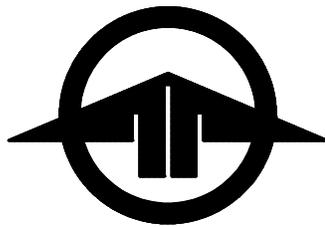


City of Kettering

**3600 Shroyer Road
Kettering, Ohio 45429
Montgomery County
937-296-2436**



STANDARD CONSTRUCTION DRAWINGS

EFFECTIVE FEBRUARY 7, 2015

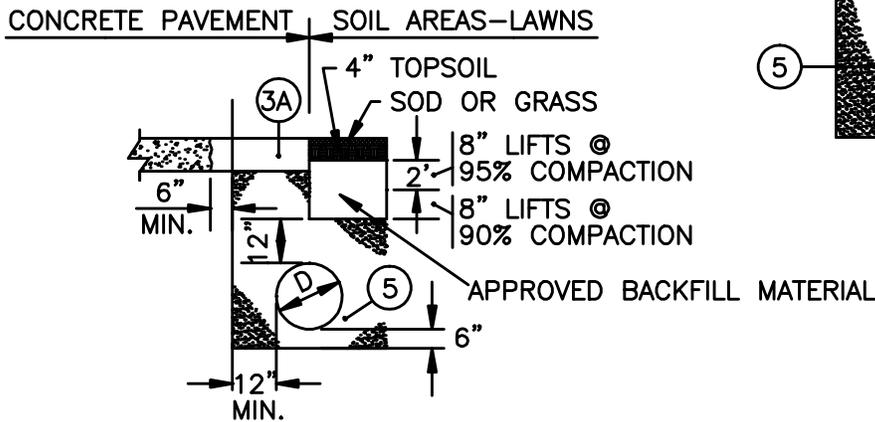
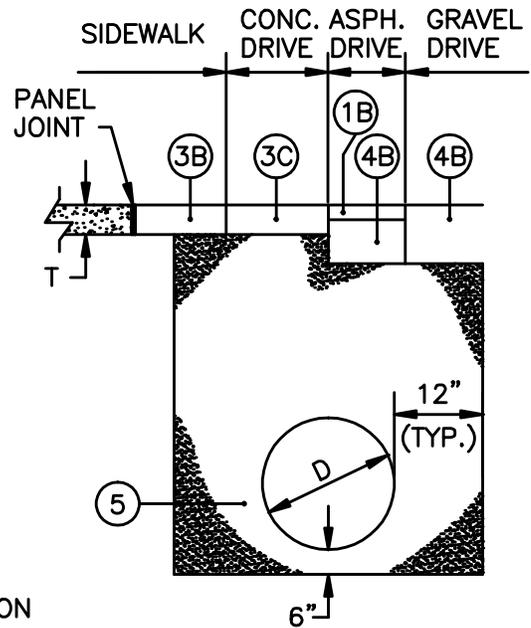
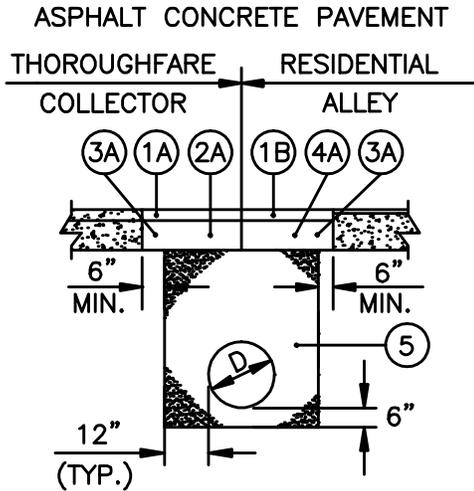
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THESE STANDARDS ARE REQUIRED FOR ALL CITY OF KETTERING PROJECTS AND PRIVATE DEVELOPMENT WITHIN THE CITY OF KETTERING RIGHT-OF-WAY UNLESS OTHERWISE AUTHORIZED BY THE CITY ENGINEER.

INTERPRETATION OF ALL DATA ON THESE DRAWINGS AND ANY QUESTIONS SHALL BE DECIDED BY THE CITY OF KETTERING.

STANDARD DRAWING			TABLE OF CONTENTS		APPROVAL
DATE	REVISION	BY			 CITY ENGINEER
					FEBRUARY 2015



LEGEND

- (1A) 3" ODOT-448 ASPHALT CONCRETE (TWO 1.5" LIFTS)
- (1B) MATCH EXISTING, WITH A MINIMUM OF 2" ODOT-448 ASPHALT CONCRETE
- (2A) 6"-8" K-301 ASPHALT CONCRETE BASE
- (3A) 9" PORTLAND CEMENT CONCRETE (THOROUGHFARES/COLLECTORS) DOWELS PER K-255, SHEETS 5 & 6
6" MIN. PORTLAND CEMENT CONCRETE, K-452 (RESIDENTIAL)
- (3B) 4" PORTLAND CEMENT CONCRETE, K-608
6" PORTLAND CEMENT CONCRETE, K-608 ON DRIVE APPROACH AREA
- (3C) MATCH EXISTING, WITH A MINIMUM OF 6" PORTLAND CEMENT CONCRETE, K-608
- (4A) 5" MIN. K-301 ASPHALT CONCRETE BASE
- (4B) 6" K-304 AGGREGATE BASE
- (5) APPROVED GRANULAR BACKFILL, OR LOW STRENGTH MORTAR (AS DIRECTED BY THE ENGINEER)

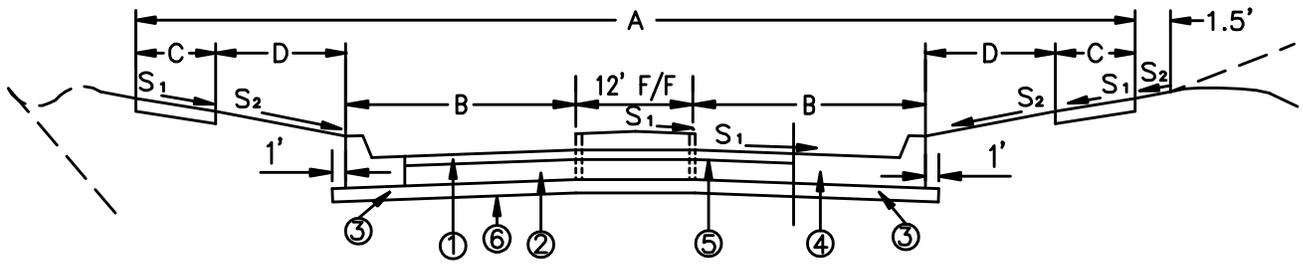
(SEE ROADWAY RESTORATION & TRENCH NOTES, SHEET 2)

STANDARD DRAWING			ROADWAY & TRENCH RESTORATION		APPROVAL
DATE	REVISION	BY			
					CITY ENGINEER
			City of Kettering		FEBRUARY 2015
					SHEET 1

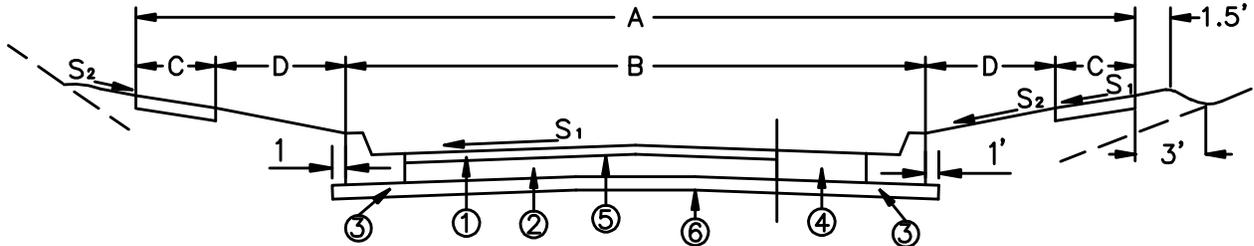
ROADWAY AND TRENCH RESTORATION NOTES

1. ALL RESTORATION TO BE OF THE SAME OR GREATER THICKNESS AS EXISTING, AS SPECIFIED IN THESE STANDARDS.
2. WHEN DIRECTED BY THE ENGINEER, LOW STRENGTH MORTAR BACKFILL (LSM-100, PER ODOT SPEC 613) SHALL BE USED FOR BACKFILL.
3. DURING PERIODS OF INCLEMENT WEATHER, A TEMPORARY REPAIR MAY BE PERMITTED. APPROVED GRANULAR BACKFILL OR FAST-SET LOW STRENGTH MORTAR, LSM-100, (AS DIRECTED BY THE ENGINEER) MAY BE USED AS BACKFILL AND SHALL BE PLACED TO MATCH THE BOTTOM ELEVATION OF THE EXISTING PAVEMENT SECTION SURROUNDING THE UTILITY CUT. TEMPORARY FAST-SET LOW STRENGTH MORTAR MAY THEN BE PLACED AND LEVELED TO BE FLUSH WITH THE EXISTING PAVEMENT SURFACE ELEVATION. THE CONTRACTOR SHALL MAKE PROVISIONS TO PROTECT THE LOW STRENGTH MORTAR FROM FREEZING UNTIL IT HAS PROPERLY CURED. WHEN CONDITIONS ALLOW, THE TEMPORARY LOW STRENGTH MORTAR SHALL BE REMOVED AND REPLACED WITH A PERMANENT REPAIR, AS SPECIFIED ON THE PREVIOUS SHEET.
4. SAW CUT ALL EDGES SQUARE AND EVEN. IN CONCRETE, SAW A MINIMUM OF 2" OR T/3, WHICHEVER IS GREATER.
5. SEAL ASPHALT EDGES WITH LIQUID A.C.
6. ON ALL THOROUGHFARES, HIGH EARLY STRENGTH (FAST SET) CONCRETE SHALL BE USED FOR CONCRETE PAVEMENT RESTORATION.
7. ALL CONCRETE PAVEMENT REPAIRS AND ALL ADJACENT REMAINING PANELS SHALL HAVE A MINIMUM OF 5' DIMENSION IN ANY DIRECTION. PANEL REPAIRS SHALL BE EXTENDED TO THE NEAREST EXISTING JOINT IF THE REPAIR AREA IS WITHIN 5' OF AN EXISTING JOINT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
8. THE SPECIFIED RESTORATION THICKNESSES ARE CONSIDERED AS MINIMUMS. WHERE EXISTING MATERIALS ARE THICKER, THE RESTORATION MATERIAL SHALL MATCH THE EXISTING THICKNESS.
9. CONCRETE SHALL MEET SPEC K-499 (KETTERING MIX) AND SHALL BE SUPPLIED THROUGH A CITY OF KETTERING APPROVED READY MIX SUPPLIER.
10. FOR REPAIRS TO CONCRETE PAVEMENT, REFER TO CONCRETE PAVEMENT REPAIR STANDARD DRAWINGS AND CONSTRUCTION MATERIAL SPECIFICATIONS FOR REPAIR STANDARDS.
11. A RIGHT-OF-WAY CONSTRUCTION PERMIT IS REQUIRED FOR ALL EXCAVATION WITHIN THE CITY RIGHT-OF-WAY.

STANDARD DRAWING			ROADWAY & TRENCH RESTORATION NOTES	APPROVAL	SHEET 2
DATE	REVISION	BY		 CITY ENGINEER	
			 City of Kettering	FEBRUARY 2015	



SECTION I



SECTIONS II & III

SLOPES

S₁ = 1/4" PER FOOT
 S₂ = 1/2" PER FOOT

SECTION	WIDTH IN FEET					DESIGN THICKNESS IN INCHES				
						ASPHALT			CONCRETE	
						K-448	K-301	K-304	K-452	K-304
	A	B	C	D	R/W	①	②	③	④	⑤
I. ARTERIAL	89	25.5	5	8	90	2.5	5	9	9	6
II. COLLECTOR	67	41	5	8	70	2.5	5	8	9	6
III. RESIDENTIAL/ALLEY	50	29	4	6.5	50	2.5	5	6	6	6

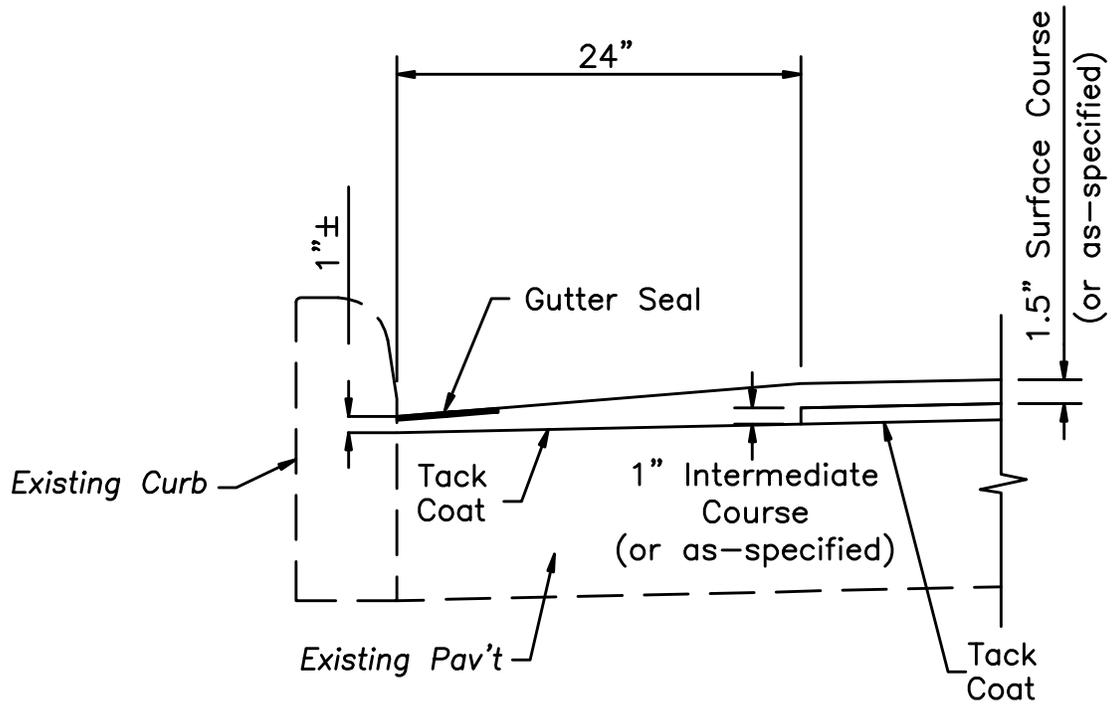
LEGEND

- ① K-448 ASPHALT CONCRETE
1.0" TYPE 1 INTERMEDIATE COURSE
1.5" TYPE 1 SURFACE COURSE
- ② K-301 ASPHALT CONCRETE BASE
- ③ K-304 AGGREGATE BASE
- ④ K-452 CONCRETE PAVEMENT
- ⑤ ODOT-407 TACK COAT
- ⑥ K-204 SUBGRADE COMPACTION

NOTES

- ANY VARIANCES OR MODIFICATIONS TO THE TYPICAL ROADWAY SECTIONS SHALL BE REVIEWED BY THE ENGINEERING DEPARTMENT. VARIANCES AND ALTERNATE PAVEMENT DESIGNS ARE SUBJECT TO PLANNING COMMISSION APPROVAL, WHEN APPLICABLE.
- SOIL CONDITIONS AND/OR SOIL TESTING MAY REQUIRE MODIFICATIONS IN PAVEMENT THICKNESS AND DESIGN. USE OF GEOTEXTILE FABRIC AND/OR GEOGRIDS SHALL BE USED AT THE DISCRETION OF THE CITY ENGINEER. UNDERDRAINS SHALL BE USED AS REQUIRED BY SUBSURFACE CONDITIONS AND AS DIRECTED BY THE CITY ENGINEER.
- ALL CUT AND FILL EMBANKMENT SLOPES SHALL BE NO STEEPER THAN 4:1 UNLESS APPROVED BY THE CITY ENGINEER. USE 3' ROUNDINGS AT ALL EARTHWORK GRADE CHANGES.

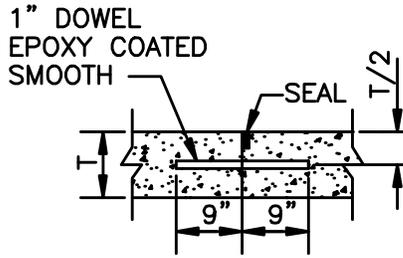
STANDARD DRAWING			TYPICAL ROADWAY SECTION		APPROVAL CITY ENGINEER
DATE	REVISION	BY	City of Kettering		FEBRUARY 2015
					SHEET 3



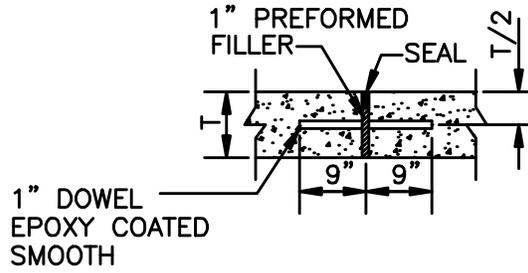
NOTES

1. CONTRACTOR SHALL MILL THE EXISTING ASPHALT AGAINST THE CURB AS SPECIFIED, THEN FINISH AS SHOWN IN THE DETAIL ABOVE.
2. SPECIAL CARE SHALL BE TAKEN DURING CONSTRUCTION TO OBTAIN MAXIMUM COMPACTION OF ASPHALT IN GUTTERS AND IN FRONT OF CURBS, WITHOUT DAMAGING EXISTING CURB.
3. ALL BUTT JOINTS AND CURB EDGES SHALL BE SEALED PER CITY OF KETTERING CMS K-448.

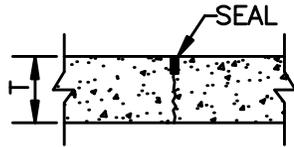
STANDARD DRAWING			ASPHALT OVERLAY GUTTER FINISH STANDARD		APPROVAL	
DATE	REVISION	BY			 CITY ENGINEER	
			 City of Kettering		FEBRUARY 2015	SHEET 4



① CONSTRUCTION JOINT
T = 9"

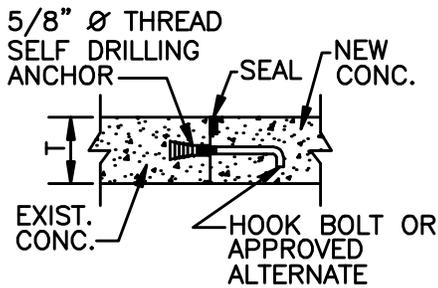


② EXPANSION JOINT
T = 9"



③ CONSTRUCTION JOINT
T = 6" & 9"

TRANSVERSE JOINTS

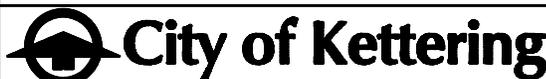


④ EXPANSION BUTT JOINT
T = 9"

LONGITUDINAL JOINTS

STANDARD DRAWING		
DATE	REVISION	BY

K-255
CONCRETE PAV'T REPAIR



APPROVAL <i>Steve E. Ryan</i> CITY ENGINEER	
FEBRUARY 2015	SHEET 5

NOTES

1. ALL DOWEL BARS AND HOOKS SHALL BE EPOXY COATED SMOOTH AND 1" IN DIAMETER.
2. DOWEL BARS SHALL BE SPACED AT 18"-24" CENTERS (NOT TO EXCEED 24") BEGINNING 6" FROM THE EDGE OF PAVEMENT.
3. DOWELS SHALL BE SECURED INTO EXISTING PAVEMENT WITH NON-SHRINK GROUT OR EPOXY CEMENT.
4. SELF-DRILLING ANCHORS AND HOOK BOLTS SHALL COMPLY WITH ODOT SPECIFICATIONS AND SHALL BE SPACED AT 30" CENTERS OR AS DIRECTED BY THE ENGINEER.
6. JOINT SEALER MATERIAL SHALL MEET REQUIREMENTS OF ODOT 705.04 OR 705.11.
7. AT STREET INTERSECTIONS, THICKNESS AND TYPE OF PAVEMENT OF MAJOR STREET TO BE CONSTRUCTED TO THE POINT OF CURVATURE OF THE CURB RETURN ON THE MINOR STREET.
7. CONCRETE SHALL MEET KETTERING SPECS (K-499) AND SHALL ONLY BE SUPPLIED THROUGH A CITY OF KETTERING APPROVED READY MIX SUPPLIER.

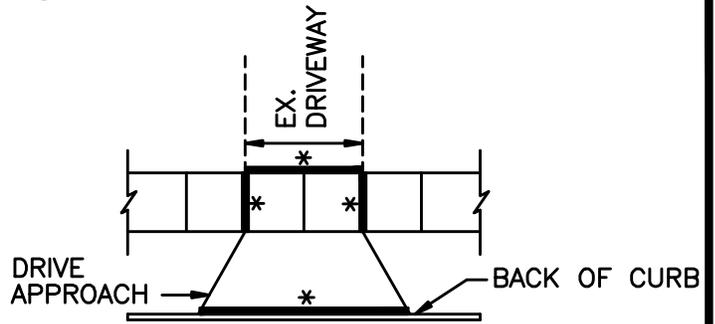
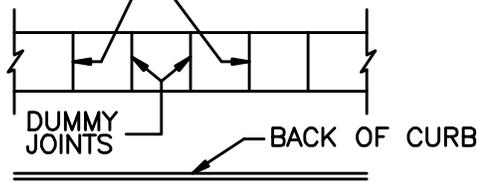
2 of 2

STANDARD DRAWING			K-255 CONCRETE PAV'T REPAIR & NOTES		APPROVAL  CITY ENGINEER	
DATE	REVISION	BY	 City of Kettering		FEBRUARY 2015	SHEET 6

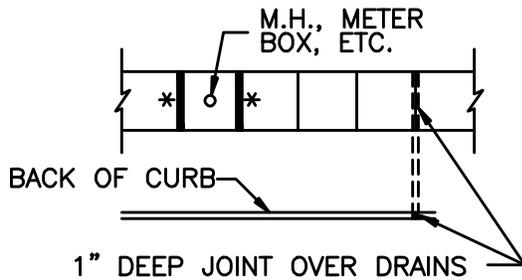
SIDEWALK DETAILS

JOINTS 1" DEEP EVERY
15' FINISHED WITH A
RADIUS OF 3/8"

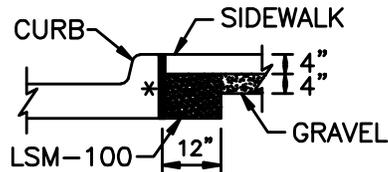
JOINT SPACING = 5'



* 1/2" VINYL EXPANSION JOINT MATERIAL



BACKFILL DETAIL



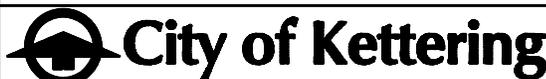
(TO BE USED WHERE CURB & SIDEWALK ARE ADJOINING)

NOTES

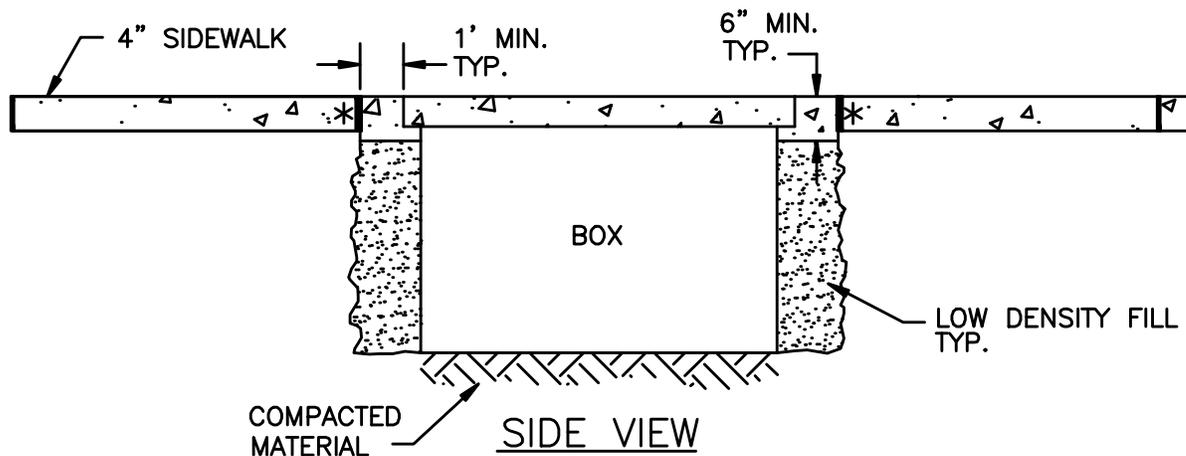
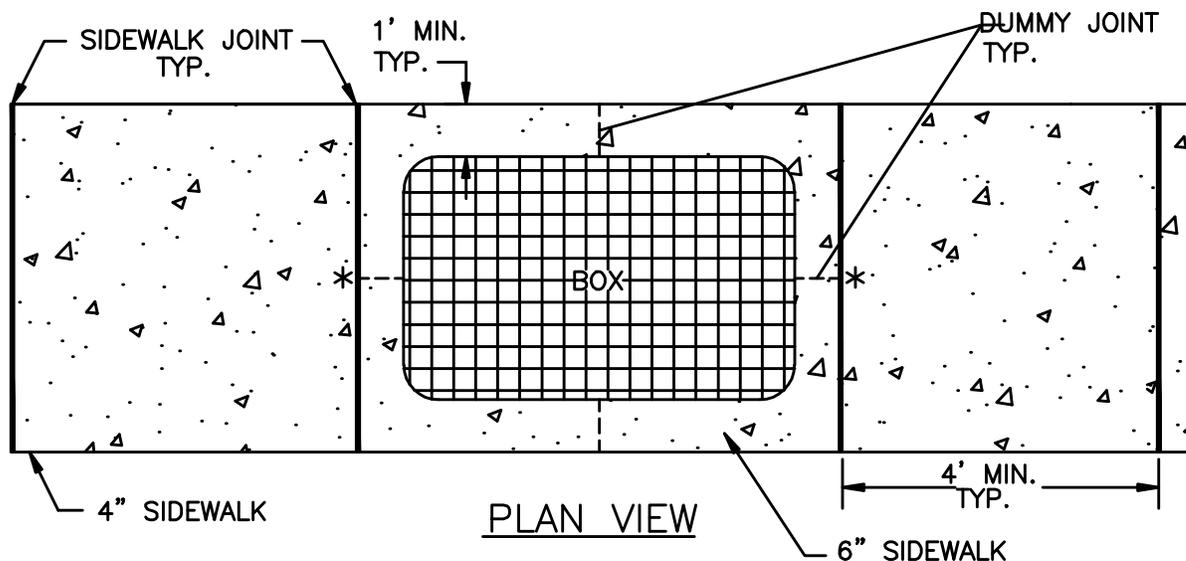
1. SIDEWALK SHALL BE A MINIMUM OF 4' WIDE ON 50' R/W STREETS AND 5' WIDE ON ALL OTHER STREETS, OR WIDTH AS DIRECTED BY THE ENGINEER.
2. SIDEWALK SHALL BE 4" THICK EXCEPT THRU DRIVEWAYS, WHICH SHALL BE 6" THICK.
3. VINYL EXPANSION JOINT MATERIAL, SHALL BE PLACED AS SHOWN. A MAXIMUM SPACING OF 100' FOR NEW CONSTRUCTION, BOTH SIDES OF EXISTING CONCRETE FOR REPLACEMENT SECTIONS EQUAL TO OR GREATER THEN 15' OR ONE SIDE OF EXISTING CONCRETE FOR REPLACEMENT SECTION LESS THEN 15'.
4. 3" GRAVEL BASE SHALL BE PLACED UNDER SIDEWALKS IF DETERMINED NECESSARY BY THE ENGINEER.
5. CONCRETE SHALL MEET SPECS K-499 (KETTERING MIX) AND SHALL ONLY BE SUPPLIED THROUGH A CITY OF KETTERING APPROVED READY MIX SUPPLIER.
6. SIDEWALKS SHALL BE SLOPED AT 1/4" PER FOOT TOWARD THE STREET, OR AS APPROVED BY THE ENGINEER.

STANDARD DRAWING		
DATE	REVISION	BY

K-608A
SIDEWALK DETAIL



APPROVAL	
CITY ENGINEER	
FEBRUARY 2015	SHEET 7

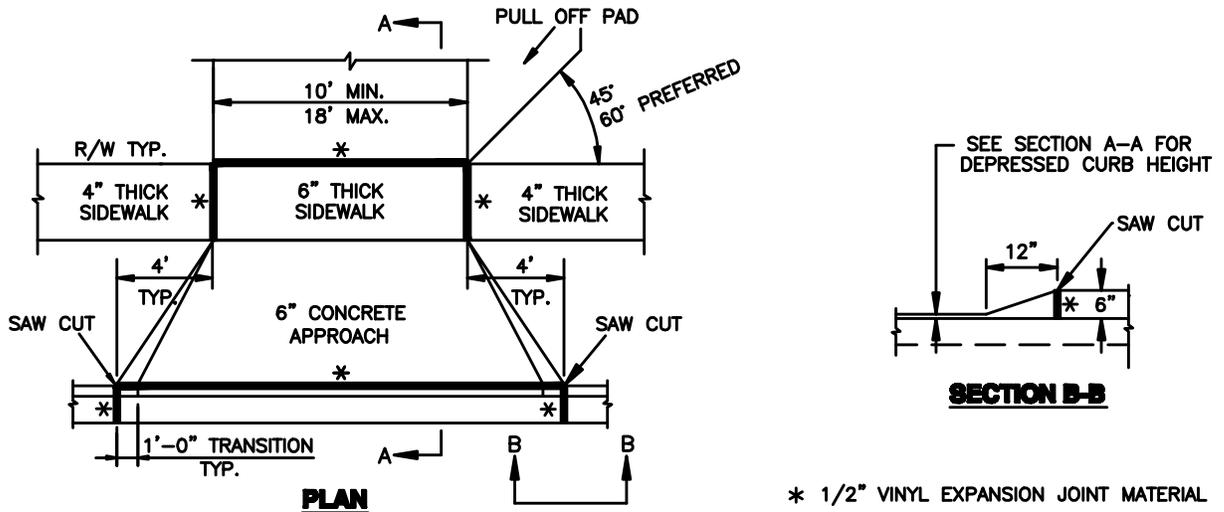


* 1/2" VINYL EXPANSION JOINT MATERIAL

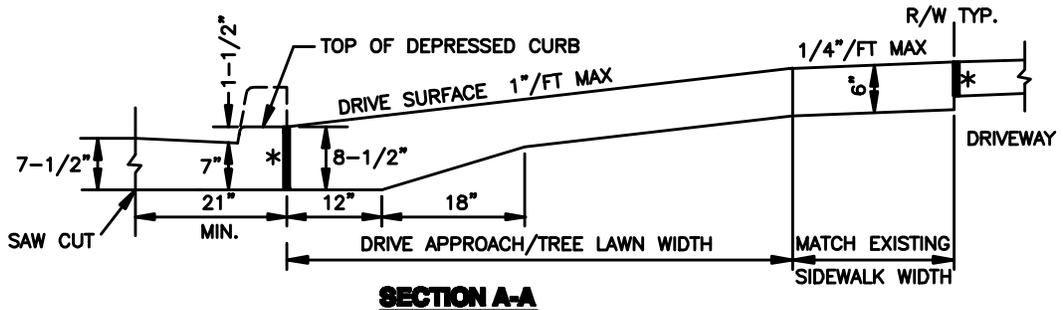
1. THIS CONCEPT ALSO APPLIES TO TWO OR MORE SIDE-TO-SIDE PULL BOXES.
2. PULL BOXES SHOULD BE PLACED IN THE SIDEWALK ONLY IF NO OTHER LOCATION IS AVAILABLE.
3. PULL BOXES SHOULD BE PLACED IN THE MIDDLE OF SIDEWALK PANELS WITH PROPER VERTICAL AND HORIZONTAL ALIGNMENT.
4. CONCRETE SHALL MEET KETTERING SPECS (K-499) AND SHALL ONLY BE SUPPLIED THROUGH A CITY OF KETTERING APPROVED READYMIX SUPPLIER.

STANDARD DRAWING			K-608A		APPROVAL	
DATE	REVISION	BY	UTILITY PULL BOX IN SIDEWALK		 CITY ENGINEER	
			City of Kettering		FEBRUARY 2015	SHEET 8

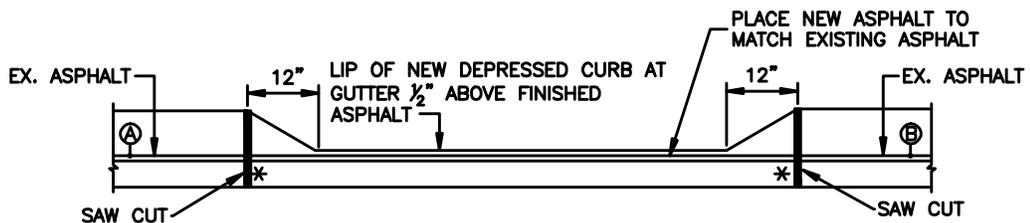
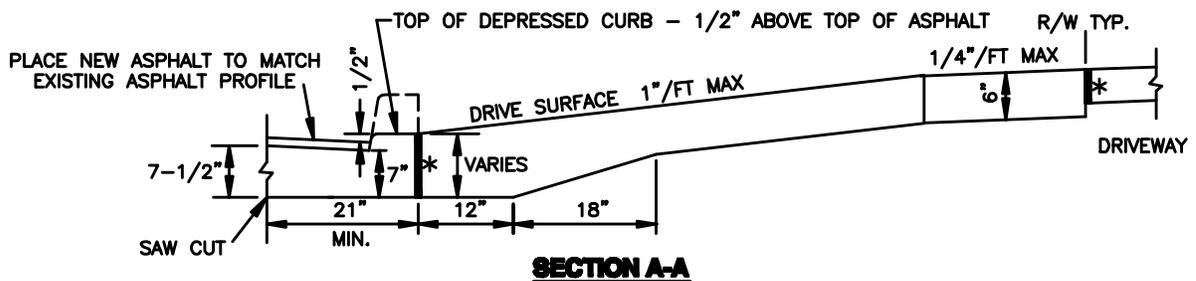
DRIVE APPROACH DETAILS



EXISTING GUTTER PLATE EXPOSED (NOT OVERLAID WITH ASPHALT)



EXISTING GUTTER PLATE OVERLAID WITH ASPHALT

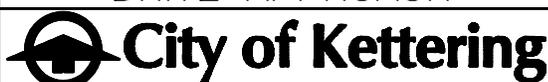


Ⓐ TO Ⓑ STRING LINE FROM Ⓐ TO Ⓑ TO MATCH EXISTING ASPHALT GRADE. USE THE STRING LINE FROM Ⓐ TO Ⓒ TO GET NEW ASPHALT GRADE IN FRONT OF DEPRESSED CURB. NEW DEPRESSED CURB LIP SHALL BE 1/2" HIGHER THAN NEW ASPHALT.

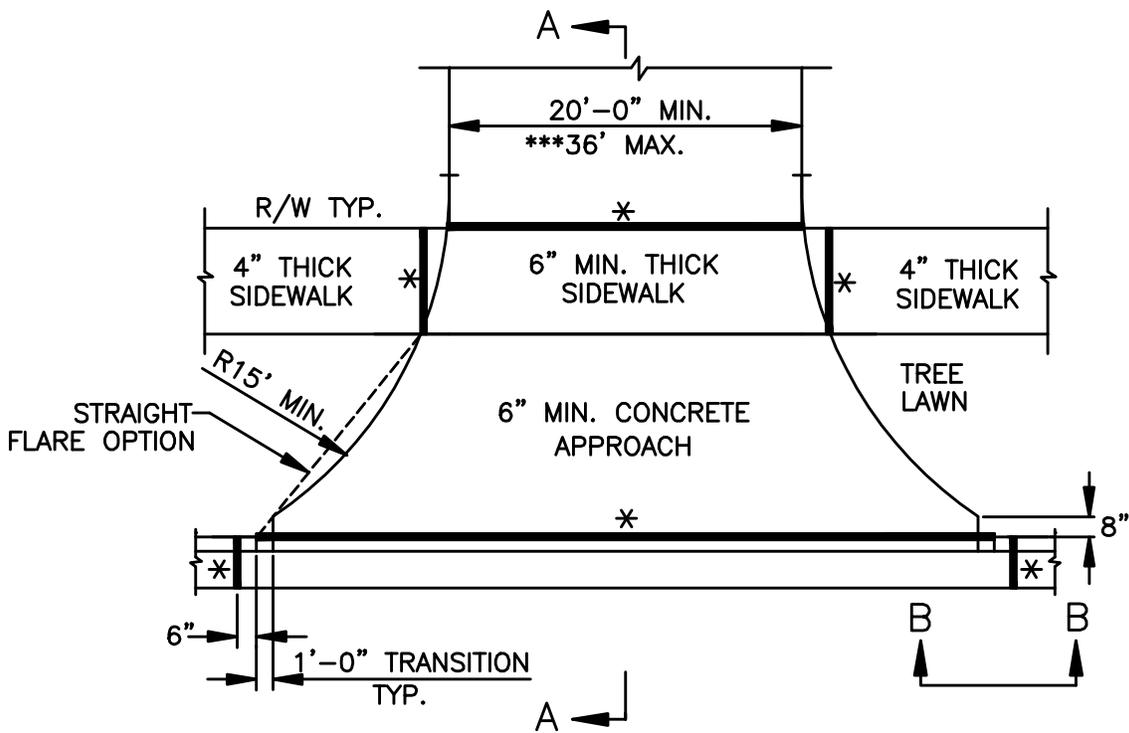
SEE DRIVE APPROACH NOTES ON SHEET #13

STANDARD DRAWING		
DATE	REVISION	BY

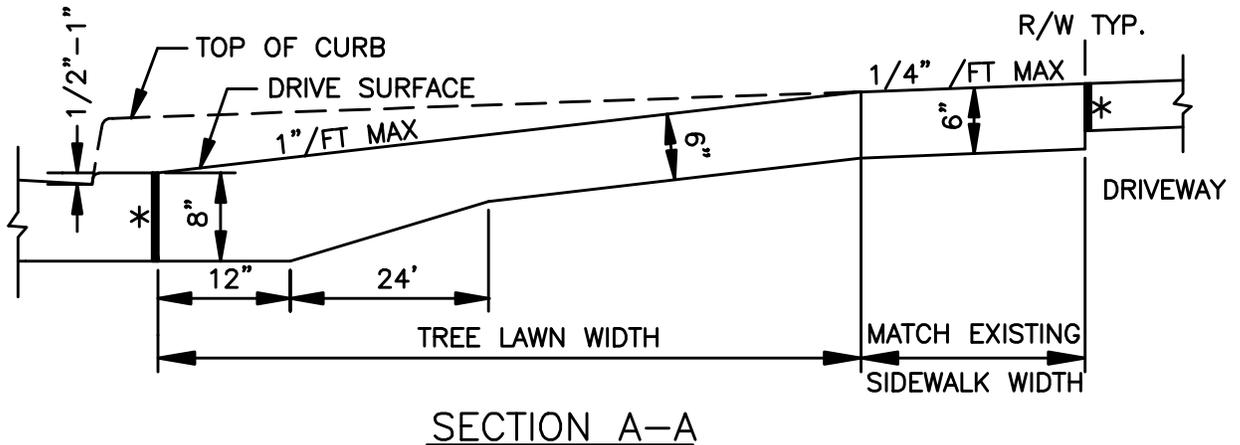
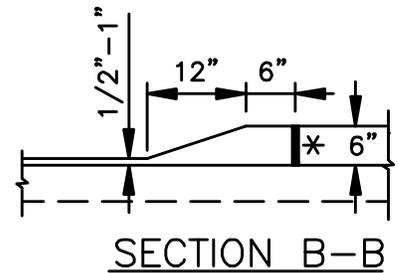
K-608B RESIDENTIAL
DRIVE APPROACH



APPROVAL	
<i>John E. Ryan</i>	CITY ENGINEER
FEBRUARY 2015	SHEET 9



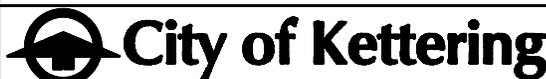
- * 1/2" VINYL EXPANSION JOINT MATERIAL
- *** WIDTHS LARGER THEN 36' REQUIRE APPROVAL FROM THE ENGINEER



SEE DRIVE APPROACH NOTES ON SHEET #13

STANDARD DRAWING		
DATE	REVISION	BY

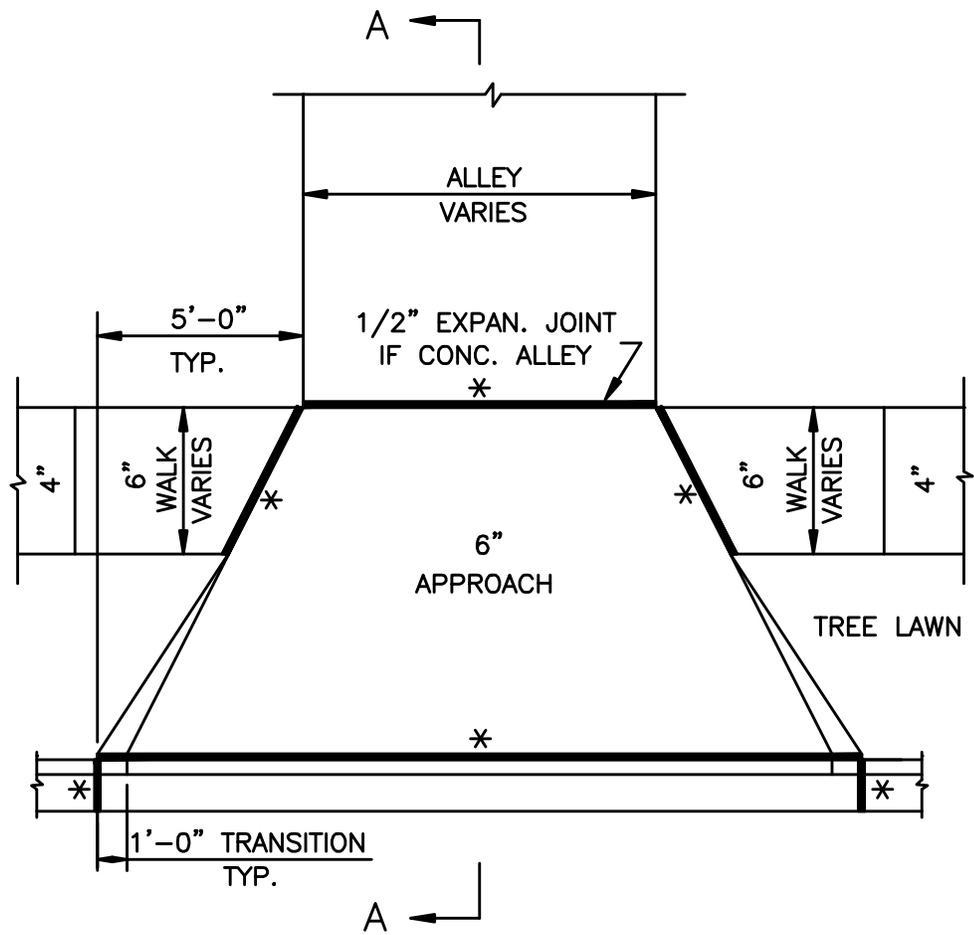
K-608B COMMERCIAL
DRIVE APPROACH



APPROVAL
Steve E. Ryan
CITY ENGINEER

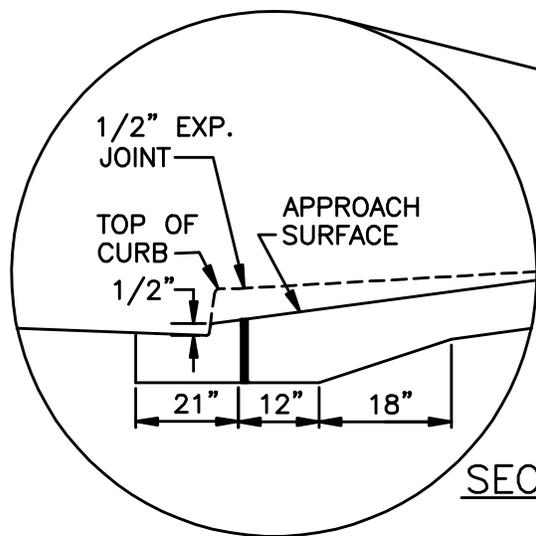
FEBRUARY 2015

SHEET
10

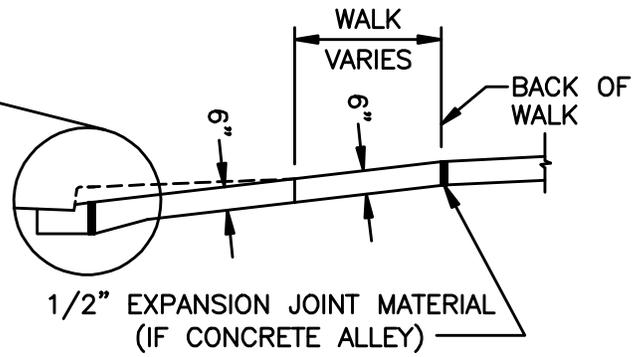


* 1/2" VINYL EXPANSION JOINT MATERIAL

ALLEY APPROACH DETAIL



SECTION A-A



SEE DRIVE APPROACH NOTES ON SHEET #13

STANDARD DRAWING		
DATE	REVISION	BY

K-608B
ALLEY APPROACH

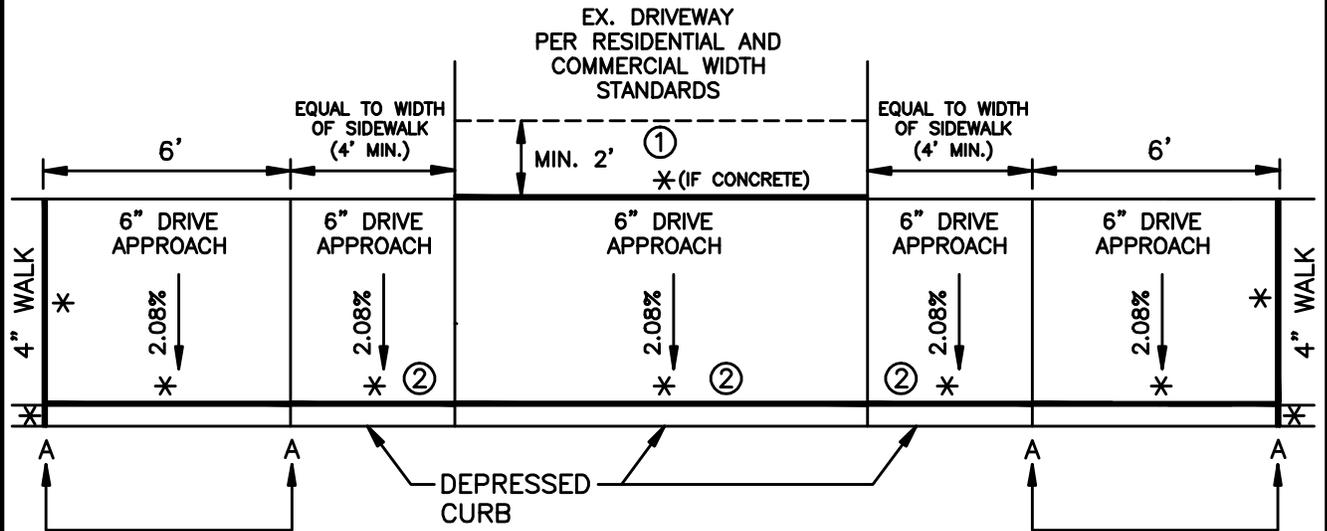
 **City of Kettering**

APPROVAL

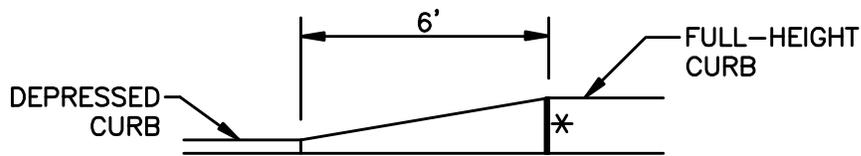

CITY ENGINEER

FEBRUARY 2015

SHEET
11



* 1/2" VINYL EXPANSION JOINT MATERIAL



SECTION A-A

① CONTRACTOR SHALL REMOVE A MINIMUM OF 2' BEHIND WALK (OR AS DIRECTED BY ENGINEER) AND REPLACE PER KETTERING CMS K-608B.

② RESIDENTIAL AND COMMERCIAL DRIVE APPROACH CROSS SECTION THICKNESS AND CONSTRUCTION STANDARDS SHALL APPLY (SECTION A-A ON RESIDENTIAL AND COMMERCIAL STANDARD CONSTRUCTION DRAWINGS)

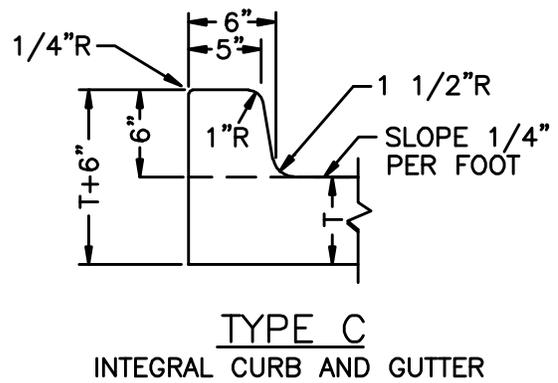
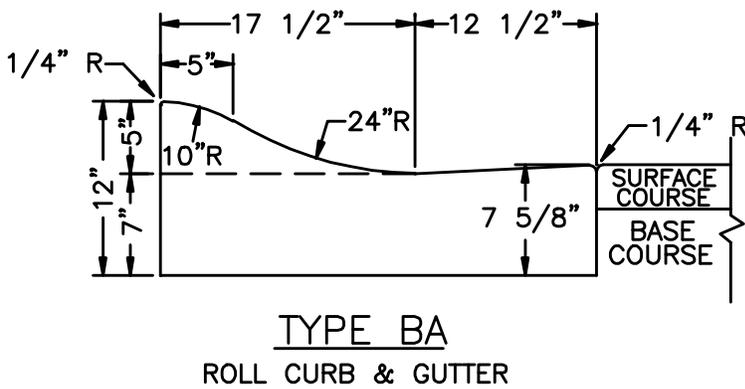
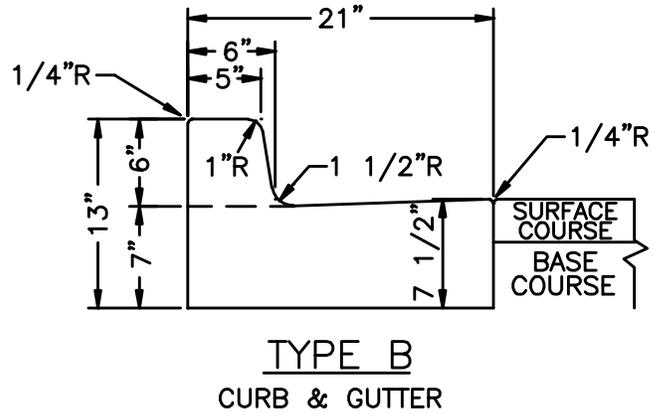
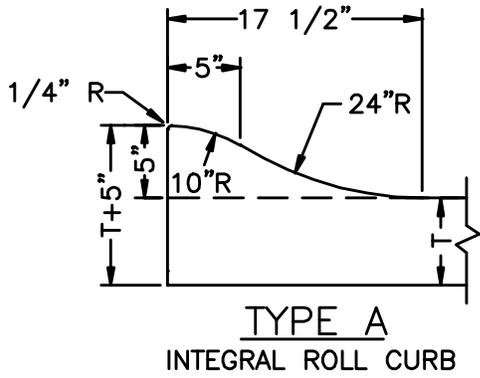
SEE DRIVE APPROACH NOTES ON SHEET #13

STANDARD DRAWING			K-608B DRIVE APPROACH, WALK AT BACK OF CURB	APPROVAL	
DATE	REVISION	BY		 CITY ENGINEER	
			 City of Kettering	FEBRUARY 2015	SHEET 12

DRIVE APPROACH NOTES

1. MAXIMUM JOINT SPACING SHALL BE 12 FEET LONGITUDINALLY AND TRANSVERSELY.
2. THE FLARE ON RESIDENTIAL DRIVE APPROACHES SHALL BE A MINIMUM OF 4 FEET. ON RESIDENTIAL STREETS WHERE THE TREE LAWN IS LESS THAN 4 FEET, THE FLARE SHALL BE A 45° ANGLE. ON ALL OTHER STREETS (I.E. NON-RESIDENTIAL) WHERE THE TREE LAWN IS LESS THAN 8 FEET, THE FLARE SHALL BE A 45° ANGLE. IF THE TREE LAWN IS GREATER THAN 8 FEET THE FLARE SHALL BE AT THE DISCRETION OF THE ENGINEER.
3. 3" OF GRAVEL SHALL BE PLACED UNDER DRIVE APPROACHES IF DETERMINED NECESSARY BY THE ENGINEER.
4. CONCRETE SHALL MEET SPECS K-499 (KETTERING MIX) AND SHALL ONLY BE SUPPLIED THROUGH A CITY OF KETTERING APPROVED READY MIX SUPPLIER.
5. WHERE ASPHALT CONCRETE PAVEMENT IS DISTURBED, THE ASPHALT SHALL HAVE A SAWED EDGE, BE REPLACED AND SEALED AS DIRECTED BY THE ENGINEER.
6. SAW CUT CURB AT BOTH ENDS. SAW CUT SHALL HAVE CLEAN AND STRAIGHT EDGES, AND SHALL BE THE FULL DEPTH OF THE CURB.
7. FOR CURB MONOLITHIC WITH CONCRETE STREET, SAW CUT PAVEMENT 21" FROM BACK OF CURB. SAW CUT TO HAVE CLEAN AND STRAIGHT EDGES, AND SHALL BE FULL DEPTH OF CURB AND/OR PAVEMENT.
8. VINYL EXPANSION JOINT MATERIAL SHALL BE PLACED AS SHOWN ON SHEETS 9-12.

STANDARD DRAWING			K-608B		APPROVAL	
DATE	REVISION	BY	DRIVE APPROACH NOTES		 CITY ENGINEER	
			 City of Kettering		FEBRUARY 2015	SHEET 13

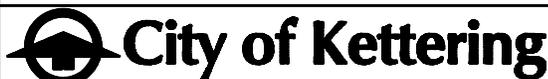


SEE CURB & GUTTER NOTES ON SHEET #16

1 of 2

STANDARD DRAWING		
DATE	REVISION	BY

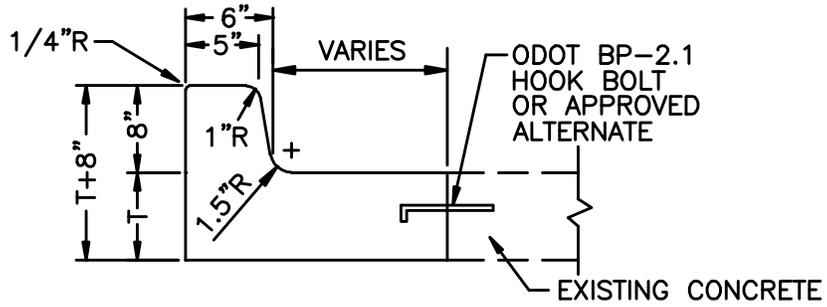
K-609
CURB AND GUTTER



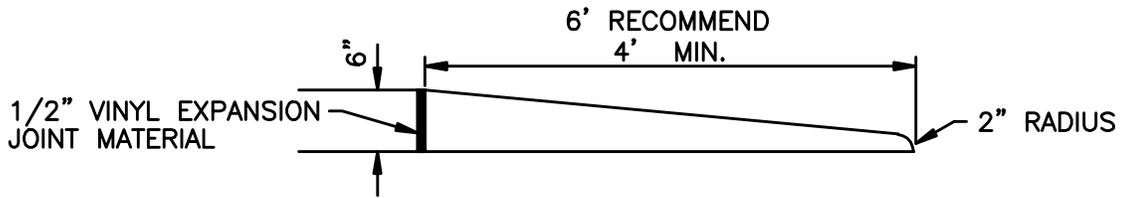
APPROVAL
John E. Ryan
CITY ENGINEER

FEBRUARY 2015

SHEET
14



**MODIFIED TYPE B
CURB AND GUTTER**



END CURB DETAIL

SEE CURB & GUTTER NOTES ON SHEET #16

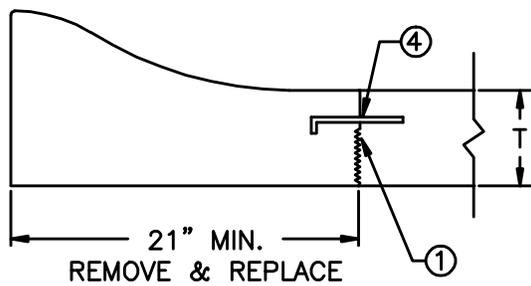
2 of 2

STANDARD DRAWING			K-609 CURB AND GUTTER	APPROVAL	
DATE	REVISION	BY		 CITY ENGINEER	
			 City of Kettering	FEBRUARY 2015	SHEET 15

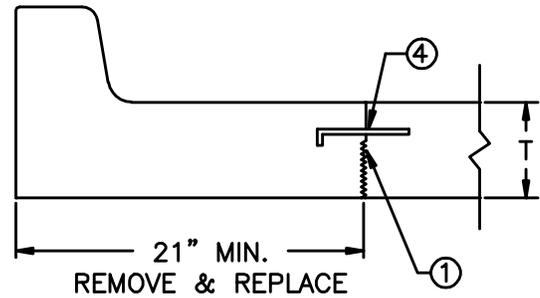
CURB AND GUTTER NOTES

1. ANY VARIANCES FROM THESE STANDARDS REQUIRE APPROVAL BY THE ENGINEER.
2. USE OF EXTRUDED CURB REQUIRES APPROVAL BY THE ENGINEER.
3. ON CONCRETE STREETS, TRANSVERSE JOINTS SHALL BE EXTENDED THROUGH INTEGRAL CURBS. JOINTS IN ODOT TYPE 6 AND MODIFIED TYPE C CURB SHALL BE PLACED IN LINE WITH TRANSVERSE CONCRETE PAVEMENT JOINTS.
4. ON ASPHALT STREETS, TYPE B & BA AND ODOT TYPE 6 MEDIAN CURB SHALL HAVE JOINTS AT A MAXIMUM OF EVERY 10 FEET.
5. CRUSHED AGGREGATE SHALL BE PLACED UNDER THE CURB WHEN DETERMINED NECESSARY BY THE ENGINEER.
6. ONE-HALF INCH VINYL EXPANSION JOINT MATERIAL OR OTHER APPROVED EXPANSION JOINT MATERIAL SHALL BE USED WITH COMBINED CURB & GUTTER AND MEDIAN CURB AS FOLLOWS (TYPE B, BA & ODOT TYPE 6):
 - * EACH SIDE OF DEPRESSED CURB
 - * AT P.C. POINTS AND MEDIAN RADII
 - * AT EACH SIDE OF DRIVE APPROACH AND CATCH BASINS
 - * MAXIMUM SPACING SHALL NOT EXCEED 50 FEET
 - * THE MATERIAL SHALL BE PLACED STRAIGHT AND SQUARE THROUGHOUT THE ENTIRE CURB SECTION.
7. ALL CURBS SHALL BE BACKFILLED PRIOR TO PAVING AND/OR BEFORE THEY ARE TO SUPPORT ANY VEHICULAR TRAFFIC.
8. DRAIN TILE THROUGH THE CURB SHALL BE INSTALLED ONLY WHEN APPROVED BY THE ENGINEER. DRAIN TILE THROUGH CURB SHALL HAVE A MIN. OF 3" OF COVER. UNLESS WAIVED BY THE ENGINEER, A DUMMY JOINT SHALL BE PLACED OVER THE OPENING AND THE GUTTER PANEL.
9. USE ODOT BP-2.1 HOOK BOLT OR APPROVED ALTERNATE AS REQUIRED IN THESE STANDARD DRAWINGS OR BY THE ENGINEER.
10. CONCRETE SHALL MEET KETTERING SPECS K-499 (KETTERING MIX) AND SHALL ONLY BE SUPPLIED THROUGH A CITY OF KETTERING APPROVED READY MIX SUPPLIER.
11. CONCRETE CURB (AND GUTTER) SPOT REPLACEMENT SECTIONS SHALL BE A MINIMUM OF THREE (3) FEET IN LENGTH. THE REPLACEMENT SECTION SHALL BE EXTENDED TO THE NEAREST EXISTING JOINT IF THE END OF THE REPLACEMENT SECTION IS WITHIN TWO (2) FEET OF THE NEAREST EXISTING JOINT
12. THE SUBGRADE BENEATH CURB (AND GUTTER) SPOT REPLACEMENT SECTIONS SHALL BE FULLY COMPACTED TO THE MAXIMUM EXTENT PRACTICABLE BEFORE NEW CONCRETE IS PLACED. APPROVED GRANULAR MATERIAL SHALL BE USED TO PREPARE THE SUBGRADE, IF THE EXISTING SUBGRADE IS DETERMINED TO BE UNSUITABLE BY THE ENGINEER.

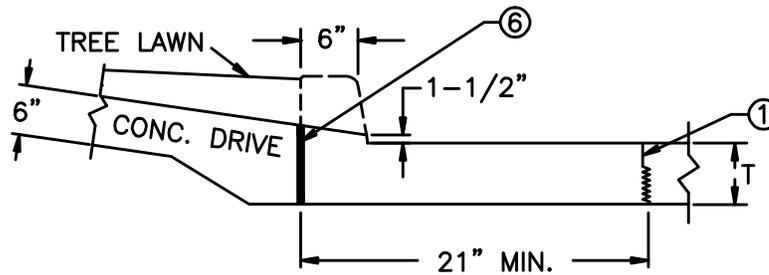
STANDARD DRAWING			K-609		APPROVAL	
DATE	REVISION	BY	CURB AND GUTTER NOTES		 CITY ENGINEER	
			 City of Kettering		FEBRUARY 2015	SHEET 16



TYPE A
INTEGRAL ROLL CURB



TYPE C
INTEGRAL CURB AND GUTTER



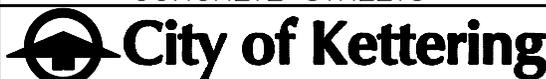
DRIVE PROFILE

CURB AND GUTTER REPAIR NOTES

1. SAWCUT DEPTH FOR REMOVAL SHALL BE GREATER OF EITHER 3" OR T/3.
2. CONCRETE CURB (AND GUTTER) SPOT REPLACEMENT SECTIONS SHALL BE A MINIMUM OF THREE (3) FEET IN LENGTH. THE REPLACEMENT SECTION SHALL BE EXTENDED TO THE NEAREST EXISTING JOINT IF THE END OF THE REPLACEMENT SECTION IS WITHIN TWO (2) FEET OF THE NEAREST EXISTING JOINT.
3. WHEN EXISTING CURB & GUTTER AND CONCRETE DRIVE ARE MONOLITHIC REMOVE CURB & GUTTER TO PROJECTED BACK OF CURB, SAW FULL DEPTH AND USE APPROVED 1/2" VINYL EXPANSION JOINT MATERIAL.
4. AT COMMERCIAL DRIVES ON CONCRETE STREETS, USE ODOT BP-2.1 HOOK BOLT (OR APPROVED EQUAL) SPACED AT 30" CENTERS OR AS DIRECTED BY THE ENGINEER.
5. WHERE EXPANSION JOINT MATERIAL IS TO BE INSTALLED, SAWCUTS SHALL BE FULL DEPTH.
6. ONE-HALF-INCH (1/2") VINYL EXPANSION MATERIAL SHALL BE PLACED ON ONE SIDE OF A SPOT REPLACEMENT SECTION, IF THE REPLACEMENT SECTION IS 15 FEET OR LESS IN LENGTH. FOR REPLACEMENT SECTIONS GREATER THAN 15 FEET IN LENGTH, 1/2" VINYL EXPANSION MATERIAL SHALL BE PLACED ON BOTH SIDES OF THE REPLACEMENT SECTION.
7. CONCRETE SHALL MEET KETTERING SPECS K-499 (KETTERING MIX) AND SHALL ONLY BE SUPPLIED THROUGH A CITY OF KETTERING APPROVED READY MIX SUPPLIER.

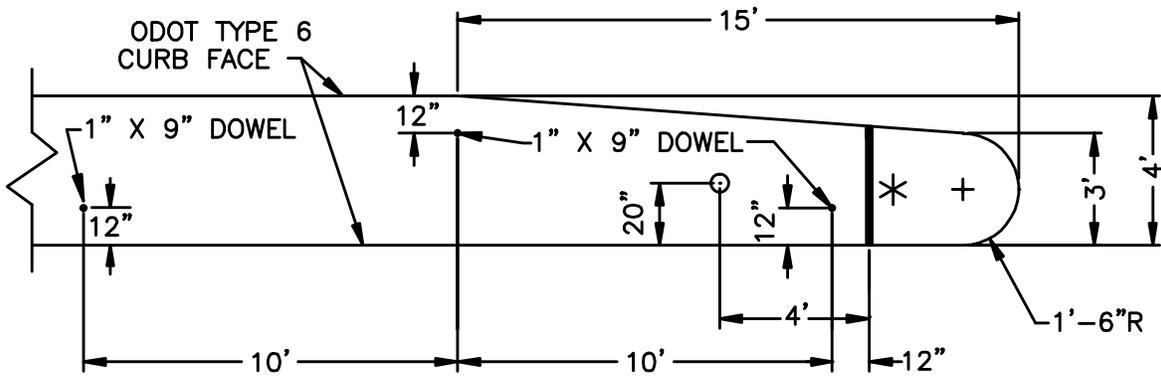
STANDARD DRAWING		
DATE	REVISION	BY

K-609
CURB AND GUTTER REPAIR
CONCRETE STREETS

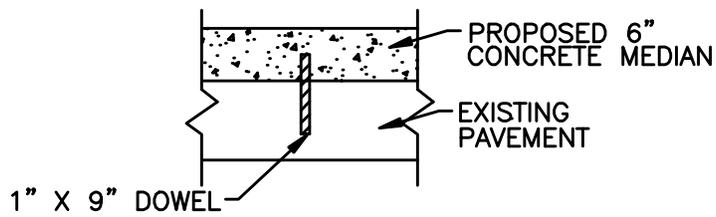


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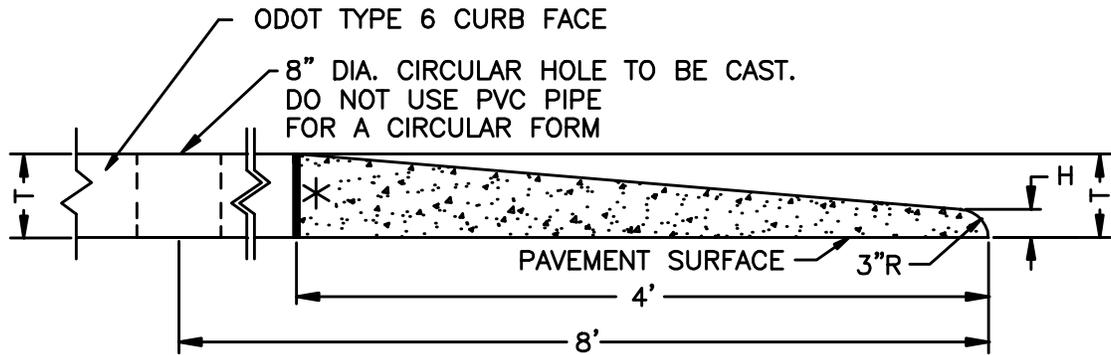
FEBRUARY 2015 SHEET 17



TOP VIEW



DOWEL DETAIL ③



SIDE VIEW

* 1/2" VINYL EXPANSION JOINT MATERIAL

T = 6" WHEN PLACED ON CONCRETE PAVEMENT.

T = 8" WHEN PLACED ON #301 ASPHALT BASE TO ALLOW FOR 2" FINAL COURSE.

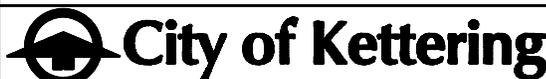
H = 2" WHEN PLACED ON CONCRETE PAVEMENT,

H = 4" WHEN ALLOWING FOR 2" FINAL COURSE.

NOTE: DOWELS IN MEDIAN SHALL BE PLACED AS DIRECTED BY ENGINEER
ALL DOWELS TO BE EPOXY COATED, SMOOTH.

STANDARD DRAWING		
DATE	REVISION	BY

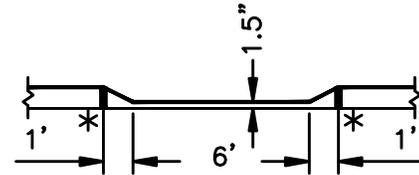
K-609
MEDIAN NOSE CONCRETE



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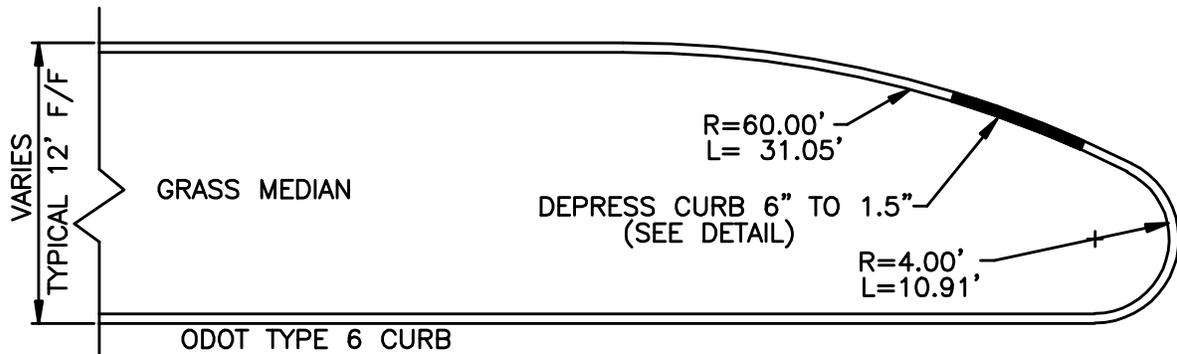
FEBRUARY 2015

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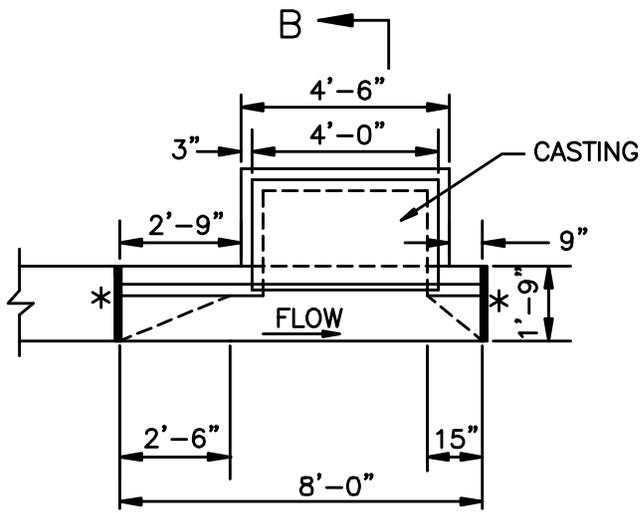
MOWER RAMP DETAIL

* VINYL EXPANSION MATERIAL

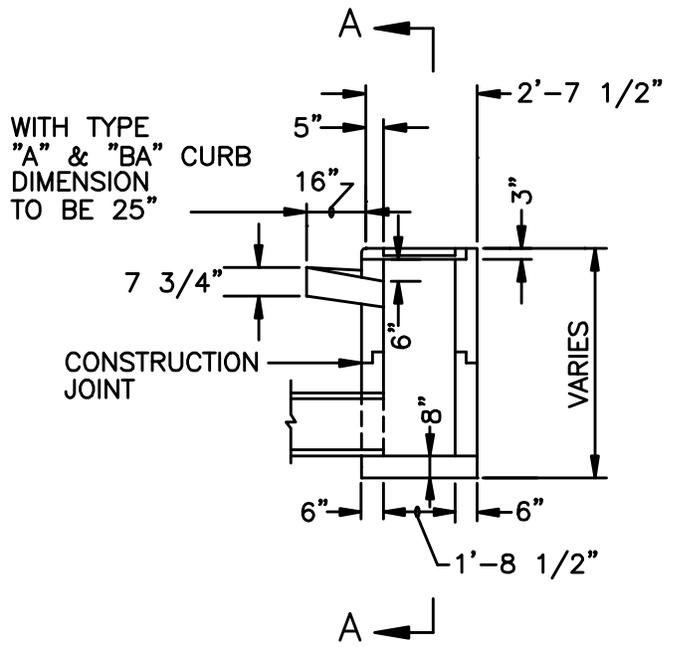


GRASS MEDIAN END DETAIL

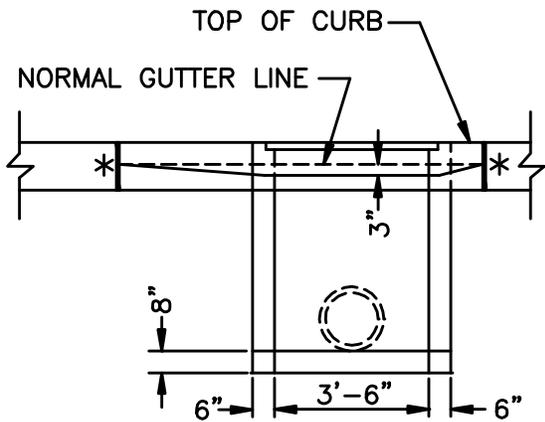
STANDARD DRAWING			K-609 MEDIAN NOSE GRASS	APPROVAL	
DATE	REVISION	BY		 CITY ENGINEER	
			 City of Kettering	FEBRUARY 2015	SHEET 19



B
PLAN VIEW



A
SECTION B-B



SECTION A-A

* 1/2" VINYL EXPANSION JOINT MATERIAL

TO BE USED ONLY BY APPROVAL OF THE ENGINEER

STANDARD DRAWING		
DATE	REVISION	BY

K-611
CATCH BASIN TYPE A

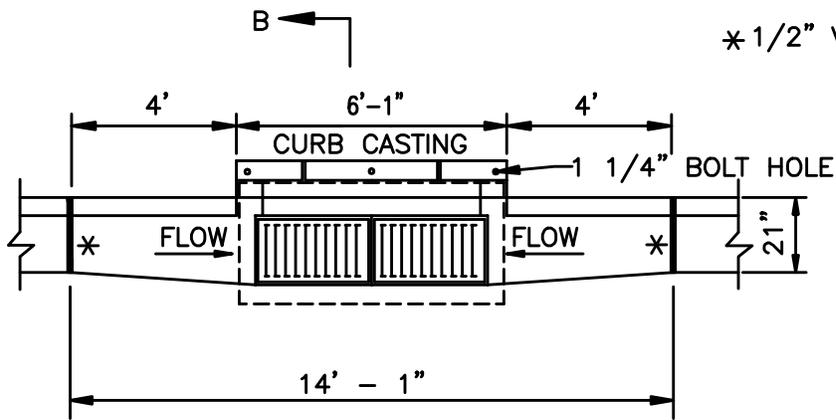
City of Kettering

APPROVAL
Steve E. Ryan
CITY ENGINEER

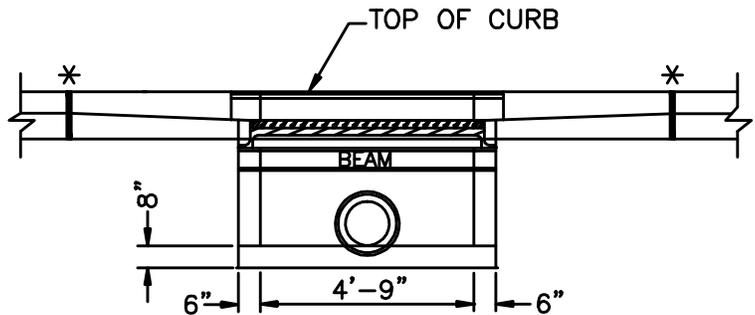
FEBRUARY 2015

SHEET
20

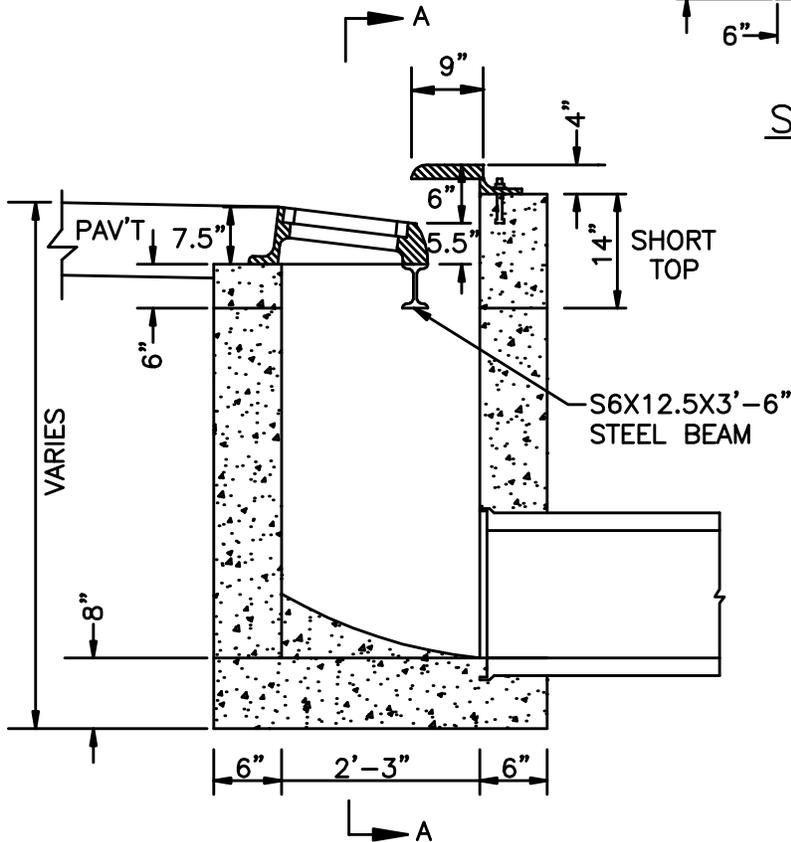
* 1/2" VINYL EXPANSION JOINT MATERIAL



PLAN VIEW



SECTION A-A

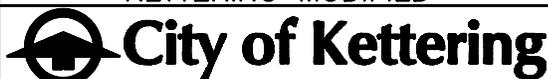


SECTION B-B

1. THIS IS ODOT STANDARD TYPE 3, EXCEPT CURB AND PRECAST TOP ARE MODIFIED AS SHOWN.
2. ALL WALLS TO BE 6" IF PRECAST AND 8" IF POURED IN PLACE OR SOLID BLOCK (POURED 8" BASE ONLY, NO BLOCK BELOW THE TOP OF PIPE).
3. LOW POINT GRATE TO BE ADJUSTED ACCORDING TO FLOW DIRECTION.
4. FRAME AND GRATE SHALL BE NEENAH R-3288-HV2, OR EAST JORDAN 7358 (WITH M3 GRATE), OR APPROVED EQUAL.
5. CURB TRANSITIONS SHALL BE MEASURED AND PAID FOR UNDER ITEM K-609 CURB (AS PER PLAN)

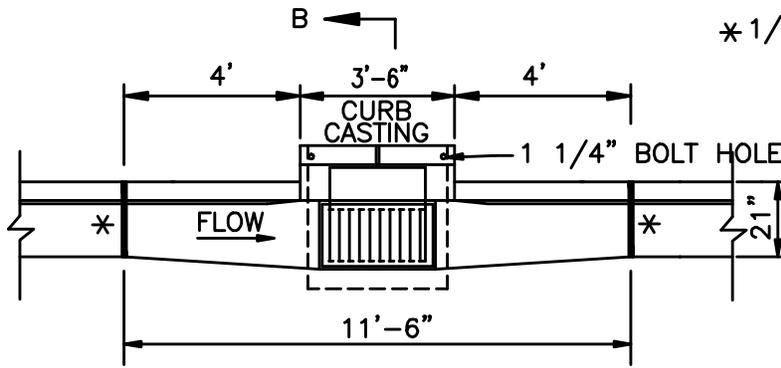
STANDARD DRAWING		
DATE	REVISION	BY

K-611
CATCH BASIN TYPE 3
KETTERING MODIFIED

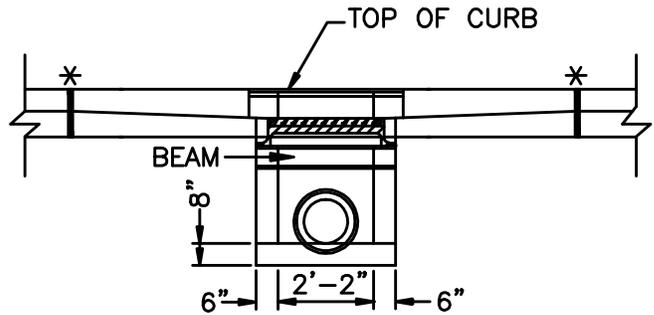


APPROVAL	
 CITY ENGINEER	
FEBRUARY 2015	SHEET 21

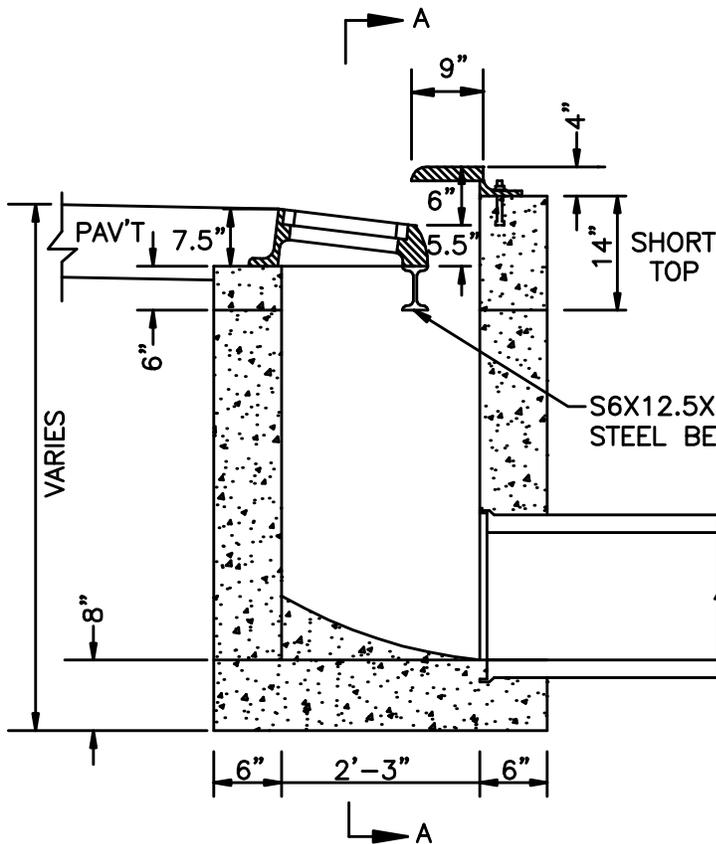
* 1/2" VINYL EXPANSION JOINT MATERIAL



PLAN VIEW



SECTION A-A

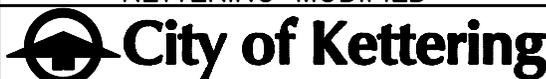


SECTION B-B

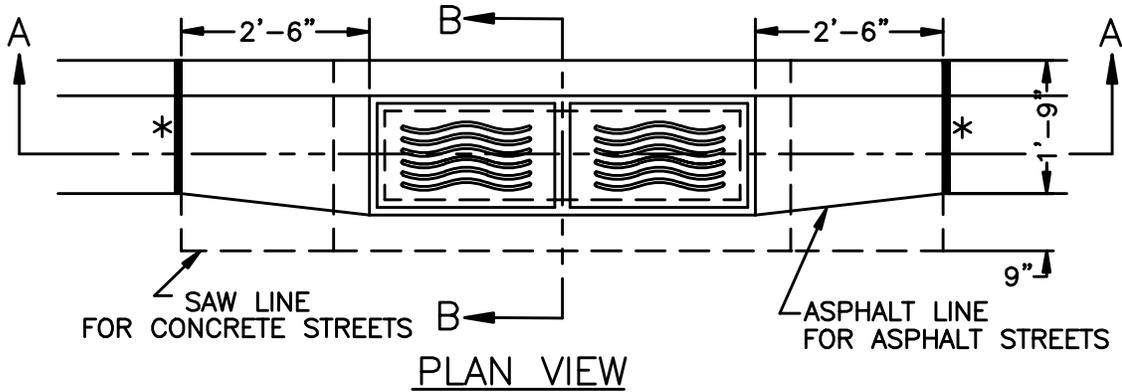
1. THIS IS ODOT STANDARD TYPE 3A, EXCEPT CURB AND PRECAST TOP ARE MODIFIED AS SHOWN.
2. ALL WALLS TO BE 6" IF PRECAST AND 8" IF POURED IN PLACE OR SOLID BLOCK (POURED 8" BASE ONLY, NO BLOCK BELOW THE TOP OF PIPE).
3. FRAME AND GRATE SHALL BE NEENAH R-3289-HV2, OR EAST JORDAN 7350 (WITH M3 GRATE), OR APPROVED EQUAL.
4. CURB TRANSITIONS SHALL BE MEASURED AND PAID FOR UNDER ITEM K-609 CURB (AS PER PLAN)

STANDARD DRAWING		
DATE	REVISION	BY

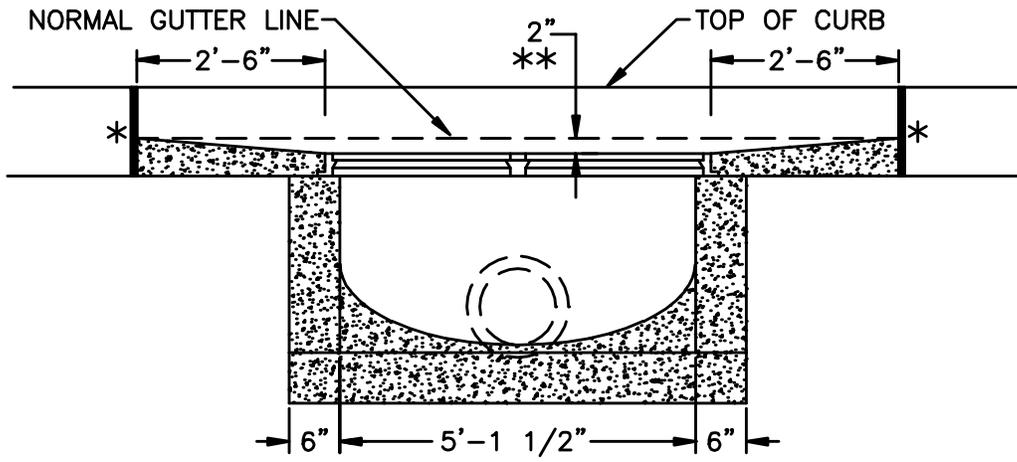
K-611
CATCH BASIN TYPE 3A
KETTERING MODIFIED



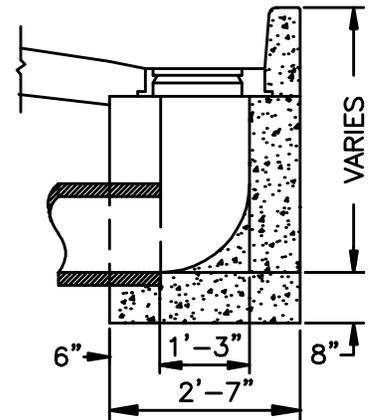
APPROVAL	
 CITY ENGINEER	
FEBRUARY 2015	SHEET 22



PLAN VIEW



SECTION A-A



SECTION B-B

* 1/2" VINYL EXPANSION JOINT MATERIAL
FULL DEPTH (TYP)

** TO BE MODIFIED TO 1/2"
IF WITHIN THE DEPRESSED
CURB.

GRATE SHALL BE NEENAH R-3408 OR EQUAL,
VANE OR SINUSOIDAL AS PER DIRECTION OF
ENGINEER.

ALL WALLS TO BE 6" IF PRECAST AND 8" IF POURED IN PLACE.
(POURED 8" BASE ONLY)

STANDARD DRAWING		
DATE	REVISION	BY

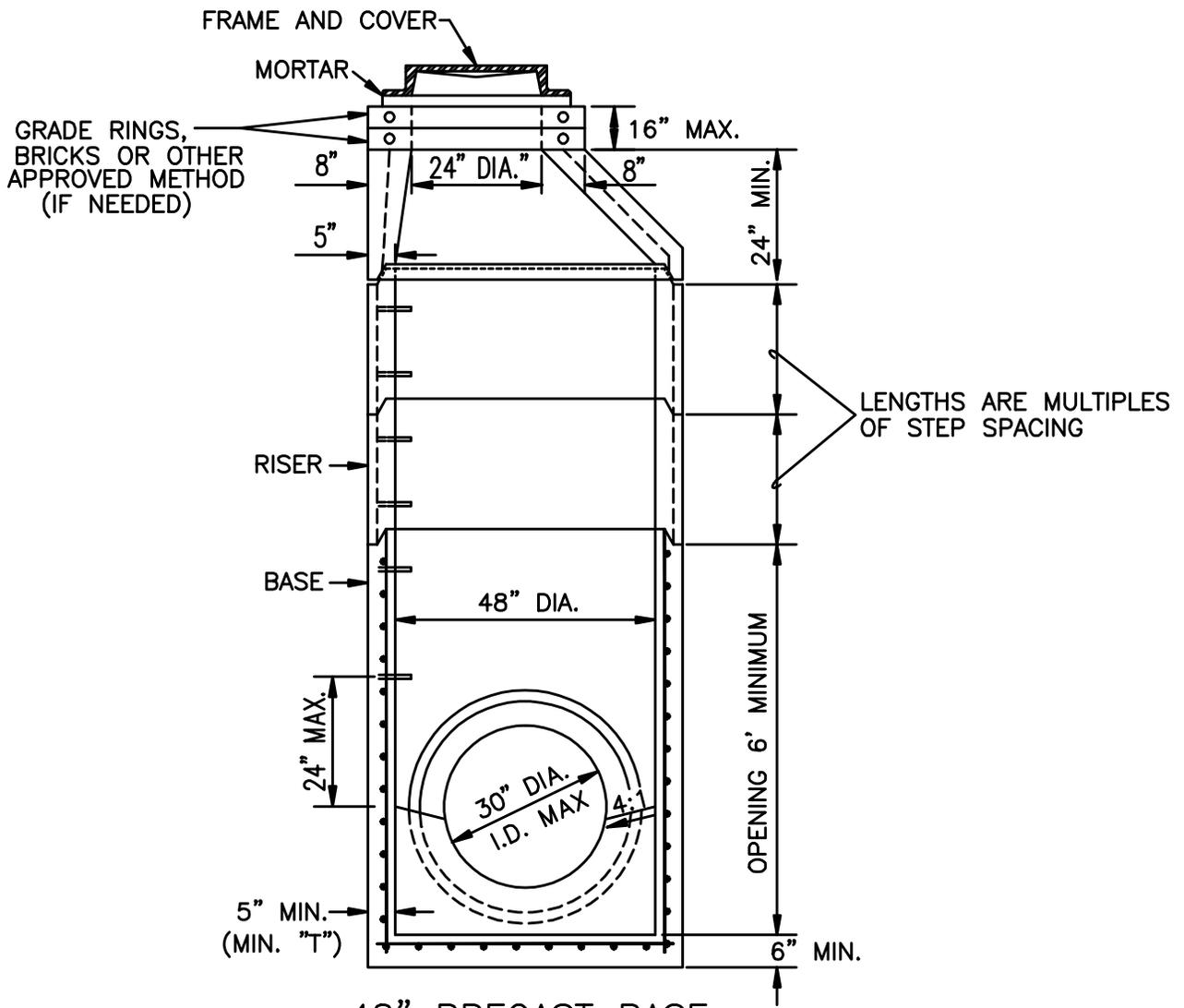
K-611
CATCH BASIN TYPE E

City of Kettering

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CITY ENGINEER

FEBRUARY 2015

SHEET
23



**48" PRECAST BASE
FOR 30" AND SMALLER PIPE**

NOTES

1. OPENING FOR INLET AND OUTLET PIPES SHALL BE PROVIDED, EITHER WHEN THE UNIT IS CAST OR LATER, TO MEET PROJECT REQUIREMENTS.
2. BOTTOM CHANNELS MAY BE FORMED OF CONCRETE, PRECAST IN THE BASE OR FIELD CONSTRUCTED.
3. FRAME AND LID SHALL BE EAST JORDAN 1600Z, HEAVY DUTY, VENTED LID; OR APPROVED EQUAL.

FOR 60" TO 108" BASES

MAXIMUM PIPE SIZES		
BASE I.D.	MIN. "T"	MAX. PIPE SIZE
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7.5"	60"
96"	8"	66"
108"	9"	72"

STANDARD DRAWING		
DATE	REVISION	BY

K-611
MANHOLE TYPE A

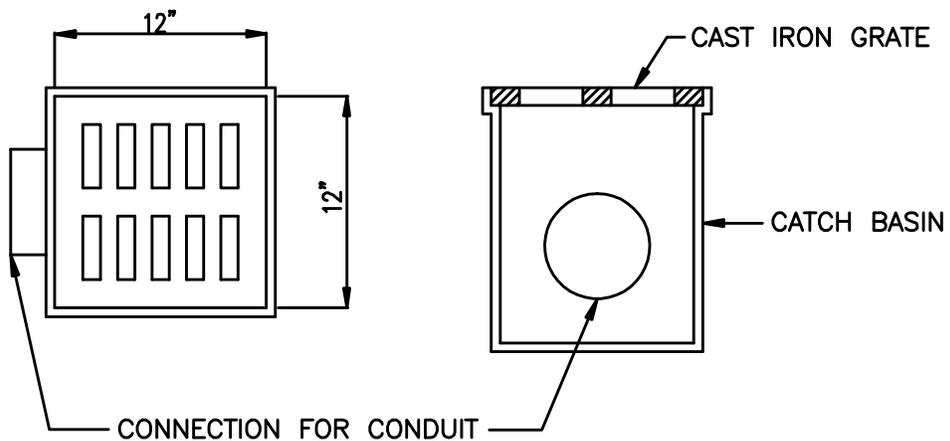
 **City of Kettering**

APPROVAL


CITY ENGINEER

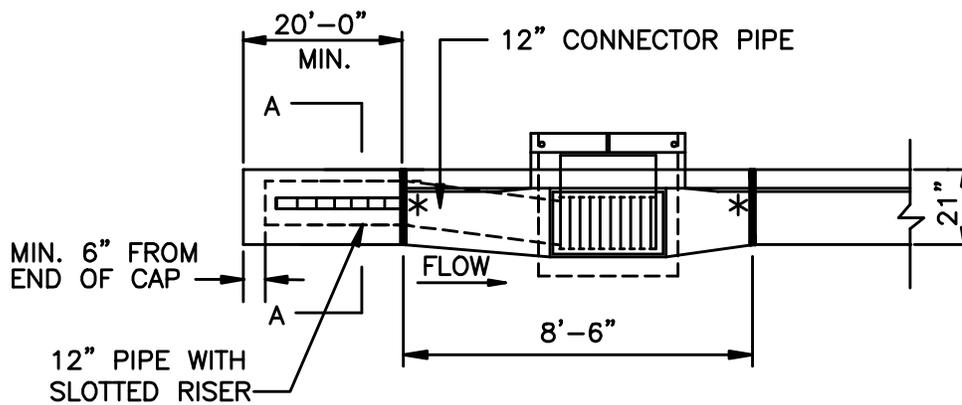
FEBRUARY 2015

SHEET
24



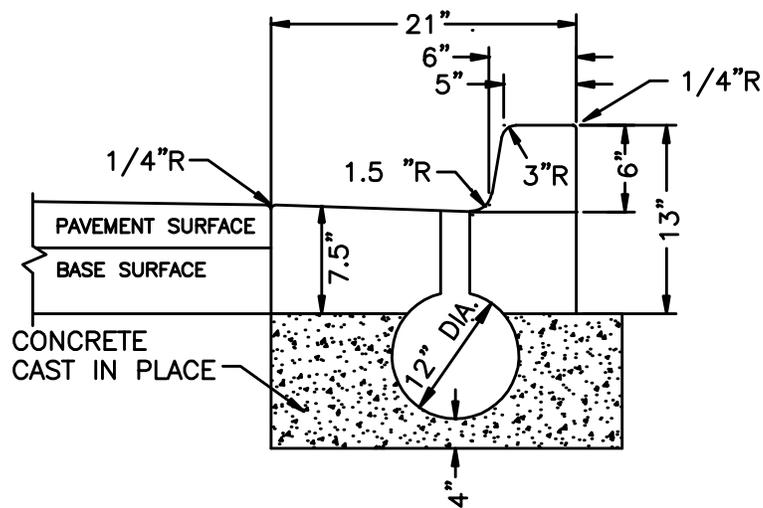
1. USE NATIONAL DIVERSIFIED SALES NDS #1200 CATCH BASIN AND NDS #1213 GRATE, OR APPROVED EQUAL.
2. SPECIAL FITTINGS, RISERS, CONNECTIONS, BENDS, TEES, CLEAN-OUTS AND APPURTENNANCES TO BE INCLUDED IN THE UNIT BID PRICE FOR YARD INLET.

STANDARD DRAWING			K-611 YARD INLET		APPROVAL <i>Steve E. Ryan</i> CITY ENGINEER	
DATE	REVISION	BY	City of Kettering		FEBRUARY 2015	SHEET 25



PLAN VIEW

* 1/2" VINYL EXPANSION MATERIAL JOINT



SECTION A-A

STANDARD DRAWING		
DATE	REVISION	BY

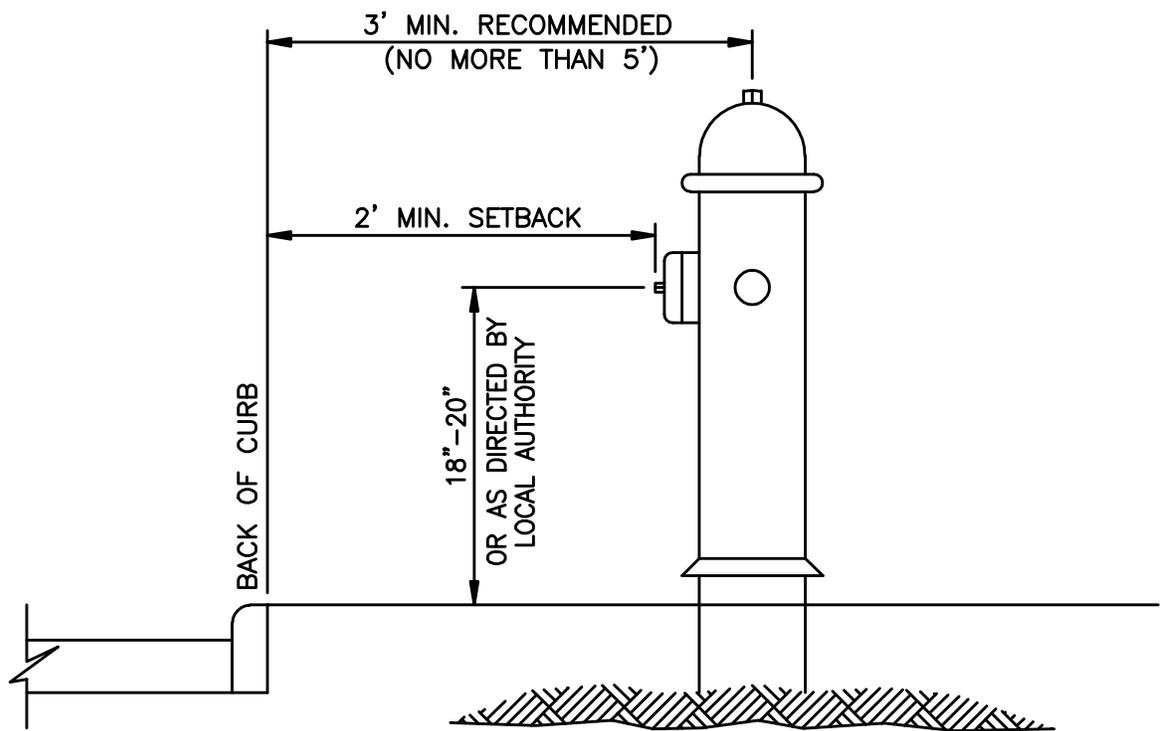
K-611
12" SLOTTED DRAIN



APPROVAL
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CITY ENGINEER

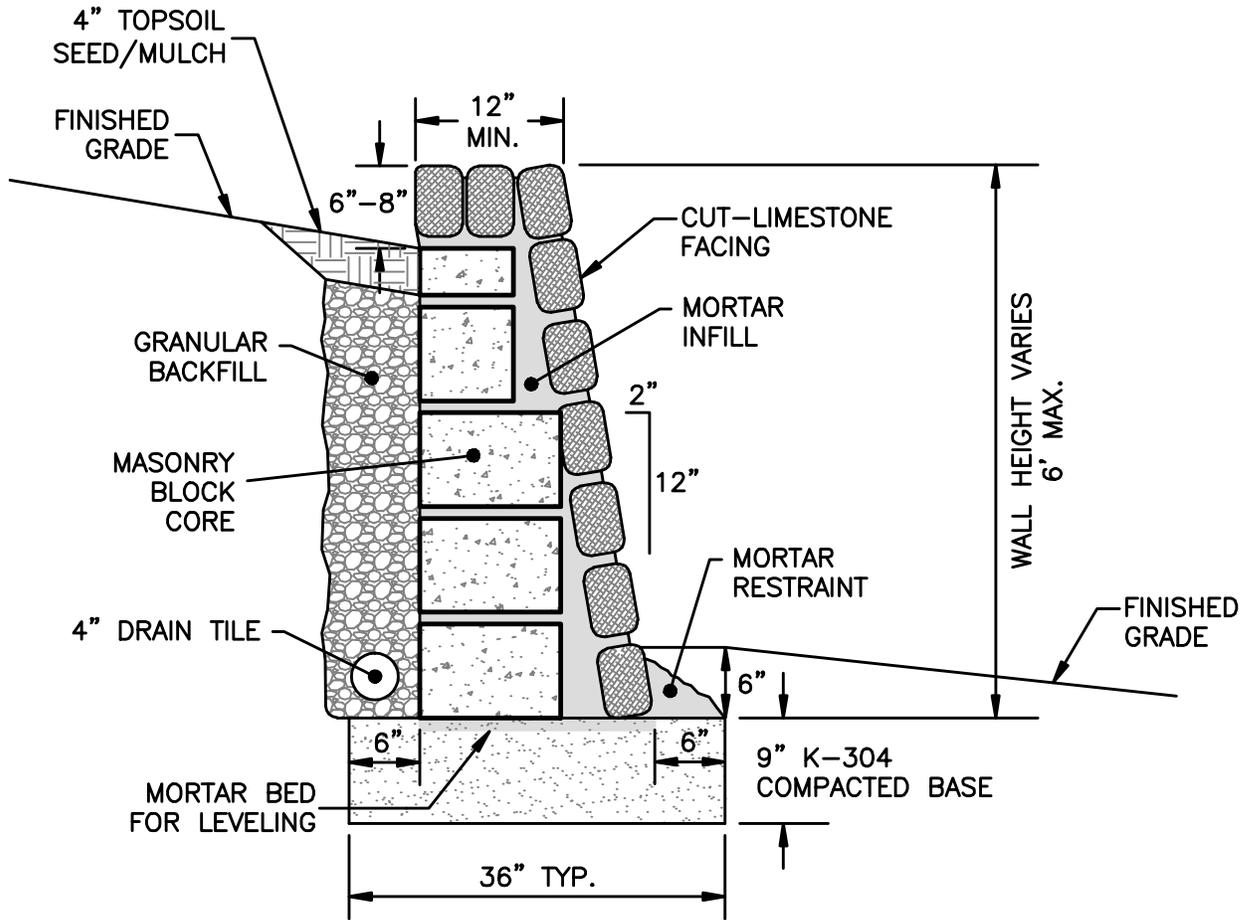
FEBRUARY 2015

SHEET
26



FIRE HYDRANT LOCATION DETAIL

STANDARD DRAWING			K-901 FIRE HYDRANT LOCATION	APPROVAL	
DATE	REVISION	BY		 CITY ENGINEER	
			 City of Kettering	FEBRUARY 2015	SHEET 27



REFERENCE CITY OF KETTERING CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR WALL CONSTRUCTION DETAILS

STANDARD DRAWING			K-911		APPROVAL	
DATE	REVISION	BY	GRAVITY RETAINING WALL		 CITY ENGINEER	
					FEBRUARY 2015	
					SHEET 28	