

STREET

TOTAL IMPERVIOUS AREA

	LENGTH (FT.)	WIDTH (FT.)	AREA(S.F.)
HOUSE	X	_____	_____
DRIVEWAY	X	_____	_____
PORCH	X	_____	_____
SIDEWALK	X	_____	_____
STEPS	X	_____	_____
DECK	X	_____	_____
_____	X	_____	_____
_____	X	_____	_____
_____	X	_____	_____

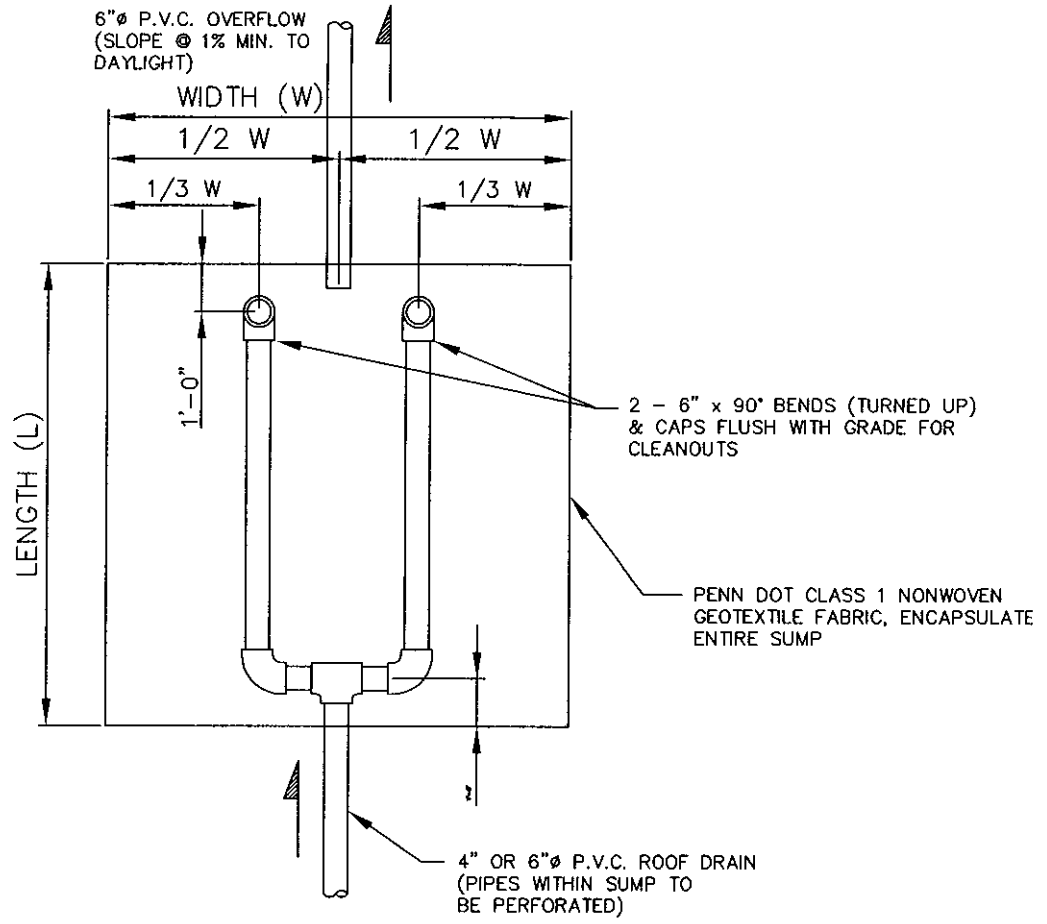
TOTAL (S.F.): _____

NOTES:

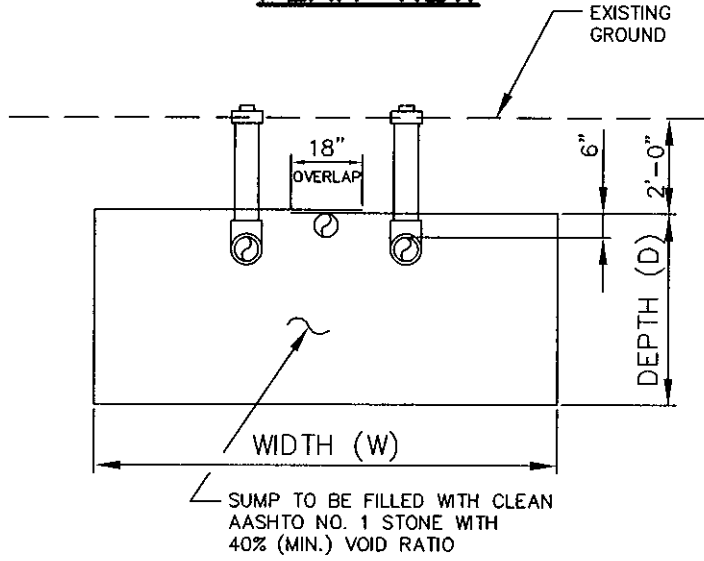
1. ALL APPLICABLE IMPERVIOUS AREAS SHALL BE LISTED

UPPER BURRELL TOWNSHIP			
WESTMORELAND COUNTY		PENNSYLVANIA	
STANDARD DRAWING			
STORMWATER MANAGEMENT			
IMPERVIOUS AREA CALCULATION			
BE	BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA 15051		SCALE N.T.S.
	DATE SEPT. 2007	DRAWN BY G.R.H. APPROVED BY D.W.K.	SHEETS IN SET 3 DRAWING NUMBER 2-554-47-1

FIGURE C-1



PLAN VIEW



SECTION

ROOF DRAIN SUMP DETAILS

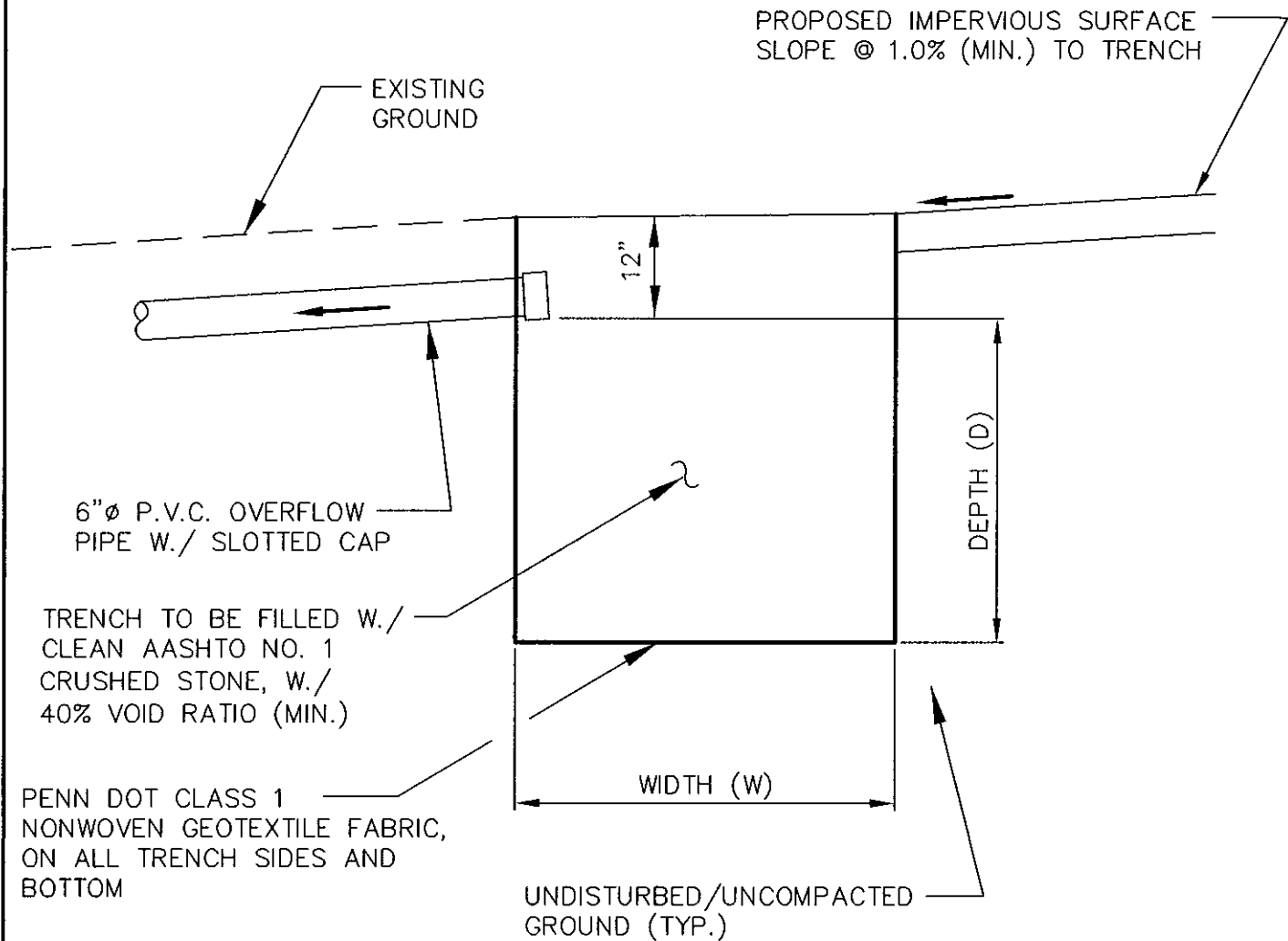
N.T.S.

NOTES:

1. REQUIRED VOLUME = LENGTH (L) X WIDTH (W) X DEPTH (D)
2. ALL SUMPS SHALL BE EQUIPPED WITH OVERFLOW PIPE.
3. OVERFLOW PIPE SHALL NOT DRAIN TO STREET OR STORM SEWER, UNLESS DIRECTED BY TOWNSHIP ENGINEER.

FIGURE C-3

UPPER BURRELL TOWNSHIP		
WESTMORELAND COUNTY	PENNSYLVANIA	
STANDARD DRAWING		
STORMWATER MANAGEMENT		
ROOF DRAIN SUMP DETAILS		
BE	BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA 15051	SCALE N.T.S.
	DATE SEPT. 2007	DRAWN BY G.R.H. APPROVED BY D.W.K.
		SHEETS IN SET 3 DRAWING NUMBER 2-554-47-2



ROCK FILLED TRENCH DETAIL

N.T.S.

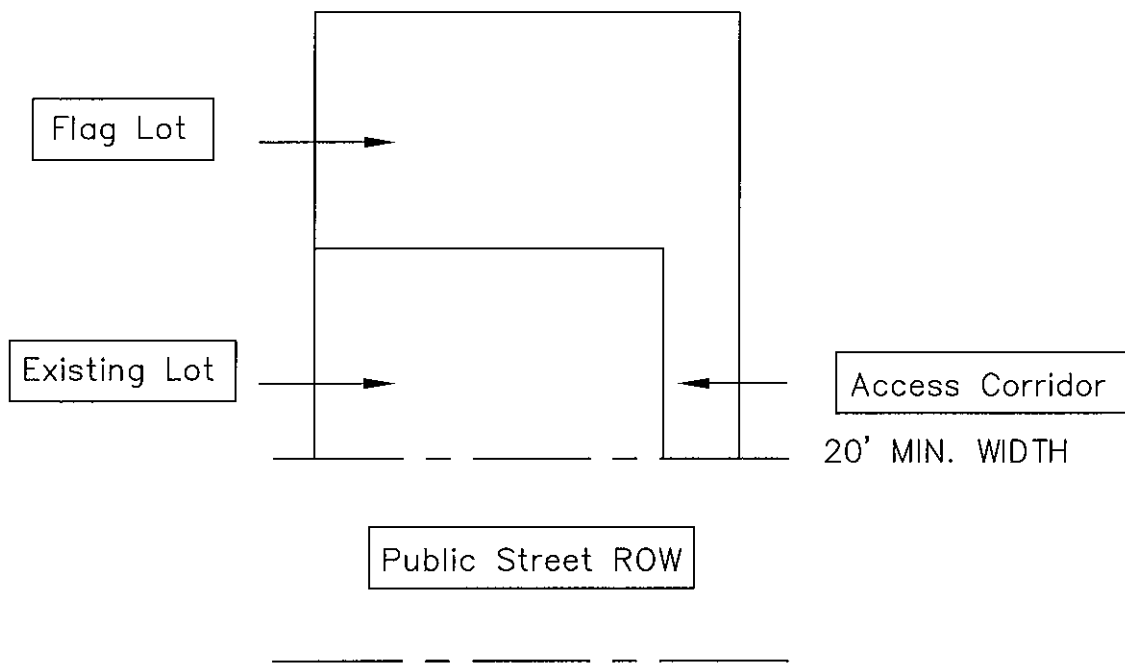
NOTES:

1. REQUIRED VOLUME = LENGTH (L) X WIDTH (W) X DEPTH (D)
2. ALL TRENCHES SHALL BE EQUIPPED WITH OVERFLOW PIPE.
3. OVERFLOW PIPE SHALL NOT DRAIN TO STREET OR STORM SEWER, UNLESS DIRECTED BY TOWNSHIP ENGINEER.

FIGURE C-4

UPPER BURRELL TOWNSHIP			
WESTMORELAND COUNTY		PENNSYLVANIA	
STANDARD DRAWING STORMWATER MANAGEMENT ROCK FILLED TRENCH DETAIL			
BE BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA 15051	SCALE N.T.S.	DRAWN BY G.R.H.	SHEETS IN SET 3
	DATE SEPT. 2007	APPROVED BY D.W.K.	DRAWING NUMBER 2-554-47-3

APPENDIX III
ILLUSTRATION OF FLAG LOT



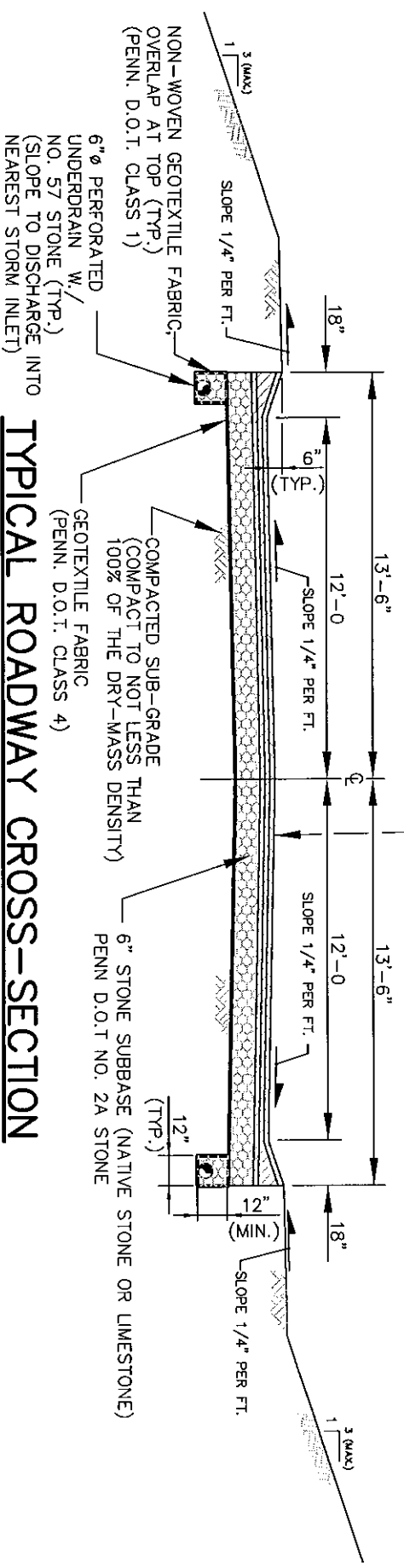
UPPER BURRELL TOWNSHIP			
WESTMORELAND COUNTY		PENNSYLVANIA	
CONSTRUCTION STANDARD			
APPENDIX III			
BE	BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA 15051		SCALE NONE
			DRAWN BY A.M.M.
		DATE SEPT. 2007	APPROVED BY D.W.K.
		SHEETS IN SET 1	DRAWING NUMBER 2-554-48-1

PVMT. ALTERNATE NO. 1
(HOT MIX: SUPERPAVE HMA)

- 1.) 4" - BASE COURSE
- 2.) 2 1/2" - BINDER COURSE
- 3.) 1 1/2" - WEARING COURSE (SEE NOTE #5)

PVMT. ALTERNATE NO. 2
(COLD MIX: FB-1 OR FB-2)

- 1.) 4" - BCBC BASE COURSE
- 2.) 2 1/2" - FB-1 OR FB-2 BINDER COURSE
- 3.) 1 1/2" - FB-1 OR FB-2 WEARING COURSE (SEE NOTE #5)



TYPICAL ROADWAY CROSS-SECTION

N.T.S.

NOTES:

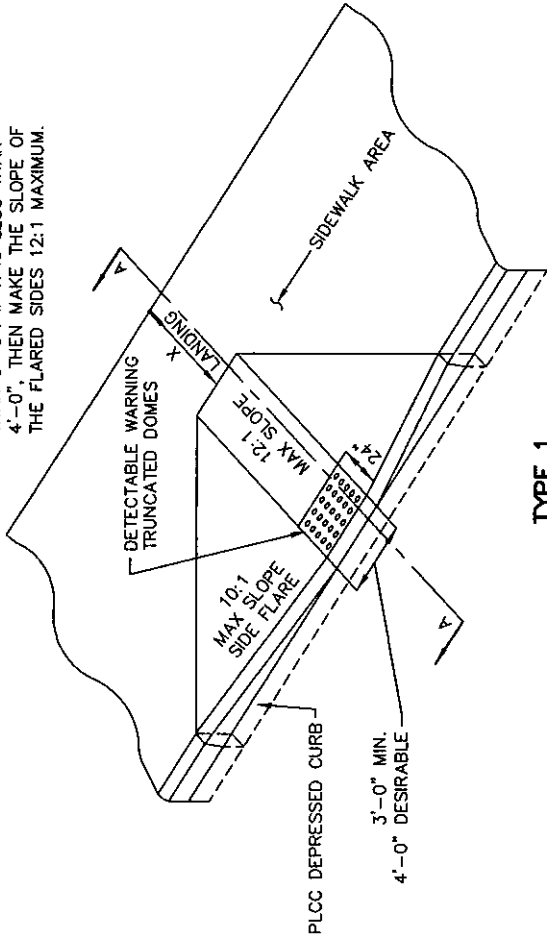
1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS OF PENN. D.O.T., FORM 408
2. ALL DEPTHS OF MATERIALS, AS SHOWN, SHALL BE COMPACTED DEPTHS.
3. ASPHALT EMULSION USED FOR BITUMINOUS SEAL COAT SHALL BE COMPATIBLE WITH AGGREGATE.
4. SURFACE PREPARATION OF BINDER COURSE, PRIOR TO THE PLACEMENT OF THE WEARING COURSE, SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS OF PENN. D.O.T., FORM 408.
5. WEARING COURSE (SUPERPAVE HMA, FB-1 OR FB-2) SHALL NOT BE INSTALLED UNTIL 1 YR. AFTER THE BINDER COURSE IS IN PLACE, OR AS DIRECTED BY THE TOWNSHIP ENGINEER.
6. HOT MIX ASPHALT
 - A.) SUPERPAVE HMA WEARING COURSE - PG 64-22, 0.3 TO 3.0 MILLION ESALS 9.5 TO 12.5 mm MIX.
 - B.) SUPERPAVE BINDER COURSE - PG 64-22, 0.3 TO 3.0 MILLION ESALS 19 mm MIX.
 - C.) SUPERPAVE BASE COURSE - PG 64-22, 0.3 TO 3.0 MILLION ESALS 25.0 mm MIX.

REVISED: 28 OCT. 2008 NOTE CHANGED

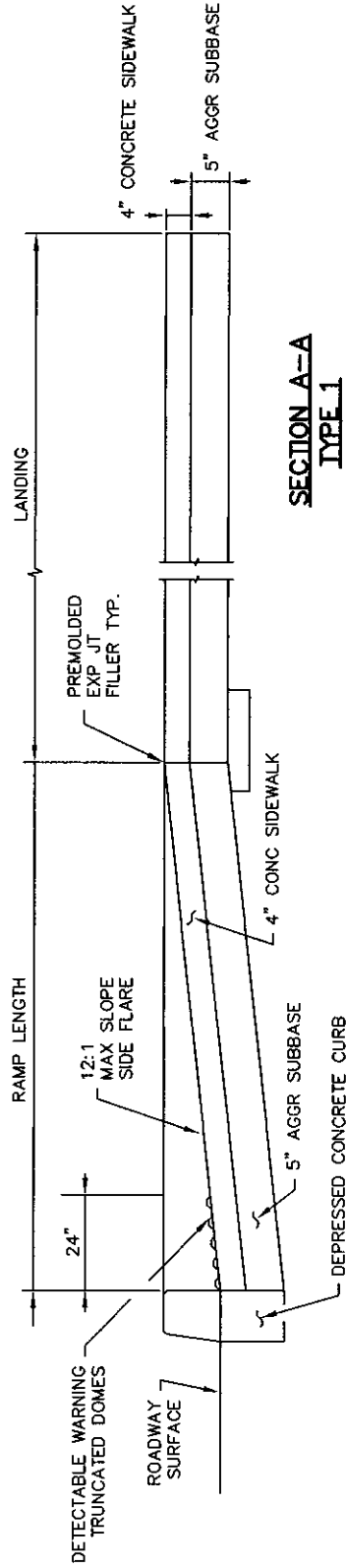
UPPER BURRELL TOWNSHIP
 WESTMORELAND COUNTY
 CONSTRUCTION STANDARD
 PAVEMENT - SECTION
 PENNSYLVANIA

B/E	BANKSON ENGINEERS, INC.		CONSULTING ENGINEERS		MONROE, PA 15051	
	SCALE	AS SHOWN	DRAWN BY	N.T.S.	APPROVED BY	DRAWING NUMBER
	DATE	SEPT. 2007			2-584-45-1	

X IS EQUAL TO OR GREATER THAN 3'-0". IF X IS LESS THAN 4'-0", THEN MAKE THE SLOPE OF THE FLARED SIDES 12:1 MAXIMUM.



TYPE 1 CURB RAMP



SECTION A-A TYPE 1


UPPER BURRELL TOWNSHIP

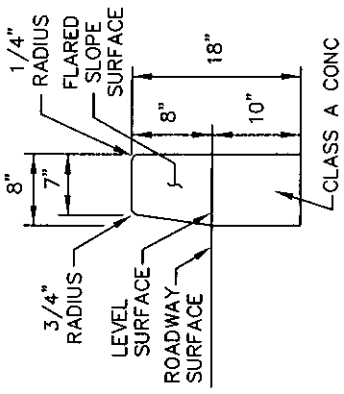
WESTMORELAND COUNTY

PENNSYLVANIA

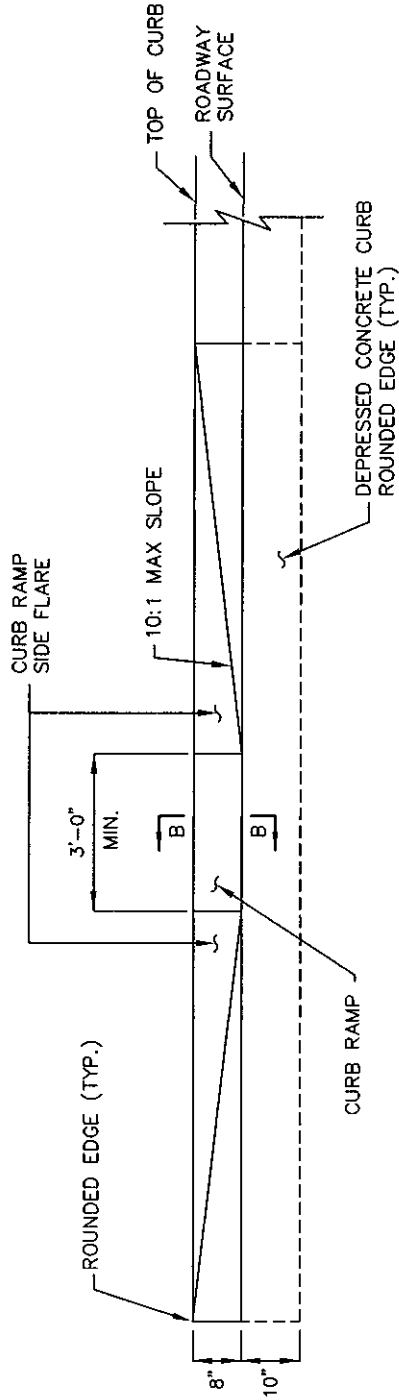
CONSTRUCTION STANDARD

TYPE 1 HANDICAPPED CURB RAMP

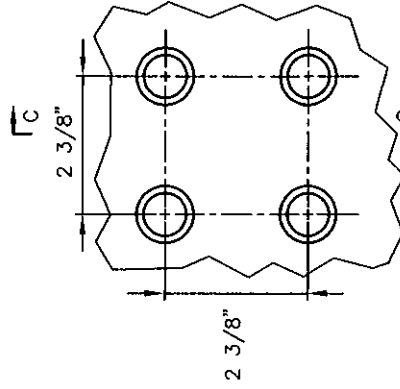
	SCALE NONE	DRAWN BY A.M.M.	SHEETS IN SET DRAWING NUMBER
	DATE SEPT. 2007	APPROVED BY D.W.K.	2-554-45-2
BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA. 15661			



DEPRESSED CURB
SECTION B-B

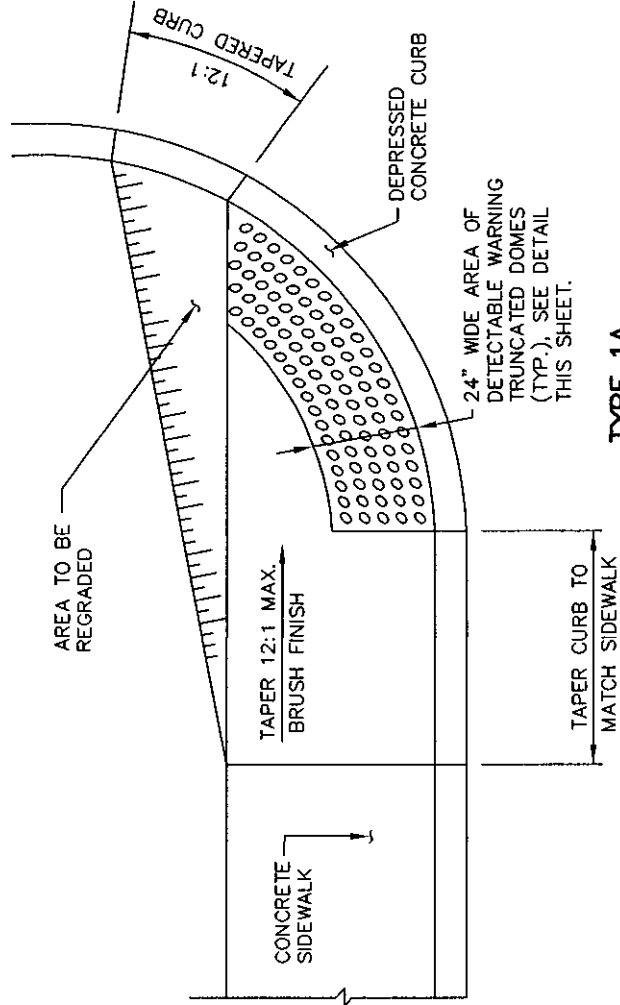
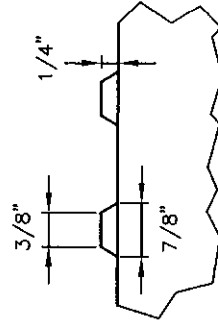


ELEVATION
TYPE 1



PLAN
SECTION C-C

DETECTABLE WARNING
TRUNCATED DOME DETAIL



TYPE 1A
CURB RAMPS

UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY

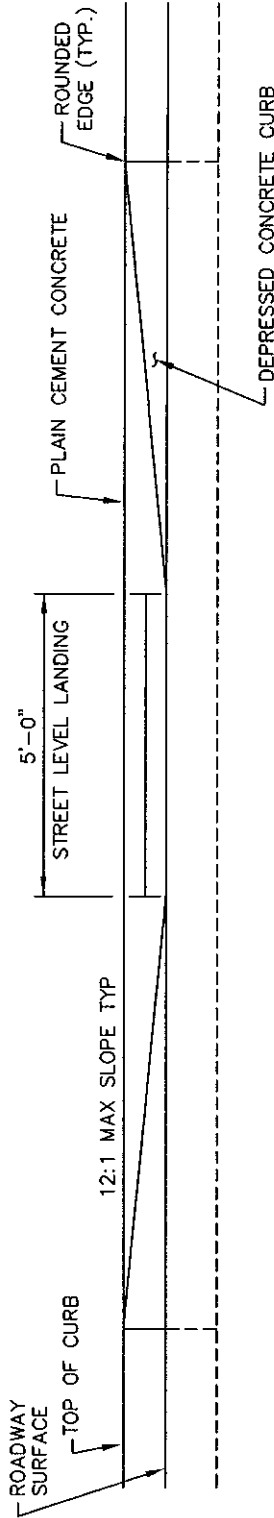
PENNSYLVANIA

CONSTRUCTION STANDARD
HANDICAPPED CURB RAMP

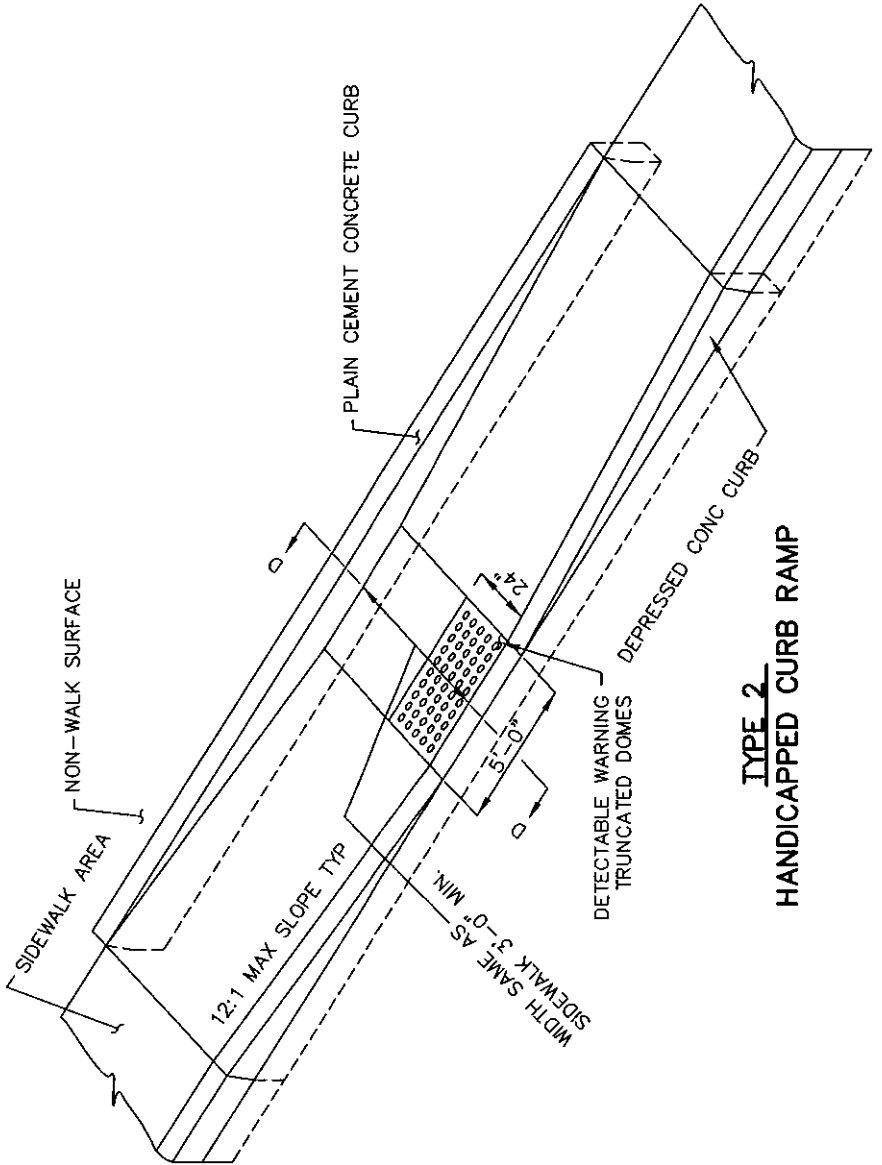
BANKSON ENGINEERS, INC.
CONSULTING ENGINEERS
INDIANOLA, PA. 15051



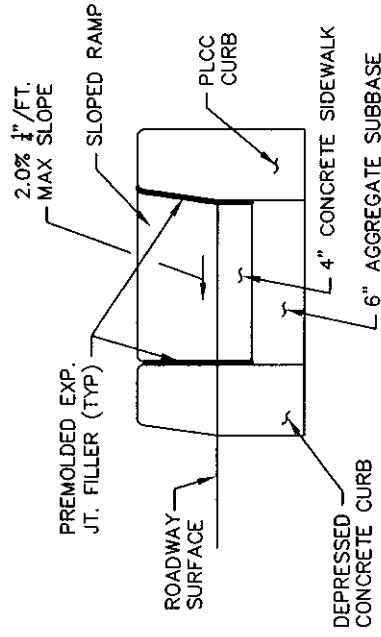
SCALE: NONE
DATE: SEPT. 2007
DRAWN BY: A.M.M.
APPROVED BY: D.W.K.
SHEETS IN SET: 2-554-45-3
DRAWING NUMBER: 2-554-45-3



**TYPE 2 CURB RAMP
ELEVATION**



**TYPE 2
HANDICAPPED CURB RAMP**



**TYPE 2 CURB RAMP AND
TYPE 5 CURB RAMP
SECTION D-D**

UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY

PENNSYLVANIA

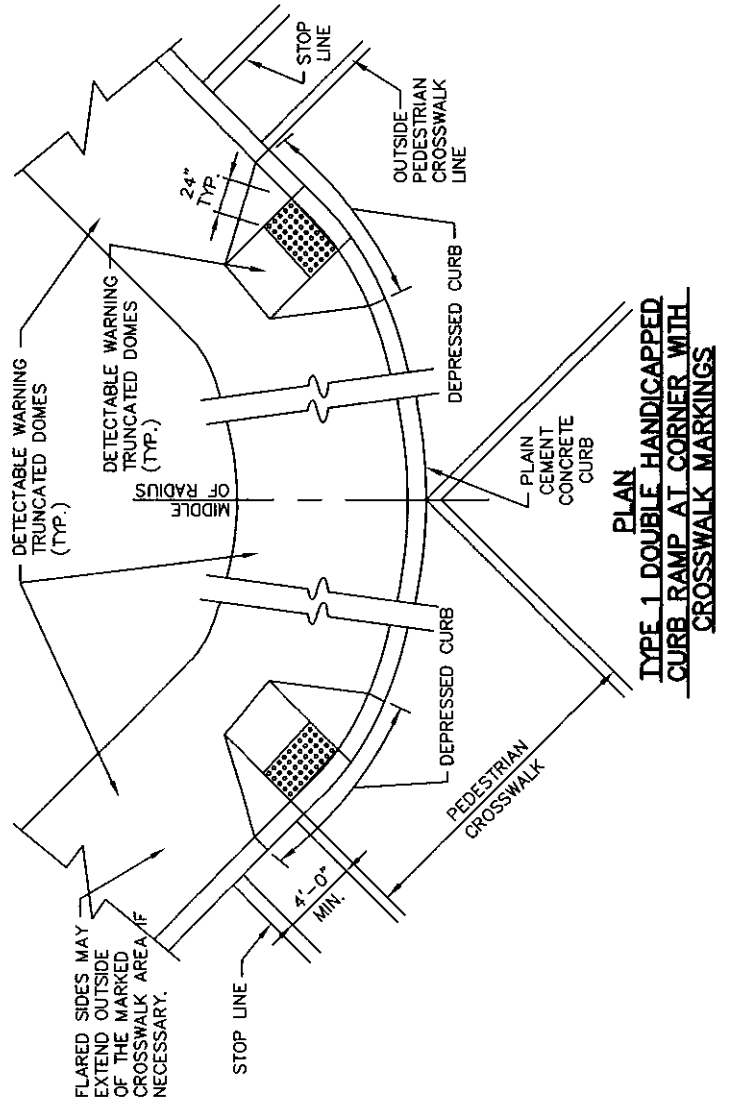
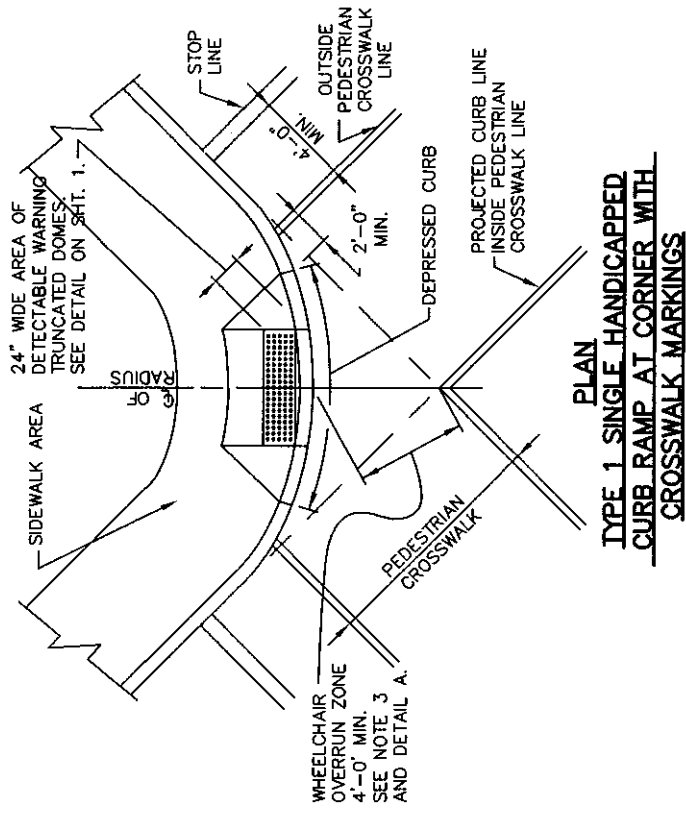
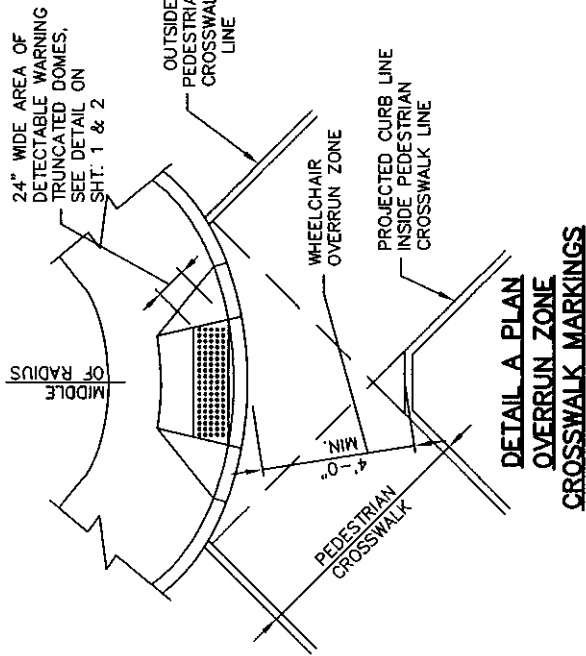
CONSTRUCTION STANDARD

TYPE 2 HANDICAPPED CURB RAMP

BANKSON ENGINEERS, INC.
CONSULTING ENGINEERS
HONOLULU, PA. 15001

SCALE NONE
DATE
SEPT. 2007
DRAWN BY A.M.L.
APPROVED BY D.H.K.
SHEETS IN SET
DRAWING NUMBER
2-554-45-4





WESTMORELAND COUNTY PENNSYLVANIA

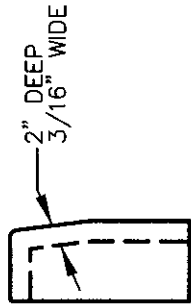
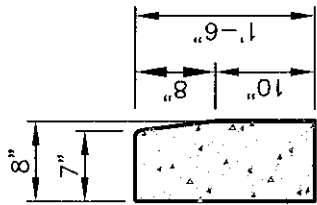
UPPER BURRELL TOWNSHIP

CONSTRUCTION STANDARD

TYPE 1 HANDICAPPED CROSSWALK MARKINGS

SCALE	NONE	DRAWN BY	A.M.M.	SHEETS IN SET
DATE	SEPT. 2007	APPROVED BY	D.W.K.	DRAWING NUMBER
BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA. 15061				2-354-45-5

BE

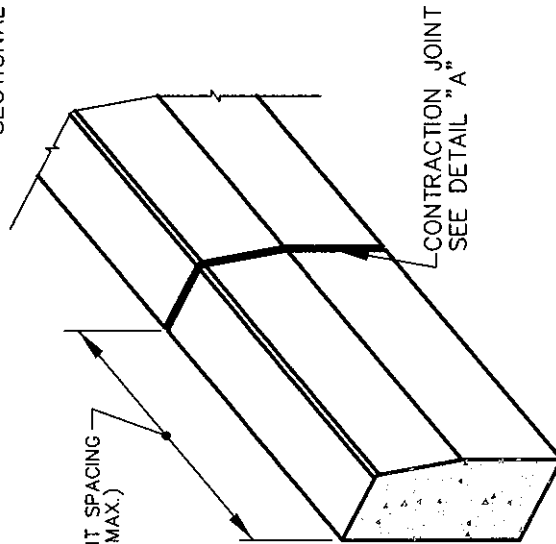


TYPICAL CROSS SECTION

DETAIL "A" CONTRACTION JOINT

NOTES

1. MATERIALS AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF PENN. D.O.T. PUBLICATION 408/2000, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4" THICK PREMOULDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.



CONTRACTION JOINT SPACING
4' (MIN.) TO 20' (MAX.)
(SEE NOTE 2)

CONTRACTION JOINT
SEE DETAIL "A"

PLAIN CEMENT CONCRETE CURB

N.T.S.

UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY

PENNSYLVANIA

CONSTRUCTION STANDARD

CONCRETE CURB



BANKSON ENGINEERS, INC.
CONSULTING ENGINEERS
INDIANOLA, PA. 15061

SCALE
NONE

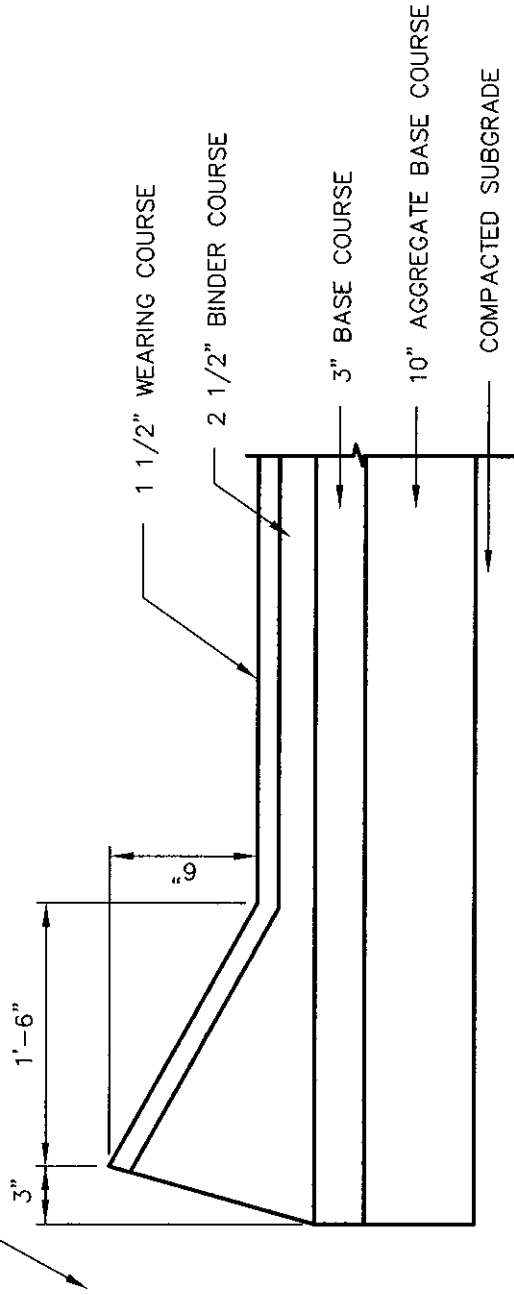
DATE
SEPT. 2007

DRAWN BY
M.S.Y.

APPROVED BY
D.W.K.

SHEETS IN SET
DRAWING NUMBER
2-554-43-6

BACKFILL TO TOP OF CURB MIN. 6" TOPSOIL IN ALL LAWN AREAS



UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY

PENNSYLVANIA

CONSTRUCTION STANDARD
ASPHALT WEDGE CURB

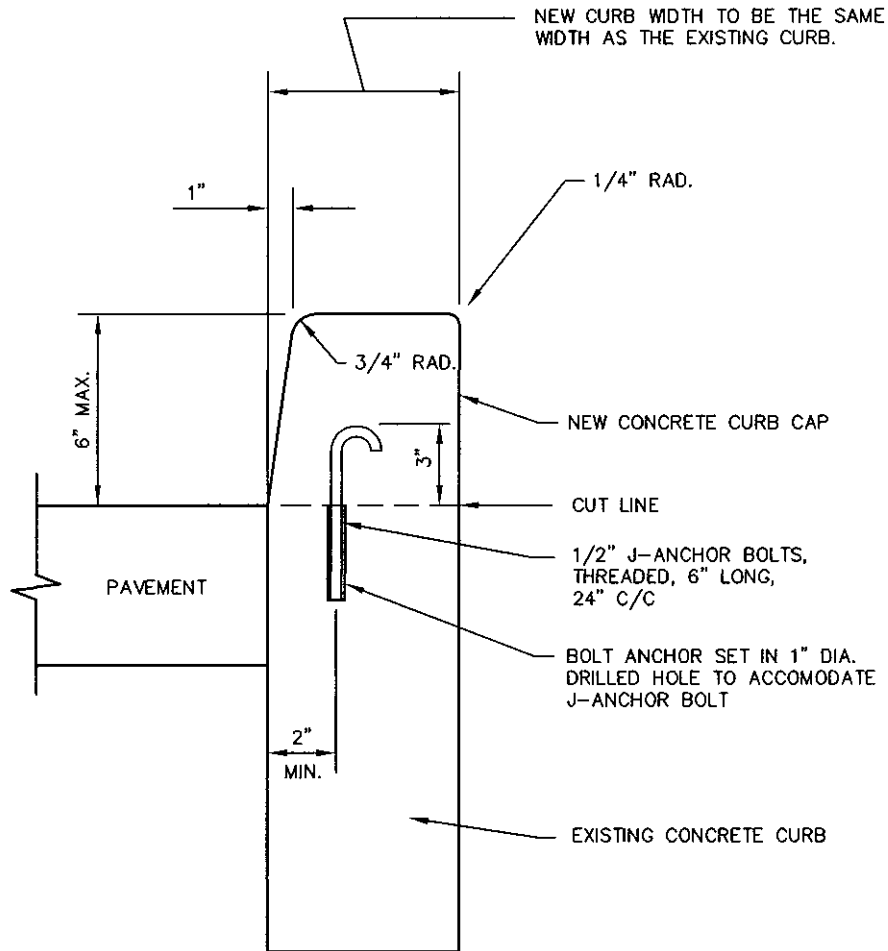


BANKSON ENGINEERS, INC.
CONSULTING ENGINEERS
INDIANOLA, PA. 15511

SCALE NONE
DATE SEPT. 2007

DRAWN BY J.W.M.
APPROVED BY D.W.K.

SHEETS IN SET
DRAWING NUMBER
2-554-45-7



CUT EXISTING CURB AT A POINT LEVEL WITH THE EXISTING PAVEMENT SURFACE OR DEEPER IF NECESSARY TO REMOVE ALL DETERIORATED CONCRETE. REPLACE CURB BACKING WITH COMPACTED 2A MODIFIED STONE AGGREGATE.

1. ALL CURB REPAIR WORK IS TO BE DONE PRIOR TO ANY STREET RE-SURFACING OR RECONSTRUCTION.

UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY

PENNSYLVANIA

CONSTRUCTION STANDARD CONCRETE CURB RESTORATION

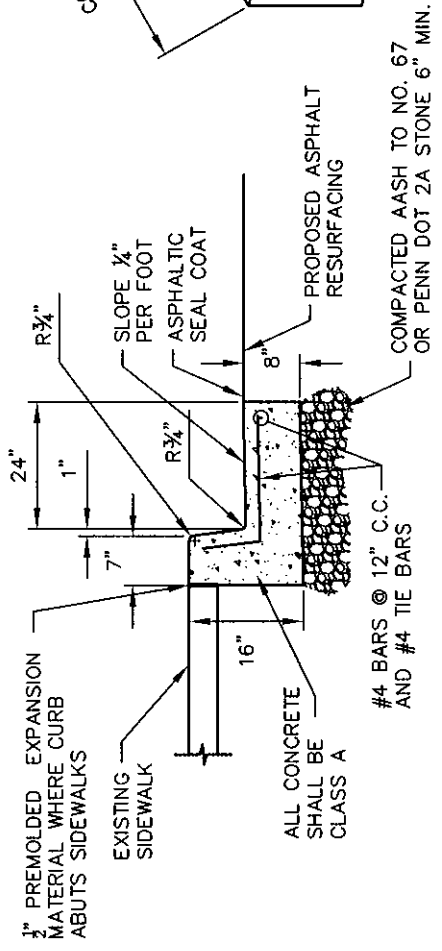
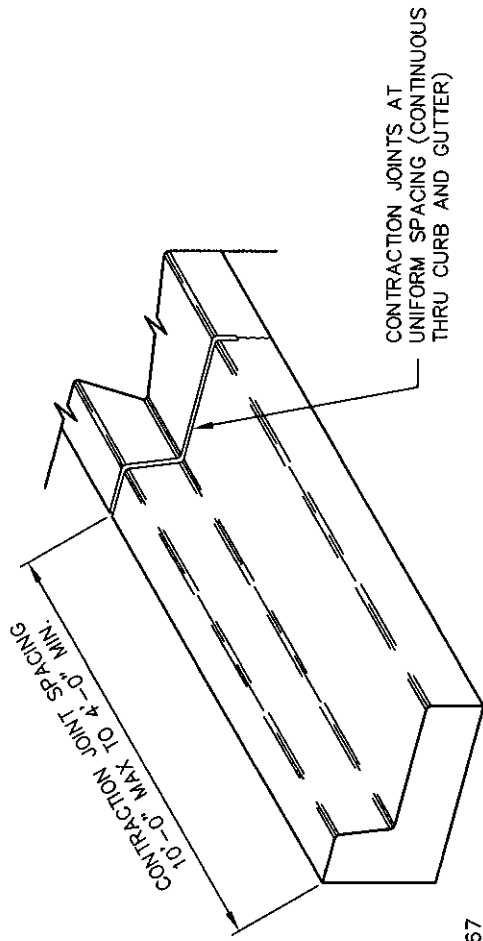


BANKSON ENGINEERS, INC.
CONSULTING ENGINEERS
INDIANOLA, PA 15051

SCALE
AS SHOWN
DATE
SEPT. 2007

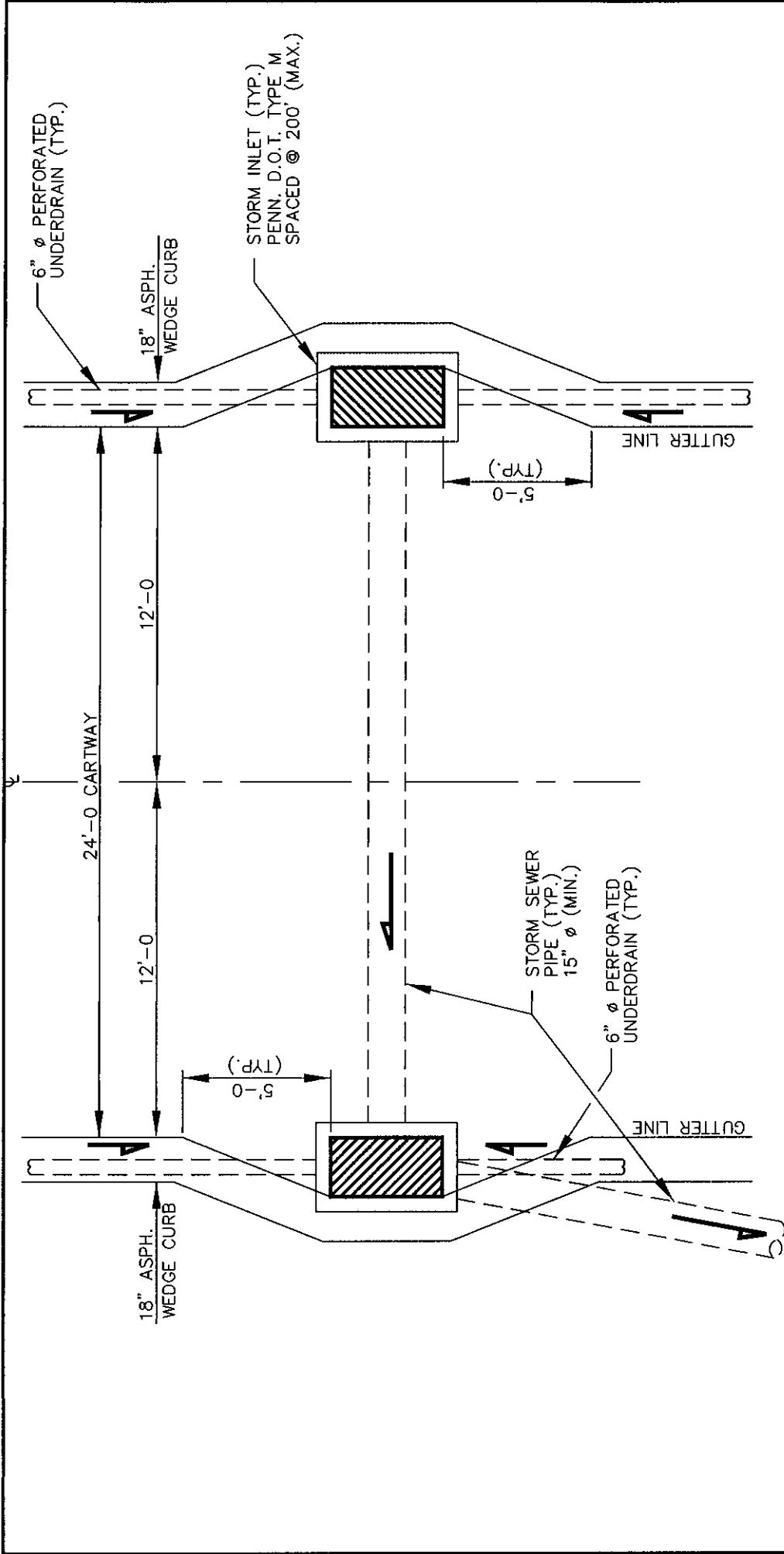
DRAWN BY
M.S.Y.
APPROVED BY
D.W.K.

SHEETS IN SET
DRAWING NUMBER
2-554-45-8



INTEGRAL CONCRETE CURB & GUTTER
N.T.S.

UPPER BURRELL TOWNSHIP		DRAWN BY M.S.Y.		SHEETS IN SET	
WESTMORELAND COUNTY		APPROVED BY D.W.K.		DRAWING NUMBER	
CONSTRUCTION STANDARD		SCALE NONE		DATE SEPT. 2007	
INTEGRAL CONCRETE CURB & GUTTER		BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA. 15061		2-554-43-9	



NOTES:

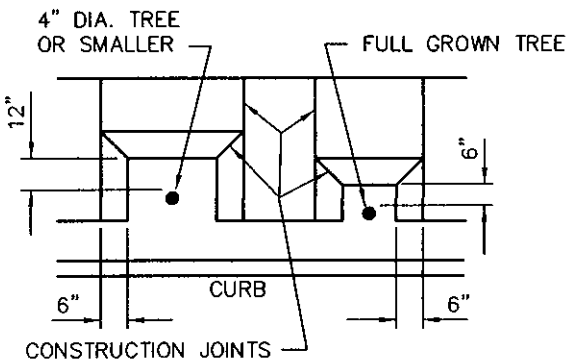
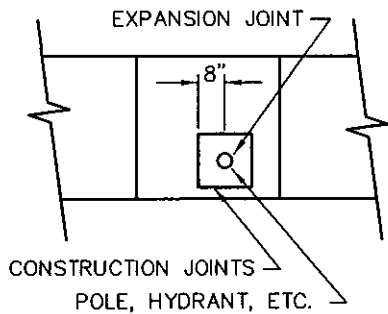
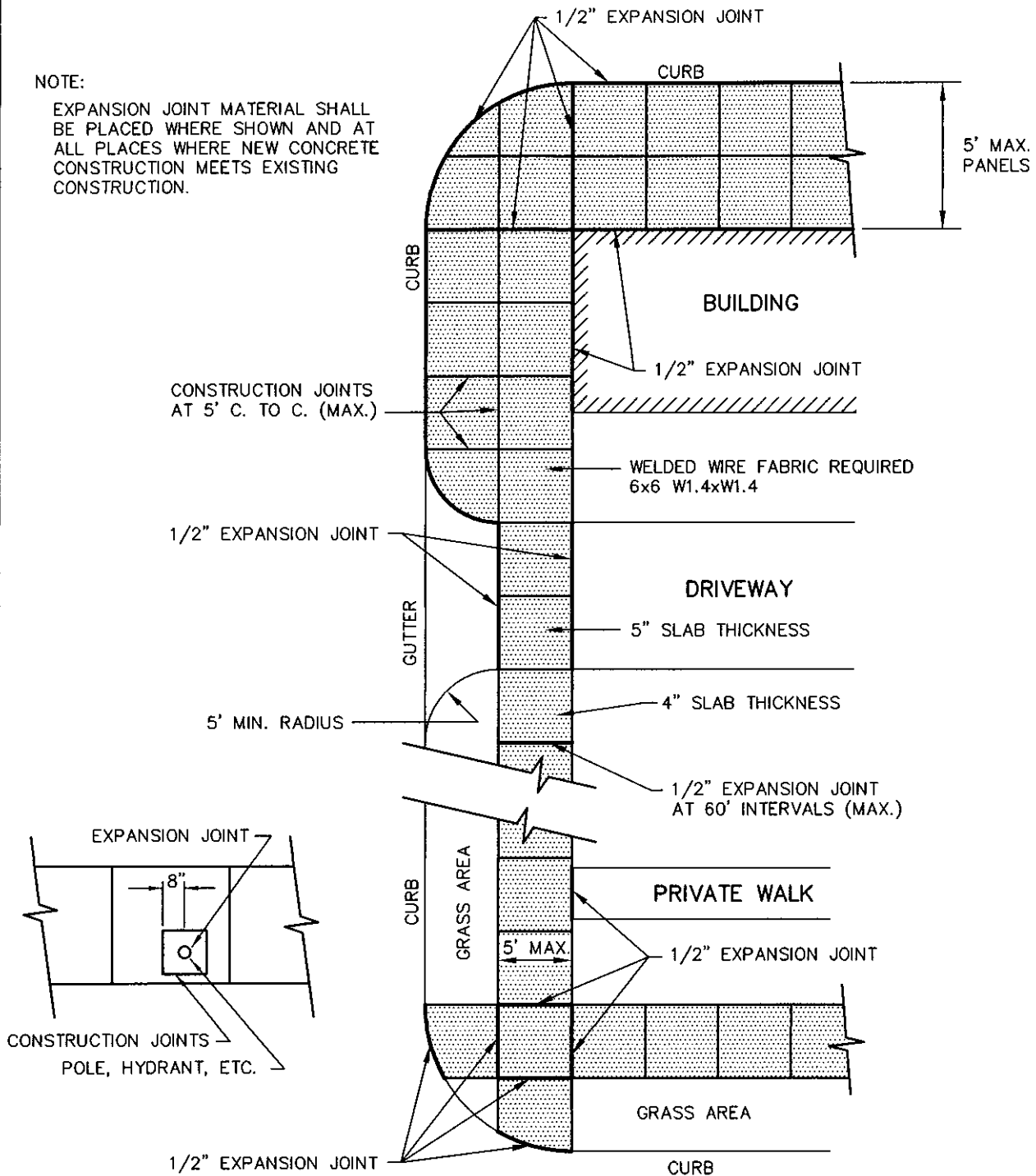
1. FRONT FACE OF INLET GRATE TO BE INSTALLED ALONG THE SAME PLANE AS GUTTER LINE.
2. SLOPE INLET GRATES SO THAT BACK FACE IS 1-INCH LOWER THAN THAN THE FRONT FACE.
3. ALL PIPES INSTALLED UNDER ROADWAY OR CURB SHALL HAVE 100% STONE BACKFILL.
4. WHEREVER PRACTICAL ALL PIPES SHALL BE INSTALLED OUTSIDE OF CARTWAY.

TYPICAL ROADWAY PLAN
N.T.S.

WESTMORELAND COUNTY		PENNSYLVANIA	
UPPER BURRELL TOWNSHIP			
CONSTRUCTION STANDARD			
PAVEMENT - PLAN			
BE	BANKSON ENGINEERS, INC.	SCALE AS SHOWN	DRAWN BY
	CONSULTING ENGINEERS INDIANOLA, PA 15001	DATE SEPT. 2007	M.S.Y. APPROVED BY D.W.K.
		SHEETS IN SET	
		DRAWING NUMBER	
		2-554-45-10	

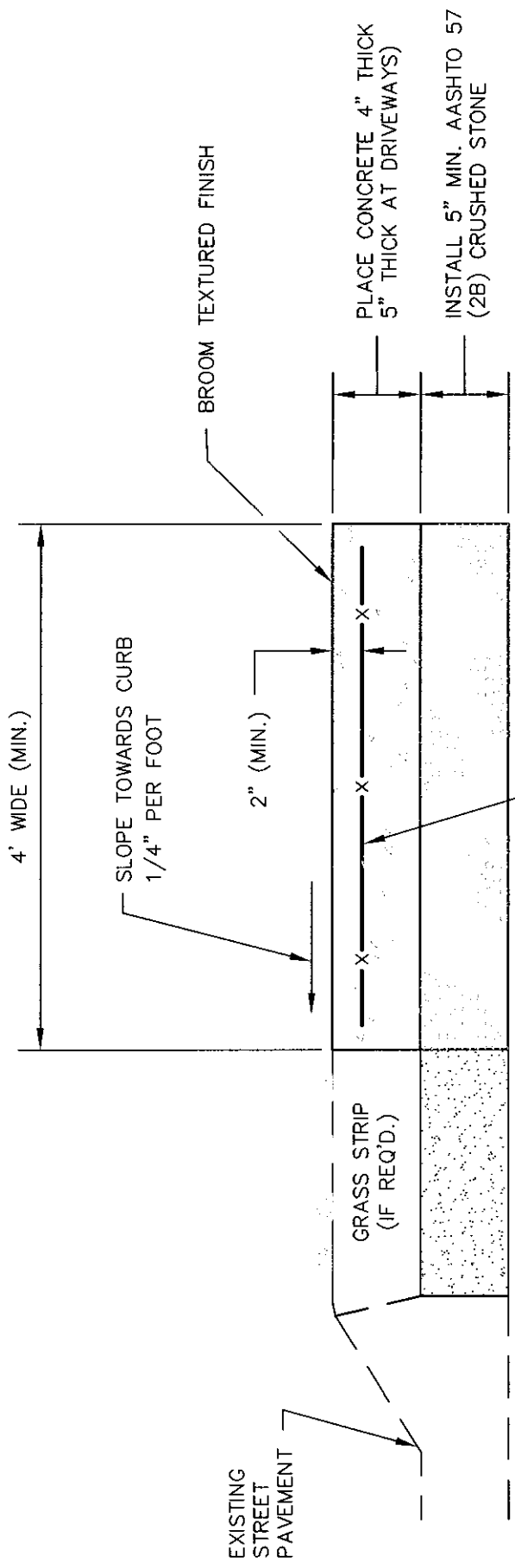
NOTE:

EXPANSION JOINT MATERIAL SHALL BE PLACED WHERE SHOWN AND AT ALL PLACES WHERE NEW CONCRETE CONSTRUCTION MEETS EXISTING CONSTRUCTION.



ALL EXPANSION JOINTS TO BE PREMOULDED

UPPER BURRELL TOWNSHIP			
WESTMORELAND COUNTY		PENNSYLVANIA	
CONSTRUCTION STANDARD CONCRETE SIDEWALK EXPANSION JOINTS			
BE	BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA 15051	SCALE AS SHOWN	DRAWN BY M.S.Y.
		DATE SEPT. 2007	APPROVED BY D.W.K.
		SHEETS IN SET 1	DRAWING NUMBER 2-554-45-11



NOTE:

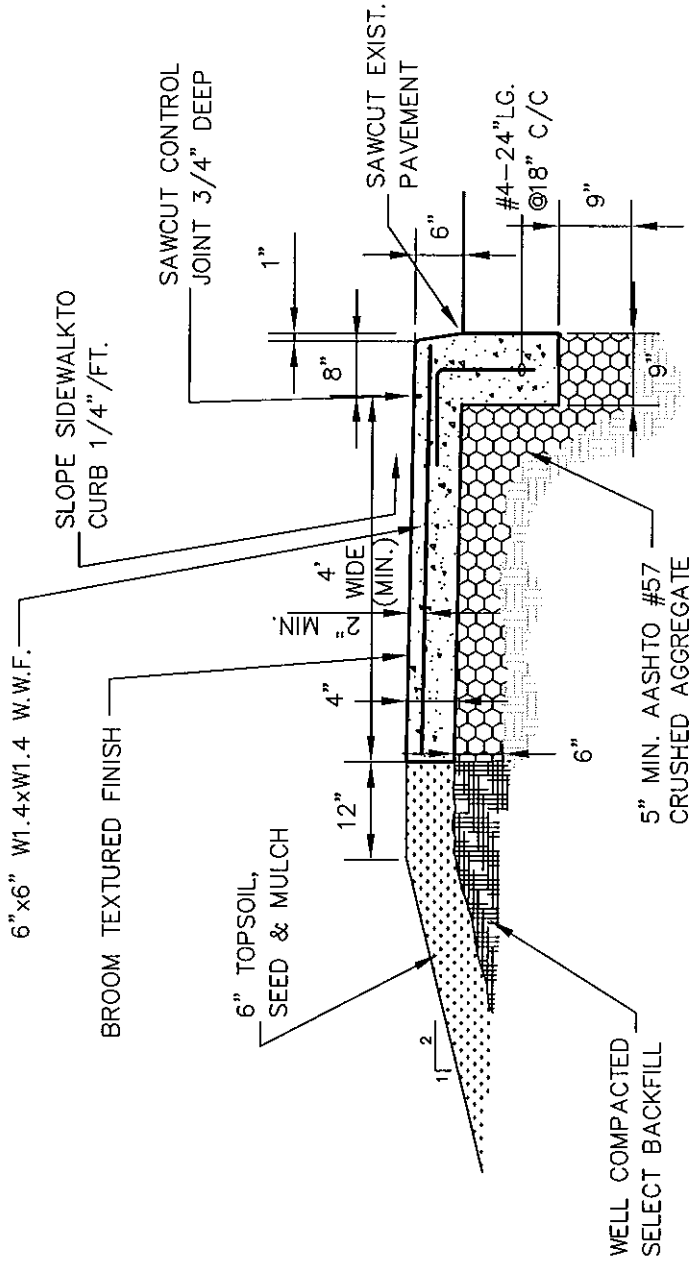
1. ALL CONCRETE SHALL BE 4,000 psi AT 28 DAYS WITH 6% AIR ENTRAINMENT
2. CURE CONCRETE IN ACCORDANCE WITH ACI 308

UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY PENNSYLVANIA

**CONSTRUCTION STANDARD
CONCRETE SIDEWALK WITH
ASPHALT WEDGE CURB**

BE	BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA. 15051	SCALE NONE	DRAWN BY N.S.Y.	SHEETS IN SET
		DATE SEPT. 2007	APPROVED BY D.W.K.	DRAWING NUMBER 2-554-45-12



NOTES:

1. ALL CONCRETE SHALL BE 4,000 PSI
2. CURE CONCRETE IN ACCORDANCE WITH ACI 308

REVISED: 28 OCT. 2008 NOTE ADDED

UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY

PENNSYLVANIA

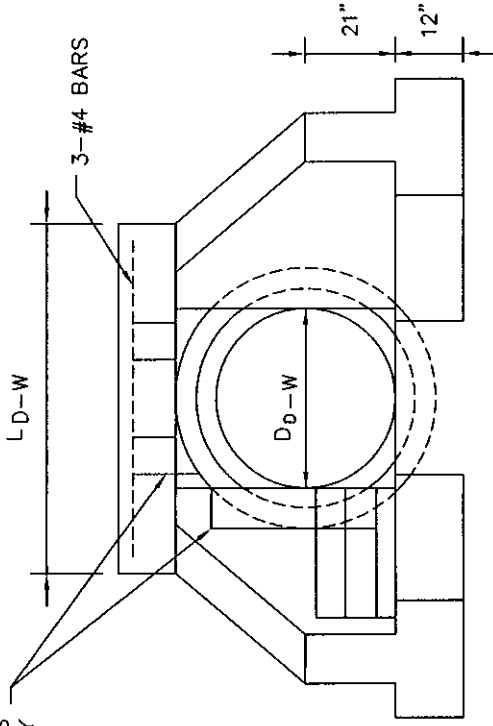
CONSTRUCTION STANDARD
TYPICAL SIDEWALK SECTION
WITH INTEGRAL CONCRETE CURB

BANKSON ENGINEERS, INC.
CONSULTING ENGINEERS
INDIANOLA, PA 15001

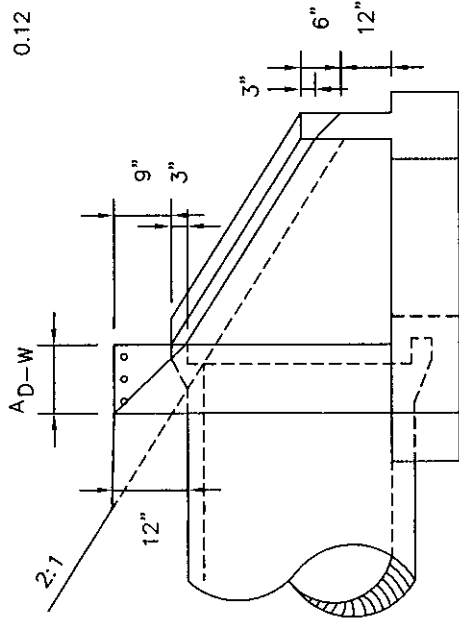


SCALE	DRAWN BY	SHEETS IN SET
1/2" = 1'-0"	M.S.Y.	
DATE	APPROVED BY	DRAWING NUMBER
SEPT. 2007	D.W.K.	2-554-43-13

PROVIDE 1 LAYER OF #3
REINFORCEMENT BARS
0.12 IN²/LN.FT. EACH WAY



FRONT ELEVATION WAY



SECTION A-A

TYPE D-W ENDWALL
(SEE TABLE A FOR DIMENSIONS NOT INDICATED.)

TABLE A

PIPE ϕ D_D-W	A_D-W	L_D-W
36"	12"	5.8'
42"	12"	6.3'
48"	12"	6.9'
54"	12"	7.5'
60"	15"	8.1'
72"	15"	9.2'

UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY

PENNSYLVANIA

CONSTRUCTION STANDARD

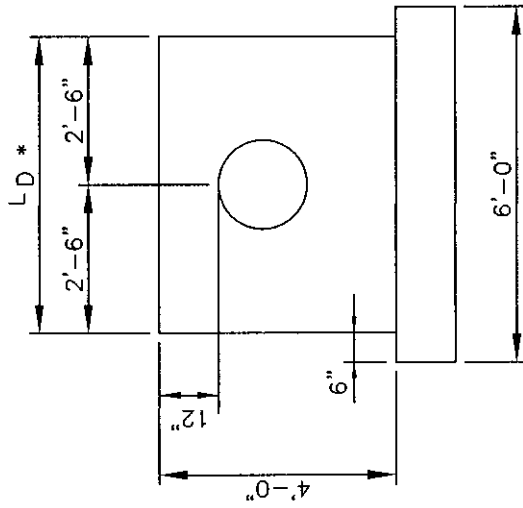
TYPE D-W CONCRETE ENDWALL DETAIL



BANKSON ENGINEERS, INC.
CONSULTING ENGINEERS
INDIANOLA, PA. 15051

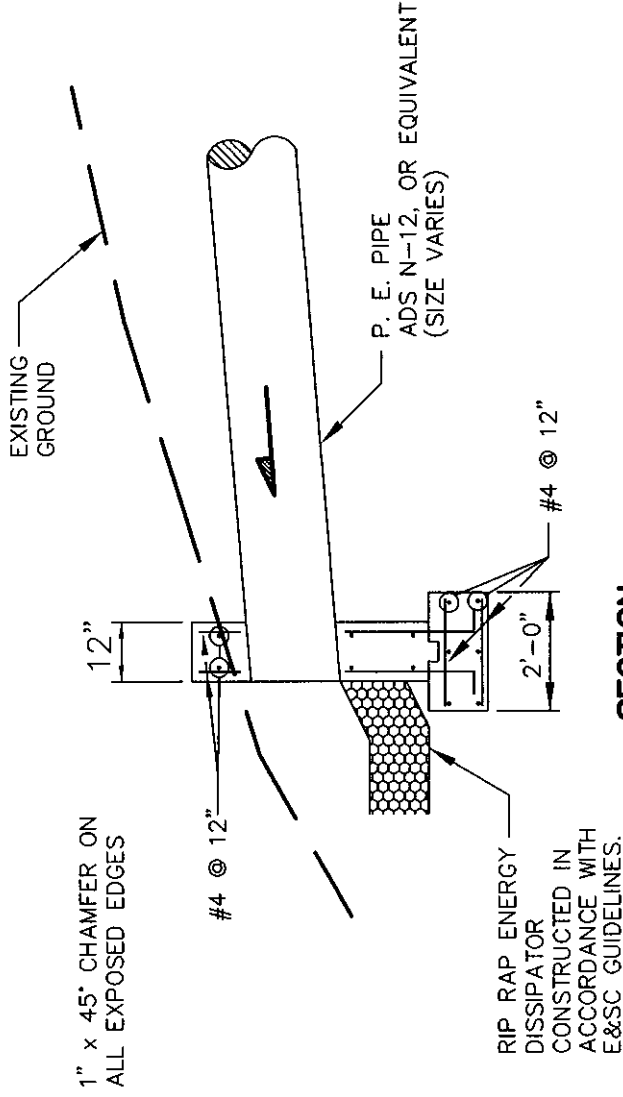
SCALE
NONE
DATE
SEPT. 2007

DRAWN BY
A.M.M.
APPROVED BY
D.W.K.
SHEETS IN SET
DRAWING NUMBER
2-554-45-14



ELEVATION

PIPE DIAMETER	L-D
18" AND 21"	5'
24" AND 27"	7'
30" AND 33"	9'



SECTION

UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY PENNSYLVANIA

CONSTRUCTION STANDARD

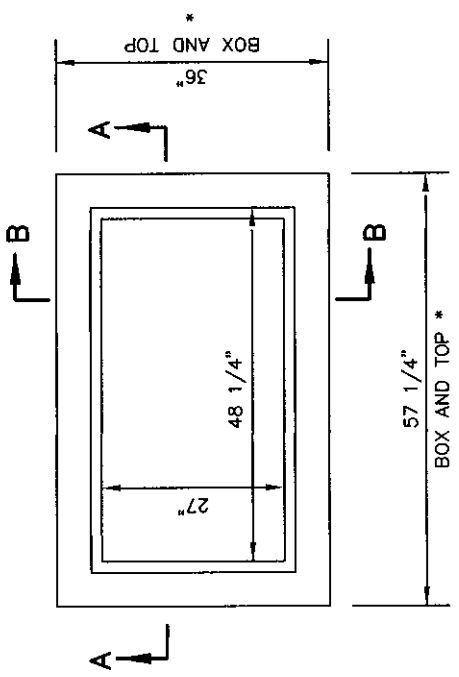
TYPE "D" CONCRETE ENDWALL DETAIL



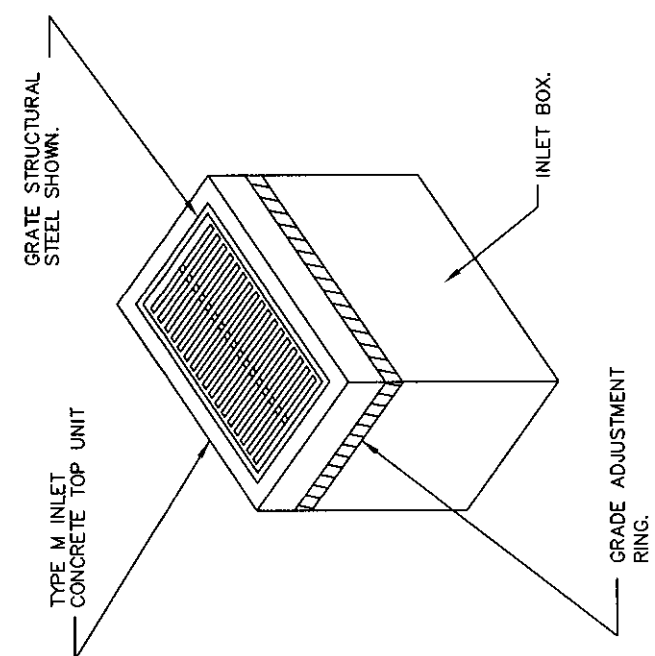
BANKSON ENGINEERS, INC.
CONSULTING ENGINEERS
HUNTSVILLE, PA. 15851

SCALE: NONE
DATE: SEPT. 2007

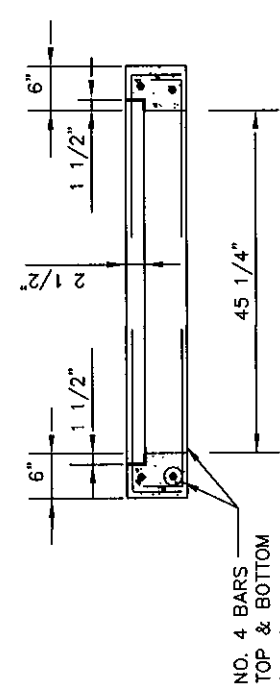
DRAWN BY: M.S.Y.
APPROVED BY: D.W.K.
SHEETS IN SET: DRAWING NUMBER: 2-554-45-15



PLAN VIEW

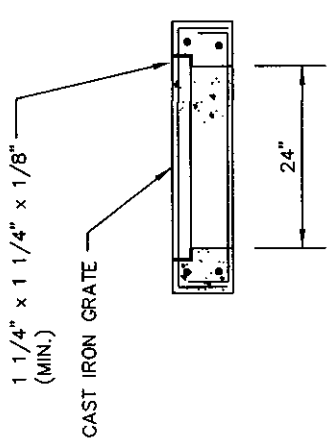


NOTE:
 USE PRECAST CONCRETE, RUBBER OR STEEL
 GRADE ADJUSTMENT RINGS WHEN REQUIRED.



SECTION A-A

NO. 4 BARS
 TOP & BOTTOM
 (TYP.)

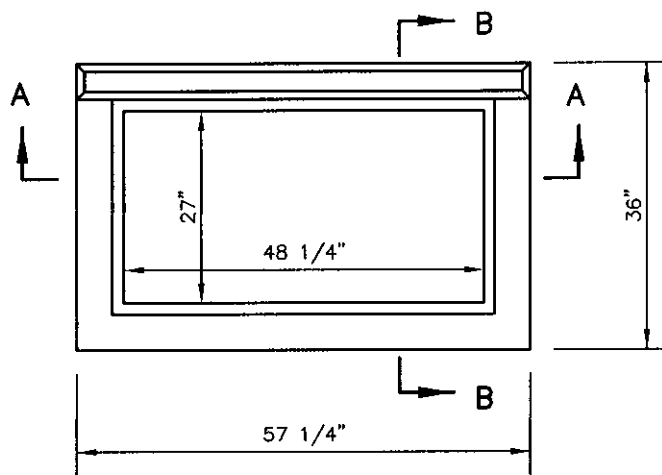


SECTION B-B

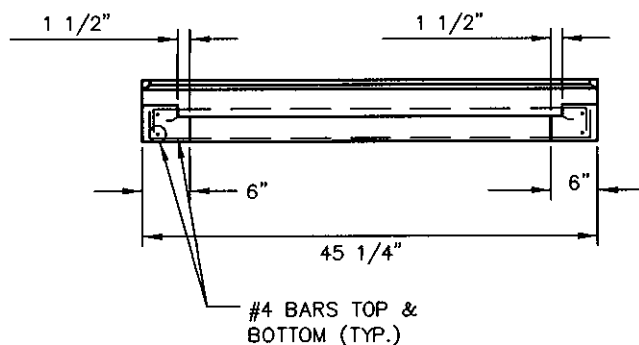
INLET DETAILS
 SCALE: 1/2" = 1'-0"

* EXPAND DIMENSION AS REQUIRED
 SO THAT O.D. OF STORM SEWER IS
 LESS THAN I.D. OF INLET BOX IN
 EITHER DIRECTION. USE STANDARD
 INLET TOPS FOR ALL APPLICATIONS.

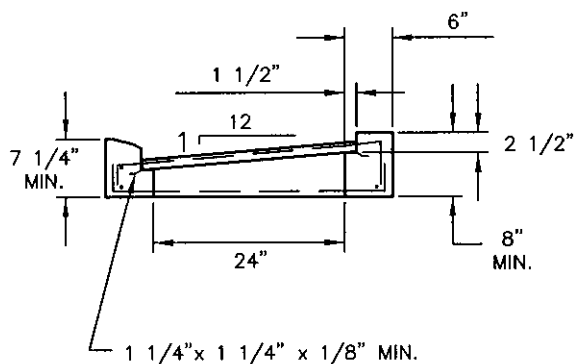
UPPER BURRELL TOWNSHIP		DRAWN BY		SHEETS IN SET	
WESTMORELAND COUNTY		M.S.Y.		DRAWING NUMBER	
CONSTRUCTION STANDARD		DATE		2-554-45-16	
TYPE 'M' INLET		APPROVED BY			
BANKSON ENGINEERS, INC.		SEPT. 2007			
CONSULTING ENGINEERS					
INDIANOLA, PA. 15051					



PLAN VIEW



SECTION A-A



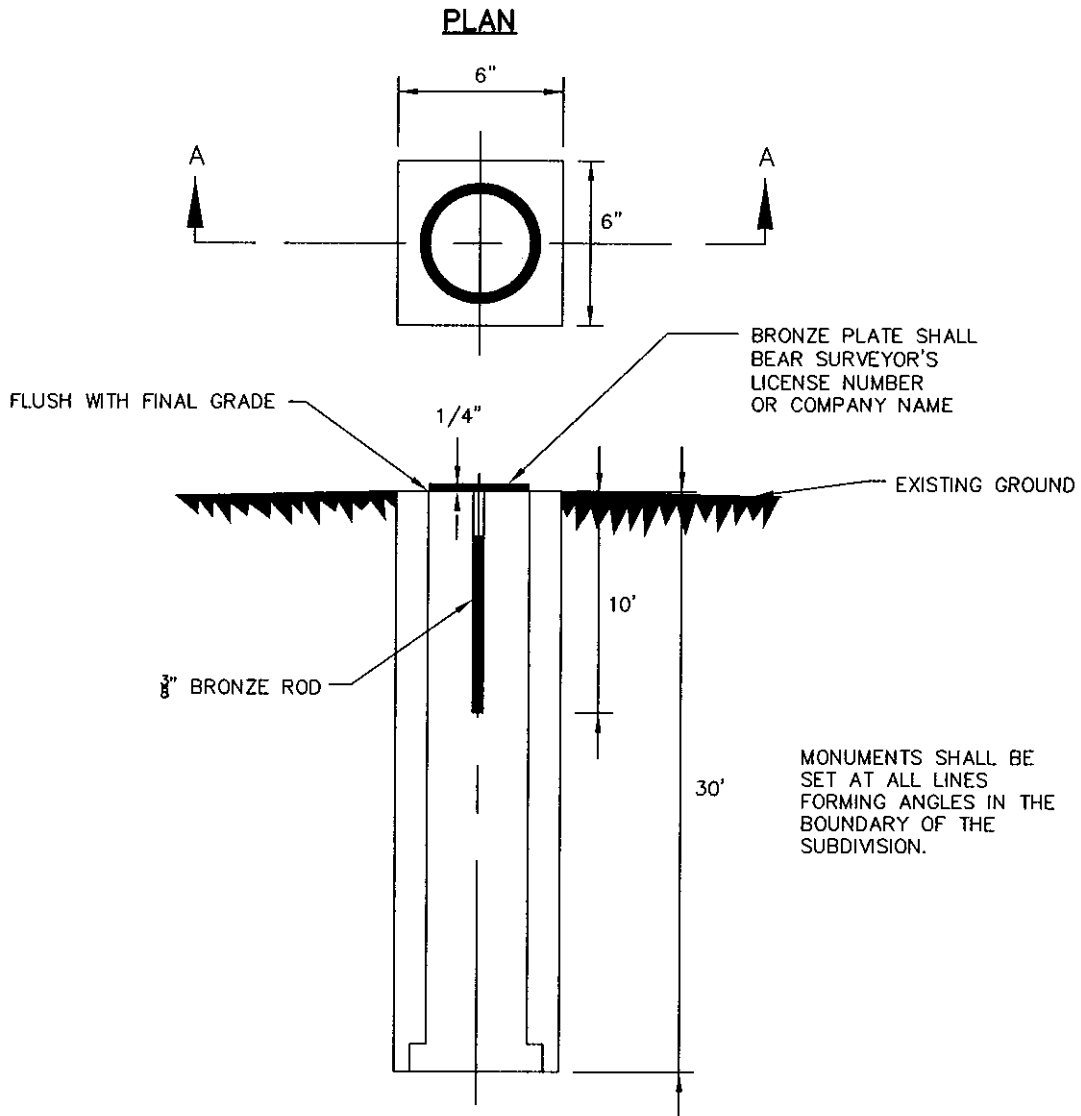
SECTION B-B

TYPE S INLET DETAILS

SCALE: 1/2" = 1'-0

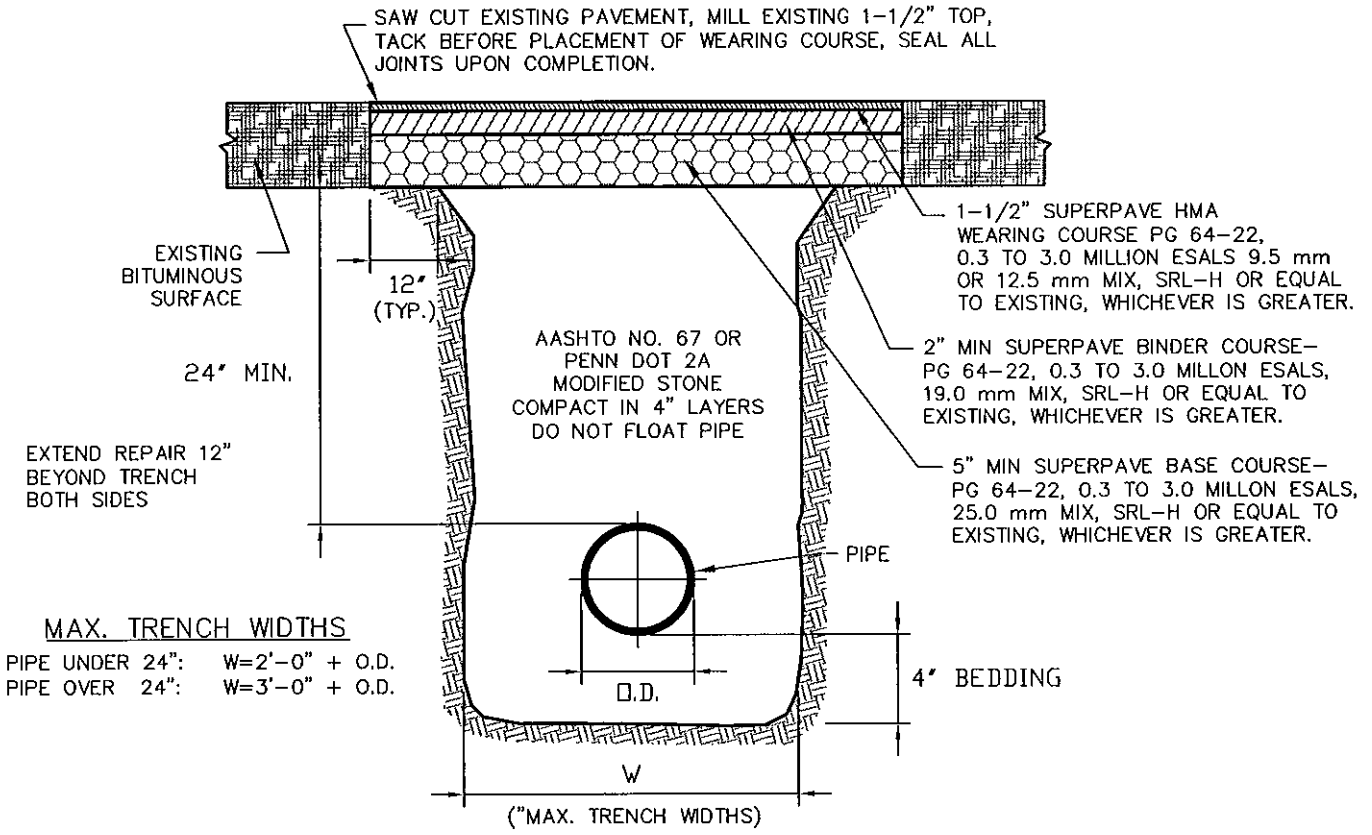
NOTE: INLET BOX SHALL FOLLOW REQUIREMENTS TYPE M INLET BOX.

UPPER BURRELL TOWNSHIP			
WESTMORELAND COUNTY		PENNSYLVANIA	
CONSTRUCTION STANDARD			
TYPE 'S' INLET TOP			
BE	BANKSON ENGINEERS, INC.		SCALE AS SHOWN
	CONSULTING ENGINEERS INDIANOLA, PA. 15051		DRAWN BY M.S.Y.
		DATE SEPT. 2007	APPROVED BY D.W.K.
		SHEETS IN SET	DRAWING NUMBER
		2-554-45-17	2-554-45-17



TYPICAL CONCRETE MONUMENT DETAIL
NO SCALE

UPPER BURRELL TOWNSHIP			
WESTMORELAND COUNTY		PENNSYLVANIA	
CONSTRUCTION STANDARD CONCRETE MONUMENT			
BE	BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA 15051		SCALE NONE
			DRAWN BY A.M.M.
		DATE SEPT. 2007	APPROVED BY D.W.K.
		SHEETS IN SET	DRAWING NUMBER 2-554-45-18



NOTE: 1) INSTALL UNDERGROUND EARLY WARNING DETECTION TAPE, "CAUTION UTILITY BELOW" OR EQUIVALENT

**UTILITY BACKFILL DETAIL IN ROAD AREA
 & WITHIN 3' OF CARTWAY
 NO SCALE**

REVISED: 17 APR. 2009

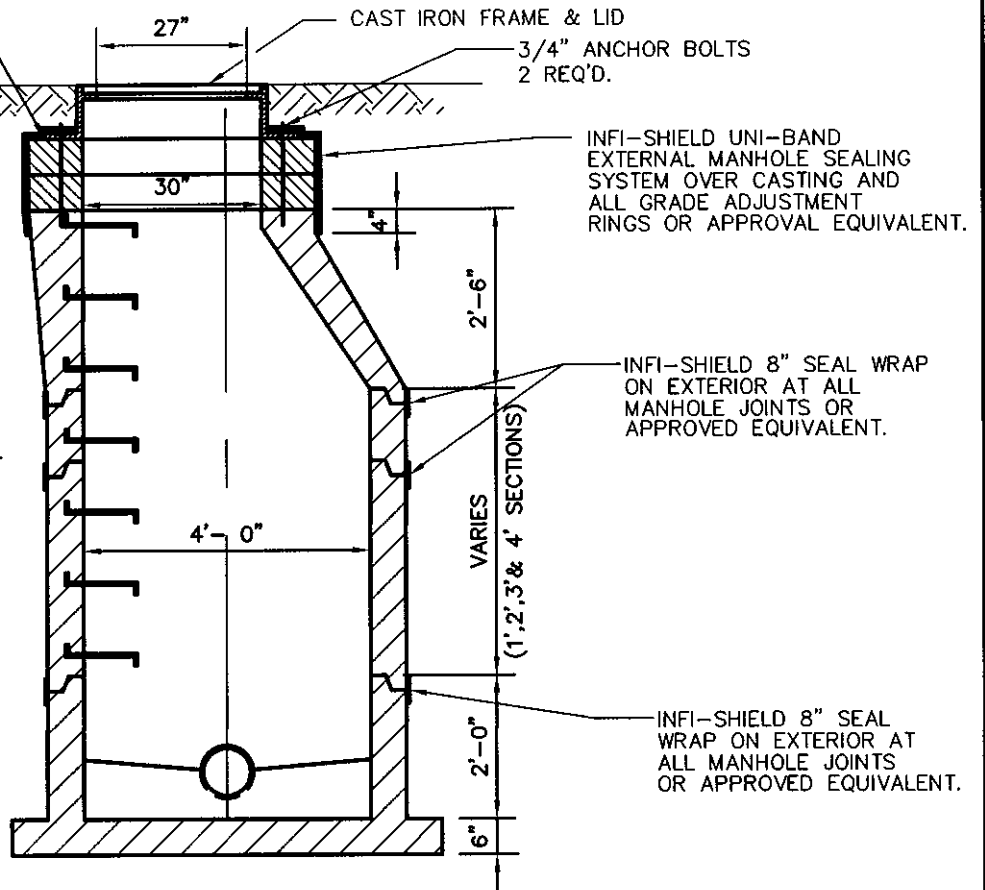
UPPER BURRELL TOWNSHIP			
WESTMORELAND COUNTY		PENNSYLVANIA	
CONSTRUCTION STANDARD			
UTILITY BACKFILL			
BE	BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA 15051	SCALE NONE	DRAWN BY A.M.M.
		DATE SEPT. 2007	APPROVED BY D.W.K.
		SHEETS IN SET	DRAWING NUMBER
		2-554-45-19	

INSTALL SYNTHETIC SEALING COMPOUND BETWEEN CASTING AND CONCRETE

MANHOLE SECTIONS JOINTS SHALL HAVE PREFORMED RUBBER OR SYNTHETIC GASKETS

LIFTING HOLES AND JOINTS BETWEEN PIPE BARREL SECTIONS SHALL BE POINTED WITH MORTAR, MADE WATERTIGHT AND LEFT NEAT AND SMOOTH

ALL MANHOLES SHALL HAVE A CORED ANNULAR OPENING FOR A BOOT, OR CAST WITH INTEGRAL RUBBER GASKETS, AT EACH PIPE OPENING.



MANHOLE DETAIL

SCALE; 3/8" = 1'-0

UPPER BURRELL TOWNSHIP

WESTMORELAND COUNTY

PENNSYLVANIA

CONSTRUCTION STANDARD MANHOLE



BANKSON ENGINEERS, INC.
CONSULTING ENGINEERS
INDIANOLA, PA 15051

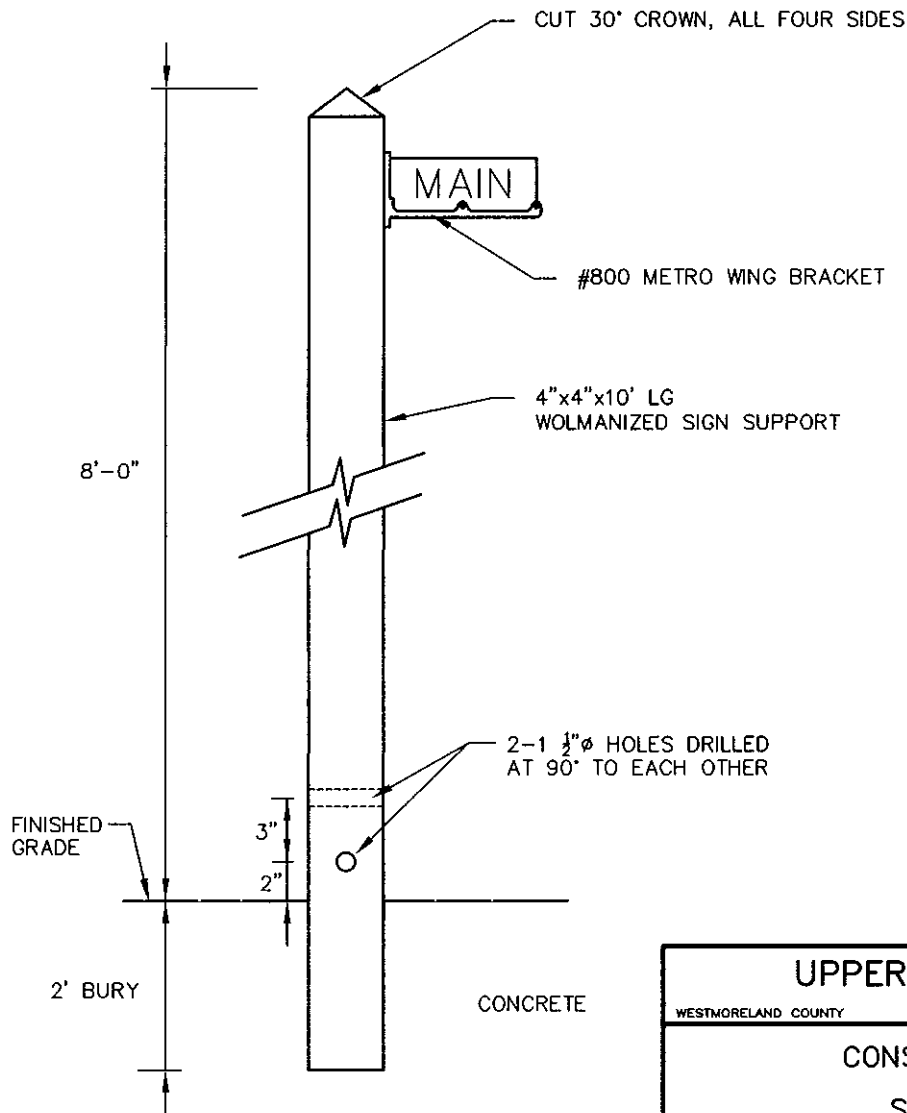
SCALE
AS SHOWN
DATE
SEPT. 2007

DRAWN BY
M.S.Y.
APPROVED BY
D.W.K.

SHEETS IN SET
DRAWING NUMBER
1-554-45-20



SIGN TO BE 0.125 FLAT STOCK ALUMINUM
 ALL LETTERING TO BE WHITE ON BLUE
 BACKGROUND FOR TOWNSHIP ROADS
 RED BACKGROUND FOR PRIVATE ROADS



UPPER BURRELL TOWNSHIP			
WESTMORELAND COUNTY		PENNSYLVANIA	
CONSTRUCTION STANDARD			
STREET SIGN DETAIL			
BE	BANKSON ENGINEERS, INC. CONSULTING ENGINEERS INDIANOLA, PA 15051	SCALE NONE	DRAWN BY M.S.Y.
		DATE SEPT. 2007	APPROVED BY D.W.K.
		SHEETS IN SET	DRAWING NUMBER
		2-554-45-21	2-554-45-21