NOTE
The standard details of construction shown on the following pages are to be used in conjunction with City Capital Construction Projects.

These standard details supersede any other standards previously issued by this office.

For those standard details not included, please inquire at the Plan Desk, Room 1112, 40 Worth Street.

The current standards of the N.Y.S.D.O.T. shall be considered part of these details, where specified.

It is the responsibility of the user of this document to verify that the details are current.

OFFICE OF THE ASSISTANT COMMISSIONER
ROADWAY ENGINEERING
BUREAU OF HIGHWAYS

Prepare By:

WALTER A. ZIMMERMAN, P.E.
Director - Roadway Design
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NOTES:

1. SIGNS SHALL BE 3/4" THICK, EXTERIOR GRADE, A-C FIR PLYWOOD.

2. MOUNTING HARDWARE SHALL BE AS APPROVED BY THE ENGINEER.

3. FACE, BACK & EDGES SHALL BE PAINTED WITH ONE COAT OF APPROVED PLYWOOD PRIMER & A FINISHED COAT OF WHITE EXTERIOR ENAMEL.

4. THE WORD "IMPROVEMENT" SHALL BE PRINTED IN BLOCK-STENCIL LETTERING & FILLED WITH BEST QUALITY RED ENAMEL.

5. ALL OTHER LETTERING SHALL BE BLOCK & FILLED WITH BEST QUALITY BLACK ENAMEL.

6. ALL LETTERING SHALL BE PRINTED ON THE FINISHED SIDE OF THE PLYWOOD.
NOTES:
1. SIGNS SHALL BE 3/4" THICK, EXTERIOR GRADE, A-C FIR PLYWOOD.
2. MOUNTING HARDWARE SHALL BE AS APPROVED BY THE ENGINEER.
3. FACE, BACK AND EDGES SHALL BE PAINTED WITH ONE COAT OF APPROVED PLYWOOD PRIMER AND A FINISHED COAT OF WHITE EXTERIOR ENAMEL.
4. THE WORD "IMPROVEMENT" SHALL BE PRINTED IN BLOCK-STENCIL LETTERING AND FILLED WITH THE BEST QUALITY RED ENAMEL.
5. COMPLETION DATE (FOR SEASON 19) SHALL BE SOLID LOWER CASE BLOCK LETTERING. SEASON = SUMMER, ETC.
6. (COST OF CONSTRUCTION) AMOUNT SHALL BE SOLID BLOCK LETTERING IN NUMERALS. EXAMPLE: $1,000,000.
7. ALL OTHER LETTERING SHALL BE BLOCK AND FILLED WITH THE BEST QUALITY BLACK ENAMEL.
8. ALL LETTERING SHALL BE PRINTED ON THE FINISHED SIDE OF THE PLYWOOD.
9. LISTING OF CITY, STATE, FEDERAL AND TOTAL DOLLAR AMOUNT IN THE LOWER LEFT CORNER TO BE ELIMINATED IF ONLY CITY FUNDING IS USED. CONTRACTOR IS TO CHECK WITH THE ENGINEER PRIOR TO FABRICATION.
NOTE:
1. LOGOS - COPY AS PER THIS DRAWING THE LOGOS FOR SIZE, PROPORTION AND STYLE OF LETTERING AS WELL AS GRAPHICS FOR THE APPLE HEART. NOTE THAT THE STEM AND LEAF OF THE APPLE SHOULD APPEAR IN WHITE (COLOR OF SIGN BACKGROUND). MAKE SURE ALL OUTLINES OF LETTERS ARE STRAIGHT AND SMOOTH.
2. TYPEFACE - REFER TO TYPE SPECIFIED HERE IN ON SH. 2 OF 2. ALL TYPE TO BE SET AT SAME SPACING (PROPORTIONALLY) AS SHOWN ON THIS DRAWING. FOLLOW DRAWING FOR POSITION, SPACING AND ALIGNMENT OF ALL NAMES AND TITLES.
3. PROJECT TITLE - UP TO 3 LINES, EACH LINE NOT TO EXCEED 18 CHARACTERS, INCLUDING SPACES. TO BE PROVIDED BY ENGINEER.
4. ON MOTO "IS WORKING TOGETHER & BUILDING TOGETHER", ALL LETTERS SHOULD BE RED EXCEPT "WORKING" AND "BUILDING" WHICH SHOULD APPEAR IN BLUE.
FRAMED IN 2"x2" PRESSURE TREATED LUMBER

PROJECT SIGN SPECIFICATIONS:

FRAME:

SHALL BE FROM QUALITY DRESSED LUMBER AS FOLLOWS: 2" x 2" PINE STOCK PRESSURE TREATED, RUNNING AROUND INSIDE BACK EDGE OF SIGN, WITH ONE INTERMEDIATE HORIZONTAL AND TWO DIAGONAL SUPPORTS GLUED AND SCREWED TO BE RIGID. FRAME SHALL BE PAINTED WHITE WITH TWO COATS OF EXTERIOR ENAMEL PAINT TO MATCH WHITE BACKGROUND OF SIGN PANEL.

EDGING:

AN ALUMINUM EDGING, 22 GAUGE (C-SHAPED) OF WHITE ENAMEL FINISH TO MATCH SIGN BACKGROUND, SHALL RUN AROUND ENTIRE EDGING OF SIGN PANEL AND FRAME. CORNERS SHALL BE MITRED TO TIGHT FIT. SIZE: 3/4" LESS.

SIGN PANEL:

SHALL BE CONSTRUCTED IN ONE PIECE MEASURING FULL DIMENSIONS OF 14 GAUGE ALUMINUM. FRP PANEL SHALL BE CONSTRUCTED SUCH THAT IT WILL BE FLUSH WITH THE EDGE OF THE 2"x2" WOOD FRAME. THE ALUMINUM PANEL SHALL BE PRE-FINISHED BOTH SIDES WITH A GLOSSY WHITE BASED-ON ENAMEL FINISH.

FASTENING:

1. FASSEND PANEL TO FRAME, USING CADMIUM-PLATED #8 SHEET-METAL SCREWS AT 6" O.C.
2. THE SIGN PANEL SHALL BE CAPPED AT "HE EDGE BY THE (C-SHAPED) EDGING WHICH SHALL ALSO FIT OVER THE WOOD FRAME. CADMIUM-PLATED #8 SHEET-METAL SCREWS SHALL BE FASTENED THROUGH THE CHANNEL AND INTO THE WOOD FRAME AROUND THE TOP OF THE ENTIRE PERIMETER FRAME AT 8" O.C.

SIGN GRAPHICS:

GRAPHICS SHALL BE APPLIED TO THE SIGN PANEL ACCORDING TO THE FOLLOWING METHODS:
1. FOR LOGOS AND ALL NON-VARYING TEXT INFORMATION INCLUDING THE MOTTO, TEXT BLOCK LINES AND FRAMES, MAYOR'S NAME AND TITLE, TEXT SHALL BE REPRODUCED AT CORRECT SCALE AND POSITION BY THE SILK SCREEN METHOD USING HALF-FULL-SIZE CAMERA READY MECHANICAL LAYOUTS.
2. FOR VARYING TEXT, (AS PROVIDED BY THE ENGINEER), TEXT SHALL BE PRODUCED BY THE SILK SCREEN METHOD OR BY COMPUTER-MASTERED VINYL DIE-CUT LETTERS WITH WATERPROOF ADHESIVE BACKING APPLIED ONTO THE ALUMINUM PANEL. ACCORDING TO THE LETTER MANUFACTURER'S INSTRUCTIONS, THE VINYL LETTERS SHALL BE OPAQUE VINYL, GLOSSY FINISH, AS PRODUCED BY 3M #46 EQUAL. COLOR SHALL BE MATCHED AS CLOSELY AS POSSIBLE TO PANTONE COLOR SYSTEM - BLUE 300C.

PAINT:

SILK-SCREENED COLORS SHALL BE OF APPROVED EXTERIOR ENAMEL COLORS TO MATCH COLORS AS INDICATED BELOW:
- RED - MATCH PANTONE COLOR SYSTEM - 1875 C
- BLUE - MATCH COLOR OF VINYL GRAPHICS AS DESCRIBED BELOW.

TYPE:

*SPECIFICATIONS FOR TYPE FACE AS FOLLOWS:
FOR PROJECT TITLE: HELVETICA BOLD COMPRESSED (OR COMPACT)
FOR NAMES: FUTURA DEMI-BOLD
FOR TITLES: FUTURA BOLD
* CAP SIZE AND POSITION IN IDENTICAL PROPORTION TO THOSE SHOWN

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

STANDARD PROJECT SIGN
TYPE AA

ADD & CORRECT NOTES
DRAWN
CHECKED
CHECKED
REVISION NO.
DESCRIPTION
DRAFTED
DRAFTED
DATE: 8-23-85
H-1000AA SH.2 OF 2
NOT TO SCALE
(ONE) 2"X4" PRESSURE TREATED LUMBER (TYP FOR DIAGONALS)
(TWO) 2"X4" PRESSURE TREATED LUMBER (TYP FOR FRAME & VERTICAL)

PROJECT SIGN SPECIFICATIONS:
FRAME:

SHALL BE FROM QUALITY DRESSED LUMBER AS FOLLOWS: 2"X4" DOUGLAS FIR LARCH NO. 2 PRESSURE TREATED, RUNNING AROUND INSIDE BACK EDGE OF SIGN, WITH ONE INTERMEDIATE VERTICAL AND FOUR DIAGONAL SUPPORTS GLUED AND SCREWED TO BE RIGID. FRAME SHALL BE PAINTED WHITE WITH TWO COATS OF EXTERIOR ENAMEL PAINT TO MATCH WHITE BACKGROUND OF SIGN PANEL.

EDGING:

AN ALUMINUM EDGING, 22 GAUGE (C-SHAPED) OF WHITE ENAMELED FINISH TO MATCH SIGN BACKGROUND , SHALL RUN AROUND ENTIRE EDGING OF SIGN PANEL AND FRAME. CORNERS SHALL BE MITRED TO TIGHT FIT. SIZE: 3/4" LESS.

SIGN PANEL:

SHALL BE CONSTRUCTED IN ONE PIECE MEASURING FULL DIMENSIONS OF 14 GAUGE ALUMINUM. THIS PANEL SHALL BE CONSTRUCTED SO THAT IT WILL BE Flush WITH THE EDGE OF THE 2" X 4" WOOD FRAME. THE ALUMINUM PANEL SHALL BE PRE-FINISHED BOTH SIDES WITH A GLOSSY WHITE BASED-ON ENAMEL FINISH.

FASTENING:

1. FASTER SIGN PANEL TO FRAME, USING CADMIUM-PLATED #6 SHEET-METAL SCREWS AT 6" O.C.
2. THE SIGN PANEL SHALL BE CAPPED AT THE EDGE BY THE (C-SHAPED) EDGING WHICH SHALL ALSO FIT OVER THE WOOD FRAME. CADMIUM-PLATED #6 SHEET-METAL SCREWS SHALL BE FASTENED THROUGH THE CHANNEL, AND INTO THE WOOD FRAME AROUND THE TOP OF THE ENTIRE PERIMETER FRAME AT 6" O.C.

SIGN GRAPHICS:

GRAPHICS SHALL BE APPLIED TO THE SIGN PANEL ACCORDING TO THE FOLLOWING METHODS:
1. FOR LOGOS AND ALL NON-VARYING TEXT INFORMATION INCLUDING THE MOTTO, TEXT BLOCK LINES AND FRAMES, MAYOR'S NAME AND TITLE, TEXT SHALL BE REPRODUCED AT CORRECT SCALE AND POSITION BY THE SCREEN METHOD USING HALF-FULL-SIZE CAMERA READY MECHANICAL LAYOUTS.
2. FOR VARYING TEXT, (AS PROVIDED BY THE ENGINEER), TEXT SHALL BE PRODUCED BY THE SILK SCREEN METHOD OR BY COMPUTER-SPACED VINYL DIE-CUT LETTERS WITH WATERPROOF ADHESIVE BACKING APPLIED ONTO THE ALUMINUM PANEL ACCORDING TO THE LETTER MANUFACTURER'S INSTRUCTIONS. THE VINYL LETTERS SHALL BE OPAQUE VINYL GLOSSY FINISH, AS PRODUCED BY 3-M 05 EASY. COLOR SHALL BE MATCHED AS CLOSELY AS POSSIBLE TO PANTONE COLOR SYSTEM - BLUE 30DC.

PAINT:

SILK-SCREENED COLORS SHALL BE OF APPROVED EXTERIOR ENAMEL COLORS TO MATCH COLORS AS INDICATED BELOW:
RED - MATCH PANTONE COLOR SYSTEM - Warm Red C
BLUE - MATCH COLOR OF VINYL GRAPHICS AS DESCRIBED BELOW.

TYPE:

*SPECIFICATIONS FOR TYPE FACE AS FOLLOWS:
FOR PROJECT TITLE: HELVETICA BOLD COMPRESSED (OR COMPACT)
FOR NAMES: FUTURA DEMI-BOLD
FOR TITLES: FUTURA BOOK

* CAP SIZE AND POSITION IN IDENTICAL PROPORTION TO THOSE SHOWN

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

STANDARD PROJECT SIGN
TYPE BB

NOT TO SCALE
DATE: 10-26-85
H-1000BB SH 2 OF 2
YOUR STREET IS ON THE ROAD TO RECOVERY

(AMOUNT) STREET IMPROVEMENT

COMPLETION (SEASON 19---)

(MAJOR PROJECT LIMIT)

CITY OF NEW YORK

DEPARTMENT OF TRANSPORTATION

COMMISSIONER

MAYOR

CONTRACTOR

NOTES:
1. SIGNS SHALL BE 3/4" THICK, EXTERIOR GRADE A-C FIR PLYWOOD.
2. MOUNTING HARDWARE SHALL BE AS APPROVED BY THE ENGINEER.
3. FACE, BACK & EDGES SHALL BE PAINTED WITH ONE COAT OF APPROVED PLYWOOD PRIMER AND A FINISHED COAT OF BLUE EXTERIOR ENAMEL.
4. ALL LETTERING SHALL BE FILLED WITH THE BEST QUALITY WHITE ENAMEL.
5. "YOUR STREET IS ON THE ROAD TO RECOVERY" SHALL BE HELVETICA MEDIUM LETTERING, ALL CAPS, ALL OTHER LETTERING SHALL BE IN HELVETICA LIGHT, ALL CAPS.
6. COST OF STREET IMPROVEMENT AMOUNT SHALL BE IN NUMERALS. Example: 1,000,000.
7. "SEASON" IS TO MEAN SUMMER, FALL, ETC.
8. ALL LETTERING SHALL BE PRINTED ON THE FINISHED SIDE OF THE PLYWOOD.

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

PROJECT SIGN
TYPE-C (INTERIM)

SCALE: 3" = 1'-0"
DATE: 2/8/82
H-1000C R-82
NOTES:
1. ALL TIMBER SHALL BE DOUGLAS FIR GRADE NO. 1.
2. ALL WORK SHALL CONFORM WITH NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENINGS.
3. LIGHTING FIXTURES CAN BE BATTERY TYPE FLASHER WARNING LIGHT OR AS DIRECTED BY THE ENGINEER.
4. RAILS & POSTS ARE TO RECEIVE TWO (2) COATS LEAD AND OIL PAINT ORANGE & WHITE COLORS IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ELEVATION A-A

SECTION B-B

SECTION C-C

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS
TYPICAL TEMPORARY PEDESTRIAN PASSAGENY IN ROADWAY AREA DURING CONSTRUCTION

DATE: 3/10/80

H 1004 R 79
NOTES:

1. EXPANSION JOINTS IN THE STEEL CURB FACING AND CONCRETE BACKING SHALL BE AT A MAXIMUM SPACING OF 24 FEET.

2. THE EXPANSION JOINTS OF THE CURB AND STEEL CURB FACING SHALL LINE UP WITH THE EXPANSION JOINTS OF THE CONCRETE SIDEWALK.

3. NO PIECE OF STEEL CURB FACING HAVING LESS THAN TWO (2) WELDED DOWELS MAY BE INSTALLED UNLESS IT IS WELDED TO THE ADJACENT STEEL CURB FACING.

4. 1/2" x 5' HEADED ANCHOR STUDS (GRANULAR OR SOLID FLUX FILLED) MAY BE SUBSTITUTE.

5. STRUCTURAL STEEL AS PER BOARD OF STD. SPEC. 20-6-35 TYPE A-1 (A.S.T.M.
   DESIGNATION A36)

6. SURFACE TO BE PAINTED SHALL BE THOROUGHLY CLEANED AND THEN PAINTED IN ACCORDANCE WITH O.O.T. SPECIFICATIONS, LATEST REVISION.

7. WHERE TWO (2) PIECES OF STEEL CURB FACING ARE JOINED BUT NOT WELDED, TWO (2)
   ONE-HALF (1/2) INCH RODS, TWENTY FOUR (24) INCHES LONG SHALL BE INSERTED INTO
   THE CONCRETE BACKING, ONE-HALF (1/2) THE LENGTH AT EACH SIDE OF THE JOINT.

8. CONCRETE TO BE CLASS B-32, AIR-ENTRAINED.

9. CORNER CURB--VERTICAL FACE WILL BE ACCEPTABLE FOR CORNER CURBS PROVIDING THE
   ENDS ARE WASHED TO FORM A TRANSITION WITH ADJACENT BATTED FACE CURBS.
NOTES:

1. ALL TIMBER SHALL BE DOUGLAS FIR GRADE NO.1 OR EQUAL.

2. ALL WORK SHALL CONFORM WITH NATIONAL DESIGN SPECIFICATION FOR STRESS GRADE LUMBER AND ITS FASTENINGS.

3. ALL PAINTING SHALL BE ON TRAFFIC FACE, 2-COATS APPROVED ORANGE AND STAIN RESISTANT REFLECTORIZED WHITE.

4. ALL ELECTRICAL WORK FOR BARRICADE LIGHTING SHALL ConFORM TO THE DETAILS SHOWN IN D.W.S. & E. STANDARD DRAWING NO. H-3005 AND IN D.W.S. & E. GENERAL SPECIFICATIONS FOR THE INSTALLATION OF LIGHTING SYSTEMS.

5. THIS STANDARD APPLIES FOR BOTH BATTERY OPERATED FLASHING UNITS OR ELECTRICAL UNITS AS SHOWN. PROJECT SPECIFICATIONS WILL DICTATE THE TYPE OF POWER SUPPLY.

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

ILLUMINATED TIMBER BARRICADE

DATE: 3/10/80

H-1013 R/9
DETAIL OF CONCRETE CRADLE & VARI-COLORED
PRECAST AND PRESTRESSED CONCRETE CURB

NOT TO SCALE
NOTES
1. SLEEVES REQUIRED IN NEW CONCRETE MASONRY STRUCTURES.
2. SLEEVES NOT REQUIRED FOR INDIVIDUAL NEW FOOTINGS.
3. IN EXISTING CONCRETE OR MASONRY STRUCTURES, CONTRACTOR TO DRILL 3" DIA. HOLES FOR 2"X2" POST AND 1 1/2" DIA. HOLE FOR 3/4" INTERMEDIATE POST.
4. ALL STEEL SHALL CONFORM TO S.A.E. 1015 MERCHANT BAR QUALITY.
5. ALL JOINTS TO BE WELDED UNLESS NOTED OTHERWISE.
6. ALL STEEL TO BE PAINTED ONE SHOP COAT AND ONE FIELD COAT OF RED LEAD AND OIL PAINT AND TWO FIELD COATS OF AN APPROVED COLORED LEAD AND OIL PAINT.
7. ALL FASTENING HARDWARE TO BE COMPATIBLE.
8. CONCRETE IN INDIVIDUAL FOOTINGS - CLASS C-25, TYPE III.
9. CEMENT GROUT - 1:1 MIX.
10. ALL ALUMINUM COMPONENTS 6061-T6; ALUMINUM ALLOY FOR BOLTS 2024-T4.
11. INTERMEDIATE POST FOOTINGS 1'-0" SQ. X 1'-0" DEEP.
12. LINE POST FOOTINGS 1'-0" SQ. X 3'-0" DEEP.

PICKET FENCE - EMBEDDED IN NEW STRUCTURES

TYPICAL ELEVATION
SCALE: 1/2" = 1'-0"

INDIVIDUAL FOOTING IN EXISTING STRUCTURES
INDIVIDUAL FOOTING IN SCAVENGE AREAS
ADDITIONAL EMBEDMENT DETAILS
FOR STEEL POST-LEAD CAULKING, FOR ALUMINUM POST-EPOXY FILLER PERMAGILE-PG2089 OR EQUAL
DRILLED HOLES IN EXISTING STRUCTURES

NOTES
1. SLEEVES REQUIRED IN NEW CONCRETE MASONRY STRUCTURES.
2. SLEEVES NOT REQUIRED FOR INDIVIDUAL NEW FOOTINGS.
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11. INTERMEDIATE POST FOOTINGS 1'-0" SQ. X 1'-0" DEEP.
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PICKET FENCE - EMBEDDED IN NEW STRUCTURES

TYPICAL ELEVATION
SCALE: 1/2" = 1'-0"

INDIVIDUAL FOOTING IN EXISTING STRUCTURES
INDIVIDUAL FOOTING IN SCAVENGE AREAS
ADDITIONAL EMBEDMENT DETAILS
FOR STEEL POST-LEAD CAULKING, FOR ALUMINUM POST-EPOXY FILLER PERMAGILE-PG2089 OR EQUAL
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9. CEMENT GROUT - 1:1 MIX.
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11. INTERMEDIATE POST FOOTINGS 1'-0" SQ. X 1'-0" DEEP.
12. LINE POST FOOTINGS 1'-0" SQ. X 3'-0" DEEP.
NOTE:
1. THE VOLUME OF BROKEN STONE TO BE PAID FOR UNDER THE ITEM FOR STONE BALLAST SHALL BE THE ACTUAL AMOUNT DEPOSITED WITHIN THE 8'-0" X 8'-0" PLAN DIMENSIONS TO THE DEPTH DESIGNATED BY THE ENGINEER AND SHALL NOT EXCEED THE VOLUME MEASURED IN THE VEHICLES AT THE PLACE OF DEPOSIT.
2. SHEETING SHALL BE FURNISHED AND INSTALLED AS PER N.Y.S. DEPT. OF LABOR INDUSTRIAL CODE RULE NO. 23 OR AS FURTHER DIRECTED BY THE ENGINEER.

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<th>CITY OF NEW YORK</th>
<th>DEPARTMENT OF TRANSPORTATION</th>
<th>BUREAU OF HIGHWAY OPERATIONS</th>
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<tbody>
<tr>
<td>SEEPAGE BASIN</td>
<td>TYPE B</td>
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<td>DATE 3/10/80</td>
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<td>1026 B R79</td>
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PLAN
TOP SLAB
NOT TO SCALE

BASIN CAPACITY: 2844 GALS.
VOLUME: 380.2 CU. FT.

NOTES
1. CONCRETE SHALL BE CLASS A-40, TYPE II A.
3. WELDED STEEL WIRE FABRIC SHALL BE ASTM DESIGNATION A-185.

ELEVATION
NOT TO SCALE

DETAIL
DRAIN OPENING
NOT TO SCALE

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

SEEPAGE BASIN
TYPE M

DATE: 3/10/80
H-1026M R79
**DESIGN SPECIFICATIONS**

**SIZE LIMITATIONS**
- **WIDTH:** The width of the canopy is limited to the width of the entrance to the building or place of business, but in no case may the width be less than four feet.
- **HEIGHT:** The bottom of the covering of the canopy shall be not less than eight feet above the sidewalk.
- **LENGTH:** The canopy may extend from the building to no more than a min. of one foot or a max. of 2 feet from curb line.

**COVERING MATERIAL**
- May be of flameproof canvass or cloth, approved slow burning plastic, sheet metal or other equivalent material.
- Must harmonize with the architecture of the building that it is intended for and also be in keeping with the surrounding area.
- Where initially painted, it shall be repainted at a maximum of five years intervals.

**COLOR**
- Must harmonize with the architecture of the building that it is intended for and also be in keeping with the surrounding area.

**PAINTING**
- Lettering on covering may be of a painted, imprinted, or stenciled type as approved and shall be limited to a single horizontal line of lettering on each side face of the canopy covering the sum of the areas of the permitted canopy lettering and the signs on the building with which the canopy is connected shall not exceed the sign limits established in the zoning resolution of the city of New York.

**SIDE CURTAINS**
- No side curtains are permitted.

**SUPPORT AND FRAMEWORK MATERIAL**
- Supporting framework shall be constructed of non-combustible metal members. Vertical uprights shall be of sufficient size and strength and shall be no less than a standard steel pipe, 1 1/4 inch diameter where special construction is used instead of pipe the design shall be equivalent to the above noted minimum standard for pipe.

**CONSTRUCTION**
- The vertical uprights shall be imbedded in a concrete footing of adequate size designed to take care of wind uplift. Intermediate supports of diagonal bracing for vertical supports are not permitted except for additional upright supports at the face of the building.

**PAINTING**
- Where framework is iron, steel or galvanized, it shall be painted at a maximum of five years periods thereafter.

**LIGHTING**
- Area under canopy covering shall be lighted to the satisfaction of the Bureau of Highways, where deemed necessary by the Bureau. If canopy is within twenty feet of a lamp post, lighting shall be provided under the canopy to a minimum of 30 foot candles. Lighting installation must be maintained by an electrician and approved by the bureau of gas and electricity.

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**NOTE-A**
Prior approval must be obtained from the fire department for distances less than 15'-0".

**NOTE-B**
Prior approval must be obtained from the bureau of traffic operations where existing parking meters are located within the proposed canopy area.

A permit must be obtained from the bureau of high-way operations before any canopy is erected.
PLAN

SECTION AA

SECTION B-B

SECTION C-C

SECTION D-D

SECTION E-E

NOTES:
1. DESIGN VAULT ROOF TO CONFORM TO REQUIREMENTS OF THE DEPARTMENT OF BUILDINGS.
2. CURB & SIDEWALK SHALL BE SET TO LINE AND GRADE AS DETERMINED BY THE BUREAU OF HIGHWAY OPERATIONS.
3. RECESS FOR CURB TO BE NOT LESS THAN 18" BELOW GRADE TO BE FURNISHED BY THE BUREAU OF HWY OPERATIONS.
4. CURB SHALL CONFORM TO THE STANDARD SPECIFICATION ON FILE IN THE BUREAU OF HIGHWAY OPERATIONS.
5. SIDEWALK AREA BETWEEN EXISTING AND PROPOSED CURB LINES TO BE MAINTAINED FOR PEDESTRIAN TRAFFIC PENDING WIDENING OF THE ROADWAY.
6. PERMIT FROM THE BUREAU OF HWY OPERATIONS MUST BE OBTAINED BEFORE ANY WORK IS PERFORMED WITHIN THE AREA.
TYPICAL PAVEMENT KEY

NOT TO SCALE

LIMITS OF ASPHALT Overlay

1'-6"

3" MINIMUM (OR TO TOP OF BASE-
SMALLEST DIMENSION GOVERNS)

STRAIGHT, SAW-CUT EDGE
APPLY TACK COAT TO ALL SURFACES

VARIABLE CONCRETE BASE, ASPHALT BASE OR STONE BASE

SUBGRADE

CHISEL, CUT EDGE

REMOVE ALL MATERIAL WITHIN KEY
AND DISPOSE OF AWAY FROM SITE
AS DIRECTED BY THE ENGINEER

EXISTING ASPHALTIC WEARING COURSE

CURB
SECTION
EXISTING CONDITION
NOT TO SCALE

TYPICAL NEW PAVEMENT IN UNPAVED WING AREA
NOT TO SCALE

WASHINGTON, D.C.
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS
TYPICAL NEW PAVEMENT IN
UNPAVED WING AREA

DATE 3/10/80
H-1032 R 79
NOTE:

ADJUST ALL MANHOLE, GRATES, CATCH-BASINS, VAULTS, BOXES, ETC. WITHIN AREA OF RESURFACING.

SECTION
NOT TO SCALE

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

TYPICAL RESURFACING ON ASPHALT PAVEMENT &/OR WEARING COURSE
(LESS THAN FULL WIDTH)
SECTION

TYPE I CONSTRUCTION JOINT
NOT TO SCALE

NOTES:
1. TYPE I CONSTRUCTION JOINT SHALL BE INSTALLED ON ALL LONGITUDINAL ROADWAY JOINTS.
2. TYPE II CONSTRUCTION JOINT SHALL BE INSTALLED ON ALL TRANSVERSE ROADWAY JOINTS.
3. ALL ASPHALT JOINTS SHALL BE SAW-CUT, FULL DEPTH. TACK COAT TO BE APPLIED TO ALL SURFACES. JOINT SHALL BE PARALLEL TO CURBLINE OR AS OTHERWISE DIRECTED.
NOTES:
1. CONCRETE SHALL BE CLASS A-40, 4000 PSI. AS PER SECTION 3.05 OF HIGHWAY STANDARDS SPECIFICATIONS.
2. STEEL REINFORCEMENT SHALL BE AS PER ASTM A615. SEE PROVISION 24, PAGE A19 OF ADDENDUM NO.1 TO STANDARD SPECIFICATION.
3. THE SLOPE OF THE TOP OF CURB SHALL CONFORM TO SLOPE OF SIDEWALK IN ALL CASES.
4. EXPANSION JOINTS IN CURB SHALL NOT EXCEED 24'-0" O.C.
5. THE EXPANSION JOINTS OF THE CURB SHOULD LINE UP WITH THE EXPANSION JOINTS IN THE CONCRETE SIDEWALK.

SECTION A-A
NOT TO SCALE

SECTION B-B
NOT TO SCALE
NOTES:
1. ALL EXPOSED SURFACES TO BE STEEL-TROWEL FINISHED.
2. THE MATERIAL UNDERLYING THE CURB SHALL BE SATISFACTORY AND
   THOROUGHLY COMPACTED TO THE SATISFACTION OF THE ENGINEER.
3. PREMOLDED JOINT FILLER TO BE USED AT ALL EXPANSION JOINTS.
4. COLOR TO BE AS DIRECTED.

ELEVATION

SECTION A-A
TYPICAL TYPE III BREAKAWAY BARRICADE UNIT
ALTERNATE "A"
NOT TO SCALE

NOTES:
1. ALL PIPE SHALL BE POLYVINYL CHLORIDE (PVC) PRESSURE RATED PIPE SDR 21 OR SDR 26 ASTM D2466
2. JOINT FITTINGS SHALL BE PVC ASTM D2665
3. ALL PIPE SHALL BE WHITE. WHITE FITTINGS ARE PREFERRED, BLACK MAY BE USED.
4. SOLVENT CEMENT ASTM D2064 TYPE B
5. ALUMINUM FACE PANELS N.Y.S.D.O.T. 730-05-01 OR 730-05-02
6. REFLECTIVE SHEETING N.Y.S.D.O.T. 730.05-01 OR 730.05-02
7. PAN HEAD METAL SCREWS N.Y.S.D.O.T. 715.04
8. ALL JOINTS TO BE GLUED.

TYPICAL TYPE III BREAKAWAY BARRICADE UNIT
ALTERNATE "B"
NOT TO SCALE

NOTES:
1. ALL PIPE SHALL BE POLYVINYL CHLORIDE (PVC) PRESSURE RATED PIPE SDR 21 OR SDR 26 ASTM D2466
2. JOINT FITTINGS MAY BE PVC ASTM D2665 OR ACRYLONITRILE BUTADIENE STYRENE (ABS) ASTM D2769 (DRAINAGE AND VENT)
3. ALL PIPE SHALL BE WHITE. WHITE FITTINGS ARE PREFERRED, BLACK MAY BE USED.
4. ALL JOINTS SHALL BE FREE TO SEPARATE UPON VEHICLE IMPACT.
5. SHOVEL CONDUIT TO BE TIED TOGETHER WITH ROPE THREADED INTO PIPE INTERIOR. USE 3/8" NO. 4 SOLID BRAIDED NYLON OR EQUIVALENT.
6. A FIXED FRAMELESS BOLT ON CONNECTION IS PREFERRED. SAND BAGS MAY BE SUBSTITUTED.
7. TIE WIRE 64 CH. ALUMINUM OR GALVANIZED STEEL.
9. REFLECTIVE SHEETING N.Y.S.D.O.T. 730.05-01 OR 730.05-02.

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

TYPE III
BREAKAWAY BARRICADE

DATE 3/10/80
H-1038, R 79
NOTES:

1. TYPE I CONSTRUCTION JOINTS TO BE INSTALLED ON ALL LONGITUDINAL ROADWAY JOINTS.
2. TRANSVERSE JOINTS TO BE SAW CUT WITHIN 24 HOURS OF POURING OF CONCRETE.
   TRANSVERSE JOINTS SHALL BE 5 FT. SKewed AND SHALL BE PROVIDED AT 20 FT. CENTERS.
   SEE TYPICAL LAYOUT AND SECTION X-X FOR DETAILS. (1/8 WIDE)
3. AN 1/2 INCH WIDTH OF R.C. MEMBRANE IS TO BE APPLIED OVER TRANSVERSE AND LONGITUDINAL
   JOINTS TO PREVENT REFLECTIVE CRACKING. R.C. MEMBRANE TO BE APPROVED BY THE ENGINEER.
4. R.C. MEMBRANE TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.
5. ROADWAY JOINTS (LONGITUDINAL OR TRANSVERSE) TO BE PAID FOR UNDER NEW CONCRETE BASE ITEM.
6. CONTRACTOR WILL BE PERMITTED TO INSTALL ALTERNATE COLD JOINT FOR TRANSVERSE SECTIONS, SUBJECT TO THE APPROVAL OF THE FIELD ENGINEER.
7. R.C. MEMBRANE WILL BE PAID FOR UNDER ITEM 6.9, REFLECTIVE CRACKING MEMBRANE (1/8 WIDE)

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

| TRANSVERSE CONSTRUCTION JOINTS |
| FOR CONCRETE BASE |

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<tr>
<td>4</td>
<td>JOINT SAWCUT SPACING REVISED</td>
<td>10-29-71 NL.</td>
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<tr>
<td>3</td>
<td>ADDED DIMENSION (1/8 WIDE) TO TRANSVERSE JOINT</td>
<td>5-29-71 J.H.</td>
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<td>2</td>
<td>R.C. MEMBRANE TO BE PAID UNDER ITEM 6.9 WIDTH CHANGED TO 1/8</td>
<td>5-29-71 J.H.</td>
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<td>1</td>
<td>REPLACE MATT FABRIC WITH REFLECTIVE CRACKING MEMBRANE</td>
<td>4-26-71 J.H.</td>
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DATE: 3/10/80
H1040 R79
NOTES

1. DEPTH "D" TO BE TO THE TOP OF THE
   EXISTING CONC. BASE. THE CONC. BASE
   SHALL BE CHIPPED CLEAN AND AN EPOXY
   BONDING COMPOUND SHALL BE APPLIED
   THERETO.

2. SHOULD THE DEPTH "D" TO THE TOP OF
   THE EXISTING CONC. BASE BE LESS THEN
   6" THE BASE SHALL BE CUT DOWN TO
   A MIN. OF 6" AND AN EPOXY BONDING
   COMPOUND WILL BE APPLIED TO THE
   EXPOSED CONC. SURFACE.

3. CONC. PAVEMENT SHALL BE CLASS "A"
   CONC. (4000 psi at 28 Days).

4. PRICE BID SHALL INCLUDE ALL EXCA-
   VATION, PREPARATION, EPOXY, CONC.,
   FINISHING ETC. REQ'D FOR THE PROPER
   INSTALLATION.

5. THE PERIMETER OF THE EXCAVATED
   AREA SHALL BE CUT SQUARE IN ORDER
   TO PROVIDE FOR AN EVENLY FINISHED
   AREA.

6. IF THE SEPARATION BETWEEN TWO OR
   MORE CASTINGS IS SMALLER THEN 3'
   THE RESTORATION SHALL BE AS ONE
   UNIT WHILE THE PAY ITEM SHALL BE
   THE NUMBER OF MANHOLES (VALVE
   BOXES) INCORPORATED INTO THE WORK.

7. FOR ITEM 6.698 CONC. COLLAR AROUND
   STEAM VALVE BOXES CONSTRUCTION
   WILL BE SIMILAR EXCEPT EDGE
   DISTANCE "E" SHALL BE 1'-0".

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

CONCRETE COLLAR AROUND
STEAM MANHOLE (ITEM 6.69A)
STEAM VALVE (ITEM 6.69B)

DATE: 7/10/80

REVISION NO. DESCRIPTION DATE APPROVED

R79
TYPICAL TYPE RESTORATION

1. WHEN THE EXISTING PAVEMENT IS ASPHALT MACADAM WITHOUT CONCRETE BASE, THE CONTRACTOR SHALL SAWCUT A WIDTH OF NOT LESS THAN \(w + 1\) FT OF THE EXISTING PAVEMENT AND RESTORE THIS TO CONFORM TO THE EXISTING PAVEMENT AND SUB-BASE MATERIAL BUT MUST PLACE NOT LESS THAN 6" OF ASPHALT MACADAM ON 6" OF CRUSHED STONE AGGREGATE SIZE 1" TO 3" THE RESTORATION SHALL CONFORM TO THE TYPICAL TYPE RESTORATION ABOVE WHERE NO MARKING SEEN THE ALIGNMENT SHALL BE SO THAT SAWCUT DOES NOT FALL UNDER A WHEEL TRACK.

2. WHEN A DISTANCE BETWEEN HOLES IS GREATER THAN 10 FT, FROM EDGES TO ADJACENT EDGES, THE CONCRETE BASE SHALL BE LEFT SEPARATE FOR EACH HOLE. A SERIES OF SMALL HOLES Spaced HOFT. OR LESS FROM EDGE TO ADJACENT EDGE SHALL BE OPENED TO A CONTINUOUS TRENCH. SEE TYPE V RESTORATION.

3. ALL REPAIRS SHALL CONFORM TO TYPICAL TYPE RESTORATION I THRU V ABOVE.

4. FOR TRENCH OR HOLE RESTORATION AT BUS STOP OF FULL DEPTH CONCRETE OF ANY FULL DEPTH CONCRETE PAVEMENT, SEE STANDARD DRAWING 1042B FOR CONSTRUCTION DETAILS AND STANDARD DRAWING 1042B FOR RESTORATION DETAILS.

5. FOR RESTORATION OF CONCRETE COLLAR AROUND STEAM MASTHOLES SEE STANDARD DRAWING 1041. FOR BUS STOP REFER TO STANDARD DRAWING 1005.

NOTES:

1. ALL UNDERWATER BASE SHALL BE REMOVED PRIOR TO BACKFILLING.

2. ALL TRENCHES SHALL BE BACKFILLED WITH GOOD TO EXCELLENT FILL AS PER BUREAU OF TRAFFIC SPECIFICATIONS.

3. CHISEL CUTTING BACK TO SOUND CONCRETE BASE, SQUARING AND ALIGNING OF CUT LIMITS TO BE PERFORMED ONLY AFTER COMPLETION OF THE COMPACTION OF THE BACKFILL TO THE BOTTOM OF THE BASE.

4. BACKFILL MATERIAL SHALL BE DEPOSITED IN HORIZONTAL LAYERS NOT EXCEEDING 12" IN THICKNESS PRIOR TO COMPACTION. A MINIMUM OF 95% OF STANDARD MAXIMUM DENSITY WILL BE REQUIRED. WHEN PLACING BACKFILL AROUND PIPES, LAYERS SHALL BE DEPOSITED TO SUCCESSIVELY BURY THE PIPE TO PROF DEPTHS ON BOTH SIDES. COMPACATION SHALL BE ACHIEVED BY THE USE OF IMPACT RAMMERS, PLATE OR SMALL VIBRATING OR SMOOTH BOTTOM HEAVY COMPACTING EQUIPMENT. HAND TAMPERING IS NOT PERMITTED EXCEPT IN THE IMMEDIATE AREA OF THE UNDERGROUND FACILITY.

5. ALL RESTORATION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF D.O.T. BUREAU OF TRAFFIC, AND IN PROCESS INSPECTION AND TESTING SHALL BE CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER.

6. WHEN THE EXISTING PAVEMENT IS ASPHALT ON CONCRETE BASE THEN RESTORATION SHALL BE AS SHOWN ON RESTORATION DETAIL. CONCRETE SHALL BE REMOVED TO A WIDTH OF W + 1 FT. BY HARD HOED DRILLING OR SAWCUT AND GRINDING OR FEEDING TO MATCH THE EXISTING CONCRETE AND CHISEL OUT. ASPHALT SHALL BE REMOVED TO A WIDTH OF NOT LESS THAN W + 2 FT. SAWCUT AND GRINDING OR FEEDING TO MATCH THE EXISTING CONCRETE AND CHISEL OUT WITH THE LANE MARKING OR DIRECTION OF TRAFFIC IF THERE ARE NO LANE MARKINGS, AND PERPENDICULAR THERETO.
1. All trenches shall be backfilled with good to excellent fill as per the Bureau of Highway Operations specifications.

2. Backfill material shall be deposited in horizontal layers not exceeding 12" in thickness prior to compaction. A minimum of 95% of standard maximum density will be required when placing backfill layers. Backfill shall be deposited to progressively bury the utility to equal depths on both sides, compaction shall be achieved by the use of impact hammers, plate, or small drum vibrators or pneumatic button head compaction equipment. Hand tamping is not permitted except in the immediate area of the underground facility.

3. All materials used in the restoration shall conform to the standards and specifications of the Department of Transportation Bureau of Highway Operations and shall be approved by the Bureau Design Division.

4. The outline of the patch shall be cut square by saw cutting to a depth of two inches (2") at a minimum distance of 1-1/2" from all edges of the excavation. (See sketch for detail). The breakup with pneumatic hammers is to begin at the center of the patch area not at the saw cut. If the contractor spalls the concrete during the removal, he must make a new saw cut outside the spalled area and remove the concrete without additional compensation.

5. To minimize or eliminate patch rocking, pumping, and breakup, the width of the patch shall not be less than one full lane width. However, if the excavation extends into an adjacent lane the concrete in this adjacent lane is to be removed to the next longitudinal joint (to the curb line if cut is in curb lane). Existing joints thereby removed are to be restored in such a manner so that the structural integrity of the original joint is retained. Tie bars, if present, shall in all cases be retained and/or replaced.

6. The edge of the patch shall not be closer than 10' to the nearest transverse joint. If said edge falls within this ten (10) foot distance all concrete up to the joint line is to be removed and replaced to said boundary. Likewise, the edge of the patch shall not be closer than 1-1/2" from the edge of any street hardware. If said edge falls within this one (1) foot distance all concrete shall be removed up to 1-1/2" beyond the far side of the hardware (joints may be rough faced or smooth faced but in all cases the structural integrity of the existing joint is to be retained). Load transfer devices, if present, shall be retained and replaced.

7. Immediately prior to the placing of the new concrete all exposed edges of the old concrete shall have a cement-water-sand grout brushed on.

8. A wire mesh of the same size as that in the original pavement shall be placed in the patch area. No physical tie to the existing mesh will be required. This mesh will be placed approx. 2-1/2" below the roadway surface.

9. A conventional concrete mixture containing an increased cement factor (4 bag mix type II cement), reduced water content, superplasticizer and an accelerator is to be used so that the patch can be opened to traffic within a twenty-four hour period, or before, if the concrete has obtained a strength of 2500 psi or better, until this time the patch shall be protected from traffic by plating and/or barricading.

10. Extra attention is to be given to ensure that the patch is well vibrated around the edges and that it is not over finished. The patch should be struck off two or three times to ensure that its surface is even with the adjacent concrete. The finished texture shall match that of the adjacent pavement.

11. A clear curing and sealing compound shall be applied to the finished surface.

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**Legends**

- EXCAVATION AREA
- STREET HARDWARE
- PATCH AREA

**Typical Patch Repairs**

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

CONCRETE PAVEMENT RESTORATION

DATE: 2-9-83

REVISION NO. DESCRIPTION DATE APPROVED

NOT TO SCALE

H-1042 B
1. All undermined base shall be removed prior to backfilling.
2. All trenches shall be backfilled with material meeting Bureau of Highways Standard Specifications, Section 4.11.
3. When placing fill or backfill around pipes or other underground facilities, six (6) layers shall be deposited to progressively bury the facility to equal depth on both sides and for the full depth and width of the trench excavated for the facility. The above method of fill or backfill supercedes the fill or backfill methods as specified elsewhere in the Bureau of Highways Standard Specifications for privately owned or City owned utilities in deep trenches. In lieu of depositing and compacting the backfill from two (2) feet above the underground facility to a plane five (5) feet below final surface in accordance with the above specified procedure, the contractor may submit to the Commissioner of Roadway Engineering for approval, an alternate backfill method (i.e., paddding jetting, deeper compaction layers, etc.). This submission must fully describe the alternate method, including proposed equipment, backfill material, depth of compaction layer and trench locations where it will be employed. However, approval of any alternate backfill method shall not relieve the contractor from obtaining a minimum 95% standard proctor maximum density, should the Commissioner determine that the specified density is not being obtained. The area must be re-excavated and backfilled until the required compaction density is achieved.
4. All restoration shall conform to the standards and specifications of O.D.T., Bureau of Highways, and in process inspection and testing shall be certified by a licensed professional engineer.
5. The concrete base of the existing composite pavement shall be removed with a beveled saw cut, as shown on the detail, to dimensions a minimum of six (6) inches greater than the excavation at the base of the bevel, asphalt shall be removed to dimensions six (6) inches greater than the opening of the concrete base at the top of the bevel by sawcut and grinding or peeling so as not to damage the concrete base.
6. The beveled saw cut surface shall be roughened with a small impact hammer, 20 lbs. or less, with a chisel point at least one inch wide.
7. Steel reinforcing bars, as specified on the detail, shall be grouted into drilled holes with concrete grouting material conforming to New York State Department of Transportation Specification 701.05.
8. The roughened beveled surface shall be air blasted to remove dust and loose particles prior to coating with a two component bonding compound conforming to New York State Department of Transportation Specification 721-03, Epoxy Polyurethane Grout.
9. A conventional concrete mixture containing an increased cement factor (3 bag mix, type I11 cement), reduced water content, superplasticizer and an accelerator shall be used so that the restoration can be opened to traffic within a twenty-four hour period when the concrete has attained a strength of 2,500 psi or better. Until that time, the restoration shall be protected from traffic by placing and/or barricading.
10. Match existing transverse joints and saw cuts in existing concrete base.
11. Install reflective cracking membrane over each beveled saw cut. Replace or place reflective cracking membrane over all transverse joints or cracks that carry through, if the width of the restoration is two (2) feet or less, place the reflective cracking membrane over the full width of the repair.
12. Apply a tack coat to all exposed concrete surfaces before installing new asphaltic concrete wearing course.

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**City of New York Department of Transportation Bureau of Bridges and Roads**

**Roadway Restoration for Newly Constructed Roadways**

**NOT TO SCALE**

**Date:** 10/25/94  
**H-1042C**
NOTES

1. EXPANSION JOINTS IN THE STEEL CURB FACING AND CONCRETE BACKING SHALL BE AT A MAXIMUM SPACING OF 24 FEET.

2. THE EXPANSION JOINTS OF THE CURB AND STEEL CURB FACING SHALL LINE UP WITH THE EXPANSION JOINTS OF THE CONCRETE SIDEWALKS.

3. NO PIECE OF STEEL CURB FACING HAVING LESS THAN TWO (2) WELDED DOWELS MAY BE INSTALLED UNLESS IT IS WELDED TO THE ADJACENT STEEL CURB FACING.

4. 1/2" X 5" HEADED ANCHOR STUDS (GRANULAR OR SOLID FLUX FILLED) MAY BE SUBSTITUTED.

5. STRUCTURAL STEEL AS PER BOARD OF STD. SPECS. 20-S-35 TYPE A-1 (A.S.T.M. DESIGNATION A36)

6. SURFACE TO BE PAINTED SHALL BE THOROUGHLY CLEANED AND THEN PAINTED WITH ONE SHOP COAT OF RED LEAD (FEDERAL SPEC. TT-P-86C, CLASS 2).

7. WHERE TWO (2) PIECES OF STEEL CURB FACING ARE JOINED BUT NOT WELDED, TWO (2) ONE-HALF (1/2) INCH RODS, TWENTY FOUR (24) INCHES LONG SHALL BE INSERTED INTO THE CONCRETE BACKING, ONE-HALF (1/2) THE LENGTH AT EACH SIDE OF THE JOINT.

8. CORNER CURB: VERTICAL FACE WILL BE ACCEPTABLE FOR CORNER CURBS PROVIDING THE ENDS ARE WARPED TO FORM A TRANSITION WITH ADJACENT BATTERED FACE CURBS.

ELEVATION - STEEL FACING FOR BRIDGE DECK CURBS

NOT TO SCALE
NOTES:
1. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTION 4.08 OF THE BUREAU OF HIGHWAY OPERATIONS SPECIFICATIONS, LATEST EDITION AS AMENDED.
NOTES:
1. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTION #4.13 OF THE BUREAU OF HIGHWAY OPERATIONS STANDARD SPECIFICATIONS, LATEST EDITION.
2. WELDED WIRE FABRIC, WHERE SPECIFIED, SHALL BE ASTM DESIGNATION A-185, GAUGE #8/8 AT 6"x6" SPACING, AND CONFORM TO SECTION #2.25 OF THE BUREAU OF HIGHWAY OPERATIONS SPECIFICATIONS, LATEST EDITION.

TYPE I - SIDEWALK, OUTSIDE DRIVEWAY

TYPE II - SIDEWALK, IN DRIVEWAY

TYPE III - SIDEWALK WITH WELDED WIRE FABRIC

6" GRAVEL, BROKEN STONE OR SAND AS PER STANDARD SPECIFICATIONS.
NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTION #4.16 OF THE BUREAU OF HIGHWAY OPERATIONS SPECIFICATIONS, LATEST EDITION.

2. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMIT FROM THE DEPT. OF PARKS AND RECREATION FOR THE REMOVAL AND PLANTING OF TREES.

3. TREE PITS SHOULD BE LOCATED TWO (2) FEET MINIMUM FROM GAS, OIL OR WATER BOXES.

4. TREE STAKES ARE TO BE REMOVED BY THE SUBCONTRACTOR NOT LESS THAN ONE YEAR AFTER PLANTING OF SAID TREES AND PRIOR TO THE FINAL ACCEPTANCE OF THE WORK.

5. USE OF SIDEWALK PAVEMENT MATERIALS OTHER THAN GRANITE BLOCK MUST BE SPECIFICALLY APPROVED, IN WRITING, BY THE BUREAU OF HIGHWAY OPERATIONS.

6. GRANITE BLOCK IN TREE PIT SHALL BE PAID FOR UNDER ITEM NO. 6.06.

TREE PLANTING, STAKING
AND TREE PIT PAVEMENT DETAILS
FOR SIDEWALK AREAS

REQUIRED STREET TREE SPACING

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

STREET TREE PLANTING DETAIL
TYPE I

NOT TO SCALE
DATE: 8-23-81
H-1046
NOTES:

1. THIS DETAIL SHALL APPLY FOR BOTH CONCRETE AND STEEL FACED CONCRETE CURB AND SHALL BE USED WHERE DIRECTED BY THE ENGINEER.

2. FOR STEEL FACED CONCRETE CURB, CUT STEEL FACING AT HAUNCH (18 INCHES BELOW TOP OF CURB). THE STEEL SHALL BE CUT IN SUCH A MANNER THAT THE BOTTOM ANCHORS ARE NOT REMOVED.

3. THE CONTRACTOR SHALL HAND EXCAVATE FOR A DISTANCE OF 4'-0" ON EACH SIDE OF CENTERLINE OF EXISTING "TREE TO REMAIN, ITEM #802 E."

4. BULKHEAD OPENING SO THAT PAVEMENT DOES NOT ENCROACH ON OPEN AREA.

5. ALL MATERIALS & CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTIONS #4.08 & #4.09 OF THE STANDARD SPECIFICATIONS LATEST EDITION, AS AMENDED.
CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
STREET IMPROVEMENT
PROJECT
TO BEGIN SOON
ON THIS STREET
FOR INFORMATION CALL
566-1632, 3633

NOTES:
1. SIGN BLANK SHALL BE 24"X24" ALUMINUM PLATE.
2. BACKGROUND SHALL BE GLOSS ENAMEL, ORANGE, FEDERAL NUMBER 22550.
3. LETTERS AND BORDER SHALL BE BLACK AND APPLIED FROM SILK SCREEN IN GLOSS ENAMEL, SIGN PAINT AS SHOWN HEREIN.
4. MOUNTING HARDWARE SHALL BE AS DESIGNED IN SPECIFICATION AND AS APPROVED BY THE ENGINEER.
5. REFER TO SPECIFICATIONS FOR MATERIALS, MOUNTING AND OTHER REQUIREMENTS.
6. 6 BOLTS HOLES 3/8" DIAMETER (TYP)

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS
PROJECT NOTIFICATION SIGN
TYPE N

ADDENDA
DATE: 12-2-86
REVISION NO. DESCRIPTION
0

REDUCTION SCALE ABOVE 1:1048
NOTES:

1. BARREL MUST BE PLASTIC AND SPECIFICALLY DESIGNED AS A TRAFFIC CONTROL DEVICE. THE BARREL MUST BE FLATTENED ON AT LEAST ONE SIDE OR OTHERWISE DESIGNED SO THAT IT WILL NOT ROLL IF OVERTURNED.

2. THE BATTERY POWERED LIGHT IS FOR NIGHT USE ONLY. USE TYPE A LOW INTENSITY FLASHING LIGHT FOR POINT HAZARDS. USE TYPE C LOW INTENSITY STEADY BURN LIGHTS FOR CHANNELIZATION. THE LIGHT SHALL BE PHOTO CELL CONTROLLED FOR NIGHT USE.

3. ALL MATERIALS & METHODS USED ARE TO CONFORM TO SECTION #6.87 OF THE STANDARD SPECIFICATIONS, LATEST EDITION, AS AMENDED.
GENERAL NOTES

2. WELDED WIRE FABRIC SHALL BE #44-44.
3. CONCRETE SHALL BE HIGH-EARLY STRENGTH AS SPECIFIED.
4. SHEETS MAY BE HINGED AS SHOWN IN THE DETAIL. HINGED SHEETS SHALL BE HINGED AT LEAST TWO LONGITUDINAL MEMBERS OFF CENTER, AND EACH ADJOINING SHEET SHALL BE REVERSED IN PLACEMENT, IN ORDER THAT THE HINGES SHALL NOT OVERLAP EACH OTHER AT THE LAP.
5. THE METAL REINFORCEMENT SHALL BE PLACED IN AN APPROVED MANNER AT A NOMINAL DEPTH OF 3 INCHES BELOW THE TOP SURFACE. THE MINIMUM ALLOWABLE DEPTH SHALL BE SUCH THAT 2 INCHES OF CONCRETE COVER IS PROVIDED. THE MAXIMUM ALLOWABLE DEPTH SHALL BE 3 1/2 INCHES BELOW THE SURFACE.
6. THE DETAIL OF REINFORCEMENT IS SHOWN FOR HALF OF THE WIDTH OF THE ROADWAY AND IS SIMILAR IN THE OTHER HALF.
7. REINFORCEMENT FOR OTHER WIDTHS OF ROADWAY SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN, WITH APPROPRIATE DIMENSIONS.
8. CONCRETE PAVEMENT SURFACE TO BE TRANSVERSELY TEXTURED WITH A SET OF SPRING STEEL TINES (3/16" DEEP) IN A DIRECTION PARALLEL TO THE TRANSVERSE JOINT LINES.

CONTINUED ON SHEET 3 OF 4

SECTION A-A

SECTION B-B

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

REINFORCED CONCRETE PAVEMENT
CONSTRUCTION DETAILS

DATE: 10/10/65

REVISION NO. DESCRIPTION DATE/APPROVED
1 SEE REVISION ON SHEET #4 6-65 A.H.
GENERAL NOTES CONTINUED

9. ALL JOINT DOWELS MUST BE LEVEL, TRUE AND ADEQUATELY SUPPORTED SO THERE IS NO MOVEMENT DURING THE PLACEMENT OF CONCRETE.

10. DOWELS MUST BE PARALLEL TO THE CURB/LINES AND THE SURFACE OF THE SLAB. TOLERANCE OF THIS PLACEMENT SHALL BE ± 1/4 INCH.

11. THE CONCRETE SHALL BE DEPOSITED ON A MOIST GRADE IN SUCH MANNER AS TO REQUIRE AS LITTLE REHANDLING AS POSSIBLE. PLACING SHALL BE CONTINUOUS BETWEEN TRANSVERSE JOINTS WITHOUT THE USE OF INTERMEDIATE SLEEVEHEADS. NECESSARY HAND SPREADING SHALL BE DONE WITH SHOVELS, NOT RAKES. WORKMEN SHALL NOT BE ALLOWED TO WALK IN THE FRESHLY MIXED CONCRETE WITH SHOES COATED WITH EARTH OR FOREIGN SUBSTANCES.

12. CONCRETE SHALL BE THOROUGHLY CONSOLIDATED AND ALONG THE FACED OF ALL FORMS AND ALONG THE FULL LENGTH ON BOTH SIDES OF ALL JOINTS ASSEMBLIES. VIBRATORS SHALL NOT BE PERMITTED TO COME IN CONTACT WITH A JOINT ASSEMBLY OR A SIDE FORM. THE VIBRATOR SHALL NEVER BE OPERATED LONGER THAN 10 SECONDS IN ANY ONE LOCATION.

13. CONCRETE SHALL BE DEPOSITED AS NEAR TO TRANSVERSE AND CONTRACTION JOINTS AS POSSIBLE WITHOUT DISTURBING THEM BUT SHALL NOT BE DUMPED INTO A JOINT ASSEMBLY.

14. THE CONTRACTOR SHALL WITHIN EIGHT WEEKS OF THE NOTICE TO PROCEED PREPARE AND SUBMIT TO THE CHIEF ENGINEER OF HIGHWAY DESIGN DETAILED SHOP DRAWINGS FOR THE ENTIRE PAVEMENT SHOWING ALL PROPOSED TRANSVERSE AND LONGITUDINAL CONSTRUCTION, EXPANSION AND CONTRACTION JOINTS; PROPOSED CURB JOINTS; THE PROPOSED METHOD OF JOINT FORMING; THE PROPOSED METHOD OF DOWEL SUPPORT; AND THE PROPOSED SEALANT METHOD FOR THE PRIOR APPROVAL OF THE ENGINEER.

5. SAWING OF THE JOINTS SHALL BE DONE AS SOON AS THE CONCRETE HAS HARDENED SUFICIENTLY TO PREVENT SAWING WITHOUT EXCESSIVE Raveling. ALL JOINTS SHALL BE SAWED BEFORE UNCONTROLLED SHRINKAGE CRACKING OCCURS. IF NECESSARY, THE SAWING OPERATIONS SHALL BE CARRIED ON BOTH DAY AND NIGHT, REGARDLESS OF WEATHER CONDITIONS. A STANDBY SAW SHALL BE AVAILABLE IN THE EVENT OF BREAKDOWN.

16. THE SAWING OF ANY JOINT SHALL BE OMITTED IF A CRACK OCCURS AT OR NEAR THE JOINT LOCATION BEFORE THE TIME OF SAWING. SAWING SHALL BE DISCONTINUED IF A CRACK DEVELOPS AHEAD OF THE SAW. IN GENERAL, ALL JOINTS SHALL BE SAWED IN SEQUENCE. ALL CONTRACTION JOINTS IN LANES ADJACENT TO PREVIOUSLY CONSTRUCTED LANES SHALL BE SAWED BEFORE UNCONTROLLED CRACKING OCCURS. IF EXTREME CONDITIONS MAKE IT IMPRACTICAL TO PREVENT ERYPTIC CRACKING BY EARLY SAWING, THE CONTRACTION JOINT GROOVE SHALL BE FORMED BEFORE INITIAL SET OF THE CONCRETE AND APPROVED METHODS.

**NOTE:** METAL REINFORCEMENT IS NOT SHOWN ON JOINT DETAILS.

**DETAIL OF EXPANSION JOINT**

**NOT TO SCALE**

- **SEALANT MATERIAL TO US BELOW SURFACE:**
  - **TAPE TO PREVENT BOND BETWEEN SEALANT AND CONCRETE**
  - **SAW OUT 1/4" X 1/4" OR STEEL PLATE 1/4" X 3/8" TO FORM GROVE**
  - **FILL WITH JOINT SEALER LUBRICATE ONE HALF SEALANT AND CONCRETE**

- **FILL WITH JOINT SEALER EPOXY COATED**

**NOT TO SCALE**

- **1/4" DOWEL OF INTERMEDIATE GRADE STEEL PER ASTM A-15, 1/8" LONG AT 1/2" O/C, EPOXY COATED**

- **PROVIDE CHAIR OR JOINT SUPPORT FOR SOME USE SKEWED ASSEMBLIES**

**TYPICAL SECTION FOR TRANSVERSE CONTRACTION JOINTS**

**NOT TO SCALE**

**NOTES:** (APPLY TO ALL JOINTS)

1. THE JOINTS CAN BE COMPLETELY FILLED WITH SEALANT MATERIAL OR PREMOLDED JOINT FILLER CAN BE INSERTED IN THE JOINT FIRST TO REDUCE THE AMOUNT OF SEALANT REQUIRED.

2. SEALER TO BE Poured TO WITHIN 1/8" OF TOP OF PAVEMENT.

3. PRIOR TO SEALING, JOINT SURFACES MUST BE CLEANED AND FREE OF CURING COMPOUND, RESIDUE, LAINANCE AND ANY OTHER FOREIGN MATERIAL.

4. THE SURFACE SHOULD BE DRY WHEN THE SEALANT IS POURED.

**NOTE:** TRANSVERSE CONSTRUCTION JOINTS ARE NECESSARY FOR PLANNED INTERRUPTIONS, AND WHERE EMERGENCY INTERRUPTIONS SUSPEND OPERATIONS FOR 30 MINUTES OR MORE.

**TYPICAL SECTION FOR TRANSVERSE AND LONGITUDINAL CONSTRUCTION JOINTS**

**NOT TO SCALE**

- **REINFORCED CONCRETE PAVEMENT CONSTRUCTION DETAILS**

**NOT TO SCALE**

- **DATE: 10/10/85**

**H-1056 SH.2 OF 4**
**TRANVERSE JOINT NOTES**

1. **CONTRACTION JOINTS** shall be provided in the new pavement by sawing the hardened slab or by placing an insert or groove in the slab surface while the concrete is plastic.

2. **TRANVERSE CONTRACTION JOINTS** shall be spaced with a maximum spacing of 20 feet and a minimum spacing of 15 feet.

3. **TRANVERSE JOINTS** shall be aligned to coincide with the joints in the adjacent curbs where practical.

4. **TRANVERSE JOINTS** are to be spaced to a depth of 1/4". All joints are to be spaced in succession and shall be spaced while the concrete is still wet and before it begins to set, under compression to prevent the slab from cracking ahead of the saw.

5. **TYPICAL TRANVERSE CONTRACTION JOINTS** will be placed at 5" minimum spacing.

6. Prior to sawing, the joint surfaces must be clean and free of curing compound residue, laitance, and any other foreign material.

7. Field molded sealants meeting ASTM C694 or an approved equal are to be placed as per manufacturers' recommendations.

8. The surfaces must be dry when the sealant is placed and the joints are to be filled to 1/8" below flush with the pavement surface ± 1/16 inch.

9. **IF THE CONTRACTION JOINTS ARE TO BE PARTIALLY SEALED**, they are to be equipped with metal or plastic strips, followed by expansion and contraction joints.

10. **IF AN EMERGENCY CONTRACTION JOINT OCCURS AT OR NEAR THE LOCATION OF A PLANNED CONTRACTION JOINT**, a butt-joint with an equal bar is to be used, if such joint occurs in the middle third of the normal joint interval, a keyed joint with tie bars is to be used.

11. **TRANVERSE CONTRACTION JOINTS** shall be aligned to coincide with the joints in the adjacent curbs where practical.

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**TYPICAL JOINT LAYOUT**

(See General Note (4)

**LONGITUDINAL JOINT NOTES**

1. **LANE JOINTS** are to be sawed joints (1/4" wide ± 1/16") and be spaced ± 1/4" wide.

2. The centerline joint is to be a keyed construction joint with tie bars spaced as shown on the plans and set perpendicular to the center line and parallel to the top of the slab.

3. **TIE BARS** shall be rigidly secured at chairs or other approved supports to prevent displacement.

4. **TIE BARS** shall not be coated with any materials deleterious to bond.

5. **LONGITUDINAL JOINTS** shall be at least 1/40 + 1/2" and 1/4" wide.

6. **AFTER SANDING, THE JOINTS ARE TO BE FLUSHED OUT, DRIED, AND SEALED TO ELIMINATE A SECONDS CLEANING.**

7. The same groove can be completely filled with sealant material or a rope, cord or other approved material can be inserted in the groove prior to the joint being filled with sealant material or an equal bar is to be used.

8. **JOINTS ARE TO BE FILLED TO 1/8" below flush with the pavement surface ± 1/16 inch.**

9. **NOTES 6, 7, 8, AND 9 UNDER TRANVERSE JOINTS APPLY TO LONGITUDINAL JOINTS ALSO.**
2" x 4" hand rail - both sides (2 required)

2" x 4" post - see detail "C"

2" x 12" step

2" x 12" stringer

2" x 4" cleat

2" x 4" hand rail

45°

2" x 4" post

2" x 12" stringer

NOTES:
1. All materials and construction methods used are to conform to section 715 of the Bureau of Highway Operations Specifications, latest edition.
2. All fasteners shall be galvanized industrial standard.
3. 2" x 6" dimension is from front of step to top of post.
4. Top of rail to be plane smooth.

OBLIQUE VIEW

FRONT VIEW

TEMPORARY WOODEN STEPS

CITY OF NEW YORK
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS

H-1051
NOTES:

1. 20'-MAXIMUM UNLESS OTHERWISE SPECIFIED.

2. CONCRETE BASE FOR AREA OF ADJUSTMENT AND NEW ROADWAY PAVEMENT BASE TO BE KEYED TOGETHER.

3. CROWN OF MAJOR ROADWAY TO BE MAINTAINED, TRANSITION CROWN OF SIDE STREET TO MEET MAIN STREET GUTTER LINE. MAIN STREET WATER FLOW ACROSS SIDE STREET TO BE MAINTAINED.

4. CONCRETE PAVEMENT EDGE TO BE MIN. OF 1/2" FROM EDGE OF STREET HARDWARE.

5. ASPHALT CONCRETE FOR AREA OF ADJUSTMENT AND NEW ROADWAY PAVEMENT TO BE PLACED MONOLITHICALLY UNLESS OTHERWISE ORDERED BY THE ENGINEER.

6. TACK COAT (ITEM 6.58) ALL EDGES.

7. ADDITIONAL THICKNESS GREATER THAN 3"A.C.W.C. WILL BE PAID FOR UNDER ASPH. CONC. MIXTURE (ITEM 4.02 CB).
+8.2 STORM OF RECORD IN N.Y.C. AREA
HURRICANE DONNA - SEPTEMBER 12TH 1965

+3.0
- RICHMOND HIGH WATER DATUM +3.902

+3.0
- PRESENT DAY MEAN HIGH TIDE +2.8
- PUBLIC WORKS AND BOROUGH DATUM OF MANHATTAN HIGHLAWS & SEWERS, PENN. RR, N.Y. CENTRAL RR +2.750
- QUEENS + LONG ISLAND CITY DATUM +2.725; ALSO LONG ISLAND R.R. (EXCEPT BAY RIDGE DIV.) +2.725
- PUBLIC SERVICE COMMISSION AT PRODUCE EXCHANGE +2.693
- WILLIAMSBURG BRIDGE +2.655
- BROOKLYN BOROUGH HIGHWAY BRIDGE +2.608
- BROOKLYN HIGHWAY BUREAU & TOPOGRAPHICAL BUREAU DATUM +2.55
- QUEENSBRIDGE BRIDGE +2.399

+2.0
- BROADWAY BRIDGE +1.887
- BROOKLYN SEWAGE DATUM +1.72
- U.S. NAVY YARD DATUM - (BROOKLYN WATER SUPPLY +1.680
- L.I.R.R.-BAY RIDGE DIV. +1.678
- BRIDGE DEPARTMENT +1.671
- MANHATTAN BRIDGE +1.677

+1.0

+0.5
- PRESENT DAY MEAN SEA LEVEL IN NEW YORK AREA (1981)

0.0
- STANDARD DATUM, MEAN SEA LEVEL AT SANDY HOOK, U.S. COAST & GEODETIC SURVEY DATUM

- BOARD OF ESTIMATE AND APPORTIONMENT AND BOARD OF WATER SUPPLY DATUM.

- CROTON DATUM AT JEROME AVENUE AND MILE AVENUE -0.786
- NEW CROTON AQUEDUCT -0.940

-1.0

-1.8 PRESENT DAY MEAN LOW TIDE -1.8

-2.0
- DEPARTMENT DATUM MEAN LOW WATER AT THE BATTERY -2.103

-2.3
- LOWEST TIDE OF RECORD -2.3
- BPW WELFARE ISLAND -2.265

- BOARD OF TRANSPORTATION (N.Y.C.T.A.) -9.347

- D.P.W. BUREAU OF SEWAGE DISPOSAL DESIGN -300,000

COMPILED BY: John F. Anderson

NOTES:

1. MEAN LOW WATER VARIES FROM -1.5 TO
-3.5 U.S. COASTAL AND GEODETIC SURVEY DATUM
DEPENDING ON DISTANCE FROM THE OCEAN.

2. MEAN HIGH WATER VARIES FROM +2.0 TO +4.0
U.S. COASTAL AND GEODETIC SURVEY DATUM
DEPENDING ON DISTANCE FROM THE OCEAN.
NOTES

1. Upon being ordered by the engineer to perform this required adjustment, the contractor is to field investigate each location and determine the height required to bring grating to the proposed grade.

2. This method of adjustment may be used only where an upward adjustment of 3" to 5" is required and where ordered by the engineer.

3. The adjustment collar when installed shall have no lateral or vertical movement of any kind.

4. Each grating when set on new seat shall bear evenly so that no vertical moving or rocking occurs during traffic.

5. The contractor may use an approved equal adjustment frame.

6. No work shall proceed until shop drawings have been submitted and approved by the Bureau of Engineering.

Drawn by: R.J.S.
Checked by: J.J.L.
ADJUSTMENT AT CATCH BASINS

Item G.37
NOT TO SCALE

DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS
CITY OF NEW YORK

DATED: Jan. 1974
REVISED: (1.) March 1978 J. L. N.

DRAWN BY: R.J.B.
CHECKED BY: J. J. L.

MS-1005
PAVEMENT KEY - TYPE A

Item 6.31A

NOT TO SCALE

NOTES:

1. Thickness of Asphaltic Concrete Wearing Course over saw-cut edge shall be zero inches.

2. Thickness of Asphaltic Concrete Wearing Course over chisel-cut edge shall be a minimum of one inch.

3. Material used to fill within limits of Pavement Key, Type A shall be paid for under Item 6.31A Type A Key.

4. Payment for feathered Asphaltic Concrete Wearing Course, Items over Pavement Key, Type A, shall be for full thickness of Asphaltic Concrete Wearing Course as ordered by the Engineer.

5. 2" x 12" Planks to be placed in key when street is opened to traffic. Planks to be removed prior to paving.

DRAWN BY: R.I.S.
CHECKED BY: J.J.L.
Note: 1 Where there is no concrete base, or where it is necessary to remove concrete base subsequent to installing Type "B" pavement key, payment for depths greater than 3" will be made under Item 6.06A.A, Unclassified Excavation.

2 Contractor may at his option, either strip or grind the area to the required depth. If the contractor chooses to strip there will be no additional payment for over-cutting or additional binder.

Department of Transportation
Bureau of Highway Operations
CITY OF NEW YORK

DATED: Jan. 1974
REvised: Nov. 1970
Revised: Mar. 1978 J.L.H.
Revised: JAN. 1980 J.L.H.

DRAWN BY: R.J.S.
CHECKED BY: J.L.H.
Notes:

1. WHERE THERE IS NO CONCRETE BASE, OR WHERE IT IS NECESSARY TO REMOVE GRANITE BLOCKS AND/OR CONCRETE BASE SUBSEQUENT TO INSTALLING TYPE "B" PAVEMENT KEY, PAYMENT FOR DEPTHS GREATER THAN 3" WILL BE MADE UNDER ITEM 6.02 AA, UNCLASSIFIED EXCAVATION.

2. THE CONTRACTOR IS TO GRIND THE AREAS TO THE REQUIRED DEPTH USING AN ACCEPTABLE GRINDING METHOD.

3. THIS ITEM WHEN ORDERED BY THE ENGINEER WILL BE USED TO ELIMINATE HIGH POINTS IN THE EXISTING PAVEMENT PRIOR TO RESURFACING.

DRAWN BY: [Signature]
CHECKED BY: [Signature]
NOTES:
1. E-11 if the existing curb reveal is greater than 2 1/2" this pavement key will not be required.
2. Payment for this item shall be the number of tons of both the wearing course and binder mixture incorporated into the work. Payment shall include saw cutting, excavation (including concrete base removal if required), tack coating and placing of the new binder mixture and 1 1/2" wearing course.
3. (A.O.B.E.) as ordered by the engineer.
4. The contractor may at his option, either strip, excavate or grind the area to the required depth.

DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY OPERATIONS
CITY OF NEW YORK

PAVEMENT KEY-TYPE C
ITEM 6.51 C
(NOT TO SCALE)

PREPARED BY J.L. HENDRICKSON P.E.
DRAWN BY R. WYSOKOWSKI
JULY 1979

MS-1009