City of Norwalk
Department of Public Works
Standard Detail Drawings

NOTE: These drawings have been reduced.
DO NOT SCALE DRAWINGS

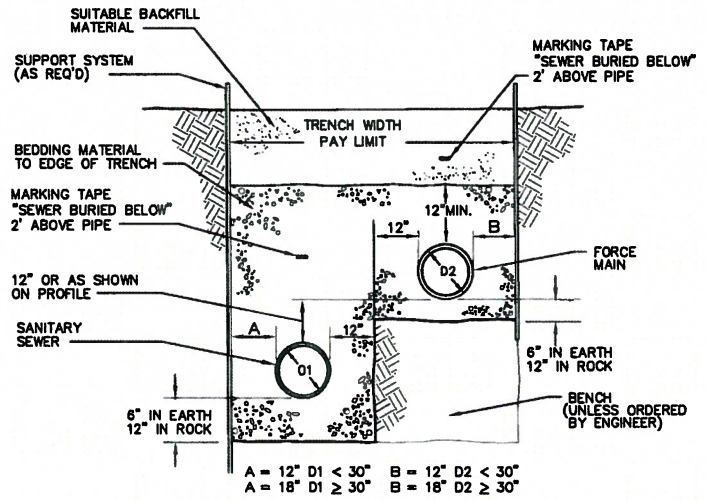
Drawing Name	Dwg. No.	Date	Rev. No.
Sanitary Sewer	1	12/5/12	4
Sanitary Sewer Lateral, Marker, Clean out & Chimney	2	12/5/11	3
Storm Drains	3	12/5/12	5
Storm Manholes & Manhole Frame	4	2/4/09	1
Type "C", "CL" & "C-M" CB Tops "NO DUMPING" Detail, Granite Curb Inlet Standard CB , Shallow CB	5	12/6/12	5
Type "C" & "CL" Double CB Tops Type II Type "C" Double CB Top Type I	6	12/7/12	5
Driveway Aprons, Curb Ramps, Roadway Section & Sidewalk	7	11/4/10	4
Curb Details, Belgium Block in Driveways	8	12/5/12	5
PreCast Conc. Paver Sidewalk, Driveway Ramps & Survey Marker	9	12/7/12	2
10a&10b *Replaced* w/ Signed ConnDOT Sidewalk Ramps (HW-921 02a-2d) Shts 1-4 Created 7_13 .PDF		6/11/15	1
Erosion & Sedimentation Control	11	2/3/09	1
Sanitary Gravity Sewer Wye & Tee Saddle Repair Coupling, Core and Tee Connection	12	11/1/10	1
Breakaway Channel Post Installation	13	12/7/11	1

SEAL OF THE CITY OF NORWALK
E PLURIBUS UNUM
INCORPORATED 1913

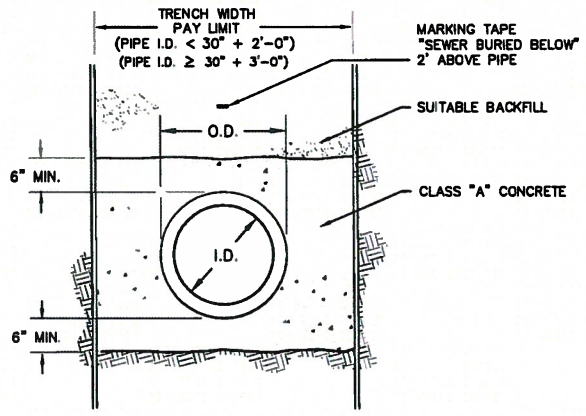
June 11, 2015
May 15, 2013
September 14, 2012
December 7, 2011
November 4, 2010
August 13, 2009
April 30, 2009

Revised & Reissued

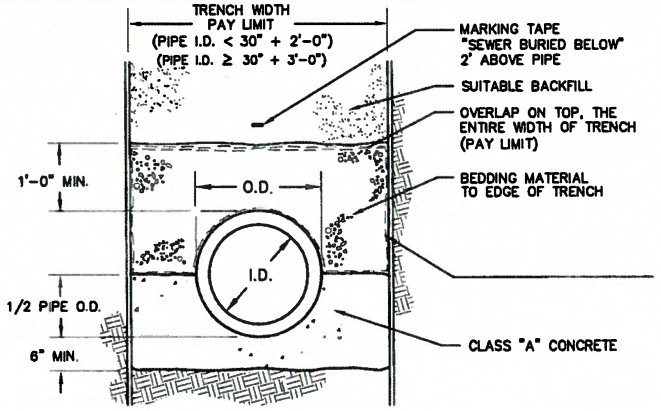
Revisions included in this Reissue
SUPERSEDE
All previously released drawings



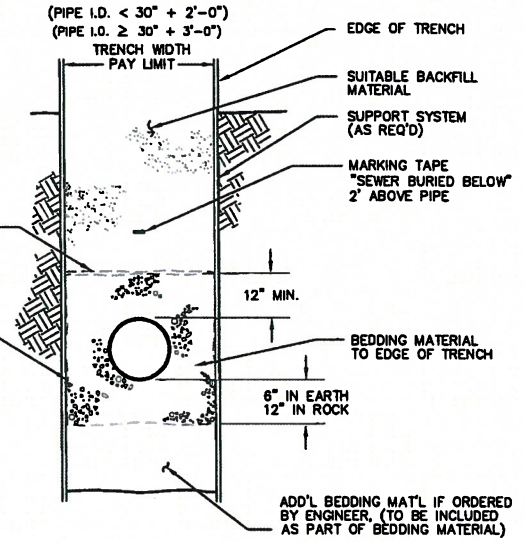
FORCE MAIN & SANITARY SEWER
IN SAME TRENCH



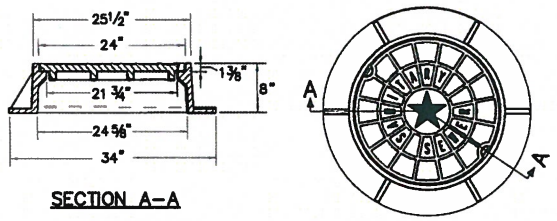
CONCRETE ENCASEMENT



CONCRETE CRADLE



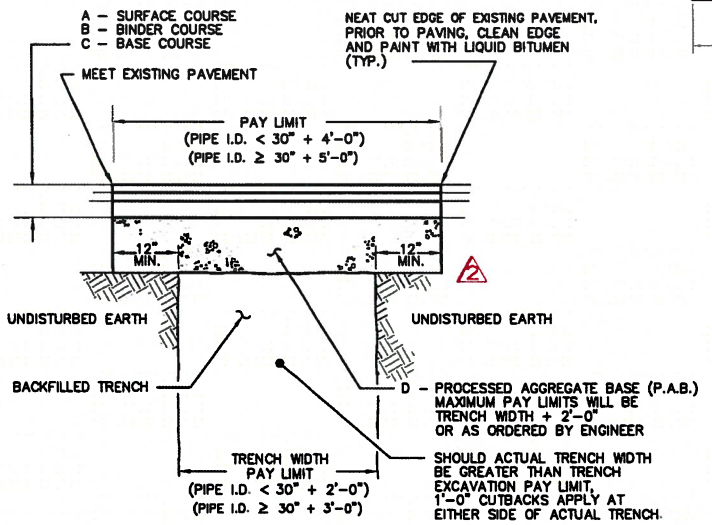
TYPICAL TRENCH SECTION
SANITARY SEWER



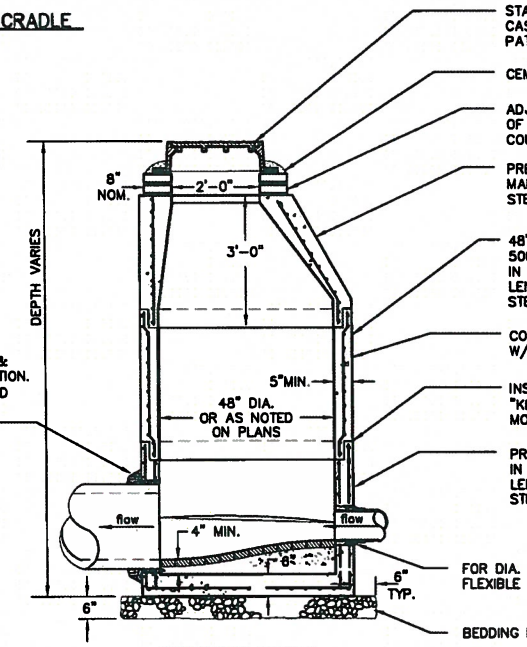
SECTION A-A

MANHOLE FRAME & COVER
1" = 1'-0"

NOTE:
MANHOLE FRAMES & COVERS SHALL BE PATTERN #1007D AS MANUFACTURED BY THE "CAMPBELL FOUNDRY COMPANY" OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.



PAVEMENT REPAIR



MANHOLE DETAIL
1/2" = 1'-0"

	A	B	C	D	E	F
	A – E X"=STONE SIZE & (Y)=LEVEL e.g. 0.50"(2)					
	0.375"(2)	0.50"(2)	1.00"(2)	0.50"(3)	1.00"(3)	P.A.B.
STATE ROAD				3"	6"	12"
MAJOR ARTERIAL				4"	6"	14"
MINOR ARTERIAL	1.5"	2"	3"			12"
COLLECTOR	1.5"	1.5"	3"			12"
LOCAL	3"					12"

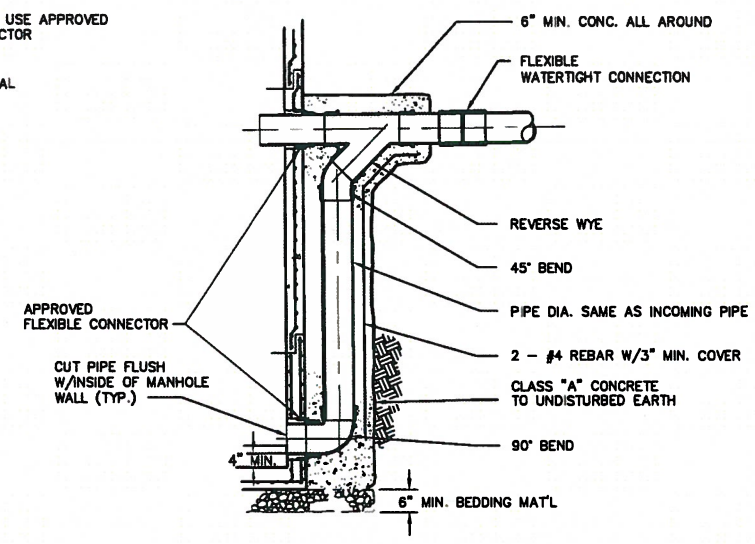
PAVEMENT REPAIR TABLE
(SUPERPAVE) ④

ALLOWABLE UNCOMPACTED THICKNESS PER LIFT:		
STONE SIZE	LIFT THICKNESS	
	MIN.	MAX.
0.375"	1.5"	2"
0.50"	1.75"	2.5"
1.00"	3.0"	5.0"

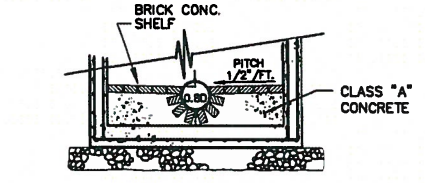
	A	B	C	D
	CL 2	CL 1	CL 4	P.A.B.
STATE ROAD	–	3"	6"	12"
MAJOR ARTERIAL	2"	2"	6"	14"
MINOR ARTERIAL	1 1/2"	2"	3"	12"
COLLECTOR	1 1/2"	1 1/2"	3"	12"
LOCAL	1 1/2"	1 1/2"	—	12"

PAVEMENT REPAIR TABLE
(MARSHALL MIX)

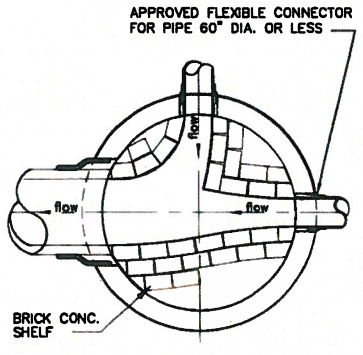
③ MAXIMUM ALLOWABLE UNCOMPACTED THICKNESS PER LIFT:
CLASS 2 – 2" THK.
CLASS 1 – 2 1/2" THK.
CLASS 4 – 4" THK.



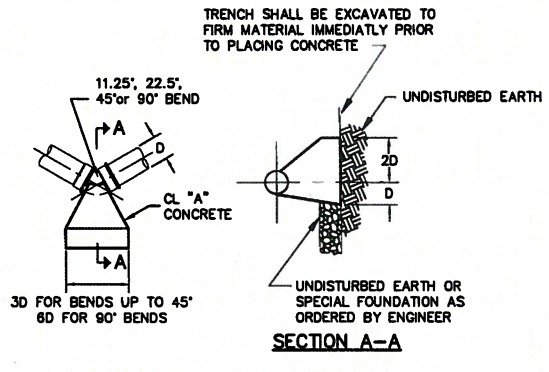
DROP SANITARY MANHOLE DETAIL
1/2" = 1'-0"



MANHOLE SECTION
1/2" = 1'-0"

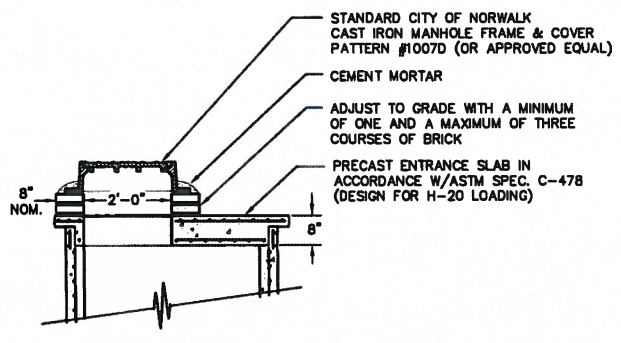


MANHOLE PLAN
1/2" = 1'-0"



SECTION A-A

CONCRETE THRUST BLOCKS
for Force Mains
1/2" = 1'-0"



FLAT SLAB TOP
1/2" = 1'-0"

REVISIONS		DATE	BY
1	REDRAWN & REISSUED	2/3/09	fjw
2	CHANGED MAX. TO MIN.	4/12/10	fjw
3	ADDED MAX. LIFT THKNESS NOTE	12/5/11	fjw
4	ADDED SUPERPAVE REPAIR TABLE	12/5/12	fjw

APPROVED BY: HAROLD F. ALVORD, P.E.# 24138, DATE
DIRECTOR OF PUBLIC WORKS
APPROVED BY: RICHARD P. LINNARTZ, P.E.# 9047, DATE
PRINCIPAL ENGINEER OF DESIGN
DESIGNED BY: CDM/STEZ | DRAWN BY: F.J.W. | CHECKED BY: | CHECKED BY:

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

SANITARY SEWER
STANDARD DETAILS

1

DATE: 2/2009 | PROJ. #:
SCALE: NOT TO SCALE | SHEET ___ OF ___

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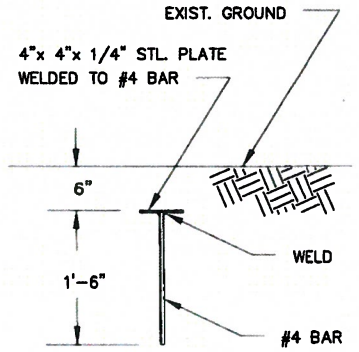
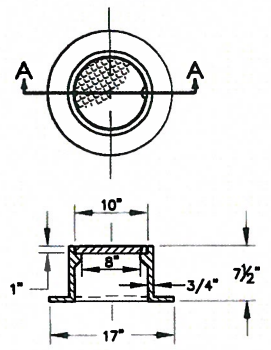


SERVICE LATERAL MARKER DETAIL



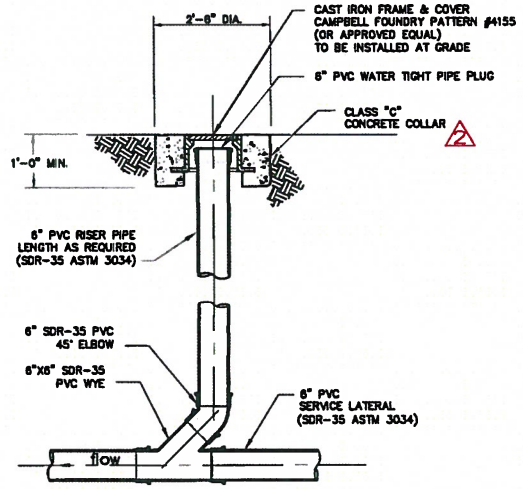
SECTION A–A

CLEAN OUT FRAME & COVER

1" = 1'-0"

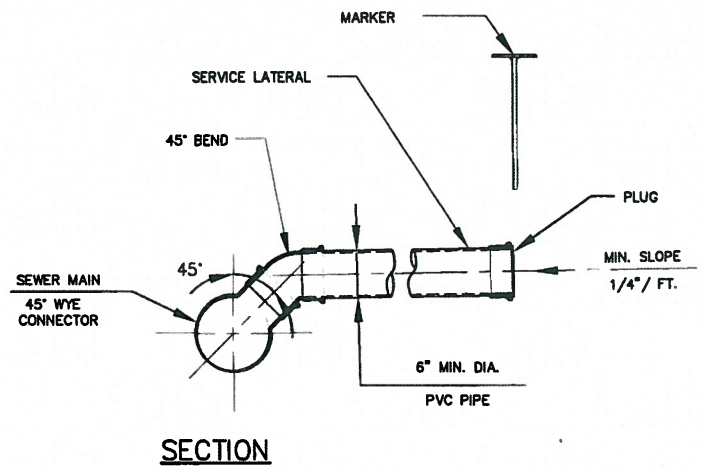
NOTE:

CLEAN OUT FRAMES & COVERS SHALL BE PATTERN #4155 AS MANUFACTURED BY THE "CAMPBELL FOUNDRY COMPANY" OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.

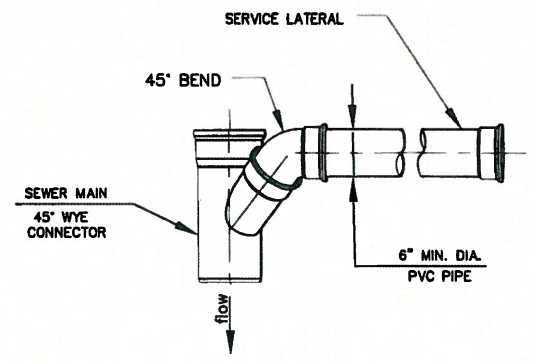


CLEAN OUT DETAIL

NTS



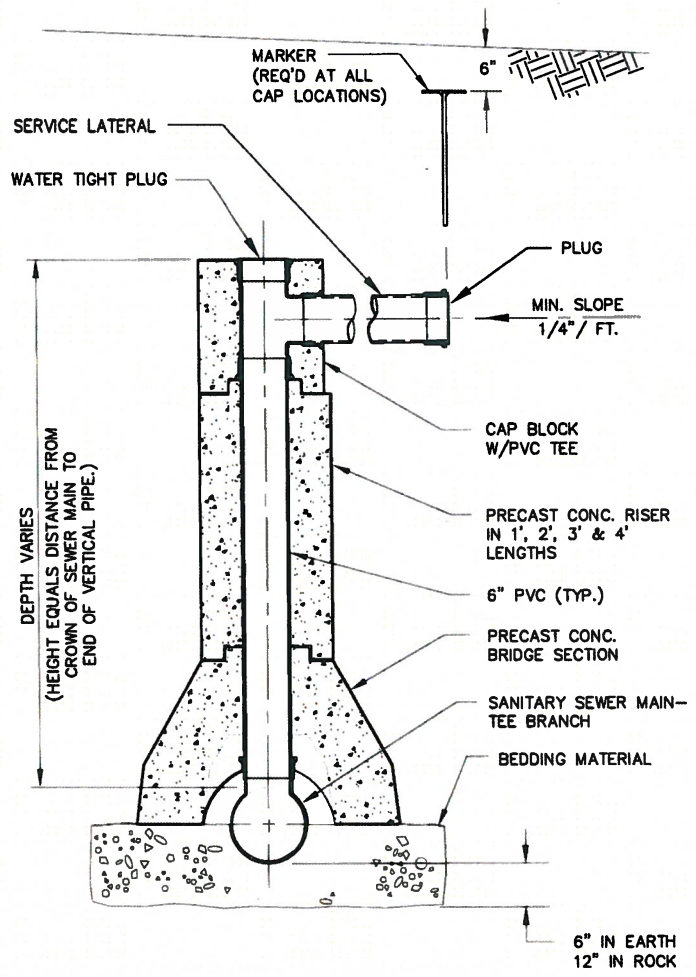
SECTION



PLAN

1" = 1'-0"

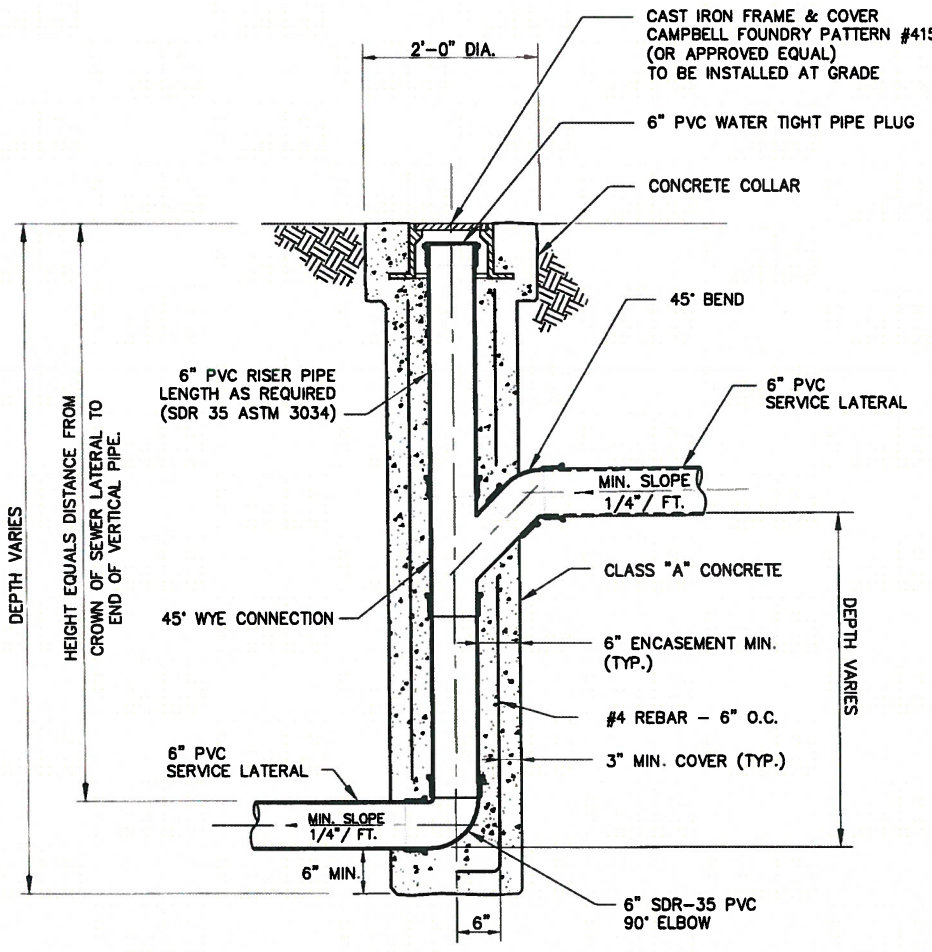
STANDARD SERVICE LATERAL CONNECTION



PRECAST CONCRETE SERVICE CHIMNEY

DETAIL

1" = 1'-0"



DROP CHIMNEY FOR LATERAL

(CAST IN PLACE)

DETAIL

1" = 1'-0"

REVISIONS		DATE	BY
1	REDRAWN & REISSUED	2/3/09	fjw
2	ADDED CONC. CLASS TO CLEAN OUT COLLAR	9/16/10	fjw

APPROVED BY: HAROLD F. ALVORD, P.E.# 24138, DATE
DIRECTOR OF PUBLIC WORKS
APPROVED BY: RICHARD P. LINNARTZ, P.E.# 9047, DATE
PRINCIPAL ENGINEER OF DESIGN
DESIGNED BY : COMMITEE | DRAWN BY : F.J.W. | CHECKED BY : | CHECKED BY :

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

SANITARY SEWER LATERAL, MARKER CLEAN OUT & CHIMNEY STANDARD DETAILS

2

DATE : 2/2009 | PROJ. # :
SCALE : NOT TO SCALE | SHEET ___ OF ___

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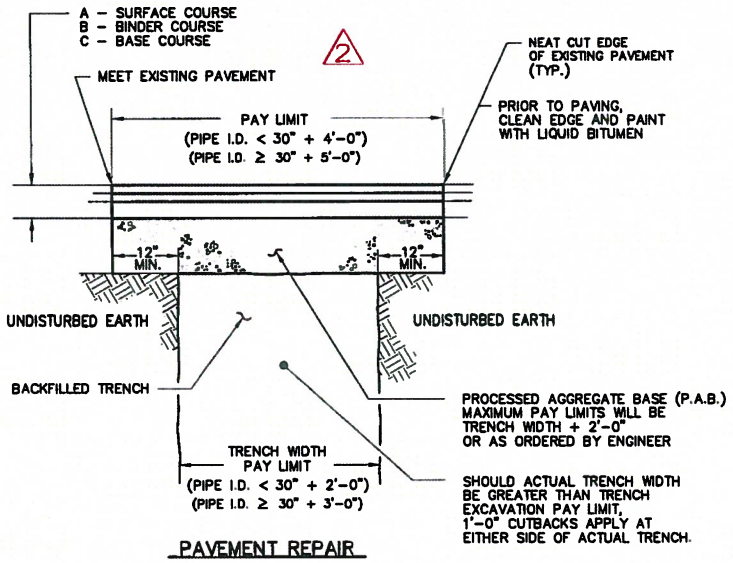
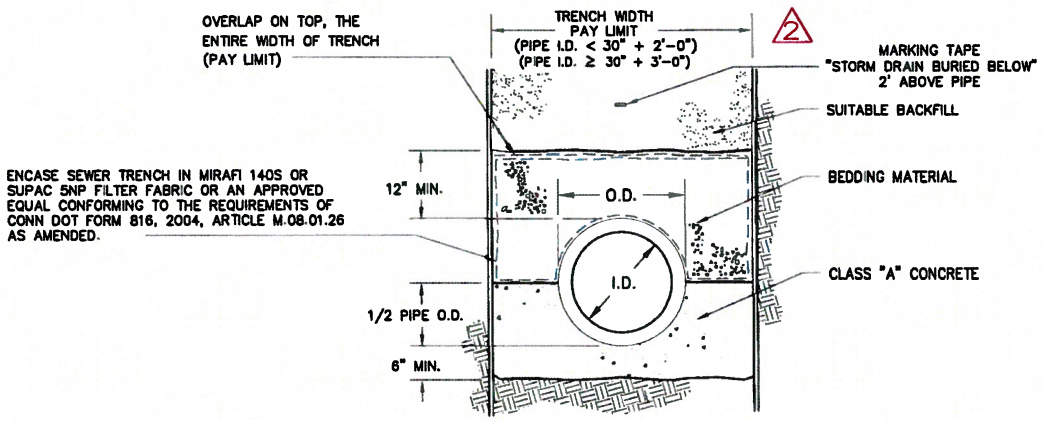
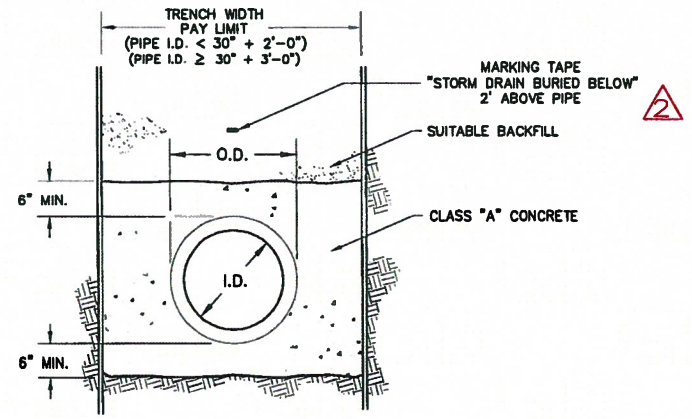


PAVEMENT REPAIR



CONCRETE CRADLE



CONCRETE ENCASEMENT

	A	B	C	D	E	F
	A – E X"=STONE SIZE & (Y)=LEVEL e.g. 0.50"(2)					
	0.375"(2)	0.50"(2)	1.00"(2)	0.50"(3)	1.00"(3)	P.A.B.
STATE ROAD				3"	6"	12"
MAJOR ARTERIAL				4"	6"	14"
MINOR ARTERIAL	1.5"	2"	3"			12"
COLLECTOR	1.5"	1.5"	3"			12"
LOCAL	3"					12"

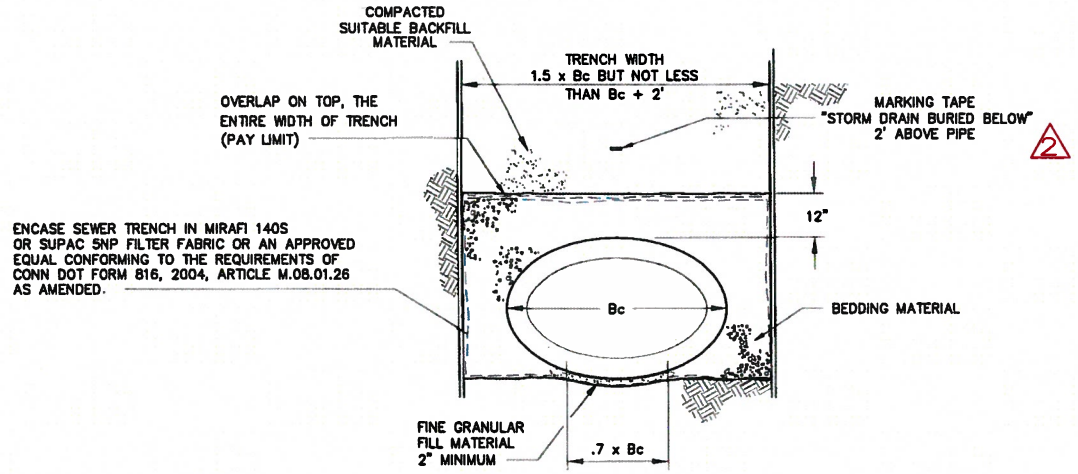
ALLOWABLE UNCOMPACTED THICKNESS PER LIFT		
STONE SIZE	LIFT THICKNESS	
	MIN.	MAX.
0.375"	1.5"	2"
0.50"	1.75"	2.5"
1.00"	3.0"	5.0"

PAVEMENT REPAIR TABLE
(SUPERPAVE) 5

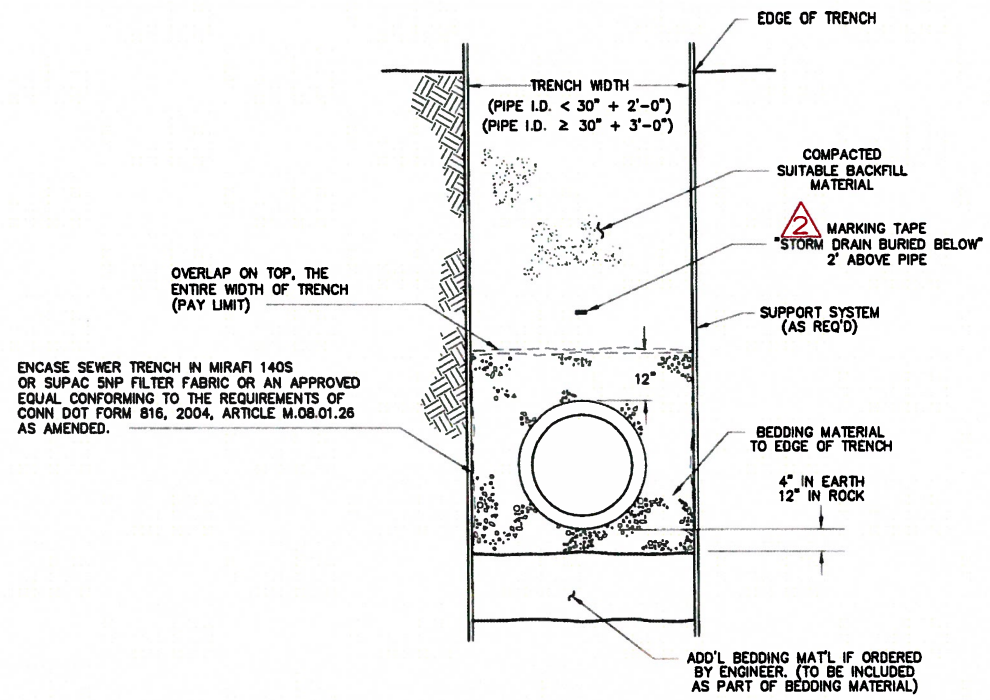
	A	B	C	D
	CL 2	CL 1	CL 4	P.A.B.
STATE ROAD	–	3"	6"	12"
MAJOR ARTERIAL	2"	2"	6"	14"
MINOR ARTERIAL	1 1/2"	2"	3"	12"
COLLECTOR	1 1/2"	1 1/2"	3"	12"
LOCAL	1 1/2"	1 1/2"	—	12"

PAVEMENT REPAIR TABLE
(MARSHALL MIX)

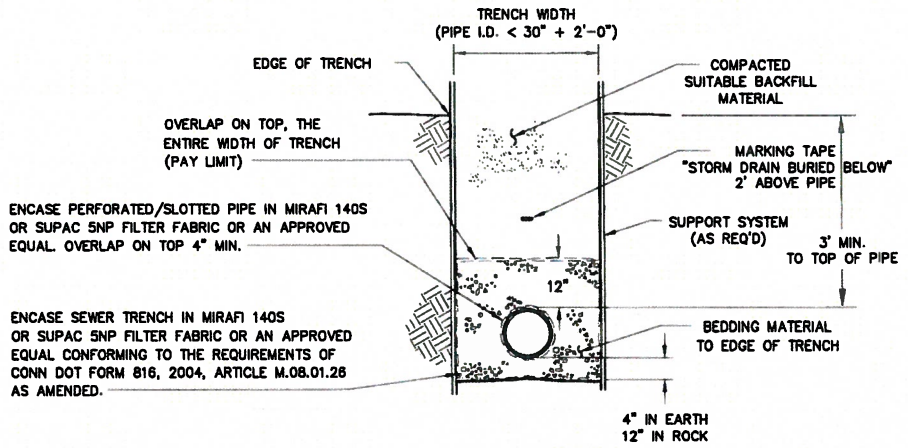
4 MAXIMUM ALLOWABLE UNCOMPACTED THICKNESS PER LIFT:
CLASS 2 – 2" THK.
CLASS 1 – 2 1/2" THK.
CLASS 4 – 4" THK.



CLASS B
TRENCH BEDDING
HORIZONTAL ELLIPTICAL PIPE

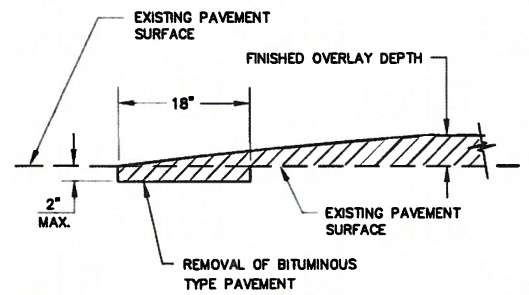


TYPICAL TRENCH SECTION
STORM DRAINS AND CULVERTS



TYPICAL SECTION
CURTAIN DRAIN 3

NOTE:
MAXIMUM PAY WIDTH FOR BEDDING MATERIAL & TRENCH EXCAVATION IS I.D + 2'-0" FOR I.D. LESS THAN 30", I.D. + 3'-0" FOR EQUAL TO OR GREATER 30".



OVERLAY TRANSITION TO EXISTING PAVEMENT

	REVISIONS	DATE	BY
1	REDRAWN & REISSUED	2/4/09	fjw
2	MODIFIED PAVEMENT REPAIR DESC. & MARKING TAPE LABEL	4/12/10	fjw
3	CURTAIN DRAIN SECTION	9/21/10	fjw
4	ADDED MAX. LIFT THKNESS NOTE	12/5/11	fjw
5	ADDED SUPERPAVE TABLE	12/5/12	fjw

APPROVED BY: HAROLD F. ALVORD P.E.# 24138 DATE
DIRECTOR OF PUBLIC WORKS
APPROVED BY: RICHARD P. LINNARTZ P.E.# 9047 DATE
PRINCIPAL ENGINEER
DESIGNED BY: COMMITEE DRAWN BY: F.J.W.
CHECKED BY: CHECKED BY:

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

STORM DRAINS

STANDARD DETAILS

3

DATE: 2/2009 PROJ. #:
SCALE: N.T.S. SHEET ___ OF ___

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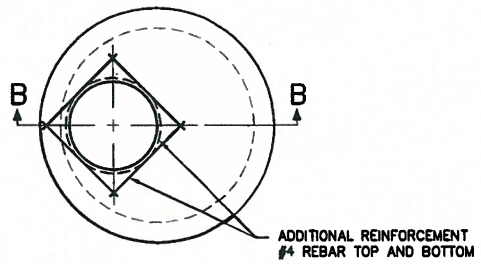
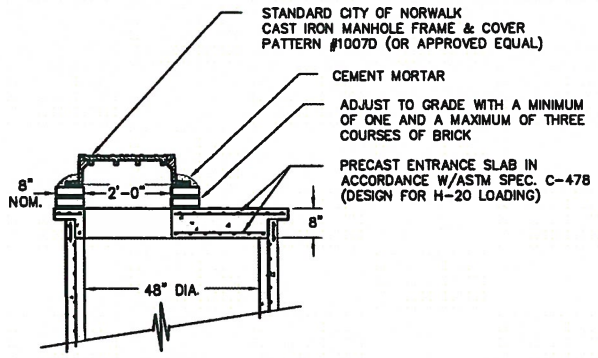


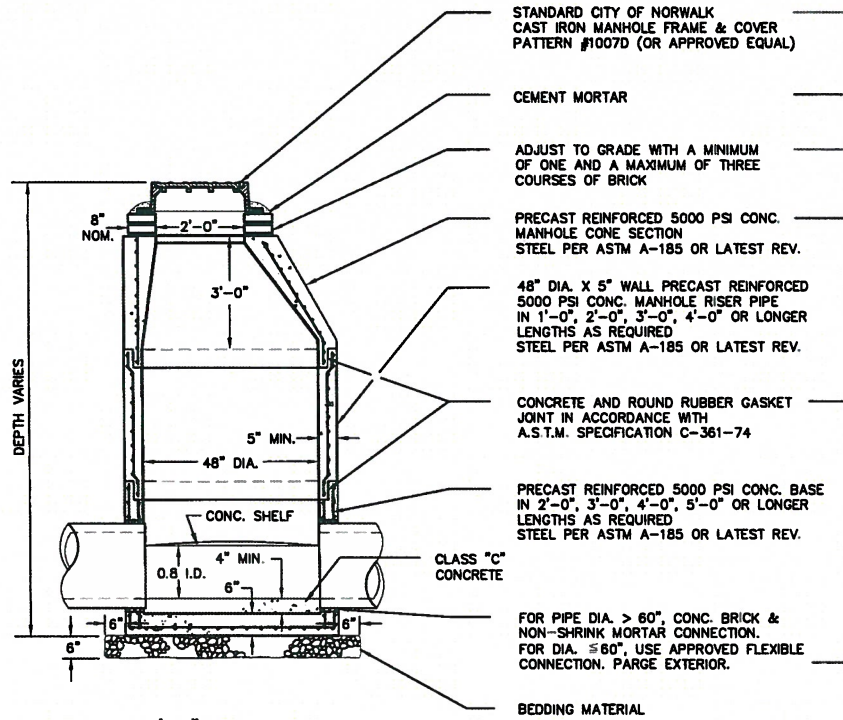
FLAT SLAB TOP PLAN



SECTION B-B

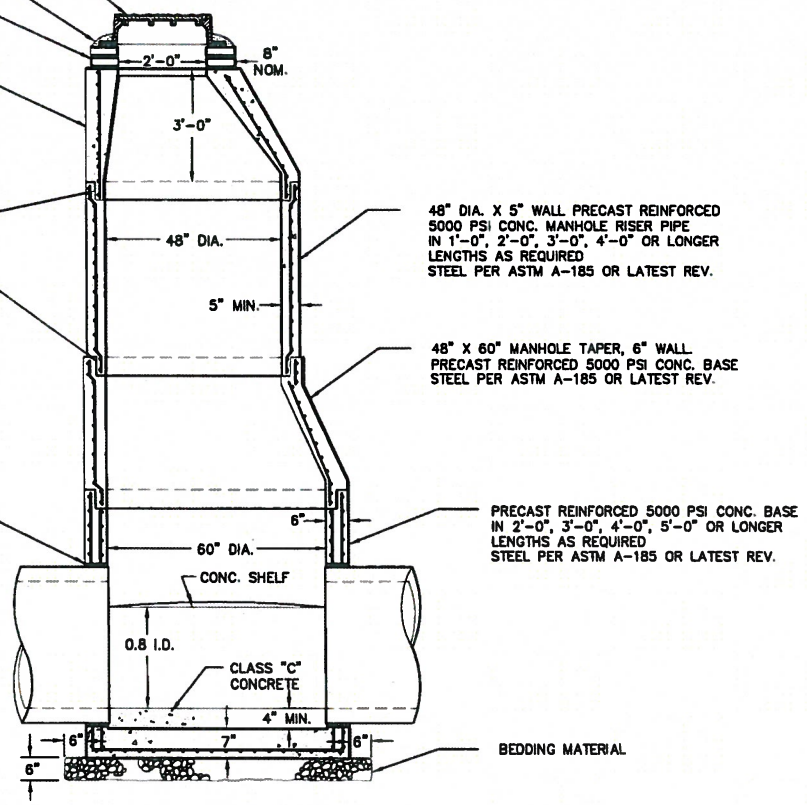
FLAT SLAB TOP

1/2" = 1'-0"



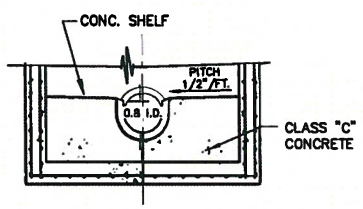
4'-0" DIAMETER
MANHOLE DETAIL

1/2" = 1'-0"



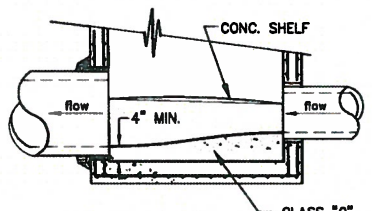
5'-0" DIAMETER
MANHOLE DETAIL

1/2" = 1'-0"

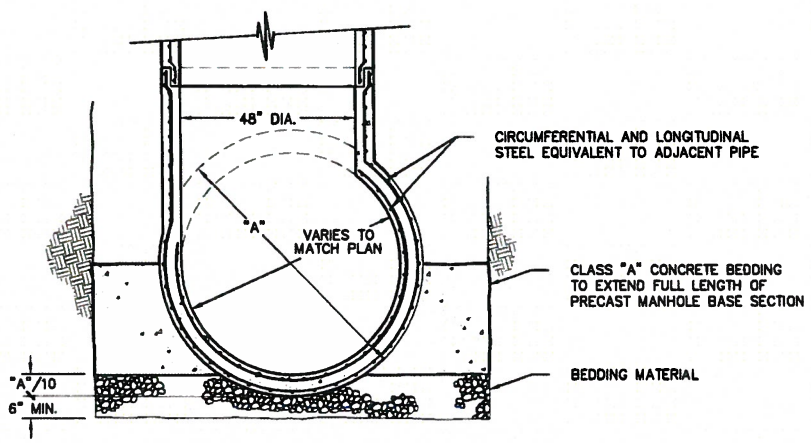


CONCRETE SHELF
SECTION A-A

1/2" = 1'-0"

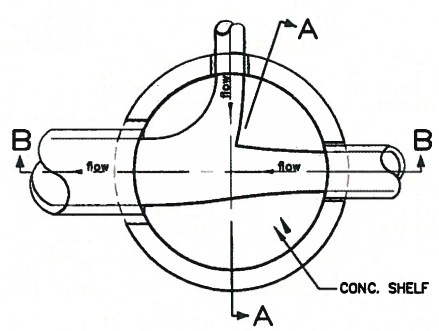


CONCRETE SHELF
SECTION B-B



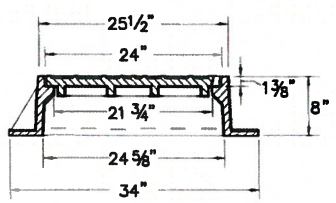
PRECAST CONCRETE TEE MANHOLE

1/2" = 1'-0"

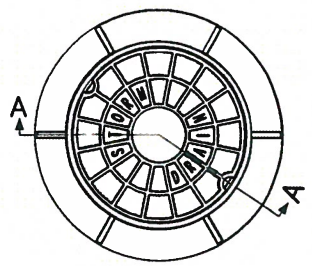


CONCRETE SHELF DETAIL

1/2" = 1'-0"



SECTION A-A



MANHOLE FRAME & COVER

1" = 1'-0"

NOTE:

MANHOLE FRAMES & COVERS SHALL BE PATTERN #1007D
AS MANUFACTURED BY THE "CAMPBELL FOUNDRY COMPANY"
OF NORTH HAVEN, CONNECTICUT, OR APPROVED EQUAL.

	REVISIONS	DATE	BY
1	REDRAWN & REISSUED	2/4/09	fjw

APPROVED BY: HAROLD F. ALVORD	P.E.# 24138	DATE	
DIRECTOR OF PUBLIC WORKS			
APPROVED BY: RICHARD P. LINNARTZ	P.E.# 9047	DATE	
PRINCIPAL ENGINEER OF DESIGN			
DESIGNED BY: COMMITTEE	DRAWN BY: F.J.W.		
CHECKED BY:	CHECKED BY:		

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

STORM MANHOLES AND MANHOLE FRAME STANDARD DETAILS

4

DATE: 2/2009 PROJ #:

SCALE: NOT TO SCALE SHEET ___ OF ___

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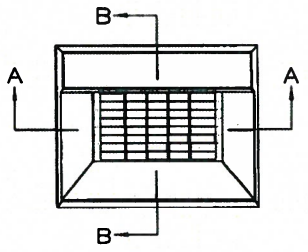
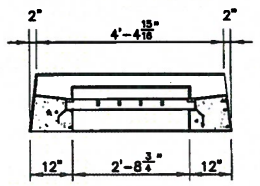
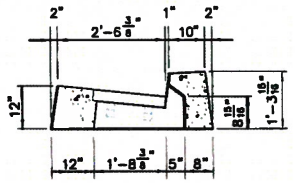


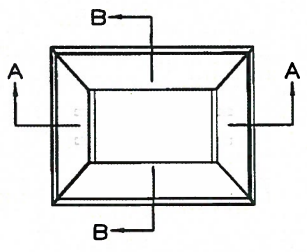


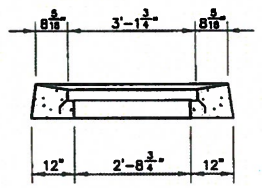
SECTION A-A



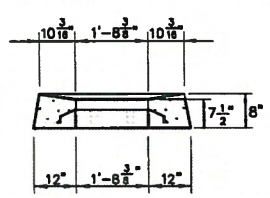
SECTION B-B

TYPE "C" CONC. CURB



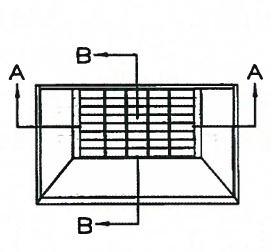


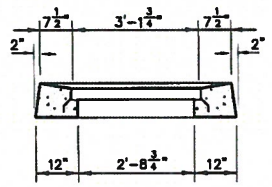
SECTION A-A



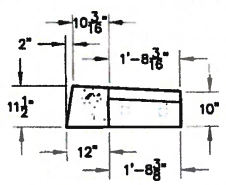
SECTION B-B

TYPE "CL" TOP





SECTION A-A



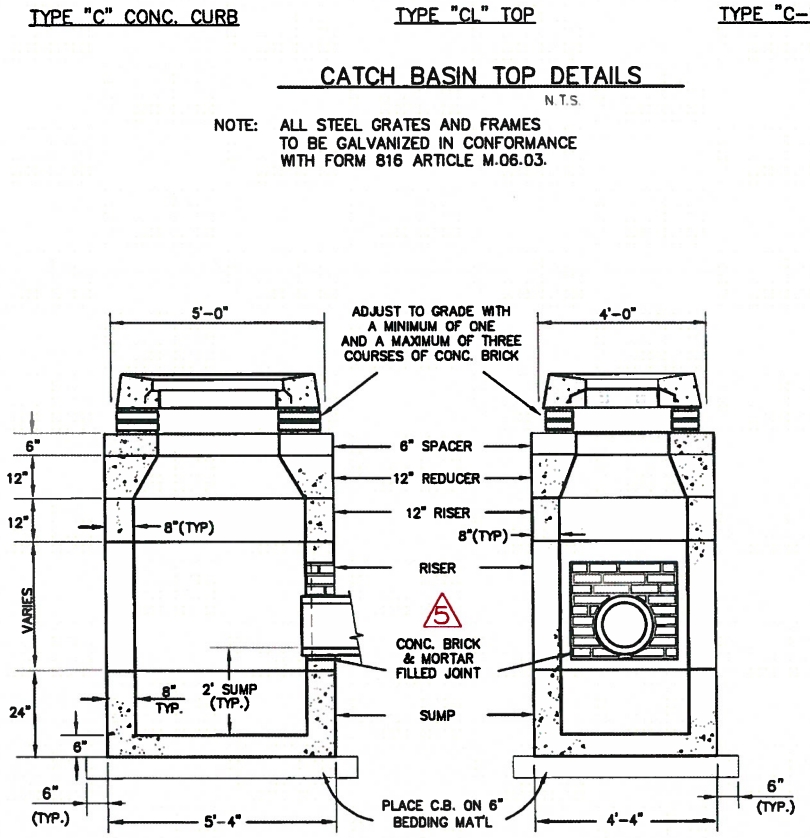
SECTION B-B

TYPE "C-M" TOP

CATCH BASIN TOP DETAILS

N.T.S.

NOTE: ALL STEEL GRATES AND FRAMES TO BE GALVANIZED IN CONFORMANCE WITH FORM 816 ARTICLE M.06.03.

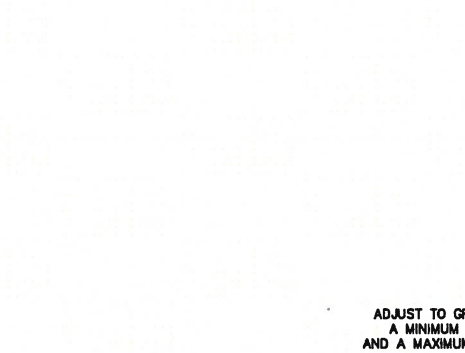


NOTES: 1. ALL CATCH BASIN COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS WITH AN HS-20 TRUCK LOAD. ALL JOINTS ARE TO BE MORTARED. CATCH BASIN SHALL CONFORM TO ASTM C478.
2. KNOCK OUTS ARE TO BE APPLIED ONLY AS REQ'D TO ACCOMMODATE PIPES LOCATED PER PROJECT DESIGN.

STANDARD CATCH BASIN DETAIL

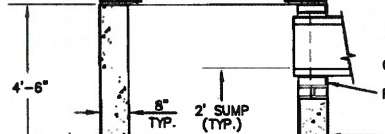
N.T.S.

NOTE: TYPE "CL" CATCH BASIN TOP SHOWN. SEE CATCH BASIN TOP DETAILS (ABOVE) FOR OTHER CB TOP STYLES.

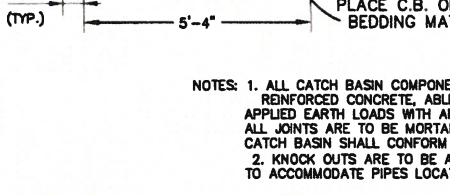


GRANITE CURB CATCH BASIN

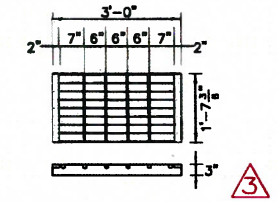
NOTE: TO BE USED IN ALL AREAS WHERE GRANITE CURB IS USED



SECTION A-A



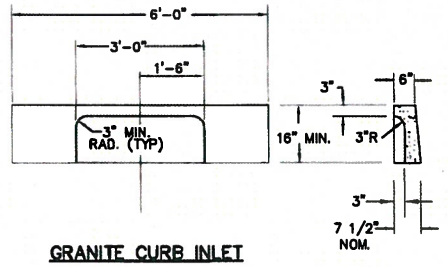
SECTION B-B



3

CHD 228D STEEL GRATE

NOTE: USE CATCH BASIN GRATE TYPE 'A' WHERE BICYCLE SAFE TOP IS REQUIRED ON DESIGN PLAN.



GRANITE CURB INLET

N.T.S.

NOTE: ALL C.B.'S CONSTRUCTED, MODIFIED OR DISTURBED IN ANY FASHION SHALL HAVE "NO DUMPING" CURB MARKER APPLIED TO CATCH BASIN TOP OR CURB NEXT TO C.B. GRATE USING CURB MARKER ADHESIVE PROVIDED BY THE CITY FOLLOWING INSTALLATION DIRECTIONS PROVIDED BY THE MANUFACTURER. THIS IS A NO PAY ITEM TO BE INCLUDED IN C.B. COSTS.

4

NOTES: 1. ALL CATCH BASIN COMPONENTS TO BE PRE-CAST REINFORCED CONCRETE, ABLE TO WITHSTAND THE APPLIED EARTH LOADS WITH AN HS-20 TRUCK LOAD. ALL JOINTS ARE TO BE MORTARED. CATCH BASIN SHALL CONFORM TO ASTM C478.
2. KNOCK OUTS ARE TO BE APPLIED ONLY AS REQ'D TO ACCOMMODATE PIPES LOCATED PER PROJECT DESIGN.

SHALLOW CATCH BASIN DETAIL

N.T.S.

NOTE: TYPE "CL" CATCH BASIN TOP SHOWN. SEE CATCH BASIN TOP DETAILS (ABOVE) FOR OTHER CB TOP STYLES.

CATCH BASIN FILTER INSERT NOTES

2

1.) USE FILTER INSERTS WHERE SHOWN ON DESIGN PLANS OR AS REQUIRED BY D.P.W. ENGINEERING.
FILTER USED SHALL BE FROM D.P.W. APPROVED SUPPLIERS LIST:
"ULTRA-URBAN FILTER W/SMART SPONGE FILTER MEDIA"
-ABTECH INDUSTRIES, SCOTTSDALE, AZ, 1-800-543-8999
"TRANSPO ENVIROSAFE MODULAR STORMWATER CATCH BASIN FILTER"
-TRANSPO INDUSTRIES, NEW ROCHELLE, NY, 1-914-636-1000
OR OTHER APPROVED FILTER.

2.) ALLOW 24" MINIMUM CLEARANCE BETWEEN BOTTOM OF GRATE AND TOP OF PIPE INLET OR OUTLET.

3.) INSTALL AND MAINTAIN ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

	REVISIONS	DATE	BY
1	REDRAWN & REISSUED	4/28/09	fjw
2	REV FILTER INSERT NOTE	8/13/09	fjw
3	MODIFIED CATCH BASIN GRATE	1/25/11	fjw
4	NEW CURB MARKER & NOTE	12/7/11	fjw
5	MOD. CATCH BASIN WALL THICKNESS, DESC. & KNOCKOUT NOTE	12/6/12	fjw

APPROVED BY: HAROLD F. ALVORD, P.E.# 24138, DATE — DIRECTOR OF PUBLIC WORKS
APPROVED BY: RICHARD P. LINHARTZ, P.E.# 9047, DATE — PRINCIPAL ENGINEER OF DESIGN
DESIGNED BY : COMMITEE | DRAWN BY : F.J.W.
CHECKED BY : | CHECKED BY :

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

TYPE "C" TYPE "CL" TYPE "C-M"
CATCH BASIN TOPS
"NO DUMPING" DETAIL
GRANITE CURB INLET CATCH BASIN
STANDARD CATCH BASIN
SHALLOW CATCH BASIN

5

DATE : 4/2009 | PROJ # :
SCALE : AS NOTED | SHEET ___ OF ___

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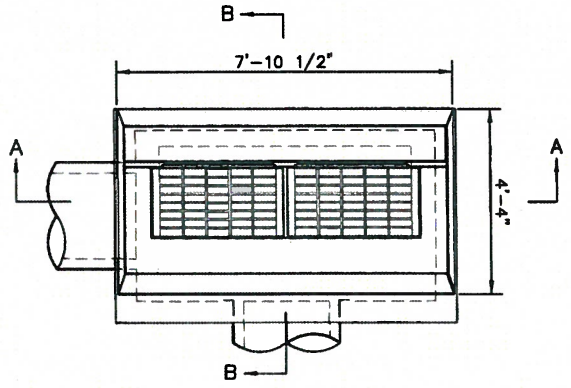
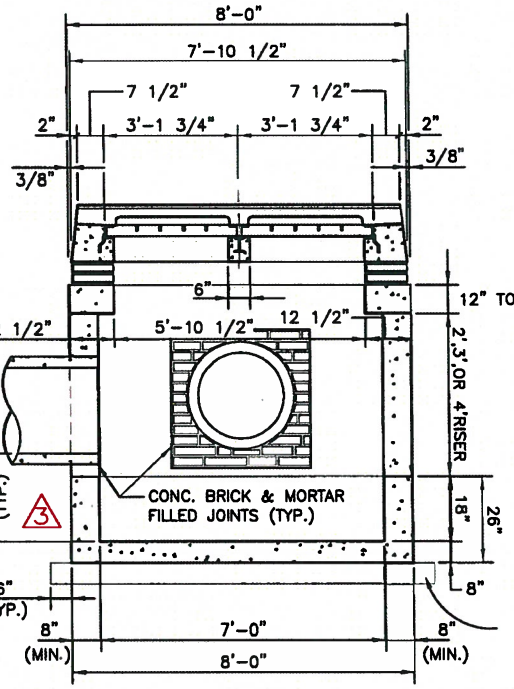
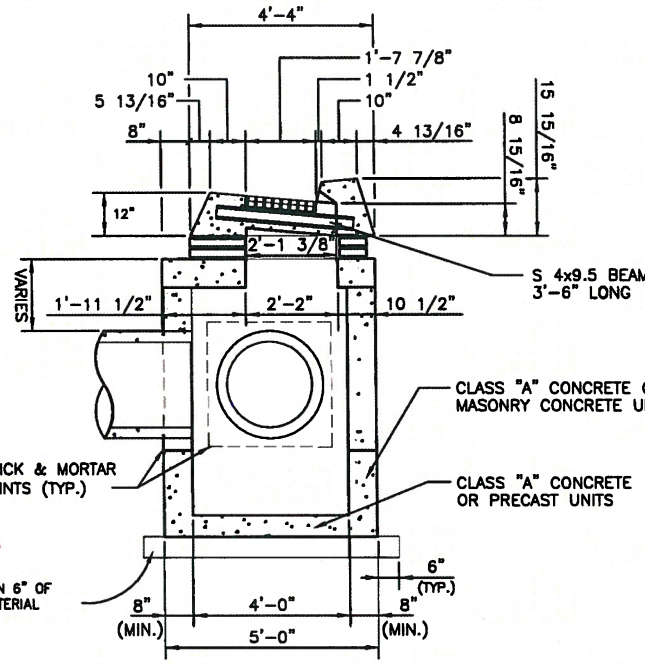


PLAN



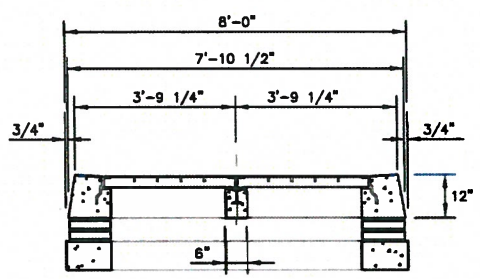
SECTION A–A



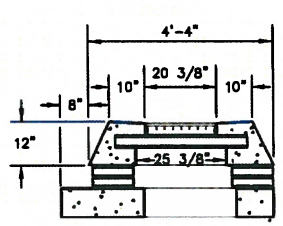
SECTION B–B

TYPE "C" CATCH BASIN DOUBLEGRATE – TYPE II

N.T.S.



SECTION A–A



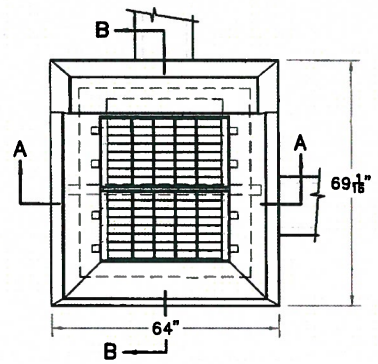
SECTION B–B

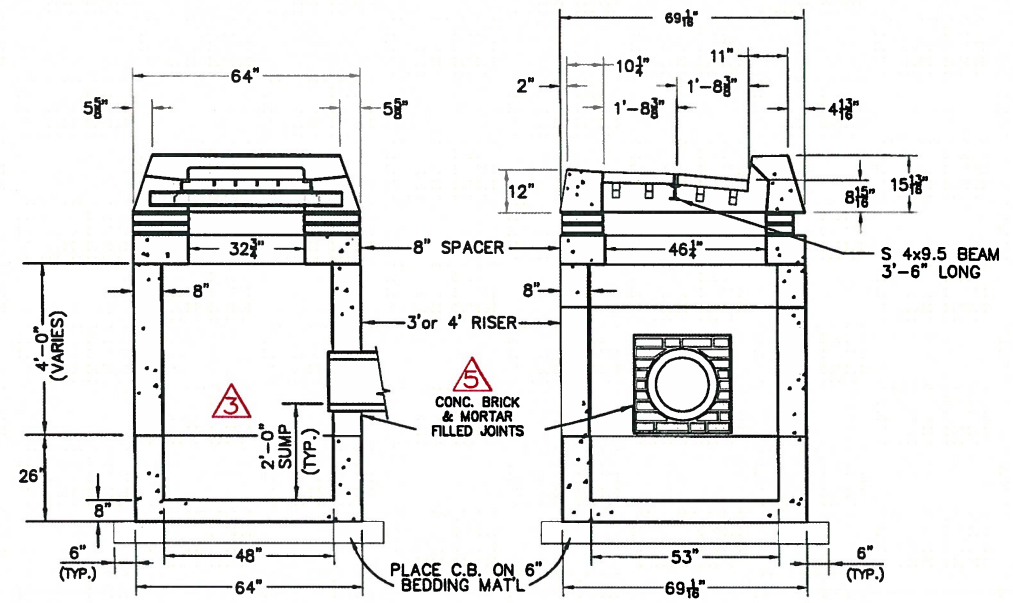
TYPE "CL" CATCH BASIN DOUBLEGRATE – TYPE II

N.T.S.

NOTE:
ALL C.B.'S CONSTRUCTED, MODIFIED OR DISTURBED IN ANY FASHION SHALL HAVE "NO DUMPING" CURB MARKER APPLIED TO CATCH BASIN TOP OR CURB NEXT TO C.B. GRATE USING CURB MARKER ADHESIVE PROVIDED BY THE CITY FOLLOWING INSTALLATION DIRECTIONS PROVIDED BY THE MANUFACTURER. THIS IS A NO PAY ITEM TO BE INCLUDED IN C.B. COSTS.

N.T.S. 4





SECTION A–A SECTION B–B

TYPE "C" CATCH BASIN DOUBLEGRATE – TYPE I

N.T.S.

CATCH BASIN FILTER INSERT NOTES

2

1.) USE FILTER INSERTS WHERE SHOWN ON DESIGN PLANS OR AS REQUIRED BY D.P.W. ENGINEERING.
FILTER USED SHALL BE FROM D.P.W. APPROVED SUPPLIERS LIST:
"ULTRA–URBAN FILTER W/SMART SPONGE FILTER MEDIA"
–ABTECH INDUSTRIES, SCOTTSDALE, AZ, 1–800–543–8999
"TRANSPO ENVIROSAFE MODULAR STORMWATER CATCH BASIN FILTER"
–TRANSPO INDUSTRIES, NEW ROCHELLE, NY, 1–914–636–1000
OR OTHER APPROVED FILTER.

2.) ALLOW 24" MINIMUM CLEARANCE BETWEEN BOTTOM OF GRATE AND TOP OF PIPE INLET OR OUTLET.

3.) INSTALL AND MAINTAIN ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

NOTES:

1.) ALL PRECAST TOPS AND FRAMES SHALL BE ADJUSTED TO GRADE WITH A MINIMUM OF ONE AND A MAXIMUM OF THREE COURSES OF CONCRETE BRICK.

2.) ALL CATCH BASIN FRAMES AND GRATES, TOP SLABS, RISERS, SUMPS, AND BASE SLABS SHALL BE PRECAST REINFORCED CONCRETE AS MANUFACTURED BY CONNECTICUT PRECAST CORP. OR APPROVED EQUAL.

3.) ALL STEEL GRATES AND FRAMES TO BE GALVANIZED IN CONFORMANCE WITH FORM 816 ARTICLE M.06.03.

5 4.) ALL JOINTS SHALL BE MORTARED.

5.) KNOCK OUTS ARE TO BE APPLIED ONLY AS REQ'D TO ACCOMMODATE PIPES LOCATED PER PROJECT DESIGN.

REVISIONS		DATE	BY
1	REDRAWN & REISSUED	4/28/09	fjw
2	REV FILTER INSERT NOTE	8/13/09	fjw
3	MODIFIED SUMP DIMENSION	1/14/10	fjw
4	NEW CURB MARKER & NOTE	12/7/11	fjw
5	MOD. CB WALL/BASE THKNESS		
	MODIFIED NOTES 1–5	12/7/12	fjw

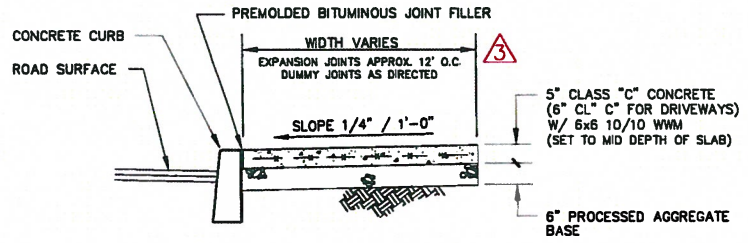
APPROVED BY: HAROLD F. ALVORD, P.E.# 24138, DATE
DIRECTOR OF PUBLIC WORKS
APPROVED BY: RICHARD P. UNNARTZ, P.E.# 9047, DATE
PRINCIPAL ENGINEER OF DESIGN
DESIGNED BY : CGMARTEZ | DRAWN BY : F.JME
CHECKED BY : | CHECKED BY :

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

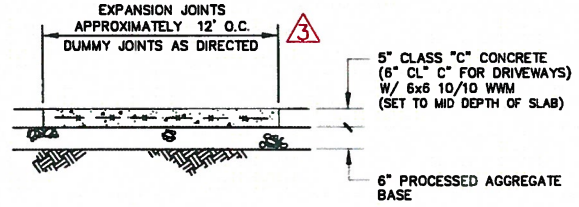
TYPE "C" & TYPE "CL"
DOUBLE GRATE CATCH BASINS
TYPE II
TYPE "C"
DOUBLE GRATE CATCH BASIN
TYPE I

STANDARD DETAILS 6

DATE : 4/2009 | DPW PROJ. :
SCALE : NOT TO SCALE | SHEET ___ OF ___

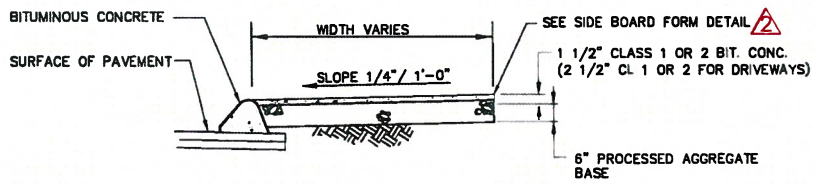


CROSS SECTION

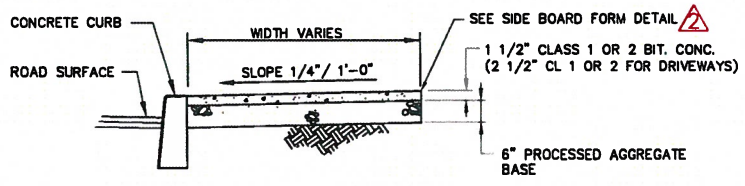


LONGITUDINAL SECTION

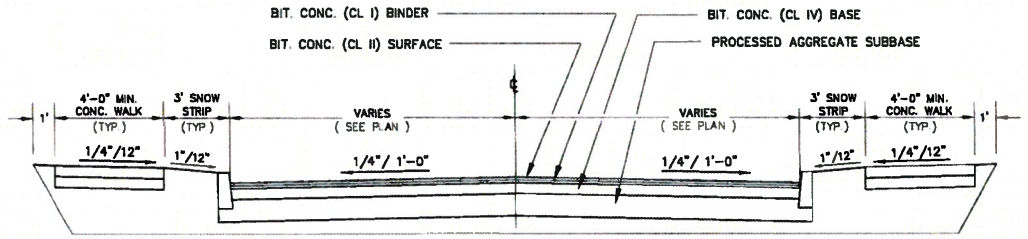
CONCRETE SIDEWALK
(CONCRETE DRIVEWAY)
N.T.S.



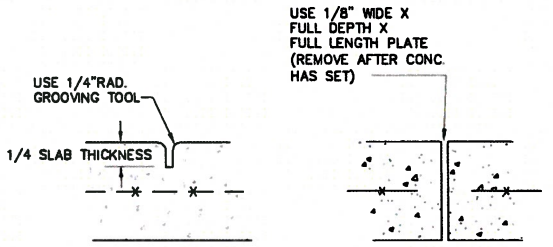
BITUMINOUS CONCRETE SIDEWALK/DRIVEWAY
BITUMINOUS CONC. LIP CURBING
N.T.S.



BITUMINOUS CONCRETE SIDEWALK/DRIVEWAY
CONC. CURBING
N.T.S.



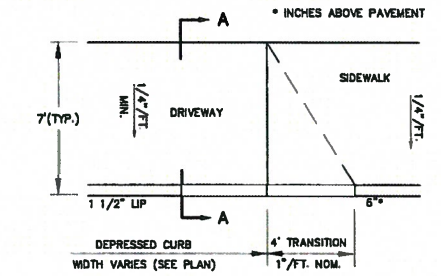
TYPICAL ROADWAY SECTION
(WHERE SNOW STRIP INCLUDED)
N.T.S.



DUMMY JOINT
N.T.S.

EXPANSION JOINT
N.T.S.

3



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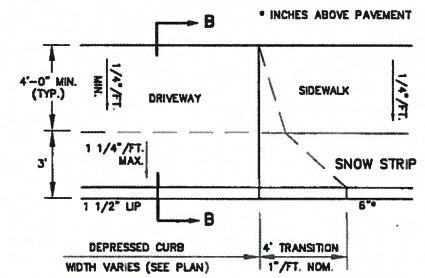

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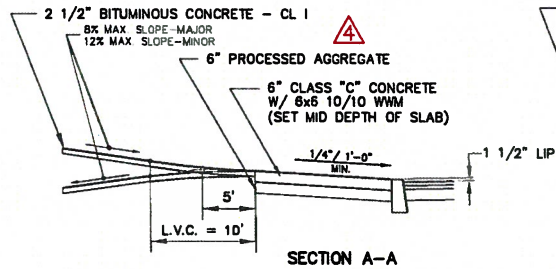
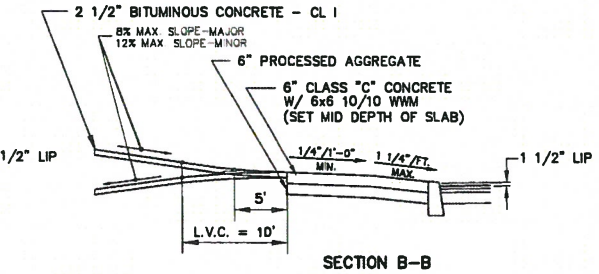
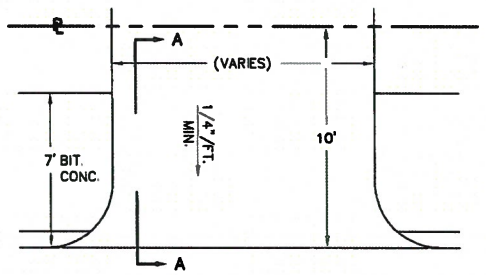


SECTION A-A
TYPE 'A' DRIVE
(WITHOUT SNOW STRIP)
N.T.S.



SECTION B-B
TYPE 'B' DRIVE
(WITH SNOW STRIP)
N.T.S.

CONCRETE APRON
W/ CONC. CURBING



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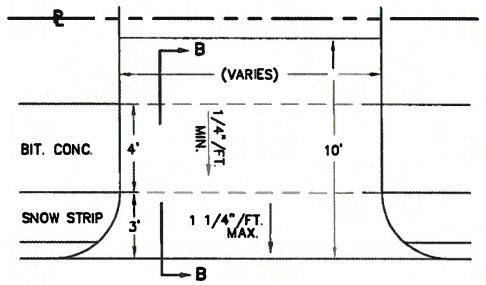

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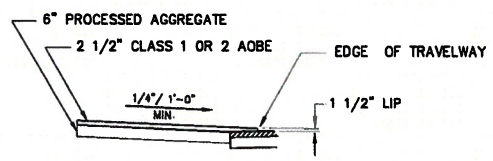
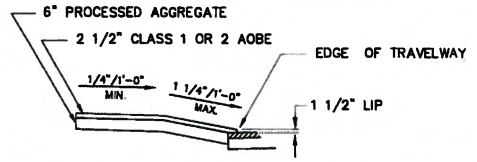
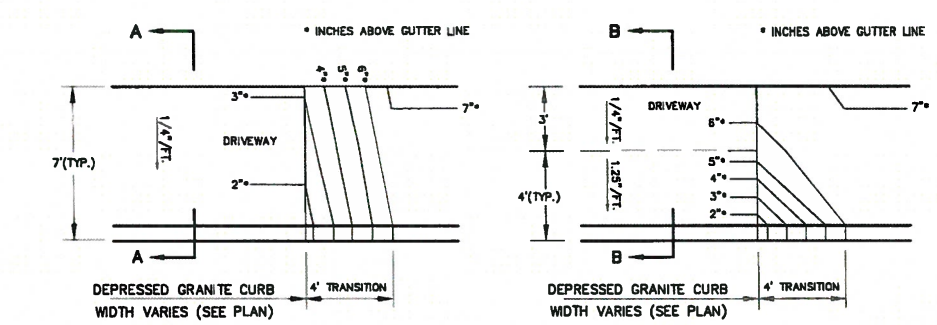


SECTION A-A
TYPE 'A' DRIVE
N.T.S.



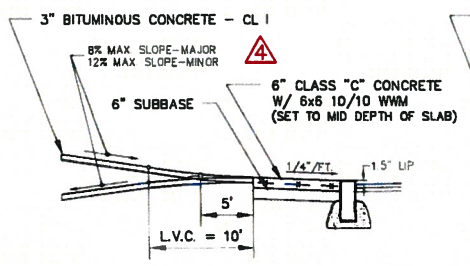
SECTION B-B
TYPE 'B' DRIVE
N.T.S.

BITUMINOUS CONCRETE APRON
BIT. LIP CONC. CURBING

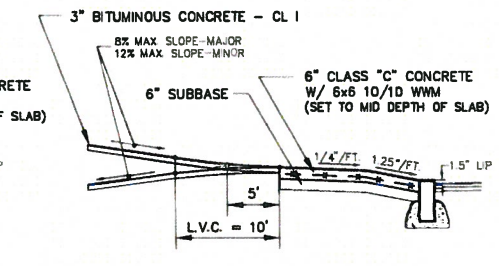


PLAN

PLAN

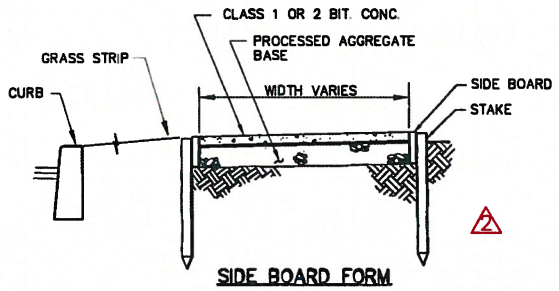


SECTION A-A
TYPE 'A' DRIVE
N.T.S.



SECTION B-B
TYPE 'B' DRIVE
N.T.S.

CONCRETE DRIVEWAY RAMP
W/ GRANITE CURB
(TYPE 'A' OR 'B' TO SUIT FIELD CONDITIONS)



SIDE BOARD FORM
BITUMINUS CONCRETE
N.T.S.

2

GENERAL NOTES FOR SIDEWALK RAMPS

1. IF 'X' IS LESS THAN 48" THEN THE SLOPE OF THE FLARED SIDE SHALL NOT EXCEED 12:1. 'X' SHALL NOT BE LESS THAN 36".
2. MAXIMUM SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 20:1.
3. SIDEWALK RAMPS SHALL BE CONSTRUCTED AND PAID FOR UNDER THE ITEM 'CONCRETE SIDEWALK', EXCEPT THAT THE FINAL TEXTURE OF THE RAMP SURFACE SHALL BE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
4. CARE SHOULD BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND ABRUPT GRADE CHANGES.
5. THE BOTTOM OF THE RAMP SHALL MEET THE GUTTER LINE AT THE CURB FACE.
6. FOR OTHER DETAILS REFER TO CONNDOT STANDARD SHEET NO. 921-A.

	REVISIONS	DATE	BY
1	REDRAWN & REISSUED	4/13/09	fjw
2	ADDED SIDE BOARD FORM	8/10/09	fjw
3	ADDED CONC. SIDEWALK JOINT DETAILS	10/8/10	fjw
4	REVISED TO MAJOR/MINOR SLOPE	11/4/10	fjw

APPROVED BY: HAROLD F. ALVORD	P.E.# 24138	DATE	
DIRECTOR OF PUBLIC WORKS			
APPROVED BY: RICHARD P. LINNARTZ	P.E.# 9047	DATE	
PRINCIPAL ENGINEER			
DESIGNED BY: COMMITTEE	DRAWN BY: F.J.W.		
CHECKED BY:	CHECKED BY:		

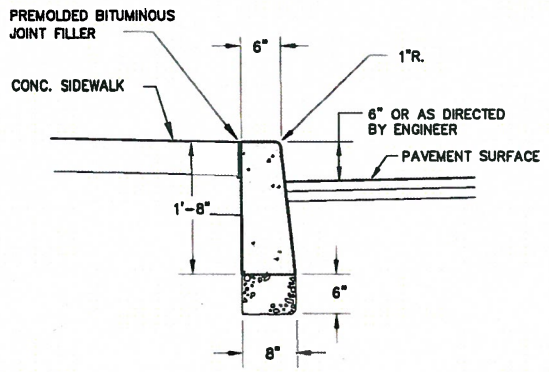
CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

DRIVEWAY APRONS
CURB RAMPS
ROADWAY SECTION
& SIDEWALK

STANDARD DETAILS 7

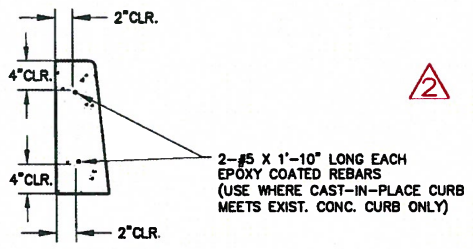
DATE : 4/2009 PROJ. # :

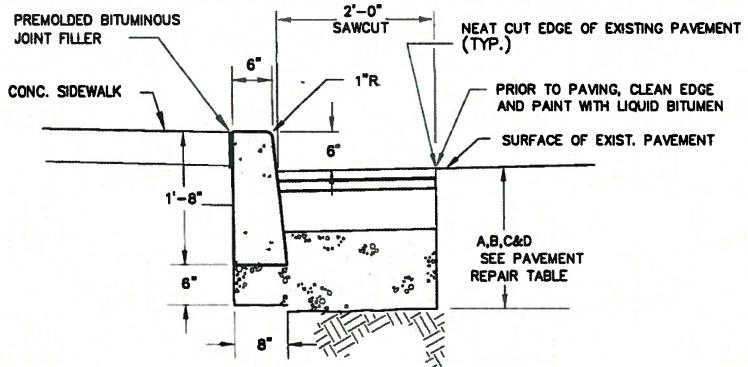
SCALE : AS NOTED SHEET ___ OF ___



4 CAST-IN-PLACE CONCRETE CURB

EXPANSION JOINTS @ APPROX. 12'-0" O.C. (TYP.)





4 CAST-IN-PLACE CONCRETE CURB

EXPANSION JOINTS @ APPROX. 12'-0" O.C. (TYP.)

(EXISTING PAVEMENT)

NOT IN ROAD RECONSTRUCTION AREA

	A	B	C	D	E	F
	A – E	X"=STONE SIZE & (Y)=LEVEL e.g. 0.50"(2)				
	0.375"(2)	0.50"(2)	1.00"(2)	0.50"(3)	1.00"(3)	P.A.B.
STATE ROAD				3"	6"	12"
MAJOR ARTERIAL				4"	6"	14"
MINOR ARTERIAL	1.5"	2"	3"			12"
COLLECTOR	1.5"	1.5"	3"			12"
LOCAL	3"					12"

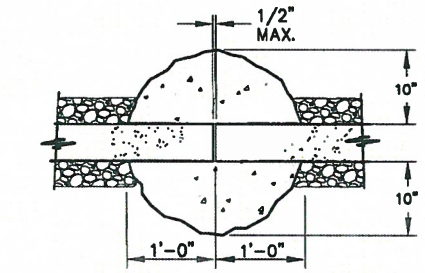
ALLOWABLE UNCOMPACTED THICKNESS PER LIFT		
STONE SIZE	LIFT THICKNESS	
	MIN.	MAX.
0.375"	1.5"	2"
0.50"	1.75"	2.5"
1.00"	3.0"	5.0"

PAVEMENT REPAIR TABLE (SUPERPAVE) 5

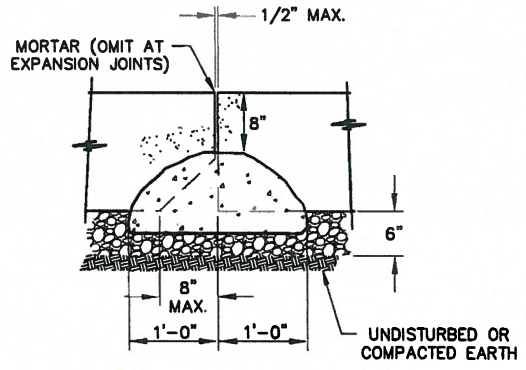
	A	B	C	D
	CL 2	CL 1	CL 4	P.A.B.
STATE ROAD	–	3"	6"	12"
MAJOR ARTERIAL	2"	2"	6"	14"
MINOR ARTERIAL	1 1/2"	2"	3"	12"
COLLECTOR	1 1/2"	1 1/2"	3"	12"
LOCAL	1 1/2"	1 1/2"	—	12"

PAVEMENT REPAIR TABLE (MARSHALL MIX)

3 MAXIMUM ALLOWABLE UNCOMPACTED THICKNESS PER LIFT:
- CLASS 2 – 2" THK.
- CLASS 1 – 2 1/2" THK.
- CLASS 4 – 4" THK.

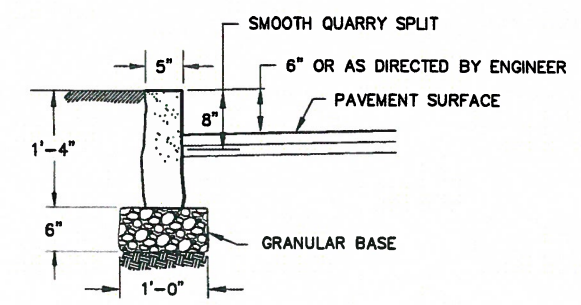


PLAN @ JOINT

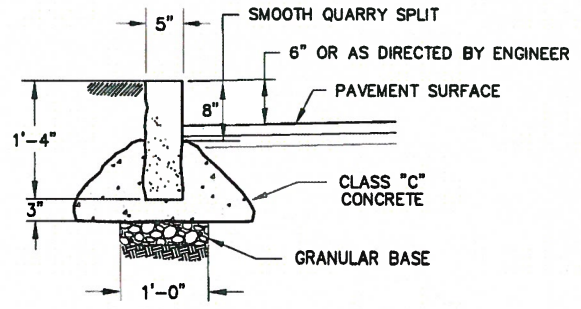


ELEVATION @ JOINT

4

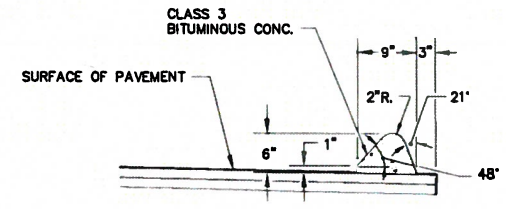


NON-JOINT SECTION

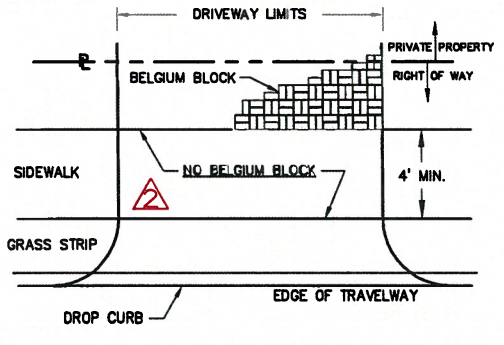


SECTION @ JOINT

GRANITE & PRECAST CONCRETE CURB
JOINT TREATMENT
(GRANITE CURB SHOWN)
EXPANSION JOINTS @ APPROX. 50'-0" O.C. (TYP.)



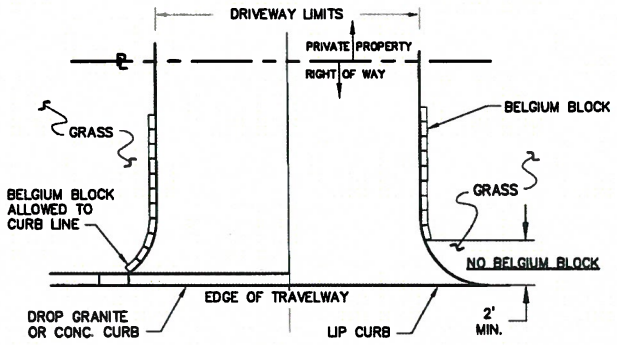
BITUMINOUS CONCRETE LIP CURBING



PLAN N.T.S.

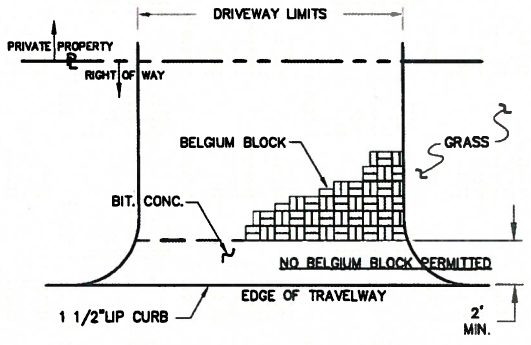
CONCRETE OR BITUMINOUS CONC. DRIVE APRON W/ BELGIUM BLOCK

W/ CONCRETE, BIT. CONC., OR GRANITE CURB W/ SIDEWALK



PLAN N.T.S.

2 BELGIUM BLOCK DRIVEWAY EDGING NO SIDEWALK



PLAN N.T.S.

BIT. CONC. DRIVE APRON W/ BELGIUM BLOCK

NO SIDEWALK OR CURB

BIT. CONC. LIP FOR DRIVEWAY

NOTE:

SEE "STANDARD DETAIL DRAWINGS":
- #7 – DRIVEWAY APRONS, CURB RAMPS, ROADWAY SECTION & SIDEWALK
- #9 – PRECAST CONC. PAVER SIDEWALK, DRIVEWAY RAMPS & SURVEY MARKER

FOR DRIVEWAY AND SIDEWALK CONSTRUCTION DETAILS

THE CITY TAKES NO RESPONSIBILITY FOR ANY DAMAGE TO BELGIUM BLOCK INSTALLED WITHIN ROAD RIGHT OF WAY.

	REVISIONS	DATE	BY
1	REDRAWN & REISSUED	4/8/09	fjw
2	ADDED BELGIUM BLOCK EDGING PLAN & REBAR @ C.I.P. CONC. CURB	9/17/10	fjw
3	ADDED MAX. LIFT THKNESS NOTE	12/5/11	fjw
4	MODIFIED CURB JOINT TREATMENT & RELABELED CONC. CURB TO CAST-IN PLACE	10/12/12	fjw
5	ADDED SUPERPAVE TABLE	12/5/12	fjw

APPROVED BY:	HAROLD F. ALVORD	P.E.# 24138	DATE
	DIRECTOR OF PUBLIC WORKS		
APPROVED BY:	RICHARD P. LINNARTZ	P.E.# 9047	DATE
	PRINCIPAL ENGINEER		
DESIGNED BY: COMMITTEE		DRAWN BY: F.J.W.	
CHECKED BY:		CHECKED BY:	

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

CURB DETAILS

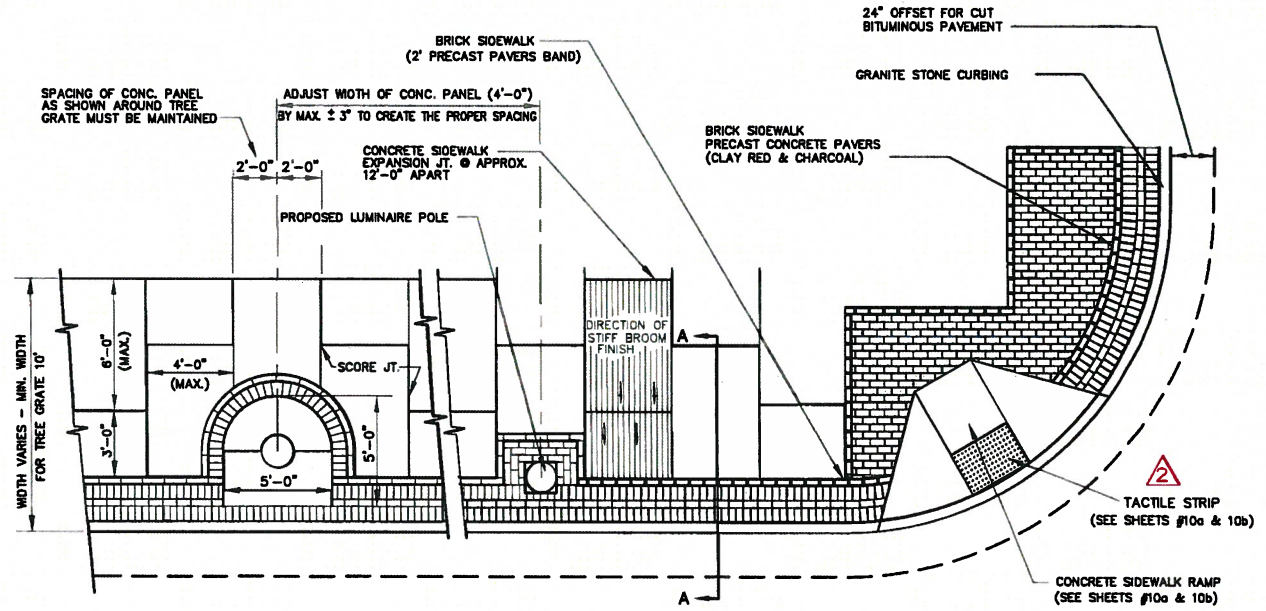
BELGIUM BLOCKS IN DRIVEWAYS

STANDARD DETAILS

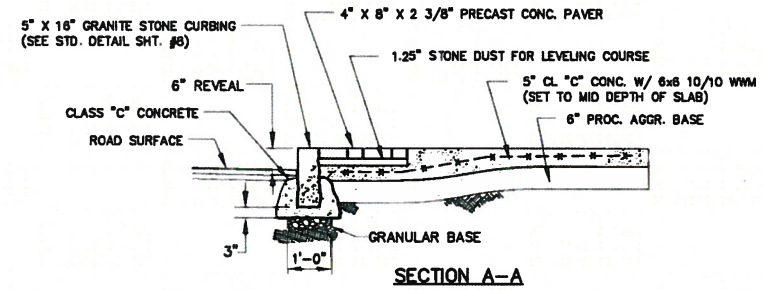
8

DATE: 4/2009 | DPW PROJ.:

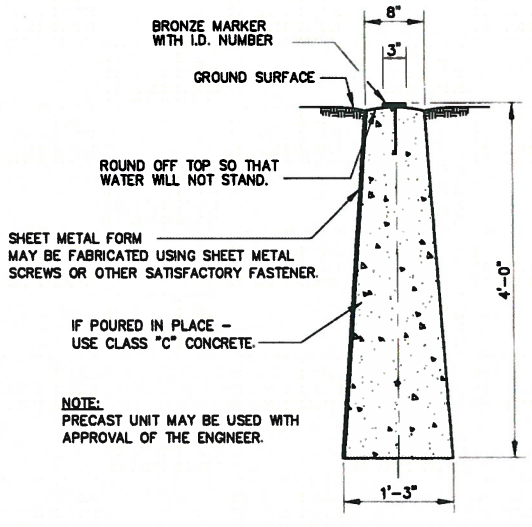
SCALE: N.T.S. | SHEET ___ OF ___



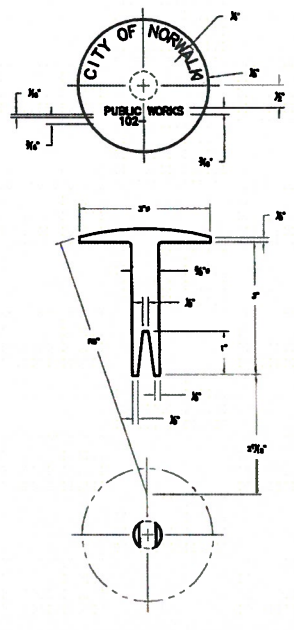
PRECAST CONCRETE PAVER (SEE PLANS FOR LAYOUT)
SIDEWALK PLAN
SCALE: 1/4" = 1'-0"



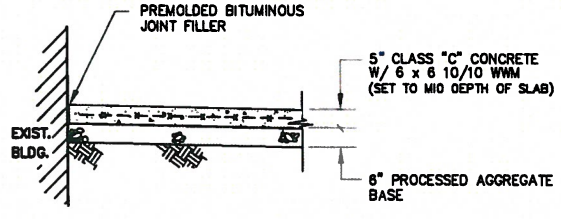
SECTION A-A
SCALE 1/2" = 1'-0"



PERMANENT SURVEY MARKER
SCALE 1" = 1'-0"



BRONZE MARKER DISC
N.T.S.



TYPICAL CONSTRUCTION JOINT
BETWEEN PROPOSED SIDEWALK & EXIST. BUILDING

REVISIONS		DATE	BY
1	REDRAWN & REISSUED	4/28/09	fjw
2	REF. DWGS 10A &10B	12/7/12	fjw

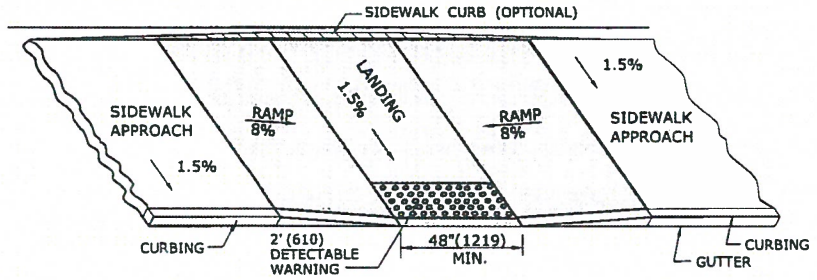
APPROVED BY: HAROLD F. ALVORD	P.E.# 24138	DATE	
DIRECTOR OF PUBLIC WORKS			
APPROVED BY: RICHARD P. LINNARTZ	P.E.# 9047	DATE	
PRINCIPAL ENGINEER OF DESIGN			
DESIGNED BY : COMMITEE	DRAWN BY : F.J.W.		
CHECKED BY :	CHECKED BY :		

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

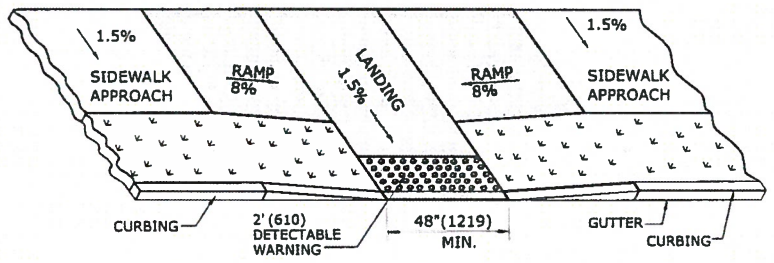
PRECAST CONC. PAVER SIDEWALK
DRIVEWAY RAMPS &
SURVEY MARKER

STANDARD DETAILS 9

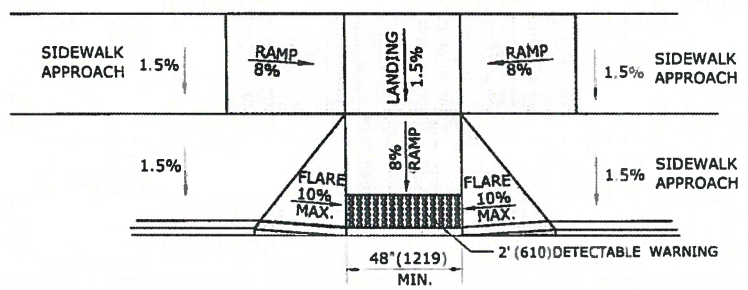
DATE: 4/2009 PROJ. # :
SCALE : AS NOTED SHEET ___ OF ___



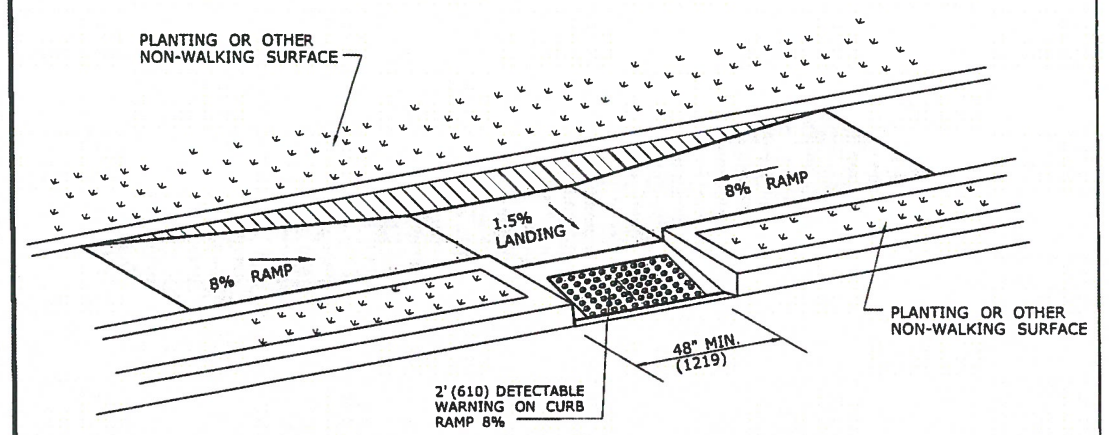
PARALLEL SIDEWALK RAMP (TYPE 1) NO UTILITY STRIP



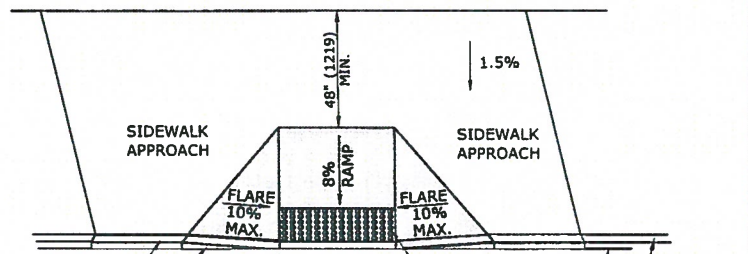
PARALLEL SIDEWALK RAMP (TYPE 1a) WITH UTILITY / GRASS STRIP



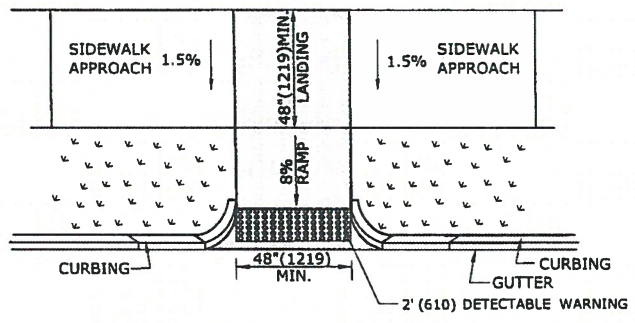
PARALLEL/PERPENDICULAR SIDEWALK RAMP NO UTILITY/GRASS STRIP (TYPE 1b)



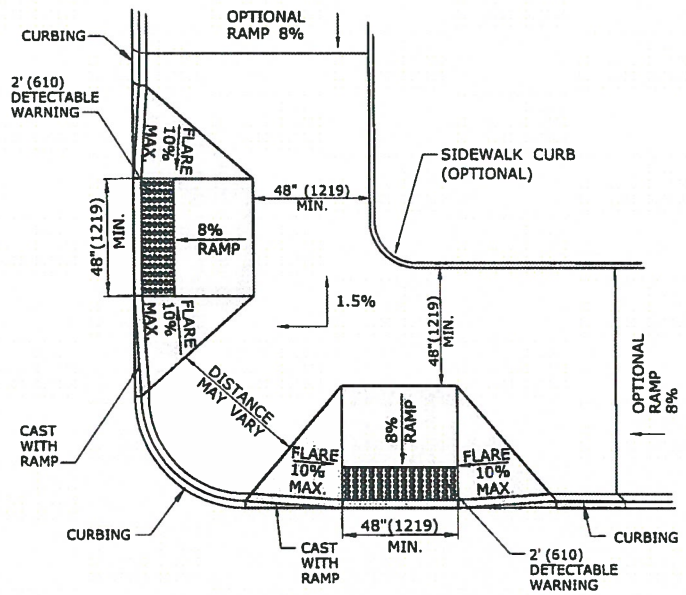
PARALLEL SIDEWALK RAMP (TYPE 1c) WITH UTILITY / GRASS STRIP



PERPENDICULAR SIDEWALK RAMP W/ 48" (1219) MIN. BY PASS LANDING (TYPE 2)



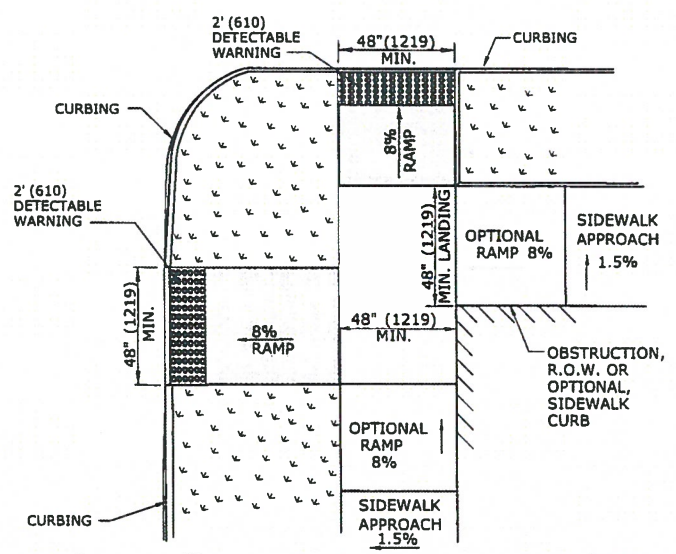
PERPENDICULAR SIDEWALK RAMP W/CURB RETURN / UTILITY GRASS STRIP (TYPE 2a)



DUAL PERPENDICULAR SIDEWALK RAMPS (TYPE 3)

GENERAL NOTES:

1. MAXIMUM SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE SIDEWALK RAMP OR PEDESTRIAN ACCESS ROUTE SHOULD NOT EXCEED 5%. THE MAXIMUM GRADE DIFFERENCE BETWEEN THE GUTTER AND CURB RAMP SHALL NOT EXCEED 13%. SEE DETAIL 1 ON SHEET 4.
2. RAMP GRADE SHALL BE UNIFORM, FREE OF SAGS AND ABRUPT GRADE CHANGES. RUNNING SLOPES OF RAMPS SHALL NOT EXCEED 8.3%.
3. ALL RAMPS SHALL BE CONSTRUCTED OF CLASS "C" CONCRETE IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
4. SIDEWALK RAMPS SHALL HAVE A COARSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP. THE SURFACE OF ALL SIDEWALK RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. SURFACE DISCONTINUITIES SHALL NOT EXCEED $\frac{1}{2}$" (13) MAX. VERTICAL DISCONTINUITIES BETWEEN $\frac{1}{4}$" (6.4) AND $\frac{1}{2}$" (13) MAX. SHALL BE BEVELED 1:2 MINIMUM APPLIED ACROSS THE ENTIRE LEVEL CHANGE.
5. DIAGONAL SIDEWALK RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES. DIAGONAL AND PERPENDICULAR RAMPS SHALL HAVE THE RAMP CUT PERPENDICULAR TO THE TANGENT OF THE CURB RADIUS FOR THE DESIGNATED ACCESSIBLE ROUTE. BOTH LONGITUDINAL SIDES OF THE RAMP SHOULD BE THE SAME LENGTH. SKEWED RAMPS SHOULD BE AVOIDED. FLARES ARE NOT CONSIDERED PART OF PEDESTRIAN ACCESS ROUTE.
6. REMOVAL OF EXISTING SIDEWALK FOR NEW RAMP INSTALLATIONS SHALL BE TO THE NEAREST EXPANSION OR CONTRACTION JOINT. 8.3% MAXIMUM SLOPE MAY NOT BE ACHIEVABLE DUE TO SIDEWALK GRADE. IN RECOGNITION OF THIS, A LIMIT OF 15' (4572) FOR REMOVAL SHALL BE USED UNLESS OTHERWISE SHOWN ON THE PLANS. SAW CUT REQUIRED FOR DUMMY JOINTS SHALL BE INCLUDED IN THE COST OF "CONCRETE SIDEWALK".
7. EXPANSION JOINTS IN CONCRETE SHALL MATCH THOSE IN ADJACENT SIDEWALKS BUT IN NO CASE SHALL THE SPACING BETWEEN EXPANSION JOINTS EXCEED 12' (3658) UNLESS OTHERWISE NOTED.
8. SIDEWALK RAMPS, SHALL BE PAID FOR UNDER THE ITEM "CONCRETE SIDEWALK", INCLUDING DETECTABLE WARNING STRIP AND SIDEWALK CURBING AT THE BACK OF SIDEWALK .
9. SIDEWALK RAMPS SHALL BE CONSTRUCTED WITH THE TOE AT THE GUTTER CAST IN PLACE UNLESS DIRECTED OTHERWISE BY THE ENGINEER (SEE TYPICAL SECTION ON SHEET 3). FLARES FOR PERPENDICULAR RAMPS UP TO THE GUTTER SHALL ALSO BE CAST IN PLACE. CURBING ADJACENT TO OR TRANSITIONING FROM RAMP OR FLARES MAY VARY. CURBING OUTSIDE LIMITS OF RAMP OR LANDING SHOWN ON SHEET 2 SHALL BE CONSTRUCTED AND PAID FOR IN ACCORDANCE WITH CONNECTICUT STANDARD SPECIFICATIONS.
10. PREFERED LOCATION TO INSTALL DETECTABLE WARNING STRIP SHALL BE 6" (152) FROM THE EDGE OF ROAD ALONG THE FULL WIDTH OF THE RAMP. FOR ALTERNATE LOCATIONS, REFER TO DETECTABLE WARNING PLACEMENT DETAILS ON SHEET 4.
11. TO PERMIT WHEELCHAIR WHEELS TO ROLL BETWEEN DOMES, ALIGN DOMES ON A SQUARE GRID IN THE DIRECTION OF RUNNING SLOPE (PERPENDICULAR TO CURB OR SLOPE BREAK). THE TRANSITION FROM RAMP TO GUTTER SHALL BE FLUSH WITHOUT A LIP.
12. FOR SIDEWALKS CONTINUOUS THROUGH DRIVEWAYS, RAMPS AND DETECTABLE WARNING SURFACES ARE NOT REQUIRED.
13. CONSTRUCT A SIDEWALK CURB BEHIND THE SIDEWALK WHEN THERE IS INSUFFICIENT BUFFER AVAILABLE OR WHEN CALLED FOR IN PLANS. SIDEWALK CURB SHALL BE PAID FOR AS PART OF THE ITEM "CONCRETE SIDEWALK RAMP" OR "CONCRETE SIDEWALK".
14. THE TOP AND BOTTOM OF RAMPS SHOULD BE PROVIDED WITH A 4'x 4'(1219 x 1219) MINIMUM LEVEL LANDING AREA WITH A CROSS SLOPE LESS THAN OR EQUAL TO 2% MAXIMUM IN ANY DIRECTION. DIAGONAL RAMPS SHOULD NOT BE INSTALLED WHERE CURB RADII IS LESS THAN 20'(6096).
15. UTILITY POLES, LUMINAIRES, PEDESTRIAN OR SIGNAL POLES, GRATES, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON RAMPS, LANDINGS, BLENDED TRANSITIONS, FLARES, AND @ GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
16. APPROACH SIDEWALK WIDTHS, GRASS STRIP OR UTILITY STRIP WIDTHS MAY VARY.
17. APPROACH SIDEWALK AND LANDING CROSS SLOPE SHALL NOT EXCEED 2%.
18. THE RUNNING OR CROSS SLOPES ON LANDINGS AT MIDBLOCK CROSSING MAY BE WARPED TO MEET STREET OR HIGHWAY GRADE.
19. FOR PERPENDICULAR CURB RAMPS A MIN. 4'(1.2m) x 4'(1.2m) TURNING SPACE SHALL BE PROVIDED AT THE TOP OF CURB RAMP. WHERE THE TURNING SPACE IS RESTRICTED AT THE BACK OF SIDEWALK THE TURNING SPACE SHALL BE 4'(1.2m) x 5'(1.5m) WITH THE 5' (1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE RAMP RUN.
20. FOR PARALLEL CURB RAMPS, A MIN. 4'(1.2m) x 4' (1.2m) TURNING SPACE SHALL BE PROVIDED AT THE BOTTOM OF CURB RAMP. IF THE TURNING SPACE IS RESTRICTED ON 2 OR MORE SIDES, THE TURNING SPACE SHALL BE 4'(1.2m)x 5' (1.5m) WITH THE 5' (1.5m) DIMENSION PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.



DUAL PERPENDICULAR SIDEWALK RAMPS (TYPE 3a) WITH UTILITY / GRASS STRIP

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

REV.	DATE	REVISION DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
1	7/13	Created new sheets (4 total),

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/23/2013

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD2013.dgn Model: 80 - HW-921_02a

SUBMITTED BY NAME/DATE/TIME:
Digitally signed by Leo L. Fontaine
Date: 2013.07.24 10:55:43-04'00'

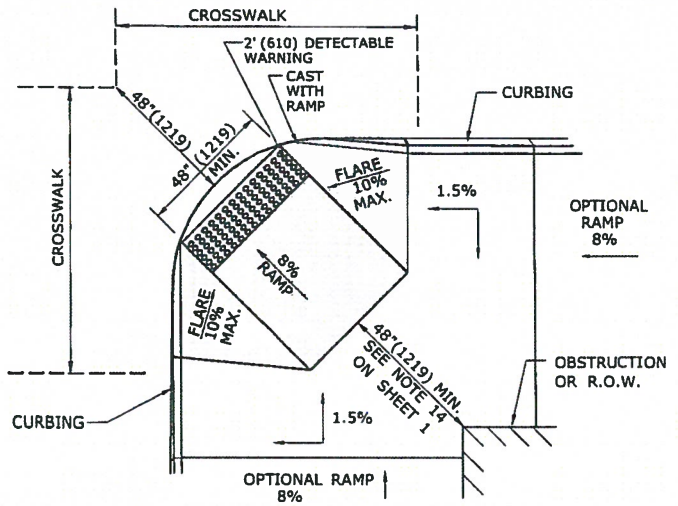
APPROVED BY NAME/DATE/TIME:
James H. Norman
2013.07.24 14:57:52-04'00'

CTDOT STANDARD SHEET

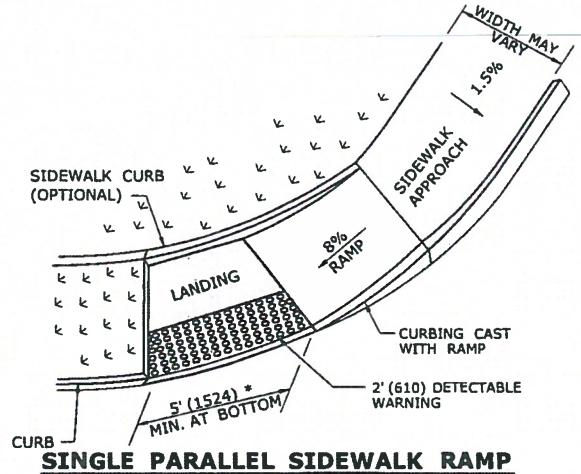
OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
SIDEWALK RAMPS SHEET 1

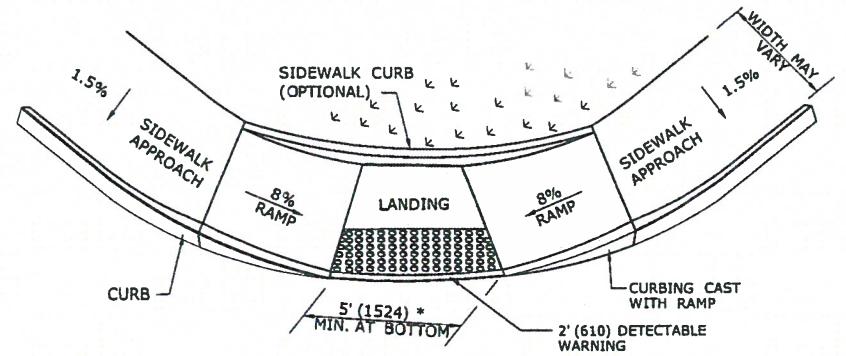
STANDARD SHEET NO.
HW-921 02a



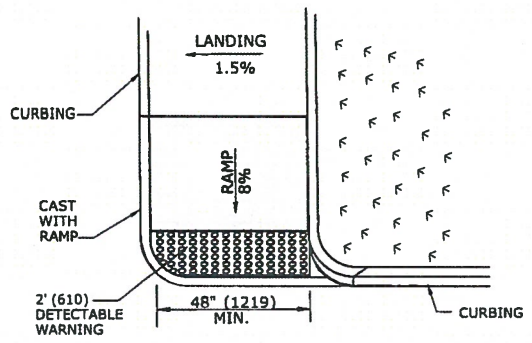
DIAGONAL SIDEWALK RAMP (TYPE 4)
W/LANDING AT TOP



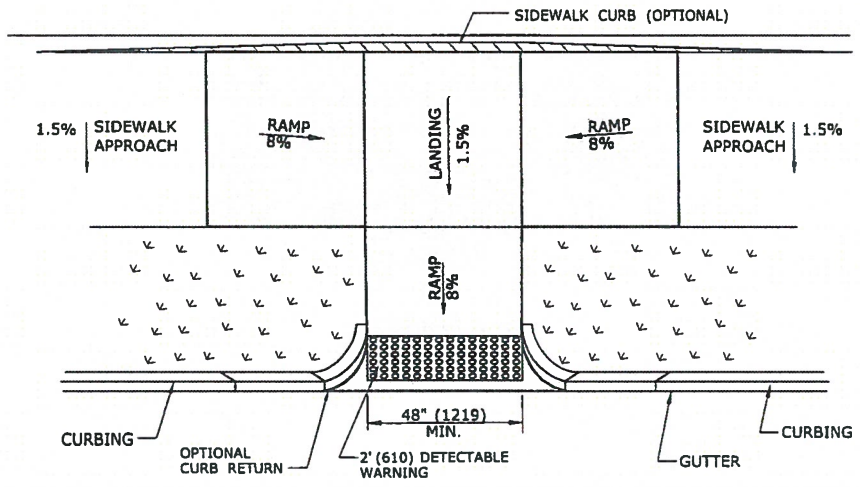
SINGLE PARALLEL SIDEWALK RAMP
W/LANDING AT BOTTOM ON CORNER (TYPE 4c)
* SEE NOTE 20



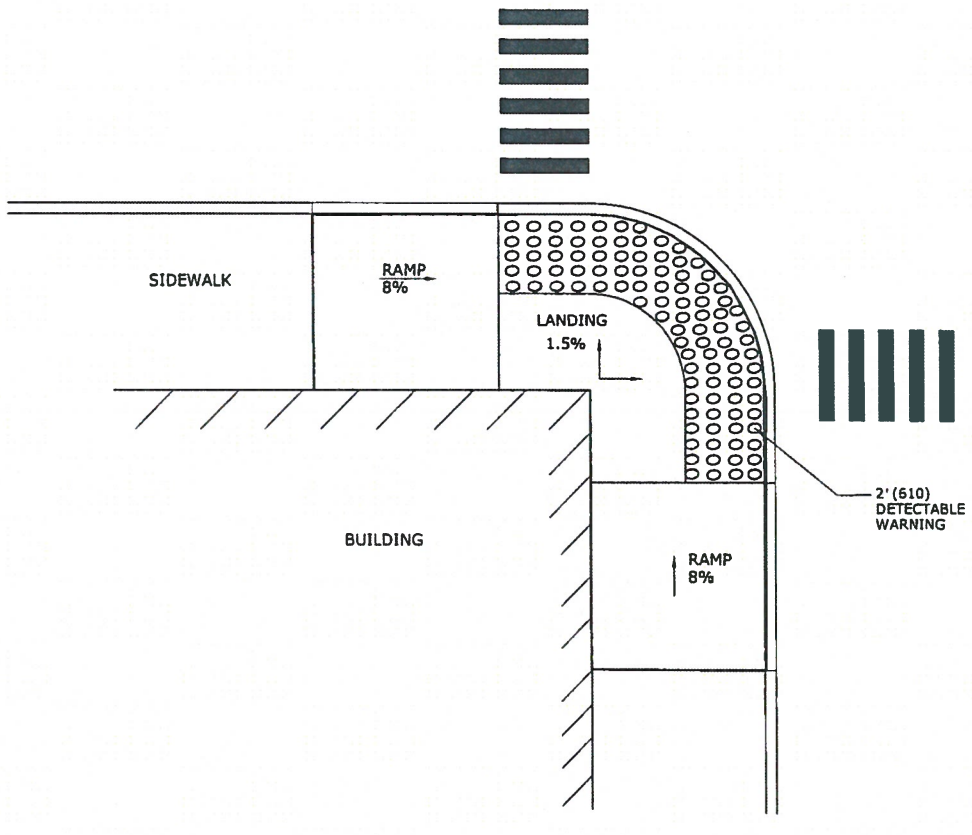
DOUBLE SIDEWALK RAMP
W/LANDING AT BOTTOM (TYPE 4f)
* SEE NOTE 20



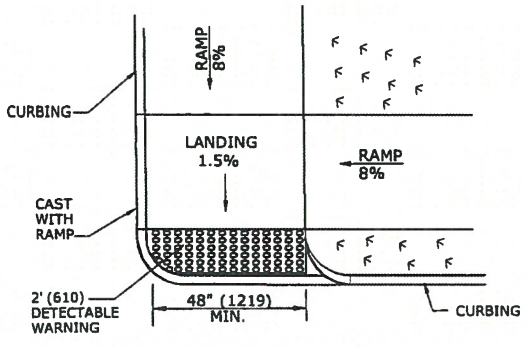
SINGLE DIRECTION
PERPENDICULAR SIDEWALK RAMP
NO / UTILITY GRASS STRIP
(TYPE 4a)



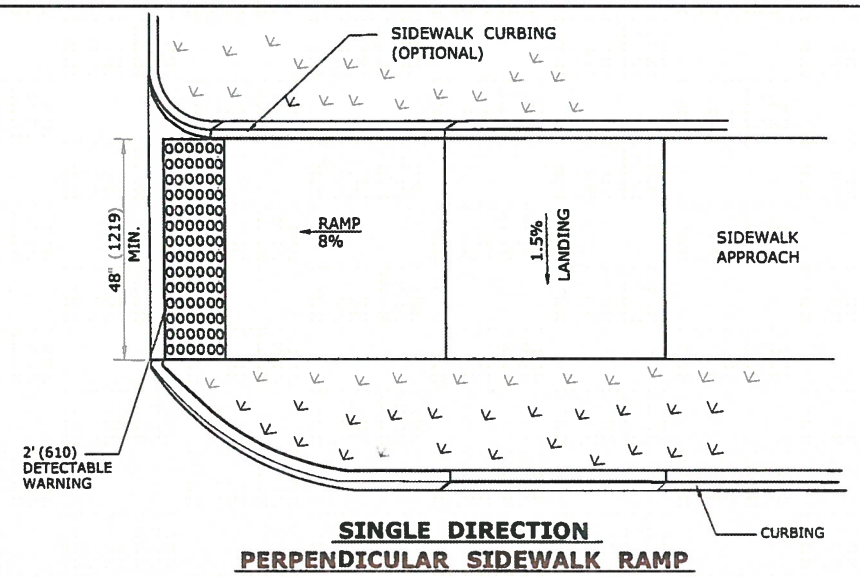
PARALLEL/PERPENDICULAR SIDEWALK RAMP
COMBINATION W/ CURB RETURN (TYPE 4d)



RESTRICTED CONDITION
DIAGONAL SIDEWALK RAMP
(TYPE 4g)



SINGLE DIRECTION
PARALLEL SIDEWALK RAMP
NO / UTILITY GRASS STRIP
(TYPE 4b)



SINGLE DIRECTION
PERPENDICULAR SIDEWALK RAMP
W/ UTILITY GRASS STRIP (TYPE 4e)

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

REV.	DATE	REVISION DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
1	7/13	CREATE NEW SHEETS (4 TOTAL).

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/23/2013

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD2013.dgn Model: B1 - HW-921_02b

SUBMITTED BY: NAME/DATE/TIME:
Digitally signed by Leo L. Fontaine Date: 2013.07.24 10:54:08-04'00'

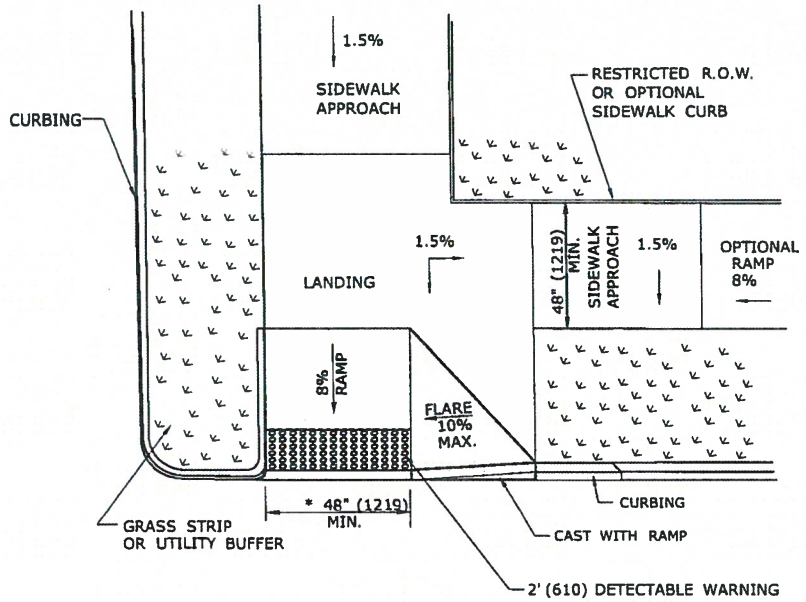
APPROVED BY: NAME/DATE/TIME:
James H. Norman 2013.07.24 14:58:31-04'00'

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

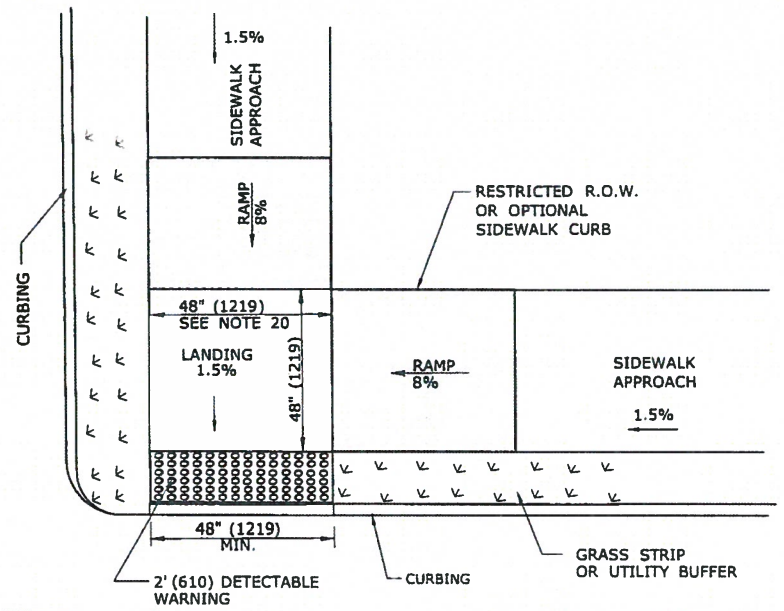
STANDARD SHEET TITLE: SIDEWALK RAMPS SHEET 2

STANDARD SHEET NO.: HW-921_02b

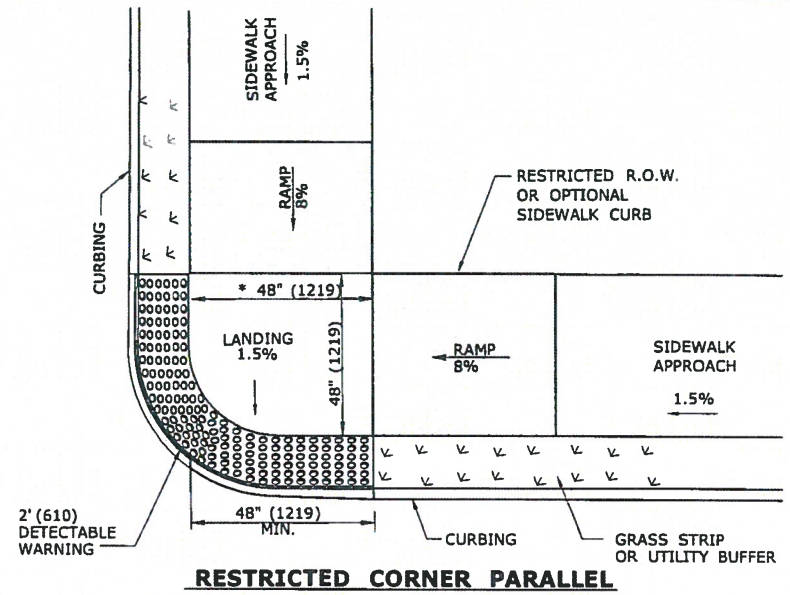


RESTRICTED CORNER PERPENDICULAR SIDEWALK RAMP (TYPE 5)

* SEE NOTE 19

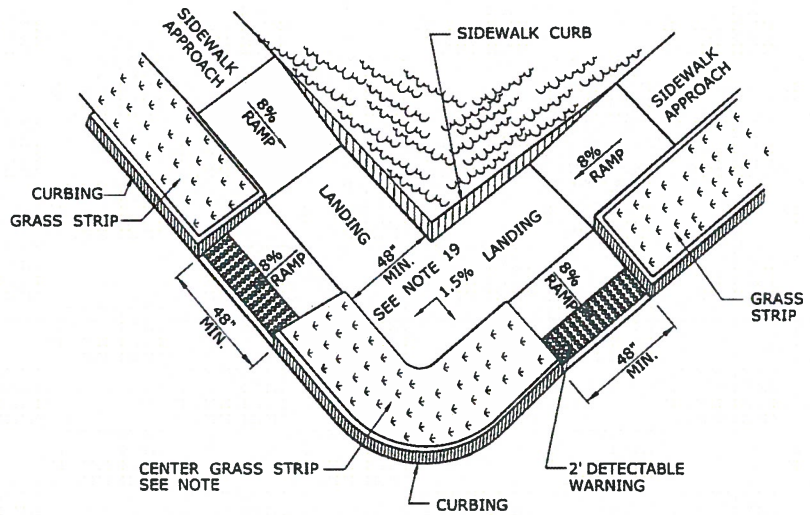


RESTRICTED CORNER PARALLEL DOUBLE SIDEWALK RAMPS W/CENTER LANDING AND UTILITY GRASS STRIP (TYPE 5a)



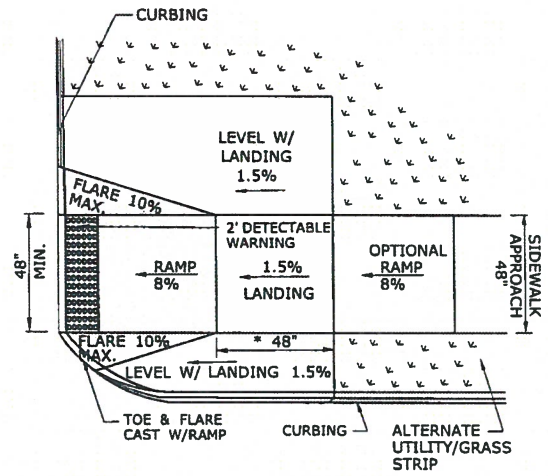
RESTRICTED CORNER PARALLEL SIDEWALK RAMPS W/ CENTER LANDING TWO DIRECTION AND UTILITY GRASS STRIP (TYPE 5b)

* SEE NOTE 20



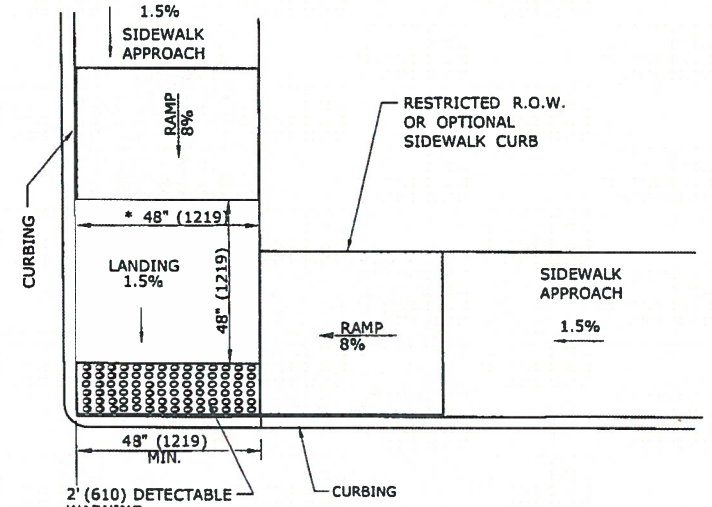
COMBINATION SIDEWALK RAMP (TYPE 6)

NOTE: CENTER GRASS STRIP MAY BE CONCRETE.



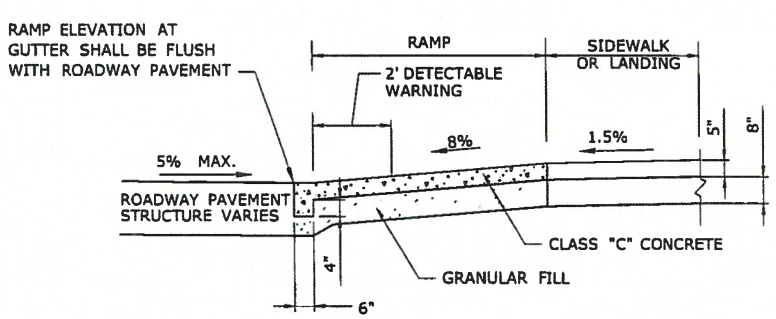
PERPENDICULAR SIDEWALK RAMP ONE DIRECTION ON CORNER (TYPE 6a)

* SEE NOTE 19



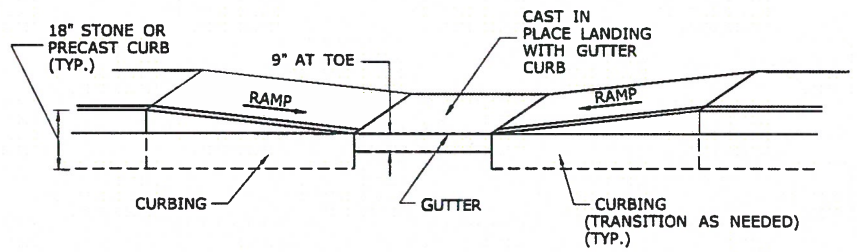
RESTRICTED CORNER PARALLEL SIDEWALK RAMPS W/CENTER LANDING NO GRASS STRIP (TYPE 5c)

* SEE NOTE 20

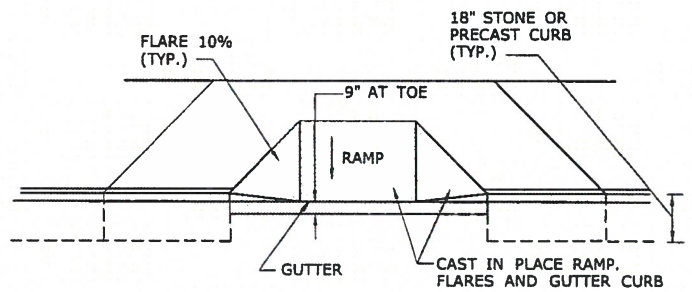


TYPICAL SECTION THRU SIDEWALK RAMP

SEE NOTE 2 AND 17 ON SHEET 1



TYPICAL ELEVATION PARALLEL SIDEWALK RAMP WITH CAST IN PLACE GUTTER



TYPICAL ELEVATION PERPENDICULAR SIDEWALK RAMP WITH CAST IN PLACE GUTTER

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

REV.	DATE	REVISION DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
1	7/13	CREATED NEW SHEETS (4 TOTAL).

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/23/2013

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD2013.dgn Model: B2 - HW-921_02c

SUBMITTED BY: NAME/DATE/TIME:
Digitally signed by Leo L. Fontaine Date: 2013.07.24 10:53:26-04'00'

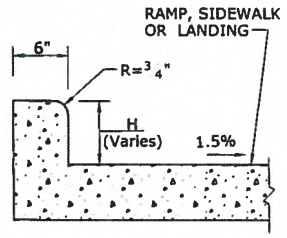
APPROVED BY: NAME/DATE/TIME:
James H. Norman 2013.07.24 14:59:12-04'00'

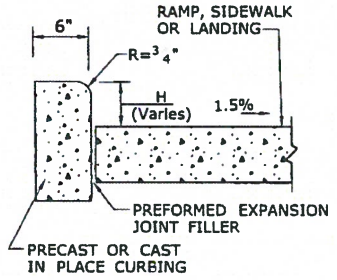
CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE:
SIDEWALK RAMPS SHEET 3

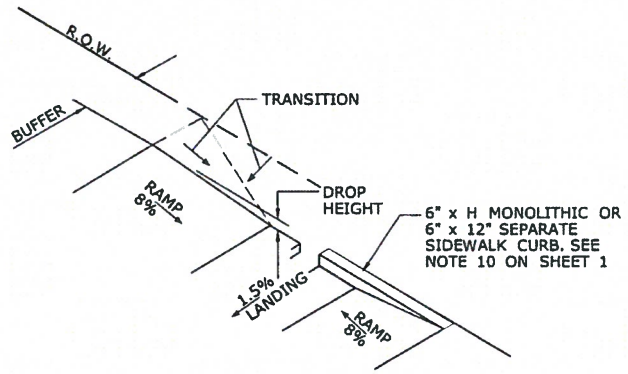
STANDARD SHEET NO.:
HW-921_02c



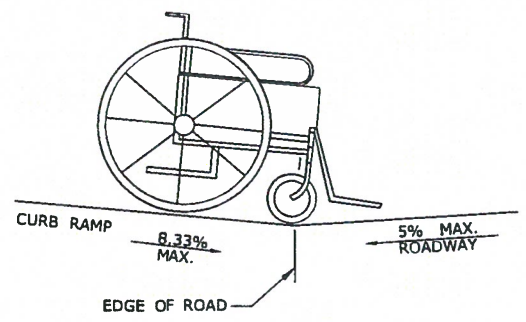


MONOLITHIC CAST CURB **SEPARATELY CAST CURB**

SIDEWALK CURB OPTIONS AT BACK OF SIDEWALK



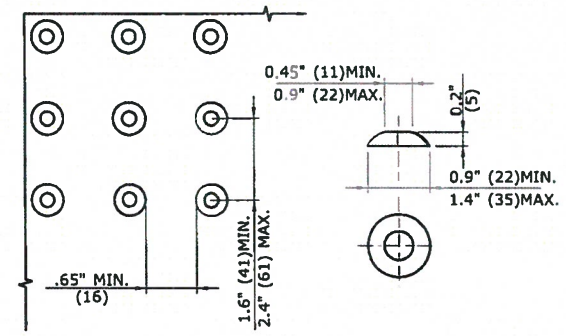
BACK OF SIDEWALK CURB OR BUFFER TRANSITION



DETAIL 1
SEE GRADE CHANGE AT ROADWAY INTERFACE

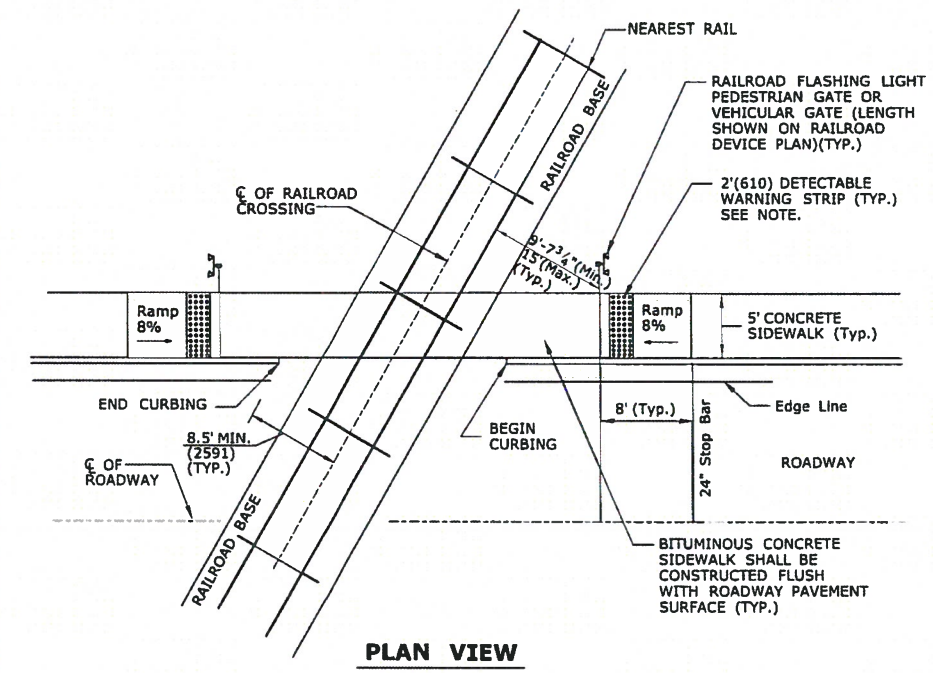
GENERAL NOTES:

1. RAMPED MEDIANS SHALL HAVE A CURB RAMP AT EITHER END AND LEVEL LANDING A MINIMUM OF 5' x 5' (1.5m x 1.5 m) IN BETWEEN. CUT-THROUGH MEDIANS SHALL BE A MINIMUM OF 6' (1.8m) LONG AND 5' (1.5m) WIDE. FOR ALL MEDIANS, CUT-THROUGH OR RAMPED, A 2' (610) STRIP OF DETECTABLE WARNINGS SHALL BE INSTALLED AT THE ENTRANCE AND EXIT.
2. SEE GENERAL NOTES ON SHEET 1.

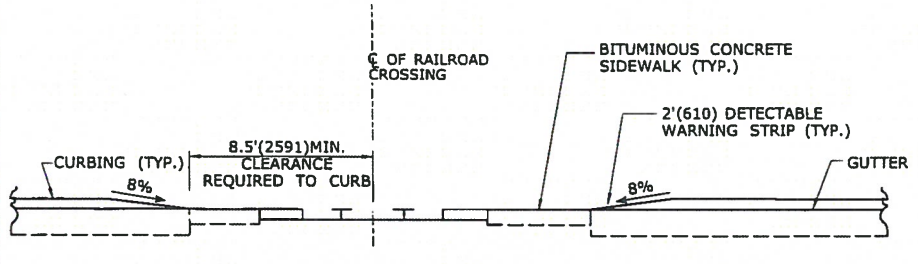


DOME SPACING **DOME SECTION**

STANDARD DOME ON DETECTABLE WARNING TILES



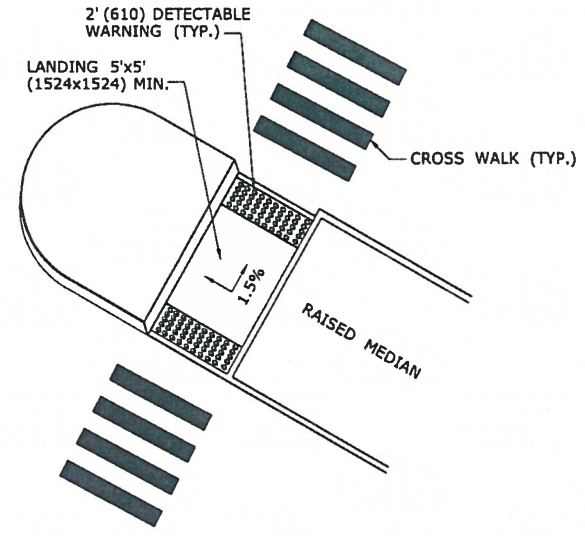
PLAN VIEW



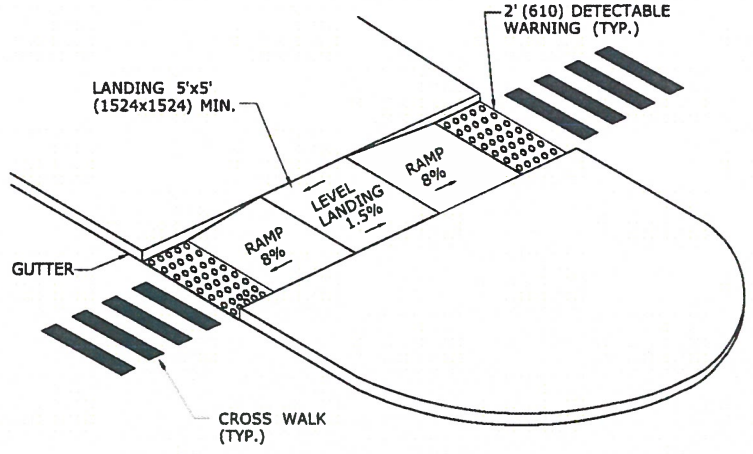
ELEVATION VIEW

DETECTABLE WARNINGS AT RAILROAD CROSSING

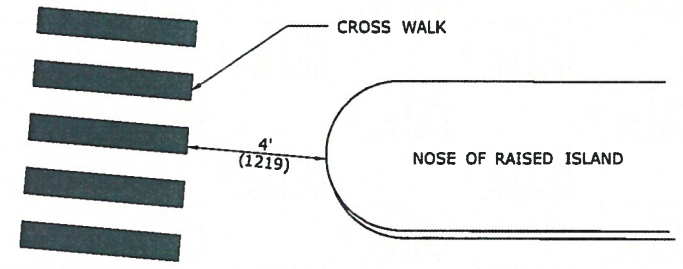
NOTE: WHEN NO GATE IS PRESENT, INSTALL DETECTABLE WARNING SURFACE 12' (3.6m) FROM THE NEAREST RAIL. IF GATE IS PRESENT, INSTALL DETECTABLE WARNING 2' (610) PRIOR TO GATE. THE ROWS OF TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL BE INSTALLED PARALLEL WITH THE DIRECTION OF PEDESTRIAN TRAVEL.



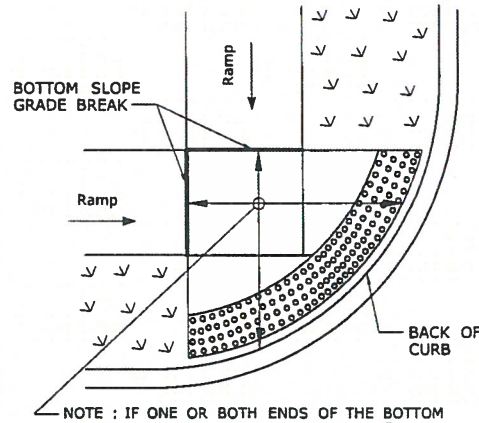
CUT-THROUGH RAISED MEDIAN WITH LANDING



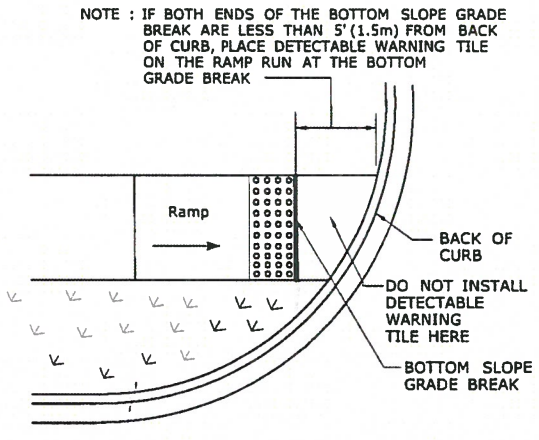
RAMP RAISED MEDIAN WITH LANDING



ALTERNATE CROSSWALK WITH MEDIAN ISLAND PULLED BACK



DETECTABLE WARNING PLACEMENT DETAIL 1



DETECTABLE WARNING PLACEMENT DETAIL 2

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

REV.	DATE	REVISION DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
1	7/13	CREATED NEW SHEETS (4 TOTAL).

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 7/22/2013

NOT TO SCALE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: CTDOT_HIGHWAY_STD2013.dgn Model: 83 - HW-921_02d

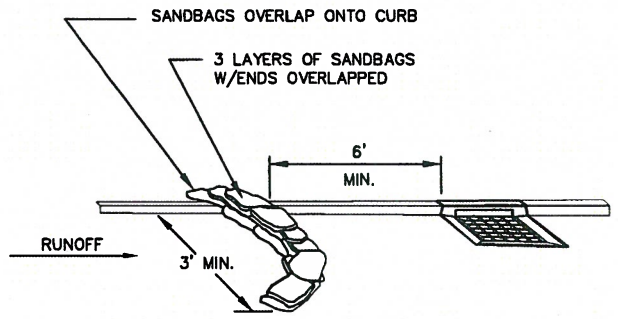
SUBMITTED BY:	NAME/DATE/TIME:
	Digitally signed by Leo Fontaine Date: 2013.07.24 10:16:55-04'00'
APPROVED BY:	NAME/DATE/TIME:
	James H. Norman 2013.07.24 14:59:57-04'00'

CTDOT STANDARD SHEET

OFFICE OF ENGINEERING

STANDARD SHEET TITLE: **SIDEWALK RAMPS SHEET 4**

STANDARD SHEET NO.: **HW-921_02d**

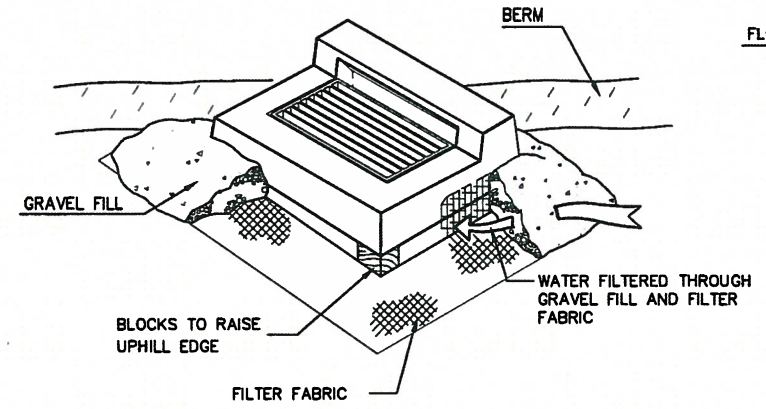


SAND BAG CURB INLET SEDIMENT BARRIER

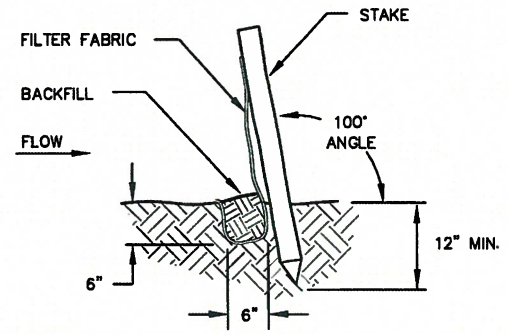
EROSION AND SEDIMENT CONTROL INSTALLATION DETAIL

N.T.S.

NOTE: RAISE AND PROTECT CATCH BASIN TOPS WITH CRUSHED STONE AS SOON AS POSSIBLE TO PERMIT DRAINAGE TO ENTER STORM SYSTEMS, WHEN ROADWAY IS BROUGHT UP TO SUBBASE BEFORE PAVING.



WHERE DIRECTED BY ENGINEERING, CONTRACTOR SHALL CONSTRUCT STONE DIKE IN LIEU OF THE FILTER FABRIC CHECK DAM.



SILT FENCE INSTALLATION DETAIL

N.T.S.

A) MINIMUM LENGTH OF SILT FENCE IS 15 LF.

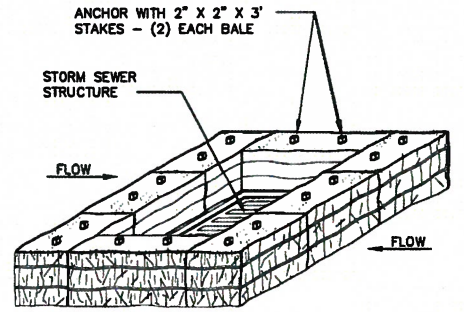
B) MAXIMUM POST SPACING IS 10 LF.

C) JOINTS ONLY AT SUPPORT POST WITH MINIMUM 6" OVERLAP. SECURELY SEALED.

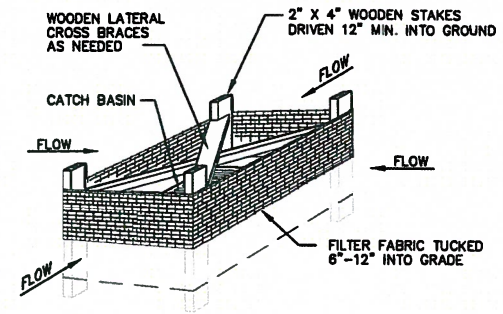
D) SEDIMENTATION DEPOSITS SHALL BE REMOVED WHEN IT REACHES 1/2 THE HEIGHT OF THE SILT FENCE.

E) SILT FENCE SHALL NOT BE USED IN A WATER COURSE.

F) UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS AND WHEN DIRECTED BY THE ENGINEER, FENCE WILL BE REMOVED AND ANY SEDIMENTATION WILL BE THINLY SPREAD UPON EXISTING GROUND COVER.



HAY BALE INSTALLATION
AT CATCH BASIN

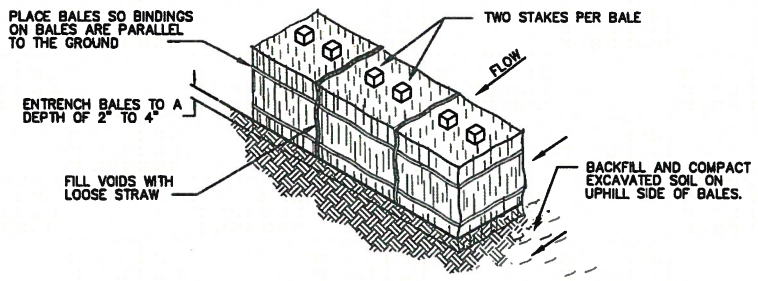


SILT FENCE INSTALLATION
AT CATCH BASIN

CATCH BASIN IN A DEPRESSION

SEDIMENTATION CONTROL SYSTEM FOR CATCH BASIN

N.T.S.



HAY BALE INSTALLATION

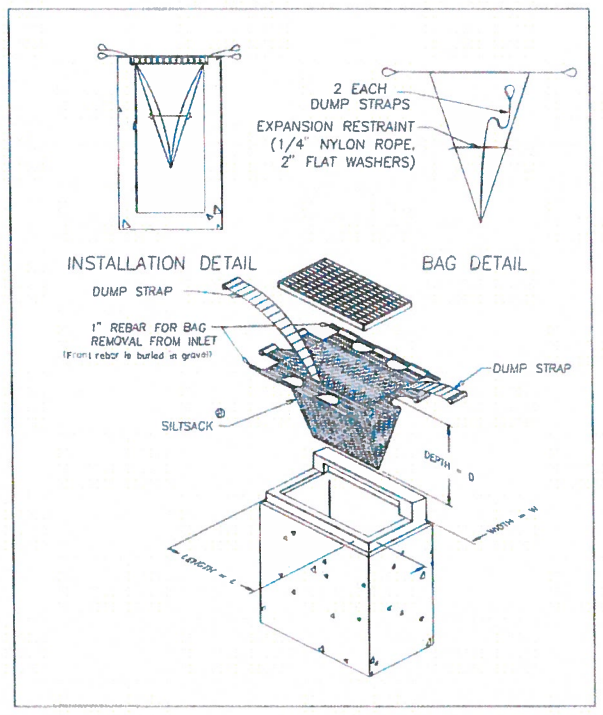
N.T.S.

A) IDEALLY, BALES SHOULD BE ENTRENCHED 2 TO 4 INCHES AND TIGHTLY BUTTED TOGETHER. BALES CAN BE SUCCESSFULLY PLACED WITHOUT A TRENCH IF GOOD GROUND CONTACT IS MADE. REMOVE HEAVY BRUSH AND FILL ALL VOIDS WITH LOOSE STRAW.

B) BALES SHALL BE ONLY USED AS A TEMPORARY BARRIER AND FOR NO LONGER THAN 60 DAYS. THEY SHALL NOT BE USED ON A JOB ADJACENT TO A RESIDENTIAL NEIGHBORHOOD, RESIDENCES OR ADJACENT TO OR IN A WATERCOURSE.

C) WHEN SEDIMENTATION DEPOSITS REACH WITHIN 3" OF THE TOP OF BALES, REMOVE SEDIMENTATION OR ADD ADDITIONAL BALES ON SEDIMENTATION DIRECTLY BEHIND FIRST ROW OF BALES AS DIRECTED BY ENGINEER.

D) UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS AND WHEN DIRECTED BY ENGINEER, HAY BALES WILL BE REMOVED AND USED AS MULCH. ANY SEDIMENTATION WILL BE THINLY SPREAD UPON ESTABLISHED GROUND COVER.



INLET SEDIMENT CONTROL DEVICE
(SILT SACK)

N.T.S.

REVISIONS	DATE	BY
1 REDRAWN & REISSUED	2/3/09	fjw

APPROVED BY: HAROLD F. ALVORD, P.E.# 24138, DATE
DIRECTOR OF PUBLIC WORKS

APPROVED BY: RICHARD P. LINNARTZ, P.E.# 8047, DATE
PRINCIPAL ENGINEER

DESIGNED BY : COMMITTEE | DRAWN BY : F.J.W. | CHECKED BY :

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

EROSION & SEDIMENTATION CONTROL

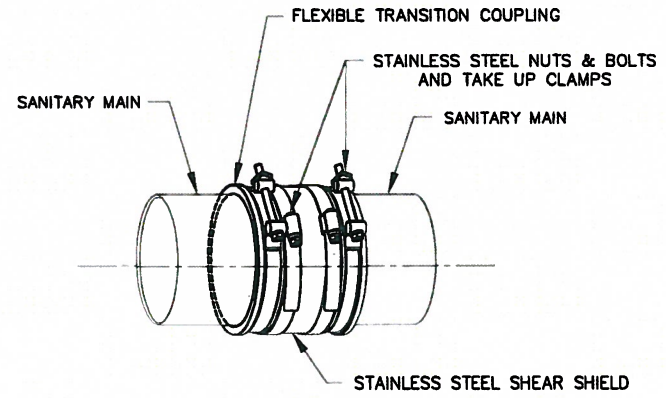
DETAILS

11

DATE : 2/2009 | PROJ. # :

SCALE : N.T.S. | SHEET ___ OF ___

Q:\Fwilk\StandardDetailDrawings\Drawings 1-13\#11.dwg, 5/14/2013 8:13:09 AM, 1:1

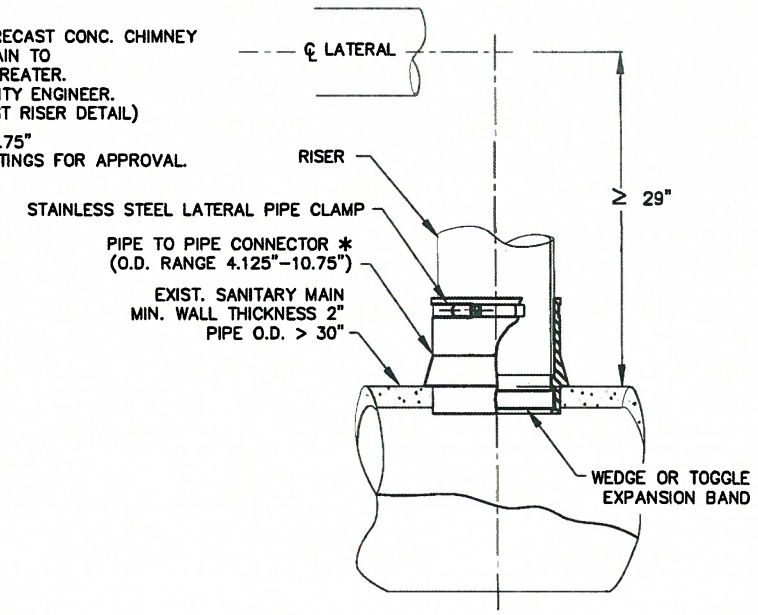


REPAIR COUPLING
28.97" PIPE O.D. MAXIMUM

STRONG BACK RC SERIES
as manufactured by FERNCO INC.
(or Approved Equal)

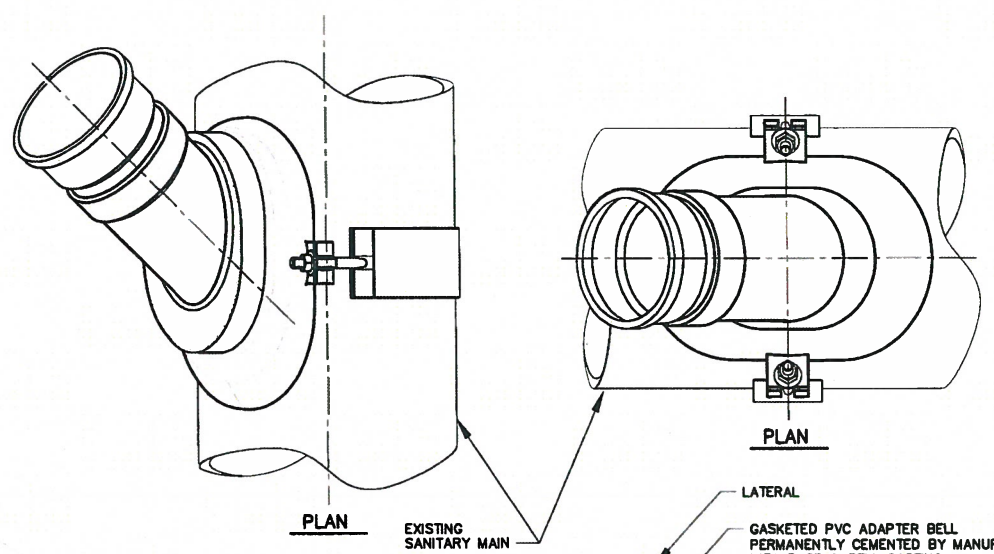
NOTE:
THIS DETAIL MUST BE USED W/PRECAST CONC. CHIMNEY WHEN DISTANCE FROM TOP OF MAIN TO CENTER OF LATERAL IS 29" OR GREATER.
WHERE DISTANCE IS < 29" SEE CITY ENGINEER.
(SEE STD. SHEET #2 FOR PRECAST RISER DETAIL)

1 * FOR INLET PIPE DIAMETERS >10.75" SUBMIT SHOP DRAWINGS OF FITTINGS FOR APPROVAL.



KOR-N-TEE
LATERAL PIPE TO PIPE CONNECTION
INSTALL PER MANUFACTURERS INSTRUCTIONS

as manufactured by NPC
(or Approved Equal)



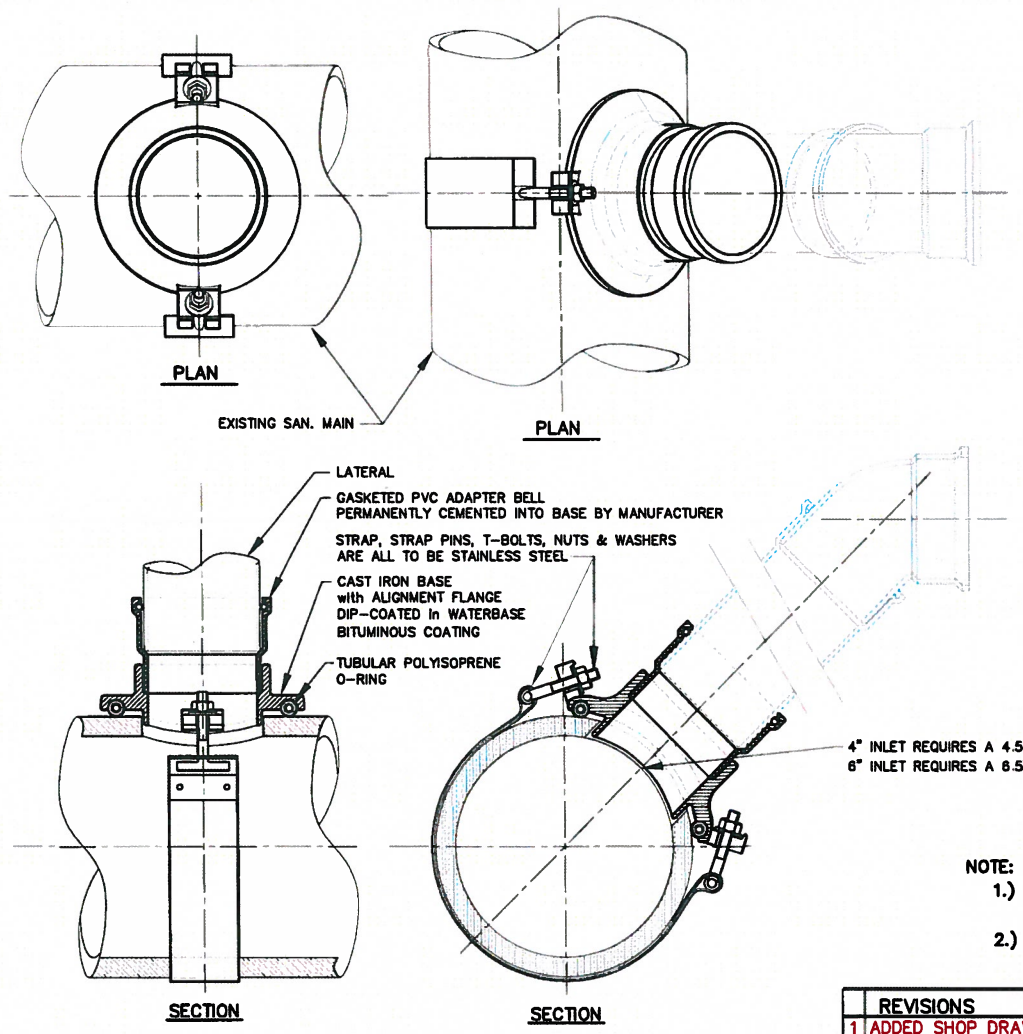
Saddle Tap Dimensions

SIZE	A	B	C	D
4" INLET	6.50"	4"	2"	2.50"
6" INLET *	9.25"	6"	3"	3.25"

* (8" DIA. SEWER MAIN MIN.)

Template Supplied with each Wye Saddle

Type "E" Model "H"
SEALTITE WYE GRAVITY SEWER SADDLE
GASKETED BELL-SDR 35 PVC
as manufactured by The General Engineering Company
(or Approved Equal)
6.275"min.-30"max. O.D. MAINS



Type "F" Model "H"
SEALTITE TEE GRAVITY SEWER SADDLE
GASKETED BELL-SDR 35 PVC
(with Alignment Flange)
as manufactured by The General Engineering Company
(or Approved Equal)
6.275"min.-30"max. O.D. MAINS

NOTE:
1.) THESE EXAMPLES ARE NOT TO BE CONSIDERED ALL-INCLUSIVE, BUT RATHER AS GUIDES TO CITY ACCEPTED PRACTICES.
2.) ALL PIPE OPENINGS TO BE MADE BY CORE DRILL. NO IMPACT TOOLS ARE PERMITTED.

	REVISIONS	DATE	BY
1	ADDED SHOP DRAWING FITTING		
	APPROVAL NOTE	11/1/10	fw

APPROVED BY: HAROLD F. ALVORD, P.E.# 24138, DATE
DIRECTOR OF PUBLIC WORKS
APPROVED BY: RICHARD P. LINNARTZ, P.E.# 9047, DATE
PRINCIPAL ENGINEER OF DESIGN
DESIGNED BY : DRAWN BY : F.W.K.
CHECKED BY : CHECKED BY :

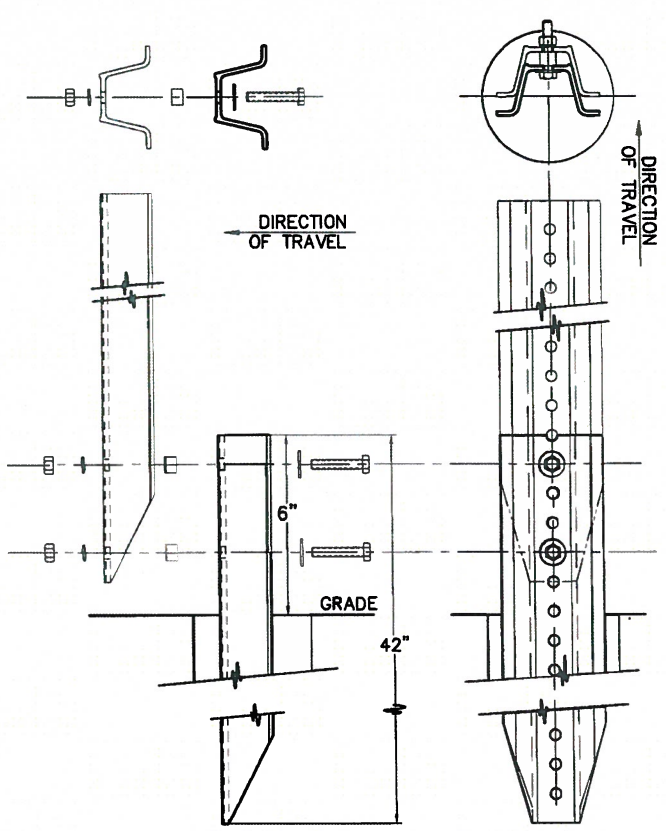
CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

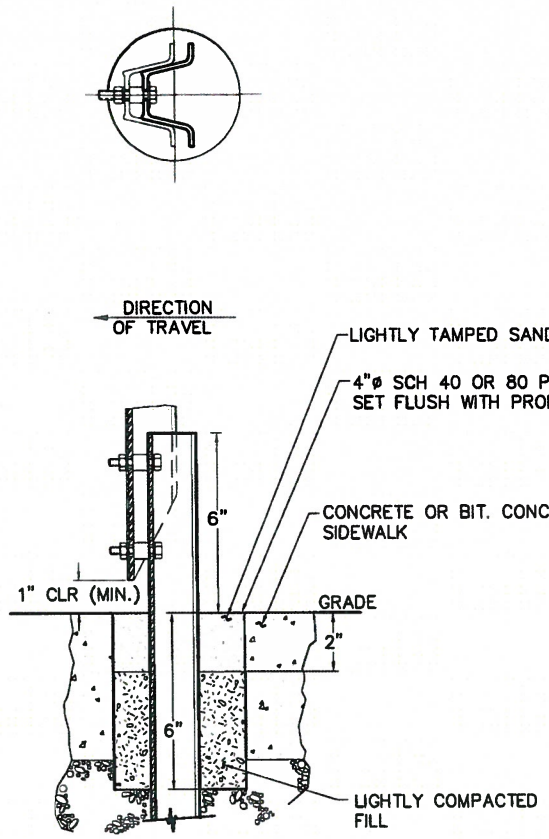
SANITARY GRAVITY SEWER
WYE & TEE SADDLE
REPAIR COUPLING
CORE AND TEE CONNECTION
DETAILS

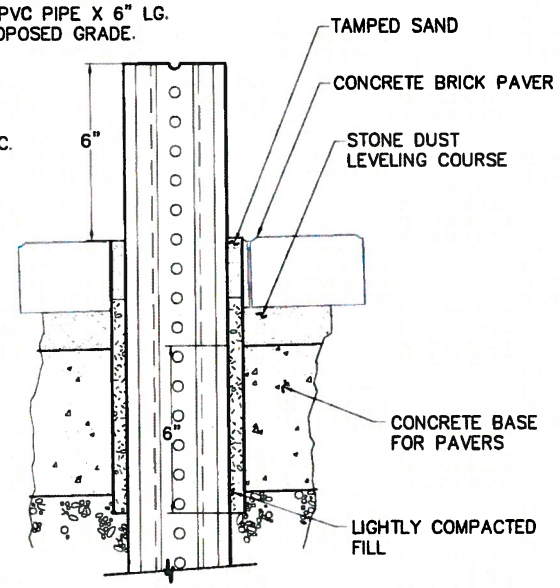
12

DATE : 8/2009 PROJ. # :
SCALE : NOT TO SCALE SHEET ___ OF ___

Q:\Fwilk\StandardDetailDrawings\Drawings 1-13\#12.dwg, 5/14/2013 8:19:00 AM, 1:4







NOTES:

1. CORE BORE 4"ø X 6"DP. IF EXISTING BRICK, CONC., OR BIT. CONC.
2. MATERIALS TO MEET CTDOT FORM 816 SPECIFICATIONS AS SUPPLEMENTED.

BREAKAWAY CHANNEL POST IN SIDEWALK INSTALLATION
NTS

	REVISIONS	DATE	BY
1	ORIGINAL ISSUE	12/7/11	F.J.W.

APPROVED BY: HAROLD F. ALVORD, P.E.# 24138, DATE
DIRECTOR OF PUBLIC WORKS
APPROVED BY: RICHARD P. LINNARTZ, P.E.# 9047, DATE
PRINCIPAL ENGINEER OF DESIGN
DESIGNED BY : COMMITTEE | DRAWN BY : F.J.W. | CHECKED BY :

CITY OF NORWALK
DEPARTMENT OF PUBLIC WORKS

BREAKAWAY CHANNEL POST INSTALLATION

STANDARD DETAILS 13

DATE : 12/2011 | PROJ. # :
SCALE : AS NOTED | SHEET ___ OF ___