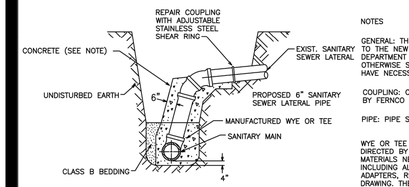
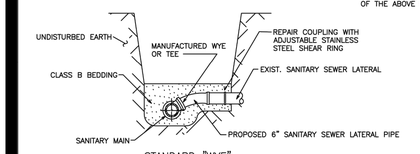


STANDARD TEE 8" RISER PIPE



STANDARD "WYE"

NOTES

GENERAL: THIS DRAWING SHOWS THE METHOD OF CONNECTING THE EXIST. SANITARY SEWER LATERAL TO THE NEW SANITARY SEWER MAIN. FOR SPECIFICATIONS REFER TO THE LATEST STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS, ITEM 603 AND AS OTHERWISE SPECIFIED HEREIN. THE SIZE OF THE EXIST. SAN. LATERALS MAY VARY. CONTRACTOR SHALL HAVE NECESSARY MATERIAL TO ADAPT TO DIFFERENT SIZES OF SAN. LATERALS.

COUPLING: COUPLING WITH ADJUSTABLE STAINLESS STEEL SHEAR RING, ASTM 425 AS MANUFACTURED BY FERNCO OR EQUAL FOR VCP OR ABS PIPE.

PIPE: PIPE SHALL BE 6" SOLID WALL PVC PIPE SDR 26 WITH SOLVENT WELDED OR GASKETED JOINTS.

WYE OR TEE PIPE: WILL BE INSTALLED IN THE MAIN SEWER AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. PAYMENT: THE CONTRACTOR WILL INCLUDE THE COST OF ALL LABOR AND MATERIALS NECESSARY TO CONNECT THE MAIN SEWER TO THE EXIST. SANITARY SEWER LATERALS INCLUDING ALL PIPES, COUPLINGS, REDUCERS, SADDLES, FITTINGS, BUSHINGS, ELBOWS, DONUTS, ADAPTERS, RISER PIPES, AND STANDARD WYES OR TEES, AS SHOWN ON THIS STANDARD CONSTRUCTION DRAWING. THE CONTRACTOR SHALL ALSO PROVIDE THE COST OF EXCAVATION BEDDING, BRACING, BACKFILLING, ECT.

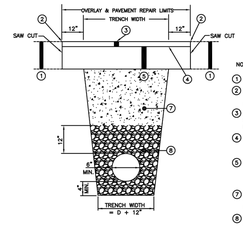
CONCRETE: ALL CONCRETE SHALL BE CLASS C (2500 P.S.I. AT 28 DAYS) AS PER ITEM 499 OF THE ABOVE MENTIONED SPECIFICATIONS.

SANITARY SEWER LATERAL CONNECTION DETAIL

SCALE: NOT TO SCALE

DESIGN	DRAWN	CHECKED	SCALE: NTS / VERT: NTS	DELIV	DATE	RECORD

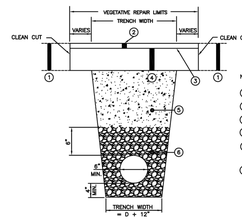
204 Not to Scale — *Sanitary Sewer Lateral Connection*



NOTES:
1. EXIST. PAVEMENT
2. ODOT ITEM 407, HOT APPLIED JOINT SEALER (TO BE BID WITH UNIT PRICE FOR ITEM POINT REPAIR)
3. 2" – ODOT ITEM 448 ASPHALT CONCRETE SURFACE COURSE (TO BE BID WITH UNIT PRICE FOR ITEM POINT REPAIR)
4. ODOT ITEM 407 TACK COAT APPLIED AT 0.10 GAL./S.Y. (TO BE BID WITH UNIT PRICE FOR ODOT ITEM POINT REPAIR)
5. 6" – ODOT ITEM 301 BITUMINOUS AGGREGATE BASE IN TWO EQUAL LIFTS (TO BE BID WITH UNIT PRICE FOR ITEM POINT REPAIR). *
7. LOW STRENGTH MORTAR – ODOT ITEM 613 BACKFILL (TO BE BID WITH UNIT PRICE FOR ITEM POINT REPAIR)
8. ITEM 703 FINE AGGREGATE BEDDING (TO BE BID WITH THE UNIT PRICE FOR POINT REPAIR)

TRENCH & PAVEMENT RESTORATION DETAIL

SCALE: NOT TO SCALE



NOTES:
1. EXIST. NON-PAVED GROUND
2. ODOT ITEM 659 STRAW MULCH
3. ODOT ITEM 659 SEEDING
4. 5" – ODOT ITEM 653 TOPSOIL
5. LOW STRENGTH MORTAR – ODOT ITEM 613 BACKFILL (TO BE BID WITH UNIT PRICE FOR POINT REPAIR)
6. ITEM 703 FINE AGGREGATE BEDDING (TO BE BID WITH UNIT PRICE FOR POINT REPAIR)

TRENCH & GRASS RESTORATION DETAIL

SCALE: NOT TO SCALE

205 Not to Scale — *Sanitary Sewer Trench Restoration Detail*

BEARING AREA OF THRUST BLOCKS IN SQUARE FEET

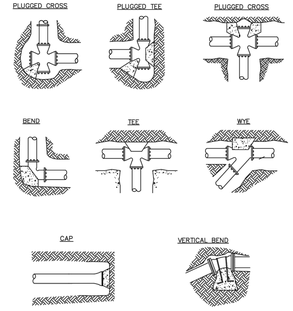
FITTING SIZE (INCHES)	TEE, WYE, PLUG OR CAP	90° BEND OR PLUGGED CROSS	TEE PLUGGED ON RUN BEND		45° BEND	22-1/2° BEND	11-1/4° BEND
			A1	A2			
04	1.3	1.9	2.5	1.9	1.3	–	–
06	2.8	4.0	5.7	4.0	2.1	1.3	–
08	5.1	7.1	10.1	7.1	3.9	2.0	1.3
10	7.9	11.2	15.7	11.2	6.1	3.2	1.6
12	11.3	16.0	22.7	16.0	8.8	4.5	2.3
14	15.3	21.7	30.7	21.7	11.9	6.1	3.1
16	20.0	28.4	40.0	28.4	15.5	8.0	4.0
18	25.3	36.0	50.7	36.0	19.5	10.1	5.1
20	31.3	44.4	62.7	44.4	24.1	12.5	6.3
24	45.3	64.0	90.7	64.0	34.9	18.1	9.1

VERTICAL VOLUME OF THRUST BLOCK IN CUBIC YARDS

FITTING SIZE	45° BEND	22-1/2° BEND	11-1/4° BEND
4"	1.1	0.4	0.2
6"	2.7	1.0	0.4
8"	4.0	1.5	0.6
12"	8.5	3.2	1.3
16"	14.8	5.6	2.3

VERTICAL BEND

FITTING SIZE	BAR SIZE	EMBEDMENT DEPTH
4"–12"	#6	30"
14"–16"	#8	36"



ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 P.S.I AND AN ALLOWABLE SOIL BEARING STRENGTH OF 1500 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION:
BEARING AREA = (TEST PRESSURE/150) X (1500/SOIL BEARING STRESS) X (TABLE VALUE)

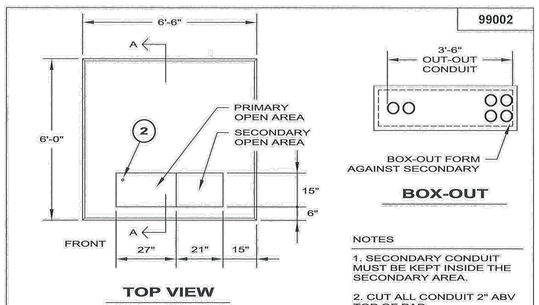
NOTES:
1. CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
2. KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
3. THE REQUIRED THRUST BEARING AREAS FOR SPECIAL CONNECTIONS ARE SHOWN ENCIRCLED ON THE PLANS: E.G. 15 INDICATES 15 SQUARE FEET BEARING AREA REQUIRED.
4. IF NOT SHOWN ON PLANS, REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED ABOVE, ADJUST IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIAL SPECIFICATIONS.
5. BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN ON THIS STANDARD DETAIL. BEARING AREA OF THRUST BLOCKS IS IN SQUARE FEET.
6. VERTICAL CHANGES IN DIRECTION REQUIRE SPECIFIC DESIGNS FOR THRUST BLOCKS.

CONCRETE THRUST BLOCKING DETAIL

DESIGN	DRAWN	CHECKED	SCALE: NTS / VERT: NTS	DELIV	DATE	RECORD

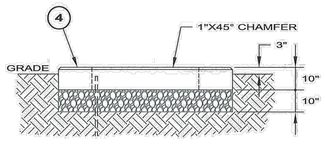
206 Not to Scale — *Conc. Thrust Block*

99002

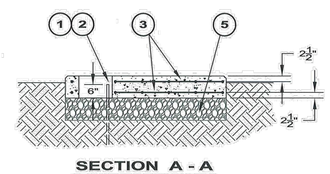


TOP VIEW

BOX-OUT



SIDE VIEW



SECTION A - A

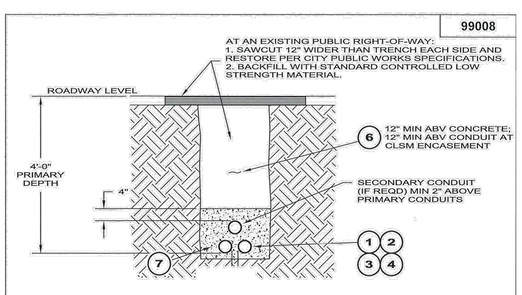
NOTES

1. SECONDARY CONDUIT MUST BE KEPT INSIDE THE SECONDARY AREA.
2. CUT ALL CONDUIT 2" ABV TOP OF PAD.
3. CALL FOR INSPECTION PRIOR TO CONCRETE POUR.
4. REMOVE BOX-OUT FORM.

	DATE:	DRAWN BY:
	12/8/1994	RPL
TRANSFORMER PAD FOR 3 PHASE 75 - 500 KVA TRANSFORMER 13.8 KV DISTRIBUTION	REV: 9/8/2020	REV BY: JLM

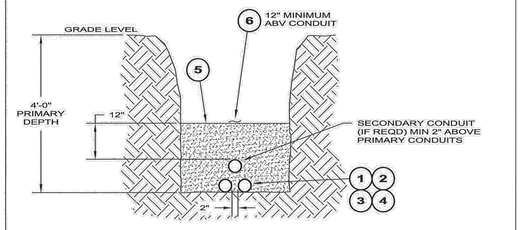
X Not to Scale — *Transformer Pad*

99008



UNDER PAVED ROADWAY
CONCRETE ENCASEMENT

ROADWAY NOTES
1. CONTRACTOR SHALL PROVIDE TIE-DOWN BRACKETS OR SADDLES TO PREVENT CONDUIT FLOATING.
2. FOR STREET REPAIR PROVIDE MIN 1" STEEL PLATE OVER TRENCH FOR 24 HOURS PRIOR TO PLACING PAVEMENT RESTORATION.



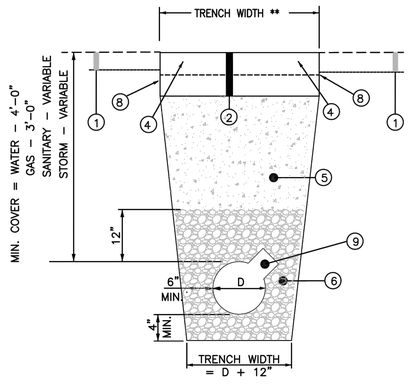
TYPICAL UNDERGROUND

GENERAL NOTES
1. TRENCH SHALL BE FREE OF ROCKS.
2. CONDUIT SHALL BE INSPECTED BEFORE COVERING.
3. ALL PVC JOINTS SHALL BE CLEANED, PRIMED & GLUED.
4. DIMENSIONS INDICATE REQUIRED MINIMUM COVERAGE.

CITY OF HAMILTON OWNED SECONDARY ONLY DEPTH = 36". CUSTOMER OWNED SECONDARY SERVICE DEPTH = PER NEC.	DATE: 8/10/2006	DRAWN BY: JLM
UNDERGROUND ELECTRIC REQUIREMENTS TRENCH DETAILS	REV: 8/28/2020	REV BY: JLM

X Not to Scale — *Typical Underground Conduit*

** PERMIT FEE BASED ON TRENCH WIDTH AND LENGTH PLUS 12" IN ALL DIRECTIONS FOR FINAL RESTORATION



NOTES:
1. EXIST. PAVEMENT
2. 6"MINIMUM – ODOT ITEM 301 ASPHALT CONCRETE BASE. IN TWO 3" LIFTS (OR MATCH EXISTING IF THICKER)
3. –
4. –
5. ODOT ITEM 613 LOW STRENGTH MORTAR BACKFILL MATERIAL CLASS LSM 50
6. ODOT ITEM 310 BEDDING (OR No.57 STONE)
7. ODOT ITEM 705.04, HOT APPLIED JOINT SEALER
8. ODOT ITEM 401.14 TACK COAT APPLIED AT 0.10 GAL./S.Y.
9. "D" TRUSS PIPE WYE (45°) WITH 2–SHEAR BAND FERNCO COUPLING

CITY OF HAMILTON! OHIO
Department of Public Works
Engineering Division

DETAIL
ROADWAY PAVEMENT RESTORATION FOR UTILITY CUTS

SCALE: NTS	DATE: 3/2009	APPROVED BY: RAE
DRAWN BY: _	REVISED	DETAIL No.: RW-1 UC

X Not to Scale — *Trench Detail*

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REVISIONS:

ISSUE DATE:

1ST	SITE PLAN REVIEW	02-16-21
2ND	PERMIT/BID SET	04-09-21

DRAWN BY:

PANDA PROJECT #: S8-22-D8193
PANDA STORE #: -
ARCH PROJECT #: 20044.021

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MARK SHERFY
PE 84761
04/14/2021
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Apr. 14, 2021 – 2:54pm Plotted By: travis.barber V:\026800--Panda Express – Master 2018\026800.18--Hamilton, OH\24--DWG\Eng\Sheet\026800.18--SHTS--DTLS.dwg Layout: Civil Details 4