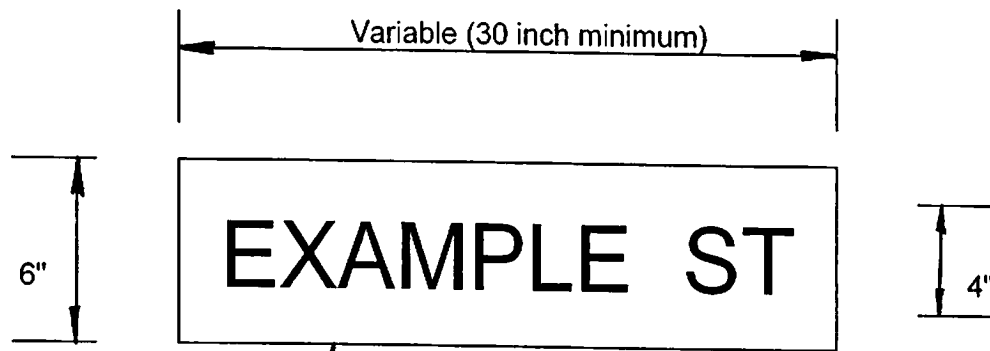


Standard Details

Pavement / Curb / Walk

City of Steubenville - Public Works



On extruded blades, trim reflective sheeting to expose 3/8 inch of blade on top and bottom.

1. Signs shall meet the requirements of ODOT Item 630. Sheeting to be ODOT Type "G" (730.19).
 2. The sign shall be faced on both sides.
 3. Sign faces shall be fabricated with reflectorized white letters on reflectorized green background.
 4. Series "C" letters are recommended, however series "B" letters are permitted.
 5. Sign blades shall have a nominal thickness of 0.120 inches and shall be made of 6061-T6 aluminum alloy.
 6. The standard 30 inch blade may be fabricated of flat sheet aluminum or extruded aluminum. Blades exceeding 30 inches shall use extruded aluminum.
 7. All blades shall be bonderized or anodized prior to applying the reflective sheeting.
 8. See Standard Drawings ST-153 and ODOT TC-41.20 & TC-41.40 for installation details.
- Note: Standard Drawing ST-153 is Available Upon Request.


TYPICAL - STREET NAME SIGNS

CITY OF STEUBENVILLE - Department of Public Works - Division of Engineering & Building
238 South Lake Erie Avenue - Steubenville, Ohio 43952-2158

SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG. NO.
		DTS	DTS		02/25/04	N.T.S.	ST-259

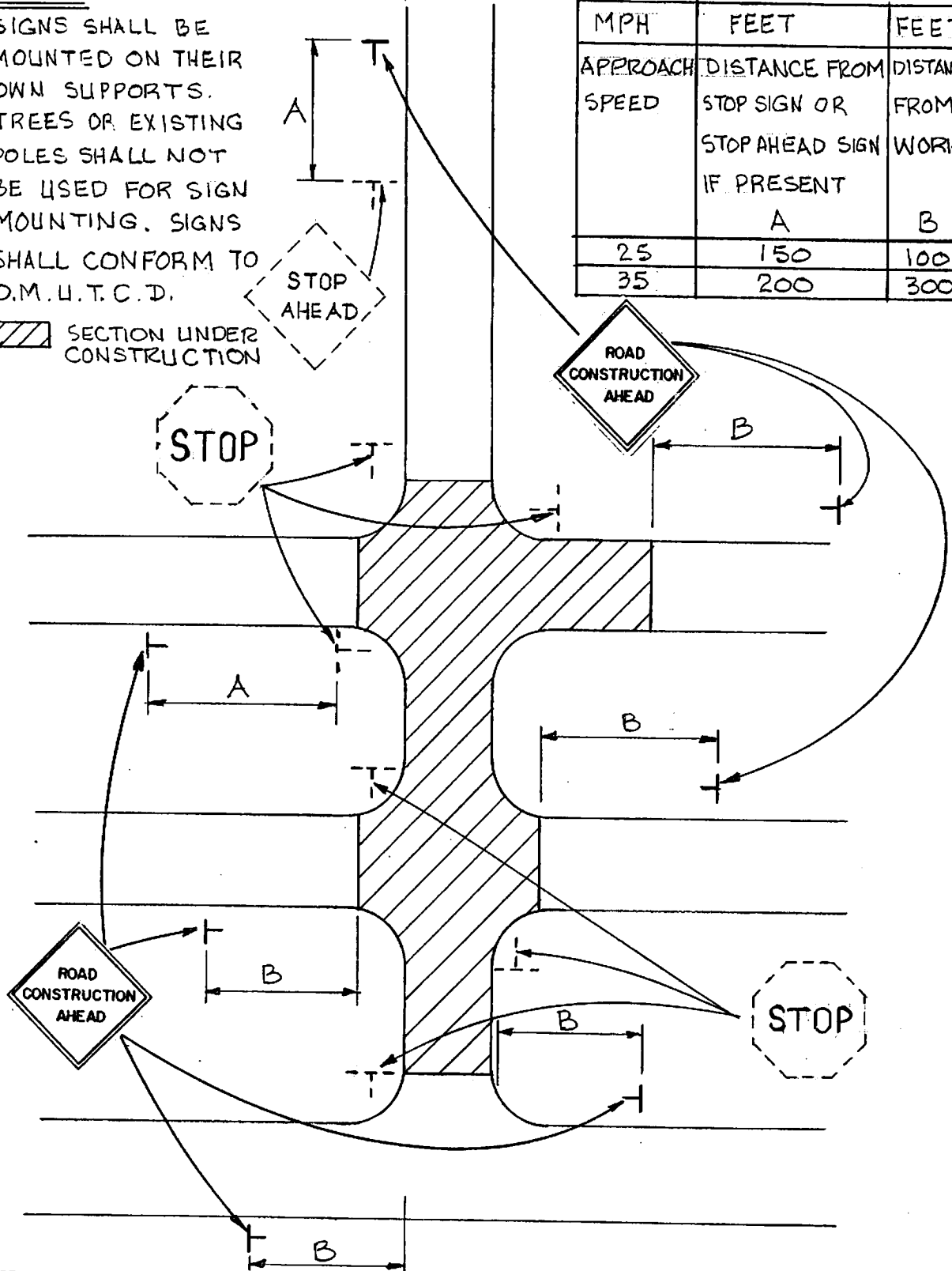
NOTE:

SIGNS SHALL BE MOUNTED ON THEIR OWN SUPPORTS. TREES OR EXISTING POLES SHALL NOT BE USED FOR SIGN MOUNTING. SIGNS SHALL CONFORM TO O.M.U.T.C.D.

 SECTION UNDER CONSTRUCTION

SIGN PLACEMENT DISTANCE

MPH	FEET	FEET
APPROACH SPEED	DISTANCE FROM STOP SIGN OR STOP AHEAD SIGN IF PRESENT	DISTANCE FROM WORK
	A	B
25	150	100
35	200	300



TYPICAL - "ROAD CONSTRUCTION AHEAD" SIGN PLACEMENT FOR STREET CONSTRUCTION.

CITY OF STEUBENVILLE - DIV. OF ENGINEERING & BUILDING
 238 SOUTH LAKE ERIE AVENUE STEUBENVILLE, OHIO 43952

SURVEY	DESIGN	DRAWN	CHECK	DATE	FIELD BOOK	SCALE	DWG. NO.
	DCE	AOH	DCE	4-11-94		NTS	ST-228

JOINT DETAILS FOR CONCRETE LOCAL STREETS

CITY OF
STEUBENVILLE
APRIL 1991

TYPE A EXPANSION JOINT

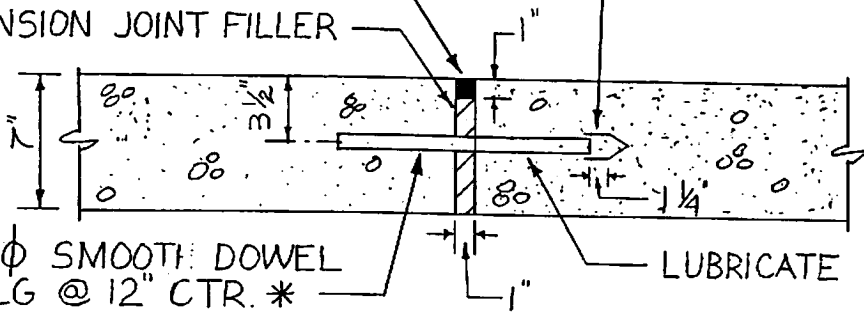
FILL WITH ODOT 705.04
JOINT SEALER

EXPANSION JOINT FILLER

EXPANSION CAP

3/4" ϕ SMOOTH DOWEL
15" LG @ 12" CTR. *

LUBRICATE THIS END

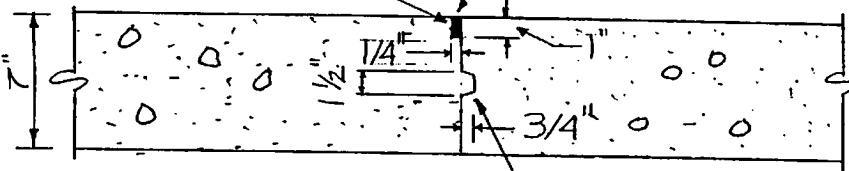


TYPE B LONGITUDINAL CONSTRUCTION JOINT

FILL WITH ODOT 705.04
JOINT SEALER

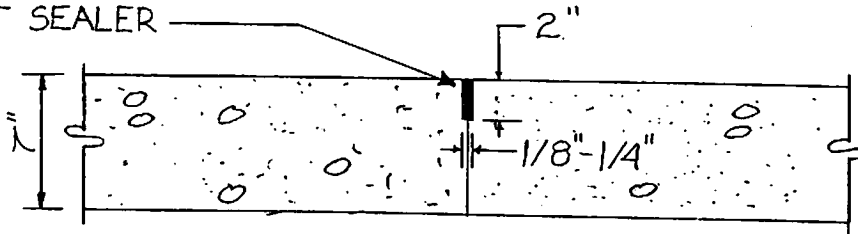
1/8" RADIUS

KEYWAY FORMED BY
FASTENING METAL KEY
TO FORM



TYPE C SAWED LONGITUDINAL OR TRANSVERSE JOINT

FILL WITH ODOT 705.04
JOINT SEALER



TYPE D TRANSVERSE CONSTRUCTION JOINT

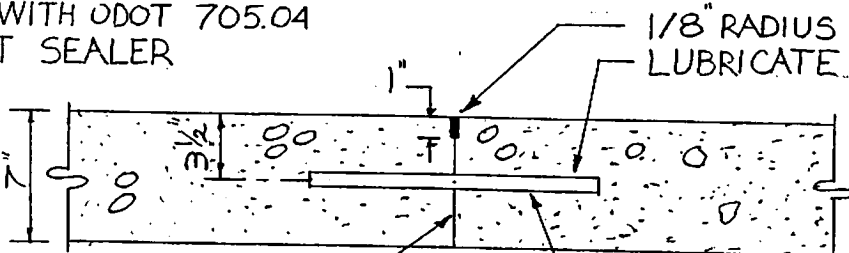
FILL WITH ODOT 705.04
JOINT SEALER

1/8" RADIUS
LUBRICATE ONE END

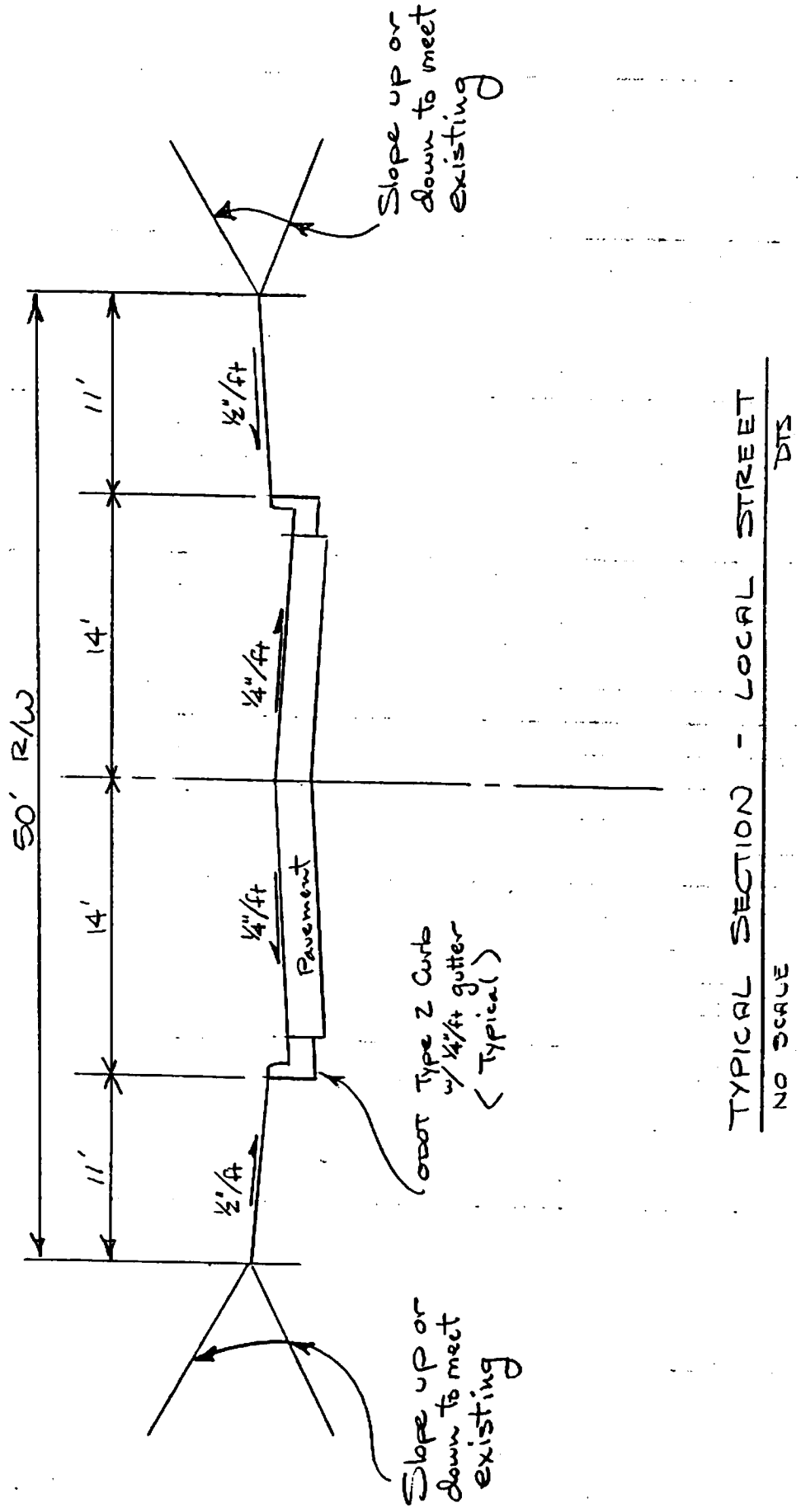
BUTT JOINT FORMED
BULK HEAD

3/4" ϕ SMOOTH DOWEL BAR
15" LG @ 12" CTR. *

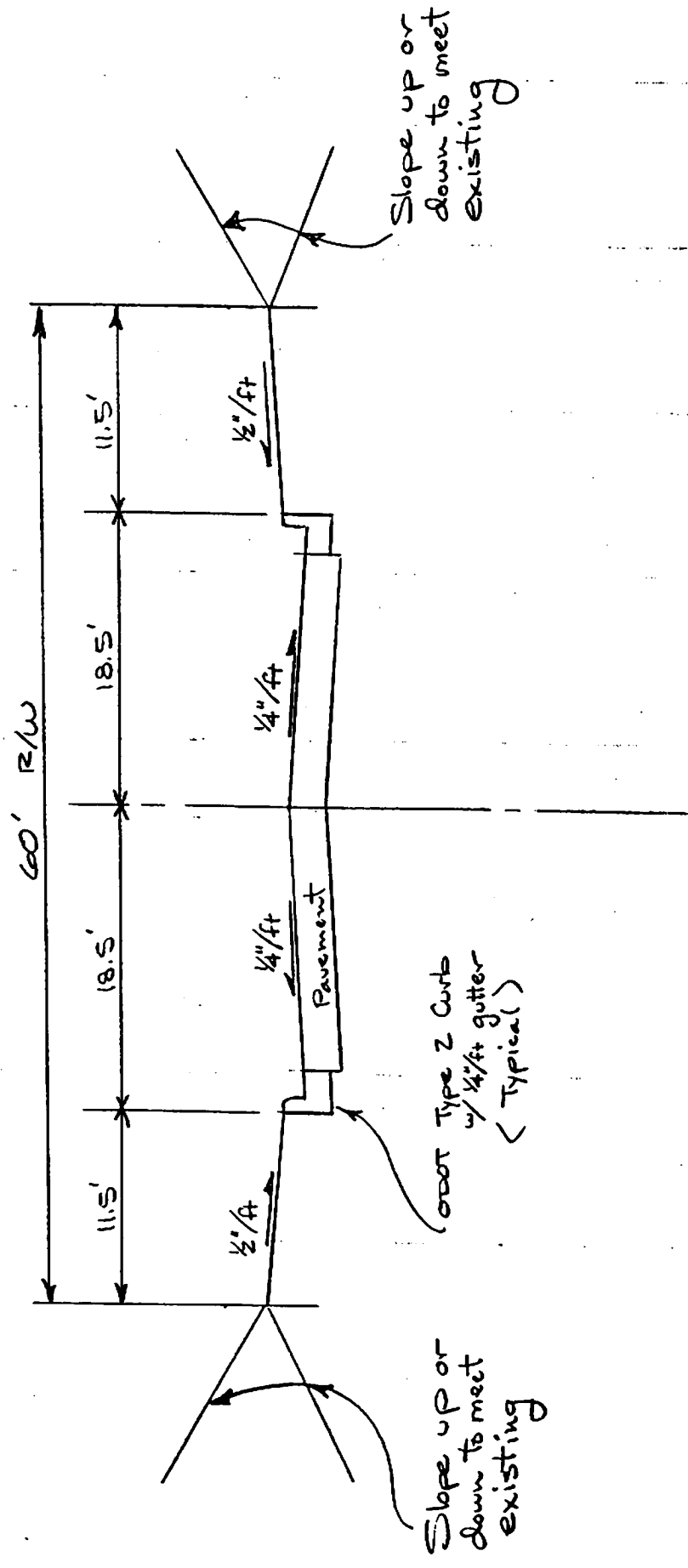
* WHEN INSTALLING AGAINST EXISTING PAVEMENT, THE DOWEL BAR HOLES SHALL BE DRILLED INTO THE EXISTING PAVEMENT AND THE DOWEL BARS GROUTED INTO POSITION.



ST-223

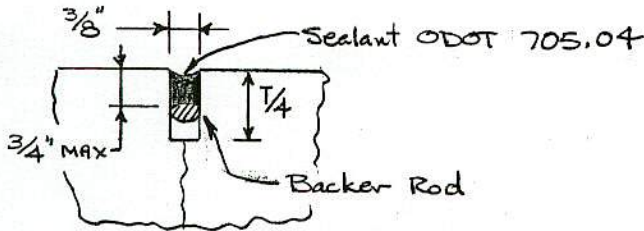


ST-222

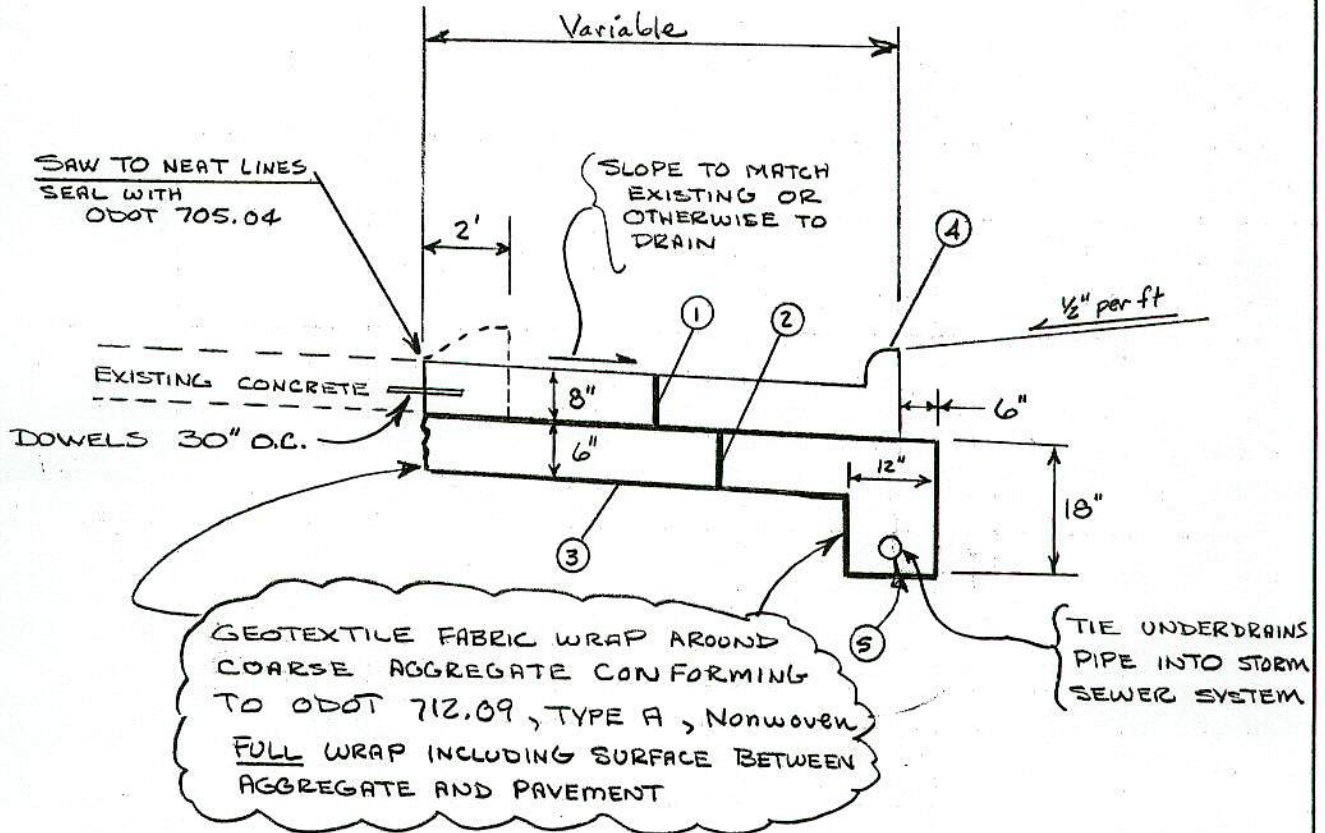


TYPICAL SECTION - COLLECTOR STREET
NO SCALE
DTS

TYPICAL SECTION - CONCRETE WIDENING



JOINT DETAIL



- ① ODOT 452 PLAIN CONCRETE PAVEMENT w/ FIBERS PER CITY SPECIFICATIONS
- ② ODOT 57 COURSE AGGREGATE
- ③ ODOT 203113 SUBGRADE
- ④ ODOT TYPE 2-A OR 3-A CURB
- ⑤ ODOT 605 - 6" PIPE UNDERDRAINS

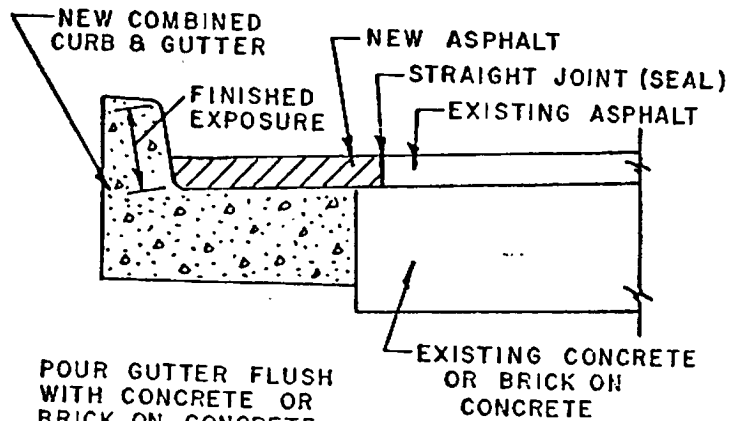
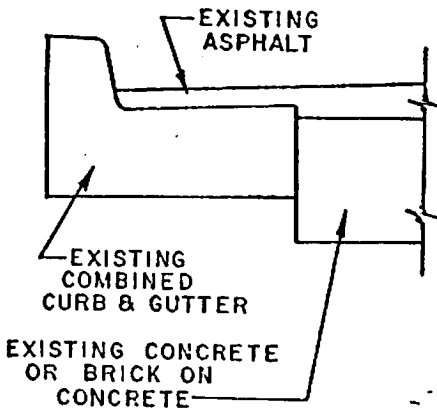
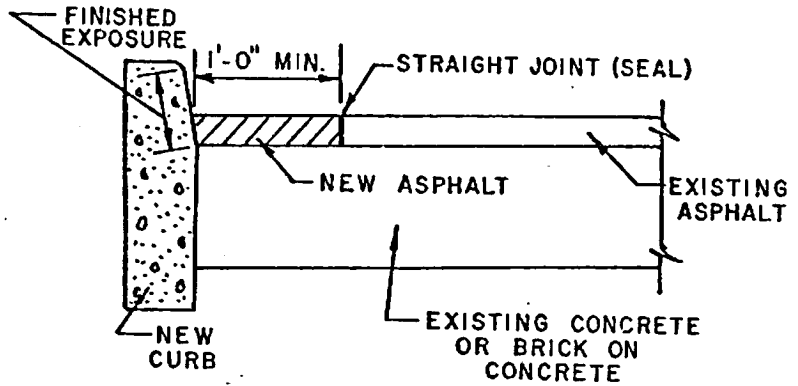
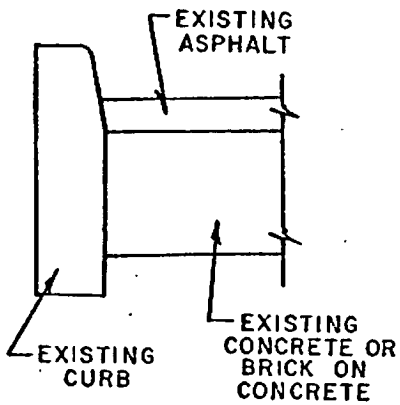
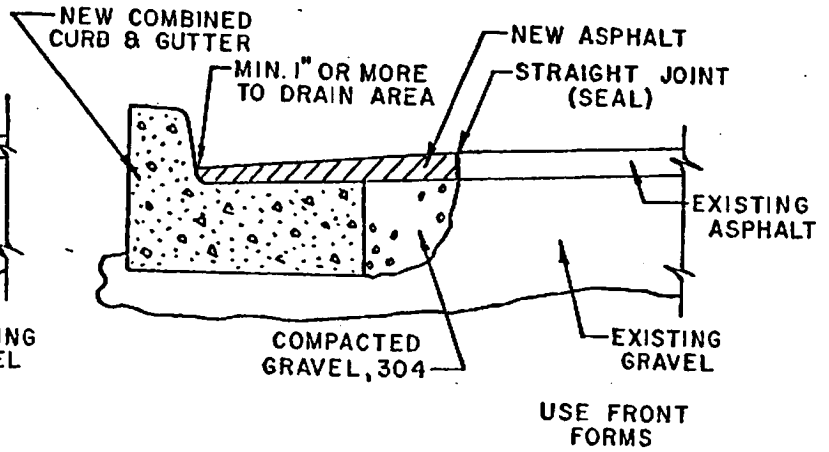
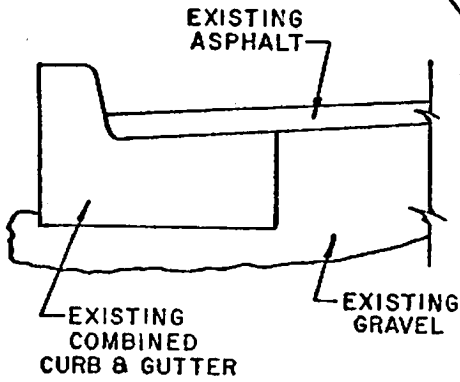
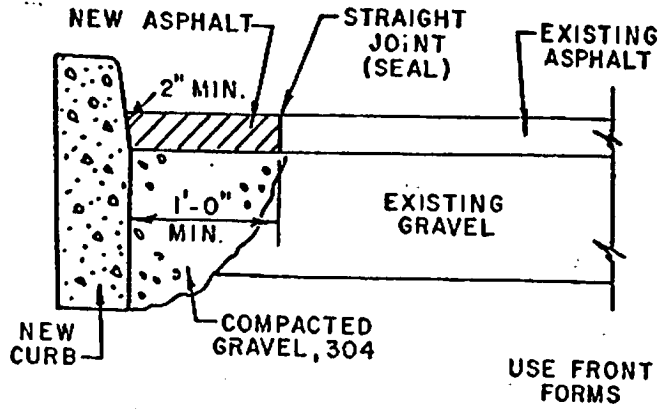
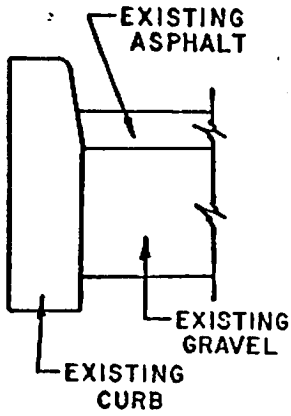
JOINTS { TRANSVERSE CONTRACTION/EXPANSION JOINTS ARE TO MATCH EXISTING WHERE POSSIBLE WITH MAXIMUM SPACING OF 13 FEET. ALL JOINTS TO BE SAWED WITHIN 24 HOURS OF POUR TO A MINIMUM DEPTH OF 2 INCHES. SEAL ALL JOINTS WITH ODOT 705.04 A MINIMUM OF 60 DAYS AFTER CONCRETE IS PLACED. SEE ODOT STANDARD DRAWINGS BP-2.1, BP-2.2, BP-2.5

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS



BEFORE

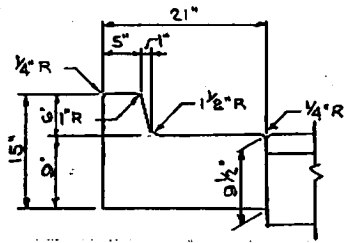
AFTER



POUR GUTTER FLUSH WITH CONCRETE OR BRICK ON CONCRETE BY INCREASING FINISHED CURB EXPOSURE.

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

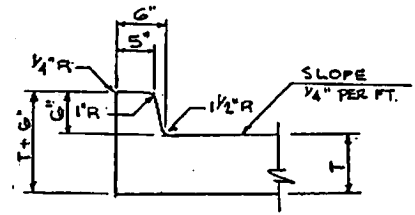
STANDARDS FOR STREET IMPROVEMENTS
METHODS OF CURB REPAIR ON EXISTING ASPHALT SURFACE STREET
OHIO
JANUARY 1969 14A 11048



TYPE A - COMBINED CURB AND GUTTER

NOTE:

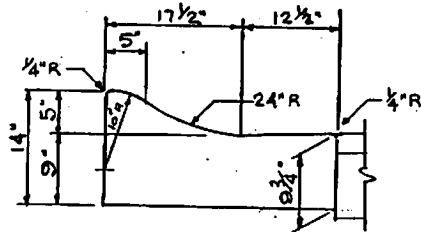
1. USE IN RESIDENTIAL, BUSINESS AND INDUSTRIAL AREAS AND ON COLLECTOR AND ARTERIAL STREETS.
2. USE WITH ASPHALT PAVEMENTS



TYPE B - INTEGRAL CURB

NOTE:

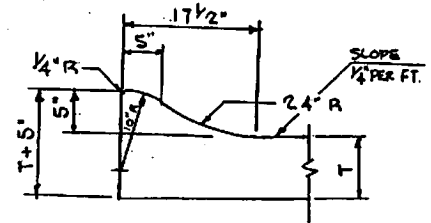
1. USE IN RESIDENTIAL, BUSINESS AND INDUSTRIAL AREAS AND ON COLLECTOR AND ARTERIAL STREETS.
2. USE WITH CONCRETE PAVEMENTS
3. TRANSVERSE JOINTS SHALL BE EXTENDED THROUGH THE CURB.



TYPE C - COMBINED ROLL CURB AND GUTTER

NOTE:

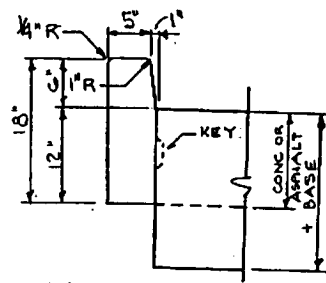
1. USE IN RESIDENTIAL AREAS ON LOCAL STREETS ONLY.
2. USE WITH ASPHALT PAVEMENTS



TYPE D - INTEGRAL ROLL CURB

NOTE:

1. USE IN RESIDENTIAL AREAS ON LOCAL STREETS ONLY.
2. USE WITH CONCRETE PAVEMENTS
3. TRANSVERSE JOINTS SHALL BE EXTENDED THROUGH THE CURB.



TYPE E - MEDIAN CURB

NOTE:

1. USE AROUND ALL MEDIAN SECTIONS WHERE PAVEMENT SLOPES AWAY FROM CURB.
2. USE WITH ASPHALT AND CONCRETE PAVEMENTS.
3. WHEN USED WITH CONCRETE PAVEMENTS, CURB SHALL BE KEYED AND NOT CONSTRUCTED INTEGRALLY.
4. WHEN USED WITH CONCRETE PAVEMENTS, TRANSVERSE JOINTS SHALL BE EXTENDED THROUGH THE CURB.

GENERAL NOTES:

1. CURB AND CURB AND GUTTER SHALL BE CONSTRUCTED ACCORDING TO THE REQUIREMENTS OF ODOT ITEM 609.
2. CONCRETE SHALL MEET THE REQUIREMENTS OF THE "CITY OF STEUBENVILLE SPECIFICATIONS FOR FIBROUS CONCRETE".
3. WHEN USED WITH ASPHALT PAVEMENTS, TYPE A, C AND E CURBING SHALL HAVE CONTRACTION JOINTS EVERY TEN (10) FEET.
4. WHEN USED WITH ASPHALT PAVEMENTS, PREMOLDED EXPANSION JOINTS (1/2") SHALL BE CONSTRUCTED ON EACH SIDE OF DRIVE APPROACH SECTIONS AND AT P.C. POINTS AT INTERSECTIONS. HOWEVER, THE MAXIMUM SPACING OF EXPANSION JOINTS SHALL NOT EXCEED FIFTY (50) FEET.
5. SIX (6) INCHES OF ODOT ITEM 304 SHALL BE PLACED UNDER TYPE A, C AND E CURBING WHEN IN A FILL AREA AND AS DIRECTED BY THE ENGINEER.
6. CURBING SHALL BE BACKFILLED AS SOON AS POSSIBLE AFTER THE FORMS ARE REMOVED.
7. A MINIMUM SIZE DRAIN TILE OF TWO (2) INCHES SHALL BE INSTALLED THROUGH CURB FOR ALL DOWNSPOUT DRAINS.
8. IN ONE FOOT OR MORE OF FILL, PROVIDE REINFORCING STEEL IN CURBING USING THREE (3) NUMBER 4 BARS AT EIGHT (8) INCH SPACING THREE (3) INCHES FROM THE BOTTOM OF THE CURBING.
9. PROVIDE EDGING TO ALL CORNERS AND JOINTS AND BROOM FINISH TO ALL EXPOSED SURFACES.

STANDARD CURB & CURB AND GUTTER

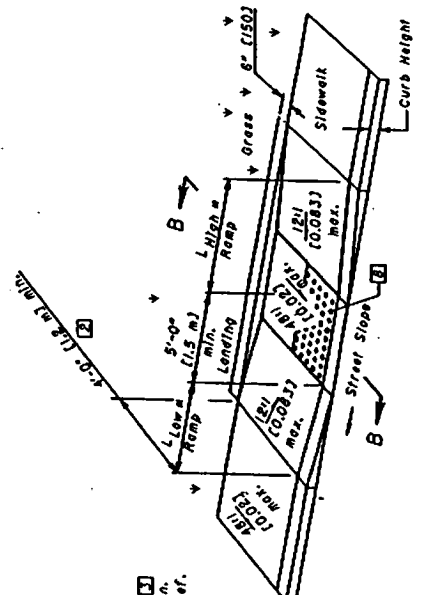
CITY OF STEUBENVILLE - Department of Public Works - Division of Engineering & Building
238 South Lake Erie Avenue - Steubenville, Ohio 43952-2158

SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG.NO.
		DTS	AOH		04/18/97	N.T.S.	ST-263

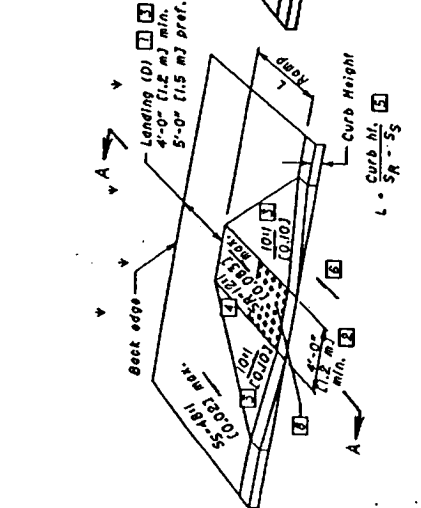
Street Slope	Ramp Length @ 1"/11 (0.083)	LOW SIDE " "	HIGH SIDE " "
0.01	5'-5" (1.6 m)	6'-10" (2.1 m)	
0.02	4'-10" (1.5 m)	7'-11" (2.4 m)	
0.03	4'-5" (1.3 m)	9'-5" (2.9 m)	
0.04	4'-1" (1.2 m)	11'-8" (3.6 m)	
0.05	3'-9" (1.1 m)	15'-2" (4.6 m)	

" Measured along the back of curb.
6" (150) High curb.

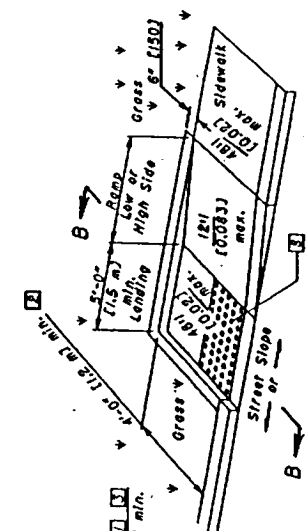
L HIGH = 0.083 • Street Slope [7]
L LOW = 0.083 • Street Slope [7]



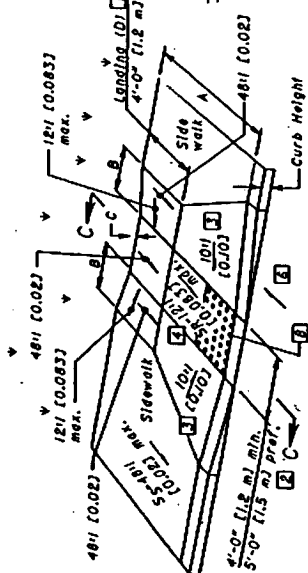
See SH. 3/3 for SECTION B-B
PARALLEL CURB RAMP DETAIL (DOUBLE)



See SH. 3/3 for SECTION A-A
PERPENDICULAR CURB RAMP DETAIL



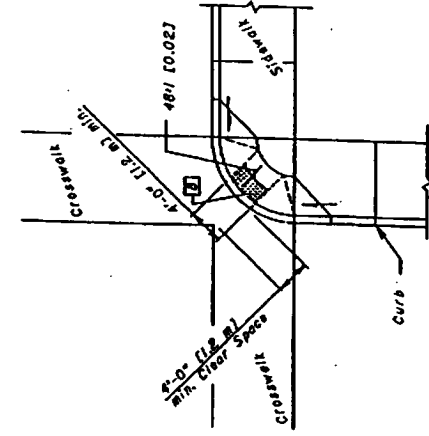
See SH. 3/3 for SECTION B-B
PARALLEL CURB RAMP DETAIL (SINGLE)



See SH. 3/3 for SECTION C-C
COMBINED CURB RAMP DETAIL
B = C / 0.083
C = (Curb Ht. • 115) - (1A-DISR • 10.02)

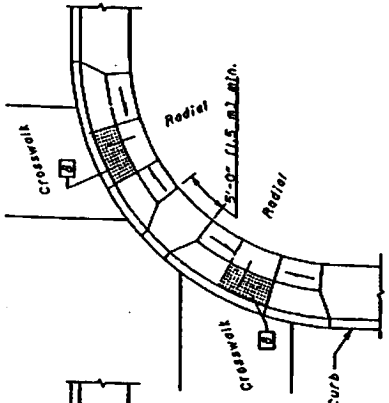
LEGEND

- [1] May be reduced to 3'-0" (0.91) in existing sidewalks if the landing is unobstructed along the back edge.
- [2] May be reduced to 3'-4" (1.02 m) in existing sidewalks to better fit the width, configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.
- [3] Where landing width (L) has been reduced to 3'-0" (0.91) the flared sides shall have a maximum slope of 1/11 (0.083). Flared sides are not required where the edge of a curb ramp are protected by landscaping or other barriers to travel by wheel chair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.
- [4] The slope of the ramp toward the curb is preferred to be 1/11 (0.083) or flatter related to the horizontal, but the maximum slope shall be 1/11 (0.083) relative to the existing or proposed walk slope.
- [5] In existing sidewalks, where the maximum ramp slope (S_R) is not feasible, it may be reduced as follows:
A) 1/11 (0.10) for a max. rise of 6" (150)
B) 8/1 (0.125) for a max. rise of 3" (75)
C) 6/1 (0.167) over a max. run of 2'-0" (610) for historic areas where a flatter slope is not feasible.
- [6] The minimum length of a perpendicular ramp is 6' (1.8 m) from the back of a 6" (150) curb and may be increased where feasible to obtain a flatter ramp slope or to better blend with the walk configuration.
- [7] Outer counter slopes of the foot of perpendicular curb ramps should not exceed 20/1 (0.05) over a distance of 2'-0" (610) from the curb.
- [8] Dimensions derived by equation are nominal. Construct ramp to meet required slopes and existing conditions.
- [9] Detectable Warnings (truncated domes) are to be installed in the location shown. Dimensions of the domes are 2-1/2" (64) from the back of the curb by the width of the ramp. See NOTES on sheet 3.

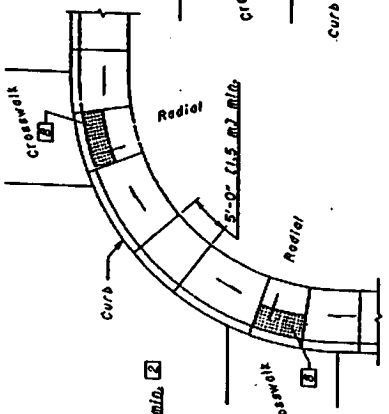


DESIGN D
DIAGONAL RAMP

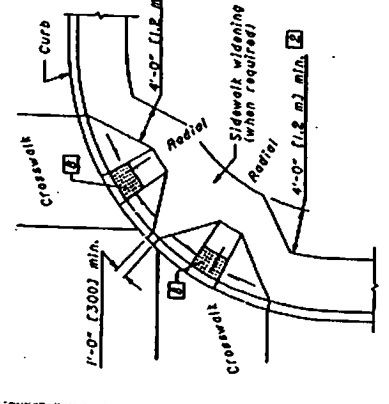
Use in existing walks only and when site constraints prohibit other designs. The diagonal ramp may be perpendicular, parallel or combination. Avoid using where curb radii are less than 80'-0" (24.0 m).



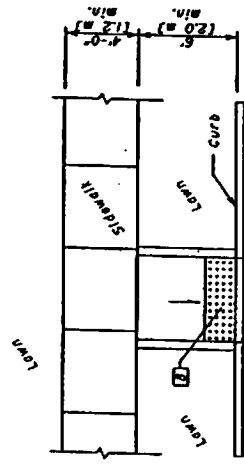
DESIGN C
COMBINATION RAMP



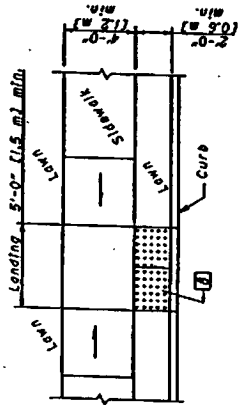
DESIGN B
PARALLEL RAMP



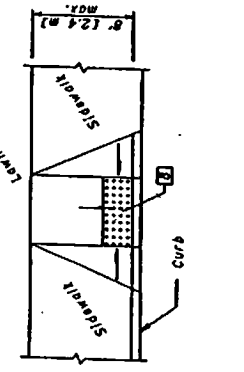
DESIGN A
PERPENDICULAR RAMP



DESIGN G
PERPENDICULAR RAMPS
w/o FLARES



DESIGN F
PARALLEL RAMP



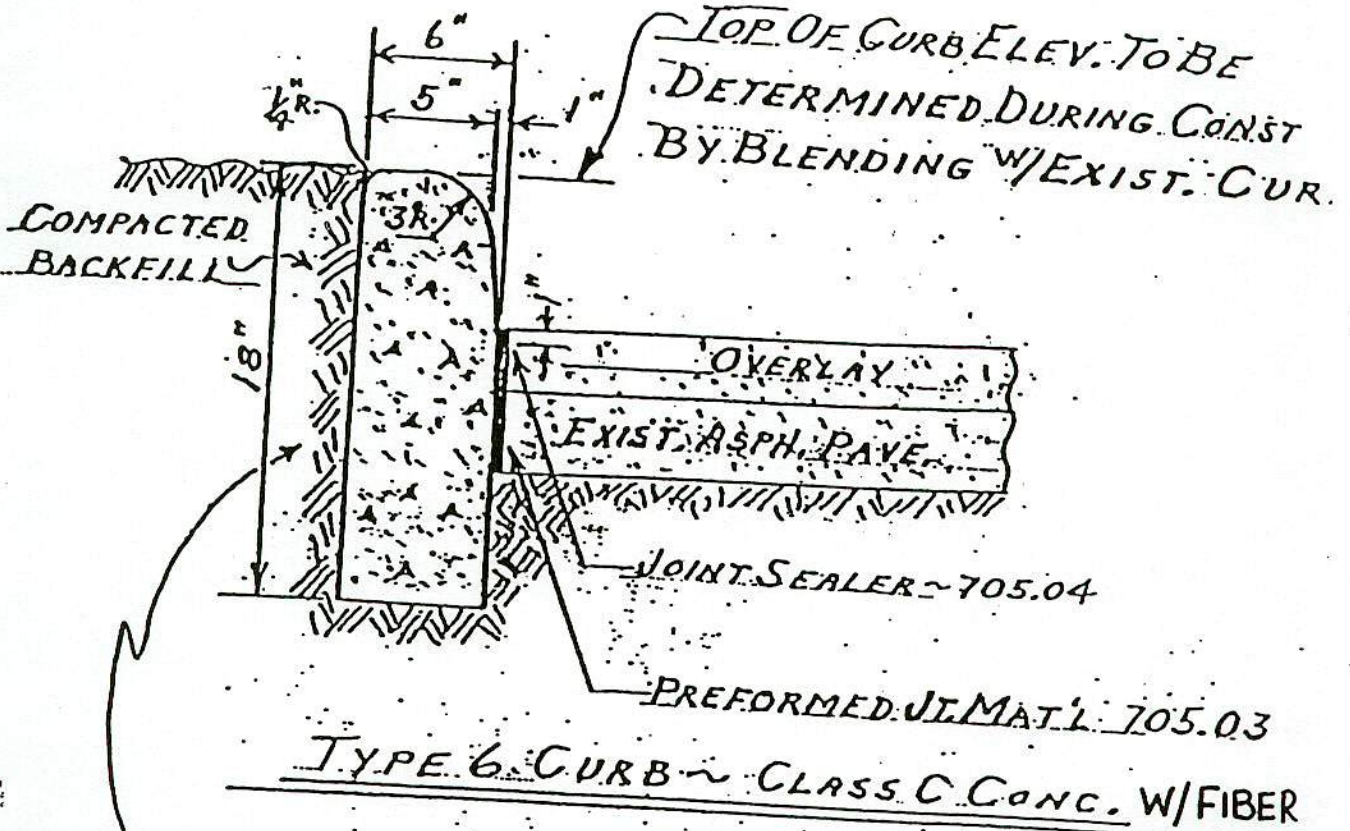
DESIGN E
PERPENDICULAR RAMP

CORNER CURB RAMP DESIGNS
(See Curb Ramp Details on Sht. 1/3 for additional requirements.)

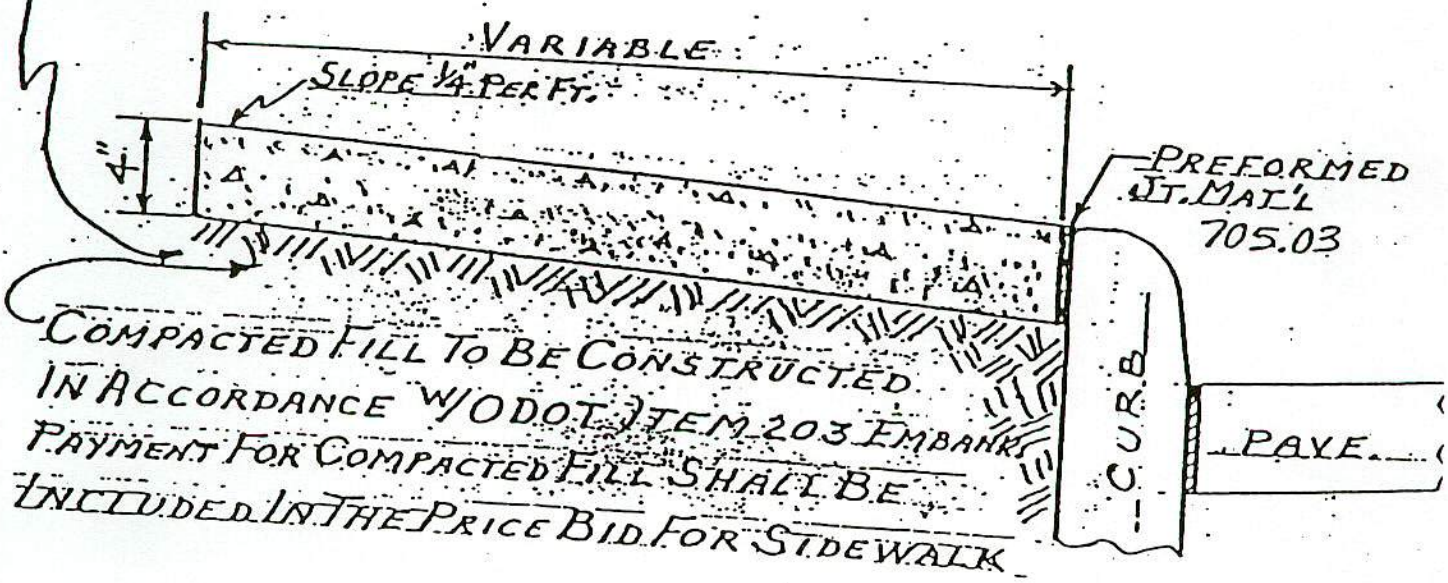
For LEGEND, See sheet 1.

MID-BLOCK CURB RAMP DESIGNS
(See Curb Ramp Details on Sht. 1/3 for additional requirements.)

DETAIL DRAWING No. ST-102

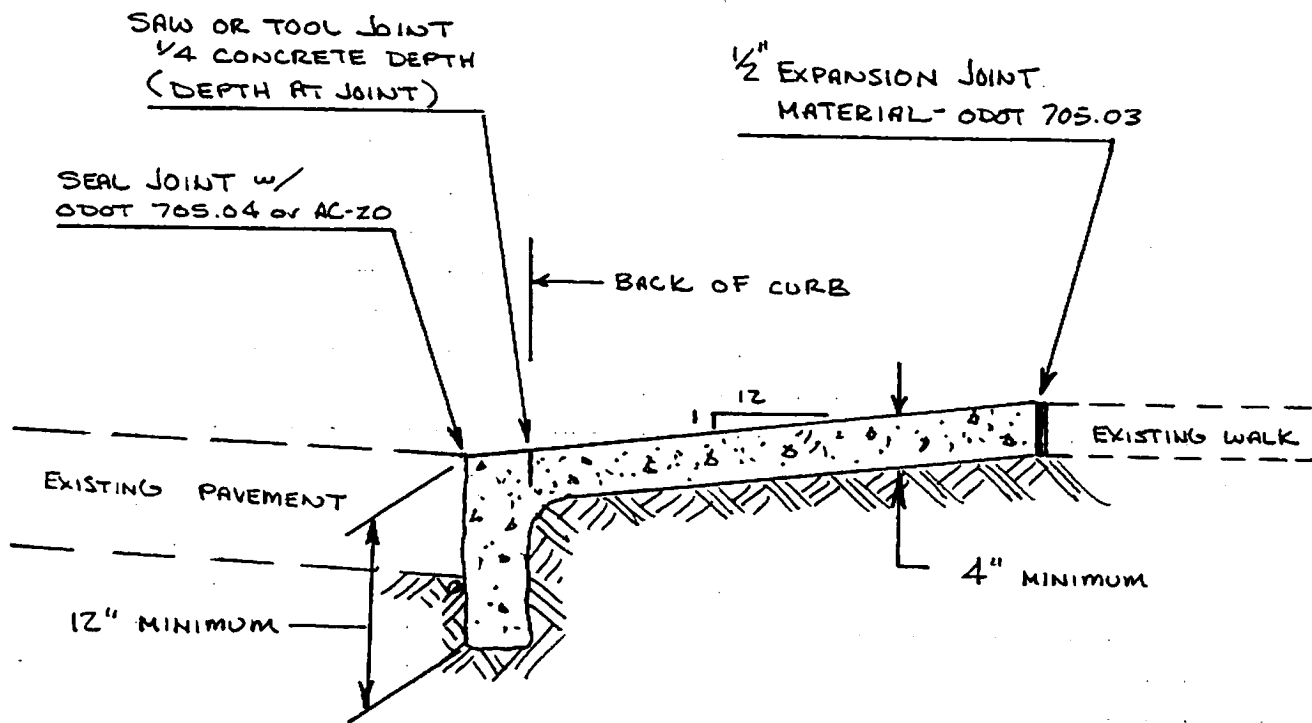


DISTURBED AREA TO BE SEEDDED IN ACCORDANCE WITH ODOT ITEM 659. PAYMENT FOR SEEDING SHALL BE INCLUDED IN THE PRICE BID FOR TYPE 6 CURB.



COMPACTED FILL TO BE CONSTRUCTED IN ACCORDANCE W/ ODOT ITEM 203 EMBANKS. PAYMENT FOR COMPACTED FILL SHALL BE INCLUDED IN THE PRICE BID FOR SIDEWALK.

TYPICAL SIDEWALK DETAIL ~ CLASS C CONC. WITH FIBER



NOTE: This standard may be used as an alternate to constructing separate curb and curb ramp.
 Payment will be made at the unit prices bid for curb and curb ramp by type.

MONOLITHIC CURB & CURB RAMP ALTERNATE

CITY OF STEUBENVILLE - Department of Public Works - Division of Engineering & Building
 238 South Lake Erie Avenue - Steubenville, Ohio 43952-2158

SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG.NO.
		DTS	06/13/96	DTS	09/29/97	N.T.S.	ST-265

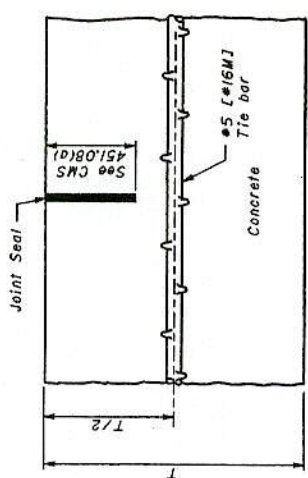
NOTES

GENERAL: Longitudinal joints shall be used when specified on the typical section and shall be constructed as shown on this drawing in Items 451 and 452 Pavement and Item 305 Base. The joint shall be on the centerline of the pavement unless otherwise shown on the plans. Where the pavement width exceeds 16' (5.0 m), an additional longitudinal joint shall be introduced into the jointing details as directed by the Engineer. Tie bars shall be #5 (#16M) deformed bars. A satisfactory device shall be used to hold the tie bars in proper position or they may be installed by a mechanical insulating device. Tie bars shall be centered on the longitudinal joint as nearly as practical.

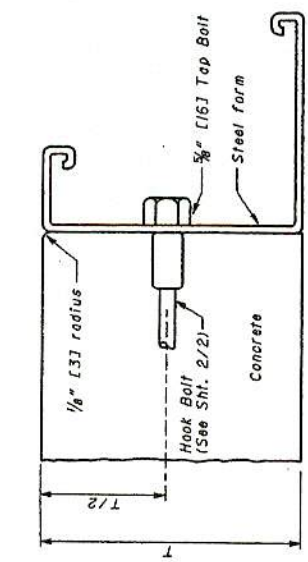
BUTT JOINT: The longitudinal joint between adjoining slabs poured in separate operations shall be a butt joint with hook bolts or tie bars, unless otherwise shown on the plans. Bent tie bars shall not be permitted.

TYPE D (DRILLED TIED LONGITUDINAL JOINT): Type D joints shall be constructed in accordance with CMS 255.05. The nylon or plastic retention disc shall be clear or opaque white in color. Grout shall meet the requirements of CMS 255.02. #5 (#16M) expansion anchors, FF-S-325, Group VIII, Type I or Group II Type 4, Class I may be used lieu of the #5x24" (#16Mx600) deformed bar and shall be installed according to the manufacturer's recommendations. The use of self drilling expansion shield anchors, FF-S-325, Group III, Type I (a) and (c) shall not be permitted.

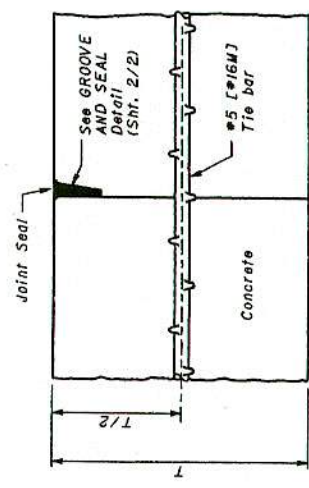
See Sheet 2/2 for additional details.



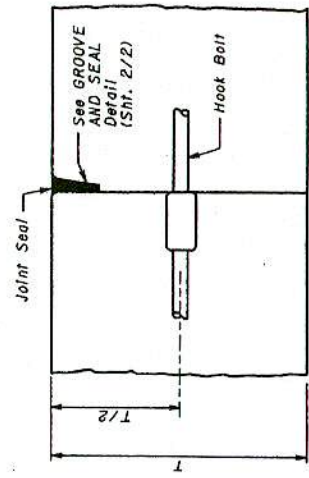
SAWED JOINT



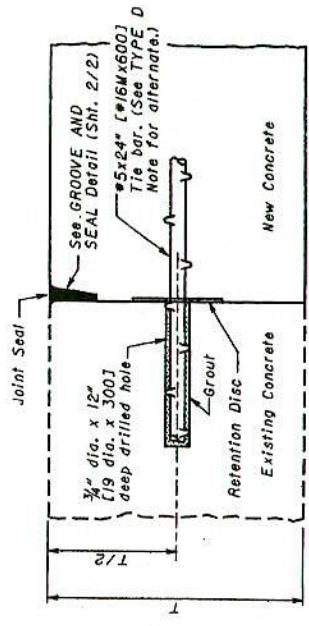
ACCEPTABLE METHOD OF FORMING JOINT



BUTT JOINT W/ TIE BAR



BUTT JOINT W/ HOOK BOLT



TYPE D (DRILLED TIED LONGITUDINAL) JOINT

THIS DRAWING REPLACES BP-22M DATED 10-21-97.

NOTES

GENERAL: Notes and details shown on this drawing shall be observed in conjunction with and supplemental to the particular section of the contract and related incidental. pavement and bases, and related incidentals.

JOINT COMPONENTS: This drawing is intended for use with a uniform depth pavement. When the project involves the placing of variable depth pavement, the joint components shall be held in place in accordance with the method shown in the plans or as approved by the Engineer.

CONTRACTION JOINTS: Contraction joints in Item 305 Concrete Base shall be dowelled in alleys, private drives, or commercial drives. Contraction joints in Item 305 Concrete Base shall not be dowelled in alleys, private drives, or commercial drives.

Contraction joints of the type specified shall be spaced in accordance with the CONTRACTION JOINT SPACING Table.

Types of Pavement or Base	Maximum Spacing Between Joints
Item 451 Reinforced Concrete Pavement	21' [6.5 m]
Item 452 Plain Concrete Pavement	15' [4.6 m]
Item 305 Concrete Base	15' [4.6 m]

CONSTRUCTION JOINTS: In Item 305 Concrete Base, a construction joint shall not be located closer than 18" [1.8 m] to another parallel joint.

kerf and seal conforming in all respects to details shown for contraction joints shall be provided at each construction joint in concrete pavement and base.

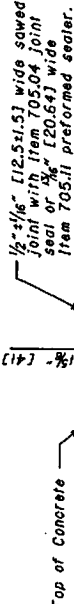
SEALING BASE CONTRACTION JOINTS: All contraction joints of concrete base shall be sealed as detailed on this drawing. The sealant cost included in the unit price bid for Item 305.

LEGEND

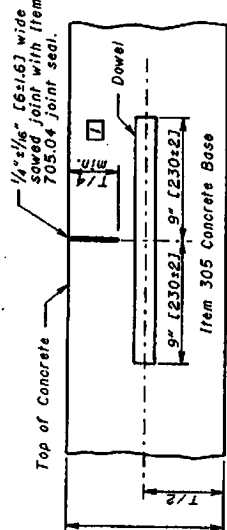
□ Where T > 10' [2553], the sawcut depth shall be T/3.



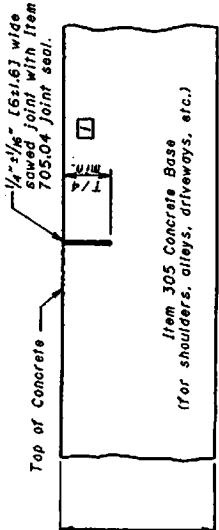
SECTION - ITEM 451 & 452



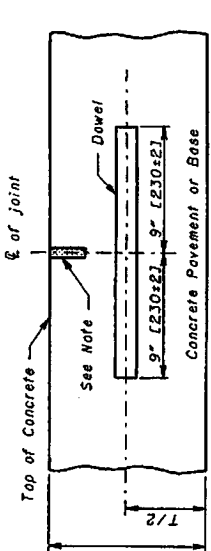
SECTION - ITEM 452



SECTION - ITEM 305

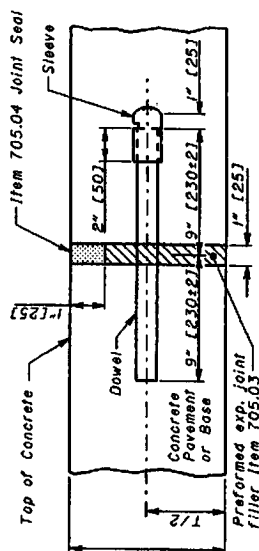


SECTION - ITEM 305

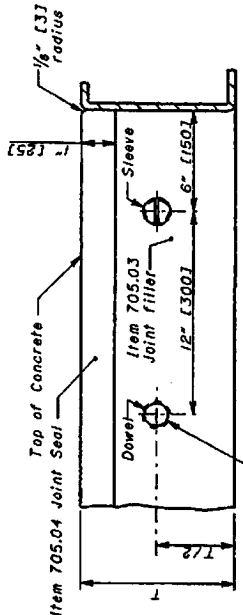


SECTION THROUGH CONSTRUCTION JOINT

CONSTRUCTION JOINT



SECTION THROUGH EXP. JOINT



SIDE ELEVATION OF EXP. JOINT

EXPANSION JOINT

SECTION - ITEM 305

CONTRACTION JOINTS

NOTES

GENERAL: All joints shall be constructed normal to the centerline of the pavement lane unless otherwise specified in the plans. All dowel holes shall be drilled by a mechanical device that will allow independent adjustment of all drill shafts in the horizontal and vertical direction. The device shall be capable of drilling a minimum of three holes at a time. All smooth dowels shall be coated with a thin layer of oil or other "bond-breaking" material after they have been installed in the existing pavement and just prior to placing the patch. All dowels shall be placed parallel to the centerline of the lane in which they are to be placed. This standard drawing is intended for use in repairing both concrete and composite pavements. For clarity asphalt overlays are not shown. When Prefabricated Edge Drains are used, they shall be placed after joint repairs are completed.

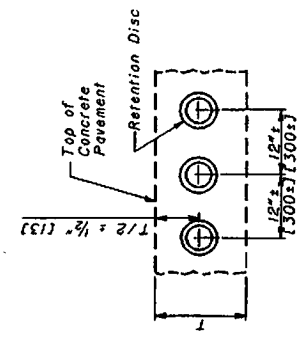
TYPE M JOINT: Joints referred to as Type M joints on the plan shall be constructed as contraction joints per SCD BP-2.2.

ADDITIONAL PAVEMENT REMOVAL: If, after the sawing and removal of the pavement from the area to be repaired, the face of the remaining pavement is irregular for a height greater than one shall be made as the thickness of the existing pavement. This additional work shall be shown and as directed by the Engineer. This additional work shall be measured for additional payment for full depth pavement sawing, rigid pavement removal and replacement.

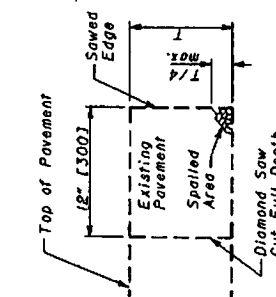
LONGITUDINAL JOINT: For patches 10' (3.0 m) or greater in length, the longitudinal joint shall be constructed per SCD BP-2.1. The tie bars or hook bolts shall be spaced at no more than 30' (760) nor less than 24' (610) on a center.

LEGEND

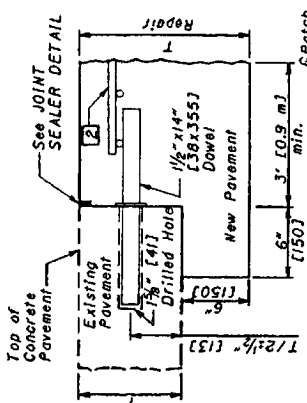
- 1 Bars shall be placed 2' (600) from the tied longitudinal joint and confine across with a 1' (300) spacing to the edge of pavement or an untied longitudinal joint. Where lane widths are between two tied longitudinal joints, begin bars 2' (600) from each tied longitudinal joint and continue across with a 1' (300) spacing.
- 2 Reinforcement will be required for all repairs greater than 10' (3.0 m) in length or for repairs that will be opened to traffic within 24 hours of placement. The fabric shall consist of W-5 or D-5 (LW55 or MD55) longitudinal wires spaced 6" (150) c/c and W-4 or D-4 (LW26 or MD26) transverse wires spaced 12" (300) c/c. The clearance from the end of the wire fabric to the edge of pavement or new transverse joint shall be 4'-2" (1004.50).
- 3 Nylon or plastic grout retention discs shall be clear or opaque white in color.



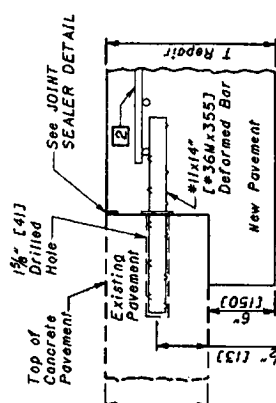
HOLE DRILLING DETAIL



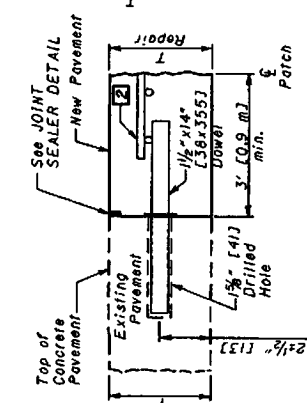
ADDITIONAL PAVEMENT REMOVALS



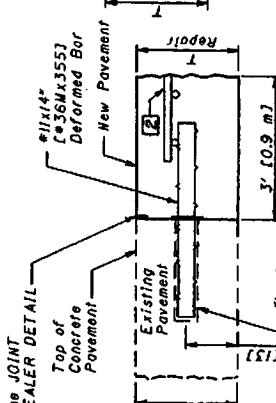
SECTION - TYPE YU (Undercut, Contraction)



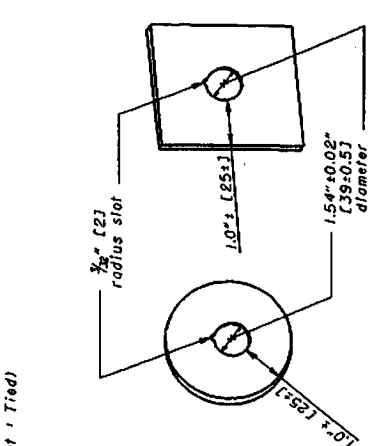
SECTION - TYPE TU (Undercut, Tied)



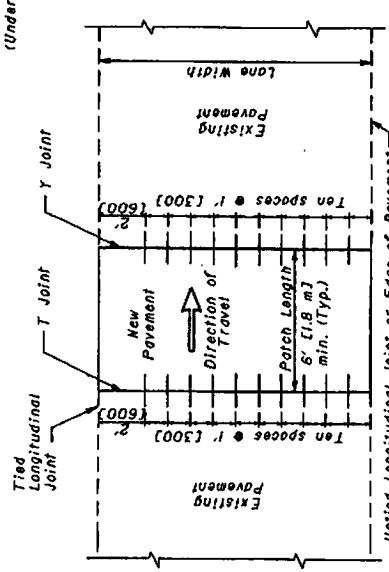
SECTION - TYPE Y (Contraction)



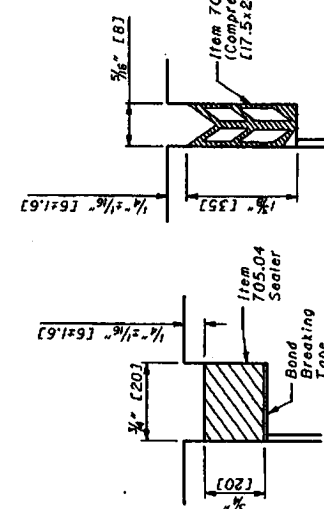
SECTION - TYPE T (Tied)



NYLON OR PLASTIC GROUT RETENTION DISCS FOR DOWEL/TIE BARS
 (1/16" (1.6) min. thickness)

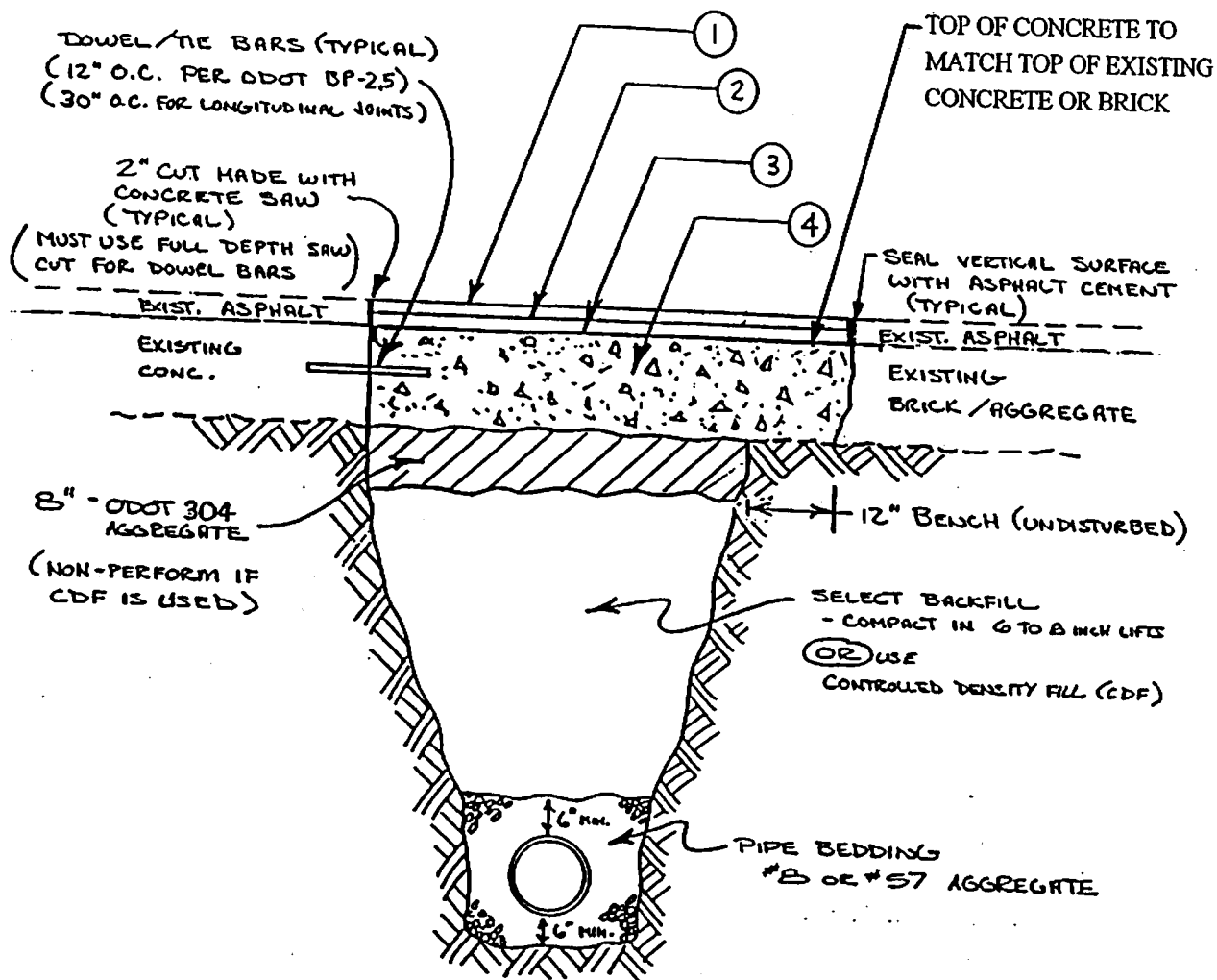


TIE / DOWEL BAR PLACEMENT DETAIL
 (See [] for Bar Placement)



JOINT SEALER DETAIL

Item 705.11 Polychloroprene (Compression Seal) 1/4" x 3/8" (17.5 x 20.6) (Optional)



PAVEMENT MATERIALS:

- 1 - ODOT 448 TYPE 1 ASPHALT CONCRETE, 1.0 INCH THICKNESS
- 2 - ODOT 448 TYPE 1 ASPHALT CONCRETE, VARIABLE (1.0 INCH MINIMUM)
- 3 - ODOT 409 TACK COAT, 0.05 GAL./SQ. YD.
- 4 - ODOT CLASS MS CONCRETE, ** 8" MINIMUM, BUT IN NO CASE SHALL THE THICKNESS BE LESS THAN EXISTING.

NOTES: A. - BEDDING AGGREGATES SHALL MEET ODOT SPECIFICATIONS BUT ARE LIMITED TO GRAVEL, NATURAL SAND OR CRUSHED STONE.

B. - CONTROL DENSITY FILL (CDF) SHALL BE APPROVED OR AS FOLLOWS:

- PER CUBIC YARD:
- 50 LBS. CEMENT
 - 250 LBS. FLY ASH
 - 2910 LBS. SAND
 - 500 LBS. WATER

C. - ODOT CLASS MS CONCRETE - SHALL BE INSTALLED AND CONFORM TO THE CITY OF STEUBENVILLE "FULL DEPTH CONCRETE PAVEMENT REPAIR, BY DEPTH" SPEC.

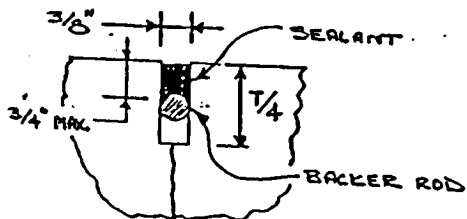
TRENCH RESTORATION - ASPHALT (HEAVY DUTY)

EXISTING PAVEMENT TYPE: ASPHALT OVER CONCRETE, BRICK OR AGGREGATE

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238 South Lake Erie Avenue - Steubenville, Ohio 43952-2158

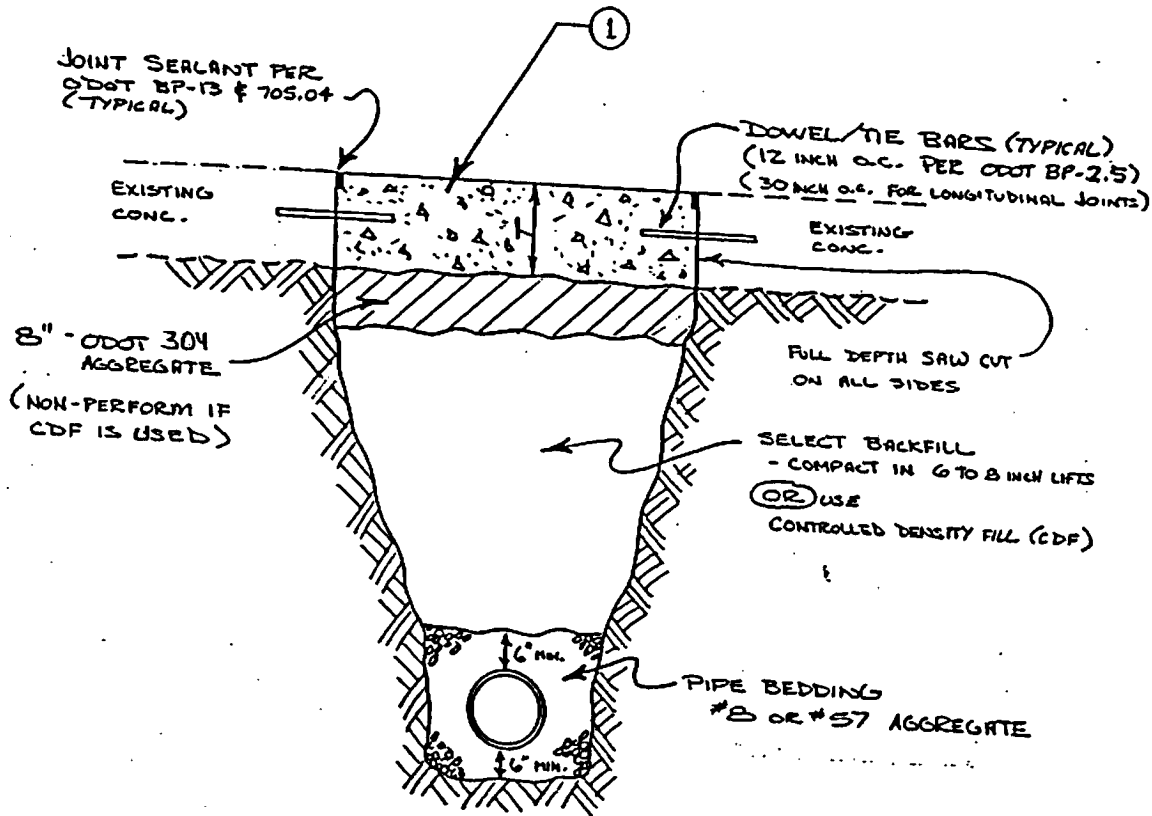
SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG. NO.
		DTS	MFD	DTS	02/25/04	N.T.S.	ST-221

v:a
h:a



SAW JOINT DETAIL

NOTE: IF SAW CUT LOCATION IS WITHIN TWO (2) FEET OF EXISTING TRANSVERSE JOINT THEN REMOVE EXISTING CONCRETE TO THAT JOINT.



PAVEMENT MATERIALS: 1 - ODOT Class MS Concrete, 8.0 inch thickness
Thickness to match existing (8 inch Minimum)

NOTES: A. - Bedding aggregates shall meet ODOT Specifications but are limited to gravel, natural sand or crushed stone.

B. - Control Density Fill (CDF) shall be as approved or as follows:

- Per cubic yard: 50 lbs. cement
- 250 lbs. fly ash
- 2910 lbs. sand
- 500 lbs. water

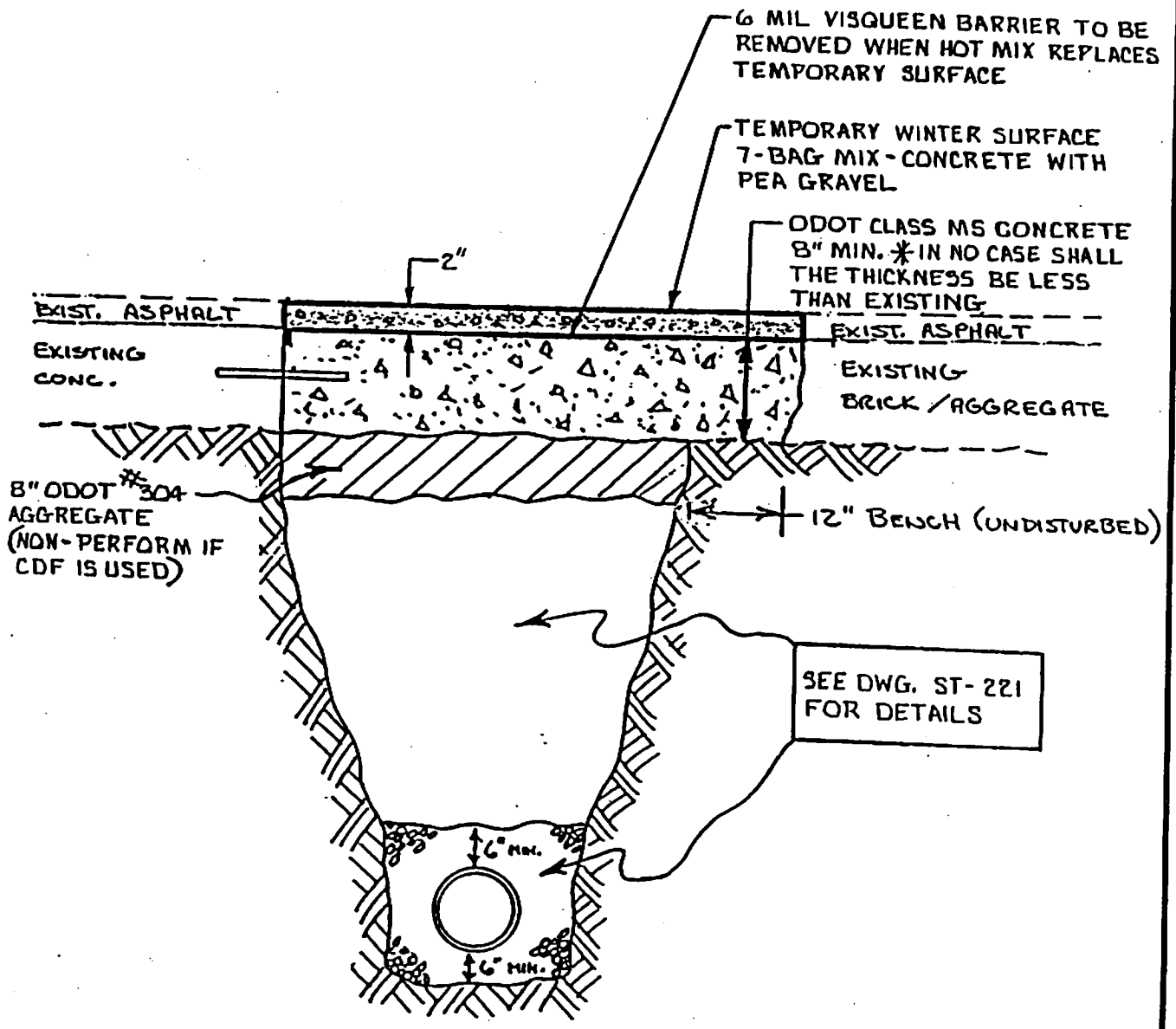
C. ODOT Class MS Concrete - Shall be installed and conform to City of Steubenville "Full Depth Concrete Pavement Repair, By Depth" Spec.

TRENCH RESTORATION - CONCRETE

EXISTING PAVEMENT TYPE: Concrete

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238 South Lake Erie Avenue
Steubenville, Ohio 43952

SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG. NO.
		DTS	DTS		02-25-2004	N.T.S.	ST - 150

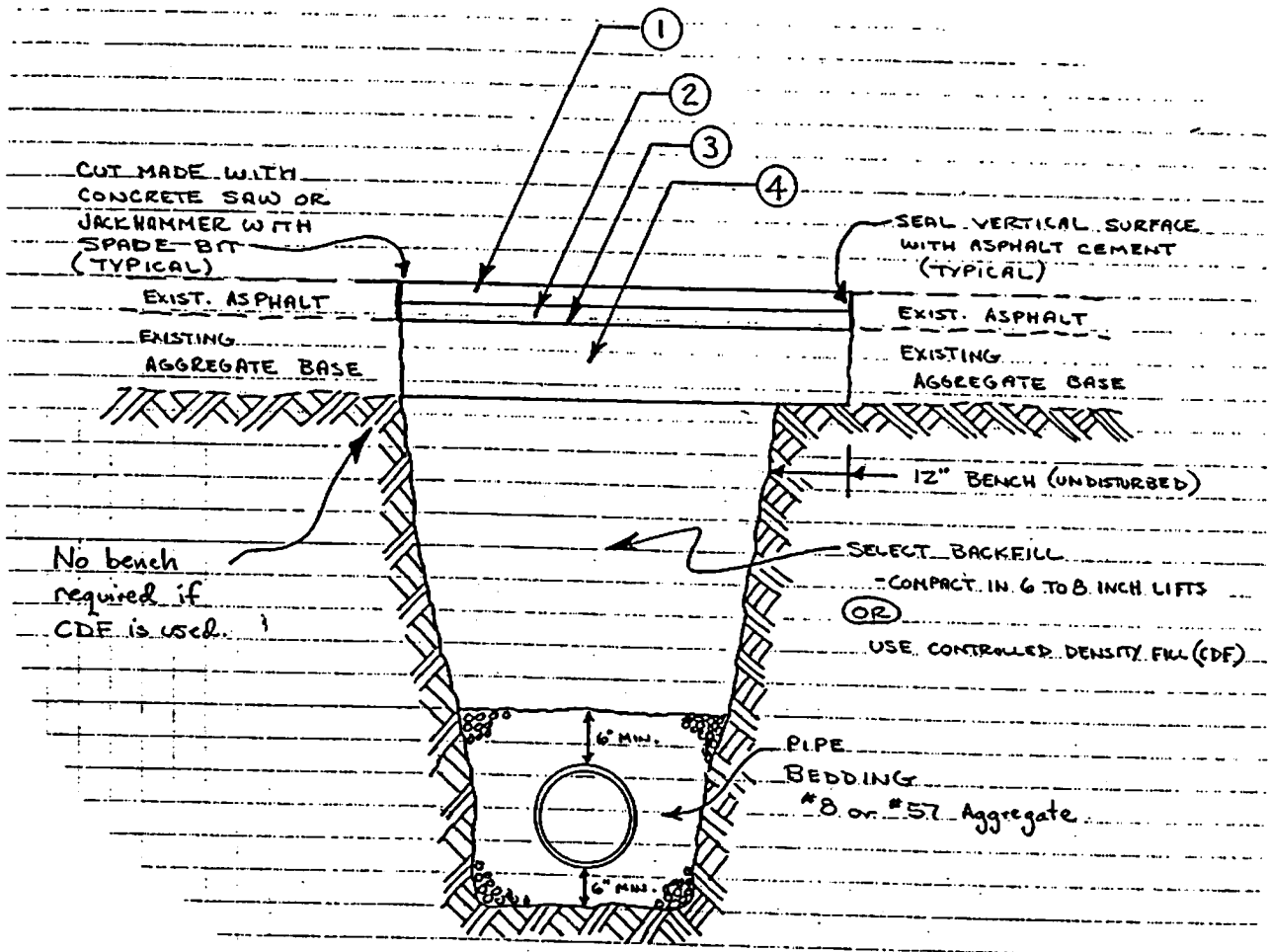


NOTE:
 THIS TEMPORARY SURFACE SHALL BE REPLACED IN THE SPRING AS SOON AS HOT MIX IS AVAILABLE. THIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. VISQUEEN BARRIER AND VISQUEEN OVER THE TEMPORARY CONCRETE SURFACE IS MANDATORY. A STEEL PLATE IS TO BE USED OVER THE SURFACE FOR 72 HOURS AFTER POURING CONCRETE.
 SUFFICIENT TIME MUST BE ALLOWED FOR FREE WATER TO LEAVE THE CONCRETE BASE BEFORE THE TEMPORARY SURFACE COURSE IS INSTALLED.

TEMPORARY TRENCH RESTORATION - ASPHALT (HEAVY DUTY)
 TEMPORARY REPLACEMENT - TO BE USED WHEN HOT MIX IS NOT AVAILABLE

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SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG.NO.
		DTS	MFD	DTS	04/20/99	N.T.S.	ST-269



- PAVEMENT MATERIALS:
- 1 - ODOT 448, Type 1 Asphalt Concrete, 1.0 inch thickness
 - 2 - ODOT 448, Type 1 Asphalt Concrete, 2.0 inch thickness
 - 3 - ODOT 408 Prime Coat, 0.40 gal./sq.yd.
 - 4 - ODOT 304 Aggregate Base, 6.0 inch thickness

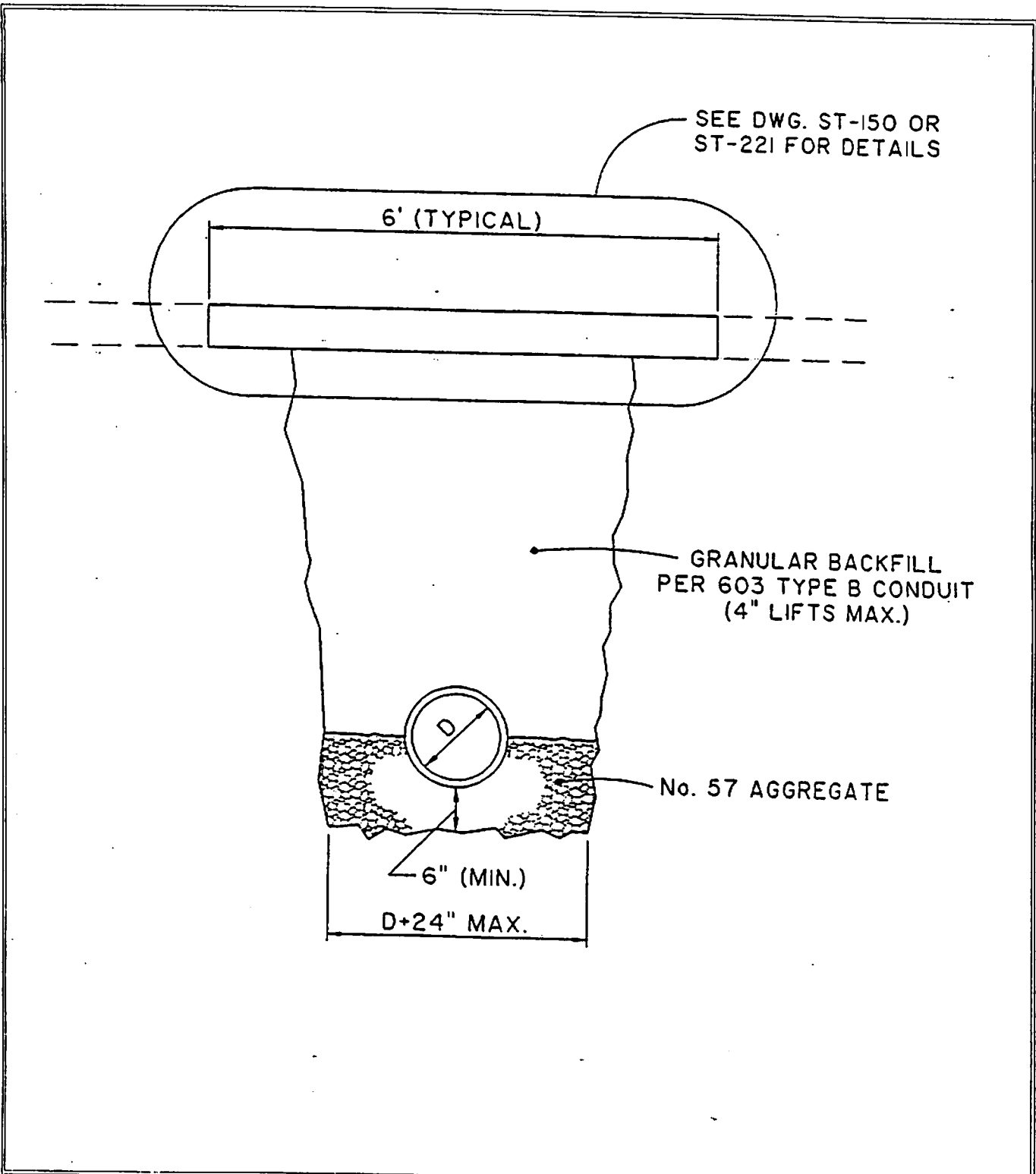
- NOTES:
- A. - Bedding aggregates shall meet ODOT Specifications but are limited to gravel, natural sand or crushed stone.
 - B. - Control Density Fill (CDF) shall be as approved or as follows:
Per cubic yard: 50 lbs. cement
250 lbs. fly ash
2910 lbs. sand
500 lbs. water

TRENCH RESTORATION - ASPHALT (LIGHT DUTY)

EXISTING PAVEMENT TYPE: Asphalt over Aggregate FOR: Parking Lot and Berm Areas

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SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG. NO.
		DTS	DTS		02/25/04	N.T.S.	ST - 243

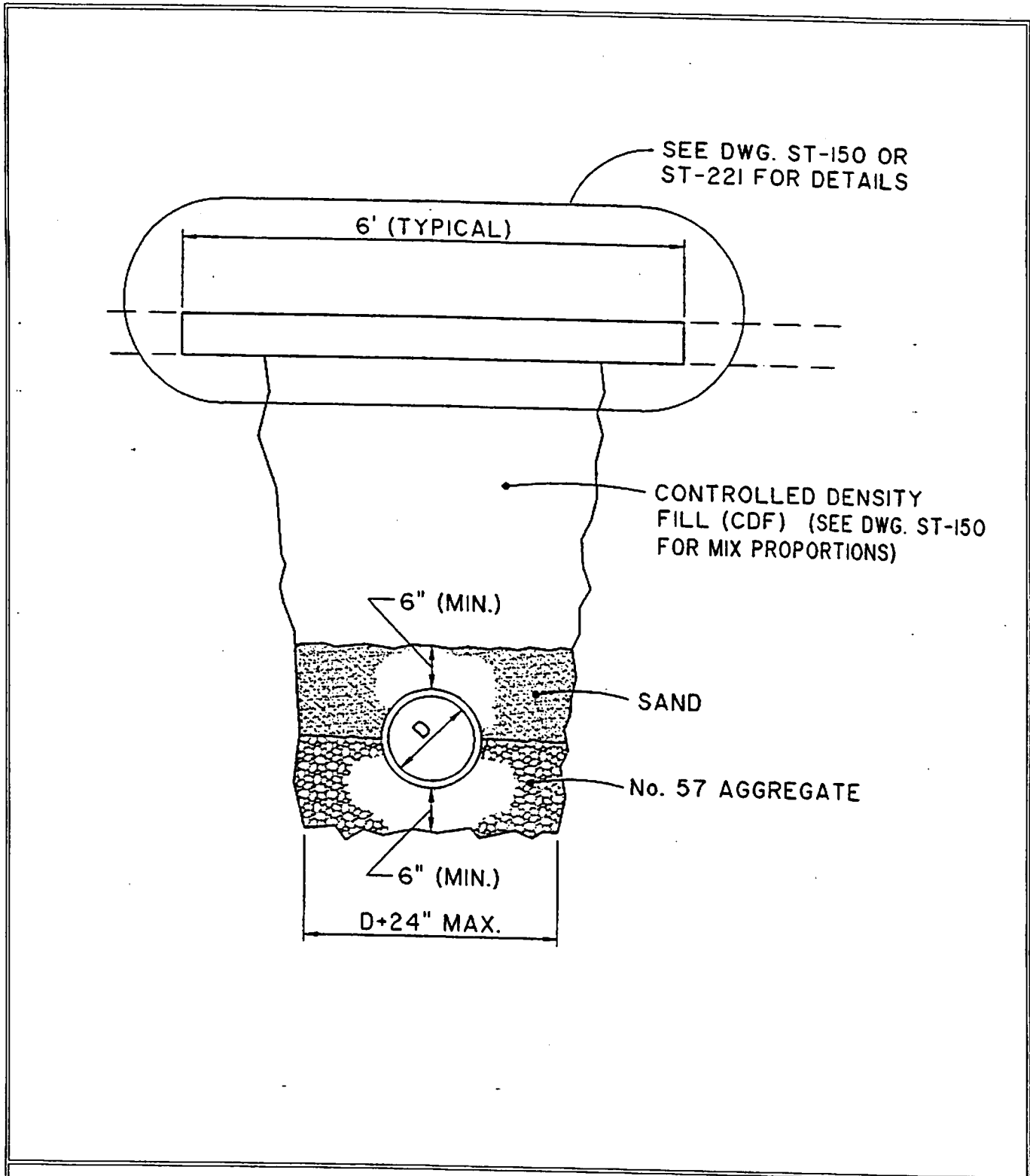


TRENCH RESTORATION UNDER PAVEMENT

GRANULAR BACKFILL - (Supplement to Dwgs. ST-150, ST-221)

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 Steubenville, Ohio 43952

SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG. NO.
		DTS	STILSON	DTS	11/20/95	N.T.S.	ST-246



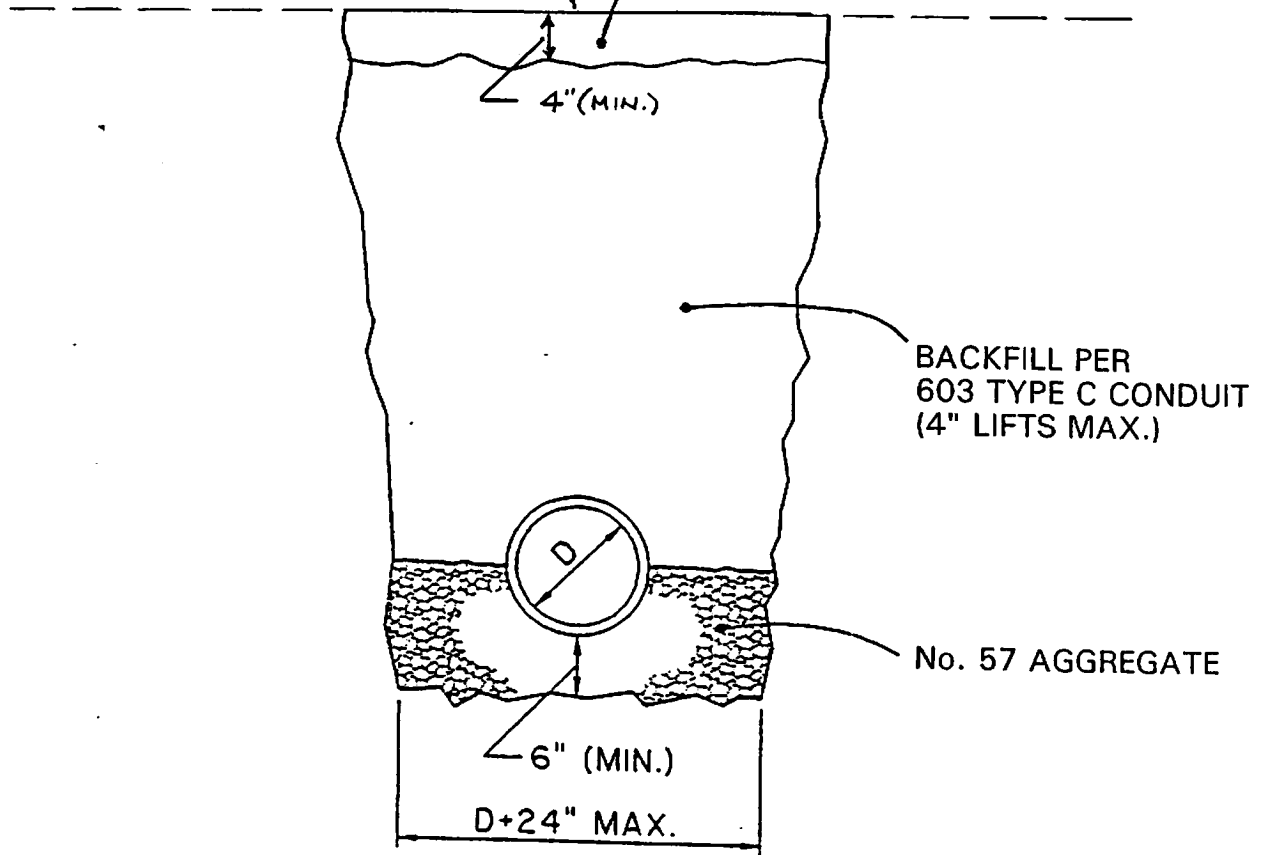
TRENCH RESTORATION UNDER PAVEMENT

CONTROLLED DENSITY FILL - (Supplement to Dwg. ST-150, ST-221)

CITY OF STEUBENVILLE - Department of Public Works - Div. of Engineering & Building 238 South Lake Erie Avenue Steubenville, Ohio 43952							
SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG. NO.
		DTS	STILSON	DTS	11/20/95	N.T.S.	ST-247

SEEDING AND MULCHING
OR SODDING, AS SPECIFIED

EXISTING TOPSOIL
TO BE REMOVED AND
REPLACED OR AS APPROVED
(Cost included in price bid for pipe)



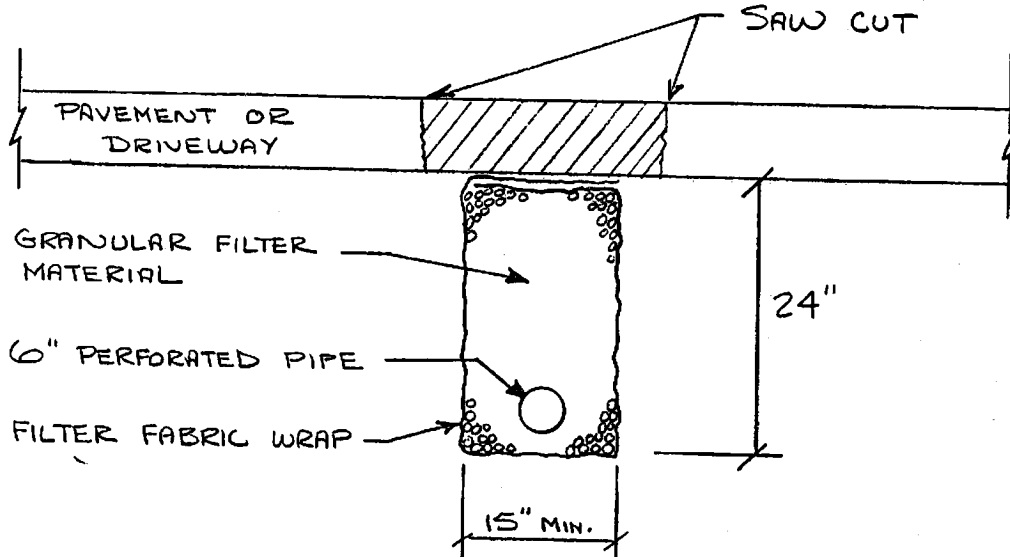
TRENCH RESTORATION NOT UNDER PAVEMENT

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238 South Lake Erie Avenue
Steubenville, Ohio 43952

SURVEY	FIELD BK	DESIGN	DRAWN	CHECK	DATE	SCALE	DWG. NO.
		DTS	DTS	DTS	12/01/95	N.T.S.	ST-248

RESTORATION OF PAVEMENT

1. STREET : ————— 8" of ODOT 301 (2 Courses)
1½" of ODOT 448 TYPE I ASPHALT CONCRETE
2. DRIVEWAYS:
 - a. ASPHALT : 5" of ODOT 301 Base
1½" of 448 TYPE I ASPHALT CONCRETE
 - b. Concrete : Underdrain paid as outside of Pavement
with Separate Pay Item for Concrete ODOT 451



6" PERFORATED PIPE ODOT 707.15

FILTER FABRIC ODOT 712.09 TYPE A Nonwoven

GRANULAR FILTER MATERIAL ODOT No. 57 SIZE

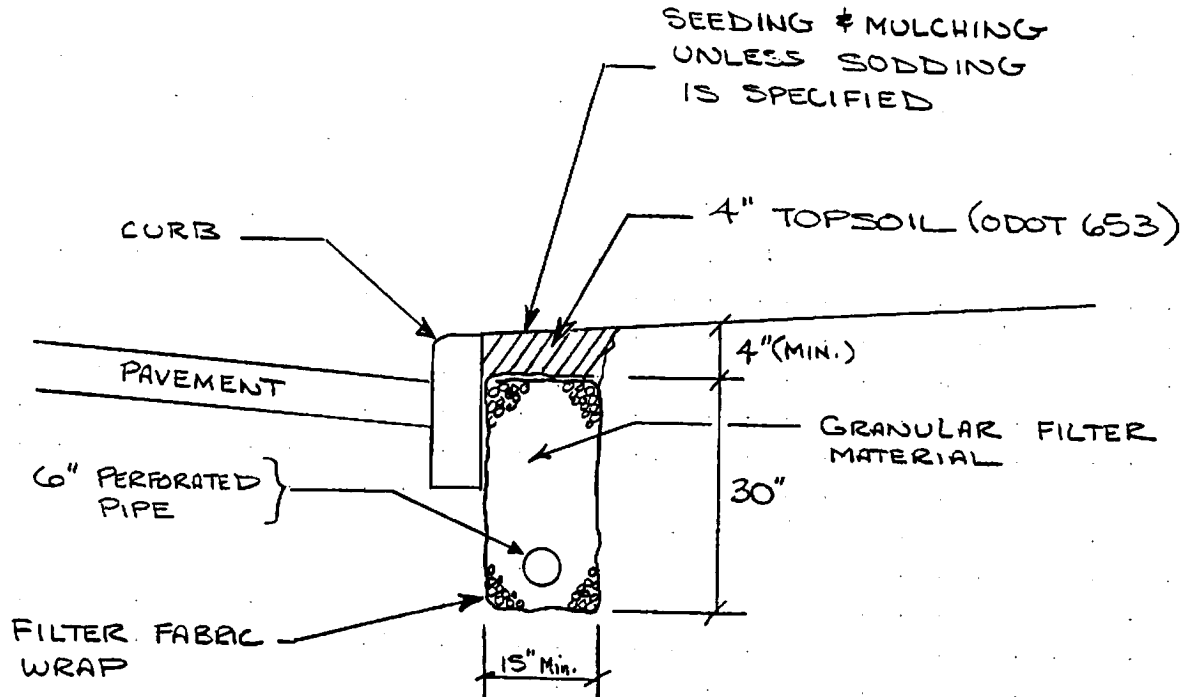
TYPICAL DRAWING

ODOT 605 - 6 INCH PIPE UNDERDRAIN
INSIDE PAVEMENT

DTS 5-5-89
Revised 6-25-91
REVISED 2-25-2004

CITY OF STEUBENVILLE

DRAWING ST-127



6" PERFORATED PIPE ODOT 707.15

FILTER FABRIC - ODOT 712.09 TYPE A Non woven

GRANULAR FILTER MATERIAL - ODOT No. 57 SIZE

SEEDING & MULCHING - ODOT 659

SODDING - ODOT 660

TYPICAL DRAWING

ODOT 605 - 6 INCH PIPE UNDERDRAIN
OUTSIDE OF PAVEMENT

DTS 5-5-89
Revised 5-10-94

CITY OF STEUBENVILLE

DRAWING ST-128