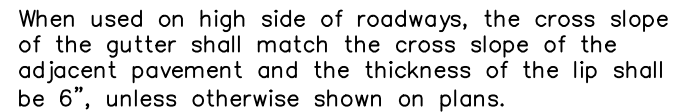




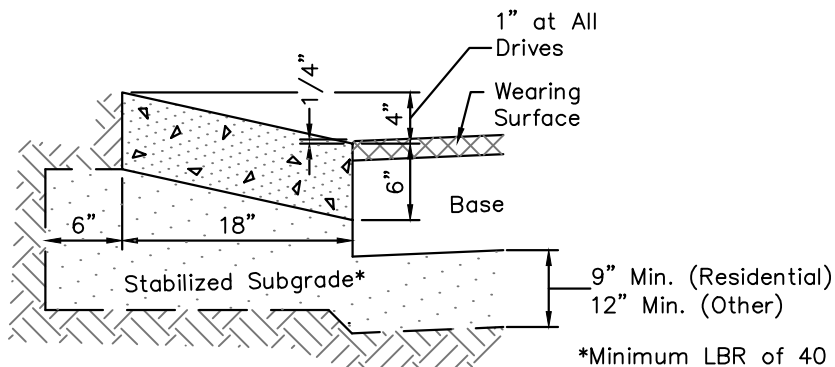
1. There shall be a 1/2" seal joint between back of curb and driveway.
2. Concrete in curbs shall be 3000 psi, with fiber mesh reinforcing.



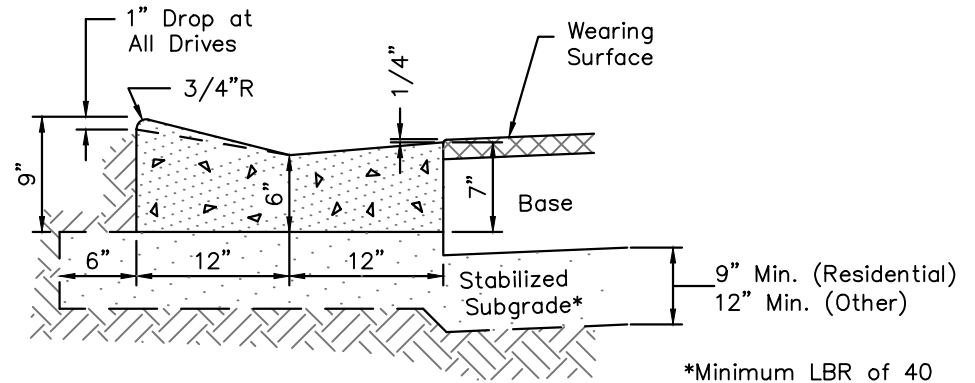
TYPE I CURB

N.T.S.

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LATEST REVISION	2/27/17



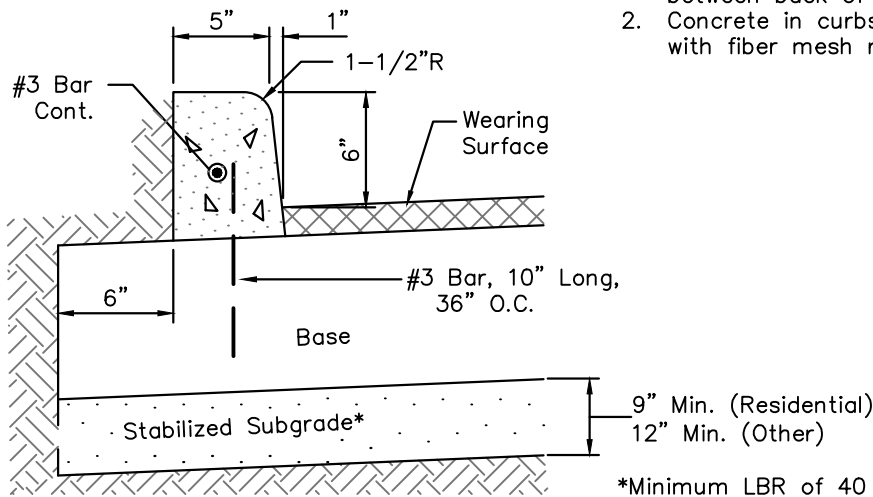
MODIFIED CURB



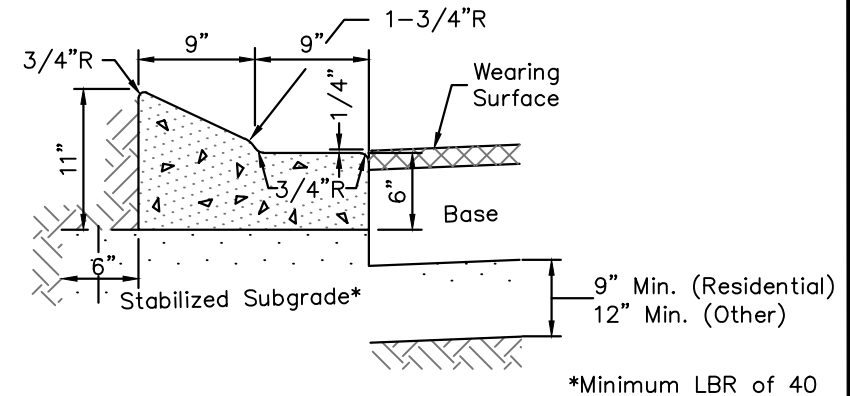
VALLEY GUTTER CURB

NOTES:

1. There shall be a 1/2" seal joint between back of curb and driveway.
2. Concrete in curbs shall be 3000 psi, with fiber mesh reinforcing.



PIN / DOWELLED CURB



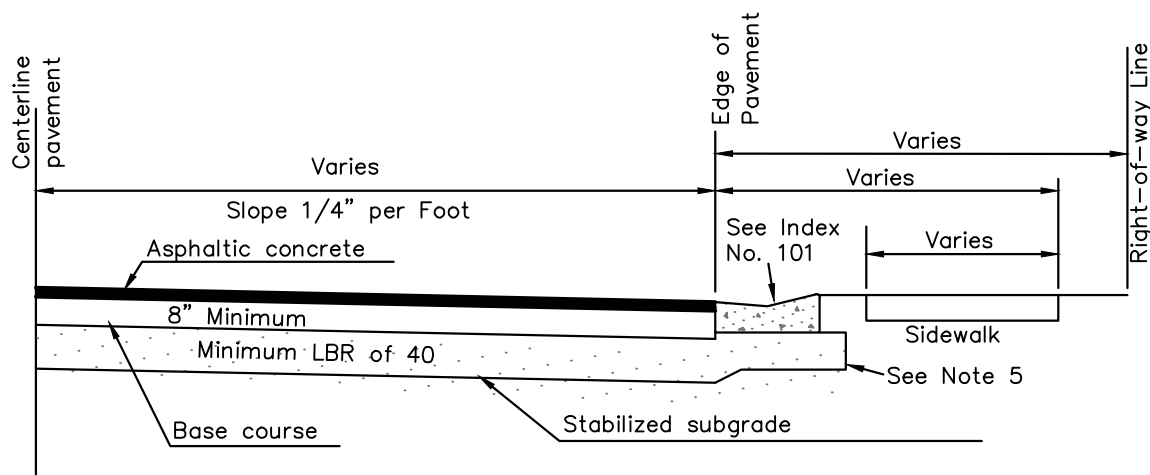
MEDIAN CURB

2/27/17	SUBGRADE UPDATED	JWS
5/18/15	COMPACTION THICKNESS	S.R.
DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

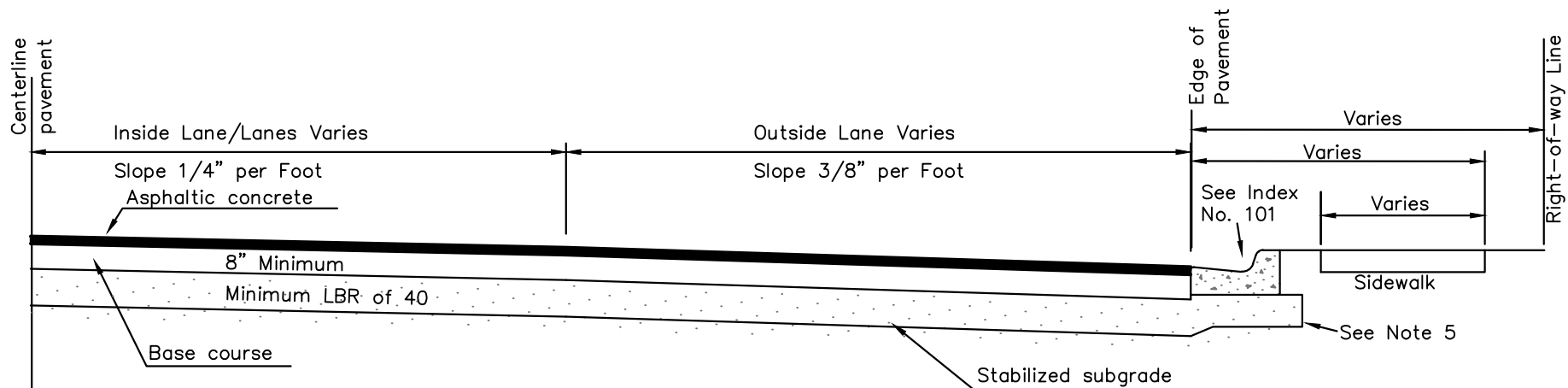
TYPICAL CURB
CROSS SECTIONS

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2 AND 3 LANE STREET

N.T.S.



4 AND 5 LANE STREET

N.T.S.

NOTES:

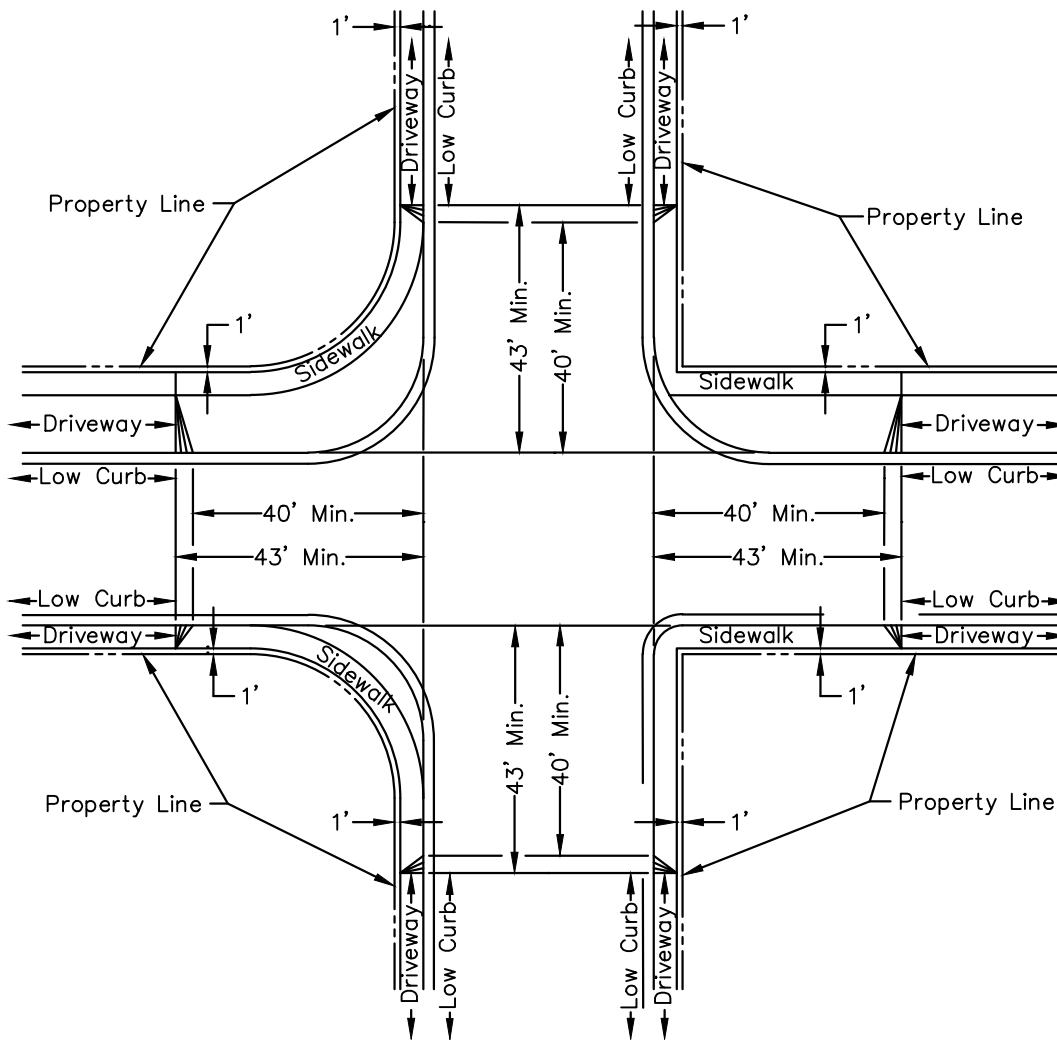
1. Pavement materials and thickness, and base materials and thickness will be stated in construction drawings and scope of the work.
2. See construction drawings for curb type and lane widths.
3. See Section IV, 702 for acceptable base and subgrade materials
4. Refer to Index No. 109 and/or FDOT Detail 304 for Sidewalk criteria. The more stringent criteria will be required.
5. Stabilized subgrade shall be a minimum of 9" for neighborhood streets and a minimum of 12" for all other streets.

2/24/17	ADDED NOTE	JWS
9/9/15	ADDED SIDEWALKS & ROW DETAIL TO DRAWING	J.S.
DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

TYPICAL STREET
SECTION

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NOTE:
 Driveways to begin a
 minimum of 40' measured
 from curb line extended or
 10' from property line.
 whichever is greater.

▲ - Transition Area

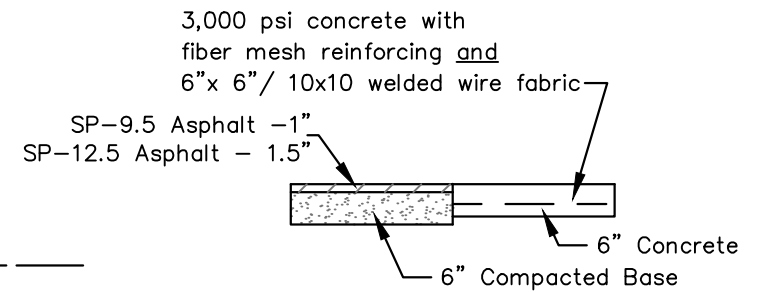
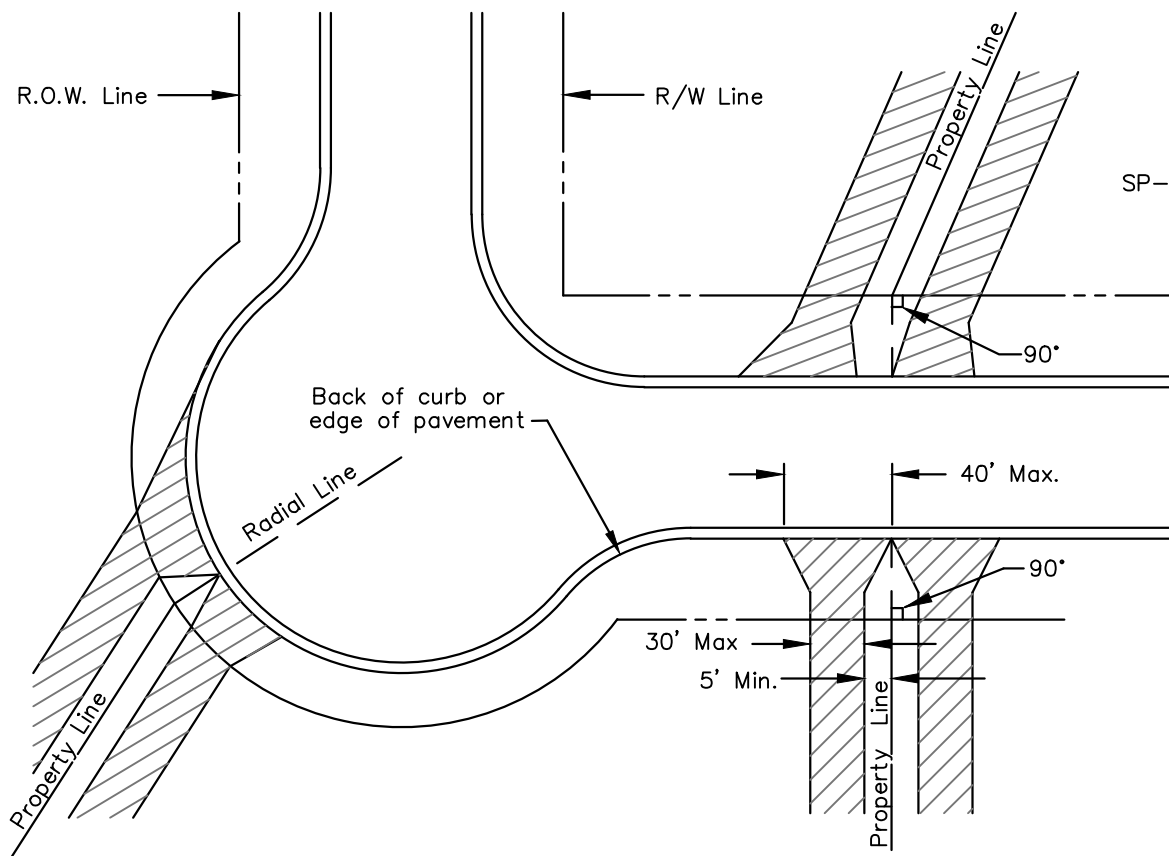
N.T.S.

DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
 ENGINEERING DEPARTMENT
 STREET SECTIONS
 AND DETAILS

STANDARD DRIVEWAY LOCATIONS
 AT INTERSECTIONS

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NOTE:

No driveway may be configured to result in construction in front of adjacent property as property line is extended to curb or pavement.

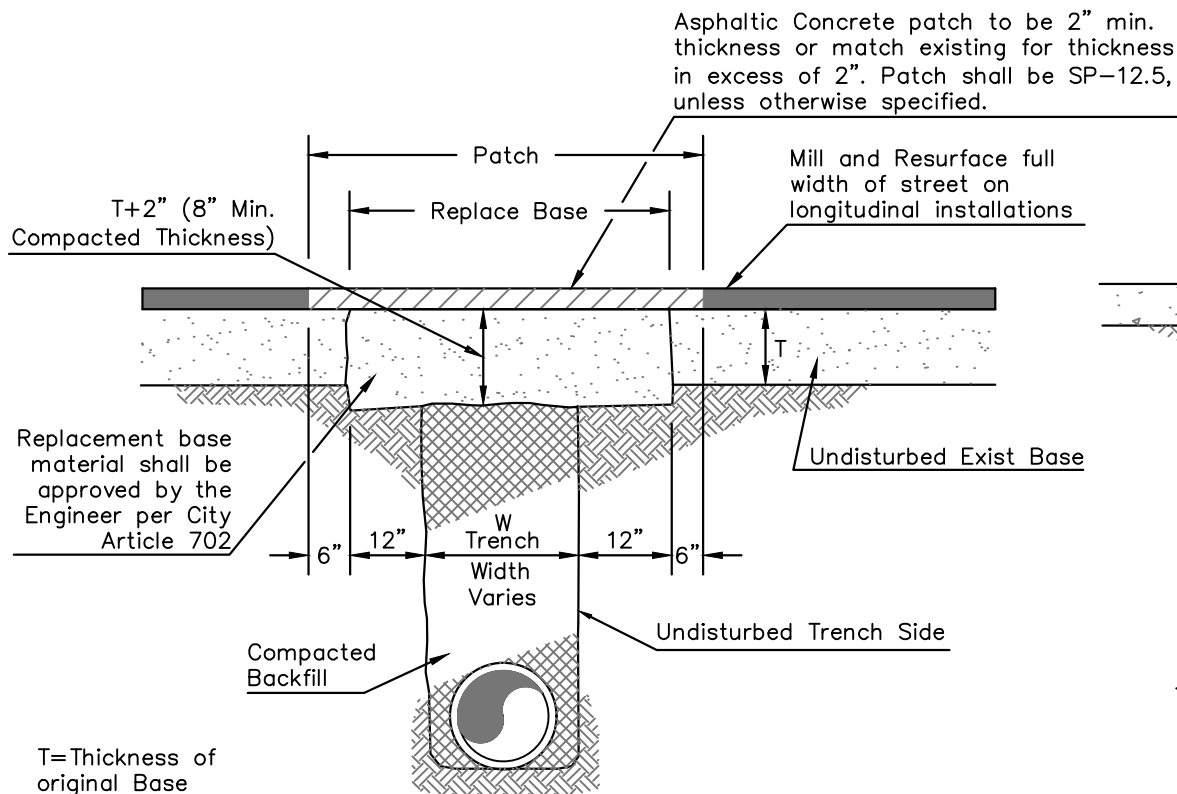
N.T.S.

1/31/12	CONCRETE THICKNESS	R.J.M.
DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
**STREET SECTIONS
AND DETAILS**

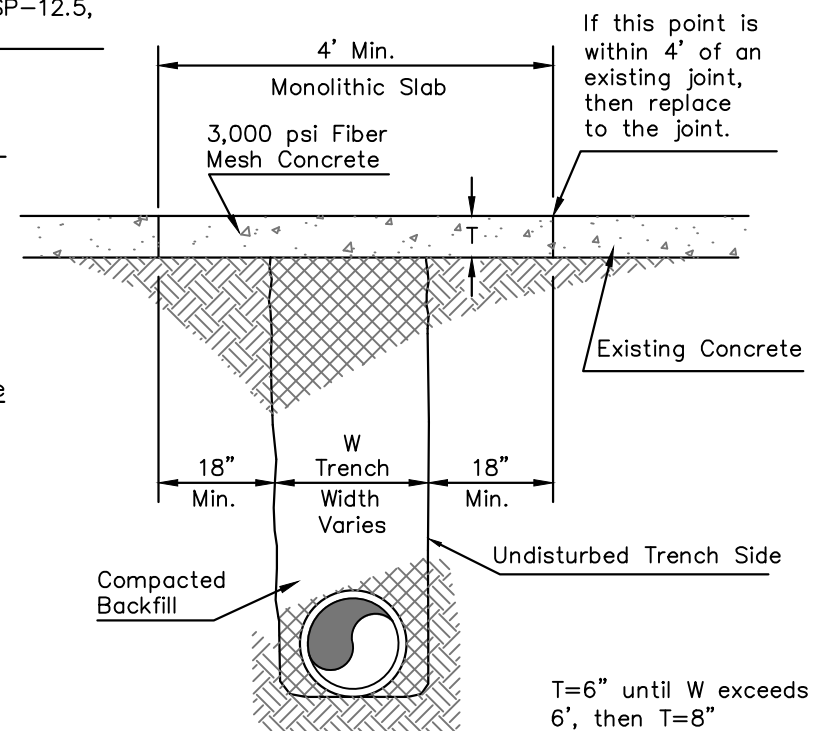
**STANDARD DRIVEWAY LOCATIONS
RESIDENTIAL**

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ASPHALT STREET AND DRIVEWAY REPLACEMENT REQUIRED FOR UTILITY CONSTRUCTION

N.T.S.



CONCRETE REPLACEMENT REQUIRED FOR UTILITY CONSTRUCTION

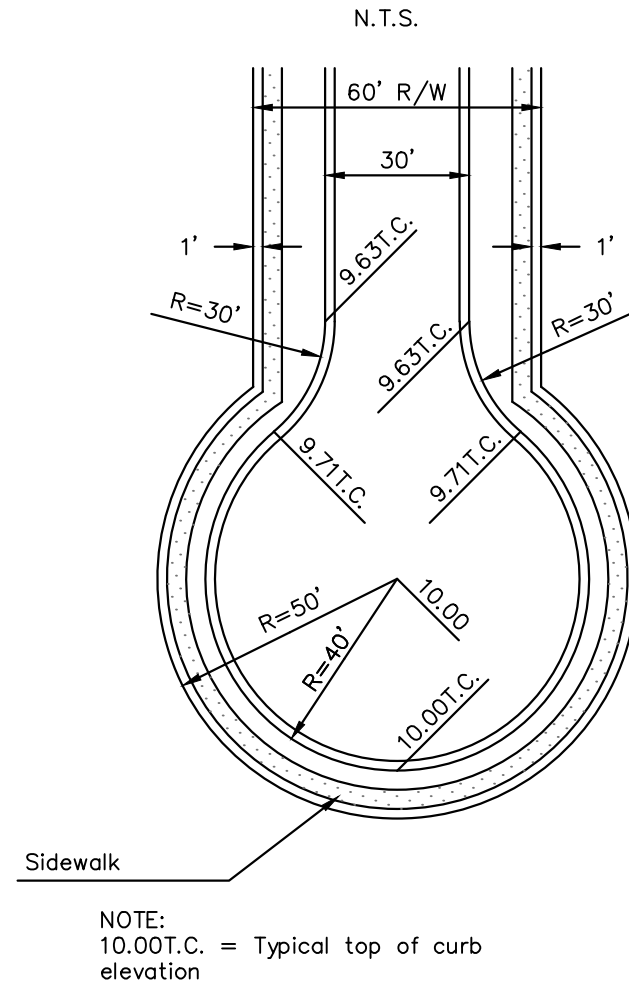
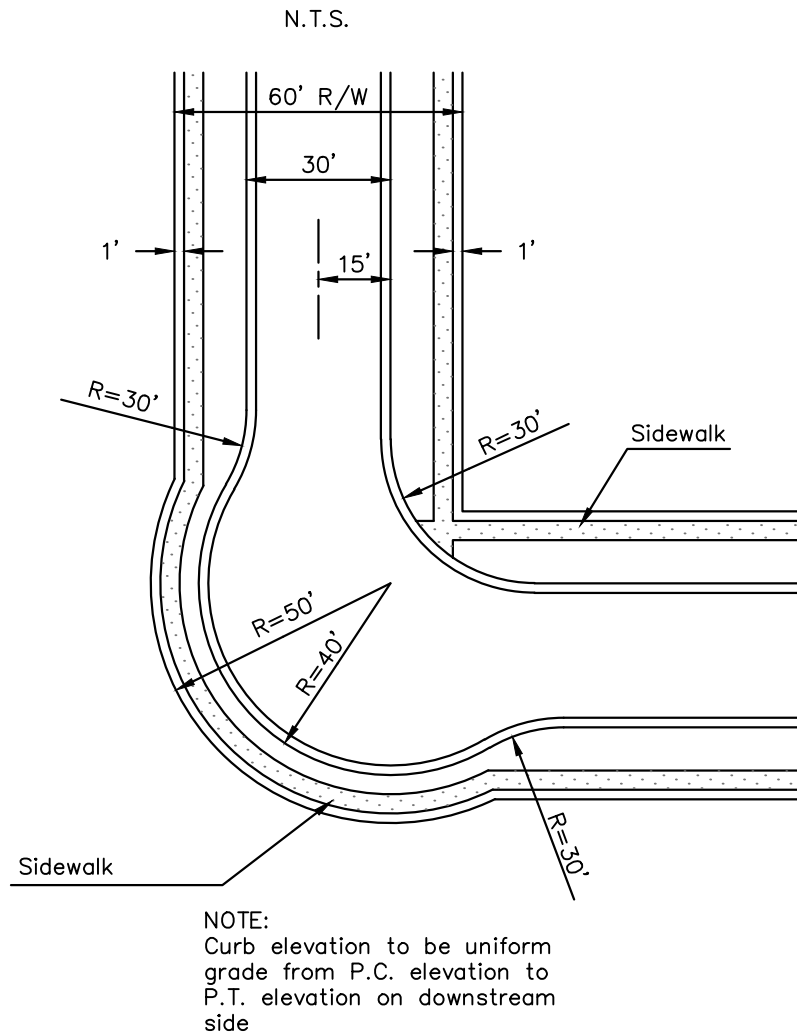
N.T.S.

3/17/11	ASPHALTIC CONC. PATCH & RESURFACE NOTE	D.S.R.
DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

STREET AND DRIVEWAY REPLACEMENT FOR
CONCRETE & ASPHALTIC CONCRETE SURFACES

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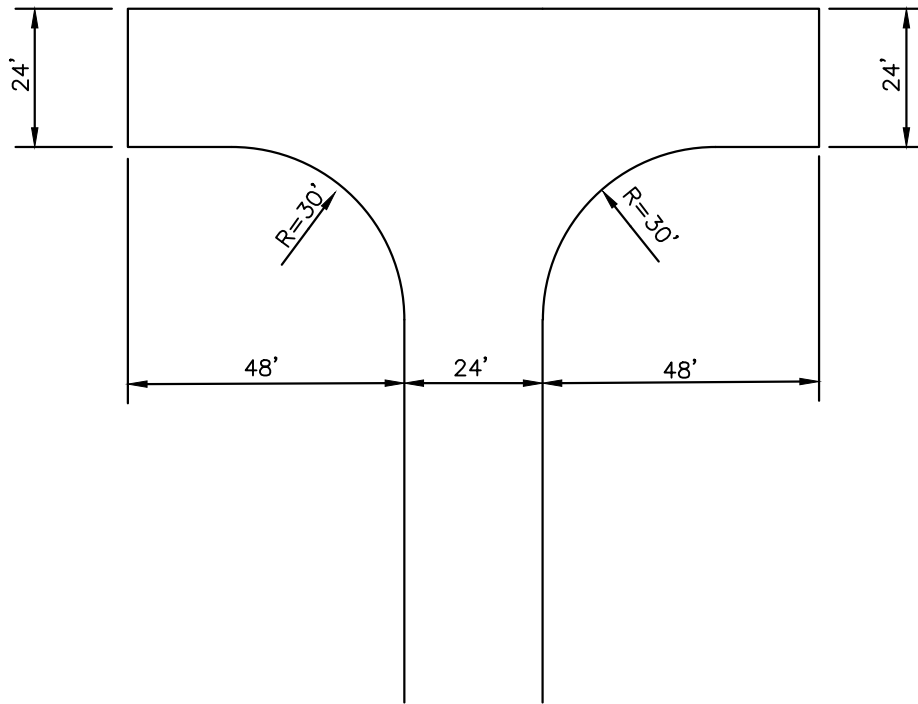


DATE	REVISION DESCRIPTION	APP

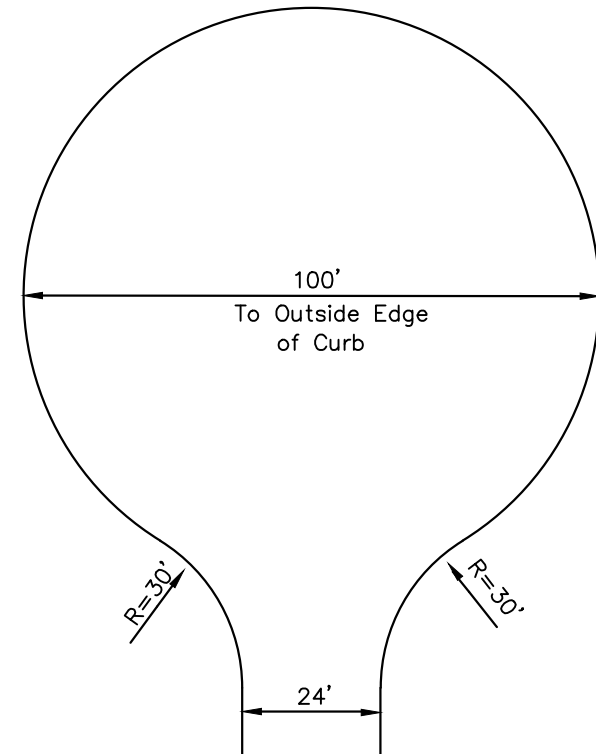
CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

TYPICAL TURNING RADII

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N.T.S.



N.T.S.

2/11/15	CHANGE TO DIMENSIONS	M.Q.
DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

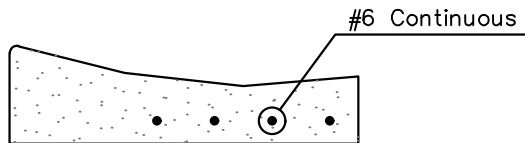
MINIMUM TURNAROUND DIMENSIONS
FOR CLEARWATER SANITATION
AND FIRE TRUCKS

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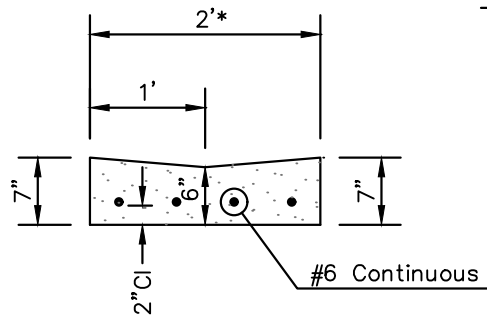
SECTION A-A

N.T.S.
Normal Valley Gutter Curb Section
See Index 101



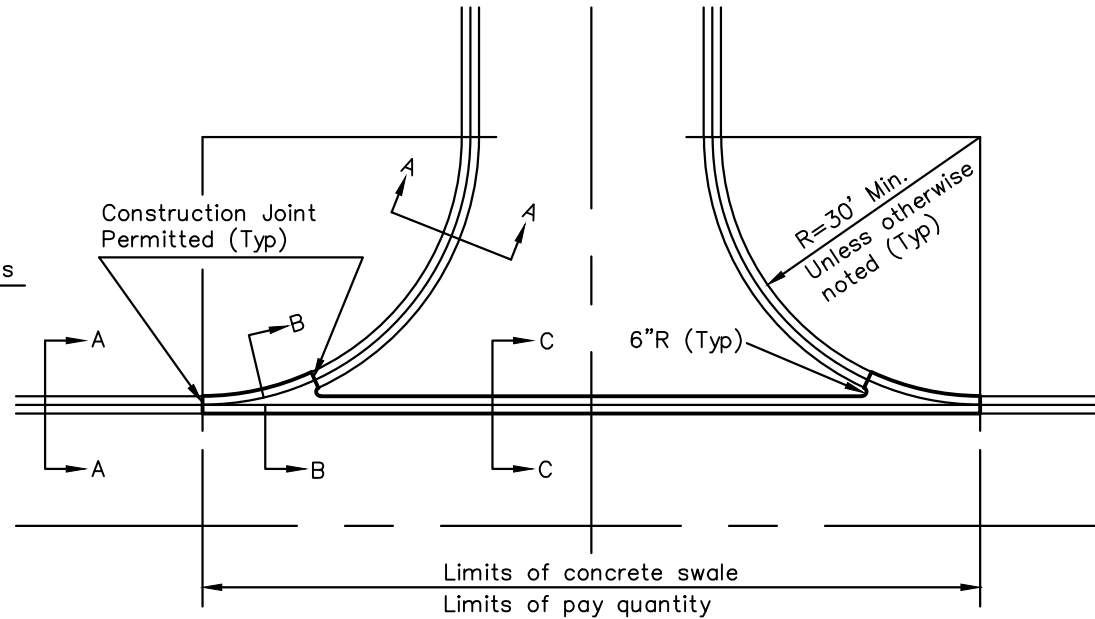
SECTION B-B

N.T.S.



SECTION C-C

N.T.S.



PLAN

N.T.S.

NOTE:

Subject to City Engineer's approval.
To be used only in unique situations.

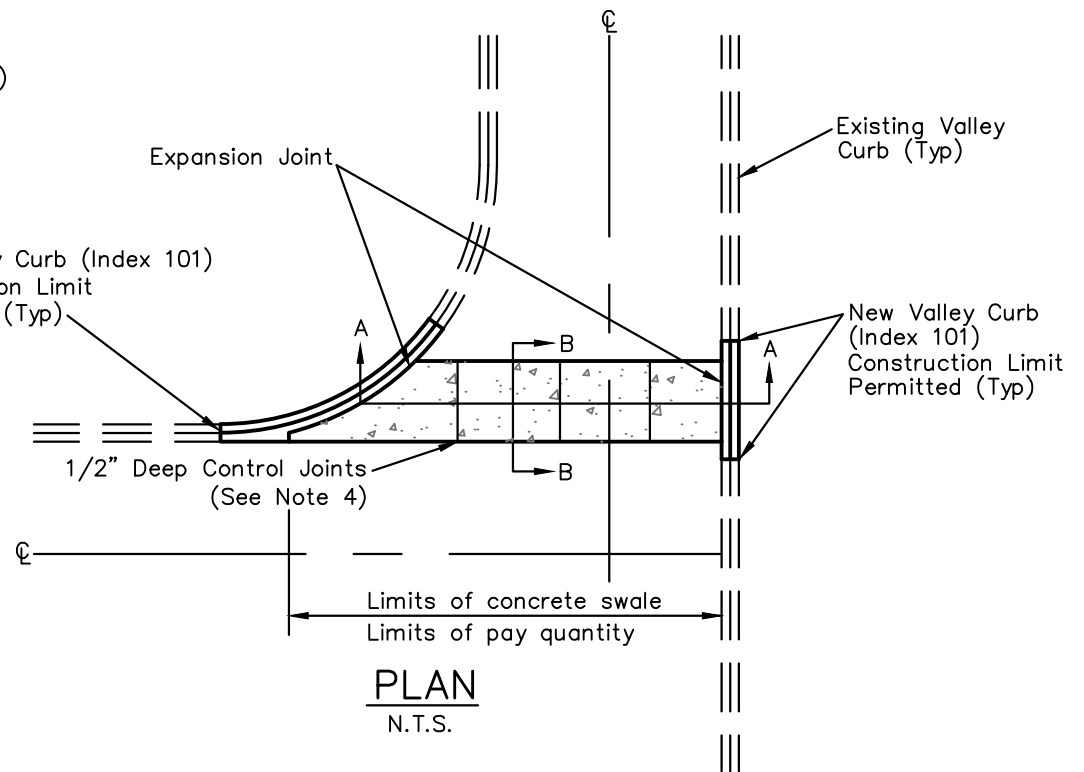
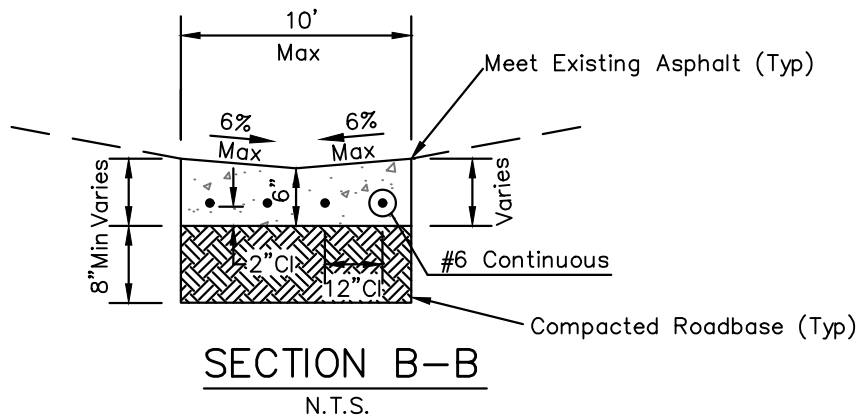
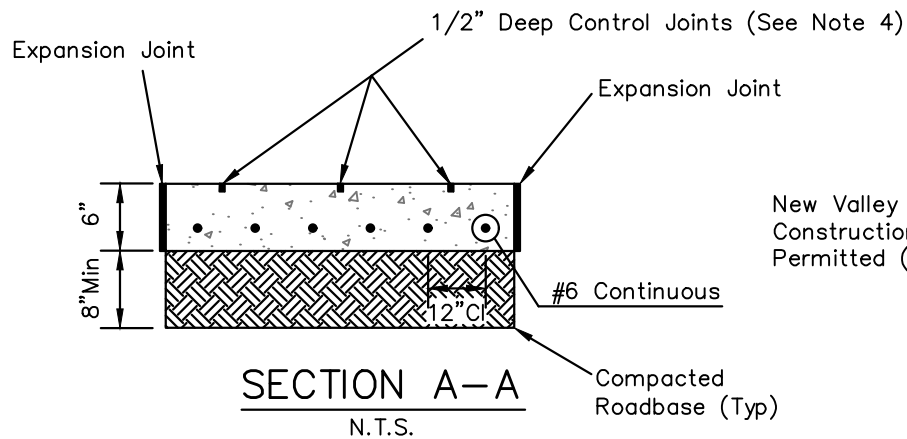
* See Index 107 Page 2 of 2 for sections
wider than 2'.

DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

CONCRETE SWALE DETAIL
VALLEY GUTTER CURB

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NOTES:

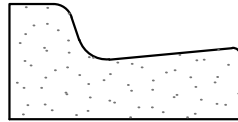
1. Subject to City Engineer's approval for use in only unique situation.
2. Flow line (Section A-A) shall have a minimum slope of 0.5%. Any slope less than 0.5% will require prior approval.
3. Concrete shall be 3,000 PSI with fibermesh.
4. Control joints shall be a minimum of 8' and a maximum of 10' apart.
5. Unit cost is in S.Y. unless otherwise instructed.

DATE	REVISION DESCRIPTION	APP
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CITY OF CLEARWATER
ENGINEERING DEPARTMENT
**STREET SECTIONS
AND DETAILS**

**CONCRETE SWALE DETAIL
FOR VALLEY GUTTER CURB**

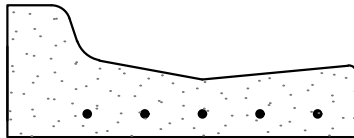
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SECTION A-A

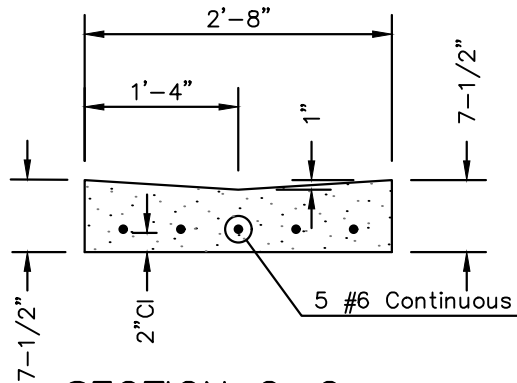
N.T.S.

Normal Type I Curb Section
See Index 101



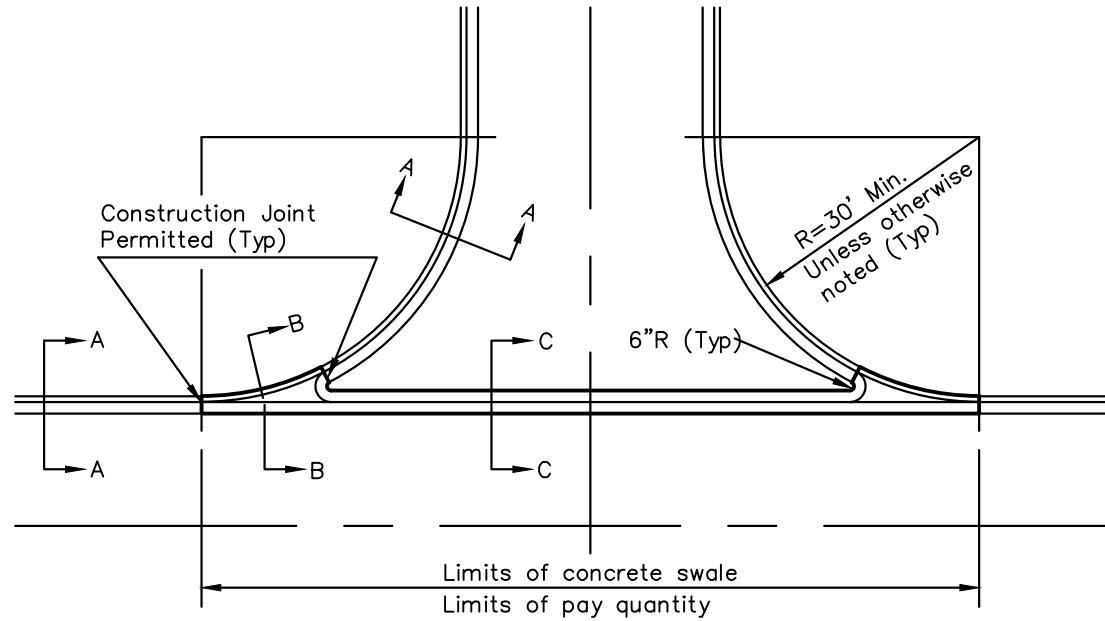
SECTION B-B

N.T.S.



SECTION C-C

N.T.S.



PLAN

N.T.S.

NOTE:

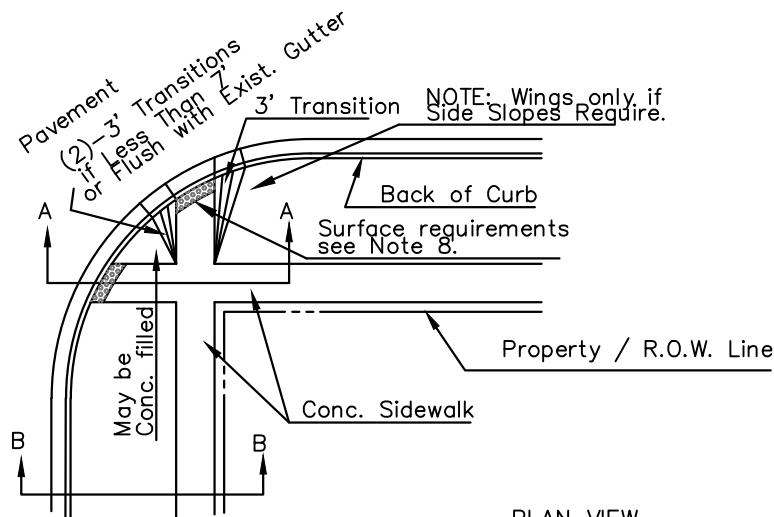
Subject to City Engineer's approval.
To be used only in unique situations.

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CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

CONCRETE SWALE DETAIL
TYPE I CURB

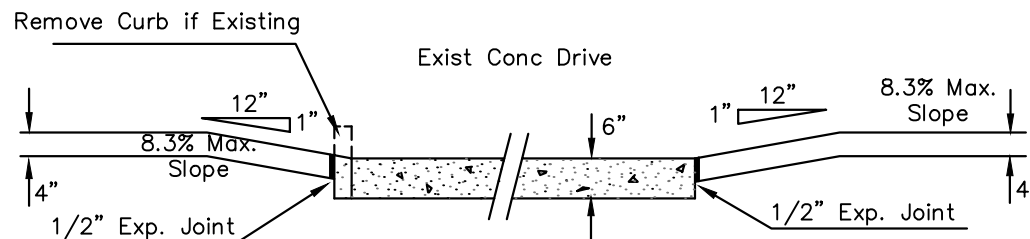
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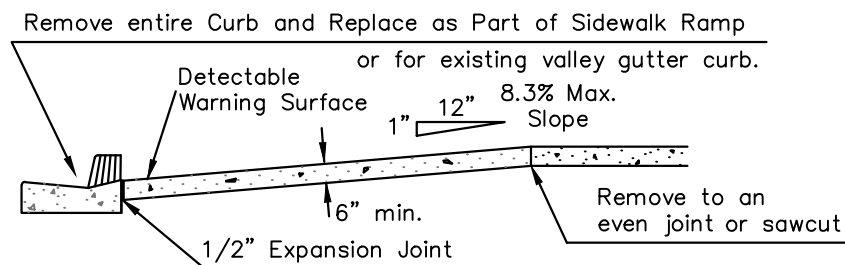
PLAN VIEW
N.T.S.

NOTES:

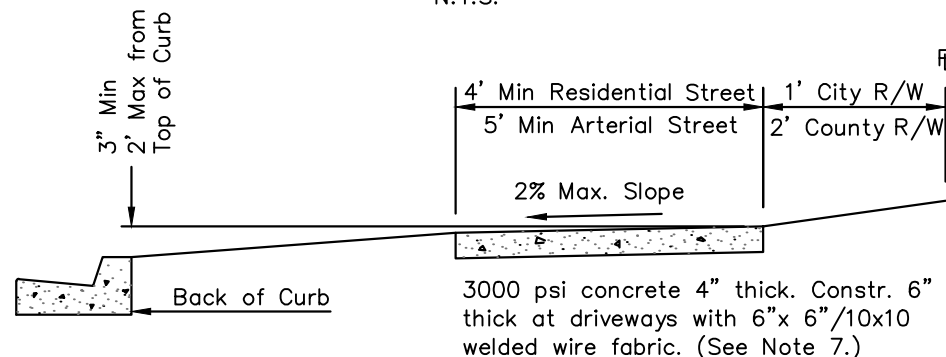
1. Provide tooled joints at distances matching the width. Also place expansion joints at driveways.
2. If some physical obstruction exists which prevents the placing of sidewalks as shown, contact the Engineering Division for alternate location or design.
3. Wooden and other spacers will not be permitted in sidewalks or driveways.
4. No coatings of any kind will be permitted on concrete sidewalks or driveways without specific approval of the City Engineer.
5. All concrete shall be 3000 psi min. @ 28 days, with fiber mesh reinforcing.
6. Concrete surface to be light broom finish.
7. Concrete driveway construction shall be 6" thick w 6"x 6"/10x10 welded wire fabric reinforcement.
8. Ramps shall have a detectable warning surface in conformance with requirements of FDOT Roadway and Traffic Design Standards, Detail 304 or most recent modifications.
9. Grade retaining straight curb to be 6" wide x 12"-18" deep and poured monolithically with 6" thick ramp.



TYPICAL DRIVEWAY CROSS SECTION
N.T.S.



SECTION A-A
N.T.S.



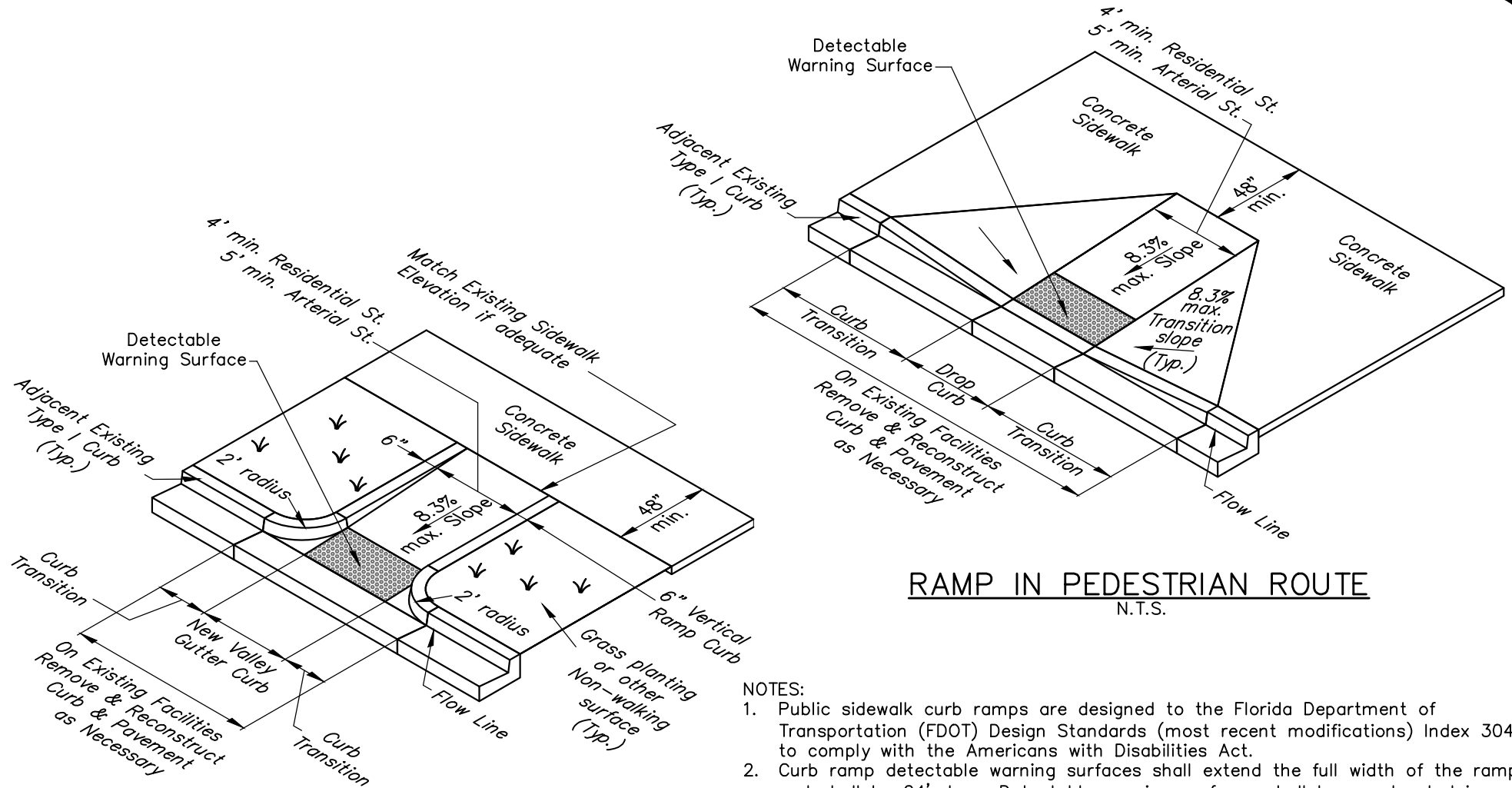
SECTION B-B
N.T.S.

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CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

TYPICAL SIDEWALK CONSTRUCTION
& RAMP DETAIL

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RETURNED CURB RAMPS

N.T.S.

RAMP IN PEDESTRIAN ROUTE

N.T.S.

NOTES:

1. Public sidewalk curb ramps are designed to the Florida Department of Transportation (FDOT) Design Standards (most recent modifications) Index 304 to comply with the Americans with Disabilities Act.
2. Curb ramp detectable warning surfaces shall extend the full width of the ramp and shall be 24' deep. Detectable warning surfaces shall be constructed in accordance with FDOT Standard Specifications for Road and Bridge Construction, Section 527. Transition slopes are not to have detectable warning surfaces.
3. Depending on actual site conditions, alternate curb ramp designs are available for use. See FDOT Design Standards (most recent version) Index 304.
4. Ramp thickness shall be 4" minimum.

11/2/2015

DETAIL REDRAWN

S.R.

DATE

REVISION DESCRIPTION

APP

CITY OF CLEARWATER

ENGINEERING DEPARTMENT

STREET SECTIONS

AND DETAILS

TYPICAL SIDEWALK
CURB RAMPS

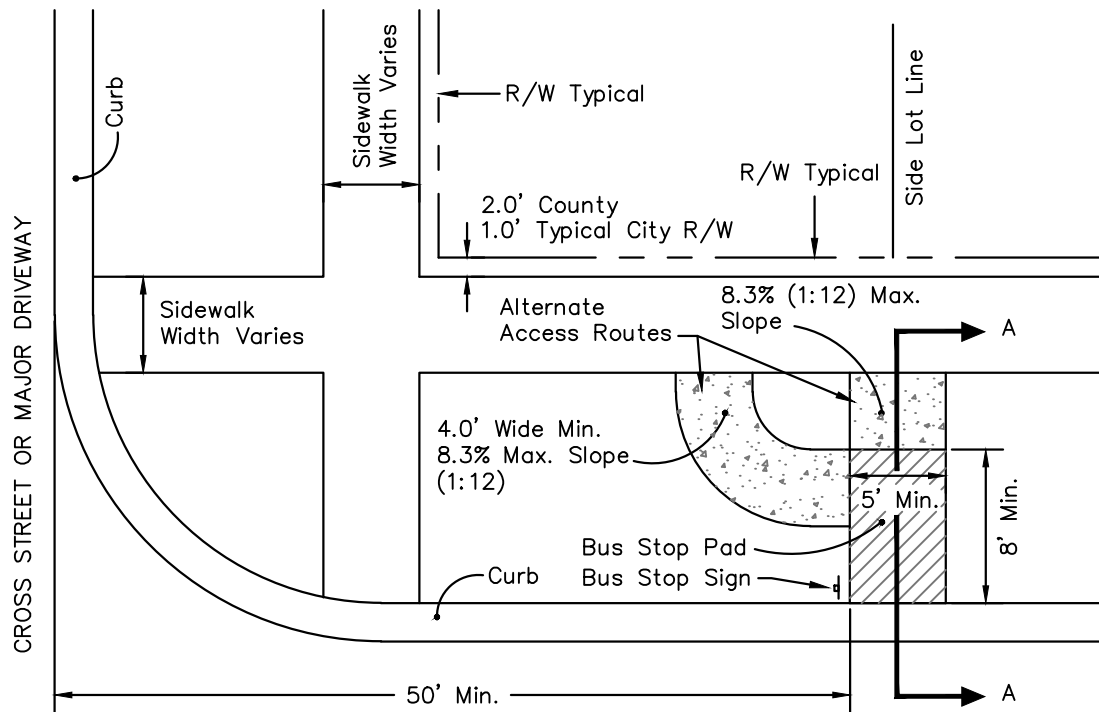
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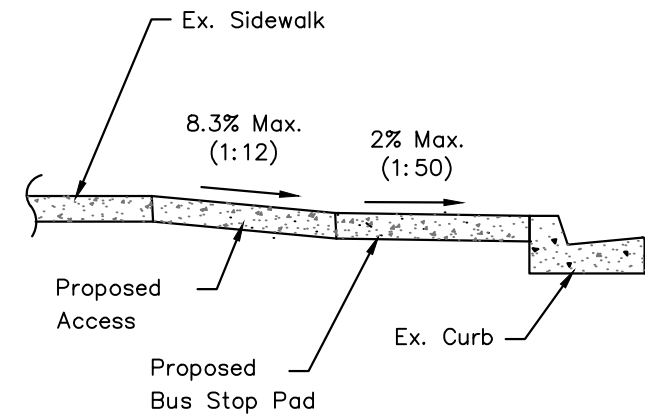
2 OF 5

LATEST REVISION 2/22/2016



PLAN VIEW

N.T.S.



SECTION "A-A"

N.T.S.

NOTES:

1. Bus Stop Pad may extend from existing curb to or through the alignment of existing sidewalk.
2. The Bus Stop Pad will follow the same slope and will be flush with the back of curb.
3. The maximum slope across the long dimension of the Bus Stop Pad (perpendicular to the curb) must be a maximum of 2% (1:50). When field conditions do not allow a 2% (1:50) slope, the minimum feasible slope shall be provided, not to exceed 8.3% (1:12).
4. Paved access to the Bus Stop Pad from the sidewalk must meet City of Clearwater sidewalk standards and ADA standards with a maximum slope of 8.3% (1:12) and level rest stops no more than 30 feet apart. Location of access will be field determined. Slope of parkway area adjacent to Bus Stop Pad will be field determined.
5. Bus Stop Pad shall be a minimum of 6" reinforced concrete with 6"x6"/10x10 welded wire fabric reinforcement the same as concrete driveways.
6. Bus Stop Pad shall be centered as close to lot lines as possible. Existing bus stop signs may need to be relocated accordingly.

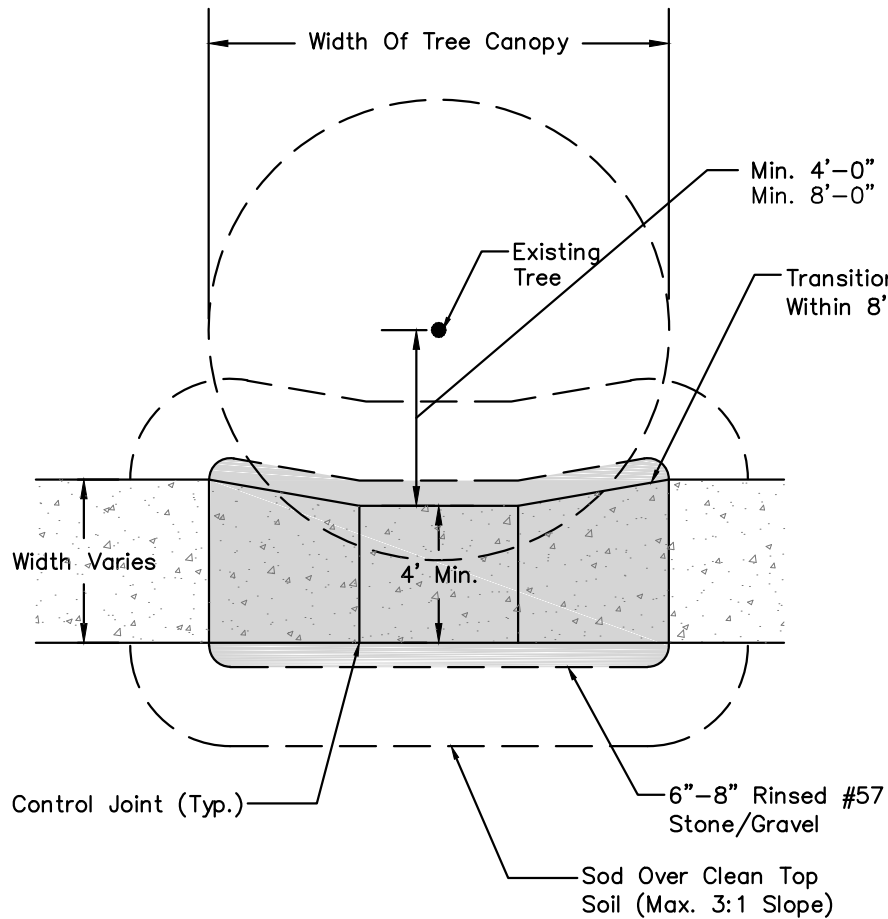
5/18/15	REV. NOTES	S.R.
8/12	REV. SLOPE	P.B.
DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
**STREET SECTIONS
AND DETAILS**

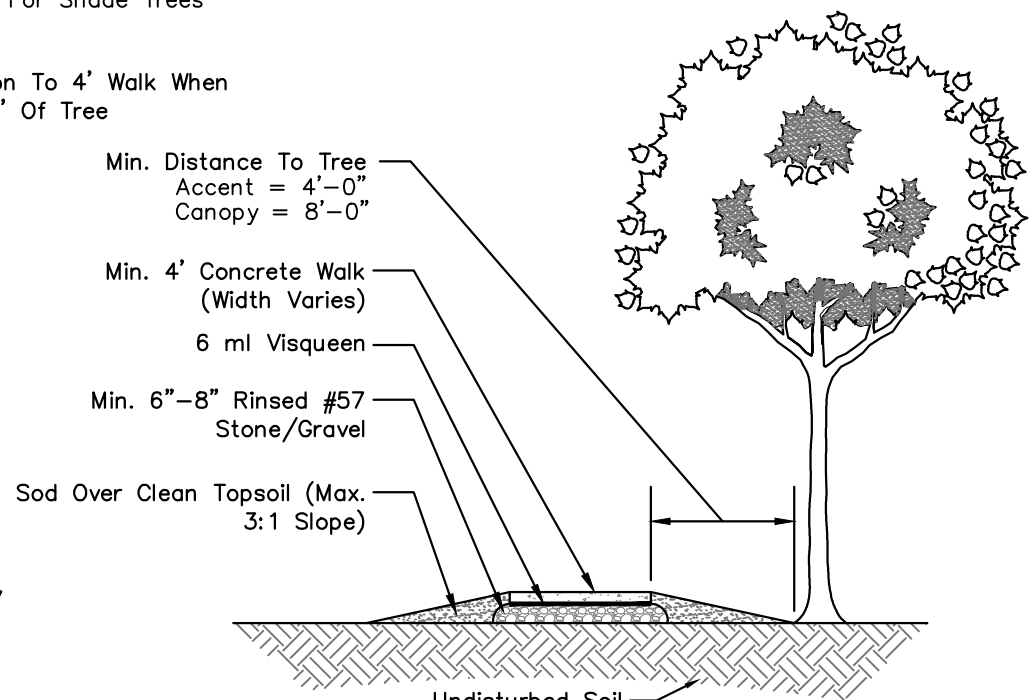
**TYPICAL BUS STOP
PAD DETAIL**

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NOTE: All concrete sidewalk construction shall conform with minimum requirements found in City Index 109.



PLAN VIEW
N.T.S.



CROSS-SECTION
N.T.S.

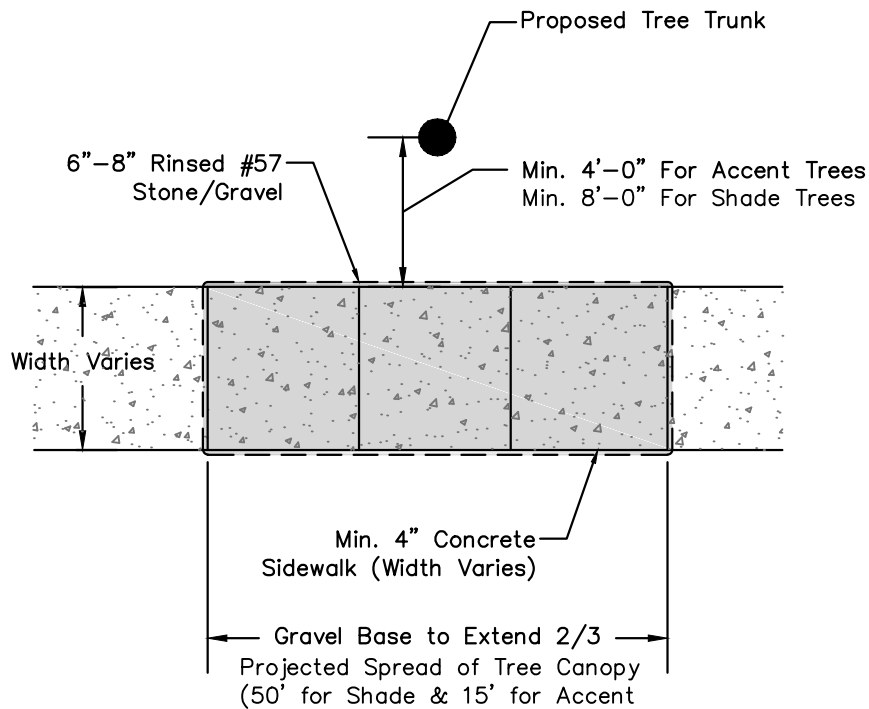
DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
**STREET SECTIONS
AND DETAILS**

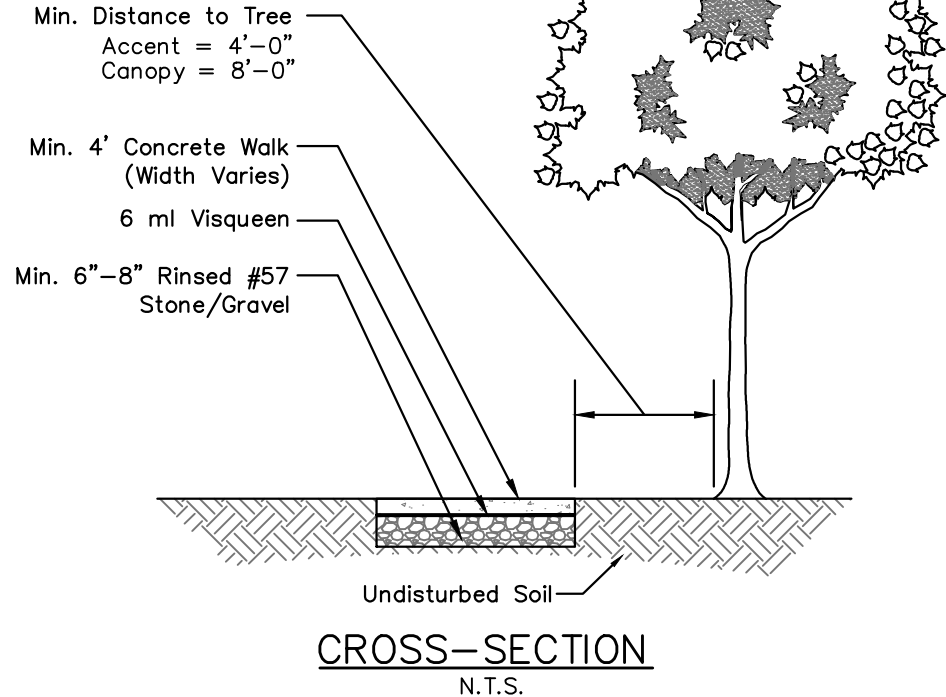
**SIDEWALK CONSTRUCTION WITH
TREE PROTECTION**

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NOTE: All concrete sidewalk construction shall conform with minimum requirements found in City Index 109.



PLAN VIEW
N.T.S.

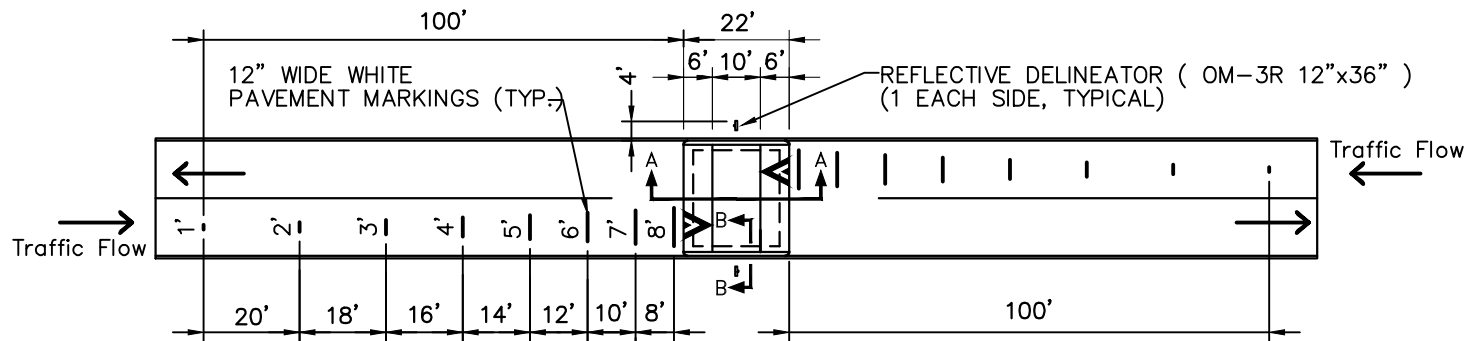


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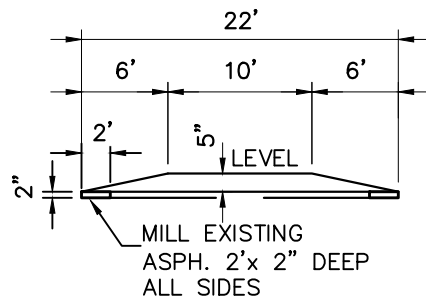
CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

SIDEWALK CONSTRUCTION FOR
FUTURE TREE PROTECTION

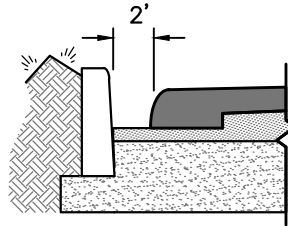
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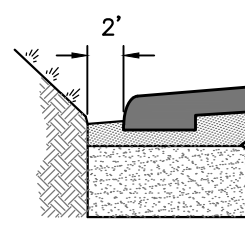
PLAN VIEW
N.T.S.



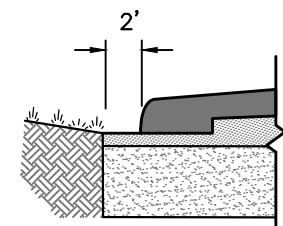
SECTION "A-A" APPROACH
SLOPE (TYP.)
N.T.S.



SECTION "B-B"
W/ CURB OR CURB & GUTTER TYPES
N.T.S.



SECTION "B-B"
W/ SUPERIOR GRADE ADJACENT
N.T.S.



SECTION "B-B"
W/ ADJACENT LESSER GRADE
N.T.S.

10/25/17	PAVEMENT MARKING AND LEVEL HEIGHT REV	JWS
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CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

SPEED TABLE SIGNS & DETAILS
FIGURE 1

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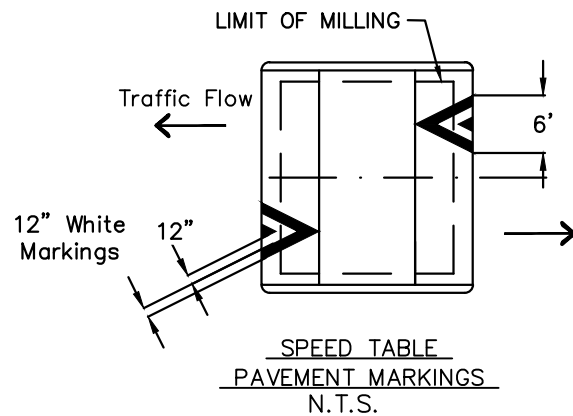
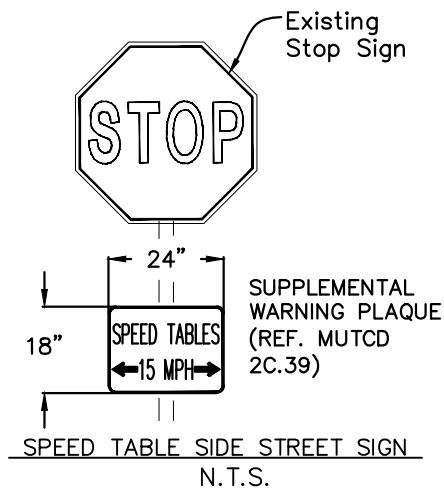
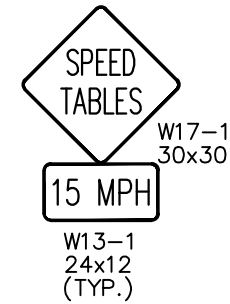


FIG. 2



For side streets within project limits of speed tables

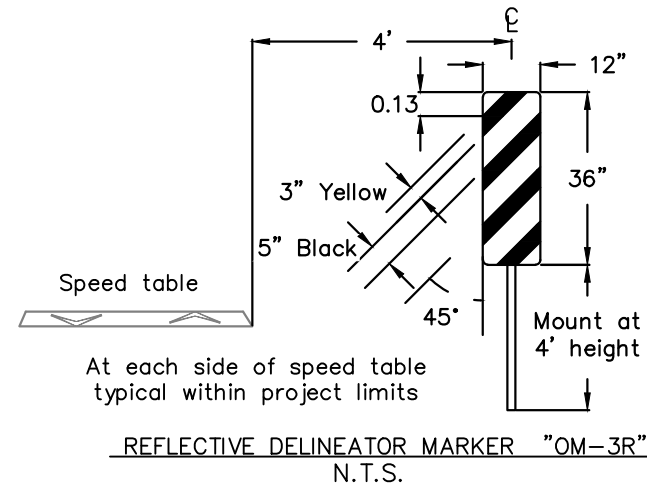
FIG. 4 (Optional)



SPEED TABLE WARNING SIGN (TYP.)
N.T.S.

Install 1- Sign 100' from each collector or arterial road within the project limits of the speed tables.

FIG. 3



At each side of speed table typical within project limits

(Ref. manual of uniform control devices 3c-2 typical type 3 object markers)

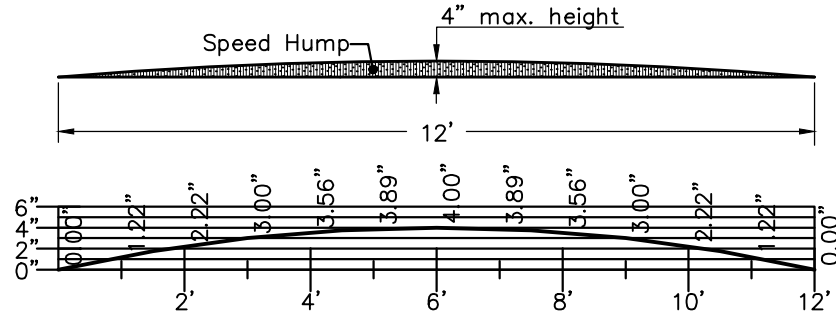
FIG 5 (OPTIONAL)

10/25/17	PAVEMENT MARKINGS REVISED	JWS
DATE	REVISION DESCRIPTION	APP

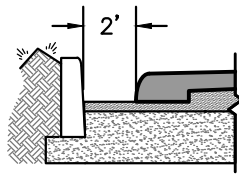
CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

SPEED TABLE SIGNS & DETAILS
FIGURES 2 - 5

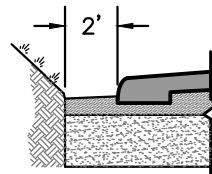
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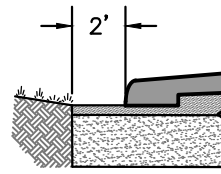
SECTION B-B
N.T.S.



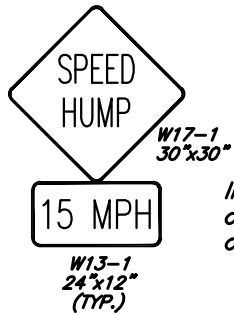
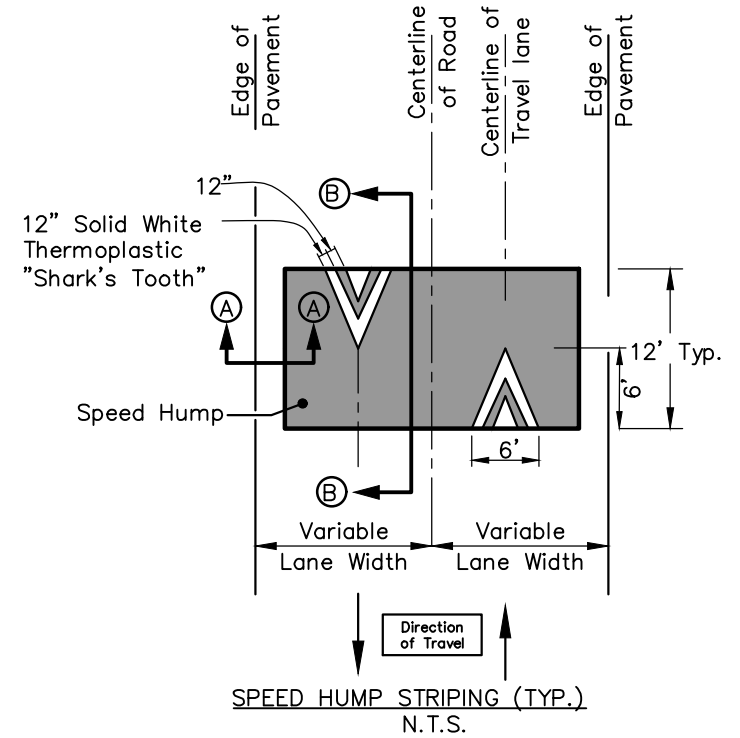
SECTION "A-A"
W/ CURB OR
CURB & GUTTER
TYPES



SECTION "A-A"
W/ SUPERIOR
GRADE ADJACENT



SECTION "A-A"
W/ ADJACENT
LESSER GRADE



SPEED HUMP WARNING SIGN (TYP.)
N.T.S.

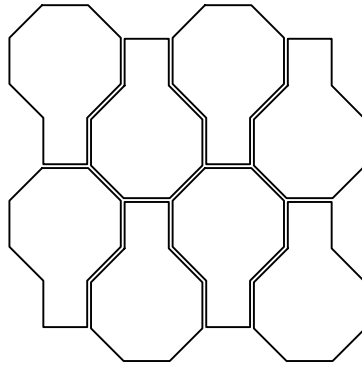
Install 1- sign 100' from each collector or arterial road within the project limits of the speed hump.

10/25/17	SPEED HUMP SIGN REVISED	JWS
DATE	REVISION DESCRIPTION	APP

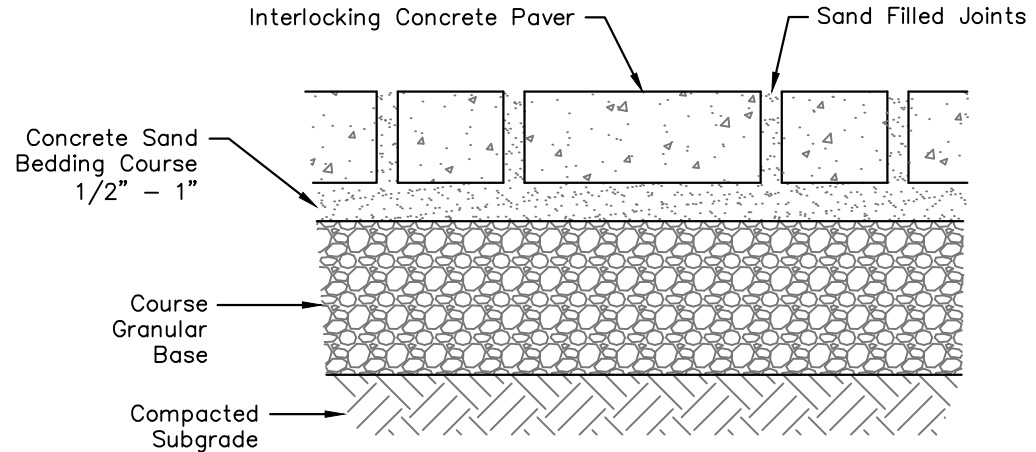
CITY OF CLEARWATER
ENGINEERING DEPARTMENT
STREET SECTIONS
AND DETAILS

SPEED HUMP SIGNS & DETAILS

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INSTALLATION PATTERN
(Pattern will vary with selected paver)



TYPICAL CROSS SECTION

NOTES:

1. Interlocking paving units shall generally be installed in accordance with manufacturer's requirements.
2. Paver Thickness: 2 3/8" – Residential, Light Duty Traffic; 3 1/8" – Commercial, Heavy Duty Traffic
3. Concrete Pavers to conform to ASTM C936-82.
4. Course Granular Base shall be in accordance with manufacturer's requirements (4" min. for 2 3/8" pavers and 8" min. for 3 1/8" pavers). Granular base shall be crushed concrete road base #57 and fines or other material approved by City Engineer.
5. Coloring or dye shall be uniform throughout each concrete paver unit. Dipped or externally colored paver units are unacceptable.
6. Pavers shall be installed with edge restraint and confined with cemented paver units, curbs, poured concrete or other suitable method.
7. Final finished surface shall be of uniform elevation or slope.
8. Subgrade shall be free of clay, organics, or other materials which will allow future settlement and compacted to 98% AASHTO T-180-57.
9. Polymeric sand or other joint filling material, as approved by the City Engineer, shall be installed between pavers in all areas that contain drainage structures, have slopes in excess of 2% or are subject to water runoff.
10. The cross slope on any required pedestrian path crossing a driveway and/or drive apron cannot exceed 2%.

For additional detail see Index No. 113; Sh. 2 of 2:

INTERLOCKING CONCRETE PAVER DETAIL FOR COMMERCIAL TRAFFIC AND ROW INSTALLATION

7/20/2012	NOTES 4,9,10 NEW SHEET 2 OF 2	M.Q.
DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
ENGINEERING DEPARTMENT
**STREET SECTIONS
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**INTERLOCKING CONCRETE PAVER DETAIL
FOR RESIDENTIAL AND PEDESTRIAN TRAFFIC**

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1 Filter Fabric (Mirafi® 140N) extended minimum 2" beyond hole and adhered to concrete slab with approved construction adhesive

Concrete Sand Bedding Course 1/2" - 1"

3000 PSI Concrete with Fiber Mesh

1 2" diameter hole to be drilled at low points and filled equally with pea gravel

Sand Filled Joints

Interlocking Concrete Paver

6" Min.

Saw Cut Existing Asphalt

Existing Asphalt

Existing Base

Compacted Subgrade

6" Min.

12"

3"

3"

3"

1/2" Expansion Joint

2-#4 Deformed Rebar (typ.)

3000 PSI Concrete with Fiber Mesh

NOTE:

All exposed concrete edges to be hand tooled

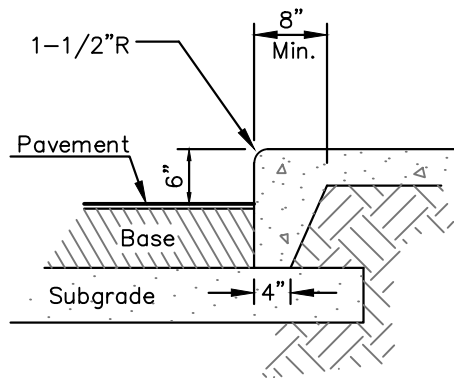
For additional detail see Index No. 113; Sh. 1 of 2:
INTERLOCKING CONCRETE PAVER DETAIL FOR RESIDENTIAL AND PEDESTRIAN TRAFFIC

12/17/13	ADDED DRAINAGE HOLE AND FILTER FABRIC	T.M.K.
DATE	REVISION DESCRIPTION	APP

CITY OF CLEARWATER
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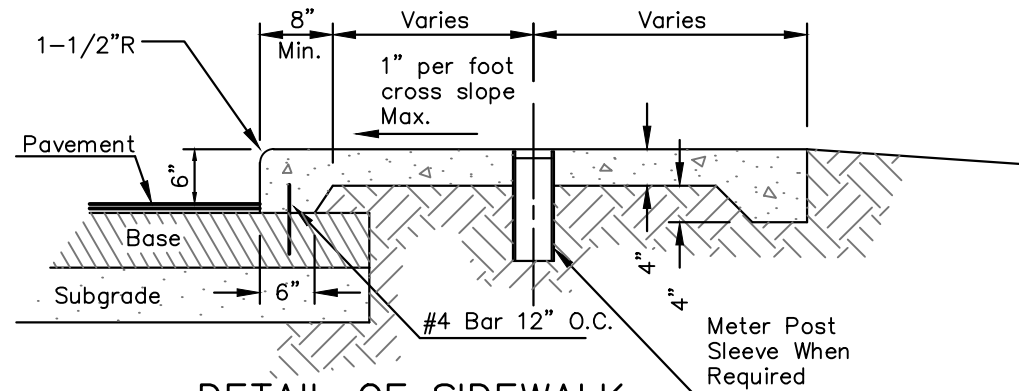
INTERLOCKING CONCRETE PAVER DETAIL
FOR COMMERCIAL TRAFFIC AND ROW
INSTALLATION

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DETAIL CONSTRUCTION ALTERNATE

N.T.S.

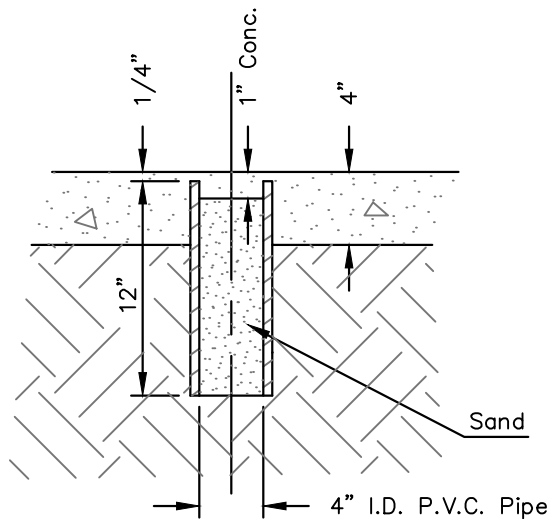


DETAIL OF SIDEWALK PARKING ONE SIDE ONLY

N.T.S.

NOTES:

1. Meter post sleeve shall be 4" i.d. P.V.C. cut to 12" lengths.
2. Contractor shall select method of construction. There shall be no variation of unit price bids.
3. Meter post locations shall be marked by an "x" in the concrete.
4. Concrete to be 3,000 P.S.I., with fiber mesh reinforcing.



PARKING METER POST SLEEVE DETAIL

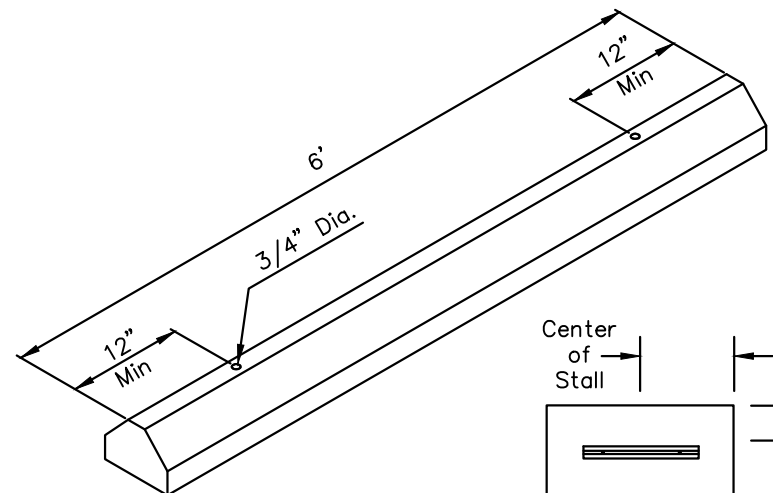
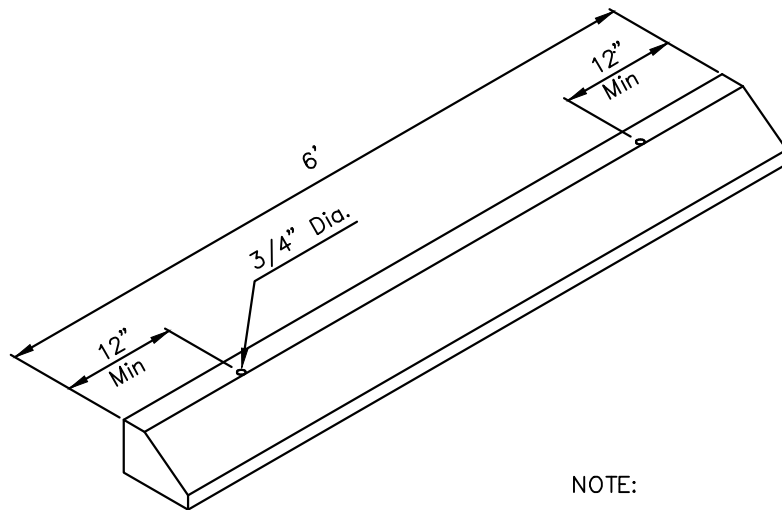
N.T.S.

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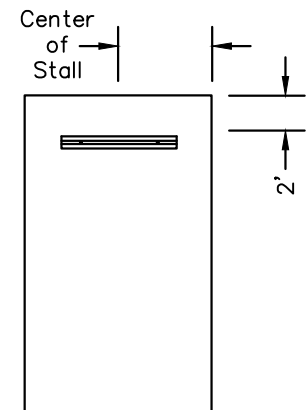
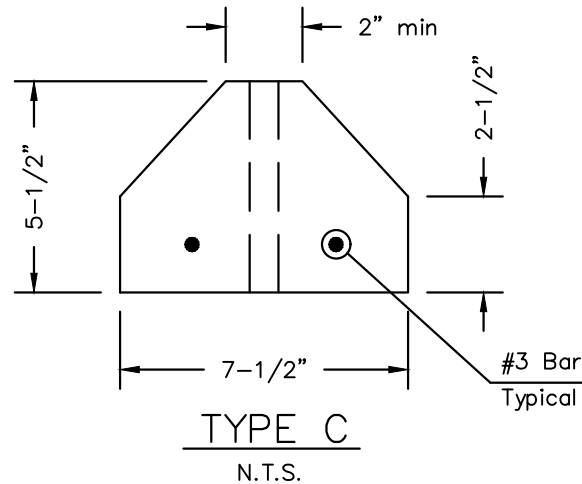
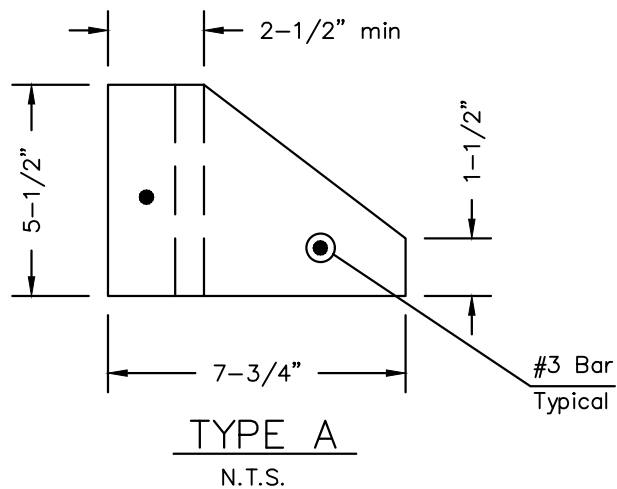
CONCRETE SIDEWALKS
& METER POSTS
IN PARKING LOTS

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NOTE:

Concrete to be 3000 P.S.I., with fiber mesh reinforcing.



NOTES:

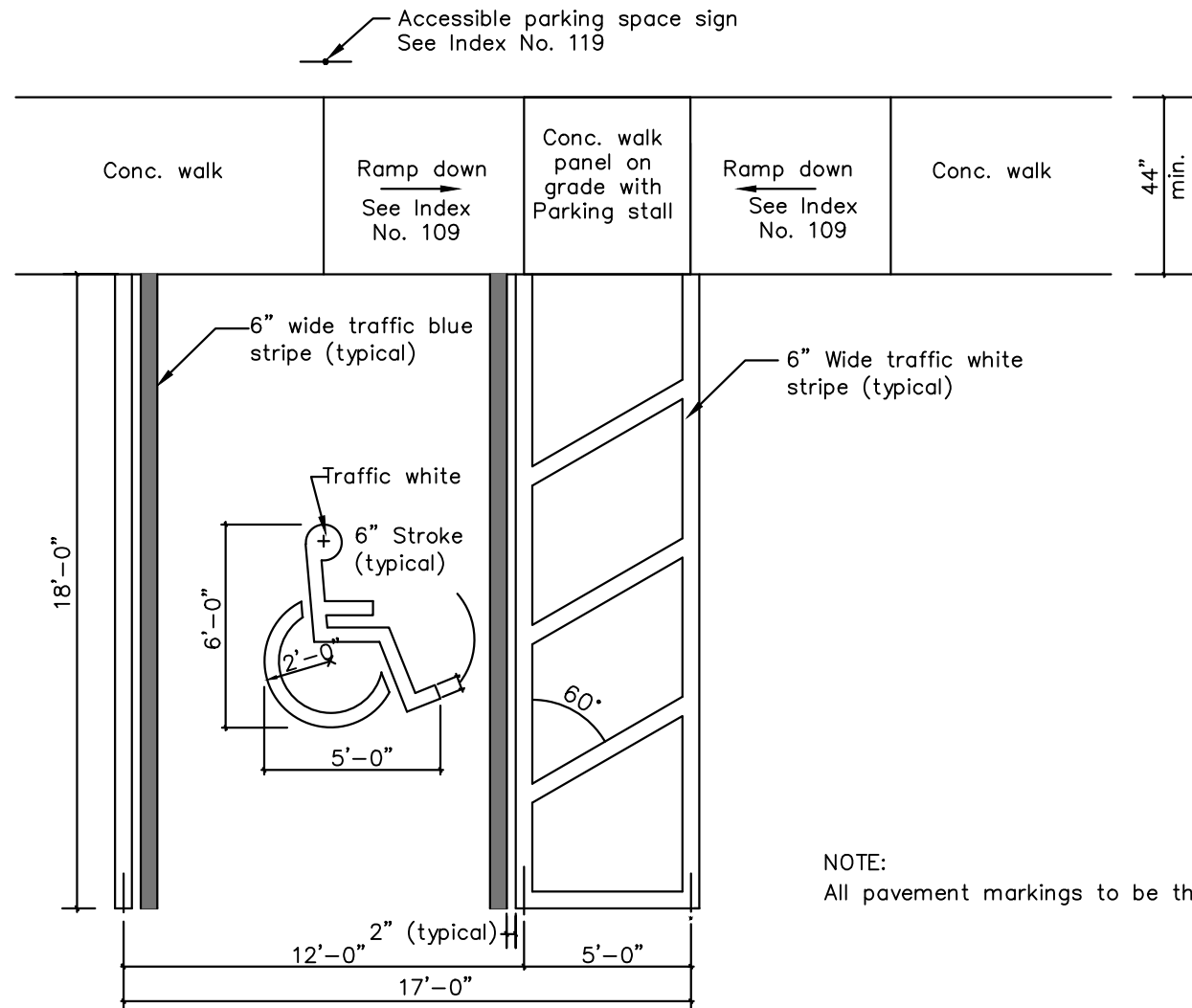
1. Wheel stops to be placed 2' back, as shown above. centered in the parking stall.
2. Wheel stops can be painted in a contrasting color.

5/18/15	NOTES EDITED	S.R.
DATE	REVISION DESCRIPTION	APP

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WHEEL STOPS – REINFORCED CONCRETE

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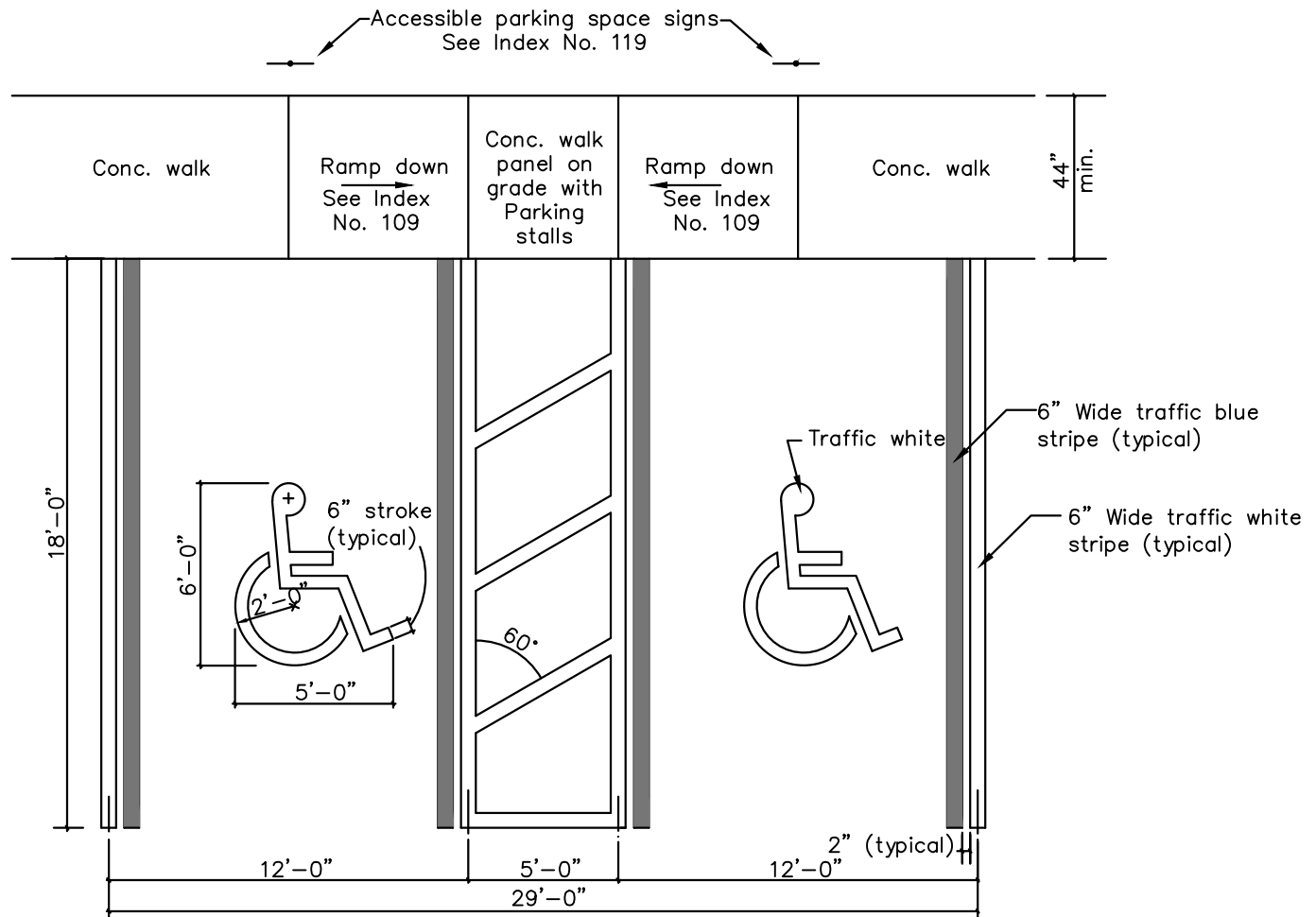
N.T.S.

5/18/15	ADDED NOTE	S.R.
2/15/12	CHANGE DETAIL NAME	H.P.
DATE	REVISION DESCRIPTION	APP

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ACCESSIBLE PARKING STALL – SINGLE

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NOTE:
All pavement markings to be thermoplastic.

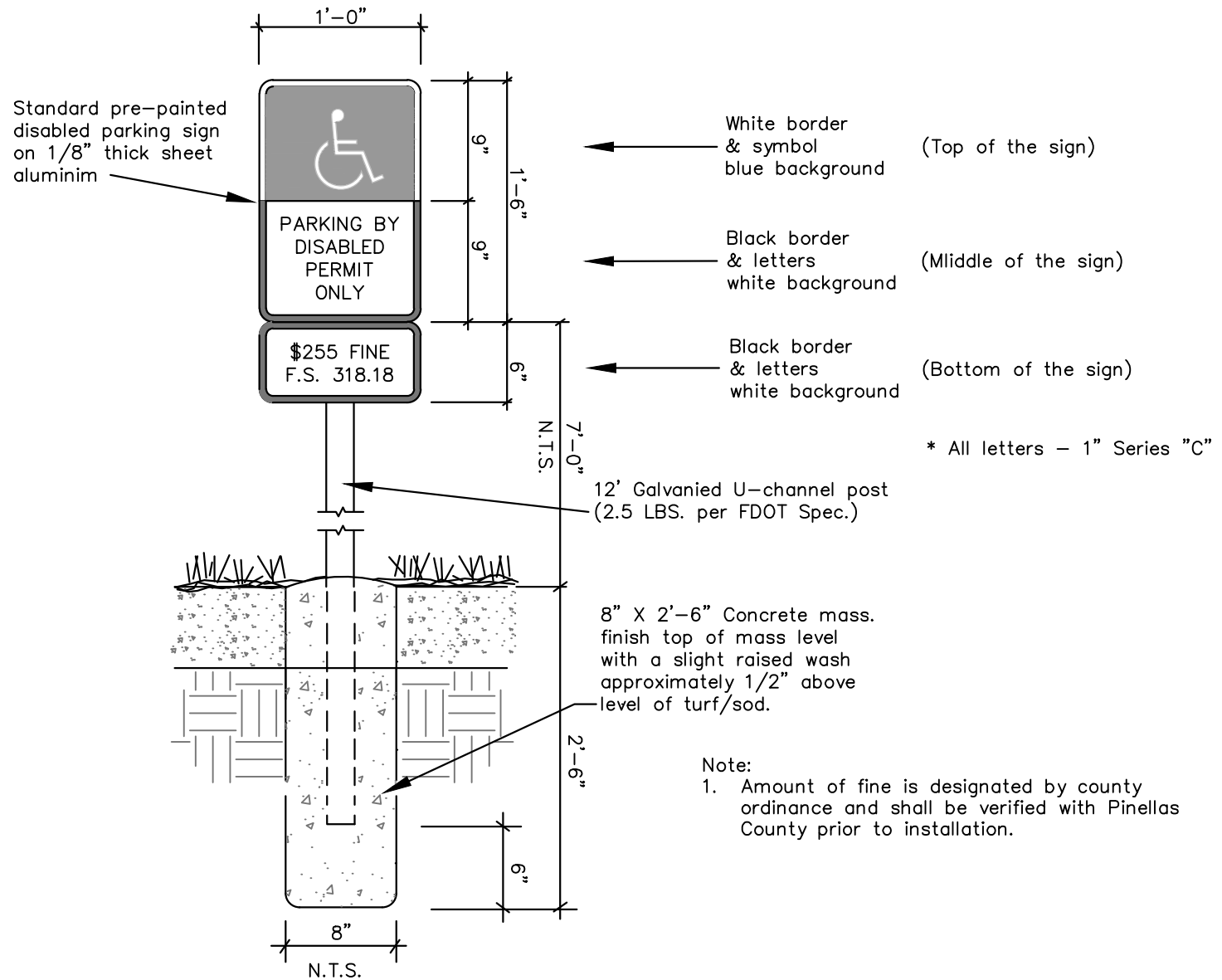
N.T.S.

5/18/15	ADDED NOTE	S.R.
2/15/12	CHANGE DETAIL NAME	H.P.
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ACCESSIBLE PARKING STALL – DOUBLE

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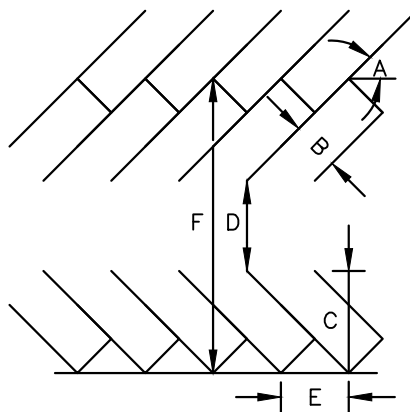
2/15/12	CHANGE DETAIL TITLE	H.P.
10/09	CHG. SIGN POST TYPE	H.P.
DATE	REVISION DESCRIPTION	APP

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**TYPICAL ACCESSIBLE
PARKING SIGN**

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A	B	C	D	E	F
0	8.0	8.0	12.0	23.0	28.0
45	9.0	19.5	13.0	12.7	52.0
50	9.0	20.0	14.0	11.7	54.0
60	9.0	20.5	18.0	10.4	59.0
70	9.0	20.0	19.0	9.6	59.0
80	9.0	19.5	24.0	9.1	63.0
90	9.0	18.0	24.0	9.0	60.0



- A. Parking angle (Degrees)
- B. Stall width (Feet)
- C. Stall to curb (Feet)
- D. Aisle width (Feet)
- E. Curb length (Feet)
- F. Min. overall double row with aisle between (Feet)

NOTES

1. All parking space striping to be white in color.
2. If a parking lot serves a use which generates 2,500 or more vehicle trips a day, such parking spaces shall be marked by white thermoplastic lines.
3. All City of Clearwater projects shall be in thermoplastic.

12/09	CHANGED NOTE NO. 2	T.E.
DATE	REVISION DESCRIPTION	APP

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STANDARD PARKING STALL

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