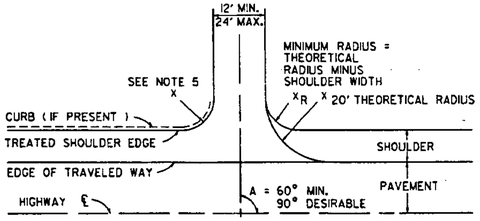
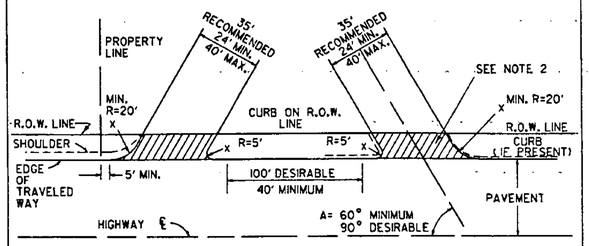
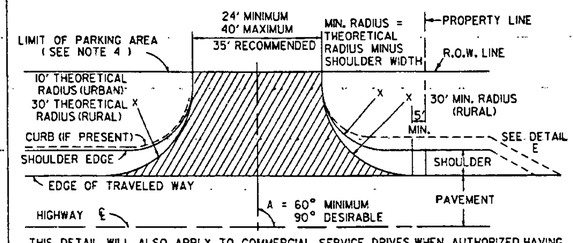
DETAIL A — RESIDENTIAL DRIVE



DETAIL B — DUAL COMMERCIAL DRIVE TO BE USED ONLY UNDER SPECIAL CONDITIONS

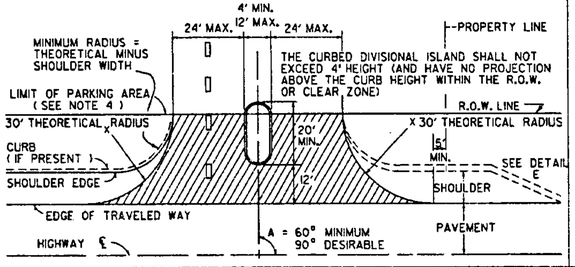


DETAIL C — TWO-WAY UNDIVIDED COMMERCIAL DRIVE FOR SINGLE STORES, BUSINESSES, SMALL HOUSING DEVELOPMENTS

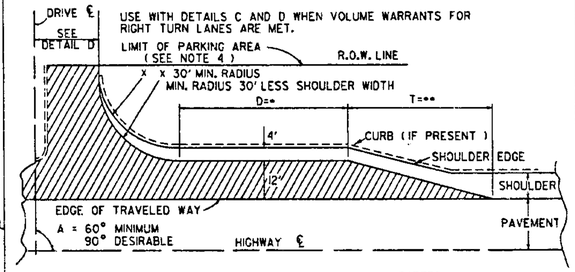


THIS DETAIL WILL ALSO APPLY TO COMMERCIAL SERVICE DRIVES, WHEN AUTHORIZED, HAVING A MAXIMUM WIDTH OF 20'. THE SERVICE DRIVE WILL HAVE A "SERVICE VEHICLES ONLY" SIGN PLACED AT THE HIGHWAY ROW LINE. SIGN SHALL BE 18"X 24" AS PRESCRIBED IN THE STANDARD HIGHWAY SIGN BOOKLET, A SUPPLEMENTAL PUBLICATION TO MUTCD.

DETAIL D — TWO-WAY COMMERCIAL DRIVE WITH DIVISIONAL ISLAND FOR SHOPPING CENTERS, LARGE HOUSING DEVELOPMENTS, INDUSTRIAL PLANTS AND SERVICE STATIONS



DETAIL E — RIGHT TURN LANE FOR COMMERCIAL DRIVE (UNSIGNALIZED INTERSECTIONS ONLY)

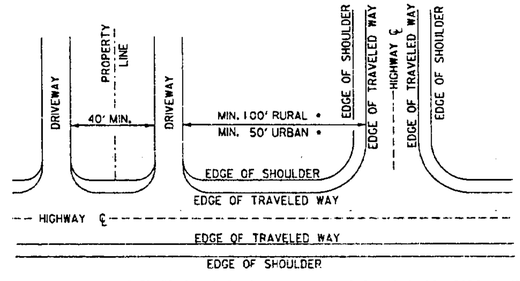


*LENGTH OF FULL WIDTH STORAGE (D) IS 50' FOR EACH 60 RIGHT TURNING VEHICLES IN DHV WITH MINIMUM LENGTH OF 50'.

TAPERS

SPEED (MPH)	30	40	50
**LENGTH (MIN)(FT)(T) RATE	100 8:1	140 12:1	180 15:1

DETAIL F — MINIMUM HORIZONTAL SEPARATION BETWEEN DRIVEWAYS AND INTERSECTING SIDEROADS



* MINIMUM UNLESS NO OTHER REASONABLE ACCESS IS AVAILABLE AND PRIOR APPROVAL IS GRANTED BY THE A.O.T. OTHER ITEMS SUCH AS TRAFFIC SIGNALS, HIGH TRAFFIC VOLUMES, OR FUNCTIONAL CLASS OF HIGHWAY SHOULD BE CONSIDERED WHEN DETERMINING APPROPRIATE OFFSET DISTANCE

NOTES:

1. THIS SHEET IS INTENDED FOR USE BY DESIGNERS ON HIGHWAY PROJECTS AND IN CONJUNCTION WITH A PERMIT, FOR WORK WITHIN HIGHWAY RIGHTS OF WAY (FORM TA 210). ALL CONSTRUCTION REQUIRED BY THE PERMIT AND INDICATED ON THIS SHEET SHALL BE THE RESPONSIBILITY OF THE APPLICANT AND IS SUBJECT TO THE APPROVAL OF THE VT. AGENCY OF TRANSPORTATION, WHEN USED WITH THE PLANS FOR A HIGHWAY CONSTRUCTION PROJECT, THIS SHEET IS INTENDED TO BE A GUIDE FOR THE DESIGNER CONCERNING MIN/MAX DRIVE WIDTHS AND OTHER VERTICAL AND GEOMETRIC CHARACTERISTICS.
2. ALL COMMERCIAL DRIVES SHALL BE PAVED FROM THE EDGE OF THE TRAVELED WAY TO THE HIGHWAY RIGHT-OF-WAY, TO THE FARTHEST POINT OF CURVATURE ON THE DRIVEWAY EDGE OR AS DIRECTED BY THE DISTRICT TRANSPORTATION ADMINISTRATOR. THIS PAVING IS INDICATED IN THE DETAILS BY CROSS-HATCHING.
3. DEPTH OF SUB-BASE, BASE, AND PAVEMENT TO BE THE SAME AS HIGHWAY OR MINIMUM AS SHOWN IN DETAIL J. WITHIN THE LIMITS OF THE HIGHWAY RIGHT-OF-WAY.
4. VEHICULAR ACCESS FROM PARKING AREAS TO THE RIGHT-OF-WAY AT OTHER THAN APPROVED ACCESS POINTS WILL BE PREVENTED BY THE CONSTRUCTION OF CURBING OR OTHER SUITABLE PHYSICAL BARRIER.
5. IF CURB IS PRESENT, SEE APPROPRIATE CURB DETAIL STANDARD OR MATCH TOWN/CITY STANDARD CURB TREATMENT.
6. WHERE THE DESIGN HOUR VOLUME OF LEFT TURNING TRAFFIC FROM THE HIGHWAY INTO THE DRIVE IS SUBSTANTIAL, THE VT. AGENCY OF TRANSPORTATION MAY REQUIRE SPECIAL LEFT-TURN TREATMENT AND/OR TRAFFIC SIGNALS. THE AGENCY WILL DETERMINE THE SPECIFIC TREATMENT TO BE USED, AND WILL WORK WITH THE DEVELOPER IN REGARD TO IMPLEMENTATION OF CHANGES ON STATE HIGHWAYS.
7. CIRCULAR DRAINAGE CULVERTS UNDER DRIVES SHALL HAVE A MINIMUM INSIDE DIAMETER (I.D.) OF 15", PIPE ARCHES USED UNDER DRIVES SHALL HAVE A MINIMUM INSIDE CROSS-SECTIONAL AREA EQUIVALENT TO THAT PROVIDED BY A 15" CIRCULAR PIPE.
8. THE OFFSET BETWEEN THE PROPERTY LINE AND THE EDGE OF THE DRIVEWAY MAY BE GOVERNED BY LOCAL ZONING LAWS. DRIVEWAY WIDTH RESTRICTIONS SHOWN PERTAIN ONLY TO THE AREA WITHIN THE HIGHWAY R.O.W..
9. DRIVEWAY GRADES STEEPER THAN THOSE SHOWN MAY BE ALLOWED AS LONG AS A 20' APPROACH AREA IS ACHIEVED FOR THE VEHICLE TO PAUSE BEFORE ENTERING THE HIGHWAY.
10. CORNER SIGHT DISTANCES, EQUAL TO OR GREATER THAN THOSE SHOWN BELOW, SHALL BE PROVIDED IN BOTH DIRECTIONS FOR ALL DRIVES ENTERING ON PUBLIC HIGHWAYS, UNLESS OTHERWISE APPROVED BY THE AGENCY OF TRANSPORTATION. CORNER SIGHT DISTANCE IS MEASURED FROM A POINT ON THE DRIVE AT LEAST 15 FEET FROM THE EDGE OF TRAVELED WAY OF THE ADJACENT ROADWAY AND MEASURED FROM A HEIGHT OF EYE OF 3.5 FEET ON THE DRIVE TO A HEIGHT OF 4.25 FEET ON THE ROADWAY.

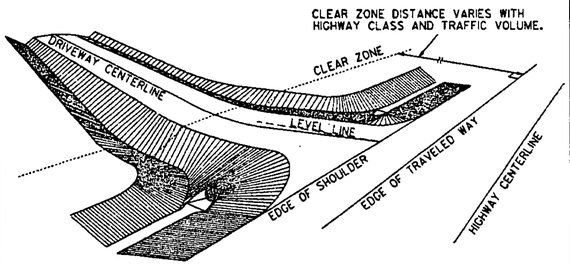
SIGHT DISTANCE CHART

POSTED SPEED OR DESIGN SPEED (M.P.H.)	MINIMUM STOPPING SIGHT DISTANCE (FT)	MINIMUM CORNER SIGHT DISTANCE ** (1990 AASHTO) (FT)
25	150	275
30	200	355
35	225	445
40	275	560
45	325	660
50	400	770
55	450	935

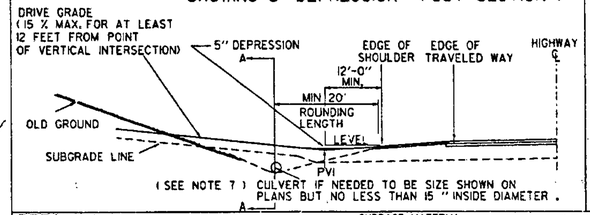
NOTE : ADVANCE WARNING SIGNS WILL BE REQUIRED IF OBTAINABLE CORNER SIGHT DISTANCES ARE BELOW MINIMUM STOPPING SIGHT DISTANCES.

**ASSUMES AN APPROACHING VEHICLE WILL REDUCE ITS SPEED (BY CONSTANT DECELERATION) TO 85% OF THE POSTED OR DESIGN SPEED OF THE HIGHWAY BEFORE OVERTAKING A VEHICLE ENTERING THE TRAFFIC STREAM. IT FURTHER ASSUMES THE VEHICLE ENTERING THE TRAFFIC STREAM WILL ACCELERATE AS SOON AS POSSIBLE TO THE SPEED OF THE APPROACHING VEHICLE. WHEN CONSIDERING ACCESSES ONTO EXISTING HIGHWAYS THERE MAY BE SITUATIONS WHEN A DRIVER WILL NOT HAVE THE MINIMUM CORNER SIGHT DISTANCE AND WILL HAVE TO REDUCE HIS RUNNING SPEED TO ALLOW AN ENTERING VEHICLE TIME TO ENTER THE STREAM OF TRAFFIC.

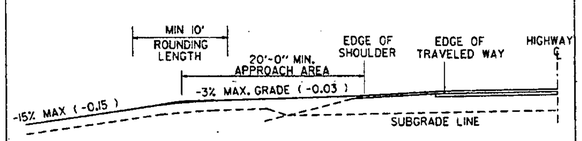
DETAIL G — PERSPECTIVE SKETCH OF DRIVE INTERSECTION SHOWING DEPRESSION



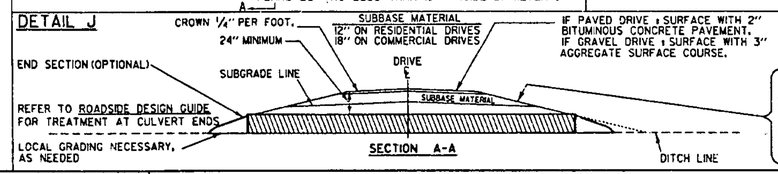
DETAIL H — PROFILE OF DRIVE INTERSECTION SHOWING 5" DEPRESSION (CUT SECTION)



DETAIL I — PROFILE OF DRIVE INTERSECTION (FILL SECTION)



DETAIL J — DRIVE CROSS SECTION AT DITCHLINE



IF PAVED DRIVE : SURFACE WITH 2" BITUMINOUS CONCRETE PAVEMENT. IF GRAVEL DRIVE : SURFACE WITH 3" AGGREGATE SURFACE COURSE.

DRIVE SIDE SLOPES

LOCATION	SLOPE RATE =
V > 40 MPH	6:1 OR FLATTER
URBAN AREAS, OR V ≤ 40 MPH	4:1 DESIRABLE 2:1 ALLOWABLE
OUTSIDE CLEAR ZONE	2:1 OR FLATTER

REVISIONS AND CORRECTIONS

DEC. 11, 1992 - THIS STANDARD SUPERCEDES B-7 I (7/23/80R), B-7 IA (3/12/90), AND B-13 (12/14/71).

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

MAR. 10, 1995 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

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

Gordon A. McArthur
DIRECTOR OF ENGINEERING

Thomas Page
UTILITIES ENGINEER

STANDARDS FOR RESIDENTIAL AND COMMERCIAL DRIVES

GREATER THAN MINIMUM VALUES TO BE USED WHENEVER FEASIBLE

VERMONT AGENCY OF TRANSPORTATION

STANDARD B-71