

	Department of Design and Construction	SPECIFICATION BULLETIN	SB 24-003
Title: CORNER CURB			
Prepared: 4/4/2024		Approved: 4/4/2024	
Mohammad Mahmud, P.E. Date Director, Specifications		How Sheen Pau, P.E. Date Associate Commissioner – Infrastructure Design	

APPLICABILITY:

- This Specification Bulletin (SB) is effective for projects advertised on or after 4/15/2024.

SUPERSEDEENCE:

- This SB supersedes the following SBs: **None.**

ATTACHMENTS:

1. *Section 4.07 (3 pages)*
2. *Section 4.09 (4 pages)*

**REVISIONS TO THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION
STANDARD HIGHWAY SPECIFICATIONS, DATED 5/16/2022:**

All references contained below are to the New York City Department of Transportation Standard Highway Specifications, Dated May 16, 2022. Said Standard Highway Specifications are hereby revised as follows:

- a) **Refer** to Section 4.07 – Curb, Bluestone and Granite
Delete in its entirety Section;
Substitute the revised Section in Attachment 1 (3 pages)
- b) **Refer** to Section 4.09 - Curb, Concrete, Steel Faced
Delete in its entirety Section;
Substitute the revised Section in Attachment 2 (4 pages)

For questions regarding this bulletin, please contact Richard Jones, jonesri@ddc.nyc.gov.

SECTION 4.07 – Curb, Bluestone and Granite

4.07.1. INTENT. This section describes the construction of Bluestone and Granite Curbs.

4.07.2. DESCRIPTION. Curbs must be bluestone or granite, as specified, and with concrete cradle, unless otherwise specified or shown on the Contract Drawings. Curbs must be new or recut and redressed, as specified.

4.07.3. MATERIALS.

(A) CURB

Curbs must comply with the requirements of **Section 2.12, Curbs, Headers and slabs, Granite and Bluestone**, for the type and corresponding class specified or shown on the Contract Drawings. Unless otherwise specified or shown on the Contract Drawings, Granite Curbs must be Type 1, Class A, cut and dressed as shown on the approved shop drawings to be submitted by the Contractor. The required shop drawings must show the Contractor's proposed straight and corner curb, including depressed and transitional curb details for use at pedestrian ramps and driveway locations, and all special non-standard shaped curb cuts, for the approval of the Engineer. Corner curbs must include the cost of all depressed and transitional curb required for pedestrian ramps at corner quadrants. Straight curb at mid-block crosswalks must include the cost of all depressed and transitional curb required for pedestrian ramps.

(B) CONCRETE CRADLE

Concrete cradles for curbs must comply only with the proportion and strength requirements of **Section 3.05**, Class B-32, Type 1A. The requirements for an air entrainment will not apply.

Coarse aggregate must comply with the requirements of **Section 2.02**, Size No. 57; Type 1, Grade B, or Type 2.

Fine aggregate must comply with the requirements of **Section 2.21**, Type 1A.

4.07.4. METHODS (GENERAL). The Contractor must complete all curb construction before commencing any roadway grading operation; stripping, removing or placing any pavement; or commencing sidewalk work unless otherwise permitted by the Engineer, in writing. The Contractor will be permitted to encroach upon the area immediately adjacent to the curb only to the extent essential for curb construction.

Excavation for curbs must be safeguarded and protected in accordance with the requirements of **Sections 1.06.44** and **6.70, "Maintenance and Protection of Traffic"**.

Existing concrete sidewalks, adjacent to or abutting a new curb or curbs to be reset and interfering with the setting or resetting of said curbs must be cut off to a line two (2') feet back of the curb line and parallel thereto, unless otherwise provided or directed by the Engineer. Cutting must be done by means of an approved power driven cutting machine with a carborundum cutting wheel. Full depth cuts must be made through the existing sidewalk pavement. The space between the curb and sidewalk must be filled with concrete sidewalk pigmented to match that of the adjacent walk.

No concrete sidewalk must be cut off or otherwise disturbed until the same has been examined by the Engineer.

4.07.5. NEW CURB WITH CONCRETE CRADLE.

(A) EXCAVATION

Excavation must be made to dimensions sufficient to permit the construction of cradle and setting of curbstones. It must be made to a depth of six (6") inches below the specified depth of the curb and to a width of not less than eighteen (18") inches or width of curb plus twelve (12") inches, whichever is greater. The trench must be open to its full width and depth for a distance of not less than twenty (20') feet in advance of the setting of the curb.

(B) UNDERLYING MATERIAL

The material underlying the curb cradle must be satisfactorily and thoroughly compacted. If unsatisfactory, it must be removed and replaced with acceptable material, thoroughly compacted to the satisfaction of the Engineer.

(C) CONCRETE CRADLE

The cradle must be composed of stiff concrete, thoroughly tamped in place to the satisfaction of the Engineer. The cradle must be not less than eighteen (18") inches wide or width of the curb plus twelve (12") inches, whichever is greater, and extend six (6") inches below the specified depth of the curb. The concrete must be brought up six (6") inches in front of the curb to the bottom of pavement base and in back of the curb concrete must be brought up to either: the bottom of proposed sidewalk foundation material; to within six (6") inches of the top of the curb where sidewalk adjacent to the curb is not required; or, as otherwise shown on the Contract Drawings. The concrete must be laid not more than twenty (20') feet in advance of setting the curb. The portions of the concrete cradle in front and at back of the curb must be placed and thoroughly compacted as soon as the curb is brought to line and grade and before the concrete under the curb has set.

(D) SETTING

Curbstones must be set centrally on the concrete cradle, with tops at grade outside of driveways, and below grade in driveways, as directed. Front faces must be set in a true smooth surface having a batter of one (1) in eight (8), unless otherwise specified, with joints not less than one-eighth (1/8") inch and not more than one-quarter (1/4") inch for ten (10") inches below grade.

(E) BACKFILLING

Backfilling must be of clean earth or other approved material, satisfactorily compacted.

4.07.6. NEW CURB WITHOUT CRADLE. Excavation for new curbs without concrete cradle must be made to dimensions sufficient to permit the setting of curbstones. Setting of a curb and backfilling must be as provided in **Subsection 4.07.5**.

4.07.7. OLD CURB, RECUT AND REDRESSED. Old curbstones which have been removed for re-use must be reset as nearly as may be practicable in front of the premises from which they have been removed.

Old curbstones must be recut and redressed and must, when reset, in all respects conform with the specifications for new curbs of the type and corresponding class specified for the Contract, except that the top width must not vary more than one-half (1/2") inch from the original specified width and the depth must not vary more than two (2") inches from the original specified depth. Concrete cradles, when required, must comply with **Subsection 4.07.5**.

4.07.8. RECURBING. On Contracts where resetting of a curb is required and there is no scheduled item for wearing course and/or concrete base for pavement, in excavating for a curb trench, the removal of a width of not more than one (1') feet of roadway pavement along the curb will be permitted. At the completion of the curb setting, the roadway strip must be backfilled to the subgrade of the pavement base, the backfill thoroughly compacted to the satisfaction of the Engineer and the pavement restored in accordance with applicable sections of these Standard Highway Specifications.

4.07.9. MEASUREMENT. The quantity to be measured for payment must be the number of linear feet of the several classes of the constructed curb, complete, as required, measured in place along the top of the exposed face of the curb, and adjusted in accordance with **Section 5.04**.

Curved granite curbs will be measured as straight curbs when the radius is greater than 100 feet and as corner curbs when the radius is 100 feet or less. Corner curbs will be measured only from PC to PT for corners without pedestrian ramps. Corner curbs will be measured as the larger of PC to PT or the curbs adjacent to 7" sidewalk concrete as shown on Standard Detail H-1011 for corners with pedestrian ramps. Depressed and transitional granite curbs will be measured for payment in driveways only.

4.07.10. PRICES TO COVER.

(A) NEW CURBS

The Contract price per linear foot of a new curb with a concrete cradle must cover the cost of all labor, materials, equipment, insurance, and incidentals required to construct the curb complete in place, including excavation (other than rock excavation) and backfilling, in full compliance with the requirements of the Specifications, to furnish such samples for testing and to provide such testing equipment, laboratory space and facilities as may be required, and to maintain the curb in good condition as required in **Section 5.05**.

(B) OLD CURBS, RECUT, REDRESSED AND/OR RESET

The Contract price per linear foot of an old curb, recut, redressed and/or reset, with a concrete cradle must cover the cost of all labor, materials, equipment, insurance, and incidentals required to construct the curb complete in place, including excavation (other than rock excavation) and backfilling, in full compliance with the requirements of the Specifications, and to furnish such samples for testing and to provide such testing equipment, laboratory space and facilities as may be required, and to maintain the curb in good condition as required in **Section 5.05**.

(C) RECURBING

The Contract price, in addition to the coverage listed under (A) and (B), above, must also include the removal of not more than one (1') feet width of roadway pavement along the curb line and the restoration of all removed pavement in full compliance with the applicable sections of these Standard Highway Specifications. Restoration of pavement, removed beyond the above defined limits, must be done by the Contractor at no additional cost to the City.

Payment will be made under:

Item No.	Item	Pay Unit
4.07 AB	RESET BLUESTONE CURB	L.F.
4.07 BA	RESET GRANITE CURB	L.F.
4.07 CB	NEW GRANITE CURB, STRAIGHT	L.F.
4.07 CC	NEW GRANITE CURB, CORNER	L.F.
4.07 CD	NEW STRAIGHT GRANITE CURB, DEPRESSED AND TRANSITION	L.F.
4.07 DB	NEW GRANITE CURB, STRAIGHT (1'-0" WIDE)	L.F.
4.07 DC	NEW GRANITE CURB, CORNER (1'-0" WIDE)	L.F.
4.07 DD	NEW STRAIGHT GRANITE CURB, DEPRESSED AND TRANSITION (1'-0" WIDE)	L.F.
4.07 NYHA	NEW NY HISTORICAL GRANITE CURB, STRAIGHT	L.F.
4.07 NYHC	NEW NY HISTORICAL GRANITE CURB, CORNER	L.F.
4.07 NYHD	NEW NY HISTORICAL STRAIGHT GRANITE CURB, DEPRESSED AND TRANSITION	L.F.

SECTION 4.09 - Curb, Concrete, Steel Faced

4.09.1. INTENT. This section describes the construction of Steel Faced Concrete Curbs.

4.09.2. DESCRIPTION. Steel Faced Concrete Curbs must consist of a steel curb facing set in a concrete cradle extending to a minimum depth of nine (9") inches below the bottom of angles or a minimum of seven (7") inches below the bottom of bent plates, to provide the depth of a specified curb. The cradle must be flush with the face of the steel. The steel must be backed with concrete for a width of eight (8") inches from the face of the steel facing or as shown on the Contract Drawings.

4.09.3. MATERIALS. A steel curb facing must comply with the requirements of **Section 2.13** and must be Type D, bent plate as per the New York City Department of Transportation's Standard Details of Construction Standard Drawing Nos. H-1010, H-1011, and H-1015, as required. Concrete must comply with the requirements of **Section 3.05**, Class B-32, Type IIA. Cement must be Type II Portland. Coarse aggregate must comply with the requirements of **Section 2.02**, Type 1, Grade B, or Type 2, Size No. 57. An approved air-entraining agent must be added at the time concrete ingredients are mixed with water.

Where proposed adjacent sidewalk is designated to be pigmented, the curb must also be pigmented to match in color. Pigmenting material must comply with the requirements of **Section 2.19**. No additional payment will be made for the cost of pigmenting the steel faced concrete curb.

4.09.4. METHODS.

(A) GENERAL

The Contractor must complete all curb construction before commencing any roadway grading operations; stripping, removing, or placing any pavement; or commencing sidewalk work unless otherwise permitted by the Engineer, in writing. The Contractor will be permitted to encroach upon the area immediately adjacent to the curb only to the extent essential for curb construction.

Excavation for the curb must be safeguarded and protected as provided in **Sections 1.06.44** and **6.70**.

All other provisions of **Subsection 4.07.4** must apply to the work to be done hereunder.

(B) EXCAVATION

Excavation must be made to dimensions sufficient to permit the setting of forms and as required for the installation of a curb. It must be made to a depth of not less than nine (9") inches below the bottom of single- or double-bulb angle facings nor less than seven (7") inches below the bottom of bent-plate steel facings, and to a width of not less than the specified width of the curb. The trench must be open to its full width and depth for a distance of not less than twenty (20') feet in advance of the setting of the curb facing.

Where curbs are to be set in areas which were formerly occupied by vaults, cellars of buildings or other voids, the Contractor must power tamp the subgrade material with machines approved by the Engineer. This power tamping must be continued until the subgrade has been sufficiently compacted to the satisfaction of the Engineer.

On Contracts for recurbing only, in excavating for a curb trench, the removal of a width of not more than one (1') foot of roadway pavement along the curb will be permitted. At the completion of curb setting, the roadway strip must be backfilled to the subgrade of the pavement base, the backfill thoroughly compacted to the satisfaction of the Engineer and the pavement restored in accordance with the applicable sections of these Standard Highway Specifications.

(C) UNDERLYING MATERIAL

The material underlying the concrete cradle must be satisfactory and thoroughly compacted. If unsatisfactory, the unsuitable material must be removed and replaced with acceptable material and be thoroughly compacted.

(D) FORMS

Forms must be of metal or planed lumber of sufficient thickness to resist distortion, support the front face of the steel curb facing and be rigidly held in position during construction. Back forms must be set parallel to the steel facing.

(E) PLACING CURB, STEEL FACING

Steel facing must be placed within the forms, upon suitable chairs, to the proper line and grade. When welding of joints is specified or directed, ends of steel facing must be butted together. When no welding is required, ends must be set one eighth (1/8") inch apart except at expansion joints. At depressed curbs, facings must be splayed as shown on the Contract Drawings.

Steel curb facing, having less than two (2) welded anchors, must be welded to an adjacent steel curb facing, except that when the end of the above facing falls at an expansion joint, said end must not be welded.

Two (2) dowels, one-half (1/2") inch in diameter and twenty-four (24") inches long, must be installed longitudinal to and into the concrete backing at all unwelded intermediate joints between expansion joints in such manner that one half (1/2) the length of the dowel falls on either side of the joint. Intermediate joints may be welded in lieu of installing the aforesaid dowels.

On curves whose radii are less than four hundred (400') feet, the curb must be constructed to true arcs with radial joints. On curves whose radii are four hundred (400') feet or in excess thereof, the curb may be constructed by using individual straight pieces of facing which must be not less than ten (10') feet nor greater than one half of the square root of the radius of curvature in length. Joints must be radial.

(F) EXPANSION JOINTS

Expansion Joints in steel curb facing and curb backing must be coincident. The distance between expansion joints must not exceed twenty-four (24') feet, except as noted herein below for abutting concrete sidewalk.

Steel faced concrete curb expansion joints must line up with the expansion joints in existing abutting concrete sidewalk or with the proposed location of expansion joints in new abutting concrete sidewalk.

Expansion joints must be one quarter (1/4") inch wide and must be filled with an approved premolded filler. Filler must completely fill the joint and must be cut flush with all curb surfaces.

(G) POURING CONCRETE

The concrete must be poured and compacted into the forms behind the steel facing to retain the facing in proper position in accordance with the requirements of **Subsection 4.06.7.(C)** and **4.06.7.(D)**. It must be worked around the anchors of the steel facing to insure satisfactory bond. It must be placed in sections equal in length to the length of the steel facing, unless otherwise permitted, and the ends must be provided with expansion joints as specified, directed or shown on the Contract Drawings.

(H) SURFACE FINISH

The top surface of the concrete must be finished by troweling, wood floating and, finally, by tooling all joints with approved tools. The top must pitch one quarter (1/4") inch downward toward the front. The color of the exposed portion of the concrete must be uniform.

(I) BACKFILLING

Backfilling must follow the removal of forms as soon as practicable and must be of clean earth or other approved material, satisfactorily compacted.

(J) SURFACE CURING AND PROTECTION

The concrete must be cured in compliance with the requirements of **Section 2.14**, Type 1-D, Clear. The sum of one (1) dollar will be deducted from any moneys due under the Contract for each linear foot of curb which the Contractor fails to cure in accordance with this provision.

Concrete must be carefully protected against injury from rain, frost, the drying effects of the sun and wind, traffic or other causes by means of suitable guards and covering, and must be kept moist as required.

(K) PAINTING

All steel facing must be given one (1) shop coat of Primer. All steel facing which will be exposed to view after installation must be given one (1) shop coat of Intermediate Coat and one (1) shop coat (rolled field coat permitted) of Topcoat. The color of the Topcoat must be gray, as approved by the Engineer. All paints must be applied in compliance with the paint manufacture's data sheets. All components of paint must be compatible and supplied by a single manufacturer. Prior to field painting, the surfaces to be painted must be clean, dry, and lightly sand papered. The list of acceptable manufacturers of the paint system is shown in **Subsection 2.13.4**.

(L) SIDEWALKS TO BE CUT OFF

Concrete sidewalks interfering with curb setting must, when directed, be cut off to a line two (2') feet back of the curb concrete and parallel thereto. Cutting must be done by means of an approved power driven cutting machine with carborundum cutting wheel. Cuts must be a minimum depth of one and one-half (1-1/2") inches. The space between the curb and sidewalk must be filled with concrete sidewalk colored to correspond with the adjacent walk.

No concrete sidewalk must be cut off or otherwise disturbed until the same has been examined by the Engineer.

4.09.5. MEASUREMENT. The quantity to be measured for payment must be the number of linear feet of each type steel faced concrete curb constructed, complete, in place, as required, measured along the top of the exposed face of steel, and adjusted in accordance with **Section 5.04**.

Curbs constructed in accordance with the New York City Department of Transportation's Standard Details of Construction Standard Drawing H-1011, will be measured for payment under the appropriate Corner or Straight Steel Faced Concrete Curb item.

Curbs constructed in accordance with New York City Department of Transportation's Standard Details of Construction Standard Drawing No. H-1015, will be measured for payment under the appropriate Straight or Depressed Steel Faced Curb item.

A curved steel faced concrete curb will be measured as a straight curb when the radius is greater than 100 feet and as a corner curb when the radius is 100 feet or less. Corner steel faced curbs will be measured only from PC to PT for corners without pedestrian ramps. Corner curbs will be measured as the larger of PC to PT or the curb adjacent to seven (7") inch sidewalk concrete as shown on Standard Detail H-1011 for corners with pedestrian ramps. All additional tangent lengths of a steel faced curb attached to the corner steel faced curb beyond the length measured as a corner curb will be measured for payment as a straight steel faced curb, except when there is no scheduled item for straight steel faced concrete curb. Where there is no scheduled item for straight steel faced concrete curbs, then the additional tangent lengths of straight steel faced concrete curbs required to clear pedestrian ramps and other street hardware must be paid for as a Corner Steel Faced Concrete Curb.

Transitional steel faced concrete curbs at driveways will be measured for payment as Depressed Steel Faced Concrete Curbs. All additional lengths of steel faced curbs, outside of the depressed and transitional curb in driveways, will be measured for payment as straight steel faced concrete curbs, except where there are no Contract items for straight steel faced concrete curbs. Where there is no scheduled item for straight steel faced concrete curbs, then the additional lengths of straight steel faced concrete curbs required must be paid for as Depressed Steel Faced Concrete Curbs.

4.09.6. PRICES TO COVER. When the proposed adjacent sidewalk is designated to be pigmented, no additional payment will be made for the cost of pigmenting the steel faced concrete curb to match the proposed adjacent pigmented sidewalk in color.

(A) The Contract price per linear foot of steel faced concrete curb for each type of steel faced curb must cover the cost of all labor, materials, equipment, insurance, and incidentals required to construct the curb complete in place, including, but not limited to, excavation (other than rock excavation) and backfilling, in full compliance with the requirements of the Specifications, to furnish such samples for testing and to provide such testing equipment, laboratory space and facilities as may be required, and maintaining the curb in good condition as specified in **Section 5.05**.

(B) On Contracts where there is no scheduled item for wearing course and/or concrete base for pavement, the Contract price must also include the removal, by the Contractor, of not more than one (1') feet width of roadway pavement along the curb line and the restoration, by the Contractor, of all removed pavement in compliance with the applicable sections of these Standard Highway Specifications. The restoration of pavement removed beyond the above defined limit must be done by the Contractor at no additional cost to The City.

Payment will be made under:

Item No.	Item	Pay Unit
4.09 AD	STRAIGHT STEEL FACED CONCRETE CURB (18" DEEP)	L.F.
4.09 ADA	STRAIGHT STEEL FACED CONCRETE CURB (19" DEEP)	L.F.
4.09 ADB	STRAIGHT STEEL FACED CONCRETE CURB (20" DEEP)	L.F.
4.09 AE	STRAIGHT STEEL FACED CONCRETE CURB (21" DEEP)	L.F.
4.09 AEA	STRAIGHT STEEL FACED CONCRETE CURB (22" DEEP)	L.F.
4.09 AEB	STRAIGHT STEEL FACED CONCRETE CURB (23" DEEP)	L.F.
4.09 AEC	STRAIGHT STEEL FACED CONCRETE CURB (24" DEEP)	L.F.
4.09 AED	STRAIGHT STEEL FACED CONCRETE CURB (25" DEEP)	L.F.
4.09 AEE	STRAIGHT STEEL FACED CONCRETE CURB (26" DEEP)	L.F.
4.09 AF	STRAIGHT STEEL FACED CONCRETE CURB (27" DEEP)	L.F.
4.09 AG	STRAIGHT STEEL FACED CONCRETE CURB (28" DEEP)	L.F.
4.09 AH	STRAIGHT STEEL FACED CONCRETE CURB (29" DEEP)	L.F.
4.09 AI	STRAIGHT STEEL FACED CONCRETE CURB (30" DEEP)	L.F.
4.09 BD	DEPRESSED STEEL FACED CONCRETE CURB (18" DEEP)	L.F.
4.09 BDA	DEPRESSED STEEL FACED CONCRETE CURB (19" DEEP)	L.F.
4.09 BDB	DEPRESSED STEEL FACED CONCRETE CURB (20" DEEP)	L.F.
4.09 BE	DEPRESSED STEEL FACED CONCRETE CURB (21" DEEP)	L.F.
4.09 BEA	DEPRESSED STEEL FACED CONCRETE CURB (22" DEEP)	L.F.
4.09 BEB	DEPRESSED STEEL FACED CONCRETE CURB (23" DEEP)	L.F.
4.09 BEC	DEPRESSED STEEL FACED CONCRETE CURB (24" DEEP)	L.F.
4.09 BED	DEPRESSED STEEL FACED CONCRETE CURB (25" DEEP)	L.F.
4.09 BEE	DEPRESSED STEEL FACED CONCRETE CURB (26" DEEP)	L.F.
4.09 BF	DEPRESSED STEEL FACED CONCRETE CURB (27" DEEP)	L.F.
4.09 BG	DEPRESSED STEEL FACED CONCRETE CURB (28" DEEP)	L.F.
4.09 CD	CORNER STEEL FACED CONCRETE CURB (18" DEEP)	L.F.
4.09 CDA	CORNER STEEL FACED CONCRETE CURB (19" DEEP)	L.F.
4.09 CDB	CORNER STEEL FACED CONCRETE CURB (20" DEEP)	L.F.
4.09 CE	CORNER STEEL FACED CONCRETE CURB (21" DEEP)	L.F.
4.09 CEA	CORNER STEEL FACED CONCRETE CURB (22" DEEP)	L.F.
4.09 CEB	CORNER STEEL FACED CONCRETE CURB (23" DEEP)	L.F.
4.09 CEC	CORNER STEEL FACED CONCRETE CURB (24' DEEP)	L.F.
4.09 CED	CORNER STEEL FACED CONCRETE CURB (25" DEEP)	L.F.
4.09 CEE	CORNER STEEL FACED CONCRETE CURB (26" DEEP)	L.F.
4.09 CF	CORNER STEEL FACED CONCRETE CURB (27" DEEP)	L.F.
4.09 CG	CORNER STEEL FACED CONCRETE CURB (28" DEEP)	L.F.