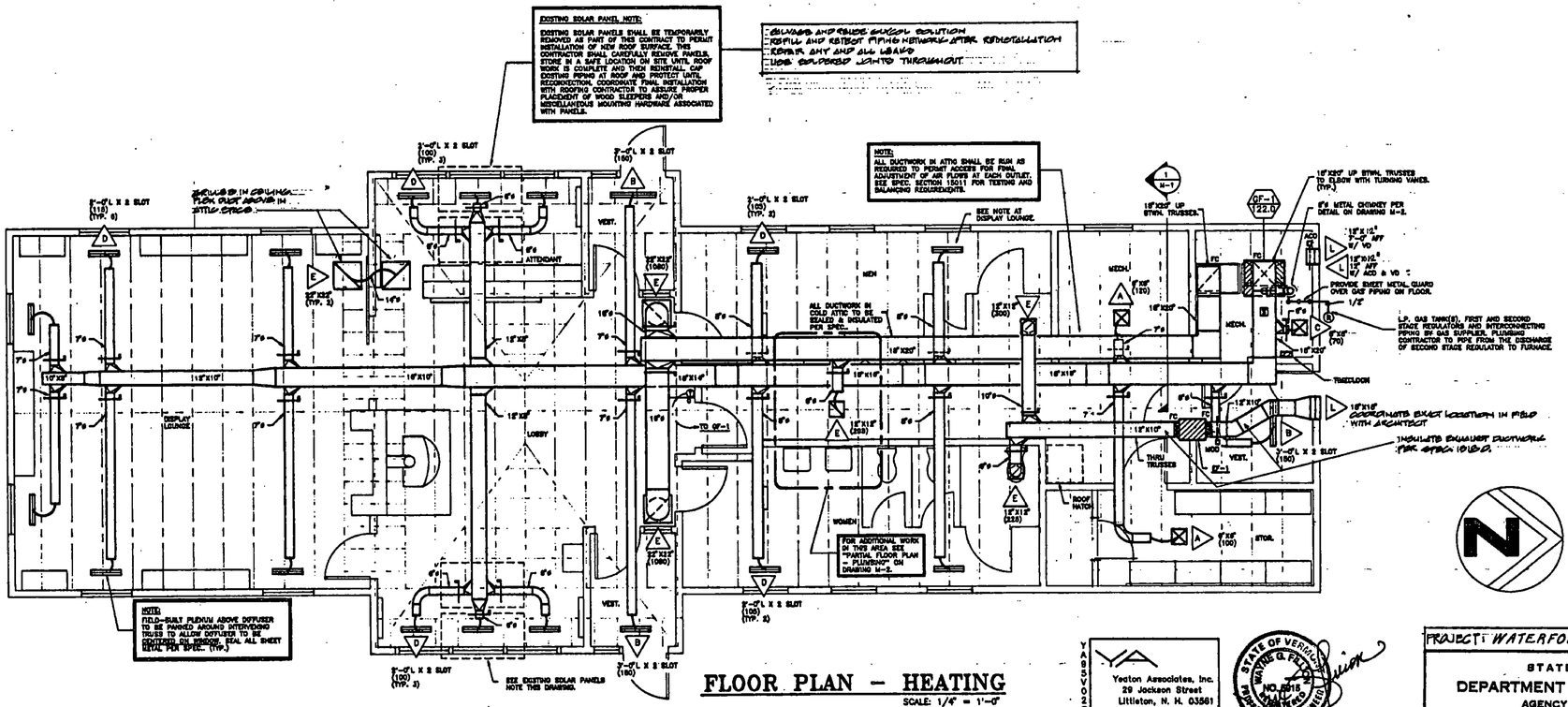
GENERAL NOTES

1. ALL EQUIPMENT AND DUCTWORK SHOWN DIAGRAMMATICALLY ONLY. EXACT LOCATION TO BE DETERMINED AND COORDINATED IN THE FIELD BY ALL TRADES INVOLVED.
2. ALL ROUGH OPENINGS THRU EXTERIOR WALLS SHALL BE CAULKED WATERTIGHT.
3. PITCH DUCT CONNECTIONS TO LOUVERS TO DRAIN TOWARD LOUVER.
4. FLEXIBLE DUCTS TO BE NOT OVER 8 FEET LONG WITH APPROVED TRANSITIONS AND SMOOTH BENDS TO TERMINAL CONNECTIONS.
5. FLEX DUCT SIZE TO MATCH RUNOUT SIZE UNLESS NOTED OTHERWISE.
6. MOUNTING HEIGHTS FOR THERMOSTATS, EQUIPMENT ON/OFF SWITCHES, ETC., LOCATED IN HANDICAP ACCESSIBLE SPACES SHALL COMPLY WITH CURRENT STATE AND FEDERAL "HANDICAP COMPLIANCE" LEGISLATION (ADA).

LEGEND

ACD	AUTOMATIC CONTROL DAMPER
AFF	ABOVE FINISHED FLOOR
A.L.	ACOUSTICALLY LINED
ATC	AUTOMATIC TEMPERATURE CONTROL
CFM.	CUBIC FEET PER. MINUTE
E.A.	ENTERING AIR
E.A.T.	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
FC	FLEX CONNECTION
FD	FIRE DAMPER
G.C.	GENERAL CONTRACTOR
L.A.T.	LEAVING AIR TEMPERATURE
MBH	THOUSAND BTU'S PER HOUR
MOD	MOTOR OPERATED DAMPER
M.C.	MECHANICAL CONTRACTOR
N.I.C.	NOT IN CONTRACT
NTS	NOT TO SCALE
RPM	REVOLUTIONS PER MINUTE
TYP.	TYPICAL
U/C	UNDER CUT DOOR BY G.C.
VD	VOLUME DAMPER

SMOKE DETECTOR (FOR EQUIP. SHUTDOWN)
THERMOSTAT W/GUARD
SQUARE ELBOW W/TURNING VANES (T.V.)
EQUIPMENT TAG / MBH HEAT
GRD / LOUVER SYMBOL
SUPPLY DUCT
RETURN OR EXHAUST DUCT
CONN. POINT OF NEW WORK TO EXISTING
SANITARY WASTE ABOVE GRADE
GAS PIPING
FIXTURE TRAP PLAN VIEW
P-NO. PLUMBING FIXTURE IDENTIFICATION NUMBER



FLOOR PLAN — HEATING

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

Yeaton Associates, Inc.
29 Jackson Street
Littleton, N. H. 03561

YA95V020

STATE OF VERMONT
WAYNE G. FELTON
NO. 2015
REGISTERED PROFESSIONAL ENGINEER

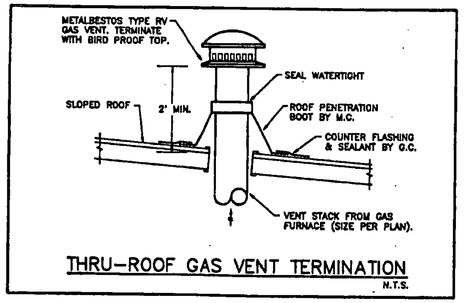
CHARLES E. METZ
ARCHITECT
THE 1820 RICHARD DOE HOUSE
NEWBURY, VERMONT, 05051-0276

PROJECT: WATERFORD — NO. IM-BLDG(3)

STATE OF VERMONT
DEPARTMENT OF STATE BUILDINGS
AGENCY OF ADMINISTRATION
MONTPELIER. VERMONT

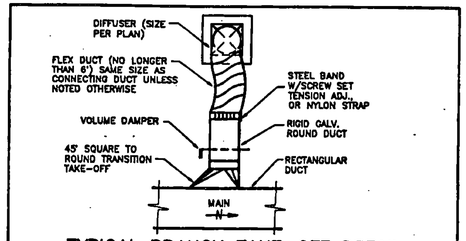
THE WATERFORD WELCOME CENTER
WATERFORD VERMONT
FLOOR PLAN - HEATING

DATE: JANUARY 1990	SCALE: 1/4"=1'-0"	REVISIONS:	DWG. NO. M1
DRAWN BY: YA.	APPROVED BY: WEF		9 OF 24



THRU-ROOF GAS VENT TERMINATION

N.T.S.



TYPICAL BRANCH TAKE-OFF DETAIL

N.T.S.

PLUMBING FIXTURE SCHEDULE

NO.	FIXTURE	WASTE	VENT	HW	CW	REMARKS/DESCRIPTION
P-1H	URINAL (ADA)	3"	1½"	-	¾"	AMERICAN STANDARD WASHBROOK URINAL (6501.010) W/WALL MOUNTED SUPPORT AS MANUFACTURED BY ZURN OR APPROVED EQUAL, SLOAN ROYAL FLUSH VALVE (186-1.0 GPF). MOUNTING HEIGHT 17" TO RIM OF URINAL ABOVE FINISH FLOOR.
P-2H	LAVATORY (ADA)	1¼"x1½"	1½"	½"	½"	AMERICAN STANDARD DECLYN LAVATORY (0321.075) W/CONCEALED ARM WALL MOUNTED CARRIER ZURN (Z-1233), AMERICAN STANDARD FAUCET (2385.130) SINGLE LEVER MIXING W/GRID DRAIN & TAILPIECE ASSEMBLY, P-TRAP, ANGLE SUPPLY KEY STOPS. MOUNTING HEIGHT 34" TO RIM OF LAVATORY ABOVE FINISH FLOOR. (INSULATE WASTE AND SUPPLY LINES PER SPEC.)

EXHAUST FAN SCHEDULE

NO.	AREA SERVED	MAKE & MODEL	CFM	RPM	S.P.	HP	ELECTRICAL DATA VOLTS	PH	CY	STARTER TYPE	REMARKS
EF-1	TOILETS	GREENHECK SQ-100-B	325	1140	.375"	1/4	120	1	60	TIMECLOCK	①

① FURNISH MOTOR WITH INTEGRAL OVERLOAD PROTECTION, UNIT MOUNTED DISCONNECT SWITCH, INSULATED HOUSING, HANGING VIBRATION ISOLATORS (SPRING TYPE) AND MOTOR OPERATED DAMPER WITH REQUIRED MOTOR PACK. (MOTOR OPERATED DAMPER TO OPEN WHEN FAN STARTS AND CLOSE WHEN FAN STOPS. FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR.)

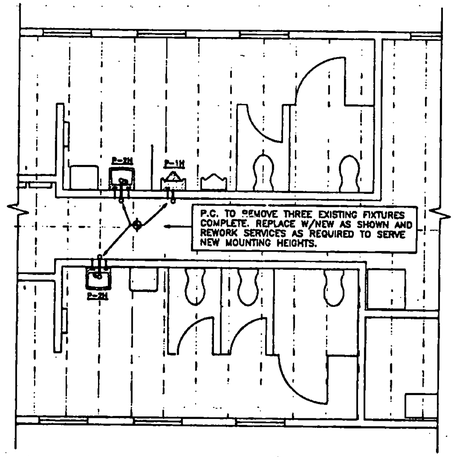
GAS FIRED FURNACE SCHEDULE

NO.	MAKE & MODEL	CFM	MBH INPUT	MBH OUTPUT	EAT	LAT	S.P.	HP	STARTER TYPE	GAS TYPE	REMARKS
GF-1	YORK P34C-B3ON	2450	152.0	122.0	68°	115°	.65"	1 1/2	MAGNETIC	LP	①

① FURNISH WITH ALL STANDARD EQUIPMENT FOR PROPER INSTALLATION PLUS BASE MOUNT VIBRATION ISOLATORS (NEOPRENE), SIDE FILTER RACK, 2 SETS OF 2" 25% T.A. FILTERS AND LP CONVERSION KIT. (230V-1PH-60CY)

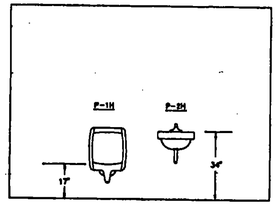
GRILLE, REGISTER, DIFFUSER, LOUVER SCHEDULE

SYMBOL	MANUFACTURER	TYPE & MODEL	REMARKS (SIZE AND CFM AS SHOWN ON PLANS)
A	ANEMOSTAT	SUPPLY DIFFUSER MODEL SDA1	ALUMINUM CONSTRUCTION, OFF-WHITE FINISH
B	ANEMOSTAT	SLOT DIFFUSER SLAD-K-120	ALUMINUM CONSTRUCTION, OFF-WHITE FINISH
C	ANEMOSTAT	SUPPLY DIFFUSER MODEL SPD2	ALUMINUM CONSTRUCTION, OFF-WHITE FINISH
D	ANEMOSTAT	SLOT DIFFUSER SLAD-F-60	ALUMINUM CONSTRUCTION, OFF-WHITE FINISH
E	ANEMOSTAT	RETURN/EXHAUST GRILLE MODEL 50HD	ALUMINUM CONSTRUCTION, OFF-WHITE FINISH
L	METAL AIRE	LOUVER MODEL GAL-2	BAKED ENAMEL FINISH, COLOR SELECTION BY ARCHITECT



PARTIAL FLOOR PLAN - PLUMBING

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



ELEVATION

N.T.S.

SMOKE DETECTOR SCHEDULE

THE FOLLOWING UNITS SHALL HAVE SMOKE DETECTORS FOR AUTO SHUT DOWN:

GF-1

SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR. SMOKE DETECTORS SHALL BE INSTALLED IN SUPPLY AIR DISCHARGE DUCT OF EQUIPMENT NOTED BY THE MECHANICAL CONTRACTOR.

PLAN SYMBOL = [S]

Yeaton Associates, Inc.
29 Jackson Street
Littleton, N. H. 03561

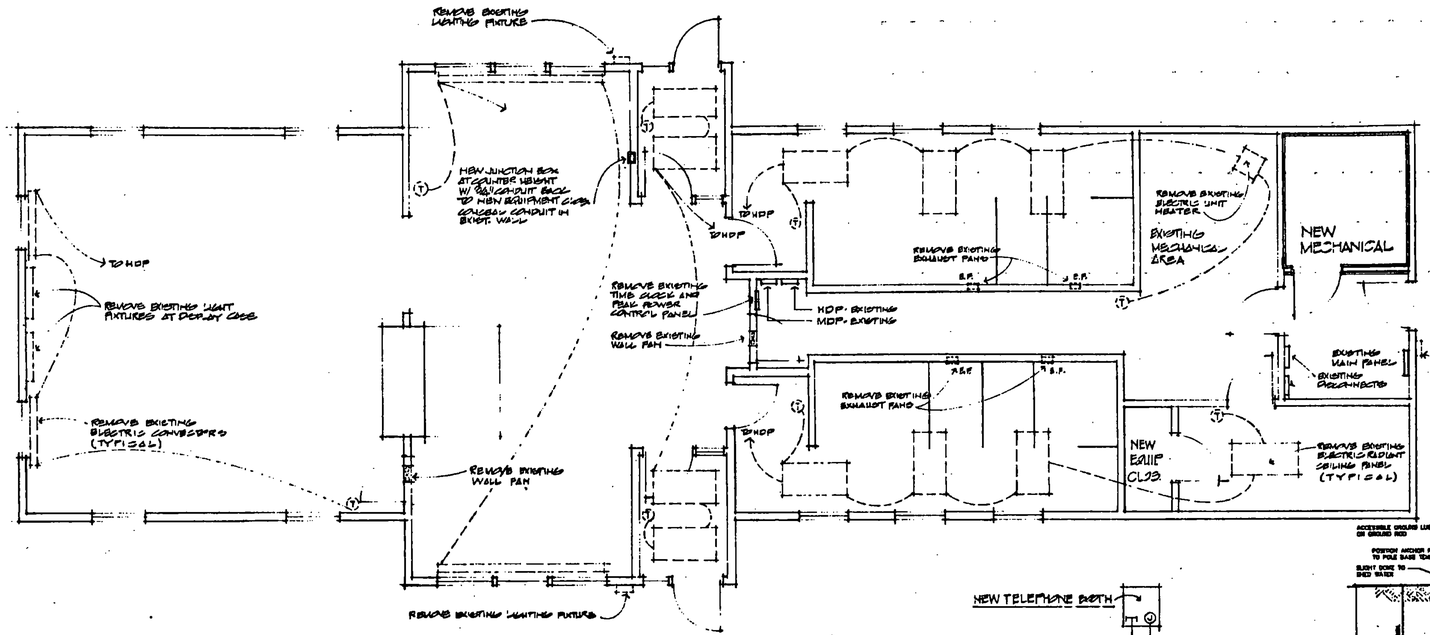
CHARLES E. METZ
ARCHITECT
THE 1820 RICHARD DOE HOUSE
NEWBURY, VERMONT 05051-0278

PROJECT: WATERFORD — MAIN BLDG.(S)

STATE OF VERMONT
DEPARTMENT OF STATE BUILDINGS
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

THE WATERFORD WELCOME CENTER
WATERFORD VERMONT
FLOOR PLAN-PLUMBING & SCHED.

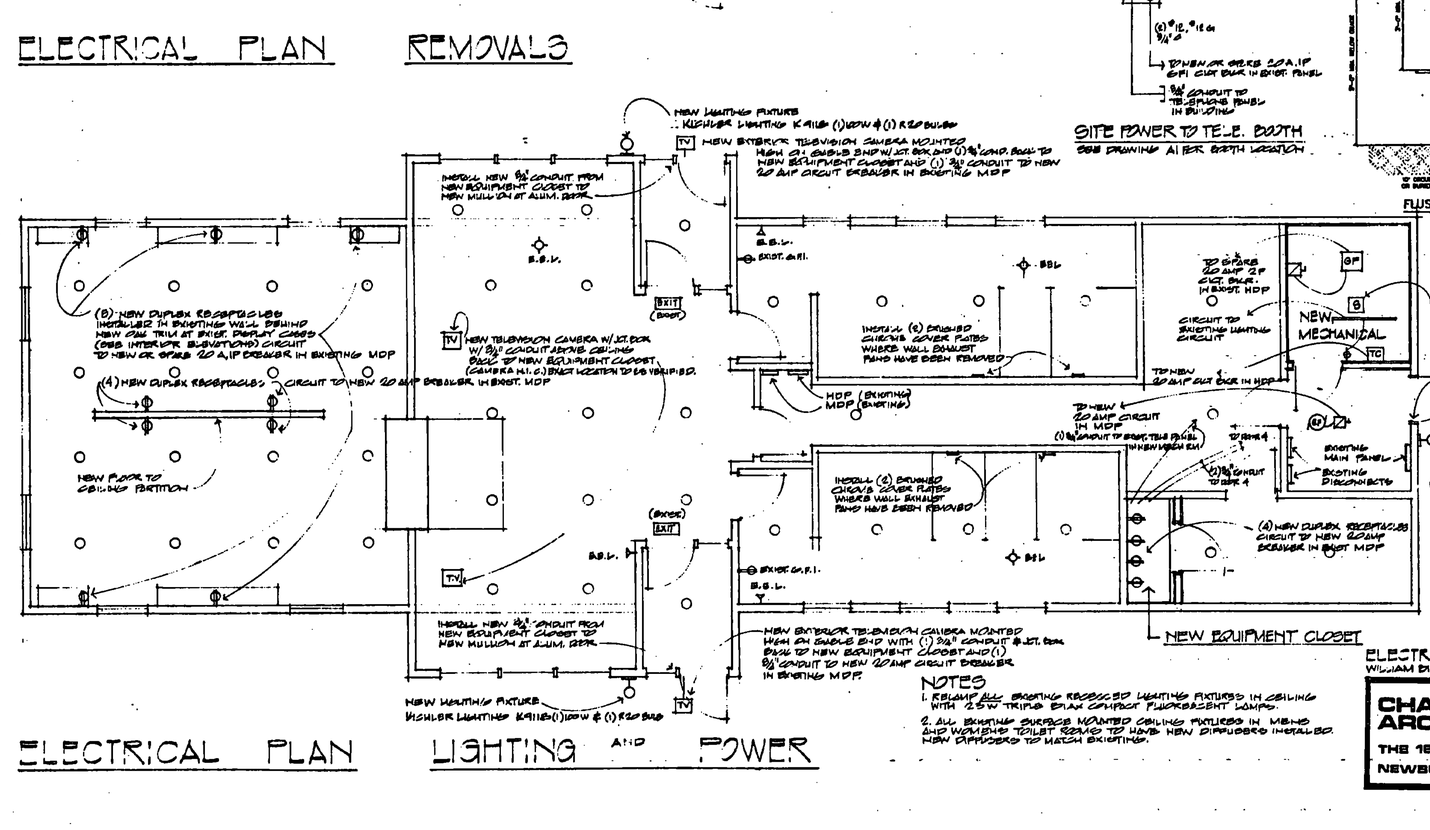
DATE: JANUARY, 1990	SCALE: 1/4"=1'-0"	REVISIONS:	DWG. NO. M2
DRAWN BY: YA	APPROVED BY: CEM		10 OF 24



ELECTRICAL PLAN REMOVALS

KEY FOR REMOVALS

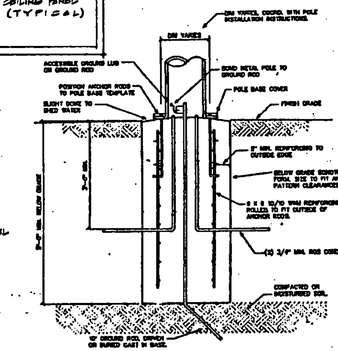
- REMOVE ELECTRIC RADIANT CEILING PANEL
- REMOVE ELECTRIC WALL HEIGHT CONVECTOR
- REMOVE THERMOSTAT
- REMOVE ELECTRIC UNIT HEATER
- PANELS: MDP & HDP
- MAIN PANEL
- REMOVE EXHAUST FANS IN WALL



ELECTRICAL PLAN LIGHTING AND POWER

NOTES

1. RELAMP ALL EXISTING RECESSED LIGHTING FIXTURES IN CEILING WITH 25W TRIPLE BIAX COMPACT FLUORESCENT LAMPS.
2. ALL EXISTING SURFACE MOUNTED CEILING FIXTURES IN MENS AND WOMENS TOILET ROOMS TO HAVE NEW DIFFUSERS INSTALLED. NEW DIFFUSERS TO MATCH EXISTING.



SITE POWER TO TELE. BOOTH

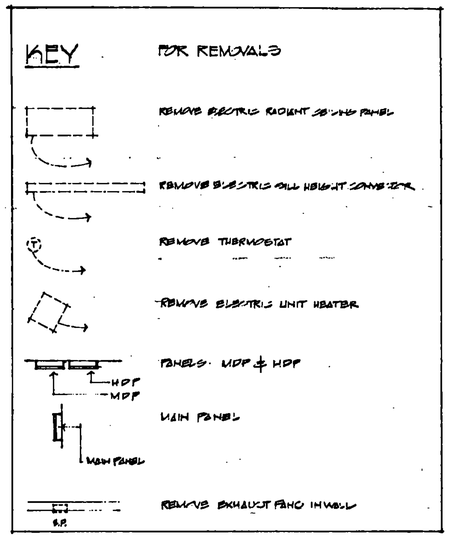
SEE DRAWING A1 FOR BOOTH LOCATION

NEW POWER TO EXIST. SHED

NEW PORCELAIN LAMPHOLDER WITH 100 W INCANDESCENT LAMP, WALL SWITCH, GFI RECEPTACLE, FUSED DISCONNECT AND GROUND ROD.

SITE POWER & LIGHTING SCHEMATIC NTS

SEE DRAWING A1 FOR FIXTURE LOCATIONS



KEY FOR NEW WORK

- NEW SWITCH — NEW FLUORESCENT FXT.
- NEW LIGHTING FIXTURES
- NEW DUPLEX RECEPTACLE
- EXISTING LIGHTING FIXTURES
- EXISTING EMERGENCY LIGHTS (E.B.L. / S.B.L.)
- EXISTING EXIT SIGN
- NEW SMOKE DETECTOR
- NEW GAS FURNACE
- NEW TIME CLOCK
- NEW EXHAUST FAN
- NEW TELEVISION CAMERA (N.I.C.)

PROJECT: WATERFORD — NO: IM-BLDG(3)

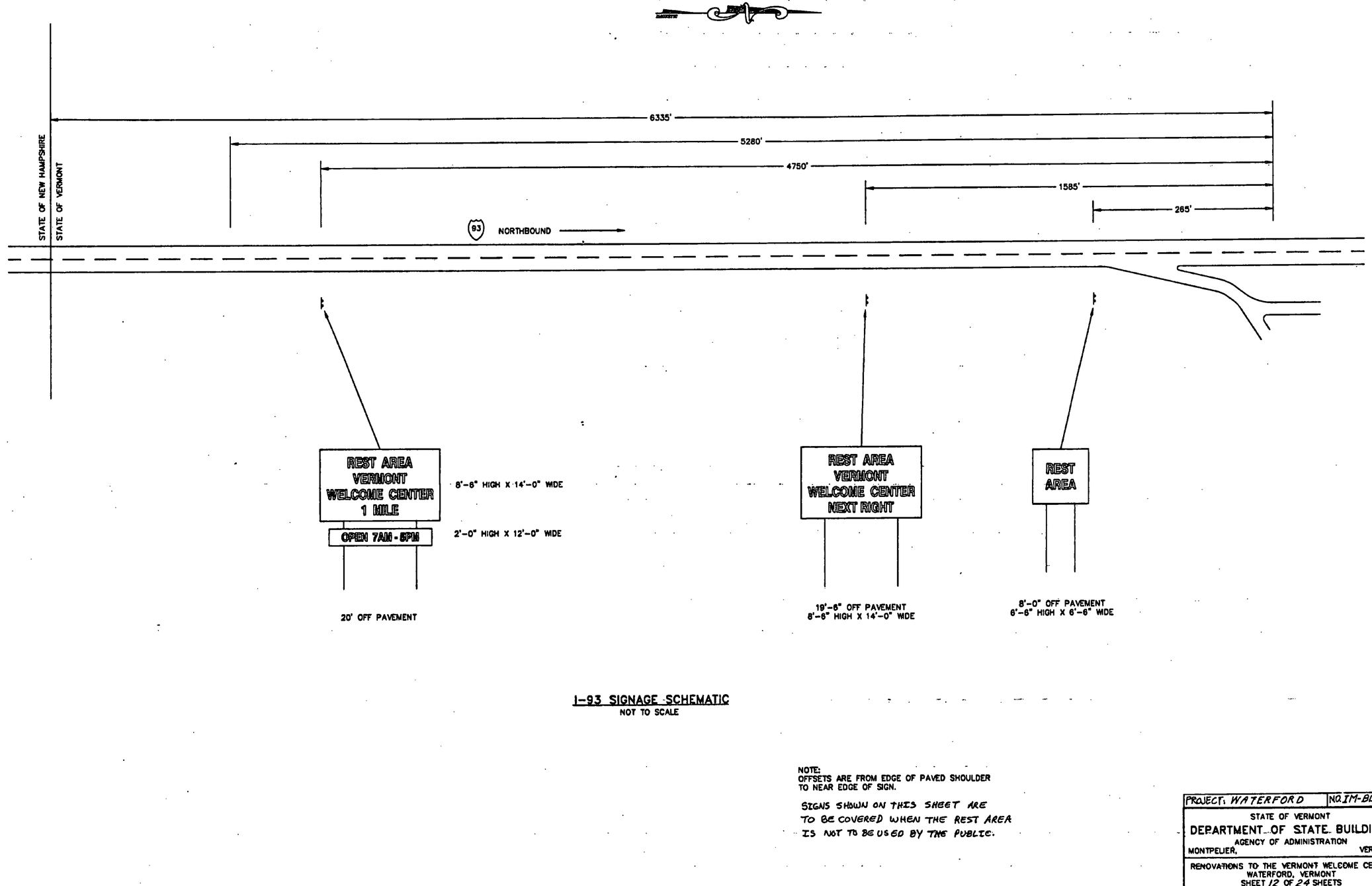
STATE OF VERMONT
DEPARTMENT OF STATE BUILDINGS
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

THE WATERFORD WELCOME CENTER
WATERFORD VERMONT
ELECTRICAL PLANS

DATE: JANUARY 1996	SCALE: 1/4" = 1'-0"	REVISIONS:	DWG. NO. E-1
DRAWN BY: GWL	APPROVED BY:		11 OF 24

ELECTRICAL ENGINEER:
WILLIAM BISSELL, P.E. LINDENHILL, VERMONT

CHARLES E. METZ
ARCHITECT
THE 1820 RICHARD DOE HOUSE
NEWBURY, VERMONT 05051-0278



I-93 SIGNAGE SCHEMATIC

NOT TO SCALE

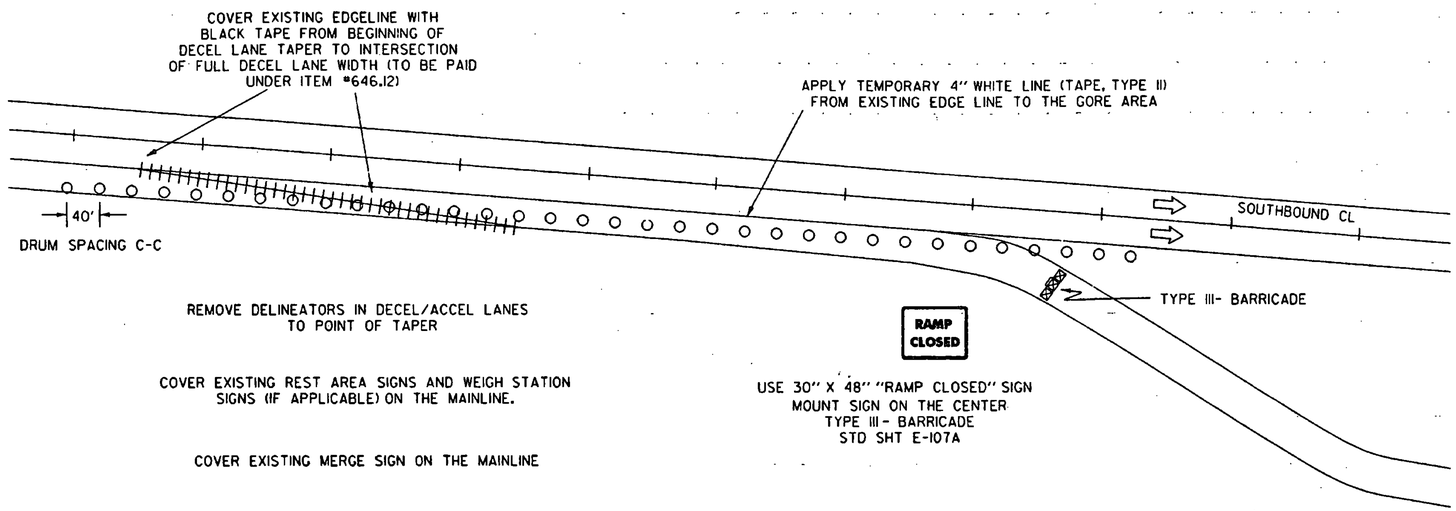
NOTE:
OFFSETS ARE FROM EDGE OF PAVED SHOULDER TO NEAR EDGE OF SIGN.

SIGNS SHOWN ON THIS SHEET ARE TO BE COVERED WHEN THE REST AREA IS NOT TO BE USED BY THE PUBLIC.

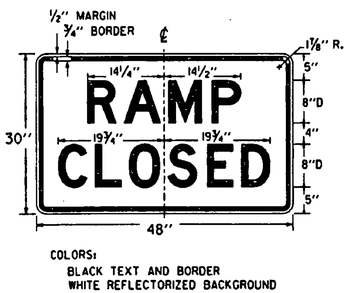
PROJECT: WATERFORD | NO. IM-BLDG(3)

STATE OF VERMONT
DEPARTMENT OF STATE BUILDINGS
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

RENOVATIONS TO THE VERMONT WELCOME CENTER
WATERFORD, VERMONT
SHEET 12 OF 24 SHEETS



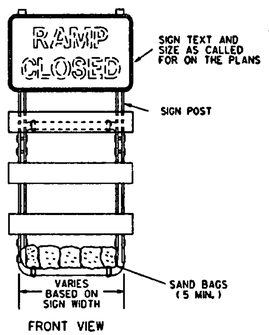
NTS



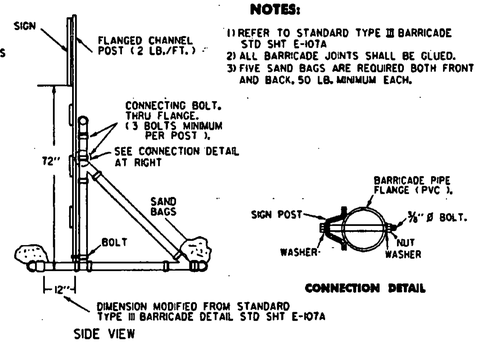
COLORS:
BLACK TEXT AND BORDER
WHITE REFLECTORIZED BACKGROUND

SEE STANDARD SHEET E-100 FOR NOTES AND TEXT DETAILS

SIGN DETAILS INDICATE THE APPROPRIATE COLOR.



SIGN MOUNTING ON TYPE III BARRICADE



CONNECTION DETAIL

NOTES:

1) REFER TO STANDARD TYPE III BARRICADE STD SHT E-107A
2) ALL BARRICADE JOINTS SHALL BE GLUED.
3) FIVE SAND BAGS ARE REQUIRED BOTH FRONT AND BACK, 50 LB. MINIMUM EACH.

LEGEND

- O - CHANNELIZING DRUM
- ⊠ - TYPE III BARRICADES
- ⇧ - INDICATES TRAFFIC DIRECTION
- ++++ - REMOVAL OF EXISTING PAVEMENT MARKINGS

enrgl.1.i
/traf/enrgl/enrgl.dgn

TEMPORARY
RAMP CLOSURE PACKAGE
FOR REST AREA

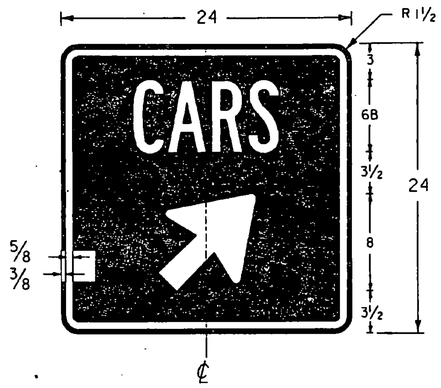
PREPARED BY LCS DATE 9/95
CHECKED BY _____ DATE ____
DESIGN SUPERVISOR DAR DATE ____
PROJ.
WATERFORD
IM-BLDG(3)

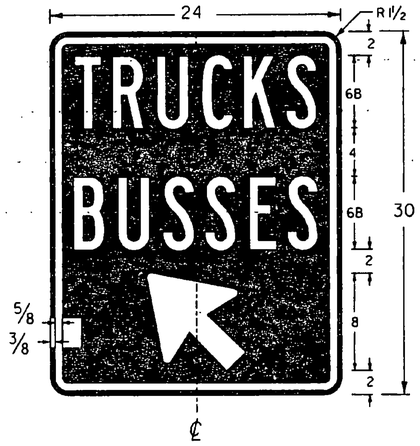
TRAFFIC SHEET NO. 1 OF 4
SHEET 20 OF 24 SHEETS

TRAFFIC SIGN SUMMARY SHEET

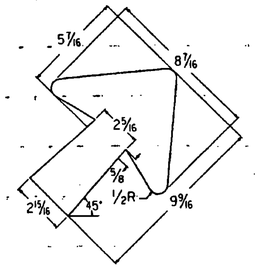
MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS	NEW AND SALVAGED SIGNS				EXIST. POSTS		NEW SIGN POSTS																	REMARKS	SIGN DETAIL	
			"A"	"B"	SALV. SIGN	SALV. T.I.S.	RET.	SALV.	NO. OF POSTS	FLANGED CHANNEL LB./FT.			TUBULAR ALUMINUM		TUBULAR STEEL					W-SHAPE STEEL		FTG. SIZE		SIGN FRAME		DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
										1.12	2.0	3.0	3.0"ø	4.0"ø	FOUND-ATION	3"Ø	3.5"Ø	4.0"Ø	5.0"Ø	POST SIZE	WEIGHT	24"	30"			
N. B. WELCOME CENTER (WATERFORD)	EXIT 30 M.P.H.	48" X 60"	20						2			X															E-150
N. B. WELCOME CENTER (WATERFORD)	WRONG WAY	36" X 24"	6						1			X													GATE POSTED FACING REST AREA		E-143
	WRONG WAY	36" X 24"	6						1			X													GATE POSTED FACING REST AREA		E-143
N. B. WELCOME CENTER (WATERFORD)	DO NOT ENTER	30" X 30"	6.25						1			X													GATE POSTED FACING REST AREA		E-143
	DO NOT ENTER	30" X 30"	6.25						1			X													GATE POSTED FACING REST AREA		E-143
N. B. WELCOME CENTER (WATERFORD)	TRUCKS BUSSES CARS	24" X 24" 24" X 30"	4 5						1			X												X		22	
N. B. WELCOME CENTER (WATERFORD)	ONE WAY	36" X 12"	3						2			X															E-142
N. B. WELCOME CENTER (WATERFORD)	YIELD	36" X 36" X 36"	3.9						1			X															E-146
N. B. WELCOME CENTER (WATERFORD)		24" X 24"	4						1			X															E-143
N. B. WELCOME CENTER (WATERFORD)	ONE WAY	36" X 12"	3						2			X															E-142
N. B. WELCOME CENTER (WATERFORD)	ONE WAY	36" X 12"	3						2			X															E-142
N. B. WELCOME CENTER (WATERFORD)	ONE WAY	36" X 12"	3						2			X															E-142
N. B. WELCOME CENTER (WATERFORD)	SAFETY BELTS REQUIRED	24" X 30"	5						1			X														22	
N. B. WELCOME CENTER (WATERFORD)		24" X 24"	4						1			X															E-143
MAINLINE I-93 N.B.	ONE WAY	36" X 12"	3						2			X															E-142
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S " SIGN POST DESIGN GUIDELINE ". TOTALS			SF. 85.4	SF.	EA.	SF.				LBS. 558	LBS.	LBS. 558	LBS.	LBS.	EA.	LBS.	LBS.	LBS.	LBS.		LBS.	EA.	EA.					

DRAWN BY LCS DATE 9/25/95
SQUAD LEADER DLP
DESIGN FILE NO. /traf/errgl/errgl.dgn
IPARM: FILE errgl.31 DATE PLOTTED 13-AUG-1996
PROJ. NAME WATERFORD WELCOME CENTER
PROJ. NO. WATERFORD IM-BLDG(31)
TRAFFIC SHEET NO. 3 OF 4
SHEET 21 OF 24 SHEETS

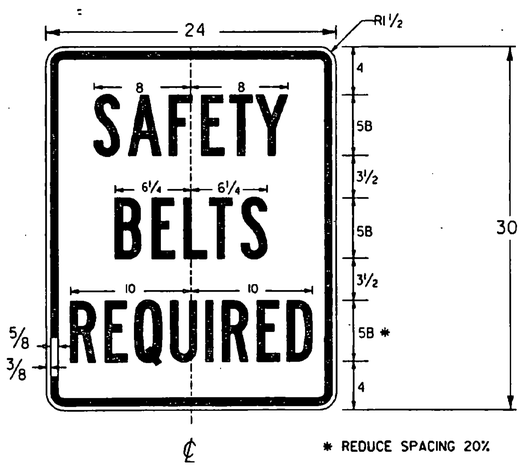




COLORS
LEGEND & BORDER - WHITE (REFL.)
BACKGROUND - BLUE



ARROW DETAIL



* REDUCE SPACING 20%

COLORS
LEGEND & BORDER - BLACK
BACKGROUND - WHITE (REFL.)

GENERAL:
ALL DIMENSIONS IN INCHES.

COLORS:
THE REGULATORY SIGNS SHOWN ON THIS SHEET SHALL BE AS DETAILED FOR EACH SIGN. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS:
THE SIGN BASE MATERIALS USED FOR REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING MINIMUM THICKNESSES NOTED.

	24" X 24" 30" X 30"	36" X 24" 36" X 12" 36" ▽	48" X 30"
FLAT SHEET ALUMINUM	0.080"	0.100"	0.125"
HIGH DENSITY OVERLAID PLYWOOD	½"	⅝"	⅝"
GALVANIZED FLAT SHEET STEEL	16 GAGE	14 GAGE	12 GAGE

ENCAPSULATED LENS REFLECTIVE SHEETING SHALL BE USED FOR THE SIGN BACKGROUND WHERE NOTED.

THE REFLECTIVE MATERIAL SHALL BE AASHTO TYPE II OR III WHITE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN. THE TEXT OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HANDPAINTED. HAND PAINTING MUST BE COMPARABLE IN QUALITY TO THE RESULTS OBTAINED BY SILK SCREENING.

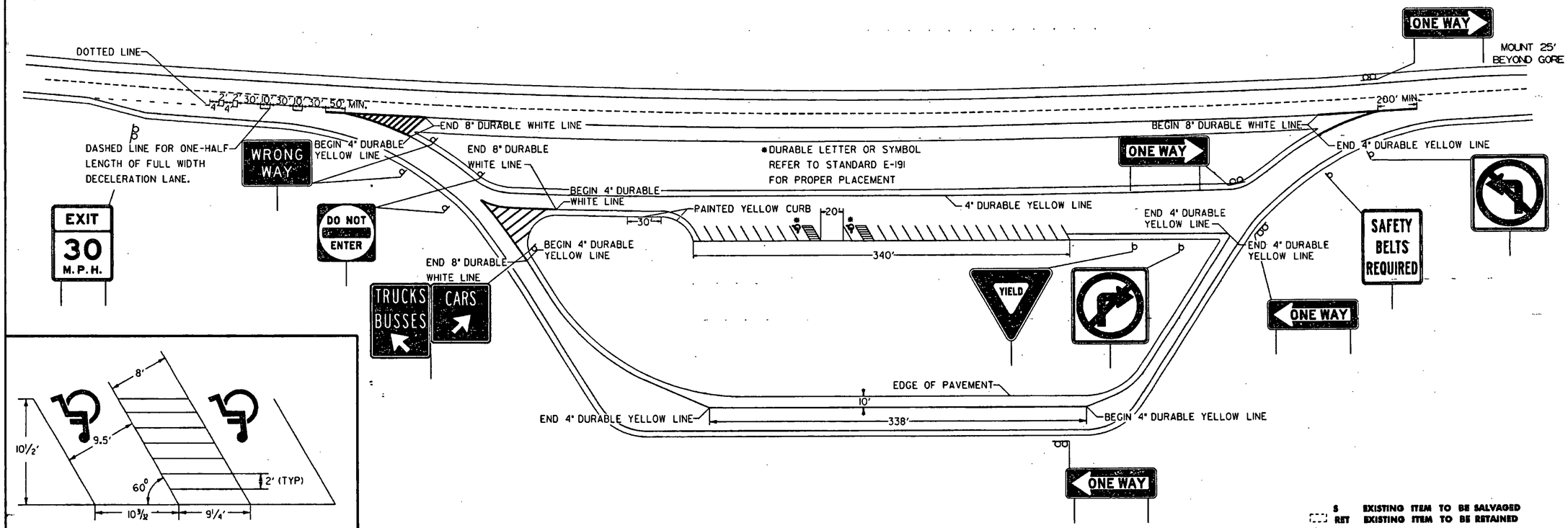
SPECIFICATIONS:
REGULATORY SIGNS SHALL MEET THE VERMONT STANDARD SPECIFICATIONS FOR "TRAFFIC SIGNS".

TEXT DESIGN:
LETTERS, DIGITS, ARROWS, SPACINGS, AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

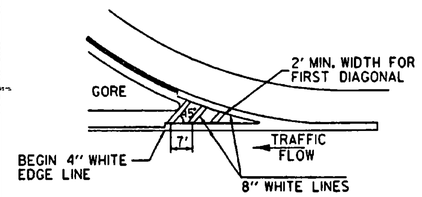
enrgl_4.i
/traf/enrgl/enrgl.dgn

SIGN DETAILS
FOR WATERFORD REST AREA

PREPARED BY LCS DATE 9/95
CHECKED BY ____ DATE ____
DESIGN SUPERVISOR DLP DATE ____
PROJ.
WATERFORD
IM-BLDG(3)
TRAFFIC SHEET NO. 4 OF 4
SHEET 22 OF 24 SHEETS



PARKING DETAIL



SEE STANDARD SHEET E-191 FOR ADDITIONAL DETAILS

GORE MARKING DETAIL

S EXISTING ITEM TO BE SALVAGED
RET EXISTING ITEM TO BE RETAINED

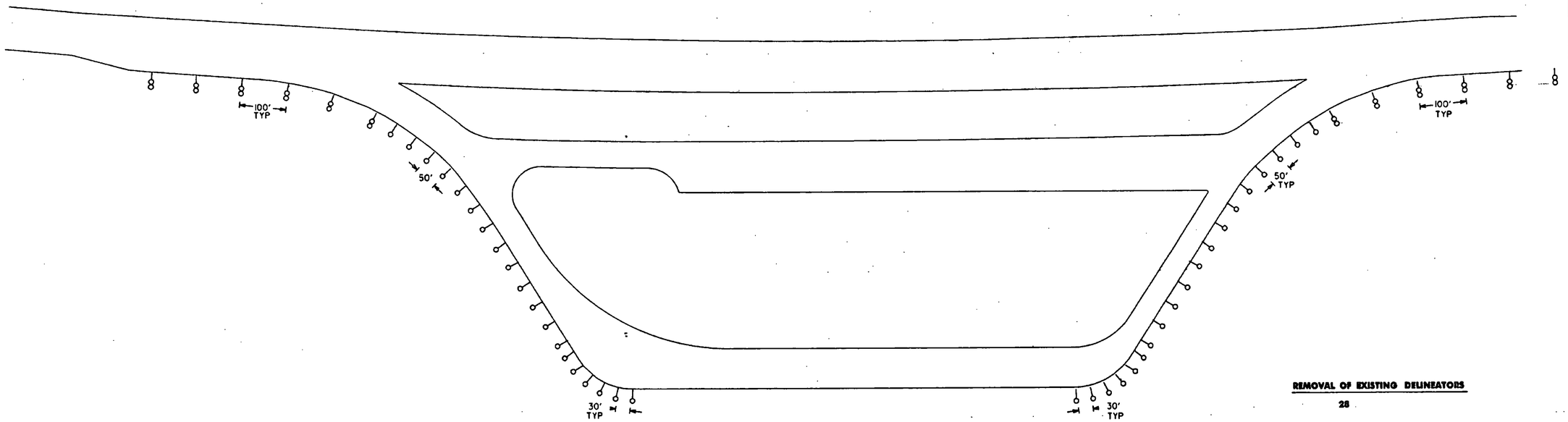
ALL SIGNS AND POSTS WILL BE NEW UNLESS OTHERWISE NOTED

NOT TO SCALE

waterfrd2.1
/traf/engl/waterfrd.dgn

NEW SIGNS AND PAVEMENT MARKINGS NORTHBOUND I-93

PREPARED BY LCS DATE 9/95
CHECKED BY ____ DATE ____
DESIGN SUPERVISOR DLP DATE ____
PROJ. WATERFORD IM-BLDG(3)
TRAFFIC SHEET NO. 2 OF 5
SHEET 23 OF 24 SHEETS



REMOVAL OF EXISTING DELINEATORS

28

LEGEND

TYPE I (AMBER)	↑
TYPE I (WHITE)	↑
TYPE II	▯
TYPE III (AMBER)	↑
TYPE III (WHITE)	↑

NOT TO SCALE

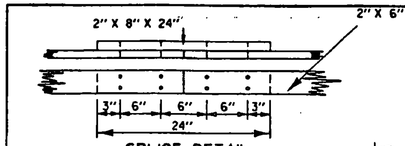
waterfrd2 . i
/traf/errgl/waterfrd. dgn

DELINEATOR LAYOUT

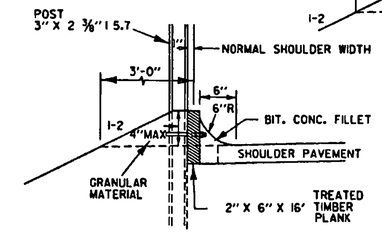
NORTHBOUND I - 93

PREPARED BY LCS DATE 9/95
CHECKED BY ____ DATE ____
DESIGN SUPERVISOR DLP DATE ____
PROJ.
WATERFORD IM - BLDG(3)

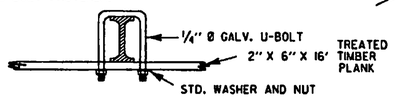
TRAFFIC SHEET NO. 5 OF 5
SHEET 24 OF 24 SHEETS



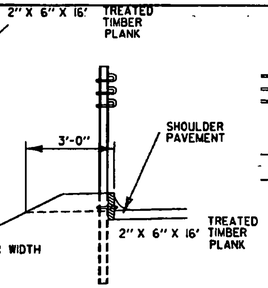
SPLICE DETAIL
8-20d SPIKES
STAKE SPACING 5'- 2"

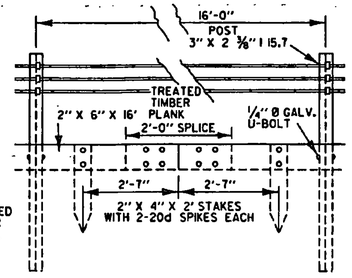


TREATED TIMBER CURB WITH STEEL POSTS AND U-BOLT FASTENER.



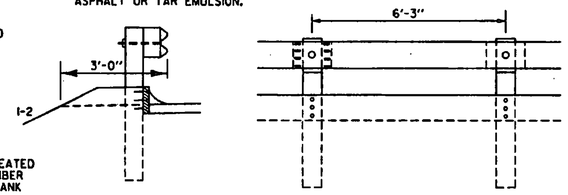
U-BOLT SHAPED TO FIT ANY DESIGNATED STEEL POST



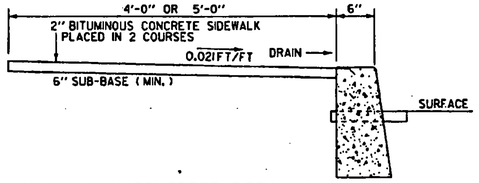


TREATED TIMBER CURB WITH CABLE GUARDRAIL W/STEEL OR WOOD POST

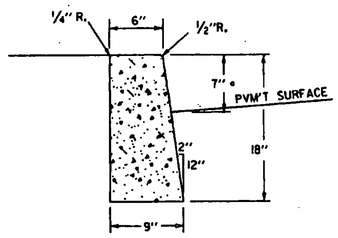
AFTER THE CURB HAS BEEN IN PLACE 7 DAYS, THE EXPOSED SURFACE SHALL BE TREATED WITH TWO COATS OF EMULSIFIED ASPHALT OR TAR EMULSION.



TREATED TIMBER CURB WITH STEEL BEAM GUARDRAIL



BITUMINOUS CONCRETE SIDEWALK

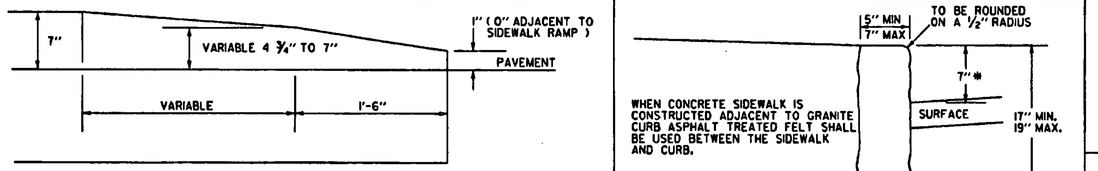


WHEN CONCRETE CURB IS CONSTRUCTED ADJACENT TO CONCRETE SIDEWALK, ASPHALT TREATED FELT SHALL BE PLACED BETWEEN THE SIDE - WALK AND CURB.

SEE SPECIFICATIONS FOR DETAILS ON EXPANSION, CONSTRUCTION JOINTS, AND LENGTHS OF SECTIONS.

END AREA = 0.94 S.F.

CAST IN PLACE CONCRETE CURB, TYPE B

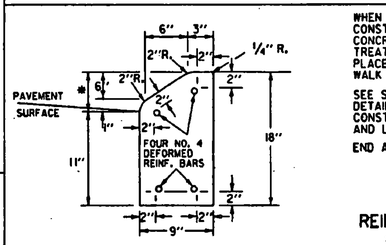


DETAIL OF CONCRETE CURB END FOR PRECAST REINFORCED CONCRETE CURB OR CAST IN PLACE CONCRETE CURB

VERTICAL GRANITE CURB

NOTE

* HEIGHT NOT TO EXCEED 4" WHEN CURBING IS INSTALLED ADJACENT TO GUARDRAIL (STANDARD SHAPE TO BE BURIED TO THIS DEPTH)

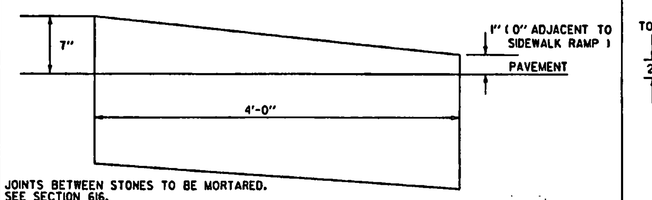


WHEN CONCRETE CURB IS CONSTRUCTED ADJACENT TO CONCRETE SIDEWALK, ASPHALT TREATED FELT SHALL BE PLACED BETWEEN THE SIDE - WALK AND CURB.

SEE SPECIFICATIONS FOR DETAILS ON EXPANSION, CONSTRUCTION JOINTS, AND LENGTHS OF SECTIONS.

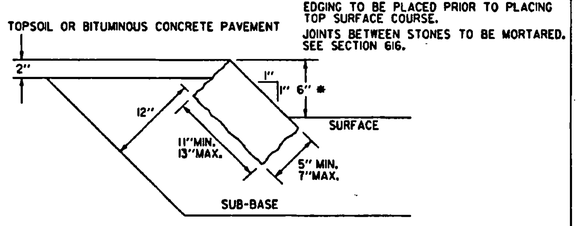
END AREA = 1.00 S.F.

PRECAST REINFORCED CONCRETE CURB, TYPE A

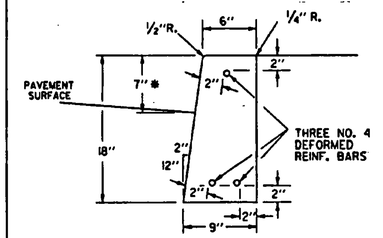


JOINTS BETWEEN STONES TO BE MORTARED. SEE SECTION 616.

DETAIL OF GRANITE CURB END FOR VERTICAL GRANITE CURB



GRANITE SLOPE EDGING



WHEN CONCRETE CURB IS CONSTRUCTED ADJACENT TO CONCRETE SIDEWALK, ASPHALT TREATED FELT SHALL BE PLACED BETWEEN THE SIDE - WALK AND CURB.

SEE SPECIFICATIONS FOR DETAILS ON EXPANSION, CONSTRUCTION JOINTS, AND LENGTHS OF SECTIONS.

END AREA = 0.94 S.F.

PRECAST REINFORCED CONCRETE CURB, TYPE B

REVISIONS AND CORRECTIONS

DEC. 8, 1971 - ORIGINAL APPROVAL DATE
NOV 16, 1992 - CHANGED 6" CURB TO 4"
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

Gordon S. MacAskill, P.E.
DIRECTOR OF ENGINEERING

John M. Murphy, P.E.
DESIGN ENGINEER

GRANITE SLOPE EDGING
VERTICAL GRANITE CURB
PRECAST REINFORCED CONCRETE CURB
CAST IN PLACE CONCRETE CURB
TREATED TIMBER CURB

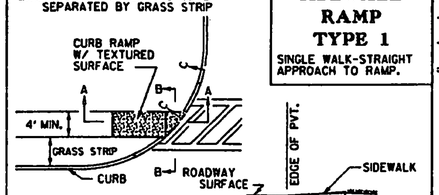
VERMONT AGENCY OF TRANSPORTATION

STANDARD
C-1

SIDEWALK RAMP TYPE 1

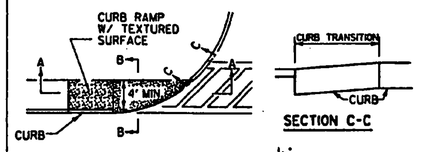
SINGLE WALK-STRAIGHT APPROACH TO RAMP.

EXAMPLE I: SIDEWALK AND CURB SEPARATED BY GRASS STRIP



SECTION B-B

EXAMPLE II: SIDEWALK ADJACENT TO CURB.

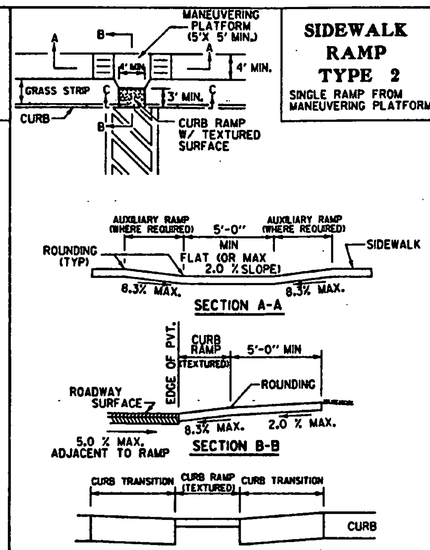


SECTION C-C

SECTION A-A

SIDEWALK RAMP TYPE 2

SINGLE RAMP FROM MANEUVERING PLATFORM.



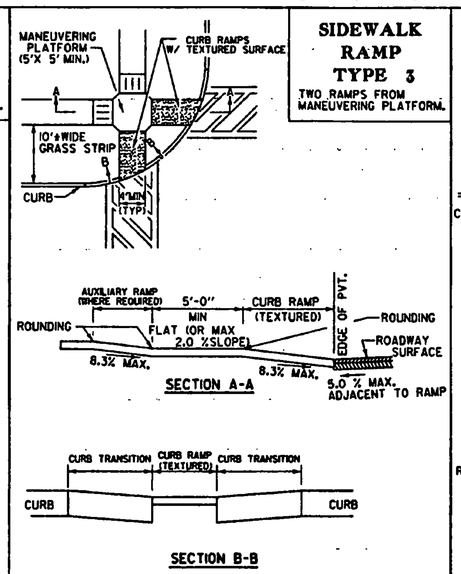
SECTION A-A

SECTION B-B

SECTION C-C

SIDEWALK RAMP TYPE 3

TWO RAMPS FROM MANEUVERING PLATFORM.

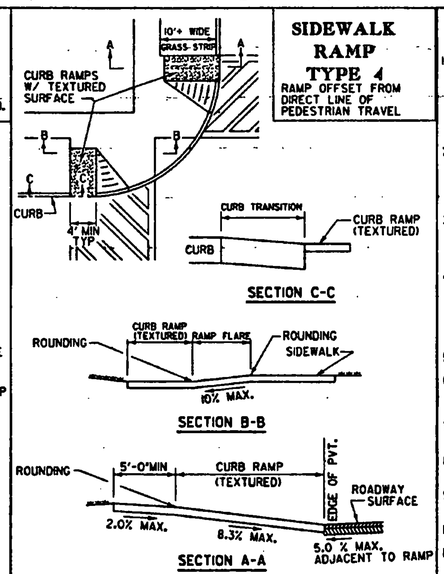


SECTION A-A

SECTION B-B

SIDEWALK RAMP TYPE 4

RAMP OFFSET FROM DIRECT LINE OF PEDESTRIAN TRAVEL



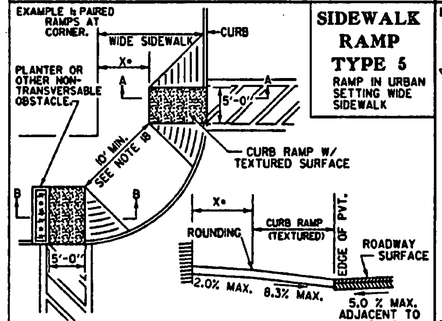
SECTION C-C

SECTION B-B

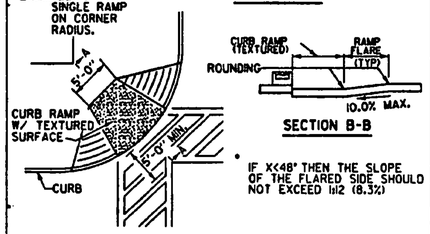
SECTION A-A

SIDEWALK RAMP TYPE 5

RAMP IN URBAN SETTING WIDE SIDEWALK

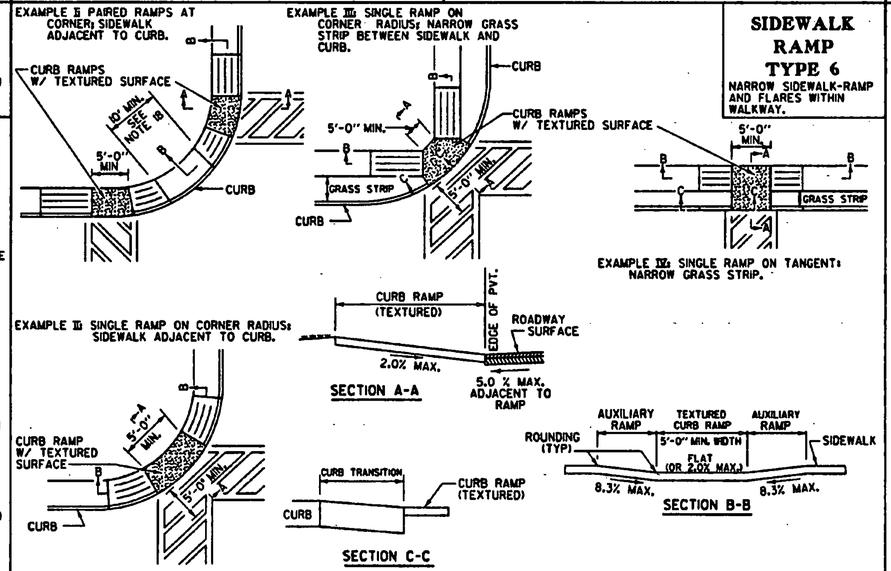


SECTION A-A



SECTION B-B

IF X<48' THEN THE SLOPE OF THE FLARED SIDE SHOULD NOT EXCEED 1:12 (8.3%)



SECTION A-A

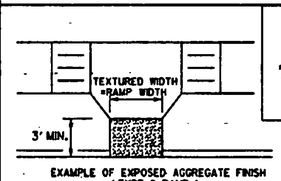
SECTION B-B

SECTION C-C

SIDEWALK RAMP TYPE 6

NARROW SIDEWALK-RAMP AND FLARES WITHIN WALKWAY.

SIDEWALK RAMP TEXTURING DETAILS



EXAMPLE OF EXPOSED AGGREGATE FINISH (TYPE 2 RAMP)

TEXTURING NOTES:

1. ALL SIDEWALK RAMPS PROVIDING ACCESS TO AN ADJACENT ROADWAY SHALL RECEIVE AN APPROVED TEXTURED TREATMENT WHICH SHALL BE SLIP-RESISTANT AS WELL AS DETECTABLE BY CANE BY THE VISUALLY IMPAIRED.
2. TEXTURING SHALL EXTEND THE FULL WIDTH AND DEPTH OF THE RAMP.
3. TEXTURES SHALL CONTRAST WITH THAT OF THE SURROUNDING SURFACE. APPROVED TEXTURED TREATMENTS ARE AS FOLLOWS:
   - A. FOR PORTLAND CEMENT CONCRETE RAMPS: EXPOSED AGGREGATE SURFACE. THE METHOD FOR ACHIEVING THE EXPOSED AGGREGATE SURFACE SHALL COMPLY WITH PROCEDURES SPECIFIED BY APPROVED VENDORS OF CONCRETE RETARDING ADDITIVES USED FOR THIS PURPOSE.
   - B. BRICK SURFACES MAY BE USED FOR BOTH BITUMINOUS CONCRETE AND PORTLAND CEMENT CONCRETE RAMPS.
4. TEXTURING, INCLUDING NECESSARY MATERIALS, TOOLS, EQUIPMENT AND LABOR, SHALL BE CONSIDERED SUBSIDIARY TO THE SIDEWALK PAY ITEM.

GENERAL NOTES:

1. THE DIMENSIONS AND GRADES SHOWN ON THIS STANDARD WILL BE ADHERED TO IN THE DESIGN AND THE CONSTRUCTION OF SIDEWALK RAMPS. WHERE SIDEWALKS RUN ADJACENT TO ROADWAYS ON STEEP (5% OR GREATER) GRADES, RAMP GRADES WILL BE AS FLAT AS POSSIBLE. (ON LOW SIDE OF DRIVES AND INTERSECTING SIDE STREETS, RAMPS SHALL SLOPE TOWARDS DRIVE OR SIDE STREET @ 2%)
2. MINIMUM RAMP WIDTH:
   - A. 4' WHERE RAMP MAY BE APPROACHED DIRECTLY.
   - B. 5'-0" WHERE THE RAMP MUST BE (OR OFTEN WILL BE) APPROACHED FROM THE SIDE, TO PROVIDE MANEUVERING ROOM FOR WHEELCHAIRS.
3. ALLOWABLE GRADES ON RAMPS:
   - A. 8.3% MAXIMUM WHERE RAMP IS APPROACHED DIRECTLY, 2.0% WHERE RAMP IS APPROACHED FROM THE SIDE.
   - B. FLATTER GRADES WILL BE PROVIDED WHERE FEASIBLE.
4. ALLOWABLE GRADES ON FLARES ADJACENT TO RAMPS:
   - A. 10.0% MAXIMUM WHEN DIRECTLY IN PATH THAT PEDESTRIANS MUST USE.
   - B. 8.3% MAXIMUM WHEN NORMALLY USED BY WHEELCHAIRS TO ENTER OR EXIT RAMP.
   - C. FLATTER GRADES WILL BE PROVIDED WHERE FEASIBLE.
5. CROSS SLOPES ON RAMP SURFACES SHALL NOT EXCEED 2.0%.
6. AN OVERRUN DISTANCE OF 5' MINIMUM SHOULD BE PROVIDED AT THE TOP AND BOTTOM OF SIDEWALK RAMPS TO ALLOW FOR STOPPING AND MANEUVERING OF WHEELCHAIRS.
7. TRANSITIONS (GRADE CHANGES) AT TOPS AND BOTTOMS OF RAMPS AND FLARES SHOULD BE ROUNDED.
8. VERTICAL DROP-OFF EDGES TO RAMPS WILL NOT BE BUILT UNLESS THE RAMP ABUTS AN AREA WHICH WILL NOT BE USED BY PEDESTRIANS.
9. NO VERTICAL "LIP" OR "CURB REVEAL" WILL BE PROVIDED WHERE THE RAMP ADJOINS THE ROADWAY.
10. RAMPS SHALL IN ALL CASES DIRECT USERS INTO THE CROSSWALK AREA.
11. WHERE POSSIBLE, SIDEWALK RAMPS AND FLARES SHOULD BE LOCATED OUTSIDE THE DIRECT LINE OF TRAVEL MOST LIKELY TO BE FOLLOWED BY THE VISUALLY IMPAIRED.
12. SIDEWALK RAMPS SHOULD NOT BE LOCATED WHERE THEIR USE MAY BE PREVENTED BY SIGNS, POLES, PLANTERS, MAILBOXES, ETC.
13. WHERE POSSIBLE, SIDEWALK RAMPS SHOULD NOT BE LOCATED WHERE USERS MUST CROSS DROP INLETS GRATES, MANHOLE COVERS OR OTHER ACCESS LIDS. IF THIS CANNOT BE AVOIDED THEN GRATE DESIGN AND PLACEMENT SHALL CONFORM TO ADA REQUIREMENTS.
14. CURB DRAINAGE SHOULD BE CONSTRUCTED SO AS TO PRECLUDE THE FLOW OF WATER PAST THE SIDEWALK RAMP.
15. WHERE CURB CORNER RADIUS EXCEEDS 25', TWO SIDEWALK RAMPS ARE RECOMMENDED IN PREFERENCE TO A SINGLE RAMP.
16. JOINTS WILL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT SIDEWALK SPECIFICATIONS. HOWEVER EXPANSION JOINTS WITHIN THE SIDEWALK RAMP AREA WILL BE AVOIDED WHEREVER POSSIBLE.
17. SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT EXCEED 1:20 (5%). NO LIP IS ALLOWED WHERE SIDEWALK RAMP MEETS THE GUTTER.
18. THIS DIMENSION SHALL BE ATTAINED WHERE POSSIBLE TO AVOID THE ROLLER COASTER EFFECT.

REVISIONS AND CORRECTIONS

SEPT. 15, 1993 - REVISED TO CONFORM TO ADA REQUIREMENTS

JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

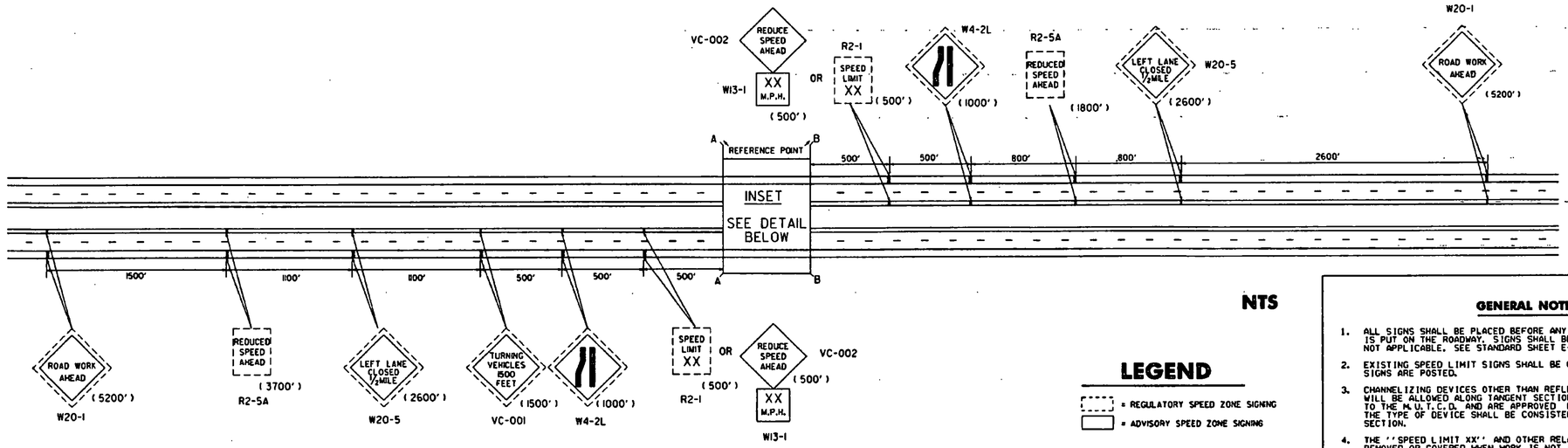
DIRECTOR OF ENGINEERING

DESIGN ENGINEER

SIDEWALK RAMPS

VERMONT AGENCY OF TRANSPORTATION

STANDARD C-3



NTS

LEGEND

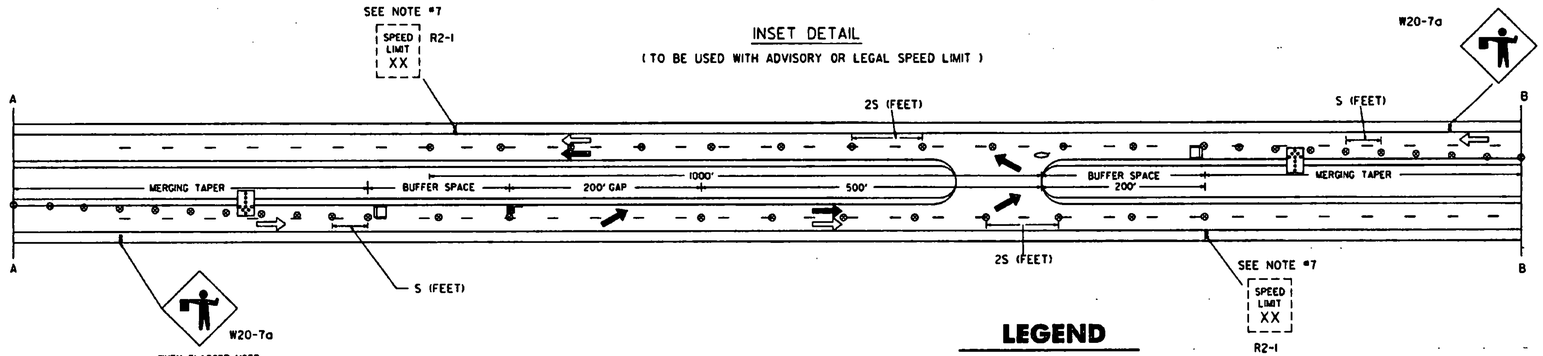
- = REGULATORY SPEED ZONE SIGNING
- = ADVISORY SPEED ZONE SIGNING

GENERAL NOTES

1. ALL SIGNS SHALL BE PLACED BEFORE ANY WORK BEGINS OR EQUIPMENT IS PUT ON THE ROADWAY. SIGNS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE. SEE STANDARD SHEET E-100 FOR REQUIREMENTS.
2. EXISTING SPEED LIMIT SIGNS SHALL BE COVERED WHEN REDUCED SPEED SIGNS ARE POSTED.
3. CHANNELIZING DEVICES OTHER THAN REFLECTORIZED PLASTIC DRUMS WILL BE ALLOWED ALONG TANGENT SECTIONS AS LONG AS THEY CONFORM TO THE M.U.T.C.D. AND ARE APPROVED BY THE RESIDENT ENGINEER. THE TYPE OF DEVICE SHALL BE CONSISTENT THROUGHOUT THE TANGENT SECTION.
4. THE ''SPEED LIMIT XX'' AND OTHER RELATED SIGNS SHALL BE REMOVED OR COVERED WHEN WORK IS NOT IN PROGRESS AND ROADWAY IS NOT RESTRICTED.
5. ''SPEED ZONE AHEAD'' SIGNS MAY BE USED IN LIEU OF ''REDUCED SPEED AHEAD''.
6. FOR RELATIVELY SHORT TERM PROJECTS WITH NO OFFICIAL REGULATORY SPEED ZONE ENACTMENT, ADVISORY SPEED PLAQUES MOUNTED AS SUPPLEMENTAL SIGNS ON OTHER WARNING SIGNS MAY BE USED.
7. WHEN REDUCED REGULATORY SPEED LIMITS ARE USED THEN A SIGN, INFORMING MOTORIST THAT THE TEMPORARY SPEED ZONE HAS ENDED, SHALL BE INSTALLED AT THE END OF THE WORK AREA.
8. ALL FIXED SIGNS SHALL BE MOUNTED ON YIELDING STEEL, ALUMINUM OR WOOD SUPPORTS AS SHOWN ON STANDARD SHEETS E-100 AND E-121.
9. PORTABLE SIGNS SHALL BE KEPT LEVEL WHEN PLACED ON THE EDGE OF ROADWAY AND ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACES SHALL BE PLACED ABOVE THE TOP OF THE GUARDRAIL.
10. WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
11. WHEN SIGNING FOR THIS OPERATION INTERFERES WITH THAT FOR WORK ON THE MAINLINE, THE RESIDENT ENGINEER SHALL ESTABLISH THE APPROPRIATE SIGN REQUIREMENTS.
12. THE CHOICE OF USING FLAGGERS OR UNIFORMED OFFICERS IS AT THE DISCRETION OF THE ENGINEER.
13. CHANNELIZING DEVICES SHALL BE PLACED AS FOLLOWS:
    TAPERS - DEVICES SHALL BE SPACED A MAXIMUM OF ''S'' (THE SPEED LIMIT IN FEET) APART.
    TANGENT - DEVICES SHALL BE SPACED 2 X ''S'' (THE SPEED LIMIT IN FEET) APART.
14. THE FLASHING ARROW PANELS SHALL BE LOCATED AS NEAR TO THE FRONT OF THE TAPER AS POSSIBLE WHILE STILL REMAINING INSIDE THE CHANNELIZING DEVICES.
15. MERGING TAPERS SHOULD BE DESIGNED FOR THE SPEED LIMIT OF THE ROADWAY PRIOR TO CONSTRUCTION.
16. CONSTRUCTION VEHICLES USED FOR HAULING MATERIAL AT THE WORK SITE AND TRAVELLING ON PUBLIC HIGHWAYS SHOULD HAVE A ''CONSTRUCTION VEHICLE DO NOT FOLLOW'' SIGN MOUNTED ON THE REAR OF THE VEHICLE.

INSET DETAIL

(TO BE USED WITH ADVISORY OR LEGAL SPEED LIMIT)



POSTED SPEED OR 85TH PERCENTILE M.P.H.	MERGING TAPER 12' LANE	BUFFER SPACE (MINIMUM)
40	320'	160'
45	540'	270'
50	600'	300'
55	660'	330'
60	720'	360'
65	780'	390'

LEGEND

- = THROUGH TRAFFIC
- = CONSTRUCTION VEHICLES
- = CHANNELIZING DEVICE
- = FLASHING ARROW PANEL
- = FLAGGER
- = UNIFORMED TRAFFIC OFFICER
- = TYPE III BARRICADE

NTS

TD105

OTHER STDS. REQUIRED: E-100, E-101, E-102, E-102A, E-107A, E-121, E-142

REVISIONS AND CORRECTIONS

AUG. 08, 1995 - DATE OF ORIGINAL ISSUE

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

DIRECTOR OF ENGINEERING

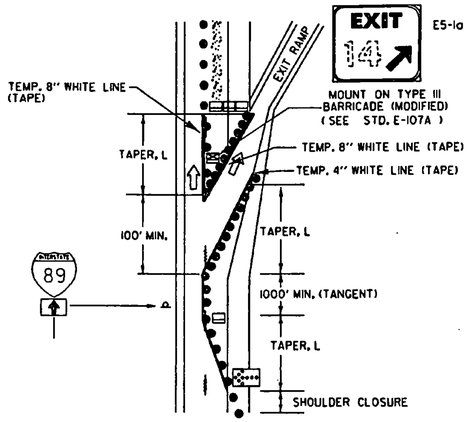
TRAFFIC AND SAFETY ENGINEER

TRAFFIC CONTROL FOR CONSTRUCTION VEHICLE U-TURNS ON DIVIDED HIGHWAY

/traf/std/stdel05.dgn : stdel05.l

VERMONT AGENCY OF TRANSPORTATION

STANDARD E-105



NOT TO SCALE

MAINLINE LANE CLOSURE AT AN EXIT RAMP

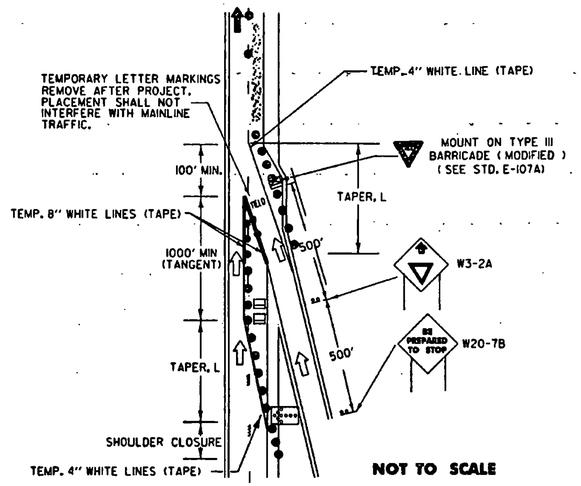
THIS DETAIL SHALL BE USED WHEN THE WORK ZONE BEGINS AT THE GORE OR THE MAINLINE LANE CLOSURE DRUM PLACEMENT INTERFERES WITH THE EXIT RAMP.

NOTES:

1) ALL SIGNS SHALL BE MOUNTED ON FIXED POSTS (YIELDING TYPE) UNLESS OTHERWISE NOTED.
2) CHANNELIZING DEVICES SHALL BE PLACED AS FOLLOWS:
   TAPERS - DEVICES SHALL BE SPACED A MAXIMUM OF "S" (THE SPEED LIMIT IN FEET) APART.
   TANGENT - DEVICES SHALL BE SPACED 2 X "S" (THE SPEED LIMIT IN FEET) APART.
3) ALL DISTANCES ARE DESIRABLE MINIMUMS FIELD CONDITIONS SHALL CONTROL THE ACTUAL PLACEMENT.
4) TAPER RATES ARE BASED ON THE POSTED MAILINE AND EXIT SPEEDS.
5) TEMPORARY PAVEMENT MARKINGS ARE REQUIRED WHEN THE LAYOUT IS TO BE IN EFFECT FOR THREE DAYS OR MORE.
6) LANE CLOSURES AND TAPER LENGTHS, L, AS DETAILED ON STANDARD E-103.
7) EXIT SIGN SHALL BE MOUNTED A MINIMUM OF 3' ABOVE THE GROUND AND HIGH ENOUGH TO BE SEEN ABOVE CHANNELIZING DEVICES.

LEGEND

- REFL. 28" CONES
- REFL. PLASTIC DRUMS
- PAVEMENT MARKING REMOVAL
- INDICATES TRAFFIC FLOW
- WORK AREA
- FLASHING ARROW PANEL
- TYPE III BARRICADES
- TYPE III BARRICADES (MOD.)

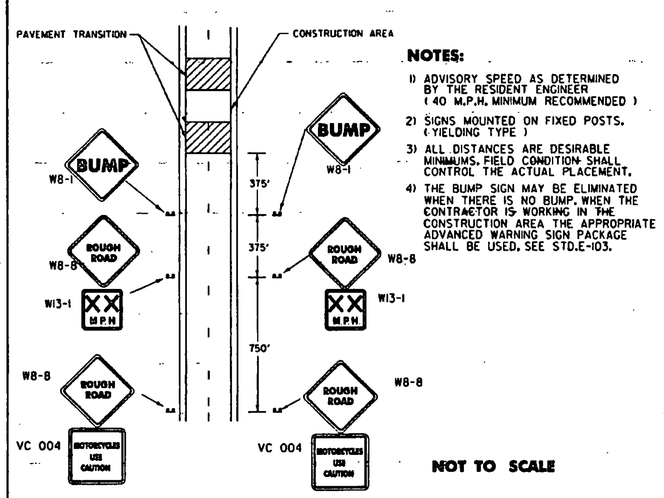


NOT TO SCALE

MAINLINE LANE CLOSURE AT AN ENTRANCE RAMP

THIS DETAIL SHALL BE USED WHEN THE WORK ZONE BEGINS AT AT THE END OF THE ACCELERATION LANE OR THE MAINLINE LANE CLOSURE DRUM PLACEMENT INTERFERES WITH THE ON-RAMP TRAFFIC.

IF THE LENGTH OF THE ACCELERATION LANE IS NOT ADEQUATE, THE YIELD SIGN SHALL BE REPLACED WITH A STOP SIGN. IF A STOP SIGN IS USED, IT SHOULD BE ACCOMPANIED BY A STOP BAR.

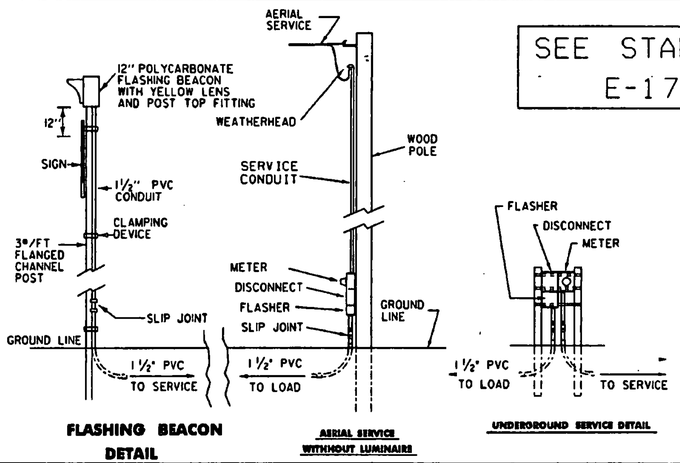


NOT TO SCALE

ADVANCED WARNING SIGN PACKAGE FOR COLD PLANED (SCARIFIED) SURFACES.

NOTES:

1) ADVISORY SPEED AS DETERMINED BY THE RESIDENT ENGINEER (40 M.P.H. MINIMUM RECOMMENDED)
2) SIGNS MOUNTED ON FIXED POSTS. (YIELDING TYPE)
3) ALL DISTANCES ARE DESIRABLE MINIMUMS, FIELD CONDITION SHALL CONTROL THE ACTUAL PLACEMENT.
4) THE BUMP SIGN MAY BE ELIMINATED WHEN THERE IS NO BUMP. WHEN THE CONTRACTOR IS WORKING IN THE CONSTRUCTION AREA THE APPROPRIATE ADVANCED WARNING SIGN PACKAGE SHALL BE USED, SEE STD.E-103.

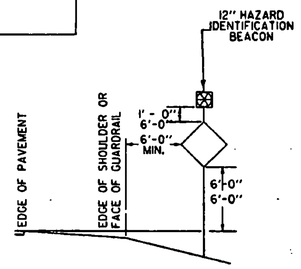


FLASHING BEACON DETAIL

AERIAL SERVICE WITHMOUT LUMINAIRS

SEE STANDARD E-175

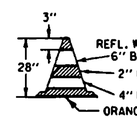
UNDERGROUND SERVICE DETAIL



SIGN PLACEMENT DETAIL

NOTES:

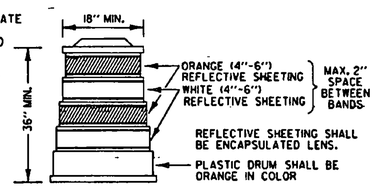
1.) AT THE CONTRACTOR'S OPTION:
   A. THE POWER SUPPLY MAY BE AERIAL OR UNDERGROUND (SEE DETAIL).
   B. POWER FOR A FLASHING BEACON MAY BE COMBINED WITH POWER FOR A TRAFFIC SIGNAL OR THEY MAY HAVE SEPARATE POWER SOURCES.
   C. THE FLASHER MAY BE INSTALLED ON A STANCHION NEAR THE SIGN, ON A UTILITY POLE (WITH UTILITY COMPANY APPROVAL) OR AT THE SAME LOCATION AS A TRAFFIC SIGNAL CONTROLLER.
2.) THE FLASHER UNIT SHALL BE ONE CIRCUIT AND INCLUDE A RADIO INTERFERENCE FILTER.
3.) BATTERY OPERATED FLASHERS WILL NOT BE ALLOWED.
4.) BOTTOM OF THE BEACON SHALL BE A MIN. OF 8'-0" AND A MAX. OF 12'-0" ABOVE THE EDGE OF THE PAVEMENT.
5.) FOR URBAN AREA PLACEMENT SEE STD. E-121.



NOTES:

1.) 28" CONES SHALL BE USED ON ROADWAYS WITH SPEED LIMITS OF 35 MPH OR MORE AND ON ALL ROADWAYS DURING HOURS OF DARKNESS.
2.) CONES MAY BE WEIGHTED TO PREVENT OVER-TURNING, HOWEVER THE WEIGHTS SHALL NOT PRESENT A HAZARD IF THE CONE IS STRUCK.
3.) REFLECTIVE SHEETING SHALL BE ENCAPSULATED LENS.

28" REFLECTORIZED CONE



REFLECTORIZED PLASTIC DRUM

OTHER STDS. REQUIRED: E-101, E-102, E-102A, E-103, E-107A, E-136, E-150, E-175

REVISIONS AND CORRECTIONS

APR 12, 1988 - DATE OF ORIGINAL ISSUE
JAN 23, 1989 - REVISED EXIT SIGN - CLARIFIED EXIT TAPER
SEPT 20, 1993 - REVISED RAMP CLOSURES, FLASHING BEACON DETAILS AND MOVED TYPE III BARRICADE (MOD) TO STDE-107A
AUG 08, 1995 - REVISED BEACON SIZE

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

Signature
DIRECTOR OF ENGINEERING

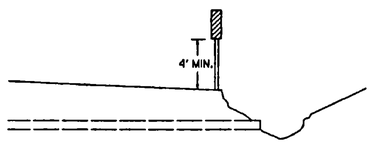
Signature
TRAFFIC AND SAFETY ENGINEER

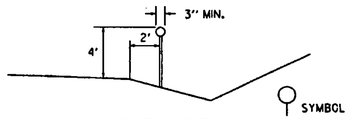
TRAFFIC CONTROL MISCELLANEOUS DETAILS

/traf/std/stdel06.dgn : stdel06.l

VERMONT AGENCY OF TRANSPORTATION

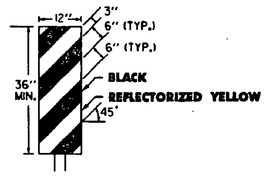
STANDARD E-106





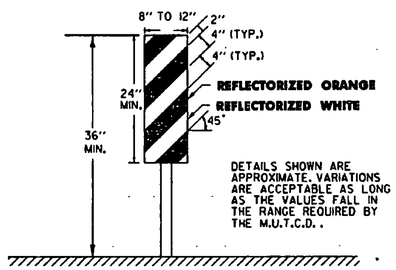
DELINEATOR TYPICAL

DELINEATORS SHALL BE REFLECTORIZED WHITE IN COLOR. THEY SHALL HAVE A MINIMUM OF 7 SQUARE INCHES. THEY MAY BE ROUND, SQUARE, OR OBLONG.



OBJECT MARKER TYPICAL

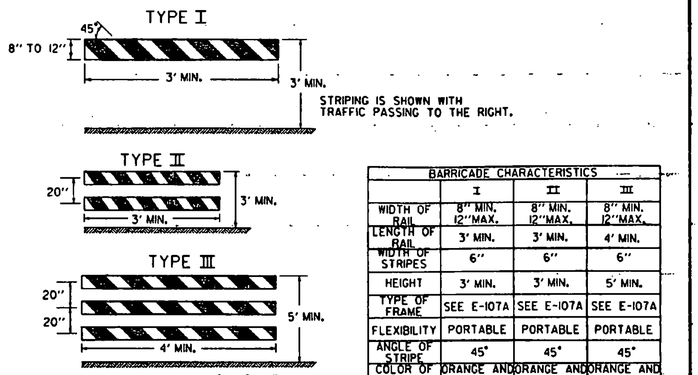
OBJECTS MARKERS ARE USED TO MARK OBSTRUCTIONS WITHIN OR ADJACENT TO THE ROADWAY. IN SOME CASES THERE MAY NOT BE A PHYSICAL OBJECT INVOLVED, BUT OTHER ROADSIDE CONDITIONS SUCH AS NARROW SHOULDER DROP-OFFS, GORES, D.I. EXCAVATIONS, AND ABRUPT CHANGES IN THE ROADWAY ALIGNMENT MAY MAKE IT UNDESIRABLE FOR A DRIVER TO LEAVE THE ROADWAY. THE INSIDE EDGE OF THE OBJECT MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION, WHENEVER POSSIBLE.
OBJECT MARKERS SHALL HAVE ALTERNATING BLACK AND REFLECTORIZED YELLOW STRIPES. (SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS).



VERTICAL PANEL

VERTICAL PANELS SHALL HAVE ALTERNATING ORANGE AND WHITE REFLECTORIZED STRIPES (SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS). THESE DEVICES MAY BE USED FOR TRAFFIC SEPARATION, CHANNELIZING OR BARRICADING WHERE SPACE IS AT A MINIMUM.

DELINEATOR, VERTICAL PANEL AND OBJECT MARKER DETAILS FOR CONSTRUCTION AREAS WHERE TRAFFIC IS MAINTAINED



A TYPE III (MODIFIED) BARRICADE SHALL CONSIST OF TYPE II RAILS MOUNTED ON A BREAKAWAY BARRICADE AS SHOWN ON STANDARD SHEET E-107A.

BARRICADE CHARACTERISTICS	I	II	III
WIDTH OF RAIL	8" MIN. 12" MAX.	8" MIN. 12" MAX.	8" MIN. 12" MAX.
LENGTH OF RAIL	3' MIN.	3' MIN.	4' MIN.
WIDTH OF STRIPES	6"	6"	6"
HEIGHT	3' MIN.	3' MIN.	5' MIN.
TYPE OF FRAME	SEE E-107A	SEE E-107A	SEE E-107A
FLEXIBILITY	PORTABLE	PORTABLE	PORTABLE
ANGLE OF STRIPE	45°	45°	45°
COLOR OF STRIPES	ORANGE AND WHITE	ORANGE AND WHITE	ORANGE AND WHITE

BARRICADE CHARACTERISTICS

BARRICADES

APPLICATION NOTES

TYPE I BARRICADES SHALL BE USED ON CONVENTIONAL ROADS OR URBAN STREETS AND ARTERIALS TO MARK A SPECIFIC HAZARD.

TYPE II BARRICADES SHALL BE USED ON EXPRESSWAYS AND FREEWAYS, SERVING THE SAME FUNCTIONS AS TYPE I BARRICADES.

TYPE III BARRICADES (SEE STD. E-107A) SHALL ONLY BE USED WHEN A ROAD SECTION OR LANE IS CLOSED TO TRAFFIC AND ARE TO BE ERECTED AT THE POINT OF CLOSURE.

MATERIALS

THE BARRICADES SHOWN ON THIS SHEET SHOULD BE OF LIGHTWEIGHT MATERIAL. IF WOOD IS USED THE FOLLOWING CONDITIONS SHALL APPLY:

1. WOODEN BARRICADES (TYPE I AND II)
   - A) SHALL NOT BE USED TO CHANNELIZE OR DELINEATE WORK AREAS WITHIN THE CLEAR ZONE OF ANY HIGHWAY WHERE OPERATING SPEEDS IN EXCESS OF 20 M.P.H. ARE EXPECTED UNLESS INSTALLED FOR PEDESTRIAN CONTROL BEHIND APPROVED POSITIVE BARRIERS.
   - B) MAY BE USED WHERE OPERATING SPEEDS OF 20 M.P.H. OR LESS ARE EXPECTED.
2. TYPE III WOODEN BARRICADES SHALL NOT BE USED.

COLORS

THE BARRICADE PANELS SHOWN ON THIS SHEET SHALL HAVE AN ALTERNATING REFLECTORIZED WHITE AND ORANGE STRIPES. THE ORANGE SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION. THE BARRICADE COMPONENTS SHALL BE WHITE UNLESS UNPAINTED METAL OR ALUMINUM IS USED.

REFLECTORIZATION

THE REFLECTIVE SHEETING ON BARRICADE PANELS SHALL BE TYPE □□.

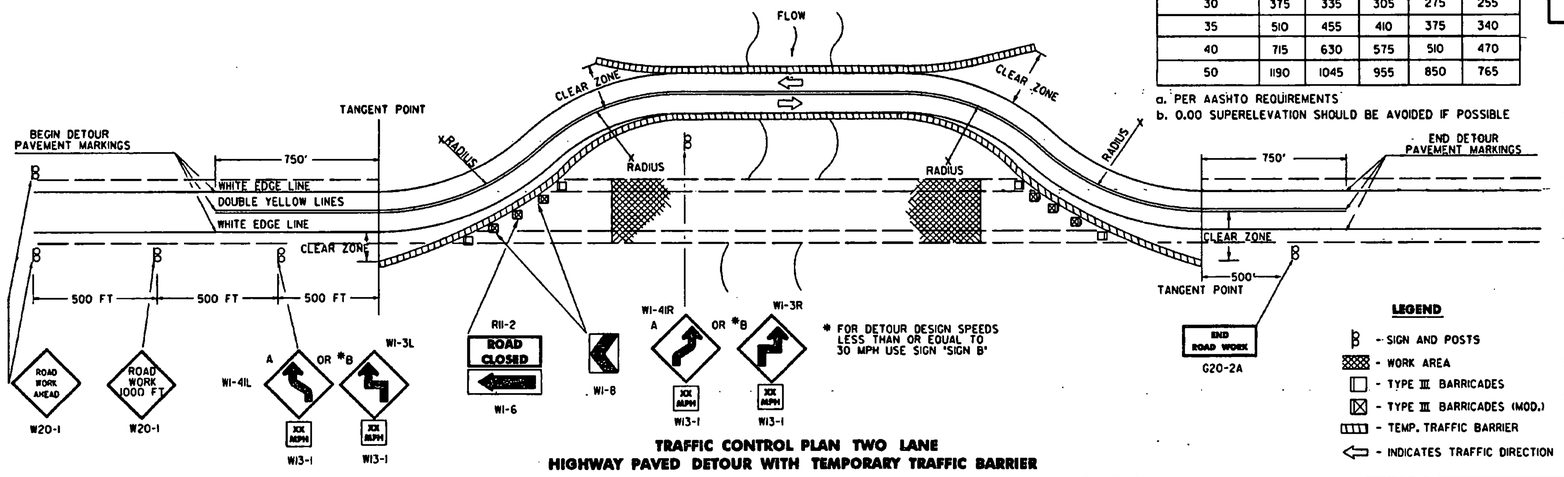
LOCATION

THE BARRICADES SHOWN ON THIS SHEET WILL BE LOCATED BY THE RESIDENT ENGINEER IN THE FIELD OR AS SHOWN ON THE PLANS. THE LOCATION OF THE BARRICADES SHALL FOLLOW THE PROCEDURES SET FORTH IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", OR AS OTHERWISE NOTED.

MAINTENANCE

BARRICADES SHALL BE MAINTAINED IN CLEAN CONDITION, SATISFACTORY TO THE RESIDENT ENGINEER. THEY SHALL BE COMPLETELY VISIBLE TO THE APPROACHING TRAFFIC AT ALL TIMES. DAMAGED, DEFACED, OR DIRTY BARRICADES SHALL BE REPAIRED, CLEANED, OR REPLACED AS ORDERED BY THE RESIDENT ENGINEER.

ALL SIGN PLACEMENT DISTANCES ARE DESIRABLE SPECIFICATIONS. FIELD CONDITIONS SHALL CONTROL THE ACTUAL PLACEMENT. PROJECT CONSTRUCTION APPROACH SIGNING PLACEMENT SHALL TAKE INTO CONSIDERATION SPACING REQUIREMENTS FOR THE DETOUR SIGN LAYOUT REQUIREMENTS.



* FOR DETOUR DESIGN SPEEDS LESS THAN OR EQUAL TO 30 MPH USE SIGN 'SIGN B'

LEGEND

- - SIGN AND POSTS
- - WORK AREA
- - TYPE III BARRICADES
- - TYPE III BARRICADES (MOD.)
- - TEMP. TRAFFIC BARRIER
- - INDICATES TRAFFIC DIRECTION

TRAFFIC CONTROL PLAN TWO LANE HIGHWAY PAVED DETOUR WITH TEMPORARY TRAFFIC BARRIER

DETOUR DESIGN SPEED	MINIMUM RADIUS (FT.)[a] SUPERELEVATION (FT./FT.)				
(M.P.H.)	0.00[b]	0.02	0.04	0.06	0.08
20	160	140	130	120	110
25	245	220	200	185	170
30	375	335	305	275	255
35	510	455	410	375	340
40	715	630	575	510	470
50	1190	1045	955	850	765

a. PER AASHTO REQUIREMENTS
b. 0.00 SUPERELEVATION SHOULD BE AVOIDED IF POSSIBLE

DETOUR NOTES

1.) SIGNS AND DELINEATION SHOWN FOR ONE DIRECTION OF TRAFFIC ONLY.

2.) THE CONTRACTOR IS RESPONSIBLE FOR PAVEMENT MARKING AND SHALL REMOVE ANY CONFLICTING OR CONFUSING EXISTING MARKINGS.

3.) ADDITIONAL SIGNING MAY BE REQUIRED AT THE DISCRETION OF THE RESIDENT ENGINEER.

4.) UNPAVED DETOURS REQUIRE PAVEMENT MARKINGS FOR TRANSITIONS FROM EXISTING PAVEMENT.

5.) THE NUMBER OF CHANNELIZING DEVICES, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE ACTUAL NUMBER REQUIRED SHALL BE DETERMINED BASED ON INDIVIDUAL DETOUR CONDITIONS (TAPERS, SPEED LIMITS, LENGTH OF DETOUR CURVE, ETC.).

6.) AASHTO CLEAR ZONE REQUIREMENTS SHOULD BE MET. IF NOT THEN AN APPROVED ENERGY ABSORPTION ATTENUATOR SUITABLE FOR THE TEMPORARY TRAFFIC BARRIER USED AND FOR THE DESIGN SPEED SHALL BE INSTALLED PER THE CURRENT AASHTO ROADSIDE DESIGN GUIDE.

7.) THE DETOUR DESIGN SPEED SHOULD BE NO LESS THAN 10 M.P.H. BELOW THE POSTED SPEED LIMIT, UNLESS PHYSICAL RESTRICTIONS PREVENT THIS.

8.) SEE STANDARD SHEETS E-100, E-101 AND E-102 FOR SIGN DETAIL AND MATERIAL REQUIREMENTS.

9.) IF THE USE OF TEMPORARY TRAFFIC BARRIER IS NOT REQUIRED, THEN RETROFLECTORIZED PLASTIC DRUMS SHALL BE USED.

OTHER STDS. REQUIRED: E-100 E-101 E-102 E-102a E-107a

REVISIONS AND CORRECTIONS

SEPT. 10, 1987 - DATE OF ORIGINAL ISSUE
APRIL 29, 1988 - FHWA REVIEW COMMENTS
SEPT. 20, 1993 - NEW RADIUS CHART, BARRICADE ALIGNMENT AND USE OF TEMPORARY TRAFFIC BARRIER
AUG. 08, 1995 - REVISED SIGNING PER MUTCD

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION, FHWA FINAL APPROVAL PENDING.

APPROVED

Gordon H. MacArthur
DIRECTOR OF ENGINEERING

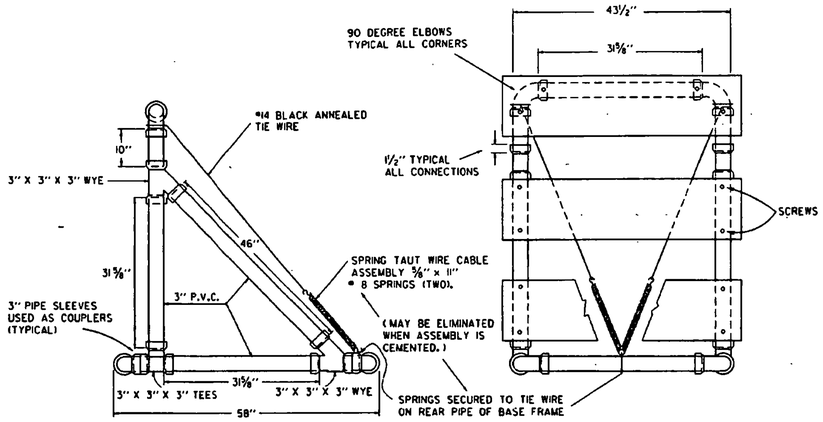
David A. Rose
TRAFFIC AND SAFETY ENGINEER

DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS

/traf/std/std107.dgn : std107.1

VERMONT AGENCY OF TRANSPORTATION

STANDARD E-107



SIDE VIEW
TYPE III BARRICADE

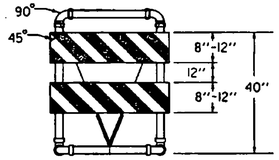
FRONT VIEW
TYPE III BARRICADE

MATERIALS FOR TYPE I AND II BARRICADES

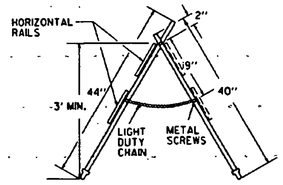
20' - 1" PVC
4 - 1" PVC 90° ELBOWS
30" - ½" ID THINWALL PVC CONDUIT
36" - ¼" STEEL ROD
4 - 1" WASHERS
24" - LIGHT DUTY CHAIN
½" - #14 PAN HEAD METAL SCREWS (AS REQUIRED)
2 - ¾" COTTER PINS
2 OR 4 - 8" OR 12" X 36" X 0.025" BARRICADE RAILS (AS REQUIRED)

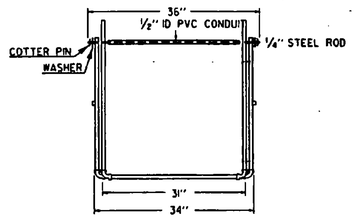
MATERIALS FOR TYPE III BARRICADES

30 LF - 3" I.D. PVC PIPE
6 - 3" 90° ELBOWS
2 - 3" TEES
4 - 3" WYES
3 - 8" OR 12" X 48" X 0.025" BARRICADE RAILS
2 - 5/8" X 11" #8 SPRING (IF ASSEMBLY IS NOT CEMENTED)
12 - 1" #14 PAN HEAD METAL SCREWS
15 LF - #14 BALCK ANNEALED TIE WIRE (IF ASSEMBLY IS NOT CEMENTED)



TYPE III (MODIFIED) BARRICADE
(STRIPING IS SHOWN WITH TRAFFIC PASSING TO THE RIGHT).





TYPE I AND TYPE II BARRICADE

MATERIALS

THE PIPE, WYES, TEES AND ELBOWS USED TO CONSTRUCT BARRICADES SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION D 2241 FOR P.V.C. 1120 OR 1220 SDR-21, PRESSURE RATING 200 PSI. THE WYES, TEES AND ELBOWS SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION D 2466, TYPE II, GRADE 1. ALL JOINTS SHALL BE SLIP-FIT AND MAY BE LIGHTLY CEMENTED. THE BARRICADE RAILS SHALL BE FABRICATED FROM 0.025" ANODIZED, ALUMINUM AND SHALL HAVE REFLECTORIZED ALTERNATING ORANGE AND WHITE STRIPES (SLOPING DOWNWARD AT AN

MAINTENANCE

BARRICADES SHALL BE MAINTAINED IN CLEAN AND LEGIBLE CONDITIONS SATISFACTORY TO THE ENGINEER. THEY SHALL BE COMPLETELY VISIBLE TO APPROACHING TRAFFIC AT ALL TIMES. DAMAGED, DEFACED, OR DIRTY BARRICADES SHALL BE REPAIRED, CLEANED OR REPLACED AS ORDERED BY THE ENGINEER. THE P.V.C. PIPE AND FITTINGS SHALL BE WHITE IN COLOR. AT LEAST TWO (2) HOLES SHALL BE DRILLED (⅜" DIAM.) IN EACH SECTION OF PIPE AND FITTINGS IF THE ASSEMBLY IS NOT CEMENTED.

WHICH WILL NOT CONSTITUTE A HAZARD IF THE BARRICADE IS HIT. THESE SHALL BE PLACED ONLY ON THE FRONT AND REAR PIPES OF THE BASE FRAME

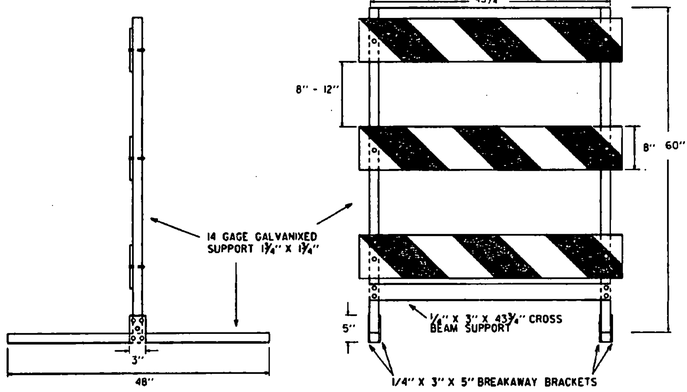
BE A HAZARD TO VEHICLES PASSING ON EITHER SIDE.
GLUED JOINTS MAY PROVIDE ADDITIONAL STABILITY TO THE INSTALLATION.

TYPE I BARRICADES SHALL UTILIZE ONE HORIZONTAL RAIL IN EACH DIRECTION.

TYPE II BARRICADES SHALL BE A TYPE I BARRICADE WITH AN ADDITIONAL HORIZONTAL RAIL MOUNTED BELOW THE OTHER IN EACH DIRECTION.

TYPE III BARRICADES (MODIFIED) SHALL CONSIST OF THE BREAKAWAY 3" PVC DESIGN SHOWN ON THIS SHEET WITH THE TWO RAIL LAYOUT DETAILED ABOVE LEFT.

SEE STD E-107 FOR ADDITIONAL INFORMATION.



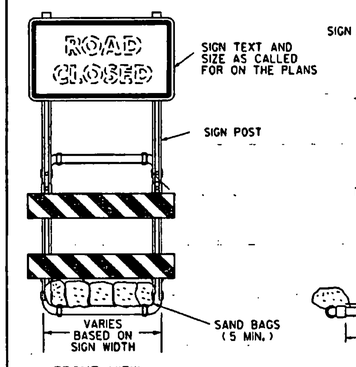
SIDE AND FRONT VIEW OF TYPE III METAL BARRICADE

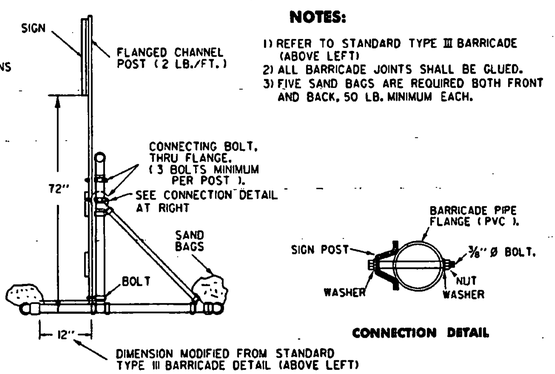
MATERIALS FOR METAL TYPE III BARRICADES

PANELS (3):
8' X 48' GALVANIZED STEEL...COVERED 1 OR 2 SIDES WITH WHITE/ORANGE, DIAGONALLY STRIPED REFLECTIVE SHEETING

VERTICAL SUPPORTS (2): 14 GAGE GALVANIZED TUBING 1 3/4" X 1 3/4" X 60"
HORIZONTAL SUPPORTS (2): 14 GAGE GALVANIZED TUBING 1 3/4" X 1 3/4" X 48"
CROSS BEAM SUPPORT (1): COLD GALVANIZED STEEL 1/4" X 3" X 43 3/4"
BREAKAWAY BRACKETS (4): COLD GALVANIZED STEEL 1/4" X 3" X 5"

FASTENERS:
6 - SHEAR BOLTS WITH LOCK NUTS 1/4"D X 2 3/4"
4 - FULCRUM BOLTS WITH LOCK NUTS 3/8"D X 2 3/4"
4 - FASTENER BOLTS WITH LOCK NUTS 3/8"D X 2 3/4"
6 - PANEL BOLTS WITH LOCK NUTS AND WASHERS 1/4"D X 2"
ALL FASTENERS GALVANIZED STEEL.
ALL BOLTS HEX HEAD.





CONNECTION DETAIL

NOTES:

1) REFER TO STANDARD TYPE III BARRICADE (ABOVE LEFT)
2) ALL BARRICADE JOINTS SHALL BE GLUED.
3) FIVE SAND BAGS ARE REQUIRED BOTH FRONT AND BACK, 50 LB. MINIMUM EACH.

SIGN MOUNTING ON TYPE III BARRICADE (MODIFIED)

OTHER STDS. REQUIRED: E-107

REVISIONS AND CORRECTIONS

SEPT. 10, 1987 - ADDED METAL TYPE III BARRICADE
SEPT. 20, 1993 - REVISED NOTES AND TYPE III (MOD.) BARRICADE DETAIL
AUG. 08, 1995 - ADDED METAL TYPE III BARRICADE

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

Gordon D. MacArthur
DIRECTOR OF ENGINEERING

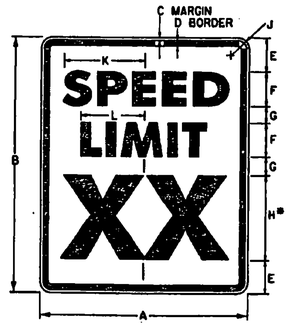
David A. Ross
TRAFFIC AND SAFETY ENGINEER

BREAKAWAY BARRICADE DETAILS

/traf/std/stde107a.dgn : stde107a.l

VERMONT AGENCY OF TRANSPORTATION

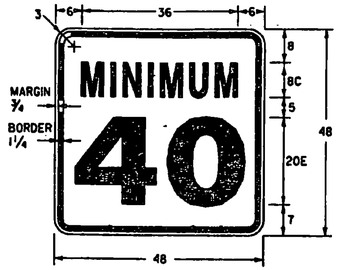
STANDARD E-107 A



* OPTICALLY SPACE NUMERALS ABOUT VERTICAL CENTERLINE.

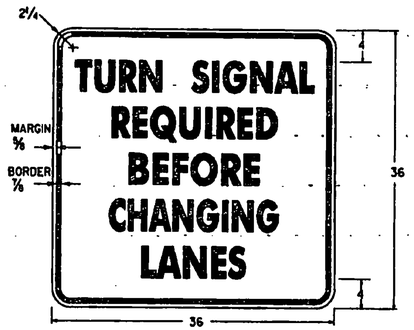
R2-1

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN	18	24	3/8	5/8	3	3E	2	8E	1 1/2	7 3/8	5 1/2
STD	24	30	3/8	5/8	4	4E	2	10E	1 1/2	9 3/8	7 3/8
EXPWY	36	48	5/8	7/8	6	6E	5	14E	2 1/4	14 3/8	11
FWY	48	60	3/4	1 1/4	8	8E	4	20E	3	19 1/8	14 5/8



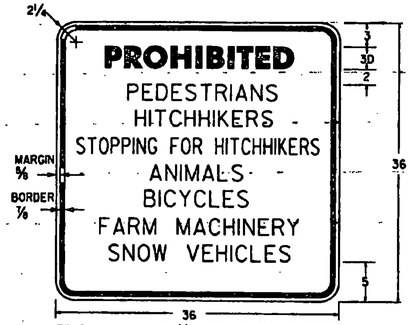
TO BE USED WITH "SPEED LIMIT 55" OR "65" FWY SIGN ONLY

VR-141



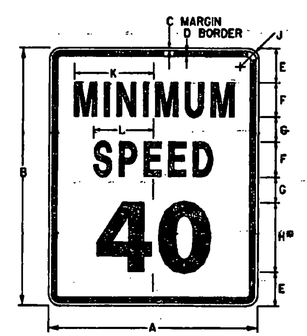
TEXT 4"C, SPACING 2"

VR-002



TEXT 2"C, SPACING 1 1/2", EXCEPT WHERE NOTED.

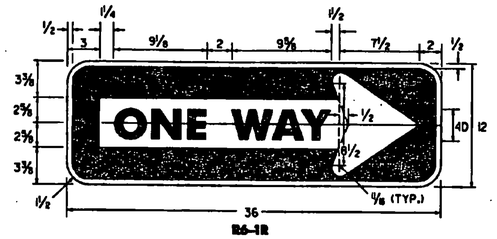
VR-046



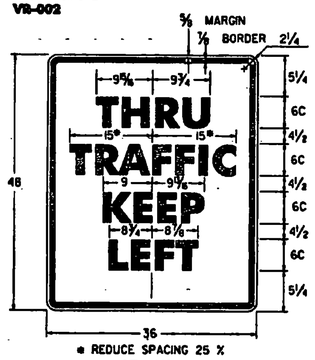
* OPTICALLY SPACE NUMERALS ABOUT VERTICAL CENTERLINE.

R2-4

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
STD	24	30	3/8	5/8	4	4E	2	10E	1 1/2	9 3/8	6 7/8
EXPWY	36	48	5/8	7/8	6	6E	5	14E	2 1/4	13 3/4	10 3/8
FWY	48	60	3/4	1 1/4	8	8E	4	20E	3	18 3/8	13 5/8

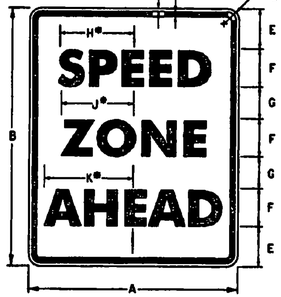


R6-1R



* REDUCE SPACING 25 %

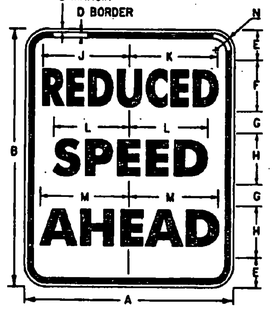
VR-116L



* FOR STD SIZE, REDUCE SPACING 40 %

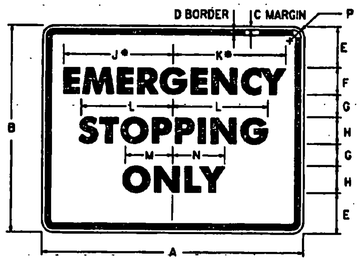
R2-5C

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN.	18	24	3/8	5/8	3 1/2	4C	2 1/2	6 5/8	5 1/2	7	1 1/2
STD.	24	30	3/8	5/8	3 1/2	6C	2 1/2	9 3/8	7 5/8	9 3/4	1 1/2
EXPWY.	36	48	5/8	7/8	7	8C	5	13 5/8	11 1/16	14	2 1/4
FWY.	48	60	3/4	1 1/4	9	10C	6	17	13 5/8	17 1/2	3



R2-5A

SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
MIN.	18	24	3/8	5/8	3 1/2	4B	2 1/2	4C	6 5/8	7	6 5/8	7	1 1/2
STD.	24	30	3/8	5/8	3 1/2	6B	2 1/2	6C	10	10 3/4	9 3/8	9 3/4	1 1/2
EXPWY.	36	48	5/8	7/8	7	8B	5	8C	14 1/4	14 3/4	13 5/8	14	2 1/4
FWY.	48	60	3/4	1 1/4	9	10B	6	10C	17 3/4	18 3/16	17	17 1/2	3



* FOR FWY SIZE, REDUCE SPACING 50 %

R8-7

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
EXPWY.	30	24	3/8	5/8	3 1/2	4C	2 1/2	4D	12 1/2	13	12 3/4	6 7/8	7	1 1/2
FWY.	48	36	5/8	7/8	5	6D	4	6D	20 3/8	21 5/8	19 1/8	10 1/16	10 5/8	2 1/4

GENERAL:

1. ALL DIMENSIONS IN INCHES.

COLORS:

THE REGULATORY SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT ON REFLECTORIZED WHITE BACKGROUND, UNLESS OTHERWISE NOTED. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS:

THE SIGN BASE MATERIALS USED FOR REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	18'' X 24''	24'' X 30'' 30'' X 24''	36'' X 12'' 36'' X 36'' 36'' X 48'' 48'' X 36'' 48'' X 48'' 48'' X 60''
FLAT SHEET ALUMINUM	0.060''	0.080''	0.100''
HIGH DENSITY OVERLAID PLYWOOD	1/2''	1/2''	5/8''
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE

THE REFLECTIVE MATERIAL FOR GROUND MOUNTED SIGNS SHALL BE AASHTO TYPE II OR III WHITE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN. THE TEXT OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. HAND PAINTING MUST BE COMPARABLE IN QUALITY TO THE RESULTS OBTAINED BY SILK SCREENING.

SPECIFICATIONS:

REGULATORY SIGNS SHALL MEET THE VERMONT STANDARD SPECIFICATIONS FOR TRAFFIC SIGNS.

TEXT DESIGN:

LETTERS, DIGITS, ARROWS, SPACING AND TEXT DIMENSIONS SHALL CONFORM WITH THE "STANDARD ALPHABET FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND DESIGNS PRESCRIBED IN THE STANDARD HIGHWAY SIGNS AS SPECIFIED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

REVISIONS AND CORRECTIONS

OCT. 30, 1987 - DATE OF ORIGINAL ISSUE

SEPT. 20, 1995 - ADDED AND DELETED SIGN DETAILS, ADDED SIGN ID NUMBERS, MINOR NOTE REVISIONS.

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

DIRECTOR OF ENGINEERING

TRAFFIC AND SAFETY ENGINEER

REGULATORY SIGN DETAILS

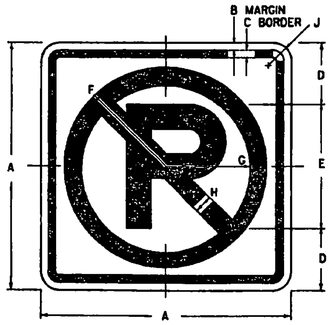
/traf/std/stdel42.dgn : stdel42.1

OTHER STDS. : NONE REQUIRED

VERMONT AGENCY OF TRANSPORTATION

STANDARD

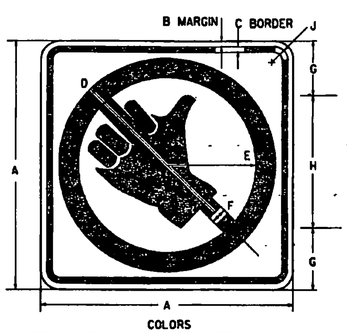
E-142



COLORS
CIRCLE AND DIAGONAL - RED (REFL - RURAL)
SYMBOL AND BORDER - BLACK (NON - REFL)
BACKGROUND - WHITE (REFL - RURAL)

R8-3A

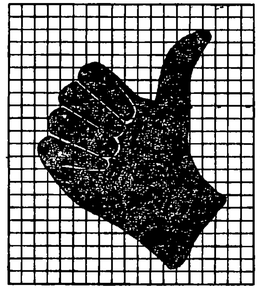
SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
URBAN MIN. AND STD.	12	3/8	3/8	3	6E(M)	4 7/8	3 3/8	1	1/2
RURAL MIN. AND STD.	24	3/8	3/8	6	12E(M)	10 1/2	8 1/2	2	1/2
EXPWY.	36	5/8	1/8	9	18E(M)	15 3/4	12 3/4	3	2 1/4
FWY.	48	3/4	1 1/4	12	24E(M)	21	17	4	3

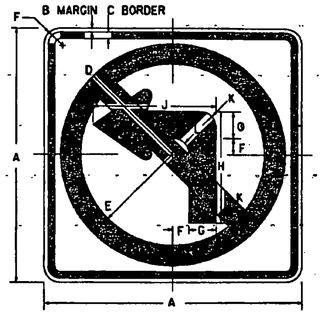


COLORS
CIRCLE AND DIAGONAL - RED (REFL)
SYMBOL AND BORDER - BLACK (NON - REFL)
BACKGROUND - WHITE (REFL)

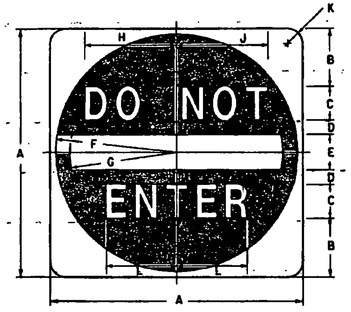
R9-4A

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
MIN.	18	3/8	5/8	7 1/8	6 3/8	1 1/2	3 1/4	10 1/2	1 1/2
STD.	24	3/8	5/8	10 1/2	8 1/2	2	5	14	1 1/2





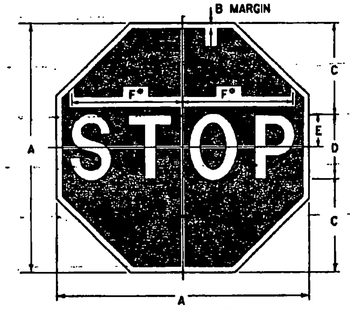
R3-2



COLORS
SYMBOL - RED (REFL)
LEGEND AND BACKGROUND - WHITE (REFL)
ENCAPSULATED LENS

R5-1

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN. AND STD.	30	6 1/2	4D	2	5	14 1/2	12 1/2	9 3/4	10	1 7/8	7 1/8
EXPWY.	36	7 1/2	5D	2 1/2	6	17 1/2	15	12	12 3/8	2 1/4	8 1/8
SPECIAL	48	11	6D	3	8	23 1/2	20	14 1/2	15	3	11 1/4

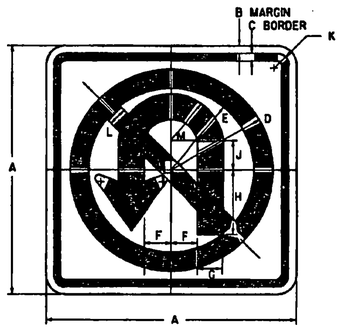


• REDUCE SPACING 40 %

COLORS
LEGEND - WHITE (REFL)
BACKGROUND - RED (REFL)
ENCAPSULATED LENS

R1-1

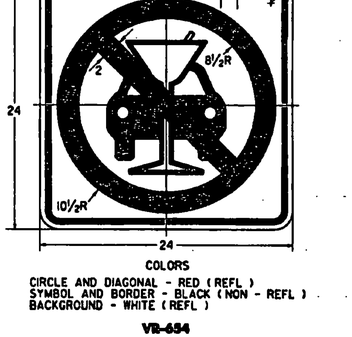
SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
BIKE	18	3/8	6	6C	3	7 1/4
MIN.	24	5/8	8	8C	4	10
STD.	30	3/4	10	10C	5	12 1/2
EXPWY.	36	7/8	12	12C	6	15
SPECIAL	48	1 1/4	16	16C	8	20



COLORS
CIRCLE AND DIAGONAL - RED (REFL)
ARROW AND BORDER - BLACK (NON - REFL)
BACKGROUND - WHITE (REFL)

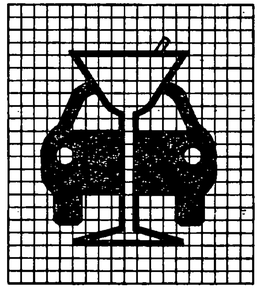
R2-4

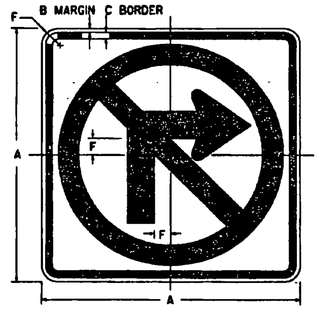
SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M
MIN. AND STD.	24	3/8	5/8	10 1/2	8 1/2	2 1/2	2 1/2	6	2 1/4	1 1/2	2	5
SPECIAL	30	1/2	3/4	13 1/8	10 5/8	3 1/8	3 1/8	7 1/2	2 5/8	1 7/8	2 1/2	6 1/4
EXPWY.	36	5/8	7/8	15 3/4	12 3/4	3 3/4	3 3/4	9	3 3/8	2 1/4	3	7 1/2
SPECIAL	48	3/4	1 1/4	21	17	5	5	12	4 1/2	3	4	10



COLORS
CIRCLE AND DIAGONAL - RED (REFL)
SYMBOL AND BORDER - BLACK (NON - REFL)
BACKGROUND - WHITE (REFL)

VR-654



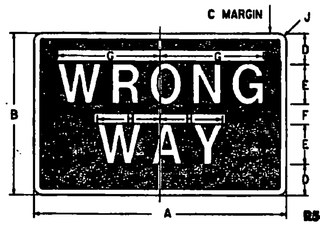


R3-1

NOTE :
USE SAME ARROW DETAIL FOR R3-1 AND R3-2

COLORS
CIRCLE AND DIAGONAL - RED (REFL)
ARROW AND BORDER - BLACK (NON - REFL)
BACKGROUND - WHITE (REFL)

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN. AND STD.	24	3/8	5/8	10 1/2	8 1/2	1 1/2	2 1/2	10 1/2	11 1/2	2	1 1/2
SPECIAL	30	1/2	3/4	13 1/8	10 5/8	1 7/8	3 1/8	13 1/8	14 1/2	2 1/2	3 1/8
EXPWY.	36	5/8	7/8	15 3/4	12 3/4	2 1/4	3 3/4	15 3/4	17 1/4	3	3/4
SPECIAL	48	3/4	1 1/4	21	17	3	5	21	23	4	1



"WRONG WAY"

COLORS
LEGEND - WHITE (REFL)
BACKGROUND - RED (REFL)
ENCAPSULATED LENS

R5-1A

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
MIN.	30	18	5/8	3	5D	2	11 1/8	6 1/8	1 1/2
STD.	36	24	3/4	4 1/2	6D	3	13 5/8	8 1/8	1 1/2
SPECIAL	42	30	1/8	5	8D	4	17 3/4	10 3/4	1 1/8

GENERAL:

1. ALL DIMENSIONS IN INCHES.
2. SEE STANDARD E-144 FOR ARROWHEAD DETAILS.

COLORS:

THE REGULATORY SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT ON REFLECTORIZED THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS:

THE SIGN BASE MATERIALS USED FOR REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	12'' X 12'' 18'' X 18''	24'' X 24'' 30'' X 18'' 30'' X 30''	36'' X 24'' 36'' X 36'' 42'' X 30'' 48'' X 48''
FLAT SHEET ALUMINUM	0.060''	0.080''	0.100''
HIGH DENSITY OVERLAID PLYWOOD	1/2''	1/2''	5/8''
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE

THE REFLECTIVE MATERIAL SHALL BE AASHTO TYPE II OR III WHITE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN. THE BLACK PORTIONS OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. HAND PAINTING MUST BE COMPARABLE IN QUALITY TO THE RESULTS OBTAINED BY SILK SCREENING. ENCAPSULATED LENS REFLECTIVE SHEETING SHALL BE USED FOR THE SIGN BACKGROUND WHERE NOTED.

SPECIFICATIONS:

REGULATORY SIGNS SHALL MEET THE VERMONT STANDARD SPECIFICATIONS FOR TRAFFIC SIGNS.

TEXT DESIGN:

LETTERS, DIGITS, ARROWS, SPACING AND TEXT DIMENSIONS SHALL CONFORM WITH THE "STANDARD ALPHABET FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND DESIGNS PRESCRIBED IN THE STANDARD HIGHWAY SIGNS AS SPECIFIED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

OTHER STDS. : E-144 REQUIRED

REVISIONS AND CORRECTIONS

OCT. 30, 1987 - DATE OF ORIGINAL ISSUE
SEPT. 20, 1995 - ADDED AND DELETED SIGN DETAILS, ADDED SIGN ID NUMBERS, MINOR NOTE REVISIONS.

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

DIRECTOR OF ENGINEERING

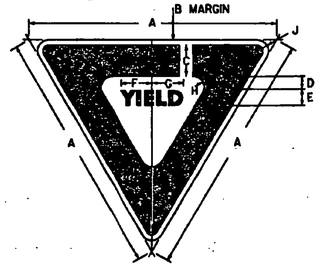
TRAFFIC AND SAFETY ENGINEER

REGULATORY SIGN DETAILS

/traf/std/stdel43.dgn : stdel43.1

VERMONT AGENCY OF TRANSPORTATION

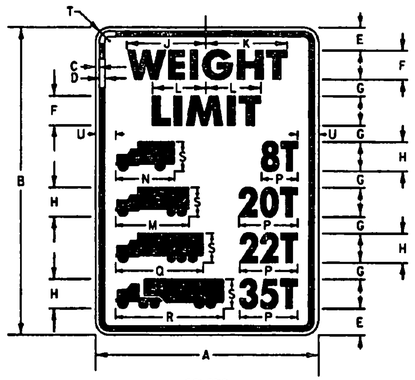
STANDARD
E-143



COLORS
LEGEND AND BORDER - RED (REFL)
BACKGROUND - WHITE (REFL)
ENCAPSULATED LENS

R1-2

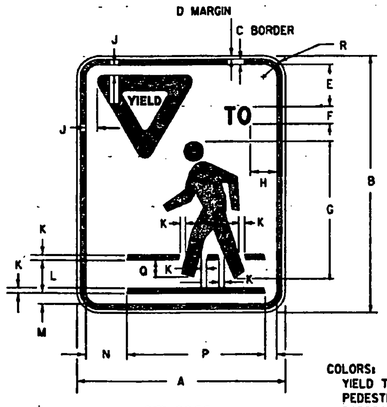
SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
BIKE	24	3/8	3	1 1/2	2C	3/4	3	1/8	1 1/2
MIN.	30	5/8	4	1 1/4	2 1/2C	3 5/8	3 5/8	1/8	1 1/2
STD.	36	3/4	5	2	3C	4 1/8	4 3/8	1 1/4	2
EXPWY.	48	1	6	2 3/4	4C	6 1/4	5 1/8	2	3
SPECIAL	60	1 1/2	8	3 1/2	5C	7 1/8	7 1/4	2 1/2	4



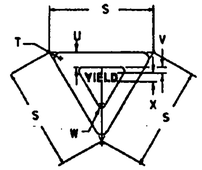
COLORS
LEGEND - BLACK (NON-REFL.)
BACKGROUND - WHITE (REFL.)

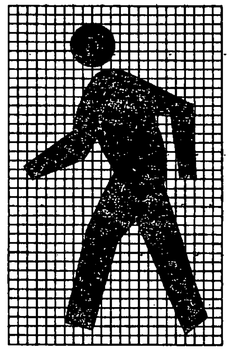
VR-015

SIGN	DIMENSIONS (INCHES)																
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
MIN.	24	36	1/8	5/8	2 3/4	3E	2 1/2	3C	7 1/8	8 3/8	5 3/4	7 1/4	6	var	9 1/2	11	3	1 1/2	2 1/2
STD.	30	42	1/2	3/4	3 3/8	4E	2 1/4	4C	10 1/2	11 1/8	7 3/8	10	8	var	12	14 3/8	4	1 7/8	2 3/4
EXPWY.	36	54	1/8	7/8	3 1/8	5E	3 1/4	5C	13 1/8	14	9 1/8	12 1/2	10	var	15	18 3/8	5	2 1/4	3
FWY.	48	66	3/4	1 1/4	3 3/4	6E	4 1/2	6C	15 3/4	16 3/4	11 1/2	16	12	var	18	22	6	3	5



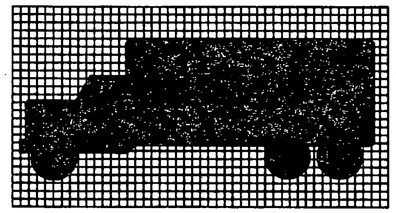
VR-004A

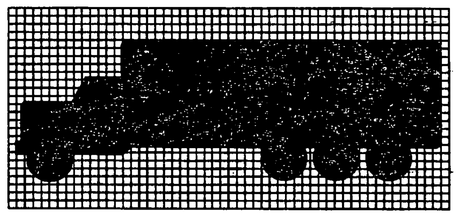


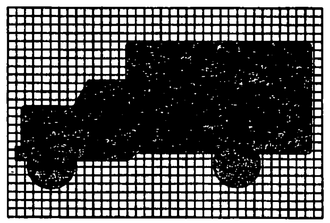


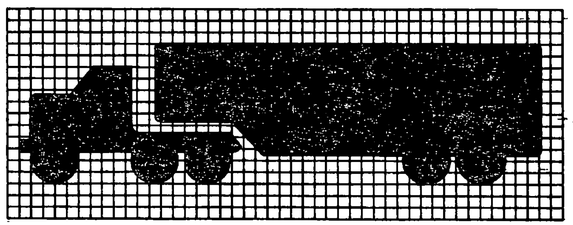
COLORS:
YIELD TO PEDESTRIAN SIGNS HAVE A BLACK PEDESTRIAN SYMBOL, BLACK TEXT, A BLACK BORDER AND A REFLECTORIZED RED YIELD SYMBOL ON A REFLECTORIZED WHITE BACKGROUND

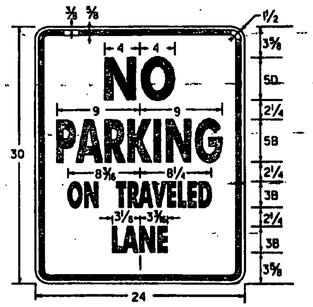
SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
STD.	24	30	5/8	3/8	5	2D	12	2 1/4	5/8	5/8	3 1/4
SIGN	M	N	P	Q	R	S	T	U	V	W	X
STD.	1 1/4	4 3/4	16	2	1 1/2	12	3/4	1 3/4	1/8	7/8	10





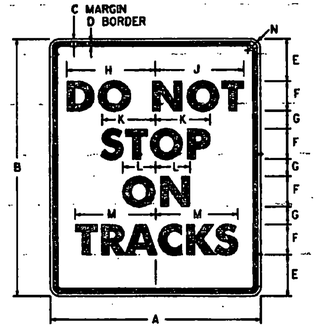






COLORS
LEGEND - RED (REFL.)
BACKGROUND - WHITE (REFL.)

VR - 020



R8-8

SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
STD.	24	30	3/8	5/8	3 5/8	4D	2 1/4	9 1/4	9 5/8	6 3/16	3 1/2	10	1 1/2
SPECIAL	36	48	5/8	7/8	6	6D	4	14	14 7/16	9 3/4	5 1/4	15	2 1/4
SPECIAL	48	60	3/4	1 1/4	7 1/4	8D	4 1/2	18 1/2	19 1/4	13 1/8	7	20	3

GENERAL:

1. ALL DIMENSIONS IN INCHES.

COLORS:

THE REGULATORY SIGNS SHOWN ON THIS SHEET SHALL BE AS DETAILED FOR EACH SIGN. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICAILS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS:

THE SIGN BASE MATERIALS USED FOR REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	24" x ▽ 30" x ▽ 24" x 30" 24" x 36" 30" x 42"	36" x ▽ 36" x 48" 36" x 54" 48" x 60" 48" x 66"	48" x ▽ 60" x ▽
FLAT SHEET ALUMINUM	0.080"	0.100"	0.125"
HIGH DENSITY OVERLAID PLYWOOD	1/2"	5/8"	5/8"
GALVANIZED FLAT SHEET STEEL	16 GAGE	14 GAGE	12 GAGE

THE REFLECTIVE MATERIAL FOR GROUND MOUNTED SIGNS SHALL BE FLAT TOP WHITE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

TEXT OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

SPECIFICATIONS:

REGULATORY SIGNS SHALL MEET THE VERMONT STANDARD SPECIFICATIONS FOR 'TRAFFIC SIGNS.'

TEXT DESIGN:

LETTERS, DIGITS, ARROWS, SPACING AND TEXT DIMENSIONS SHALL CONFORM WITH THE 'STANDARD ALPHABET FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS' AND DESIGNS PRESCRIBED IN THE STANDARD HIGHWAY SIGNS AS SPECIFIED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES ADOPTED BY THE U.S. DEPARTMENT OF TRANSPORTATION AND FEDERAL HIGHWAY ADMINISTRATION.

OTHER STDS.: NONE REQUIRED

REVISIONS AND CORRECTIONS

SEPT. 20, 1995 - DATE OF ORIGINAL ISSUE

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

DIRECTOR OF ENGINEERING

TRAFFIC AND SAFETY ENGINEER

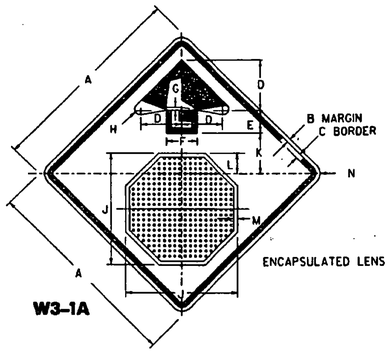
REGULATORY SIGN DETAILS

/traf/std/stdel46.dgn : stdel46.l

VERMONT AGENCY OF TRANSPORTATION

STANDARD

E-146

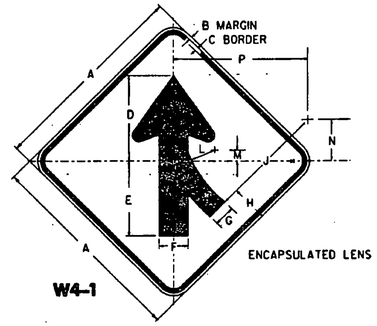


W3-1A

COLORS

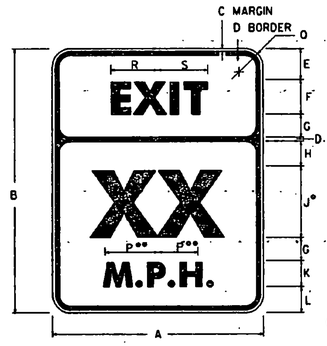
BORDER AND ARROW - BLACK (NON-REFL)
SYMBOL - WHITE BORDER ON RED BACKGROUND (REFL)

SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
MIN.	30	1/2	3/4	7 1/2	3 3/4	5	5/8	5/8	15 3/4	6 1/4	2 1/8	1/2	1 1/8
STD.	36	5/8	1/8	9	4 1/2	6	3/4	3/8	19	7 1/2	3 1/2	5/8	2 1/4
SPECIAL	48	3/4	1 1/4	12	6	8	1	1/2	25 1/2	10	4 1/2	3/4	3



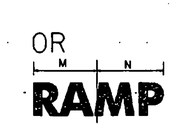
W4-1

SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	
MIN.	24	3/8	5/8	10 1/4	8 3/4	3 1/2	2 3/8	4 1/8	22 1/4	7 1/2	6 3/8	2 3/8	10 1/8	22 1/8	
STD.	30	1/2	3/4	13	11	4 3/8	3	5 1/4	28	9 3/8	8	3	13	27 3/4	
EXPWY.	36	5/8	1/8	15 3/4	13 1/4	5 1/4	3 5/8	6 3/4	33 3/8	2 1/4	9 5/8	4	15 3/4	33 3/8	
FWY.	48	3/4	1 1/4	20 1/4	17 1/2	7	4 1/2	8 3/4	45	3	12 3/8	5 1/4	20 3/4	44 1/8	



W13-2

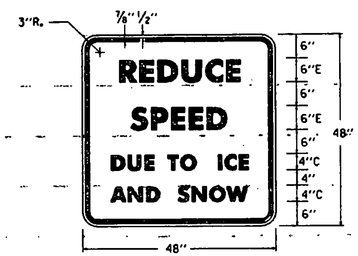
OR



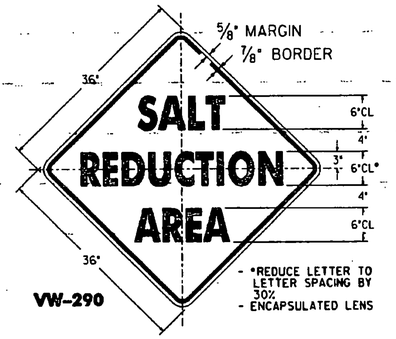
WITH "RAMP" TEXT SIGN NUMBER IS **W13-3**

- *OPTICALLY SPACE NUMBERS ABOUT VERTICAL CENTERLINE
- **INCREASE SPACING 100%
- THE "RAMP" SPEED SIGN IS USED ON RAMPS LEADING FROM ONE FREEWAY TO ANOTHER AND THE "EXIT" SPEED SIGN IS USED ON NORMAL EXITS.

SIGN	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
MIN. & STD.	24	30	3/8	5/8	3 1/2	4E	2 1/2	2 1/8	8E	3E	3	8 1/4	8 1/2	5 3/4	1/2	6 1/8	6 3/8
EXPWY.	36	48	5/8	1/8	6	6E	4	5 1/8	12E	4E	6	12 3/8	12 3/4	7 1/4	2 1/4	9/4	9 1/2
FWY.	48	60	3/4	1 1/4	7	8E	5	5 3/4	16E	6E	6	16 1/2	17	10 3/8	3	12 1/4	12 3/4

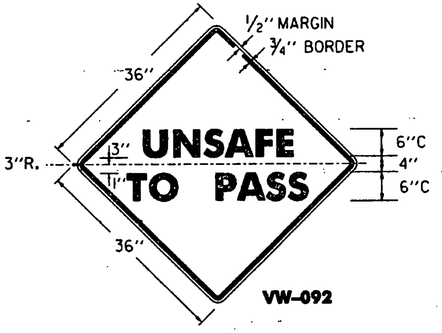


VW-003

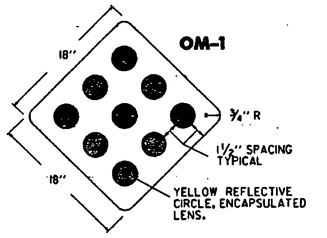


VW-290

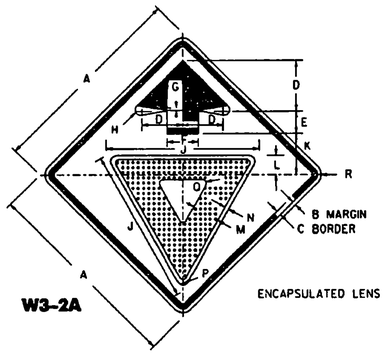
- *REDUCE LETTER TO LETTER SPACING BY 30%
- ENCAPSULATED LENS



VW-092



HAZARD MARKERS SHALL BE OF 0.080 FLAT SHEET ALUMINUM OR 18 GAGE GALVANIZED FLAT SHEET STEEL, WITH A NON-REFLECTIVE YELLOW BACKGROUND AND NINE 4" DIA. CIRCLES EVENLY SPACED WITHMATERIALS AS NOTED ABOVE.

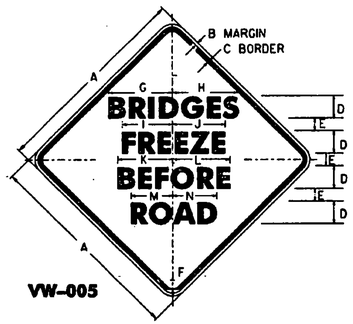


W3-2A

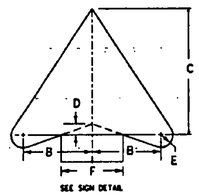
COLORS

BORDER AND ARROW - BLACK (NON-REFL)
SYMBOL - RED BORDER ON WHITE BACKGROUND (REFL)

SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
MIN.	30	1/2	3/4	7 1/2	3 3/4	5	5/8	3/4	25	6 1/4	3	3 3/8	1/2	1 1/4	5/8	1 1/8
STD.	36	3/8	1/8	9	4 1/2	6	3/4	1/8	28	7 1/2	3 3/8	3 3/4	5/8	1 3/8	3/4	2 1/4
SPECIAL	48	3/4	1 1/4	12	6	8	1	1/2	38	10	4 1/2	5	3/4	1 1/8	1	3

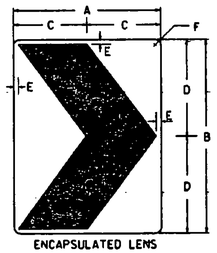


VW-005



SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
STD.	36	3/8	5/8	5C	2	2	11 1/2	11 1/2	9 3/4	9 3/8	10 1/4	10 1/4	6 7/8	6 7/8	
FWY./EXP.	48	3/4	1 1/4	6C	3	3	13 1/2	13 1/2	11 7/8	11 7/8	12 1/4	12 3/8	8 3/8	8 3/8	

ARROW HEAD	DIMENSIONS (INCHES)				
	SIZE	B	C	D	E
MIN. AND STD.	24x24	4	7 1/8	3/16	11/16
SPECIAL	30x30	5	8 7/8	1/16	7/8
EXPWY.	36x36	6	10 5/8	5/16	1 1/16
SPECIAL	48x48	8	14 3/16	1 1/16	1 3/8



ENCAPSULATED LENS

W1-8

SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
MIN.	12	18	6	9	1/2	1 1/2
STD.	18	24	9	12	3/4	1 1/2
SPECIAL	24	30	12	15	7/8	1 1/2
EXPWY.	30	36	15	18	1	1 1/8
FWY.	36	48	18	24	1 1/8	2 1/4

COLORS

ALL THE WARNING SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT AND SYMBOLS ON REFLECTORIZED YELLOW BACKGROUND EXCEPT AS OTHERWISE NOTED. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS

THE SIGN BASE MATERIALS USED FOR THE WARNING SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING, OF THE MINIMUM THICKNESS NOTED.

	12" x 18" / 18" x 24"	24" x 24" / 24" x 30" / 30" x 30" / 30" x 36"	36" x 36" / 36" x 48"	48" x 48" / 48" x 60"
FLAT SHEET ALUMINUM	0.060"	0.080"	0.100"	0.125"
HIGH DENSITY OVERLAID PLYWOOD	1/2"	1/2"	3/4"	3/4"
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE	12 GAGE

THE TEXT, BORDER, AND SYMBOL SHALL BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION. ENCAPSULATED LENS REFLECTIVE SHEETING SHALL BE USED FOR THE SIGN BACKGROUND WHERE NOTED.

TEXT DESIGN

LETTERS, DIGITS, SYMBOLS, SPACINGS, AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SPECIFICATIONS

WARNING SIGNS SHALL MEET THE VERMONT STANDARD SPECIFICATIONS FOR "TRAFFIC SIGNS".

OTHER STDS. REQUIRED:

REVISIONS AND CORRECTIONS

OCT. 30, 1987 - DATE OF ORIGINAL ISSUE
AUG. 08, 1995 - ADDED SIGN DETAIL AND I.D. NUMBER FOR EACH DETAIL

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

Gordon H. MacAskill
DIRECTOR OF ENGINEERING

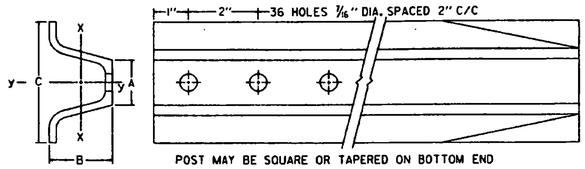
David A. Ross
TRAFFIC AND SAFETY ENGINEER

WARNING SIGN DETAILS

/traf/std/stdei50dgn : stdei50.1

VERMONT AGENCY OF TRANSPORTATION

STANDARD
E-150



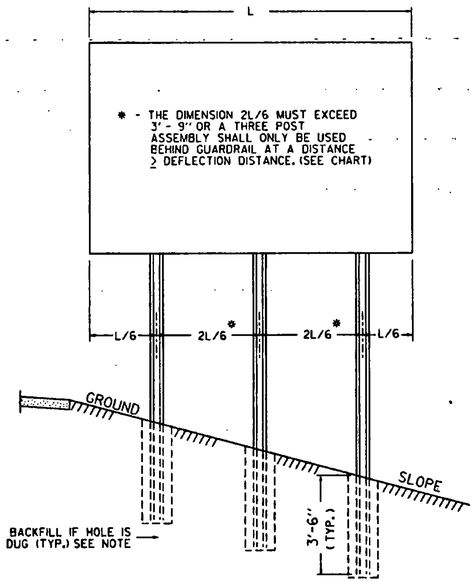
POST MAY BE SQUARE OR TAPERED ON BOTTOM END

POST SIZE (LB/FT.)	DIMENSIONS			SECTION MODULUS, X-X
	A	B	C	
2	1 9/32"	1 3/64"	3 1/16"	0.225 IN.^{3}
3	1 3/16"	1 7/8"	3 1/2"	0.403 IN.^{3}

SIMILAR DIMENSIONS ARE ACCEPTABLE, HOWEVER SECTION MODULUS VALUES SHALL NOT BE EXCEEDED.

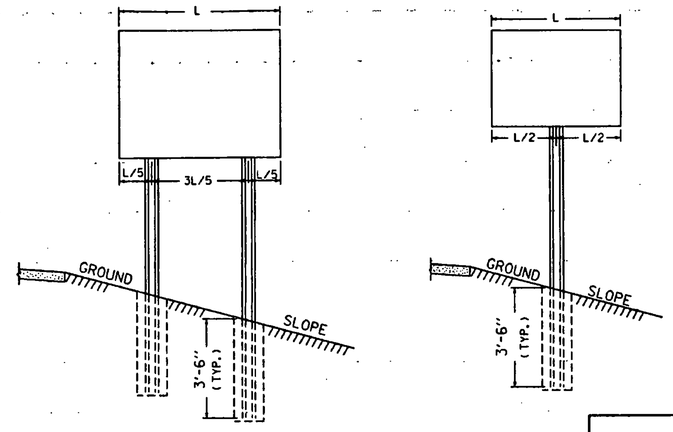
POST SELECTION CHART		
SIGN AREA (FT^2) x H (FT) ≤SV (SELECTION VALUE)		
POST SIZE	Sv	DESIGN CRITERIA
2 LB/FT. (ONE POST INSTALLATION)	32	WIND SPEED = 60 MPH (10-YEAR MEAN RECURRENCE INTERVAL) WIND PRESSURE = 13 PSF STEEL MIN YIELD Fy = 50,000 PSI ALLOWABLE STRESS = (1.4) 0.60 Fy
2 LB/FT. (TWO POST INSTALLATION)	62	
3 LB/FT.	107	

SINGULAR 2 LB./FT. POSTS SHALL ONLY TO BE USED IN URBAN AREAS.



MULTI-POST INSTALLATIONS

WHEN SIGN POSTS ARE INSTALLED WITH A POST SPACING OF LESS THAN 8 FEET, POST SIZES MUST BE SELECTED TO INSURE THAT WHEN ACTING TOGHETHER THE POSTS DO NOT CREATE A HAZARD, REFER TO V.A.O.T. SIGN POST DESIGN GUIDELINE FOR ADDITIONAL DETAILS.



POST SPACING DETAILS

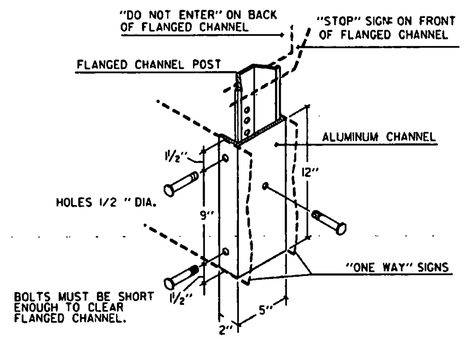
GENERAL NOTES

CONSTRUCTION METHODS - POSTS MAY BE DRIVEN OR SET IN A DUG HOLE AND BACKFILLED. IF DRIVEN, A DRIVING CAP SHALL BE USED. THE DUG HOLE INSTALLTION SHALL BE USED IN AREAS OF POOR SOIL CONDITIONS OR AS DIRECTED BY THE RESIDENT ENGINEER. BACKFILL SHALL BE COMPACTED AS DIRECTED BY THE RESIDENT ENGINEER.

IN AREAS WHERE LEDGE ROCK IS ENCOUNTERED, POSTS WILL BE SET IN A HOLE WITH 2" CLEARANCE AND GROUTED WITH TYPE 4 MORTAR 24" BELOW THE SURFACE OF THE SOLID ROCK, UNLESS THE POSTS PENETRATE THE GROUND A MINIMUM OF 3'-6". THE PORTION OF THE POST IN CONTACT WITH THE MORTAR SHALL BE COATED WITH AN APPROVED COATING.

SIGN CLEARANCES - HORIZONTAL AND VERTICAL SIGN CLEARANCES SHALL BE SHOWN ON THE PLANS OR THE APPROPRIATE STD. SHEETS.

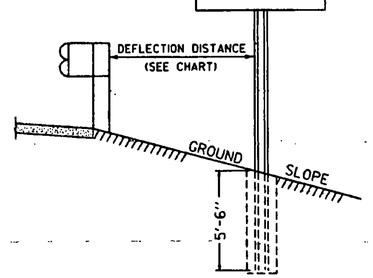
SINGLE POST INSTALLATIONS SHALL BE LIMITED TO A SIGN AREA OF 12-1/2 SQ. FT. OR LESS.



DETAIL OF TYPE "A" OR "B" MOUNTING BRACKET. SEE STANDARD E-120 FOR CLEARANCES.

GUARDRAIL DEFLECTION CHART (PER AASHTO - ROADSIDE DESIGN GUIDE - 1988)			
TYPE		GR POST SPACING	DEFLECTION
THREE CABLE	W/STEEL POSTS	16' - 0"	12'
	W/WOODEN POSTS	12' - 6"	12'
W-BEAM	W/WEAK POST	12' - 6"	7'
	W/STRONG POST	6' - 3"	3'
BOX BEAM		6' - 0"	5'
THRIE BEAM	W/WEAK POST	12' - 6"	4'
	W/STRONG POST	6' - 3"	2'

THIS CHART LISTS THE THEORETICAL DEFLECTION DISTANCE UPON IMPACT OF VARIOUS GUARDRAIL WITH DIFFERENT TYPES AND SPACING OF POSTS.



WHEN USING FLANGED CHANNEL POSTS ON STEEP SLOPES (1ON 2 OR STEEPER FILL SLOPES BEHIND GUARDRAIL), ADD 2' EMBEDDMENT TO THE POST LENGTH TO GIVE THE ASSEMBLY MORE STABILITY. HOWEVER IF SIGN POST IS LOCATED INSIDE THE DEFLECTION DISTANCE, THE SIGN POST SHALL BE SET AT A DEPTH OF 3' - 6".

OTHER STDS. REQUIRED:

REVISIONS AND CORRECTIONS

SEP. 10, 1987 - DATE OF ORIGINAL ISSUE
MAR. 01, 1988 - FHWA REVIEW COMMENTS
OCT. 21, 1992 - ADDED DETAILS, REVISED NOTES & REVISED TITLE BLOCK
AUG. 18, 1995 - DELETION OF 2.5 #/FT. POST AND TWO-RAIL ALUMINUM. ADDED ADDITIONAL NOTE.

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

DIRECTOR OF ENGINEERING

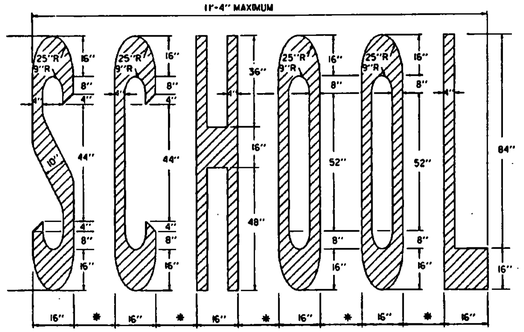
TRAFFIC AND SAFETY ENGINEER

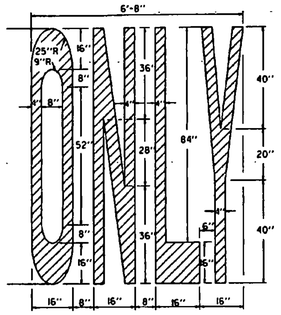
FLANGED CHANNEL STEEL SIGN POST

/traf/std/stdel60.dgn : stdel60.1

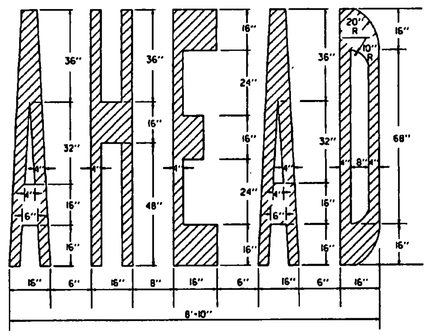
VERMONT AGENCY OF TRANSPORTATION

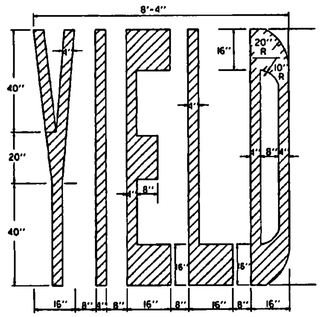
STANDARD E-160

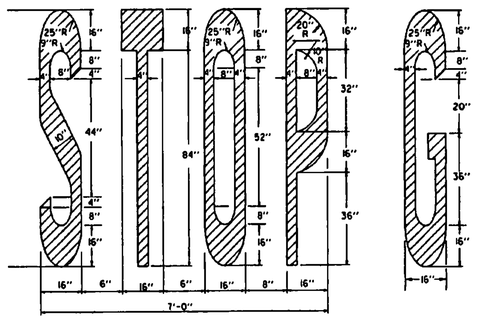




* (4"-8") - ADJUST TO AVAILABLE PAVEMENT WIDTH





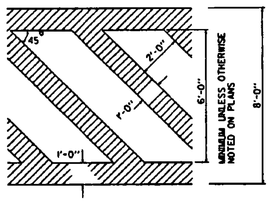


THE LETTER "G" PERTAINS TO THE WORD "SIGNAL" FOR OTHER LETTERS, SEE ABOVE.

SIGNAL
6" LETTER SPACING

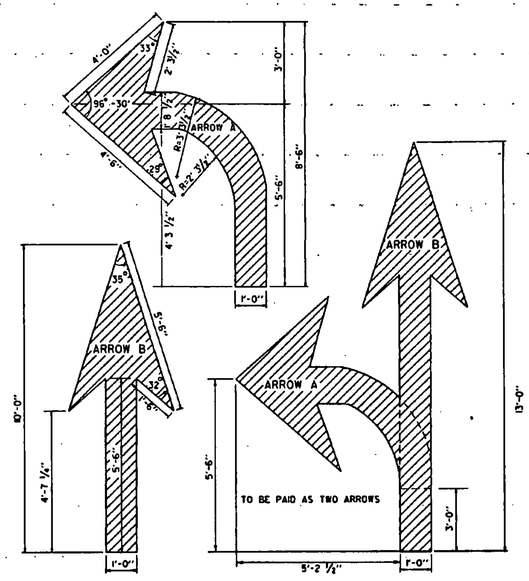
LETTER HEIGHT

DIMENSIONS ARE FOR 8' - 4" LETTER HEIGHTS. A LESSER HEIGHT OF 8' - 0" IS ACCEPTABLE AS LONG AS THE DIMENSIONS ARE PROPORTIONAL TO THE DETAILS SHOWN SEE NOTE BELOW.

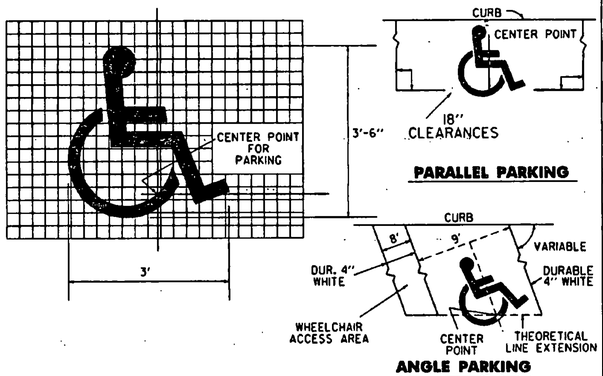


ARROWS AND WORD MARKINGS THAT CONFORM TO THE DIMENSIONS SHOWN ON THIS SHEET OR AS DETAILED IN THE BOOKLET ENTITLED "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION) PREPARED BY THE FEDERAL HIGHWAY ADMINISTRATION WILL BE ACCEPTABLE.

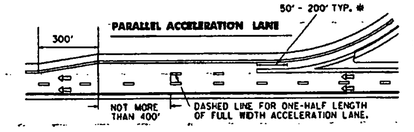
LETTER IN WORD MARKING AND CROSSWALK DETAILS



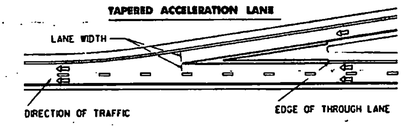
ARROW DETAILS

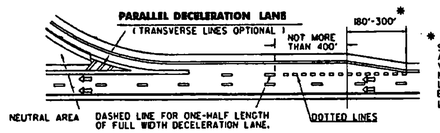


HANDICAPPED PAVEMENT MARKING DETAILS

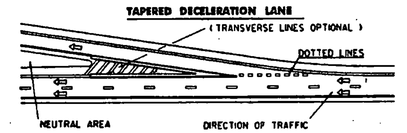


* USE LONGER LENGTH TO EMPHASIZE SITUATIONS WHERE THE CROSSING REQUIRES UNUSUAL CARE SUCH AS HIGH VOLUME MERGE AREAS.





* SHORTER TAPERS GIVE A BETTER TARGET VALUE, HOWEVER ALIGNMENT MAY DICTATE A LONGER TAPER. RESIDENT ENGINEER SHALL ESTIMATE LENGTH.

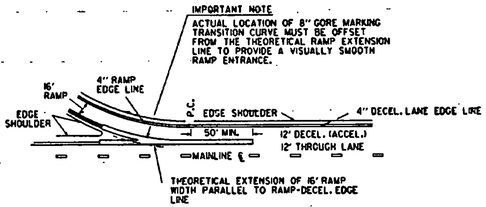


TRANSVERSE LINES SHALL CONSIST OF 8" WHITE LINES SPACED 5'-0" C-C AND SET AT 45° TO MAIN LINE EDGE LINES. THESE MARKINGS SHALL BE USED TO INCREASE VISIBILITY DUE TO DIFFICULT VERTICAL OR HORIZONTAL ALIGNMENT, AS DIRECTED BY THE RESIDENT ENGINEER.

RAMP MARKINGS

LEGEND

- 4" WHITE LINES
- 4" YELLOW LINES
- 8" CHANNELIZATION WHITE LINES
- 4" WHITE DOTTED LINES (2' SOLID - 4' GAP)
- DIRECTION OF TRAFFIC FLOW



DETAIL - GORE MARKING TRANSITION CURVE

THIS SHEET IS NOT TO SCALE	OTHER STDS. REQUIRED

REVISIONS AND CORRECTIONS

SEPT. 10, 1987 - DATE OF ORIGINAL ISSUE
JAN. 23, 1989 - ADDED DOTTED LINES, "SIGNAL" DIMENSIONS, CLARIFIED LETTER HEIGHT.
AUG. 18, 1995 - MISC. NOTE CHANGES

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

DIRECTOR OF ENGINEERING

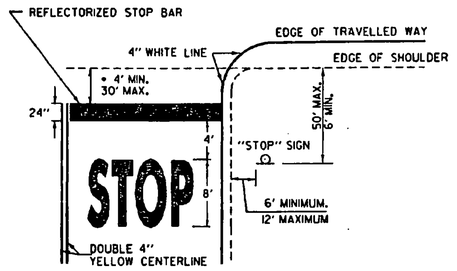
TRAFFIC AND SAFETY ENGINEER

PAVEMENT MARKING DETAILS

/traf/std/stde191.dgn/stde191.i

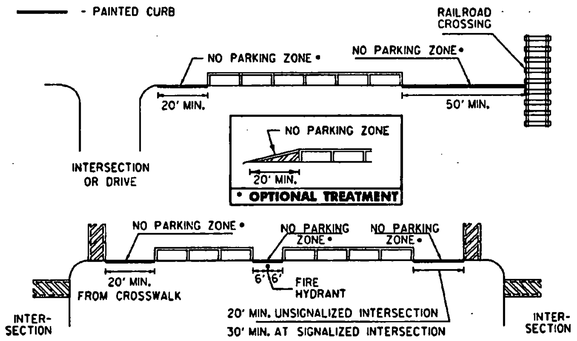
VERMONT AGENCY OF TRANSPORTATION

STANDARD E-191

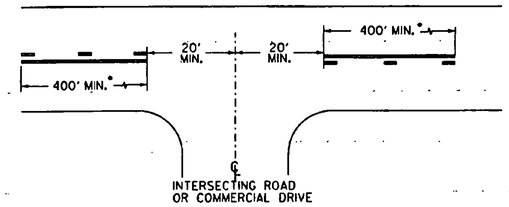


• THE "DESIRED STOPPING POINT" IS THE LOCATION BASED ON SITE CONDITIONS THAT BEST ALLOWS THE STOPPED VEHICLE TO VIEW THE APPROACHING TRAFFIC.

STOP BAR LAYOUT



NO PARKING LAYOUT DETAILS



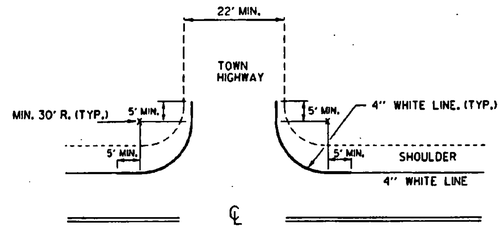
• THE SOLID LINE SHALL BE PAIRED WITH EITHER A SOLID OR DASHED LINE DEPENDING ON SIGHT DISTANCE AVAILABILITY IN THE OPPOSING DIRECTION. ADJUSTMENTS TO THE 40 FOOT CENTERLINE OPENING MAY BE MADE TO ACCOMMODATE SKEWED INTERSECTIONS.

CENTERLINE BREAKES:

A. AT ALL STATE HIGHWAYS AND TOWN HIGHWAYS, INCLUDING CLASS 4 TH'S. THAT HAVE STOP AND LEGAL LOAD LIMIT SIGNS INSTALLED

B. COMMERCIAL DRIVES:
1. WHERE A SEPERATE TURN LANE EXISTS ON THE MAIN LINE (LT. OR RT.)
2. SIGNIFICANT TRAFFIC VOLUMES EXISTS.
3. IF MOTORISTS NEED ASSISTANCE TO DEFINE ENTRANCE POINTS.

CENTERLINE LAYOUT

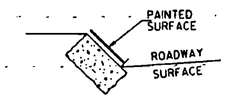


EDGELINES SHALL BE APPLIED TO ALL STATE HIGHWAYS AND SHOULD BE MAINTAINED AT A CONSTANT DISTANCE FROM THE CENTERLINE UNLESS PAVEMENT WIDTH INCREASES TO ALLOW WIDER LANES.

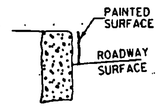
APPLY EDGELINE AS DETAILED ON ALL PAVED CLASS 1 & CLASS 2 TOWN HIGHWAYS AND ANY CLASS 3 TOWN HIGHWAY 22 FEET OR MORE IN WIDTH.

IF MIN. 30 FOOT RADIUS CANNOT BE OBTAINED, OR THE TOWN HIGHWAY IS NOT PAVED, BREAK THE EDGELINE USING AN 80 FOOT GAP AT INTERSECTION.

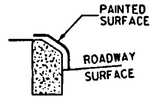
EDGELINE LAYOUTS



GRANITE SLOPE EDGING



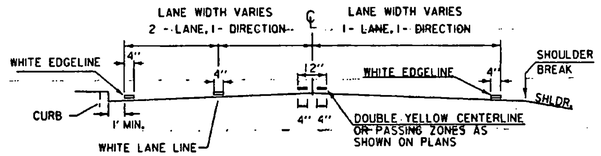
VERTICAL GRANITE CURB



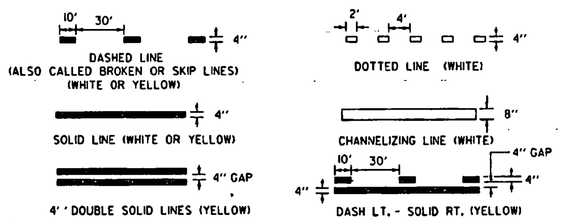
TYPE A (CONCRETE)

TYPE B (CONCRETE)

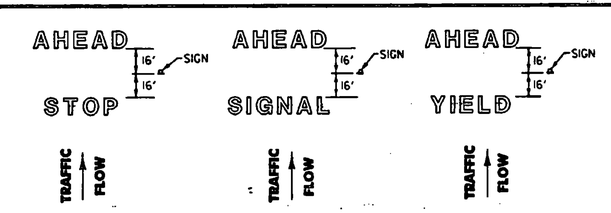
PAINTED CURB



PAVEMENT MARKING PLACEMENT DETAIL

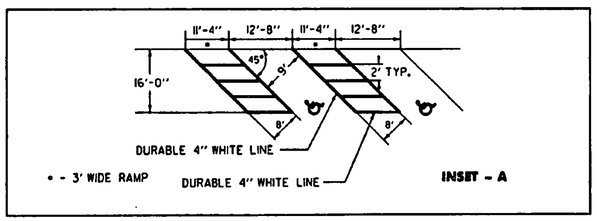


PAVEMENT MARKING LINE DETAILS

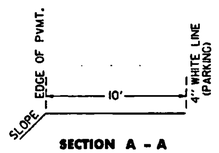


LETTER IN WORD MARKING SPACING DETAIL

NOTE: SINGLE WORDS CENTERED ON SIGN ie: SCHOOL OR YIELD

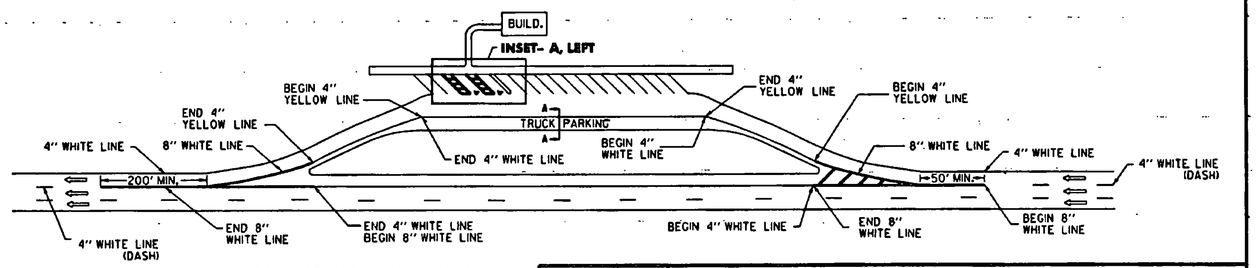


NOTE:
SEE STANDARD SHEET E-191 FOR HANDICAP SYMBOL POSITIONING AND DETAIL.



SECTION A - A

TRUCK PARKING DETAIL



REST AREA PARKING DETAILS

THIS SHEET IS NOT TO SCALE

OTHER STDS. E - 191, E - 192 REQUIRED

REVISIONS AND CORRECTIONS

AUG. 18, 1995 - DATE OF ORIGINAL ISSUE

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

DIRECTOR OF ENGINEERING

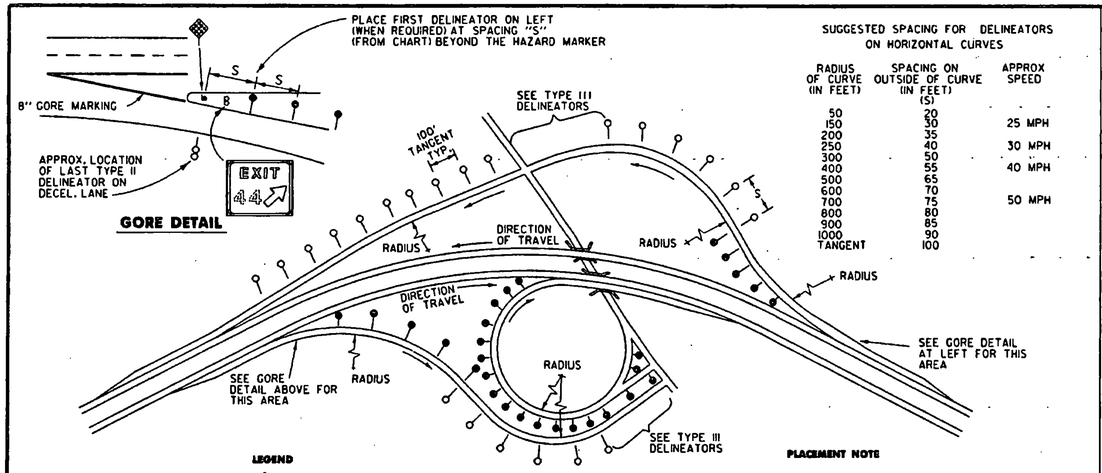
TRAFFIC AND SAFETY ENGINEER

PAVEMENT MARKING DETAILS

/traf/std/stde193.dgn/stde193.1

VERMONT AGENCY OF TRANSPORTATION

STANDARD E-193



SUGGESTED SPACING FOR DELINEATORS ON HORIZONTAL CURVES

RADIUS OF CURVE (IN FEET)	SPACING ON OUTSIDE OF CURVE (IN FEET) (S)	APPROX SPEED
50	20	
150	30	25 MPH
200	35	
250	40	30 MPH
300	50	
400	55	40 MPH
500	65	
600	70	
700	75	50 MPH
800	80	
900	85	
1000	90	
TANGENT	100	

LEGEND

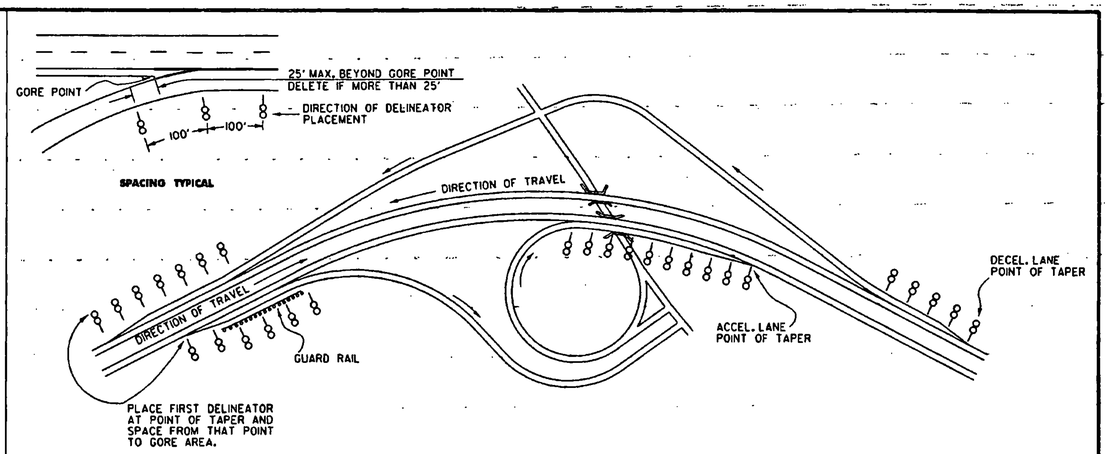
WHITE OR AMBER — RIGHT SIDE / LEFT SIDE

A TYPE I DELINEATOR CONSISTS OF A SINGLE WHITE OR AMBER REFLECTOR BUTTON MOUNTED ON A 1.12 LB/FT MIN. FLANGED CHANNEL POST AND IS POSITIONED TO REFLECT TO TRAFFIC APPROACHING FROM THE NORMAL DIRECTION OF TRAVEL.

TYPE I (RAMPS)

PLACEMENT NOTE

TYPE I DELINEATORS ARE TO BE PLACED ON THE OUTSIDE OF RAMP CURVES AT THE APPROPRIATE SPACING FOR CURVE RADIUS OR RAMP SPEED AS SHOWN ON THE CHART AND PLACED AT 100 FOOT SPACING ON TANGENT ON THE DRIVERS' RIGHT. AMBER DELINEATORS ARE REQUIRED ON THE DRIVERS' LEFT AND WHITE DELINEATORS ON THE RIGHT. DELINEATORS SHALL NOT BE OMITTED BEHIND GUARD RAIL ON THE RAMPS AS IS THE CASE WITH TYPE I DELINEATORS ALONG THE MAIN LINE.



LEGEND

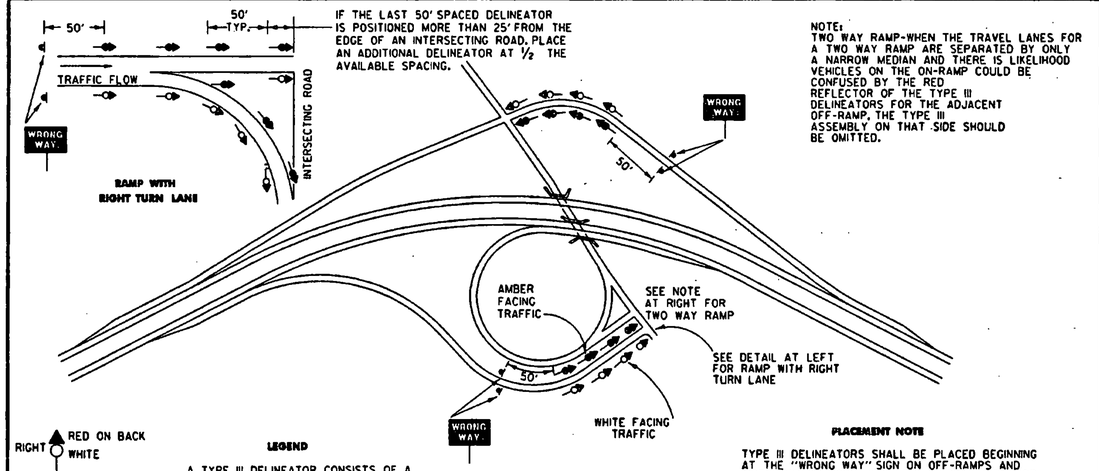
DOUBLE WHITE

A TYPE II DELINEATOR CONSISTS OF TWO WHITE REFLECTOR BUTTONS MOUNTED ONE ABOVE THE OTHER ON A 1.12 LB/FT MIN. FLANGED CHANNEL POST AND IS POSITIONED TO REFLECT TO TRAFFIC APPROACHING FROM THE NORMAL DIRECTION OF TRAVEL.

TYPE II

PLACEMENT NOTE

TYPE II DELINEATORS SHALL BE ERECTED CONTINUOUSLY ALONG THE RIGHT SIDE OF ACCELERATION AND DECELERATION LANES AT 100 FOOT INTERVALS AND SHALL NOT BE OMITTED BEHIND GUARD RAIL. DELINEATORS SHALL START AT THE BEGINNING POINT OF THE ACCEL. OR DECEL. LANE TAPER, AND END AT THE NOSE OF THE ENTRANCE OR EXIT GORE.



RIGHT: RED ON BACK / WHITE

LEFT: RED ON BACK / AMBER

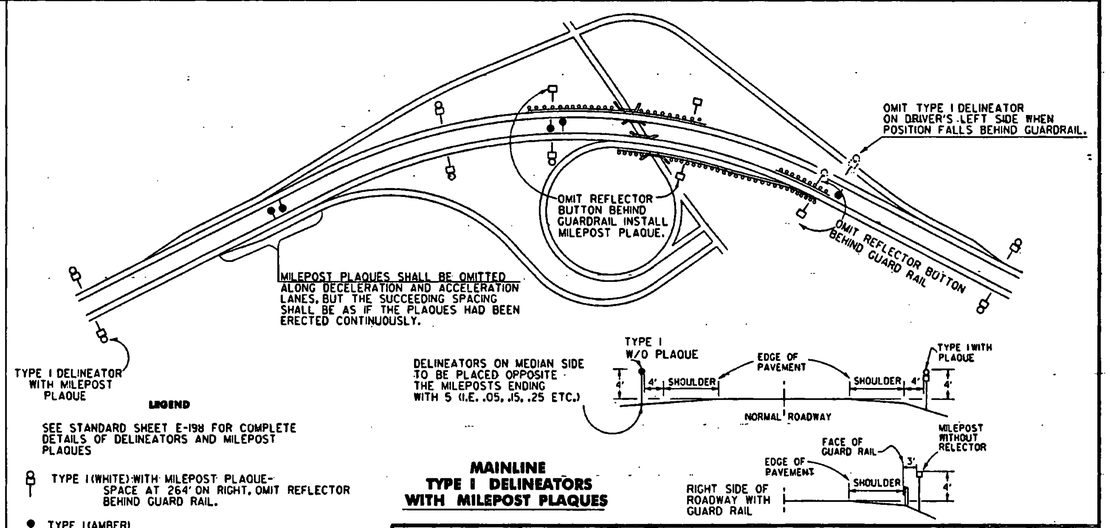
LEGEND

A TYPE III DELINEATOR CONSISTS OF A TYPE I DELINEATOR FACING THE NORMAL DIRECTION OF TRAVEL AND A SINGLE RED REFLECTOR FACING THE OPPOSITE DIRECTION. BOTH MOUNTED ON A 1.12 LB/FT MIN. FLANGED CHANNEL POST. THE WHITE AND RED COMBINATION IS PLACED ON THE DRIVER'S RIGHT AND THE AMBER AND RED ON THE LEFT.

TYPE III

PLACEMENT NOTE

TYPE III DELINEATORS SHALL BE PLACED BEGINNING AT THE "WRONG WAY" SIGN ON OFF-RAMPS AND INSTALLED ON 50' SPACING TO A POINT NOT MORE THAN 25 FEET FROM THE INTERSECTING ROADWAY. THE "WRONG WAY" SIGNS ARE NORMALLY 250 FEET FROM THE INTERSECTING ROADWAY.



LEGEND

SEE STANDARD SHEET E-198 FOR COMPLETE DETAILS OF DELINEATORS AND MILEPOST PLAQUES

TYPE I (WHITE) WITH MILEPOST PLAQUE - SPACE AT 264' ON RIGHT, OMIT REFLECTOR BEHIND GUARD RAIL.

TYPE I (AMBER) SPACE AT 528' ON LEFT, OMIT ENTIRE ASSEMBLY BEHIND GUARD RAIL.

MAINLINE TYPE I DELINEATORS WITH MILEPOST PLAQUES

THIS SHEET IS NOT TO SCALE

OTHER STDS REQUIRED

REVISIONS AND CORRECTIONS

JAN. 23, 1989 - DATE OF ORIGINAL ISSUE

AUG. 18, 1995 - REVISED NOTES

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

DIRECTOR OF ENGINEERING

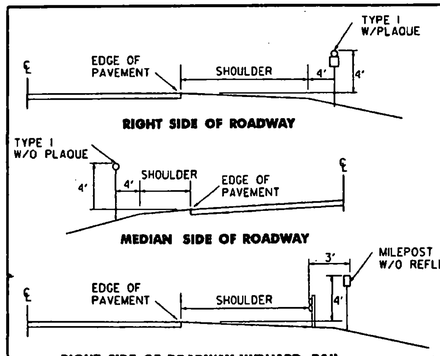
TRAFFIC AND SAFETY ENGINEER

DELINEATOR PLACEMENT TYPICAL

/traf/std/stdel97.dgn/stdel97.i

VERMONT AGENCY OF TRANSPORTATION

STANDARD E-197



TYPICAL PLACEMENT OF TYPE I DELINEATORS AND MILEPOSTS ON DIVIDED HIGHWAY

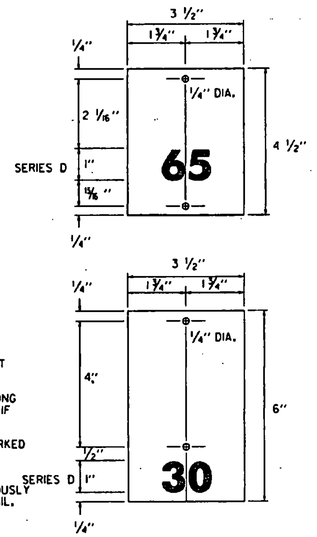
TYPE I DELINEATORS WITH WHITE REFLECTOR UNITS AND THE APPROPRIATE MILEPOST PLAQUES SHALL BE ERECTED CONTINUOUSLY ALONG THE RIGHT SIDE OF THE DIVIDED HIGHWAYS BETWEEN MILEMARKERS, EXCEPT THAT BEHIND GUARD RAIL MILEPOSTS WITHOUT REFLECTORS SHALL BE ERECTED.

THE TYPE I DELINEATORS WITH OR WITHOUT MILEPOST PLAQUES SHALL BE OMITTED ALONG DECELERATION AND ACCELERATION LANES, BUT THE SUCCEEDING SPACING SHALL BE AS IF THE DELINEATORS HAD BEEN ERECTED CONTINUOUSLY AND SHALL BE SO INDICATED.

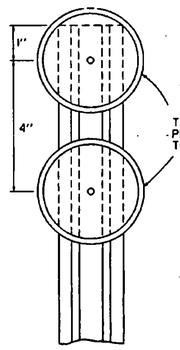
THE LOCATION OF TYPE I DELINEATORS AND MILEPOSTS ARE TO BE COMPUTED AND MARKED IN THE FIELD BY THE ENGINEER IN ACCORDANCE WITH THE LATEST REVISION OF THE AGENCY'S "POLICY ON LOCATION MARKING FOR VERMONT DIVIDED HIGHWAYS."

TYPE I AMBER DELINEATORS WITHOUT MILEPOST PLAQUES SHALL BE ERECTED CONTINUOUSLY ALONG THE LEFT OR MEDIAN SIDE ON THE DIVIDED HIGHWAYS EXCEPT BEHIND GUARD RAIL, AND CONTINUED AT APPROXIMATELY THE SAME SPACING THROUGH INTERCHANGES AND REST AREAS WHERE THERE MAY NOT BE ANY TYPE I DELINEATORS ON THE RIGHT SIDE. THE SAME LATERAL PLACEMENT SHALL BE FOLLOWED ON THE LEFT AS ON THE RIGHT. TYPE I DELINEATORS WITHOUT MILEPOST PLAQUE SHALL BE INSTALLED ON INTERSTATE RAMPS AS SHOWN ON THE PLANS.

MILEPOST PLAQUE "A"
(THE NUMERALS ON PART "A" INDICATE THE MILE.)

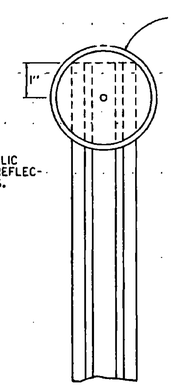


MILEPOST PLAQUE PART "B"
(THE NUMERAL ON PART "B" INDICATES IN FIVE ONE-HUNDREDTHS OF A MILE BETWEEN MILE INCREMENTS.)

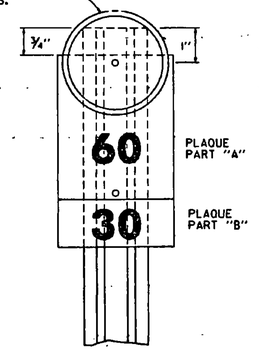


TYPE II

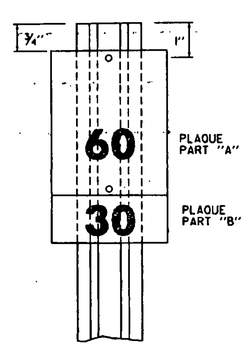
DELINEATORS WITH ACRYLIC PLASTIC REFLECTORS



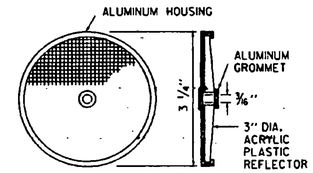
TYPE I WITHOUT PLAQUE



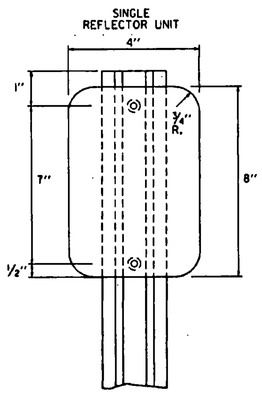
TYPE I WITH PLAQUE



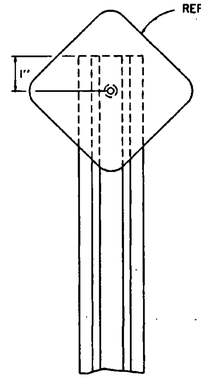
MILEPOST WITHOUT REFLECTOR



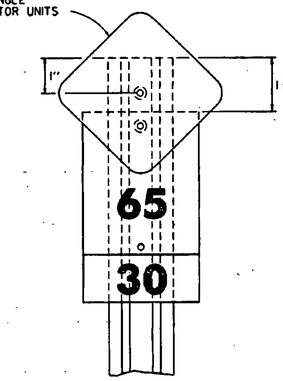
DELINEATOR PLASTIC REFLECTOR UNIT



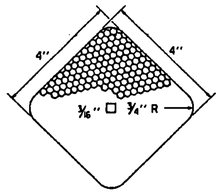
TYPE II



TYPE I WITHOUT PLAQUE

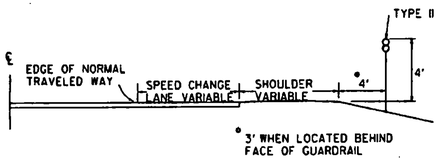


TYPE I WITH PLAQUE



DELINEATOR REFLECTIVE SHEETING UNIT

MATERIAL FOR REFLECTIVE SHEETING DELINEATORS SHALL BE A 0.063" ALUMINUM BACKING WITH A SILVER, AMBER OR RED HIGH INTENSITY REFLECTIVE SHEETING.



TYPICAL PLACEMENT OF TYPE II DELINEATORS ON SPEED CHANGE LANES

TYPE II DELINEATORS SHALL BE ERECTED CONTINUOUSLY ALONG THE RIGHT SIDE OF THE DECELERATION AND ACCELERATION LANES AT 100' INTERVALS INCLUDING GUARDRAIL SECTIONS THE DELINEATORS SHALL START AT THE BEGINING OF THE TAPER AND END AT THE NOSE OF THE EXIT OR ENTRANCE GORE. THEY SHALL HAVE WHITE REFLECTOR UNITS.

TYPE III DELINEATORS - SEE NOTE # 1

TYPE III DELINEATORS SHALL BEGIN 50' FROM WRONG WAY SIGNS AND EXTEND EVERY 50' TO A POINT NOT LESS THAN 25' FROM THE DIVIDED HIGHWAY AND BE MOUNTED ON BOTH SIDES OF THE ROAD AS SHOWN ON THE PLANS.

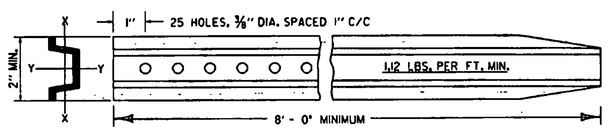
NOTES

1. TYPE III DELINEATORS WILL BE TYPE I DELINEATORS WITH AN ADDITIONAL RED REFLECTIVE UNIT MOUNTED ON THE REVERSE SIDE. THEY SHALL BE ERECTED ON THE RIGHT AND LEFT SIDE OF THE RAMPS AS INDICATED ON THE PLANS.
2. EACH UNIT COMPLETE IN PLACE OF DELINEATOR TYPE I WITH OR WITHOUT PLAQUE, DELINEATOR TYPE II, DELINEATOR TYPE III, OR MILEPOST WITHOUT REFLECTOR SHALL BE PAID FOR AS "DELINEATOR."
3. FOR MOUNTING DELINEATORS AND MILEPOSTS ON BRIDGES, SEE STANDARD E-199.
4. DELINEATOR POSTS SHALL HAVE A MINIMUM EMBEDMENT OF 2' IN THE GROUND.

DELINEATORS WITH REFLECTIVE SHEETING

MILEPOST PLAQUES WITH OR A WITHOUT REFLECTOR UNIT SHALL BE MOUNTED ON THE POST WITH TWO OR THREE ⅜" DIA. BY 1½" LONG ALUMINUM BOLTS WITH ½" DIA. ALUMINUM VANDAL RESISTANT NUTS, OR ⅜" DIA. BY 1½" LONG VANDAL RESISTANT FASTENERS.

SECTION MODULUS
YY = 0.11 IN.^{3} MIN.
XX = 0.08 IN.^{3} MIN.



NOT TO SCALE

OTHER STDS. REQUIRED:

REVISIONS AND CORRECTIONS
SEPT. 10, 1987 - DATE OF ORIGINAL ISSUE
AUG. 18, 1995 - MINOR NOTE REVISIONS

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

APPROVED

DIRECTOR OF ENGINEERING

TRAFFIC AND SAFETY ENGINEER

FREEWAY - EXPRESSWAY DELINEATORS AND MILEPOSTS

/traf/std/stdel98.dgn : stdel98.l

VERMONT AGENCY OF TRANSPORTATION

STANDARD
E-198