CONSTRUCTION CONTRACT

New York City
Department of
Environmental Protection
59-17 Junction Boulevard
Flushing, New York 11373

Lisa Garcia
Commissioner

Joseph Vaicels
Assistant Commissioner
Agency Chief Contracting Officer

Addendum No. 1
To The Invitation for Bids

for Furnishing all Labor and Material Necessary and Required for:

Contract: **GI-CONS-4**

Description: **Installation of Green Infrastructure at Various NYC Parks and Playgrounds (Queens and Bronx)**

November 12, 2026

ADDENDUM No. 1
CONTRACT GI-CONS-4

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SUSTAINABILITY

TO ALL BIDDERS FOR FURNISHING ALL LABOR AND MATERIAL NECESSARY AND REQUIRED FOR:

Contract GI-CONS-4

Addendum No. 1:

This Addendum No. **1** is issued for the purpose of amending the requirements of the Contract Documents and is hereby made a part of said Contract Documents as though it were originally included therein. The pages of this Addendum are numbered sequentially. All Bidders should check this book carefully to verify that all the pages are included.

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Description of Changes.....2

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ADDENDUM NO. 1

Contract GI-CONS-4

DESCRIPTION OF CHANGES:

1. Specification Section 01 11 00 - NYC Parks Standard Details has been added
2. Specification Section 01 41 00 - NYC Department of Transportation Standard Details of Construction, June 2022 or latest edition has been added
3. NYC Department of Environmental Protection Standard Details has been added

ADDENDUM NO. 1

Contract GI-CONS-4

LIST OF ATTACHMENTS:

1. ATTACHMENT #1: Specification Section 01 11 00 NYC Parks Standard Details
2. ATTACHMENT #2: Specification Section 01 41 00 NYC Department of Transportation Standard Details
3. ATTACHMENT #3: NYC Department of Environmental Protection Standard Details

ATTACHMENT 1

NYC Parks

CITY OF NEW YORK
PARKS & RECREATION

THE FOLLOWING SHEETS ARE NYC PARKS STANDARD DETAILS, CURRENT AS OF JUNE 2026, AND INCLUDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL FOLLOW THE MOST CURRENT NYC PARKS STANDARD DETAILS AS APPLICABLE.

SHEET 1	CONSTRUCTION SIGN	DATED 09-01-2020
SHEET 2	DRAINAGE DETAILS - NO. 1	DATED 09-01-2020
SHEET 3	DRAINAGE DETAILS - NO. 2	DATED 09-01-2020
SHEET 5	PARKS LEAF MANHOLE AND CATCH BASIN COVERS	DATED 09-01-2020
SHEET 15	PAVEMENT DETAILS - NO. 1	DATED 09-01-2020
SHEET 17	CURBS AND PIERS	DATED 09-01-2020
SHEET 18	CURBS, RAMPS, MISC DTLS	DATED 09-01-2020
SHEET 29	CHAIN LINK FENCE - DETAILS	DATED 09-01-2020
SHEET 30	CHAIN LINK FENCE - SPECIAL CONDITIONS	DATED 09-01-2020
SHEET 32	CHAIN LINK FENCE - DOUBLE GATE	DATED 09-01-2020
SHEET 33	STEEL FENCE DETAILS	DATED 09-01-2020
SHEET 36	7FT HT STEEL FENCE & GATES WITH LEAF	DATED 09-01-2020
SHEET 39	TIMBER BARRIER RAIL - BOLLARD DETAILS	DATED 09-01-2020
SHEET 42	BALLFIELD LAYOUTS - NATURAL TURF	DATED 09-01-2020
SHEET 45	BASKETBALL BACKSTOP - DOUBLE POST	DATED 09-01-2020
SHEET 45A	BASKETBALL COURT LAYOUTS	DATED 09-01-2020
SHEET 52	PAINTED GAME LAYOUT	DATED 09-01-2020
SHEET 59	TREE PROTECTION & SEDIMENT CONTROL	DATED 09-01-2020

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis

NYC Parks

CITY OF NEW YORK
PARKS & RECREATION
Forestry, Horticulture and Natural Resources

NO.	DATE	ISSUED FOR	BY

SEAL

HDR

BLOCK

LOT

PROJECT TITLE
ON-SITE GREEN INFRASTRUCTURE DESIGN

DRAWING TITLE
DIVIDER SHEET - NYC PARKS

DESIGNED BY	DRAWN BY	CHECKED BY
B. BARNES	A. BAKHSHAEE	M. BRAUN

B-SCAN

SCALE: ----

DRAWING NO.: O-7

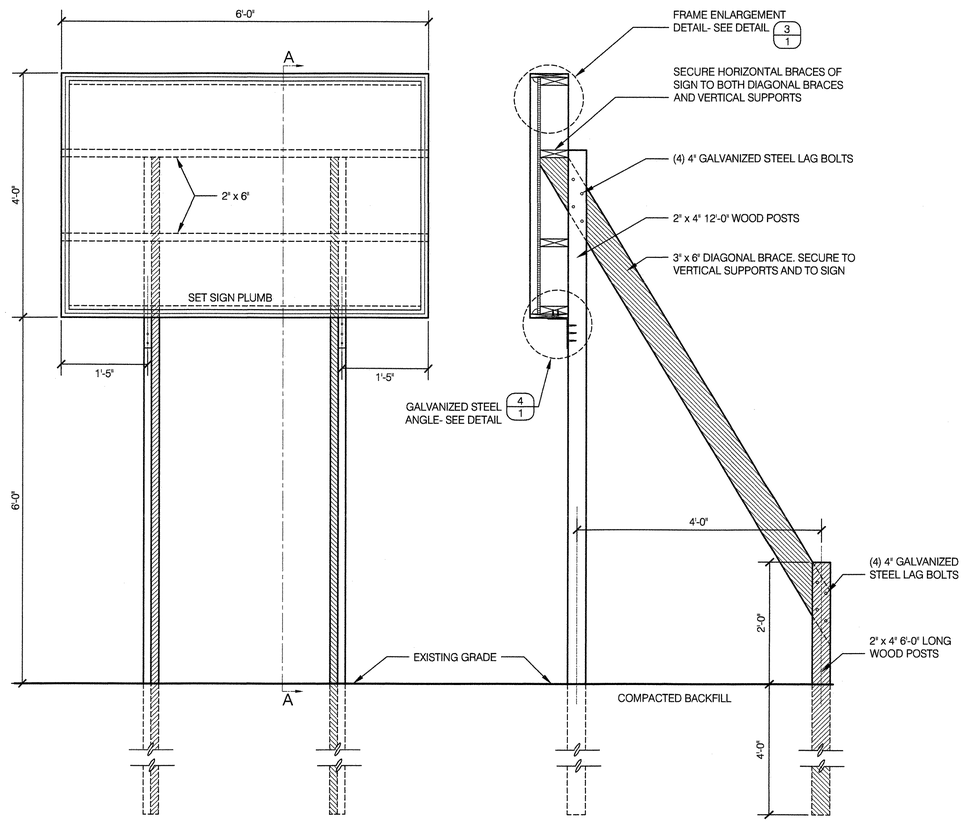
DATE: JUNE 2026

CONTRACT NO.: GI-CONS-4

SHEET No. 89 OF 119 SHEETS

1 CONSTRUCTION SIGN ON FRAME

0 1' 2'
SCALE 1"= 1'-0"

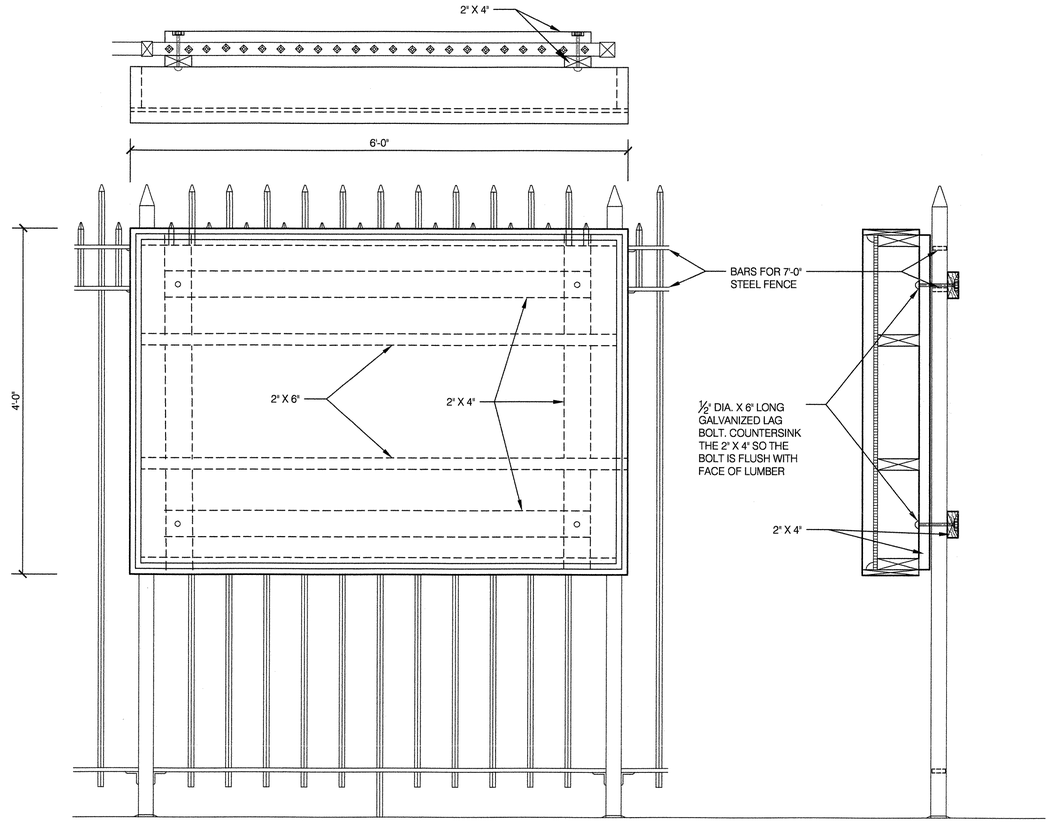


ELEVATION

SECTION A-A

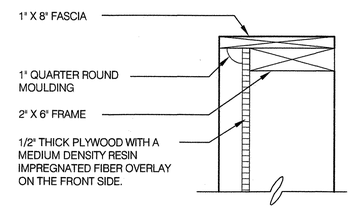
2 CONSTRUCTION SIGN ON FENCE

SCALE: NOT TO SCALE



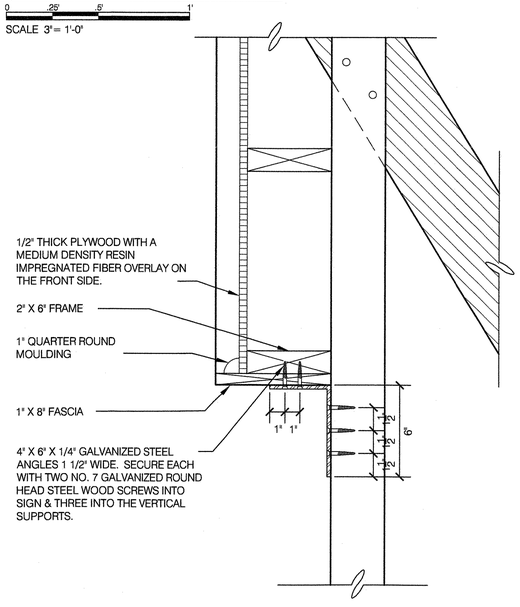
3 CONSTRUCTION SIGN FRAME ENLARGEMENT DETAIL

0 25' 5' 1'
SCALE 3"= 1'-0"



4 CONSTRUCTION SIGN STEEL ANGLE DETAIL

0 25' 5' 1'
SCALE 3"= 1'-0"



NOTES:

1. DPR WILL PROVIDE COMPACT DISC SHOWING TEXT AND OVERALL DIMENSIONS.

NYC Parks

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OLMSTED CENTER
FLUSHING MEADOWS CORONA PARK
FLUSHING, NEW YORK 11368

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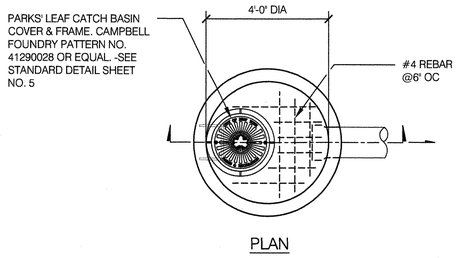
DRAWING TITLE
CONSTRUCTION SIGN

STATE OF NEW YORK · RUBY S WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

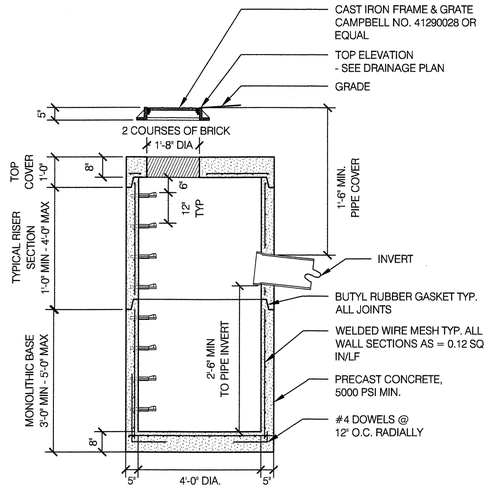
DRAWN BY: STAFF	CHECKED BY: RUBY WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY WEI, PE	SHEET NO.: 1
DATE: 09-01-2020	SCALE: AS SHOWN

1 CATCH BASIN C-1

SCALE ½"= 1'-0"



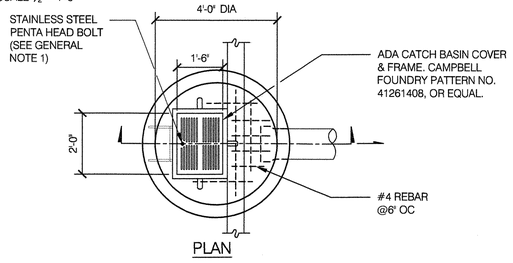
PLAN



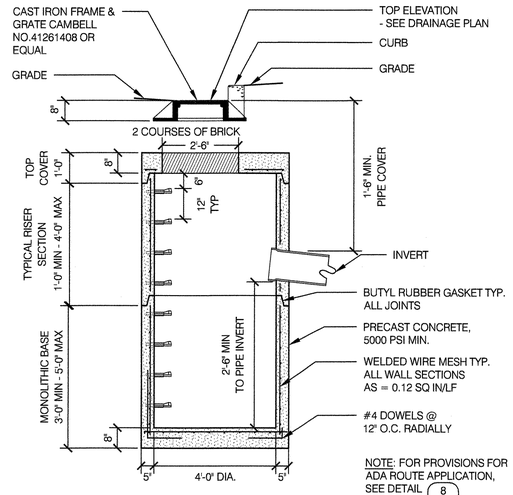
SECTION

2 CATCH BASIN C-2

SCALE ½"= 1'-0"



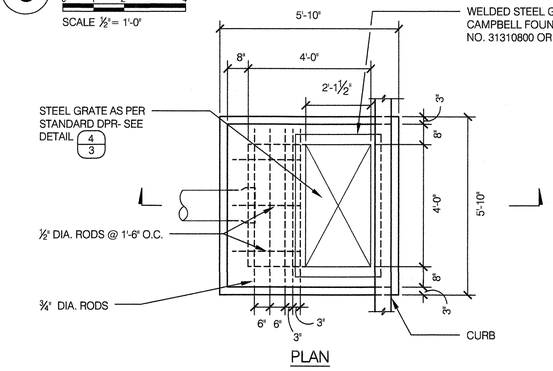
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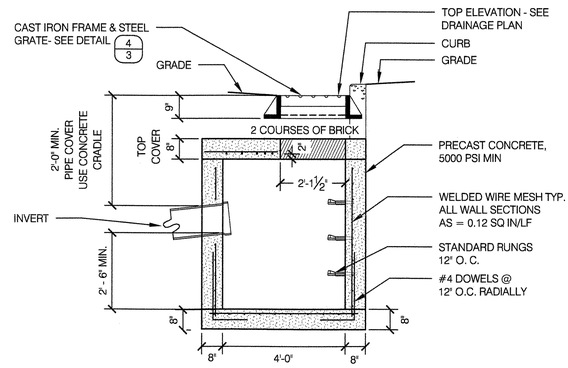
SECTION

3 CATCH BASIN C-3

SCALE ½"= 1'-0"



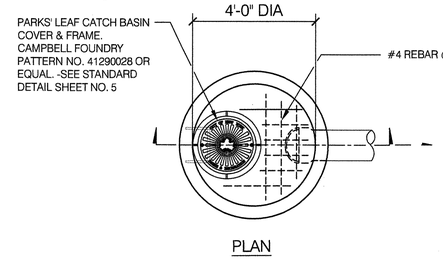
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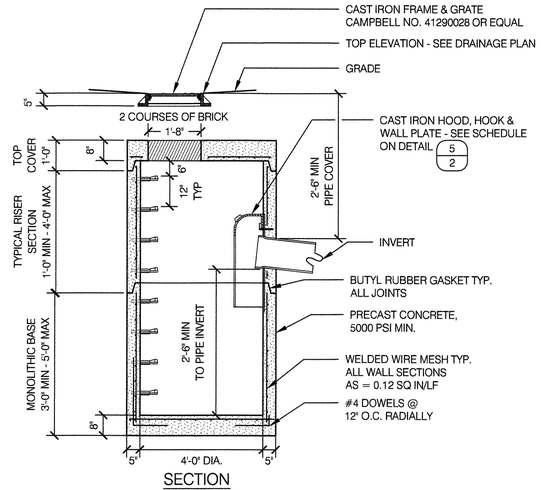
SECTION

4 CATCH BASIN C-5

SCALE ½"= 1'-0"



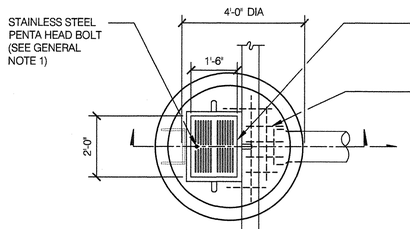
PLAN



SECTION

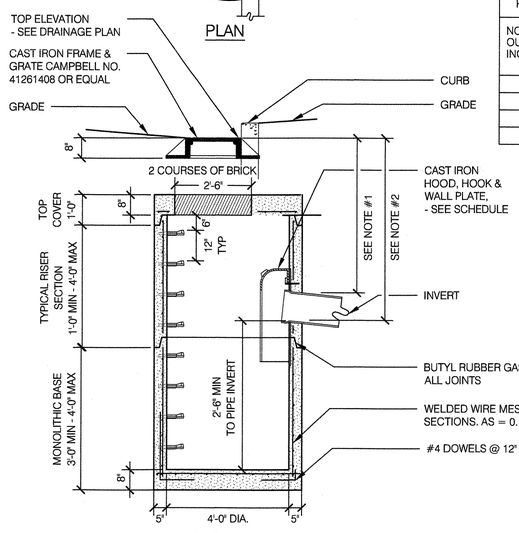
5 CATCH BASIN C-6, C-7

SCALE ½"= 1'-0"



PLAN

SCHEDULE OF CAST IRON HOODS, HOOKS & WALL PLATES	
NOMINAL OUTLET DIA. INCHES	PATTERN NUMBERS THIS COLUMN, CAMPBELL FOUNDERY CO., OR EQUAL
8	2561
10	2562
12	2563
15	2564



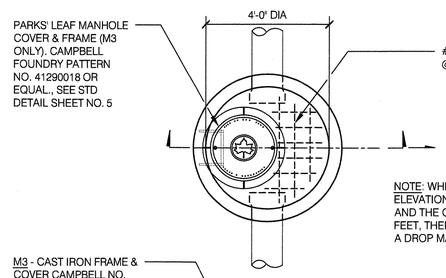
SECTION

NOTES:

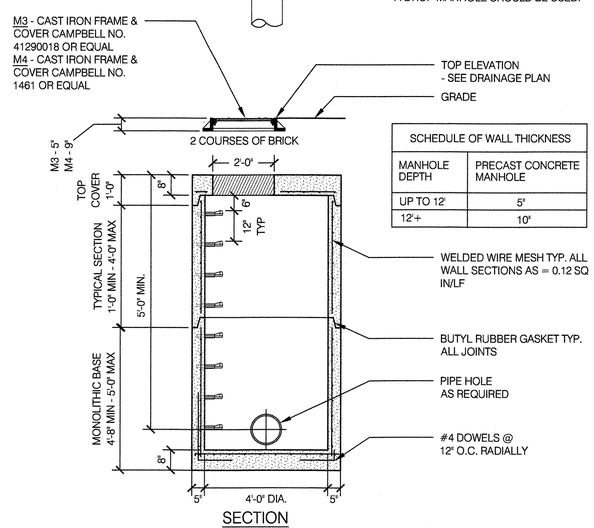
1. MINIMUM PIPE COVERAGE
   FOR C-6 2'-1"
   FOR C-7 2'-10"
2. STANDARD DIMENSION
   FOR C-6 3'- 6"
   FOR C-7 4'- 0"
3. CAST IRON HOOD, HOOK & WALL PLATE REQUIRED FOR C7 ONLY. SEE SCHEDULE.

6 MANHOLE M-3, M-4

SCALE ½"= 1'-0"



NOTE: WHEN THE DIFFERENCE IN ELEVATION BETWEEN THE INCOMING PIPE AND THE OUTGOING PIPE IS MORE THAN 4 FEET, THEN THIS DETAIL DOES NOT APPLY. A DROP MANHOLE SHOULD BE USED.



SECTION

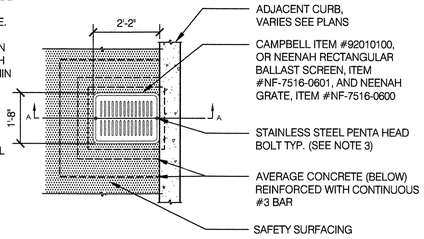
SCHEDULE OF WALL THICKNESS	
MANHOLE DEPTH	PRECAST CONCRETE MANHOLE
UP TO 12'	5"
12'+	10"

7 CATCH BASIN COVER AND FRAME WITH BALLAST SCREEN

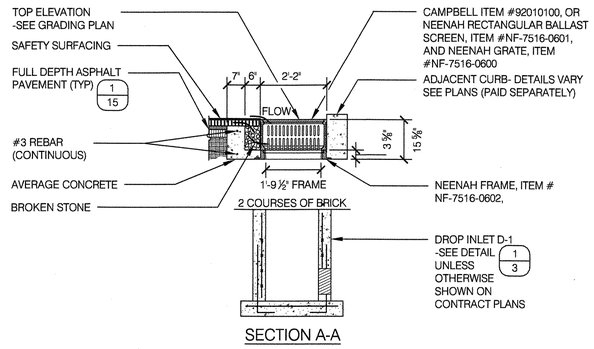
SCALE ½"= 1'-0"

NOTES:

1. INSTALL ADDITIONAL CONCRETE FOOTINGS AS REQUIRED TO ANCHOR SAFETY SURFACING. CONCRETE FOOTINGS SHALL BE 6" DIA. X 12' DEPTH MINIMUM, 3,200 PSI AVERAGE CONCRETE.
2. CONTRACTOR SHALL VERIFY IN FIELD THAT CATCH BASIN WITH BALLAST SCREEN IS NOT WITHIN THE USE ZONE OF THE PLAY EQUIPMENT OR WITHIN THE CLEARANCE ZONE OF THE ADULT FITNESS AREA.
3. PENTA-HEAD STAINLESS STEEL BOLT, ½" DIA., TWO (2) PER GRATE, AS SUPPLIED BY CAMPBELL FOUNDRY CO, 800 BERGEN ST, HARRISON, NJ 07029, (973) 483-5480, OR APPROVED EQUAL. TYPICAL PLASTIC END CAPS ARE TO BE SUPPLIED WITH HARDWARE AND INSTALLED ON PENTA-HEAD BOLTS.



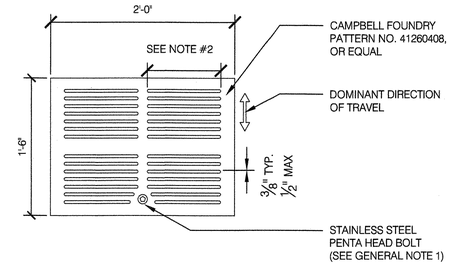
PLAN



SECTION A-A

8 ADA CATCH BASIN COVER

SCALE 1½"= 1'-0"



NOTES:

A. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

B. CAMPBELL FOUNDRY PATTERN 41260408 ADA COVER, OR APPROVED EQUAL FOR CATCHBASINS C-2, C-6, C-7, AND DROP INLET D-2 (SHEET 3)

GENERAL NOTES:

1. PENTA-HEAD STAINLESS STEEL BOLT, ½" DIA., ONE (1) PER COVER, AS SUPPLIED BY CAMPBELL FOUNDRY CO, 800 BERGEN ST, HARRISON, NJ 07029, (973) 483-5480, OR APPROVED EQUAL. TYPICAL PLASTIC END CAPS ARE TO BE SUPPLIED WITH HARDWARE AND INSTALLED ON PENTA-HEAD BOLTS.

NYC Parks

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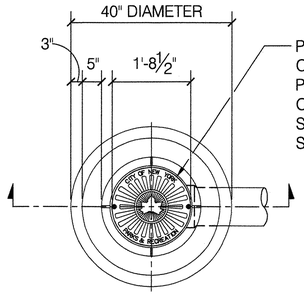
DRAWING TITLE
DRAINAGE DETAILS - NO. 1

STATE OF NEW YORK · RUBY S WEI · LICENSED PROFESSIONAL ENGINEER · 091042

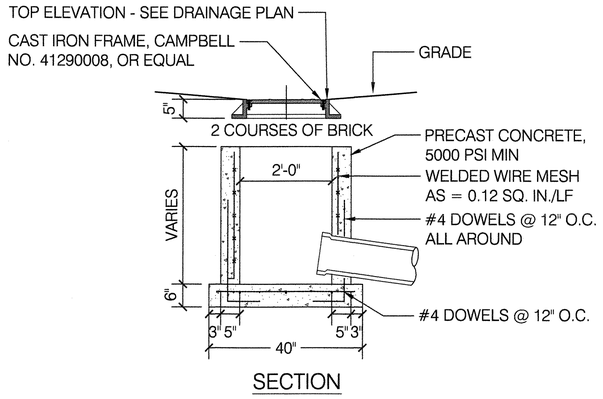
DRAWN BY: STAFF	CHECKED BY: H. MASCHINO
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY WEI, PE	SHEET NO.: 2
DATE: 09-01-2020	SCALE: AS SHOWN

1 DROP INLET D-1

SCALE ¾"= 1'-0"



PLAN

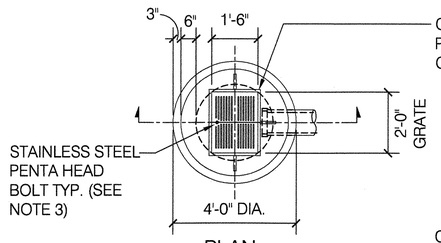


SECTION

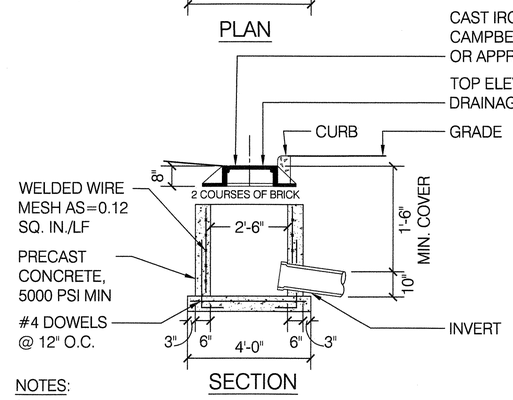
NOTE: FOR DROP INLETS D1, 10" PIPE PERMITTED ON RUNS OF 30 FEET OR LESS, OTHERWISE USE 12" DIAMETER PIPE AS THE MINIMUM SIZE.

2 DROP INLET D-2

SCALE ½"= 1'-0"



PLAN



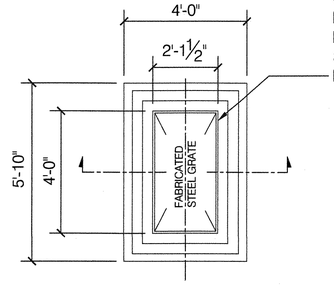
SECTION

NOTES:

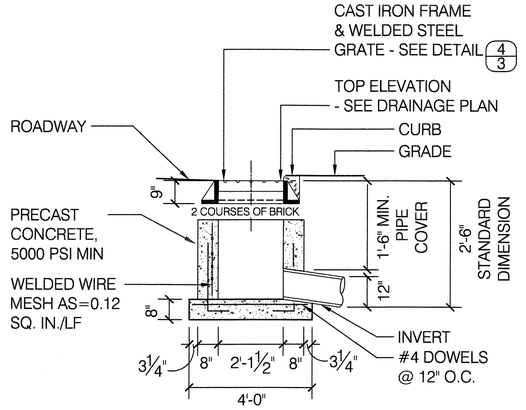
1. FOR DROP INLETS D2, 10" PIPE PERMITTED ON RUNS OF 30 FEET OR LESS, OTHERWISE USE 12" DIAMETER PIPE AS THE MINIMUM SIZE.
2. SEE SHEET 2, DETAIL 8 "ADA CATCH BASIN COVER" FOR PROVISIONS FOR ADA ROUTE APPLICATION.
3. PENTA-HEAD STAINLESS STEEL BOLT, ½" DIA., ONE (1) PER COVER, AS SUPPLIED BY CAMPBELL FOUNDRY CO, 800 BERGEN ST, HARRISON, NJ 07029, (973) 483-5480, OR APPROVED EQUAL. TYPICAL PLASTIC END CAPS ARE TO BE SUPPLIED WITH HARDWARE AND INSTALLED ON PENTA-HEAD BOLTS.

3 DROP INLET HIGHWAY DRAIN D-3

SCALE ½"= 1'-0"



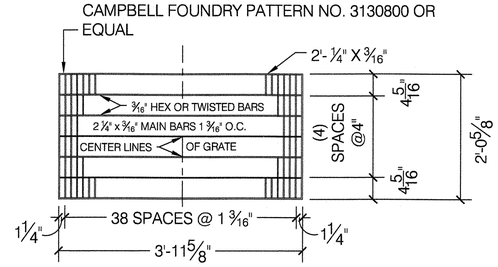
PLAN



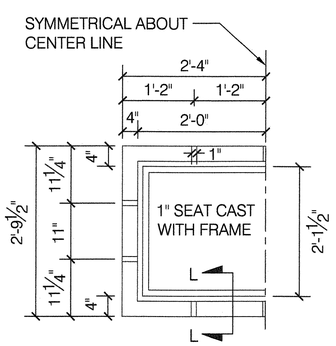
SECTION

4 CAST IRON FRAME AND WELDED STEEL GRATE

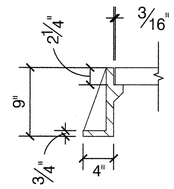
SCALE 1"= 1'-0"



DETAIL OF WELDED STEEL GRATE



HALF PLAN OF CAST IRON FRAME FOR WELDED STEEL GRATE



SECTION L-L

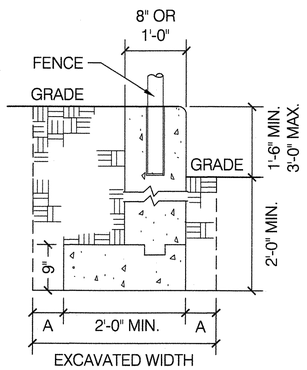
SCALE: 1½" = 1'-0"

5 MAXIMUM PAYMENT LINES FOR EXCAVATION

SCALE 1"= 1'-0"

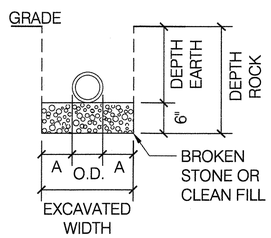
NOTES:

1. DIMENSION "A" SHALL APPLY TO THE FOLLOWING STRUCTURES:
   - DRAINAGE STRUCTURES AND VALVE BOXES (ALL SIDES)
   - BUILDING FOUNDATION (EXTERIOR SIDE ONLY)
   - TYPE 8 CURB OR GREATER - SEE SHEET 17 FOR CURB DETAIL (BOTH SIDES)
2. ALL OTHER EXCAVATION PAYMENT LINE TO NEAT LINES.
3. DEPTH TO BE MEASURED FROM EITHER EXISTING GRADE OR FINISHED SUBGRADE, WHICHEVER IS LOWER.



TYPE 8 CURB

ITEM	DIMENSION "A" DEPTH	
	UNDER 2'-6'	2'-6" OR OVER**
UNCLASSIFIED EXCAVATION OR ROCK EXCAVATION	6"	12"



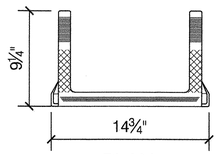
PIPES* (ONLY APPLIES TO ONE PIPE PER TRENCH)

* EXCEPT DUCTILE IRON PIPE, SEE DETAIL 8/3

** SHORING REQUIRED PER OSHA AT DEPTH EXCEEDING 5'-0"

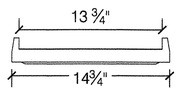
6 STANDARD RUNGS FOR MANHOLES & CATCH BASINS

SCALE 1½"= 1'-0"

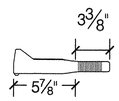


PLAN

LADDER RUNGS SHALL BE CONSTRUCTED OF STEEL REINFORCED, CO-POLYMER POLYPROPYLENE PLASTIC, AS MANUFACTURED BY M.A. INDUSTRIES, PEACHTREE CITY, GA, OR APPROVED EQUAL. LADDER RUNGS SHALL BE DESIGNED FOR EITHER PRECAST CONCRETE OR BRICK MASONRY STRUCTURES DEPENDING ON THE EXISTING MATERIAL OF THE DRAINAGE STRUCTURE.



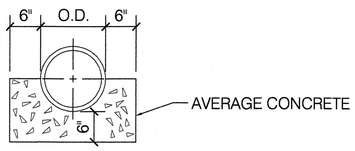
FRONT ELEVATION



SIDE ELEVATION

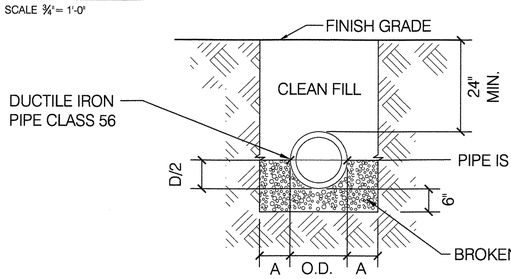
7 CONCRETE CRADLE

SCALE 1"= 1'-0"



8 BEDDING FOR DUCTILE IRON PIPE

SCALE ¾"= 1'-0"



DIMENSION "A"	
IN EARTH	IN ROCK
8"	18"

DRAINAGE, EXISTING UTILITIES & WATER SUPPLY NOTES

1. LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE. WHERE SEWER OR WATER LINES CROSS EXISTING UTILITIES, THE CONTRACTOR SHALL MAKE PRELIMINARY INVESTIGATIONS INCLUDING ALL NECESSARY EXCAVATION TO DETERMINE IF WORK CAN BE DONE AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING UTILITY LINES MAY NOT BE SHOWN ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ANY UTILITY LINES HE MAY ENCOUNTER AND PROTECT ALL LINES.
3. MINIMUM COVER FOR PIPE TO BE 1'-6" COMPUTED FROM FINISHED GRADE, EXCEPT WHERE OTHERWISE NOTED ON PLAN.
4. MAXIMUM COVER TO BE DETERMINED BY DRAINAGE PITCH REQUIREMENTS AND THE LOCATION OF DRAINS.
5. ALL WATER PIPE TO BE PITCHED 1/2 PERCENT MINIMUM, AS INDICATED BY ARROWS, WITHOUT POCKETS,TO DRY WELLS.
6. EXACT LOCATIONS OF DRY WELLS TO BE AS DETERMINED BY THE ENGINEER.
7. PROVIDE PIPE SUPPORTS UNDER WATER AND DRAIN PIPES IN UNSETTLED FILL AS DIRECTED BY THE ENGINEER.
8. WHEN LAYING PIPE, WHEREVER POSSIBLE, AVOID ALL TREES, BENCHES AND FOOTINGS. WHERE NECESSARY, PROVIDE PIPE SLEEVES THOUGH WALLS, TREE PITS AND/OR FOOTINGS.
9. ALL CONNECTIONS TO CITY WATER MAINS ARE TO BE MADE IN ACCORDANCE WITH PERMITS ISSUED BY THE DIVISION OF PERMITTING AND CONNECTION, BUREAU OF WATER AND SEWER OPERATION.
10. THE LOCATION OF DRAINAGE BASINS TO BE AT THE LOW POINT OF THEIR RESPECTIVE AREAS AS DETERMINED IN THE FIELD. LOCATIONS ON PLAN ARE DIAGRAMATIC AND SHALL NOT BE SCALED.
11. FOR DRAINAGE AND WATER SUPPLY SEE GRADING AND UTILITY PLAN.
12. ALL CONCRETE SHOWN TO BE "AVERAGE" (3,200 psi) CONCRETE.

NYC Parks

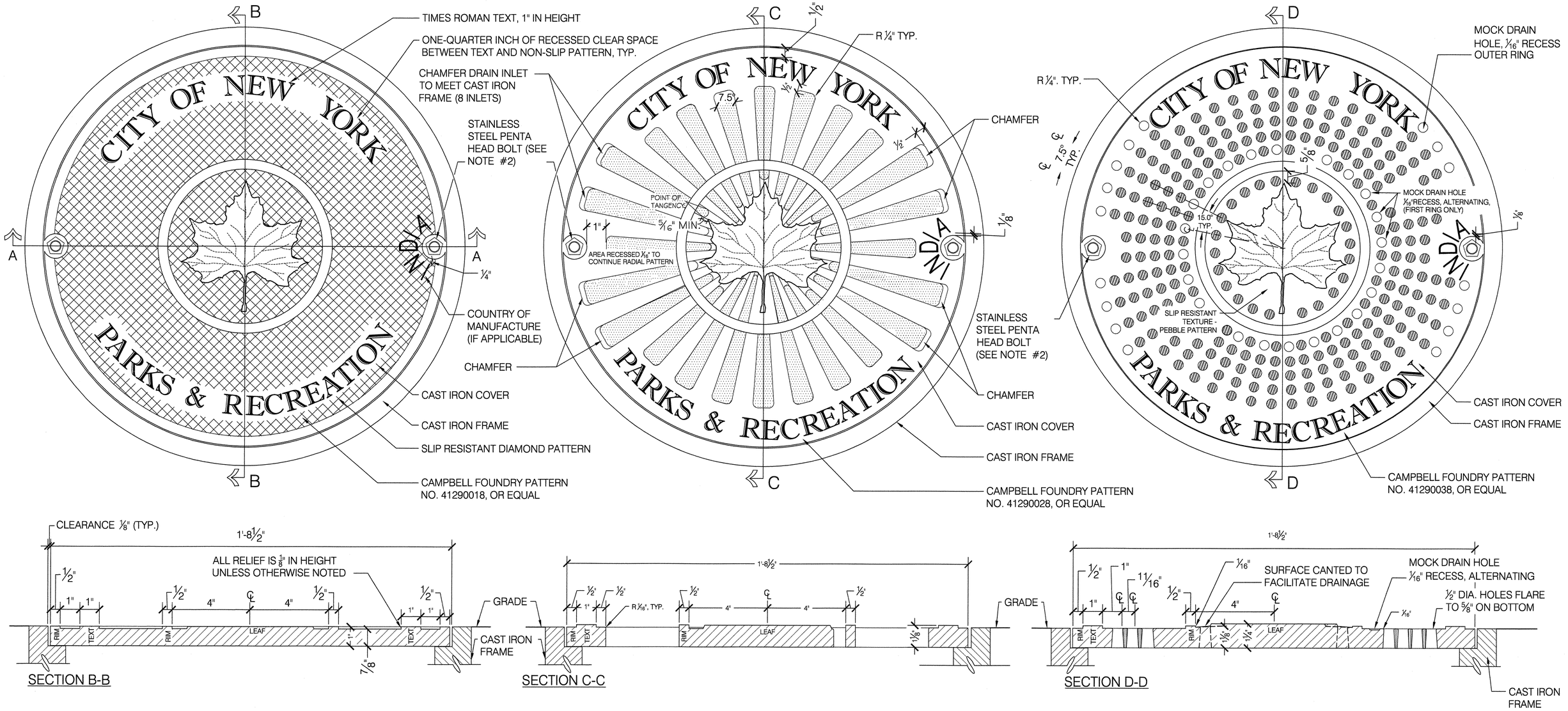
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DRAWING TITLE
DRAINAGE DETAILS - NO. 2

STATE OF NEW YORK · RUBY S WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: STAFF	CHECKED BY: H. MASCHINO
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY WEI, PE	SHEET NO.: 3
DATE: 09-01-2020	SCALE: AS SHOWN



1 MANHOLE COVER

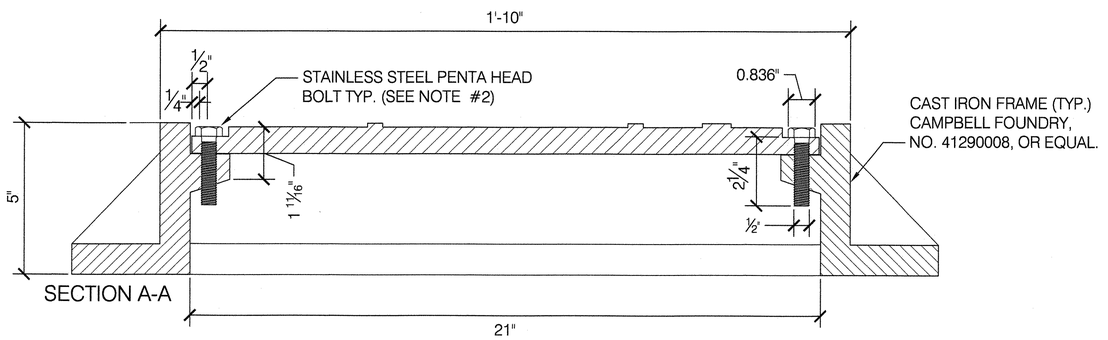
SCALE ½"= 1'-0"

2 CATCH BASIN COVER

SCALE ½"= 1'-0"

3 CATCH BASIN COVER FOR SPRAY AREA

SCALE ½"= 1'-0"



4 MANHOLE FRAME

SCALE ½"= 1'-0"

NOTES:

1. ALL COVERS SHALL PASS REQUIREMENTS FOR H-20 HIGHWAY LOADING, AS PER AASHTO.
2. PENTA-HEAD STAINLESS STEEL BOLT, ½" DIA. X 2-¼" LENGTH, TWO (2) PER COVER, AS SUPPLIED BY CAMPBELL FOUNDRY CO, 800 BERGEN ST, HARRISON, NJ 07029, (973) 483-5480, OR APPROVED EQUAL. TYPICAL PLASTIC END CAPS ARE TO BE SUPPLIED WITH HARDWARE AND INSTALLED ON PENTA-HEAD BOLTS.
3. SEE STANDARD DETAIL SHEETS "WATER SUPPLY DETAILS" AND "DRAINAGE DETAILS" FOR INSTALLATION DETAILS.

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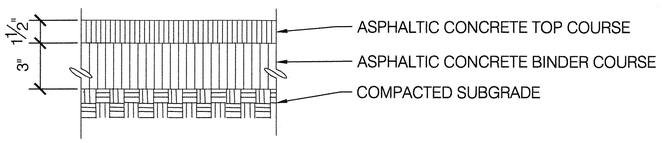
DRAWING TITLE
PARKS LEAF MANHOLE AND CATCH BASIN COVERS

STATE OF NEW YORK · RUBY S. WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: S. DAVENPORT	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: R. WEI, PE	SHEET NO.: 5
DATE: 09-01-2020	SCALE: AS SHOWN

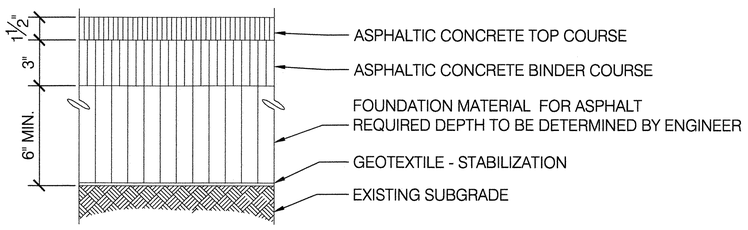
1 FULL DEPTH ASPHALT PAVEMENT

SCALE 3"= 1'-0"



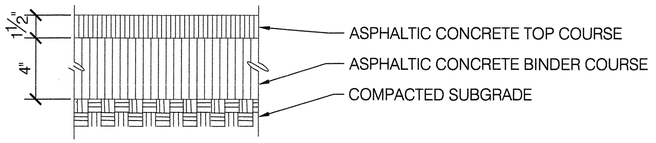
2 ASPHALT PAVEMENT ON POOR SUBGRADE

SCALE 3"= 1'-0"



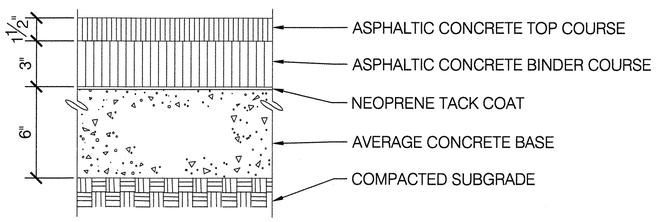
3 ASPHALT PAVEMENT FOR PARKING LOTS AND MINOR PAVED ROADS

SCALE 3"= 1'-0"



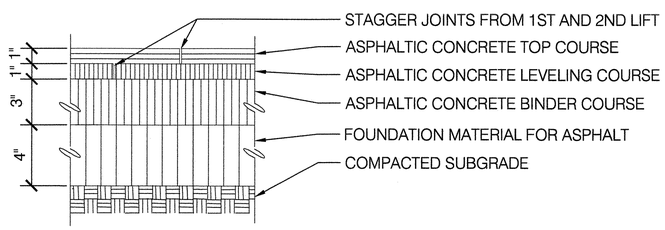
4 ASPHALT PAVEMENT FOR PARK ROADS AND PATHS

SCALE 3"= 1'-0"



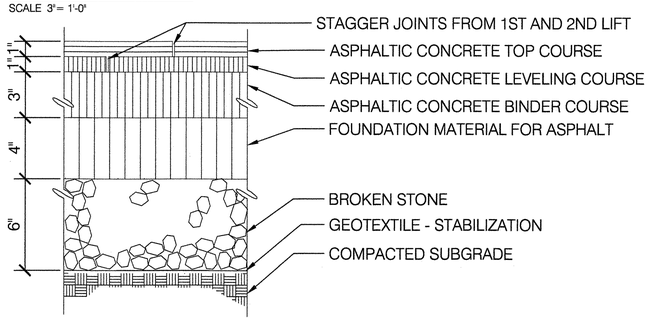
5 ASPHALT PAVEMENT FOR TENNIS COURTS & RUNNING TRACKS

SCALE 3"= 1'-0"



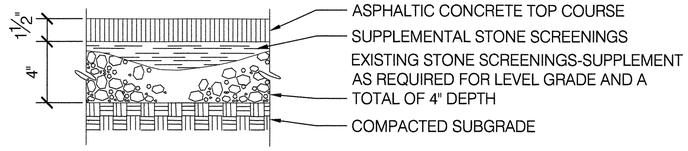
6 ASPHALT FOR TENNIS COURTS ON POOR SUBGRADE

SCALE 3"= 1'-0"



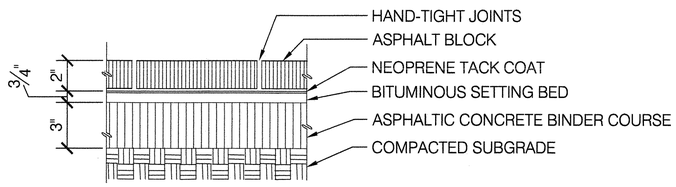
7 ASPHALT TOP COURSE ON EX. STONE SCREENINGS

SCALE 3"= 1'-0"



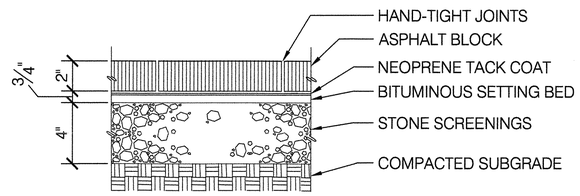
8 ASPHALT BLOCK ON ASPHALT CONCRETE BASE

SCALE 3"= 1'-0"



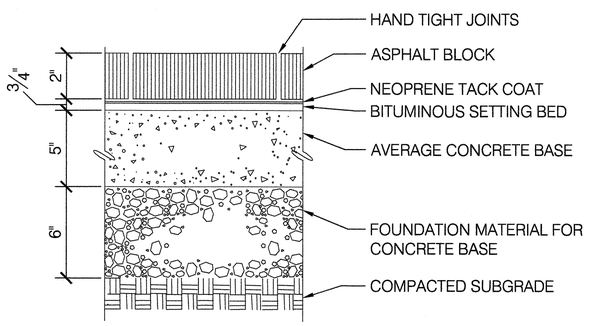
9 ASPHALT BLOCK ON STONE SCREENINGS

SCALE 3"= 1'-0"



10 ASPHALT BLOCK ON CONCRETE BASE

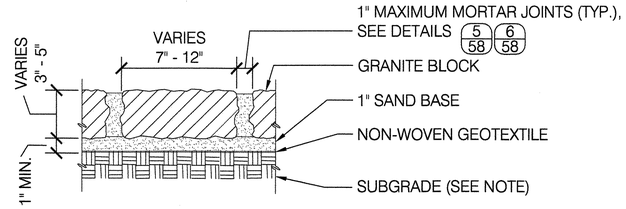
SCALE 3"= 1'-0"



NOTE: 3" THICK ASPHALT BLOCK REQUIRED FOR ROADS.

11 GRANITE BLOCK ON SAND FOR TREE PITS

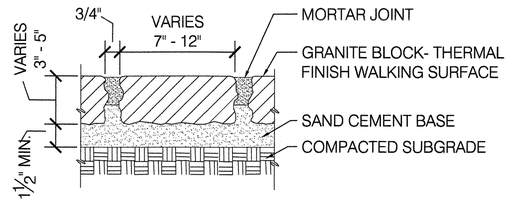
SCALE 3"= 1'-0"



NOTES:
1. FOR TREE PITS SEE STD. DETAIL SHEET "PLANTING DETAILS".
2. AROUND NEW TREES SUBGRADE TO BE COMPACTED.
3. AROUND EXISTING TREES; MIN. EXCAVATION. MIN. COMPACTION.
4. SEE SECTION C, ARTICLE 14.

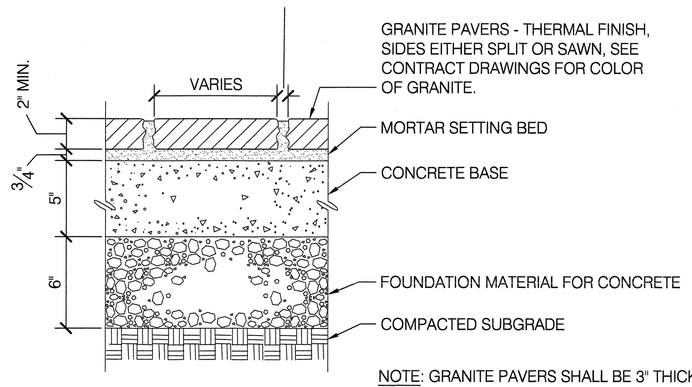
12 GRANITE BLOCK PAVEMENT ON SAND- ACCESSIBLE

SCALE 3"= 1'-0"



13 GRANITE PAVERS ON CONCRETE

SCALE 3"= 1'-0"



NOTE: GRANITE PAVERS SHALL BE 3" THICK MINIMUM FOR ROADS.

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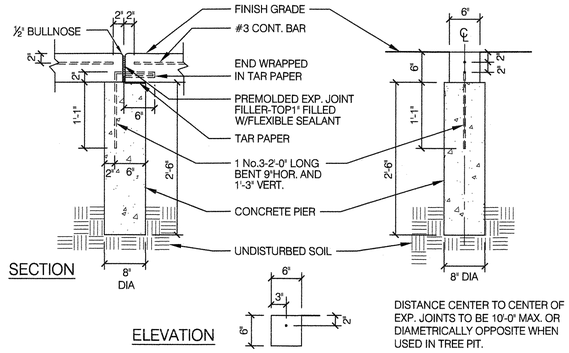
DRAWING TITLE
PAVEMENT DETAILS - NO.1

STATE OF NEW YORK · RUBY S WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: STAFF	CHECKED BY: RUBY WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY WEI, PE	SHEET NO.: 15
DATE: 09-01-2020	SCALE: AS SHOWN

1 CONCRETE CURB - 6" (FLUSH)

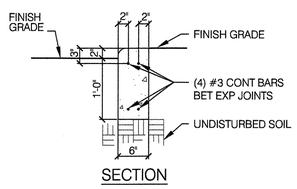
SCALE 1"= 1'-0"



DISTANCE CENTER TO CENTER OF EXP. JOINTS TO BE 10'-0" MAX. OR DIAMETRICALLY OPPOSITE WHEN USED IN TREE PIT.

2 CONCRETE CURB - 6"

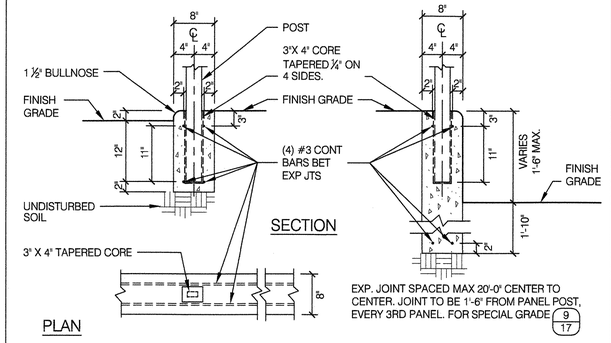
SCALE 1"= 1'-0"



NOTE:
1. FOR FLUSH CONDITIONS ELIMINATE 2" REVEAL. ALL OTHER DIMENSIONS SAME (6'X 14').
2. EXP. JOINT SPACED MAX 20'-0" CENTER TO CENTER- SEE DETAIL 9/17

3 CONCRETE CURB FOR 2'-6", 3'-0" & 4'-0" STEEL FENCE

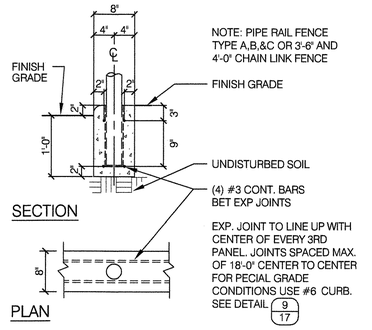
SCALE 1"= 1'-0"



EXP. JOINT SPACED MAX 20'-0" CENTER TO CENTER. JOINT TO BE 1'-6" FROM PANEL POST, EVERY 3RD PANEL. FOR SPECIAL GRADE 9/17

4 CONCRETE CURB FOR PIPE RAIL FENCE & 3'-6"/ 4'-0" CLF

SCALE 1"= 1'-0"

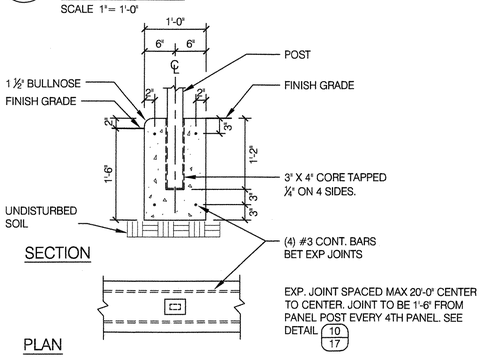


NOTE: PIPE RAIL FENCE TYPE A,B,&C OR 3'-6" AND 4'-0" CHAIN LINK FENCE

EXP. JOINT TO LINE UP WITH CENTER OF EVERY 3RD PANEL. JOINTS SPACED MAX. OF 18'-0" CENTER TO CENTER FOR PECIAL GRADE CONDITIONS USE #6 CURB. SEE DETAIL 9/17

5 CONCRETE CURB FOR 7'-0" STEEL FENCE

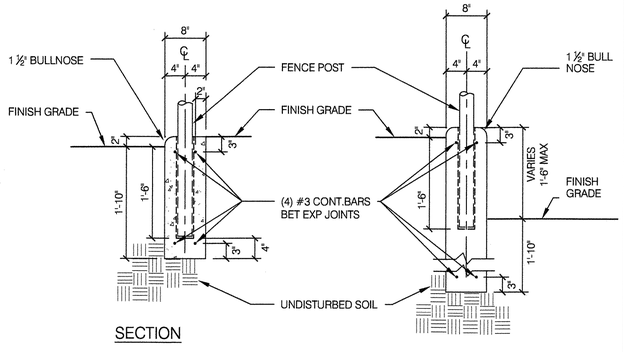
SCALE 1"= 1'-0"



EXP. JOINT SPACED MAX 20'-0" CENTER TO CENTER. JOINT TO BE 1'-6" FROM PANEL POST EVERY 4TH PANEL. SEE DETAIL 10/17

6 CONCRETE CURB 6'-0" TO 9'-0" CLF

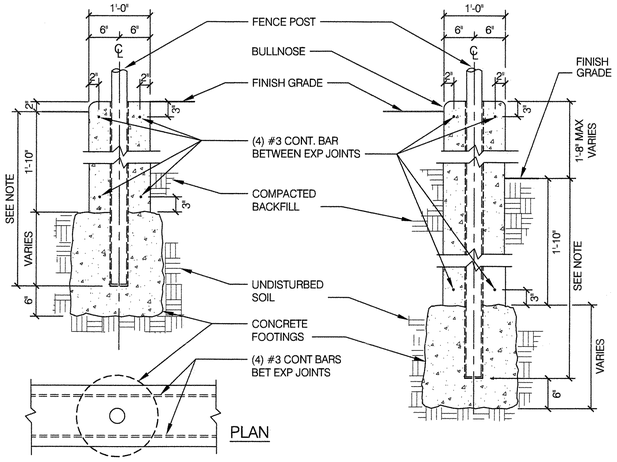
SCALE 1"= 1'-0"



NOTE:
EXP. JOINT SPACED 16'-0" MAX TO LINE UP W/ CENTER OF EVERY OTHER PANEL FOR 6'-0" TO 9'-0" CLF AND SPACED 18'-0" CENTER TO CENTER MAX TO LINE UP WITH CENTER OF EVERY THIRD PANEL FOR 6'-0" CLF- SEE DETAIL 9/17

7 CONCRETE CURB FOR 10'-0" TO 20'-0" CLF

SCALE 1"= 1'-0"

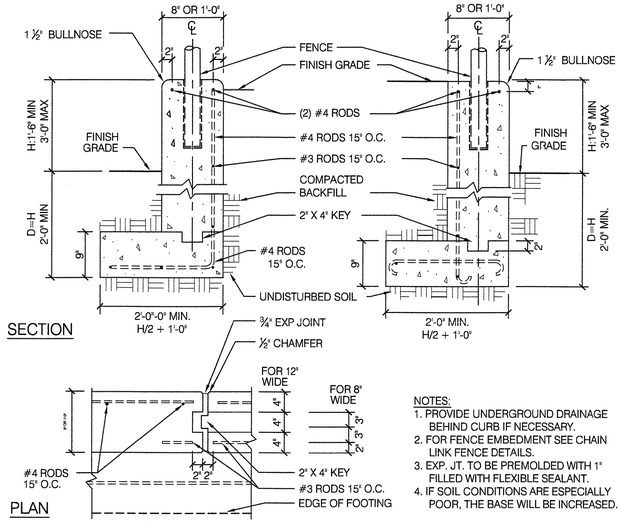


EXP. JOINT SPACED MAX 20'-0". EXP. JOINTS TO BE IN CENTER OF EVERY OTHER FENCE PANEL- SEE DETAIL 11/17

SPECIAL GRADE CONDITIONS
NOTE: SEE SCHEDULE ON SHEET 30.

8 CONCRETE CURB FOR GRADE DIFFERENCES OF 1'-6" TO 3'-0"

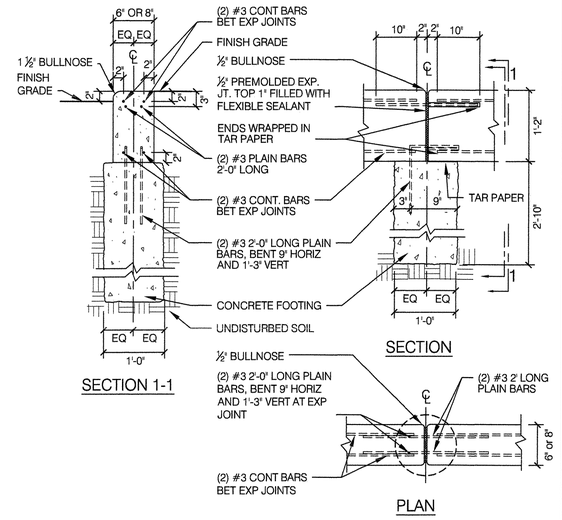
SCALE 1"= 1'-0"



NOTES:
1. PROVIDE UNDERGROUND DRAINAGE BEHIND CURB IF NECESSARY.
2. FOR FENCE EMBEDMENT SEE CHAIN LINK FENCE DETAILS.
3. EXP. JT. TO BE PREMOLDED WITH 1" FILLED WITH FLEXIBLE SEALANT.
4. IF SOIL CONDITIONS ARE ESPECIALLY POOR, THE BASE WILL BE INCREASED.

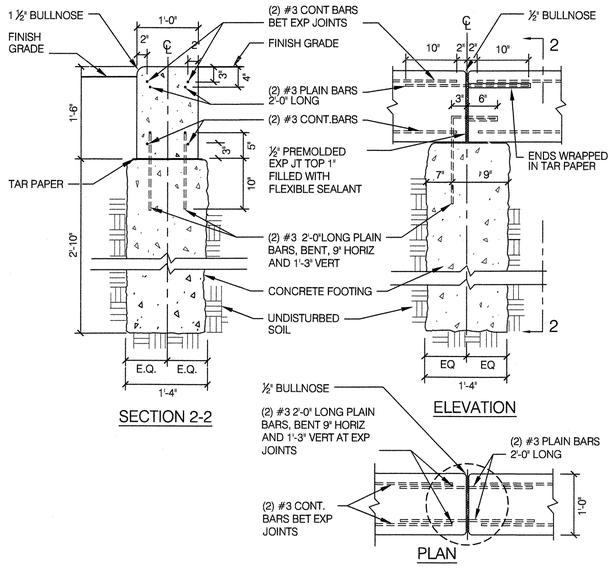
9 EXPANSION JOINT IN CONC CURB / GENERAL

SCALE 1"= 1'-0"



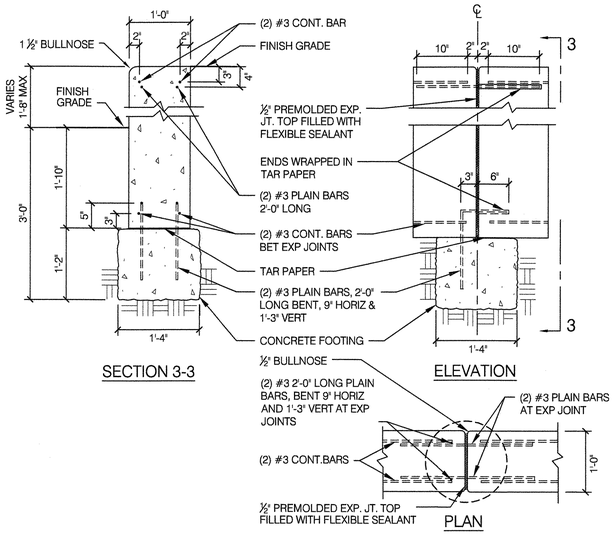
10 EXPANSION JOINT IN CONC CURB FOR 5'-6" AND 7'-0" STEEL FENCE

SCALE 1"= 1'-0"



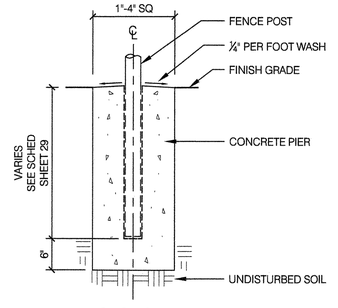
11 EXPANSION JOINT IN CONCRETE CURB FOR 10'-0" TO 20'-0" CLF

SCALE 1"= 1'-0"



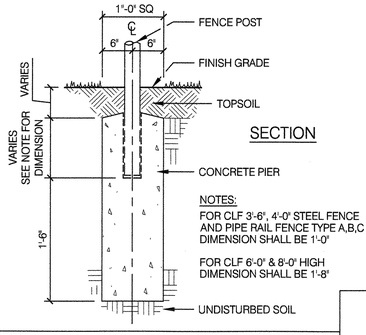
12 PIER FOR 10'-0" TO 20'-0" CLF

SCALE 1"= 1'-0"



13 PIER FOR STEEL FENCE, PIPE RAIL & 3'-6" TO 8'-0" CLF

SCALE 1"= 1'-0"



NOTES:
FOR CLF 3'-6", 4'-0" STEEL FENCE AND PIPE RAIL FENCE TYPE A,B,C DIMENSION SHALL BE 1'-0"

FOR CLF 6'-0" & 8'-0" HIGH DIMENSION SHALL BE 1'-8"

14 GENERAL NOTES

WHERE CONCRETE CURB MEETS AN ADJACENT CURB OF DIFFERENT WIDTH, TYPICAL CURB TRANSITIONS, DETAIL 15 WILL APPLY.

DEPTHS OF FOOTINGS MAY VARY AND SHALL BE DETERMINED BY THE RESIDENT ENGINEER.

FOOTINGS FOR CURBS AND FOOTINGS FOR FENCE POSTS IN CURBS WILL BE PAID FOR UNDER ITEM 'CONCRETE CURB'. PIERS FOR FENCE WILL BE PAID FOR UNDER ITEM "AVERAGE CONCRETE" 3200 PSI.

WHEREVER THE GRADE ADJACENT TO CURB IS FLUSH WITH TOP OF CURB, BULLNOSE IS TO BE OMITTED ON THAT SIDE AND EDGE FINISHED WITH A REGULAR CORNER TOOL.

ALL FENCE POSTS ARE TO BE SET IN GROUT. FOR SPACING OF FENCE POSTS, SEE CHAIN LINK FENCE DETAILS.

FOR SPACING OF EXPANSION JOINTS SEE EACH CURB DETAIL.

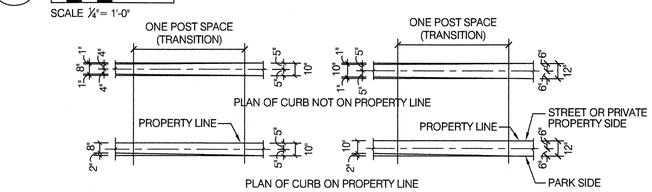
USE ROUGH FLOAT FINISH ON ALL EXPOSED CURBS AND WALLS ALONG PROPERTY LINE FACING THE STREET.

ALL REBARS SHALL BE DEFORMED, EXCEPT AS NOTED.

REBARS SHALL BE SUPPORTED WITH CONCRETE BRICKS AT BOTTOM OF FORM WORK.

15 TYPICAL CURB TRANSITIONS

SCALE ¼"= 1'-0"



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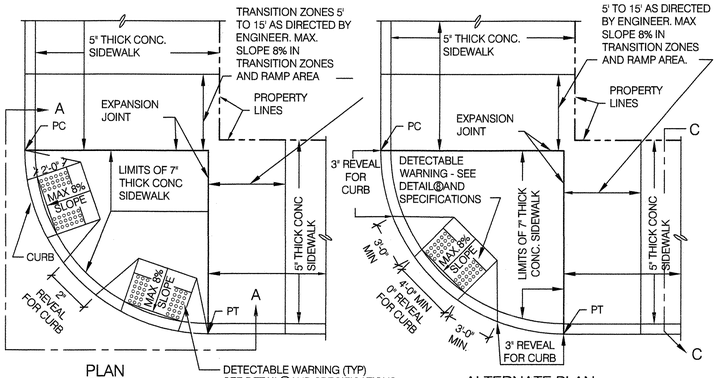
DRAWING TITLE
CURBS AND PIERS

DRAWN BY: STAFF	CHECKED BY: RUBY WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY WEI, PE	SHEET NO.: 17
DATE: 09-01-2020	SCALE: AS SHOWN

STATE OF NEW YORK RUBY S WEI 091042 LICENSED PROFESSIONAL ENGINEER

1 D.O.T. SIDEWALK PEDESTRIAN RAMPS

SCALE: NOT TO SCALE



PLAN

SCALE: 1/4" = 1'-0"

ALTERNATE PLAN

SCALE: 1/4" = 1'-0"

NOTES:

1. CURB DETAILS NOT SHOWN ARE THE SAME AS THOSE SHOWN ON NYC DOT STANDARD DETAILS OF CONSTRUCTION SHEET H-1010. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTIONS #4.08/4.09/4.13 OF THE STANDARD SPECIFICATIONS, LATEST EDITION, AS AMENDED.

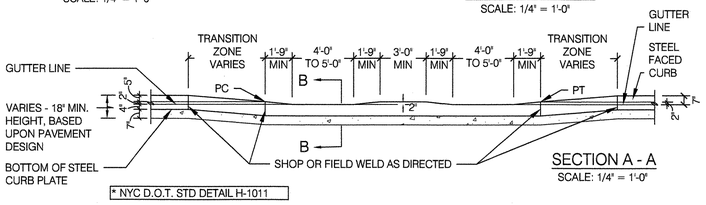
2. THE CONDITIONS AND RAMP DIMENSIONS SHOWN ARE FOR A 12' RADIUS CORNER. THEREFORE THE ACTUAL LOCATIONS OF SIDEWALK PEDESTRIAN RAMPS ARE TO BE DETERMINED BY INCREASING THE 3' MINIMUM CENTER ROUND ARC BETWEEN THE TWO RAMPS. WHEN INSTALLING PEDESTRIAN RAMPS ON A REQUIREMENT CONTRACT, ALLOWANCE SHALL BE MADE FOR EXISTING CONDITIONS SO LONG AS THE SLOPE OF THE RAMP DOES NOT EXCEED 8% AND THE ZERO INCH REVEAL IS OBTAINED. TO INSURE THAT SOUND ENGINEERING JUDGEMENT IS USED IN MEETING EXISTING CONDITIONS, ANY AND ALL VARIATIONS FROM THESE DETAILS OF CONSTRUCTION MUST HAVE THE JOINT APPROVAL OF THE ASSISTANT COMMISSIONER OF DESIGN AND THE ASSISTANT COMMISSIONER OF CONSTRUCTION OF THE NYC DOT.

3. ALTERNATE PLAN SHALL BE USED ONLY WHERE EXPLICITLY DIRECTED BY THE ENGINEER AND APPROVED BY THE COMMISSIONER.

4. THE LANDING BETWEEN THE PROPERTY LINES AND THE BACK EDGE OF THE RAMPS SHALL BE AT LEAST 4' WIDE.

5. ALL EXPOSED STEEL SURFACES SHALL BE GROUND SMOOTH.

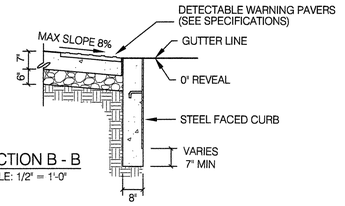
6. ON FULL WIDTH SIDEWALKS, EXPANSION JOINTS TO BE PLACED AT BUILDING FACES AND STRUCTURES, AS WELL AS AT BACK FACE OF CURB.



SECTION A - A

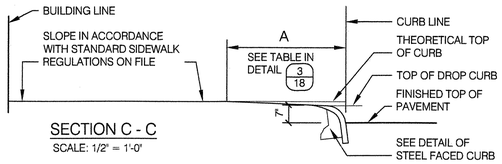
SCALE: 1/4" = 1'-0"

* NYC D.O.T. STD DETAIL H-1011



SECTION B - B

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

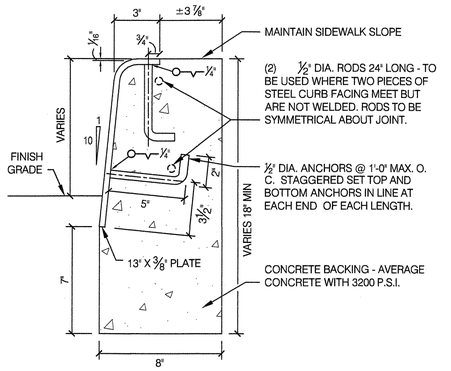


SECTION C - C

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

2 D.O.T. STEEL FACED STREET CURB

SCALE 3"= 1'-0"



SECTION

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, WHEREVER POSSIBLE.

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" DIA. X 6" HEADED ANCHOR STUDS (GRANULAR OR SOLID FLUX FILLED) MAY BE SUBSTITUTED.

5. STRUCTURAL STEEL (A.S.T.M. DESIGNATION A36)

6. SURFACE TO BE CLEANED AND PAINTED AS PER NYCDOT STANDARD HIGHWAY SPECIFICATIONS, SECTION 2.13. COLOR OF TOP COAT SHALL BE GRAY AS APPROVED BY THE ENGINEER.

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.

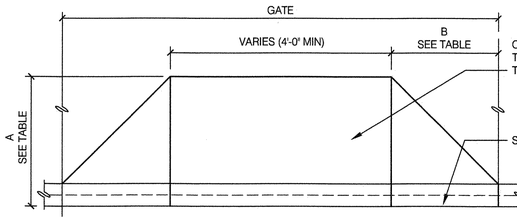
8. CONCRETE TO BE DOT CLASS B-32, AIR-ENTRAINED.

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

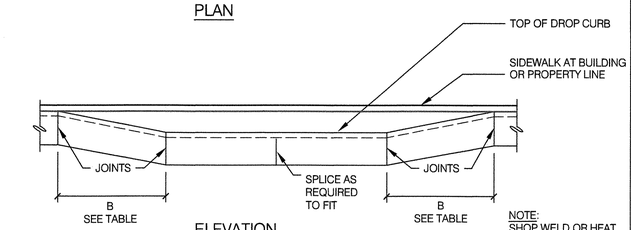
* NYC D.O.T. STD DETAIL H-1010

3 D.O.T. STEEL FACED DROP CURB - DRIVEWAYS

SCALE: NOT TO SCALE



PLAN



ELEVATION

NOTE: SHOP WELD OR HEAT TREAT AND BEND TO SHAPE FOUR JOINTS.

TABLE

GUTTER REVEAL (INCHES)	A	B
4½"	2' - 0"	1' - 6"
5"	2' - 3"	1' - 8"
5½"	2' - 6"	1' - 11"
6"	2' - 9"	2' - 1"
6½"	3' - 1"	2' - 4"
7"	3' - 4"	2' - 6"
7½"	3' - 7"	2' - 9"
8"	3' - 11"	2' - 11"
8 ½"	4' - 2"	3' - 2"
9"	4' - 6"	3' - 4"

NOTES:

1. ½" Ø X 5" HEADED ANCHOR STUDS (GRANULAR OR SOLID FLUX FILLED) MAY BE SUBSTITUTED.

2. STRUCTURAL STEEL AS PER ASTM A-36.

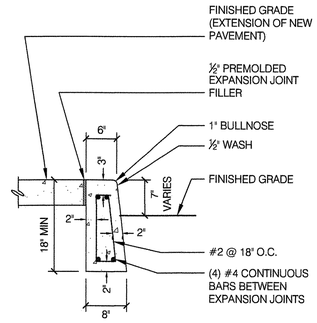
3. CONCRETE SHALL BE 3,200 P.S.I. AVERAGE CONCRETE

4. SURFACE TO BE PAINTED SHALL BE THOROUGHLY CLEANED THEN PAINTED WITH ONE SHOP COAT.

* NYC D.O.T. STD DETAIL H-1015

4 D.O.T. REINFORCED CONCRETE STREET CURB

SCALE 1"= 1'-0"



*NYC D.O.T. STD DETAIL H-1035

NOTES:

1. WHERE RAISED CURB MEETS ADJACENT CURBS OF DIFFERENT WIDTH, USE CURB TRANSITION DETAIL NO. 15 ON STANDARD SHEET NO. 17.

2. DEPTH OF FOOTING MAY VARY DUE TO FIELD CONDITIONS AND SHALL BE DETERMINED BY ENGINEER IN FIELD. 2'-10" MIN.

3. FOOTING FOR CURBS WILL BE PAID FOR UNDER ITEM 'CONCRETE CURB'.

4. ALL REBARS SHALL BE DEFORMED, EXCEPT AS NOTED.

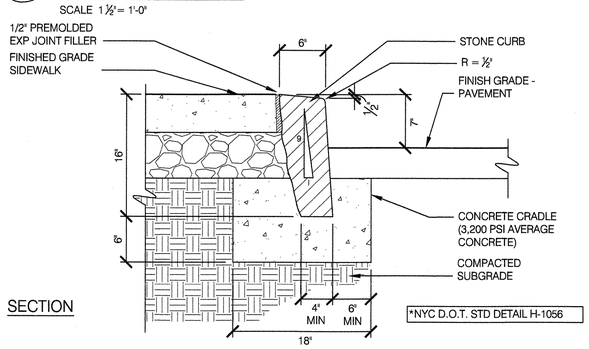
5. DISTANCE CENTER TO CENTER OF EXPANSION JOINTS TO BE 20'-0" MAXIMUM. REFER TO STANDARD DETAIL SHEET NO. 16.

6. THE EXPANSION JOINTS OF THE CURB SHOULD LINE UP WITH THE EXPANSION JOINTS IN THE CONCRETE SIDEWALK.

7. THE SLOPE OF THE CURB SHALL CONFORM TO THE SLOPE OF THE SIDEWALK.

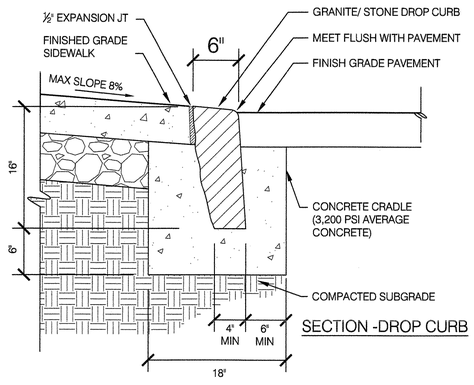
5 D.O.T. STONE CURB AND DROP CURB

SCALE 1 ½"= 1'-0"



SECTION

*NYC D.O.T. STD DETAIL H-1056



SECTION -DROP CURB

NOTES:

A. LENGTHS OF STRAIGHT STONE CURB SHALL RANGE FROM 4 FT TO 12FT LONG, 80% SHALL BE 6 FT OR GREATER.

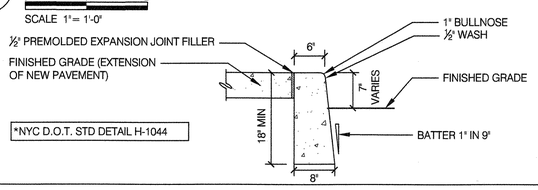
B. LENGTHS OF CORNER STONE CURB SHALL RANGE FROM 3 FT TO 8 FT LONG, 80% SHALL BE 4 FT OR GREATER.

C. LENGTH OF TRANSITION CURB (STRAIGHT OR CURVED) AT CORNERS SHALL BE 5 FT LONG.

D. IF GRANITE IS USED, EXPOSED SURFACES OF THE CURB SHALL HAVE BUSH HAMMERED OR THERMAL FINISH, WITH NO DRILL HOLES. SEE SPECIFICATION FOR ALL OTHER STONE FINISHES.

6 D.O.T. CONCRETE STREET CURB

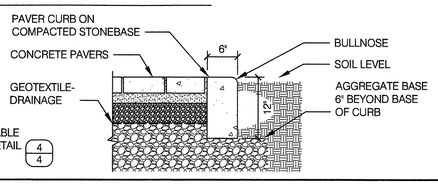
SCALE 1"= 1'-0"



*NYC D.O.T. STD DETAIL H-1044

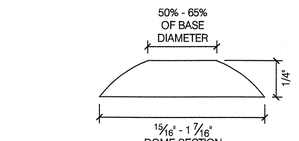
7 PRECAST CONCRETE PAVER CURB

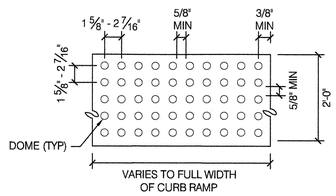
SCALE 1"= 1'-0"



8 DETECTABLE WARNING DETAILS

SCALE: NOT TO SCALE





*NYC D.O.T. STD DETAIL H-1056

NOTES:

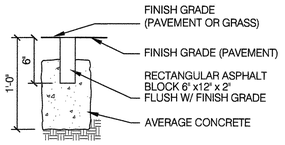
1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE, THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING FIELD (THE DOMES AND THE ENTIRE 2 FOOT LEVEL SURFACE) ARE FOR ILLUSTRATIVE PURPOSES ONLY. SEE SPECIFICATION FOR PRODUCT INFORMATION.

2. DOME ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.

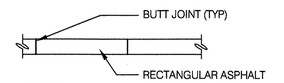
3. COLOR REQUIREMENTS. THE DETECTABLE WARNING FIELD SHALL BE THE COLOR SPECIFIED IN THE CONTRACT DOCUMENTS OR SHALL VISUALLY CONTRAST WITH THE ADJOINING CURB RAMP, OR OTHER ADJACENT WALKWAY SURFACES WHERE THERE IS NO CURB RAMP, EITHER LIGHT-ON DARK, OR DARK-ON-LIGHT AS DEFINED IN THE AMERICANS WITH DISABILITIES ACCESSIBILITY GUIDELINES (ADAAG).

9 ASPHALT BLOCK CURB

SCALE 1 ½"= 1'-0"



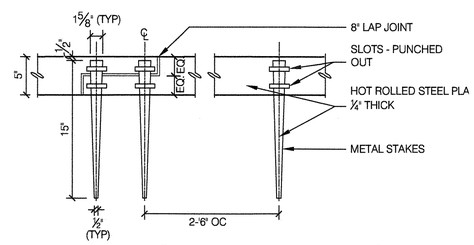
SECTION

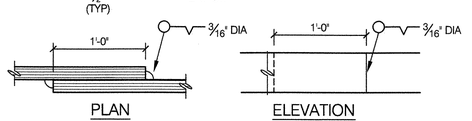


PLAN

10 STEEL EDGING

SCALE 1 ½"= 1'-0"





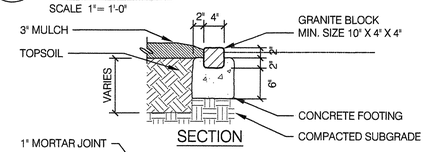
PLAN (N.T.S.) ELEVATION

NOTES:

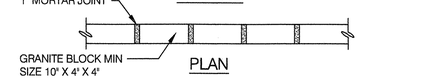
1. ALL ANGLES, ARCS, AND RADII SHALL BE MECHANICALLY BENT.
2. ALL WELDS TO BE PAINTED TO MATCH PAINTED EDGING.

11 GRANITE BLOCK LANDSCAPE EDGING

SCALE 1"= 1'-0"



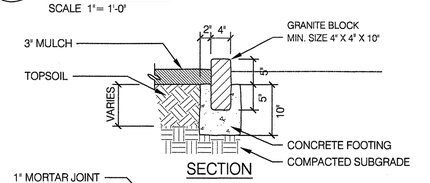
SECTION



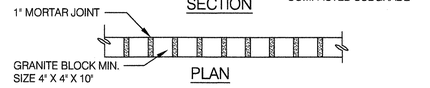
PLAN

12 SOLDIER GRANITE BLOCK LANDSCAPE EDGING

SCALE 1"= 1'-0"



SECTION



PLAN

NYC Parks

CITY OF NEW YORK
PARKS & RECREATION
OLMSTED CENTER
FLUSHING MEADOWS CORONA PARK
FLUSHING, NEW YORK 11368

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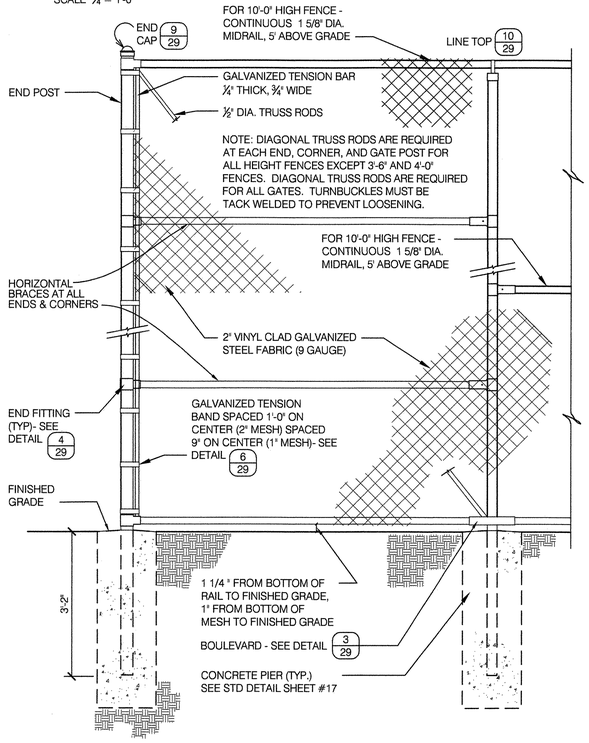
DRAWING TITLE
CURBS, RAMPS, AND MISCELLANEOUS DETAILS

STATE OF NEW YORK — HUGH S. WEI — 091042 — LICENSED PROFESSIONAL ENGINEER

DRAWN BY: STAFF	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: R. WEI, PE	SHEET NO.: 18
DATE: 09-01-2020	SCALE: AS SHOWN

1 10'-0" HIGH CHAIN LINK FENCE *

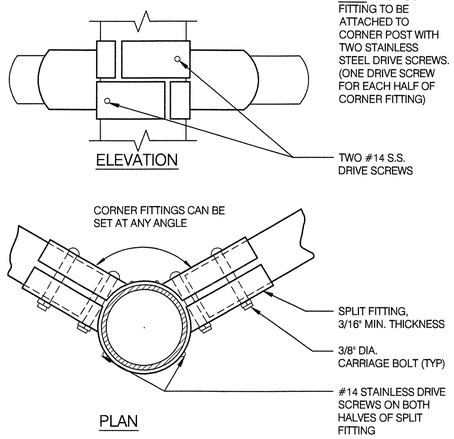
SCALE ¾"= 1'-0"



* FOR OTHER HEIGHT FENCES, SEE SCHEDULE BELOW

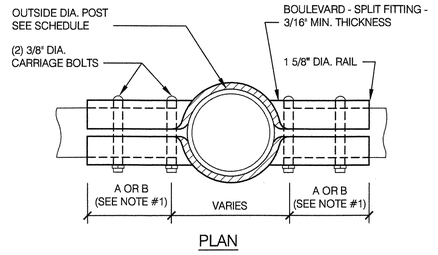
2 CORNER FITTING

SCALE 6"= 1'-0"



3 BOULEVARD

SCALE 6"= 1'-0"

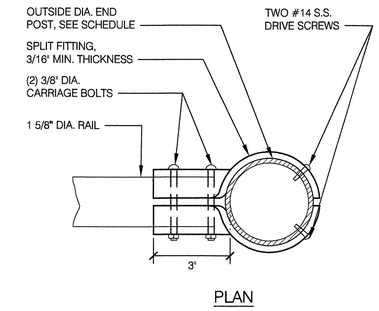


NOTES:
1. A= 1 3/4" FOR 1 7/8" - 41/2" O.D. POST
   B= 1 5/8" FOR 1 7/8" O.D. OR SMALLER POST
2. ALL CORNERS TO BE ROUNDED

EXCEPTION:
FOR POSTS LESS THAN 2 3/8" O.D. (SEE SCHEDULE OF SIZES OF MEMEBERS), ONLY ONE (1) CHARRIAGE BOLT IS REQUIRED FOR EACH SIDE OF BOULEVARD.

4 END FITTING

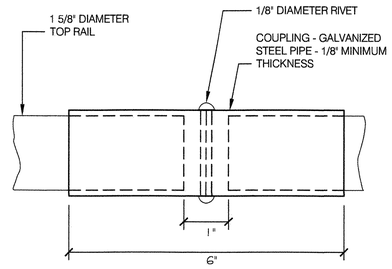
SCALE 6"= 1'-0"



NOTE: MINIMUM WIDTH OF END FITTING TO BE 2 1/4"

5 TOP RAIL COUPLING

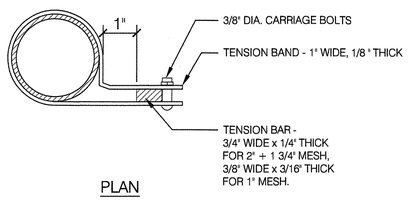
SCALE 9"= 1'-0"



NOTE: FURNISH ONE COUPLING FOR EACH LENGTH OF PIPE IN TOP RAIL - FULL LENGTH OF PIPE EQUALS 21'-0"

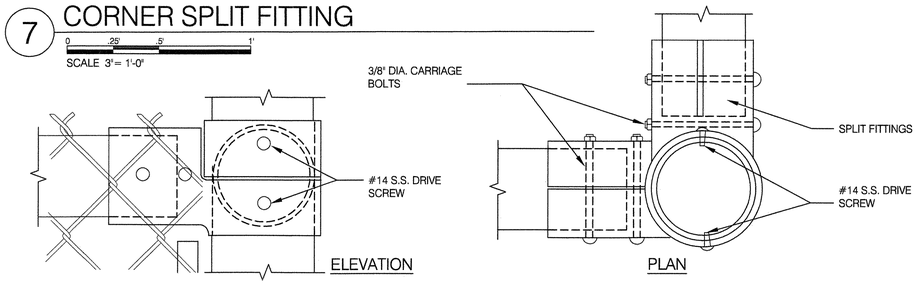
6 TENSION MEMBERS

SCALE 6"= 1'-0"



7 CORNER SPLIT FITTING

SCALE 3'= 1'-0"



BOLT AND FABRIC NOTES

PEEN END OF ALL BOLTS.

BOLTS WHICH ARE INSTALLED 6' OR LESS ABOVE GRADE SHALL NOT PROTRUDE MORE THAN1/4" BEYOND THE NUT AFTER TIGHTENING. ALL ROUGH EDGES SHALL BE FILED SMOOTH TO THE SATISFACTION OF THE ENGINEER.

ON FENCES OVER 12 FEET HIGH WHERE THE TWO WIDTHS OF FABRIC ARE REQUIRED, THE BOTTOM PIECE SHALL BE KNUCKLED TOP AND BOTTOM AND THE TOP PIECE KNUCKLED AT BOTTOM AND BARBED AT TOP.

THE TWO PIECES SHALL BE SPLICED IN SUCH A WAY AS TO GIVE A FINISHED NEAT APPEARANCE.

FABRIC TO BE KNUCKLED AT TOP AND BOTTOM RAILS ON FENCES UP TO AND INCLUDING 6'-0" HIGH AND BARBED AT TOP RAIL ON FENCES OVER 6'-0" HIGH.

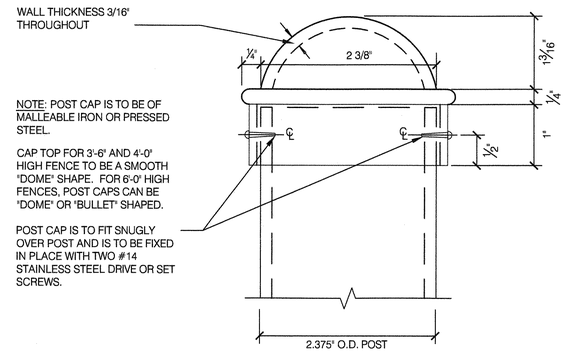
WIRE FABRIC NOTES

THE MESH SHALL BE PLACED ON THE OUTSIDE OF THE POSTS OF ALL EXTERIOR CHAINLINK FENCES INCLUDING HOODED BACKSTOPS AND HANDBALL COURT FENCES WHERE THESE ARE AN INTEGRAL PART OF THE EXTERIOR FENCE.

WHERE HOODED BACKSTOPS, HANDBALL COURT FENCES, AND SKATEPARKS ARE IN INTERIOR AREAS, THE MESH SHALL BE PLACED ON THE INSIDE OF THE POSTS.

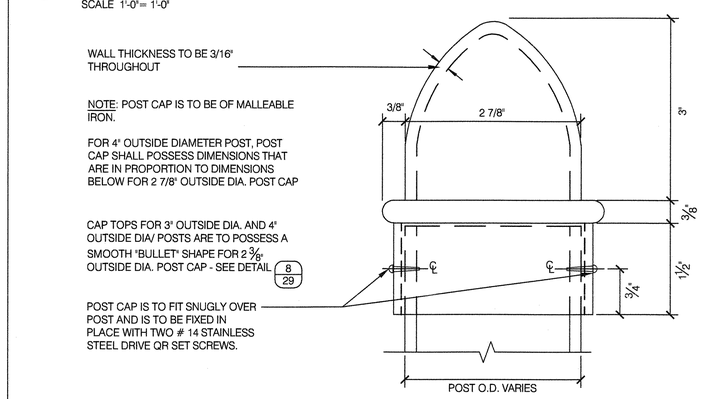
8 SMALL POST CAP

SCALE 1'-0"= 1'-0"



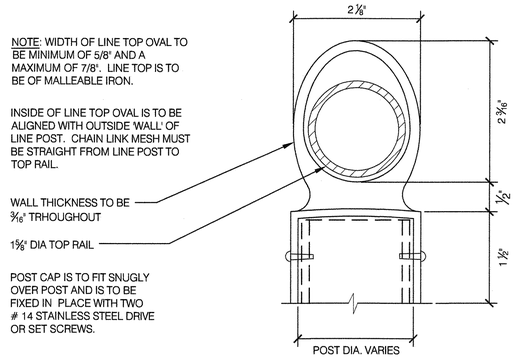
9 END, CORNER, & GATE POST CAP

SCALE 1'-0"= 1'-0"



10 POST LINE TOP

SCALE 1'-0"= 1'-0"



SCHEDULE OF SIZES OF MEMBERS*

HEIGHT OF FENCE	DIAMETER OF LINE POSTS*	POST SPACING MAX.	CORNER & END POST	TOP RAIL	MID RAILS	BOTTOM RAIL	DEPTH OF POST INTO CURB AND FTG AT: LINE POST	DEPTH OF POST INTO CURB AND FTG AT: END/CORNER/ GATE POST	HORIZONTAL BRACES AT CORNER & END POST	DIAGONAL BRACES
3'-6" & 4'-0"	1 7/8"	6'-0"	2 3/8"	1 5/8"	0	1 5/8"	1'-0"	1'-6"	0	0
6'-0"	1 7/8"	6'-0"	2 3/8"	1 5/8"	0	1 5/8"	1'-8"	2'-0"	0	1/2" DIA.
8'-0"	2 3/8"	8'-0"	2 7/8"	1 5/8"	0	1 5/8"	1'-8"	2'-0"	1 AT 1 5/8"	1/2" DIA.
10'-0"	2 7/8"	10'-0"	4"	1 5/8"	(1)-1 5/8"	1 5/8"	3'-2"	3'-2"	2 AT 1 5/8"	1/2" DIA.
12'-0"	2 7/8"	10'-0"	4"	1 5/8"	(2)-1 5/8"	1 5/8"	3'-2"	4'-2"	2 AT 1 5/8"	1/2" DIA.
14'-0"	3 1/2"	10'-0"	4"	1 5/8"	(2)-1 5/8"	1 5/8"	3'-2"	4'-2"	2 AT 1 5/8"	1/2" DIA.
16'-0"	3 1/2"	10'-0"	4"	1 5/8"	(2)-1 5/8"	1 5/8"	3'-2"	4'-2"	2 AT 1 5/8"	1/2" DIA.
18'-0"	3 1/2"	10'-0"	4"	1 5/8"	(2)-1 5/8"	1 5/8"	3'-2"	4'-2"	2 AT 1 5/8"	1/2" DIA.
20'-0"	4 1/2"	10'-0"	4 1/2"	1 5/8"	(3)-1 5/8"	1 5/8"	4'-2"	4'-6"	3 AT 1 5/8"	1/2" DIA.

*ALL PIPE DIAMETERS ARE TRADE SIZE DIAMETERS AS SPECIFIED IN ASTM F1043, TABLE 1. SEE 'PIPE THICKNESS CHARTS' FOR ACTUAL O.D. AND THICKNESS OF PIPE.

FABRIC WIDTHS

HEIGHT OF FENCE	WIDTH OF BOTTOM FABRIC	WIDTH OF TOP FABRIC
3'-6" - 4'-0"	3'-6" - 4'-0"	0
6'-0"	6'-0"	0
8'-0"	8'-0"	0
10'-0"	10'-0"	0
12'-0"	8'-0"	4'-0"
14'-0"	10'-0"	4'-0"
16'-0"	10'-0"	6'-0"
18'-0"	10'-0"	8'-0"
20'-0"	10'-0"	10'-0"

PIPE THICKNESS CHARTS

SS-40

TRADE SIZE DIAMETER	ACTUAL O.D. SIZE	ACTUAL I.D. SIZE	PIPE WALL THICKNESS	WEIGHT (LBS/FOOT)
1 5/8"	1.660	1.438	0.111	1.84
1 7/8"	1.900	1.660	0.120	2.28
2 3/8"	2.375	2.115	0.130	3.12
2 7/8"	2.875	2.555	0.160	4.64
3 1/2"	3.500	3.180	0.160	5.71
4"	4.000	3.680	0.160	6.56

SCHEDULE 40

TRADE SIZE DIAMETER	ACTUAL O.D. SIZE	ACTUAL I.D. SIZE	PIPE WALL THICKNESS	WEIGHT (LBS/FOOT)
1 5/8"	1.660	1.380	0.140	2.27
1 7/8"	1.900	1.610	0.145	2.72
2 3/8"	2.375	2.067	0.154	3.65
2 7/8"	2.875	2.469	0.203	5.79
3 1/2"	3.500	3.068	0.216	7.58
4"	4.000	3.548	0.226	9.11

POST & RAIL NOTES

FENCE POSTS AND RAILS SHALL BE EITHER TYPE I OR TYPE II:

TYPE I - ROUND MEMBERS SHALL BE HOT DIPPED GALVANIZED CONFORMING TO ASTM F1083 STANDARD WEIGHT SCHEDULE 40.

TYPE II - ROUND MEMBERS SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A1011/A1011M COLD ROLLED WELDED AND HAVE TENSILE STRENGTH OF 50,000 PSI AND GIVEN CORROSION PROTECTION PER ASTM F1043 TYPE B FOR EXTERNAL COATING AND TYPE D FOR INTERNAL COATING, SUCH AS SS-40.

PROVIDE ADDITIONAL RAIL IN LOWER THIRD OF FENCE AT BASKETBALL BACKSTOPS, AT EACH END OF BASKETBALL COURTS AND ALL AROUND HANDBALL COURTS.

SEE STANDARD DETAIL SHEETS #44, #45 AND #48.

NYC Parks

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FLUSHING, NEW YORK 11368

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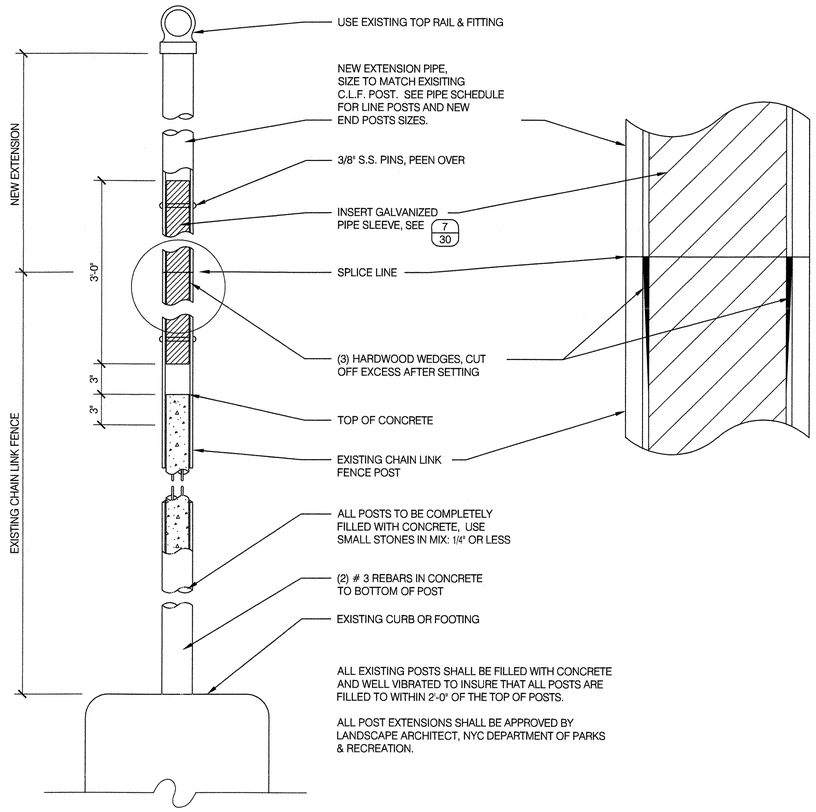
DRAWING TITLE
CHAIN LINK FENCE - DETAILS

STATE OF NEW YORK · ROBERT S. WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: STAFF	CHECKED BY: R. WEI, PE
APPROVED BY	STANDARD D.P.R. DETAIL: TLYA / 146-R10
APPROVED BY DIRECTOR: R. WEI, PE	SHEET NO.: 29
DATE: 09-01-2020	SCALE: AS SHOWN

1 EXTEND FENCE HEIGHT - SECTION

SCALE 2"= 1'-0"

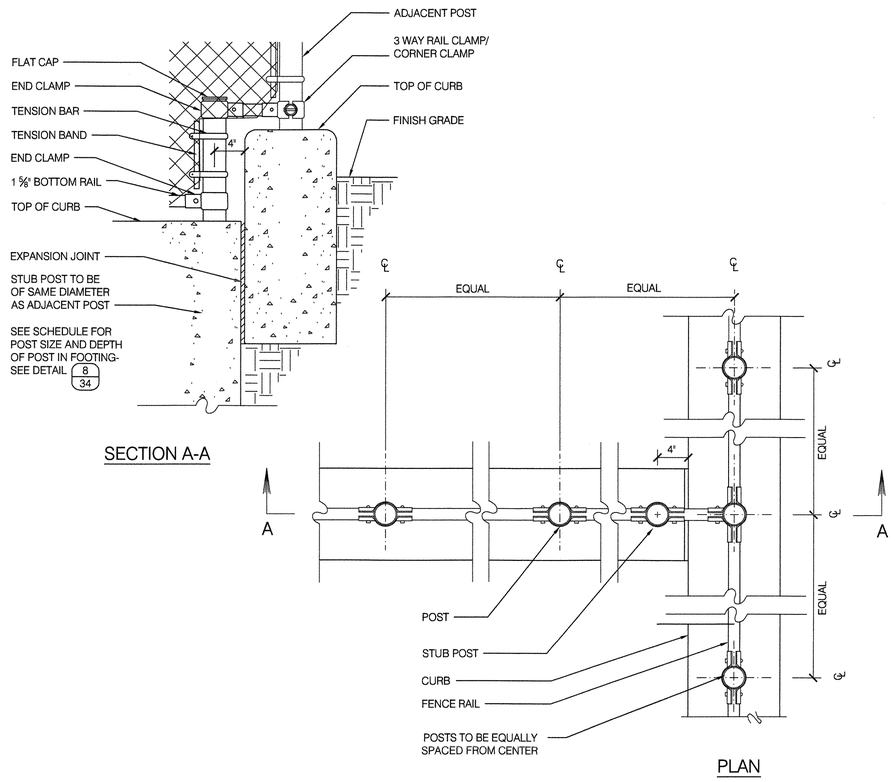


ALL EXISTING POSTS SHALL BE FILLED WITH CONCRETE AND WELL VIBRATED TO INSURE THAT ALL POSTS ARE FILLED TO WITHIN 2'-0" OF THE TOP OF POSTS.

ALL POST EXTENSIONS SHALL BE APPROVED BY LANDSCAPE ARCHITECT, NYC DEPARTMENT OF PARKS & RECREATION.

2 DIFFERENT CURB ELEVATIONS

SCALE 1½"= 1'-0"

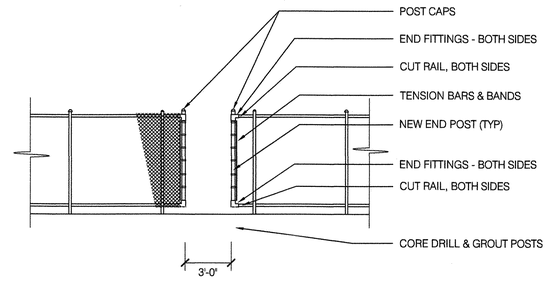


PLAN

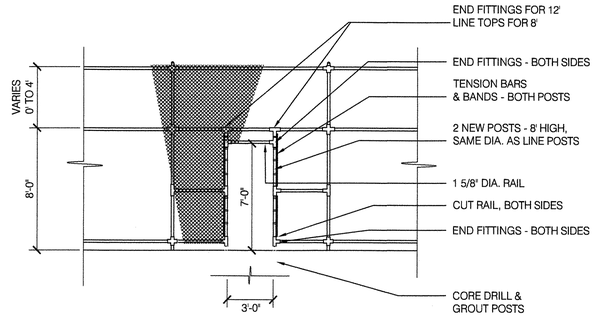
3 SUPPLY NEW PORTAL

SCALE ¼"= 1'-0"

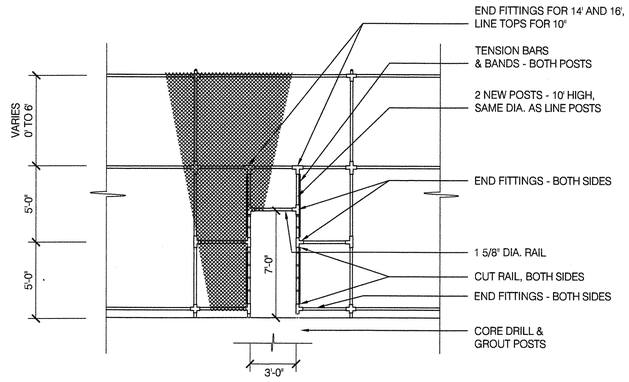
CHAIN LINK FENCE UNDER 8' HIGH



CHAIN LINK FENCE 8' OR 12' HIGH

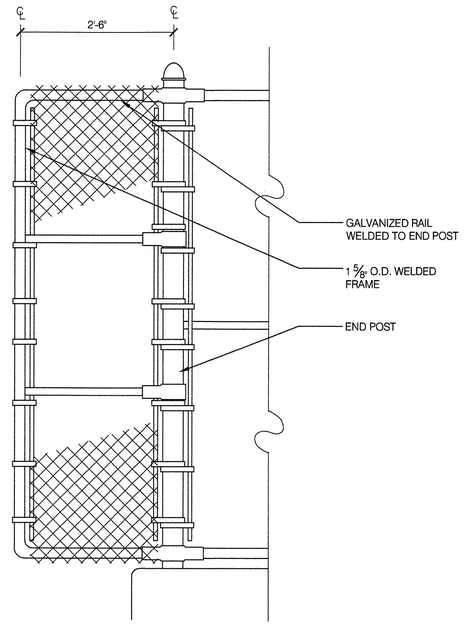


CHAIN LINK FENCE 10', 14' OR 16' HIGH



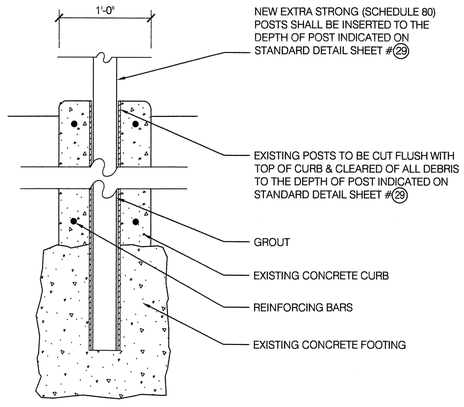
4 PROTECTIVE END PIECE

SCALE 1"= 1'-0"



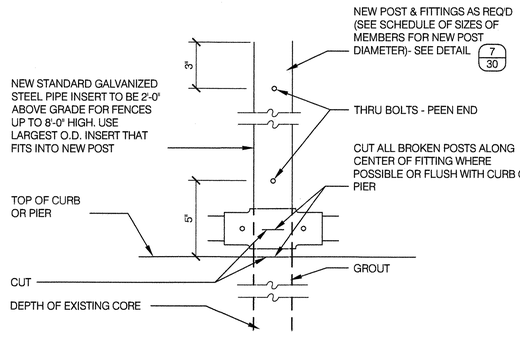
5 REPLACE FENCE POST 10'-0" HT. & OVER

SCALE 1½"= 1'-0"



6 REPLACE FENCE POST UP TO 8'-0"

SCALE 3"= 1'-0"



7 SCHEDULE FOR POST INSERTS

EXISTING POST DIAMETER	POST SIZE	1 7/8"	2 3/8"	2 7/8"	31/2"	4"
	ACTUAL O.D. PIPE SIZE	1.9"	2.375"	2.875"	3.5"	4"
	ACTUAL I.D. PIPE SIZE	1.610"	2.067"	2.469"	3.068"	3.548"
SLEEVE DIAMETER REQUIRED	POST SLEEVE SIZE	SLEEVE METHOD NOT POSSIBLE FOR 1 7/8" PIPE	1 7/8"	2 3/8"	2 7/8"	3 -1/2"
	ACTUAL O.D. PIPE SLEEVE		1.9"	2.375"	2.875"	3.5"

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FLUSHING, NEW YORK 11368

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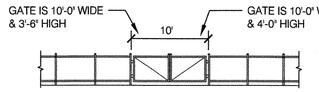
DRAWING TITLE
CHAIN LINK FENCE - SPECIAL CONDITIONS

STATE OF NEW YORK · RUBY S. WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY M. MERIC	CHECKED BY R. WEI, PE
APPROVED BY	STANDARD D.P.R. DETAIL TYLA / 146-R10
APPROVED BY DIRECTOR R. WEI, PE	SHEET NO. 30
DATE 09-01-2020	SCALE AS SHOWN

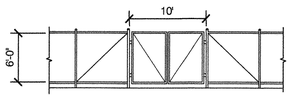
1 3'-6" & 4'-0" FENCE

SCALE ⅛"= 1'-0"



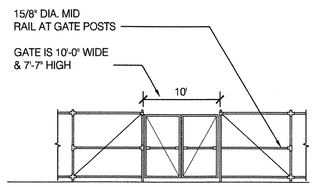
2 6'-0" FENCE

SCALE ⅛"= 1'-0"



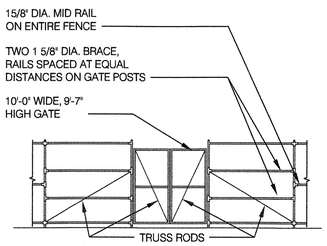
3 8'-0" FENCE

SCALE ⅛"= 1'-0"



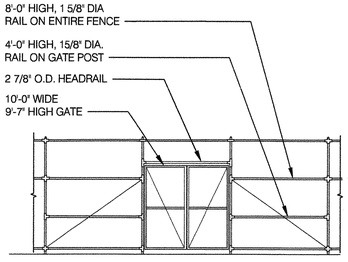
4 10'-0" FENCE

SCALE ⅛"= 1'-0"



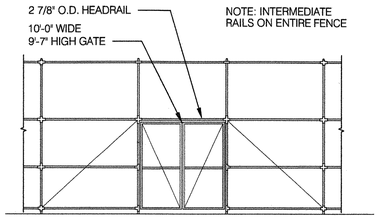
5 12'-0" FENCE

SCALE ⅛"= 1'-0"



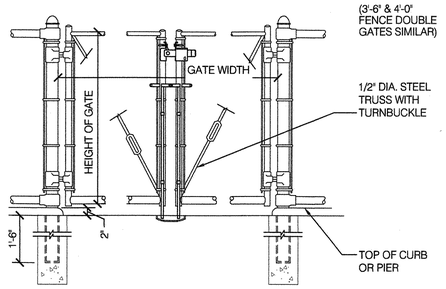
6 16'-0" FENCE

SCALE ⅛"= 1'-0"



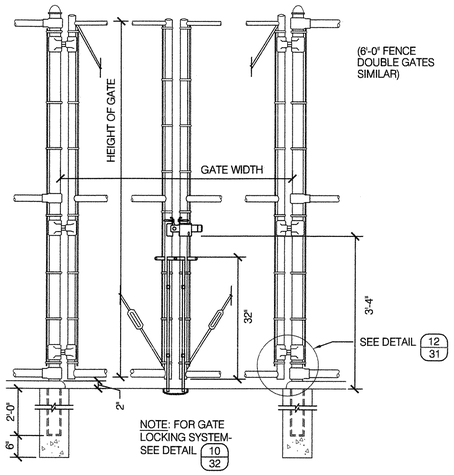
7 4'-0" DOUBLE GATE FENCE

SCALE ¾"= 1'-0"



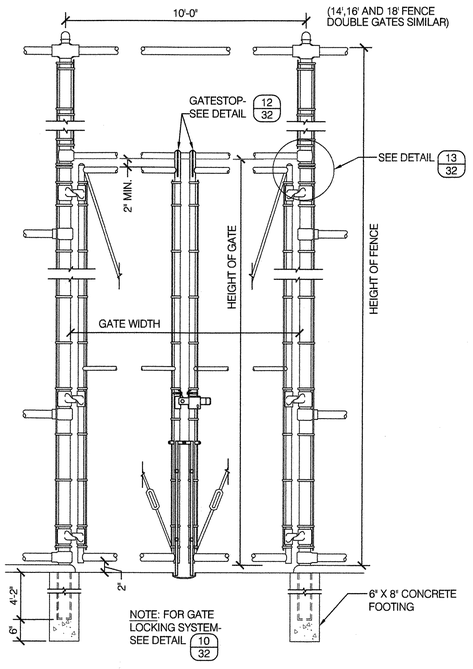
8 8'-0" DOUBLE GATE FENCE

SCALE ¾"= 1'-0"



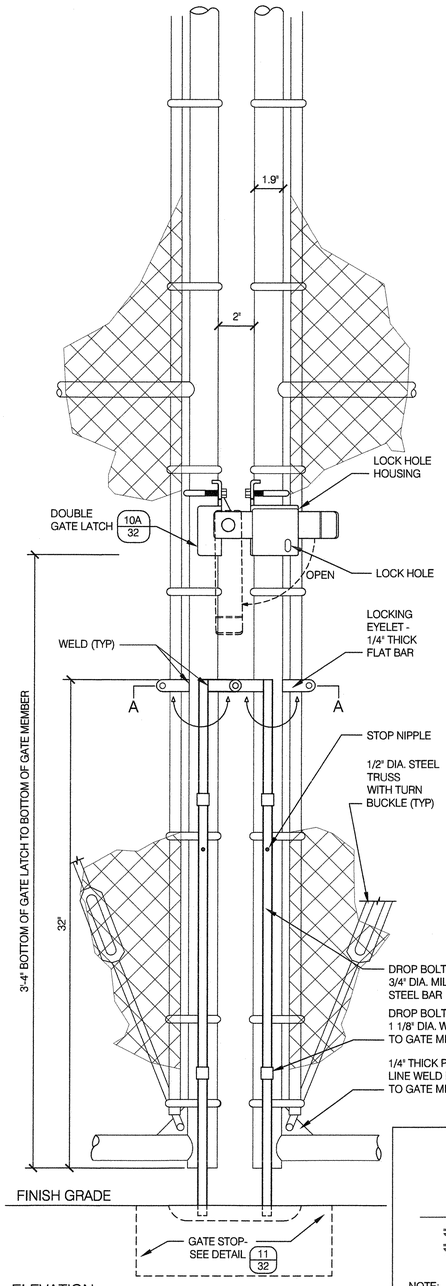
9 12'-0" DOUBLE GATE FENCE

SCALE ¾"= 1'-0"



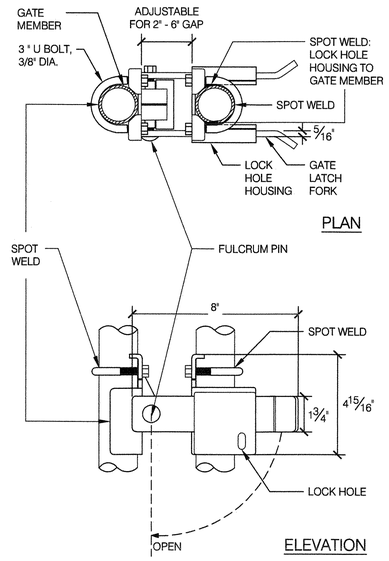
10 GATE LOCKING SYSTEM - DOUBLE GATE

SCALE: AS SHOWN



ELEVATION

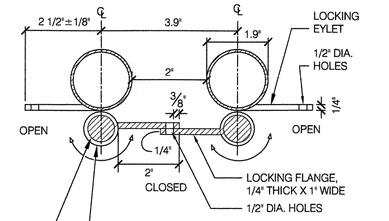
SCALE 3"=1'-0"



ELEVATION

10A DOUBLE GATE LATCH

SCALE 4"= 1'-0"

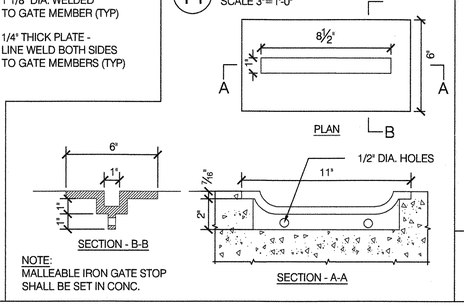


SECTION A-A - DROP BOLTS

NOT TO SCALE

11 GATE STOP

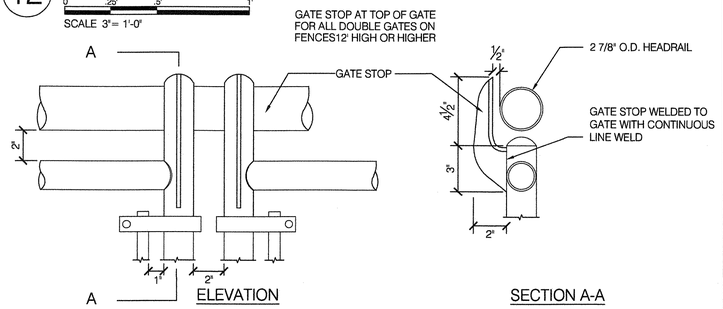
SCALE 3"=1'-0"



NOTE:
MALLEABLE IRON GATE STOP SHALL BE SET IN CONC.

12 GATE STOP - TOP

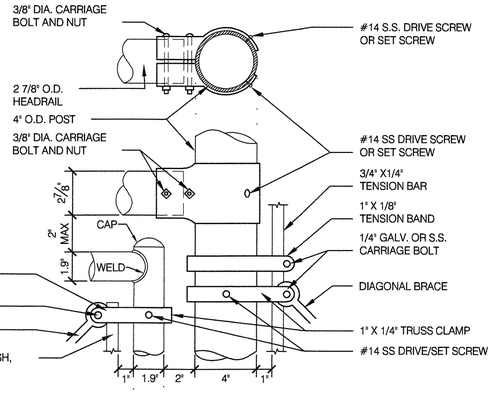
SCALE 3"= 1'-0"



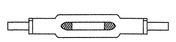
13 HEAD RAIL AND TENSIONING ELEMENTS

SCALE 3"= 1'-0"

PLAN VIEW OF FITTING AT 4" GATE POST



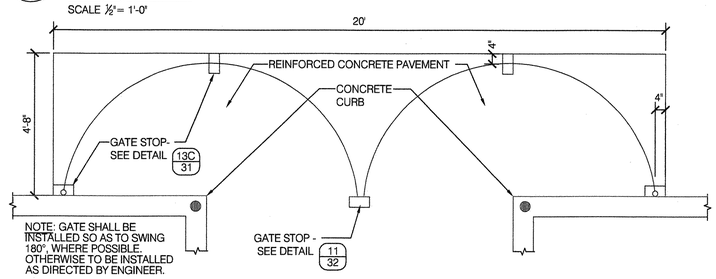
PLAN VIEW OF TENSION BAND AND BAR ON 2" GATE MEMBER



NOTE: DIAGONAL BRACES SHALL BE INSTALLED ON ALL GATES AND ON ALL FENCE PANELS DIRECTLY ADJACENT TO GATES. DIAGONAL BRACES SHALL BE TENSIONED USING TURNBUCKLES (SHOWN), TURNBUCKLES SHALL BE TACK WELDED TO PREVENT LOOSENING OF SET SCREWS.

14 CONCRETE PAVEMENT - DOUBLE GATE

SCALE ½"= 1'-0"



NOTE: GATE SHALL BE INSTALLED SO AS TO SWING 180°. WHERE POSSIBLE. OTHERWISE TO BE INSTALLED AS DIRECTED BY ENGINEER.

NOTES:
1. ALL EDGES AND WELDS SHALL BE GROUND SMOOTH. APPLY TOUCH-UP PAINT TO WELDS IN FIELD.
2. INSTALL DROP BOLTS TO FACE THE FENCED IN AREA.
3. CUT DROP BOLTS IN FIELD AS REQUIRED TO ENSURE CORRECT ELEVATION AT GATE STOPS.
4. GATE LATCH SHALL BE COMMERCIAL DOUBLE GATE LATCH BY DAC INDUSTRIES, GRAND RAPIDS, MI, OR APPROVED EQUAL.

SCHEDULES OF MEMBER SIZES*

PIPE POSTS & RAILS SHALL BE TYPE I OR TYPE II

TYPE I: ROUND MEMBERS SHALL BE HOT DIPPED GALVANIZED CONFORMING WITH ASTM F1083 STANDARD WEIGHT SCHEDULE 40.

TYPE II: ROUND MEMBERS SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM-A1011/A1011M COLD ROLLED WELDED, HAVE A TENSILE STRENGTH OF 50,000 P.S.I. AND BE GIVEN CORROSION PROTECTION PER ASTM F1043 EXTERNAL COATING AND TYPE D FOR INTERNAL COATING.

HEIGHT OF FENCE	DIAMETER OF LINE POSTS	POST SPACING MAXIMUM	GATE POST	HORIZ BRACE AT GATE POST	SIZE OF GATE MEMBERS	HORIZ BRACE ON GATES	DOUBLE GATE HEIGHT	DOUBLE GATE WIDTH	DIAG. TRUSS ON GATE	DIAG. TRUSS-FENCE PANELS	PORTAL	HEAD RAIL	DEPTH OF POST FOOTING
3'-6"	1 7/8"	6'-0"	2 7/8"	0	1 7/8"	0	3'-6"	10'-0"	0	0	NO	0	1'-6"
4'-0"	1 7/8"	6'-0"	2 7/8"	0	1 7/8"	0	4'-0"	10'-0"	0	0	NO	0	1'-6"
6'-0"	1 7/8"	6'-0"	2 7/8"	0	1 7/8"	0	6'-0"	10'-0"	1/2" DIA.	1/2" DIA.	NO	0	2'-0"
8'-0"	2 3/8"	8'-0"	2 7/8"	(1) -1 5/8"	1 7/8"	1 5/8"	7'-7"	10'-0"	1/2" DIA.	1/2" DIA.	NO	0	2'-0"
10'-0"	2 7/8"	10'-0"	4"	(2) -1 5/8"	1 7/8"	1 5/8"	9'-7"	10'-0"	1/2" DIA.	1/2" DIA.	NO	0	3'-2"
12'-0"	2 7/8"	10'-0"	4"	(2) -1 5/8"	1 7/8"	1 5/8"	9'-7"	10'-0"	1/2" DIA.	1/2" DIA.	YES	2 7/8"	4'-2"
14',16',18'	3 1/2"	10'-0"	4"	(2) -1 5/8"	1 7/8"	1 5/8"	9'-7"	10'-0"	1/2" DIA.	1/2" DIA.	YES	2 7/8"	4'-2"
20'-0"	4 1/2"	10'-0"	4 1/2"	(3) -1 5/8"	1 7/8"	1 5/8"	9'-7"	10'-0"	1/2" DIA.	1/2" DIA.	YES	2 7/8"	4'-6"

*ALL PIPE DIAMETERS ARE TRADE SIZE DIAMETERS AS SPECIFIED IN ASTM F1043, TABLE 1. SEE "PIPE THICKNESS CHARTS" ON SHEET NO. 29 FOR ACTUAL O.D. AND THICKNESS OF PIPE.

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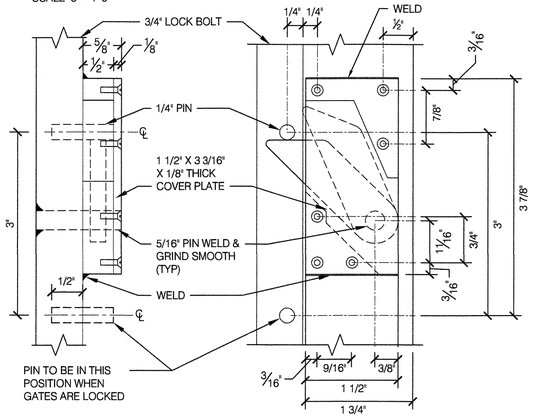
DRAWING TITLE
CHAIN LINK FENCE - DOUBLE GATE

STATE OF NEW YORK RUBY S WEI LICENSED PROFESSIONAL ENGINEER 091042

DRAWN BY: F. SIEW	CHECKED BY: R. WEI, PE
APPROVED BY	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY S. WEI, PE	SHEET NO.: 32
DATE: 09-01-2020	SCALE: AS SHOWN

1 BOLT CATCH FOR DOUBLE GATES

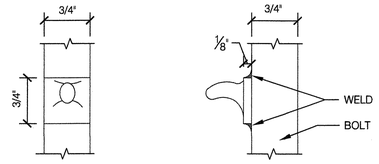
SCALE 6"= 1'-0"



FRONT ELEVATION SIDE ELEVATION

2 BOLT LIFT FOR DOUBLE GATES

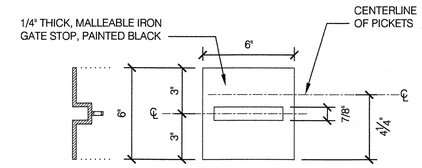
SCALE 1'-0"= 1'-0"



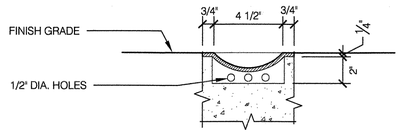
FRONT ELEVATION SIDE ELEVATION

3 GATE STOP FOR DOUBLE GATES

SCALE 3"= 1'-0"



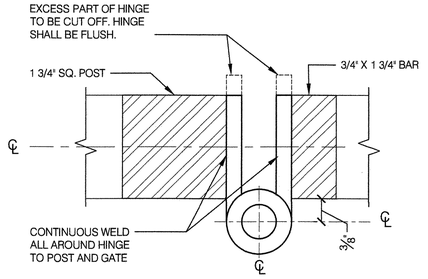
SECTION PLAN



SECTION

4 HINGE DETAIL FOR DOUBLE GATES

SCALE 1'-0"= 1'-0"

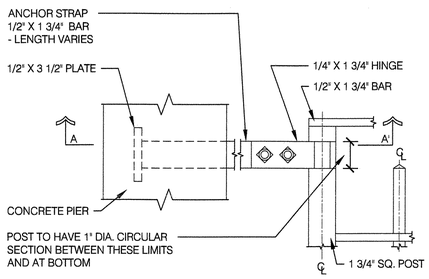


NOTES:

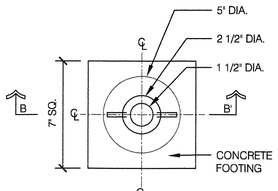
STANLEY #BB855 OR APPROVED EQUAL.
EXTRA HEAVY DUTY STEEL BALL BEARING HINGE - 6" X 5" X .281" THICK. PIN DIA. 1/2"

5 PIVOT GATE HINGE FOR DOUBLE GATES AT MASONRY PIER

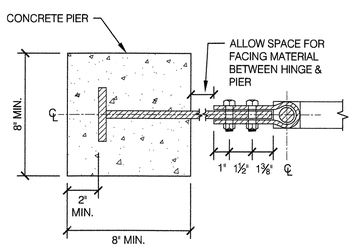
SCALE 3"= 1'-0"



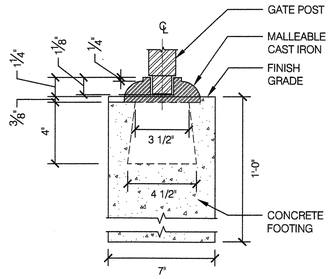
ELEVATION



PLAN



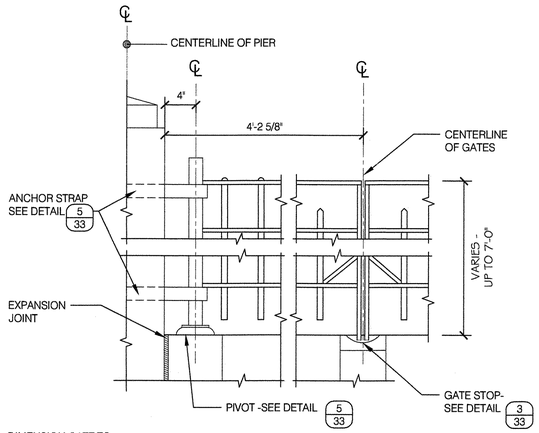
SECTION A-A: HINGE DETAIL



SECTION B-B': PIVOT DETAIL

6 SINGLE & DOUBLE GATES AT MASONRY PIER

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

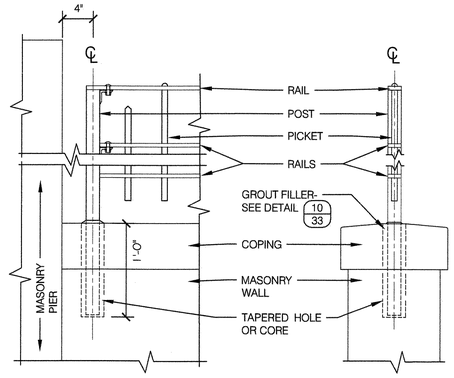


DIMENSION GATE TO SUIT EACH PROJECT

NOTE:
FOR BOLT CATCH AND LOCK BOLTS SEE DETAILS 1/33 2/35 1/36 3/36

7 SINGLE & DOUBLE FENCE ON MASONRY WALL

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

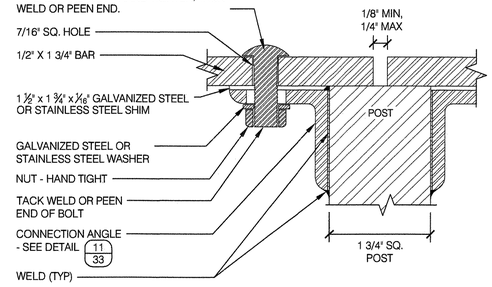


FRONT ELEVATION SIDE ELEVATION

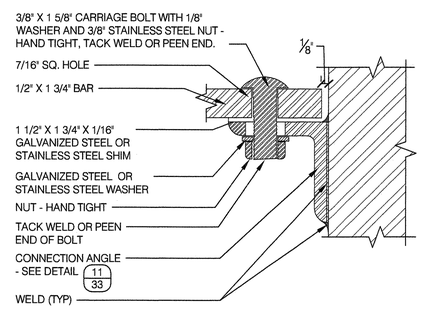
8 PANEL TO POST DETAIL STEEL FENCES & GATES

SCALE 1'-0"= 1'-0"

A. SINGLE GATE

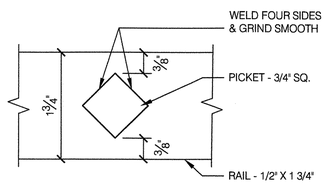


B. DOUBLE GATE

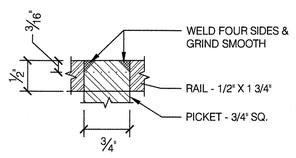


9 WELD - 2'-6" HT. STEEL FENCES & GATES

SCALE 1'-0"= 1'-0"



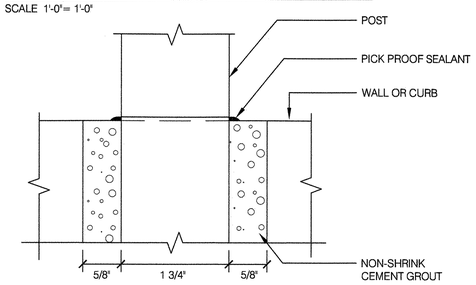
PLAN



SECTION

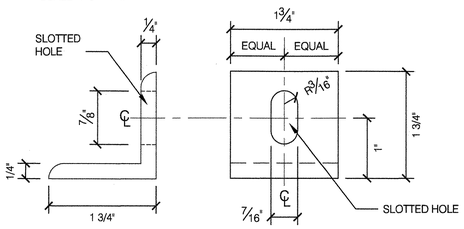
10 GROUT FILLER FOR STEEL FENCES & GATES

SCALE 1'-0"= 1'-0"



11 CONNECTION ANGLE - ALL STEEL FENCES & GATES

SCALE 1'-0"= 1'-0"



SIDE ELEVATION FRONT ELEVATION

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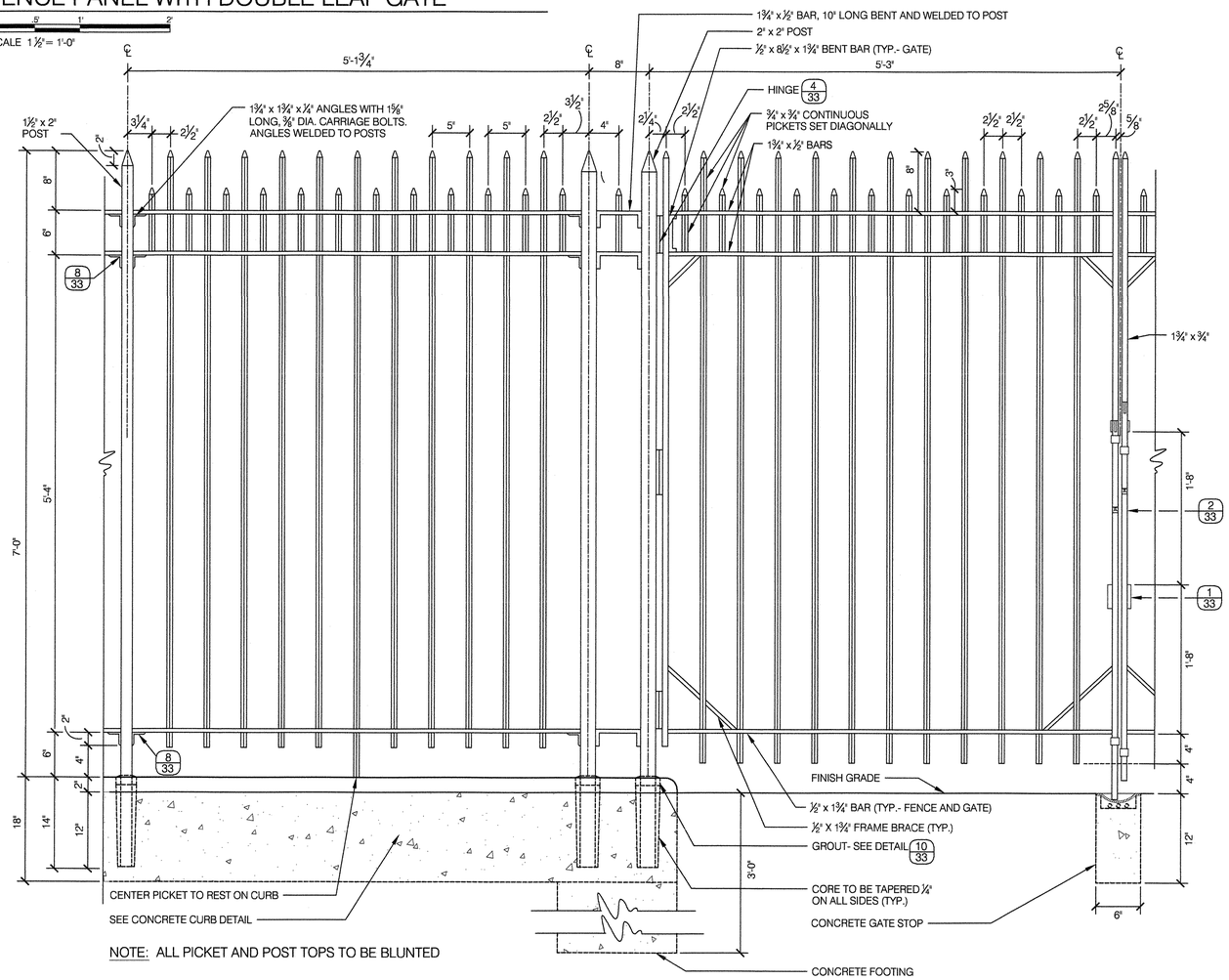
DRAWING TITLE
STEEL FENCE DETAILS

DRAWN BY: M. MERIC	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: R. WEI, PE	SHEET NO.: 33
DATE: 09-01-2020	SCALE: AS SHOWN

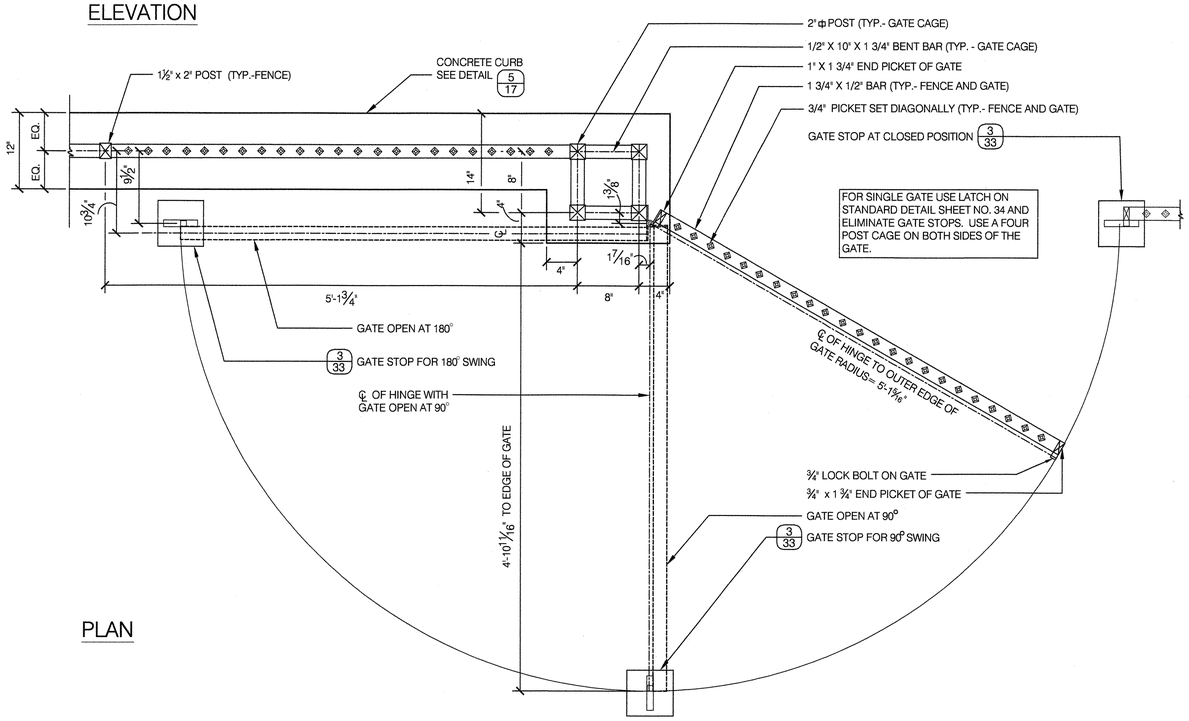
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1 FENCE PANEL WITH DOUBLE LEAF GATE

SCALE 1½"= 1'-0"



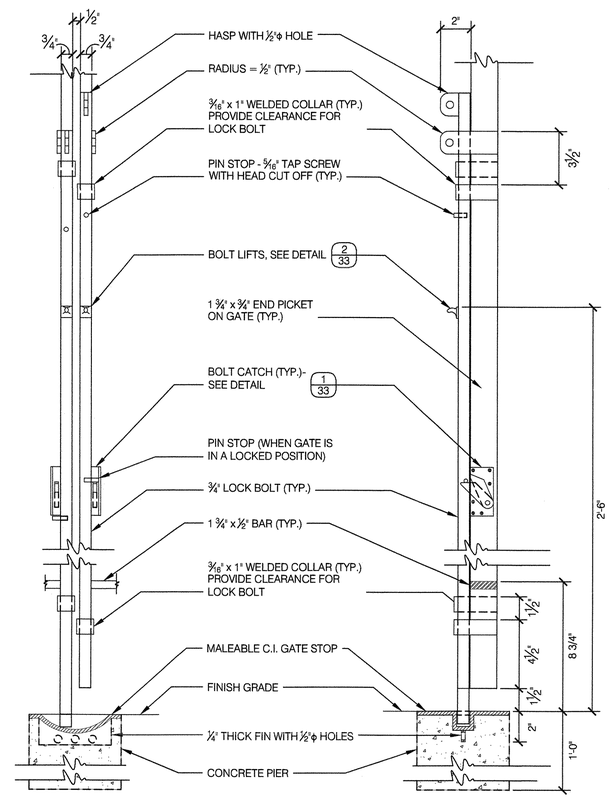
ELEVATION



PLAN

2 LOCK BOLTS ON DOUBLE GATES

SCALE 3"= 1'-0"



FRONT ELEVATION

SIDE ELEVATION

NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE NEW 7'-0" HT. STEEL PICKET FENCE IN ACCORDANCE WITH DPR STANDARD DETAILS. ALL HARDWARE AND CONNECTIONS SHALL BE CONSISTENT WITH DPR STANDARDS.

2. TOPS OF PICKETS SHALL BE BLUNTED.

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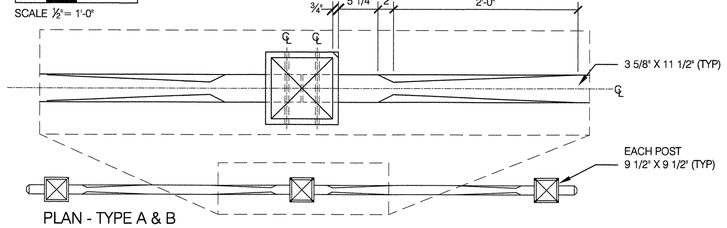
DRAWING TITLE
7'-0" HT. STEEL FENCE AND GATES

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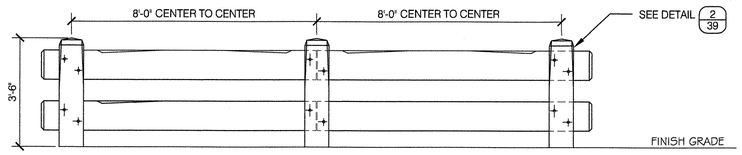
DRAWN BY: STAFF	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY S. WEI, PE	SHEET NO.: 36
DATE: 09-01-2020	SCALE: AS SHOWN

1 BARRIER RAIL -TYPE 'A'&'B'

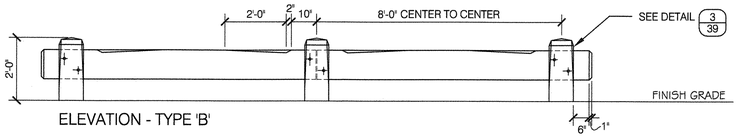
SCALE ½"= 1'-0"



PLAN - TYPE A & B



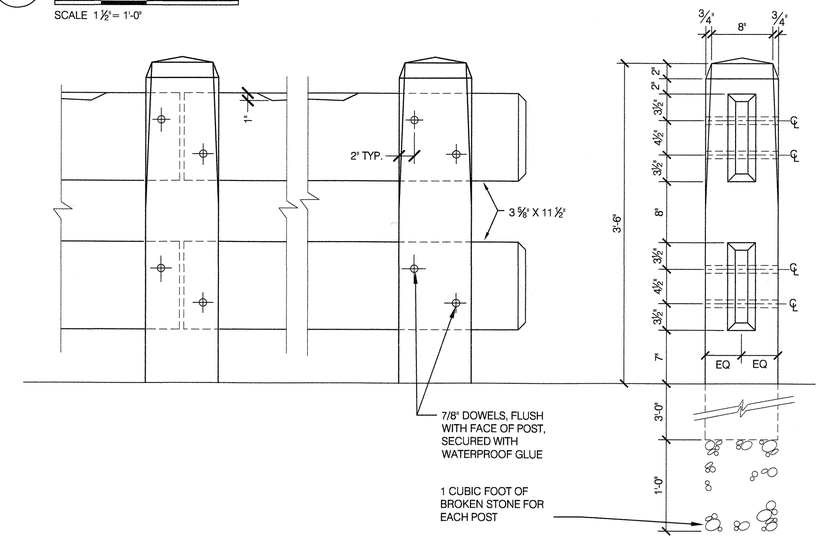
ELEVATION - TYPE 'A'



ELEVATION - TYPE 'B'

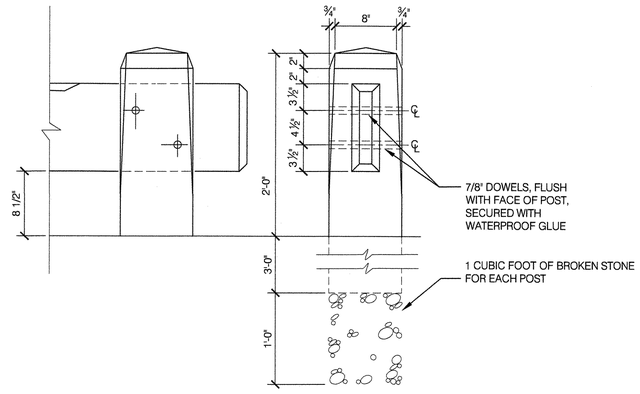
2 BARRIER RAIL - TYPE 'A'

SCALE 1 ½"= 1'-0"



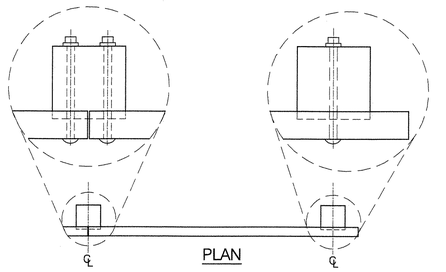
3 BARRIER RAIL - TYPE 'B'

SCALE 1 ½"= 1'-0"

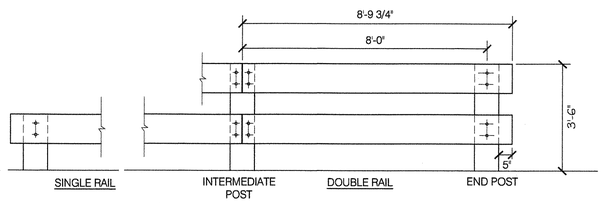


4 BARRIER RAIL - TYPE 'C'

SCALE ½"= 1'-0"



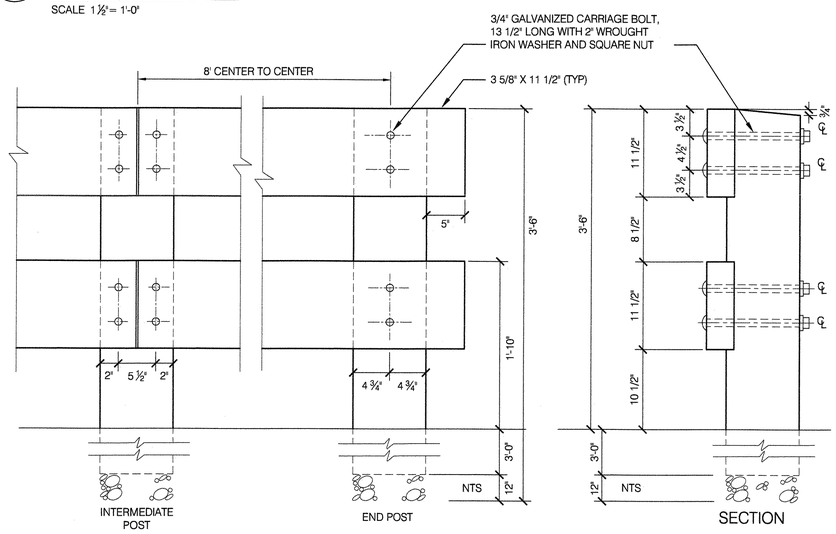
PLAN



ELEVATIONS

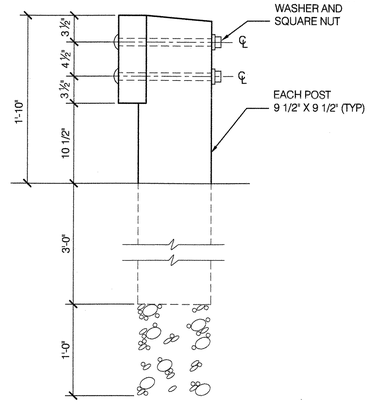
5 BARRIER RAIL-TYPE 'C' (DOUBLE RAIL)

SCALE 1 ½"= 1'-0"



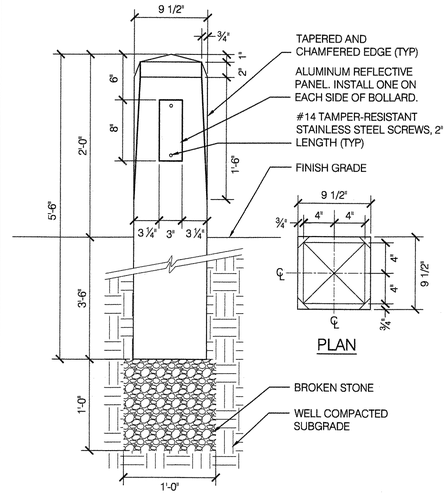
6 BARRIER RAIL- TYPE 'C' (SINGLE RAIL)

SCALE 1 ½"= 1'-0"



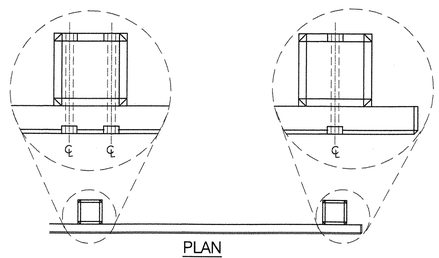
7 FIXED WOOD BOLLARD

SCALE 1 ½"= 1'-0"

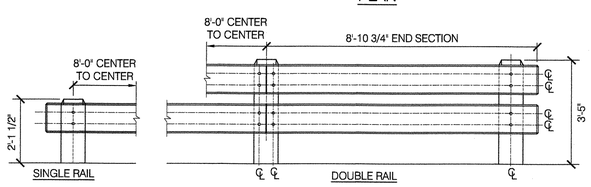


8 BARRIER RAIL -TYPE 'D'

SCALE ½"= 1'-0"



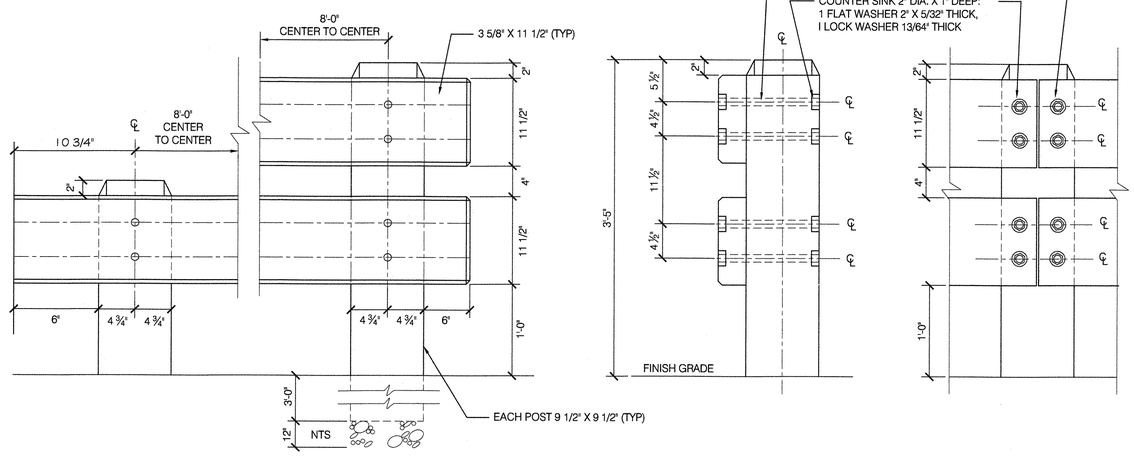
PLAN



ELEVATIONS

9 BARRIER RAIL -TYPE 'D'

SCALE 1 ½"= 1'-0"



NOTE:
ALL BOLTS SHALL BE CUT AND PEENED TO 1/4" AFTER INSTALLATION

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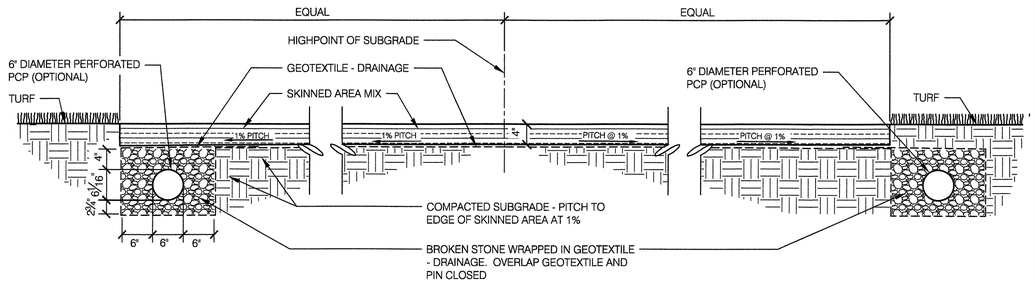
DRAWING TITLE
TIMBER BARRIER RAIL/ BOLLARD DETAILS

STATE OF NEW YORK · RUBY S WEI · LICENSED PROFESSIONAL ENGINEER · 081042

DRAWN BY: M. MERIC	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY WEI, PE	SHEET NO.: 39
DATE: 09-01-2020	SCALE: AS SHOWN

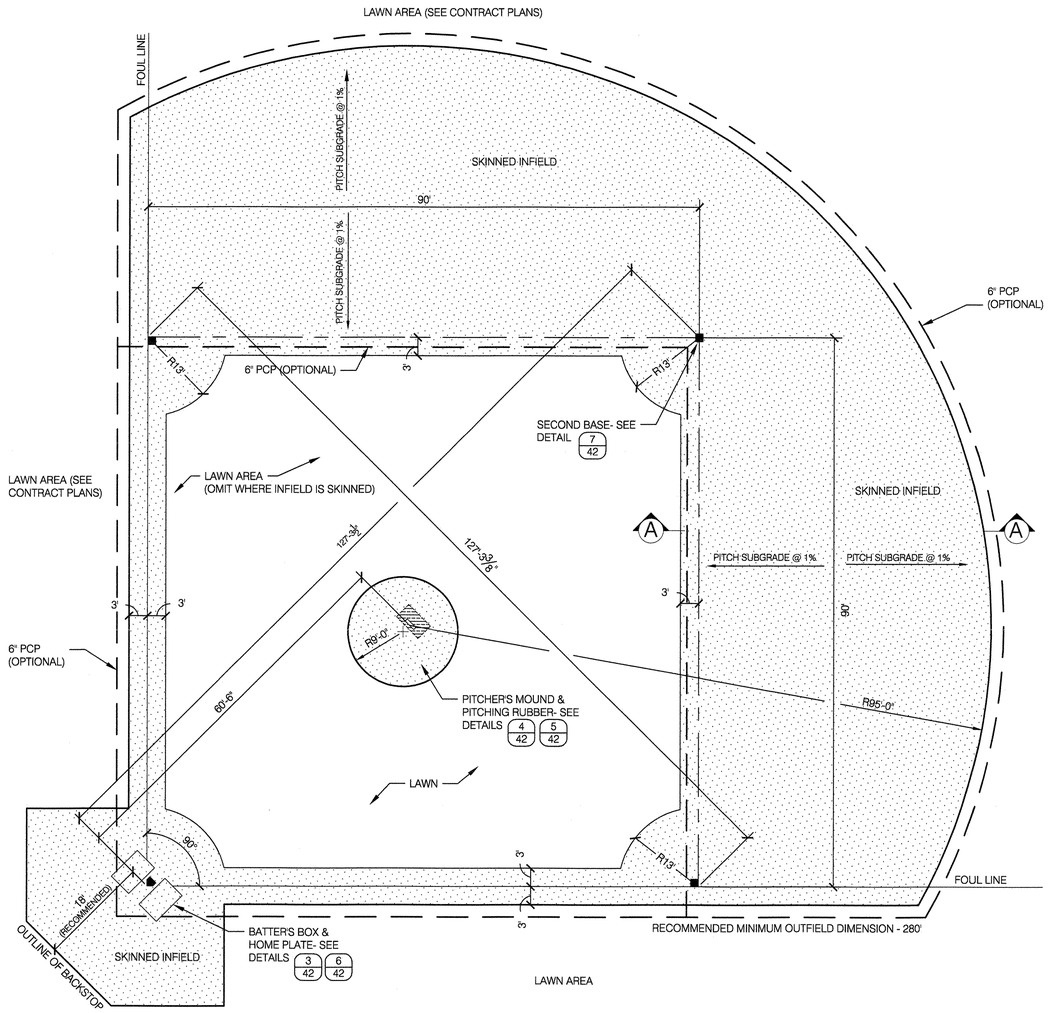
1 INFIELD SECTION A-A

SCALE 1"= 1'-0"



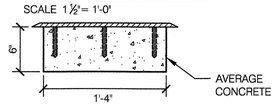
2 BASEBALL FIELD LAYOUT - 90' BASE PATHS

SCALE 1"= 10'-0"

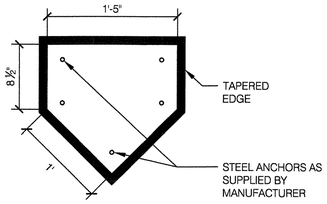


3 HOME PLATE DETAIL

SCALE 1½"= 1'-0"



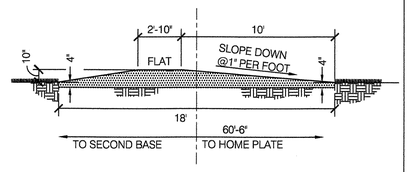
SECTION



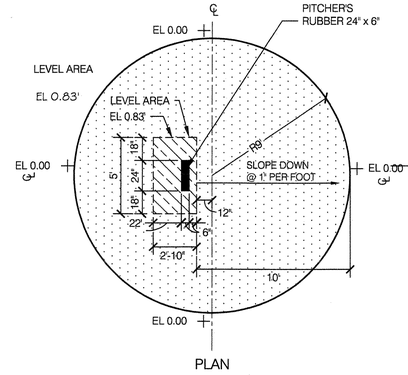
PLAN

4 BASEBALL PITCHER'S MOUND DETAIL

SCALE ¼"= 1'-0"



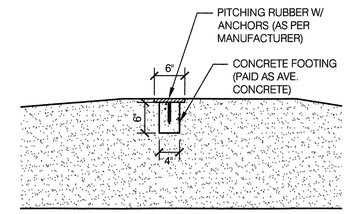
SECTION



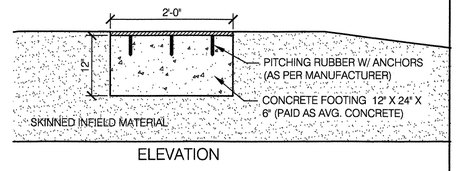
PLAN

5 PITCHNG RUBBER DETAIL

SCALE 1"= 1'-0"



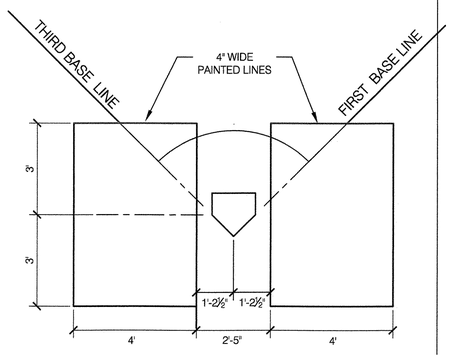
SECTION



ELEVATION

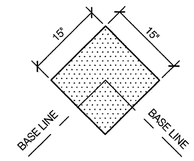
6 BASEBALL BATTER'S BOX

SCALE ½"= 1'-0"



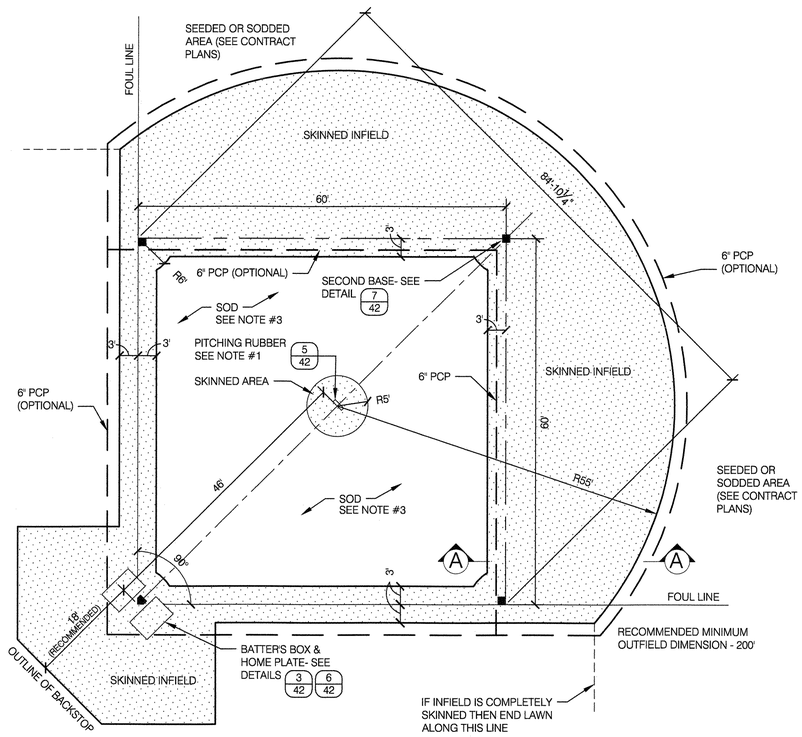
7 SECOND BASE DETAIL

SCALE 1"= 1'-0"



8 LITTLE LEAGUE/SOFTBALL FIELD LAYOUT - 60' BASE PATHS

SCALE 1"= 10'-0"



NOTES:

1. A SYNTHETIC TURF 90 FOOT BASE PATH MAY REQUIRE A PORTABLE PITCHER'S MOUND. CHECK WITH THE BOROUGH AS WELL AS THE LOCAL LEAGUE TO CONFIRM IF ONE IS NEEDED. A SYNTHETIC TURF LITTLE LEAGUE FIELD DOES NOT REQUIRE A PORTABLE PITCHERS MOUND.
2. WHERE THE LITTLE LEAGUE FIELD WILL BE USED FOR BOTH BASEBALL AND SOFTBALL THEN THE PITCHERS AREA SHALL BE FLAT.
3. INFIELD MAY BE SKINNED WHERE USED FOR SOFTBALL, SOD WHERE USED FOR LITTLE LEAGUE PLAY. SEE CONTRACT PLANS.
4. ALL PAINTED LINES SHALL BE 4" WIDTH

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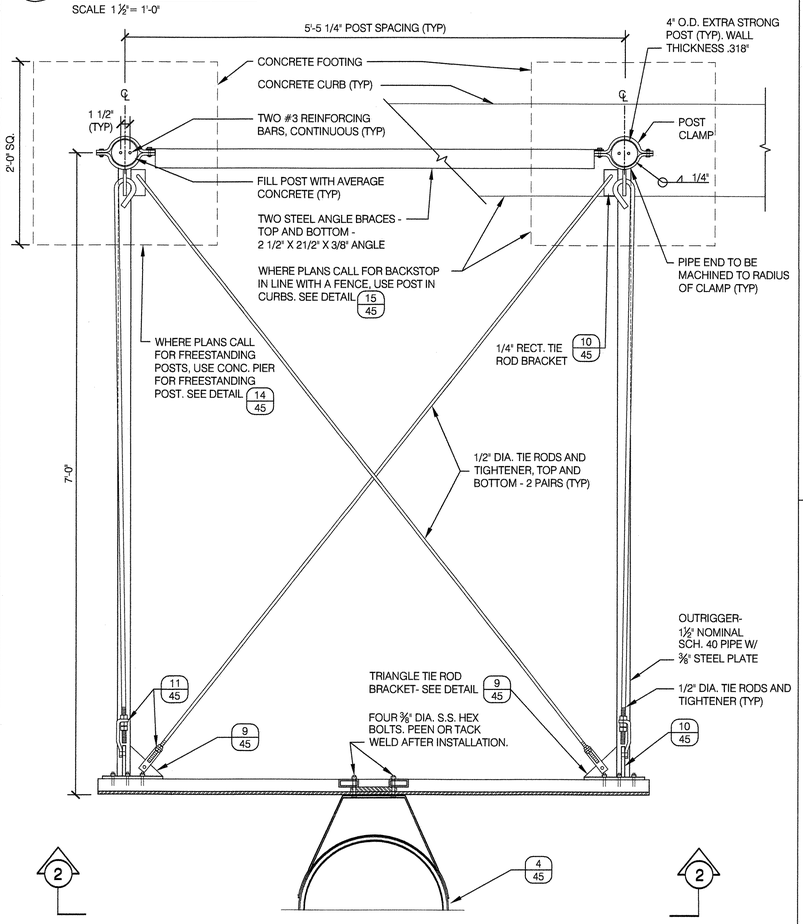
DRAWING TITLE
BALLFIELD LAYOUTS - NATURAL TURF

STATE OF NEW YORK · ROBY S. WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: D. FLYNN	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: R. WEI, PE	SHEET NO.: 42
DATE: 09-01-2020	SCALE: AS SHOWN

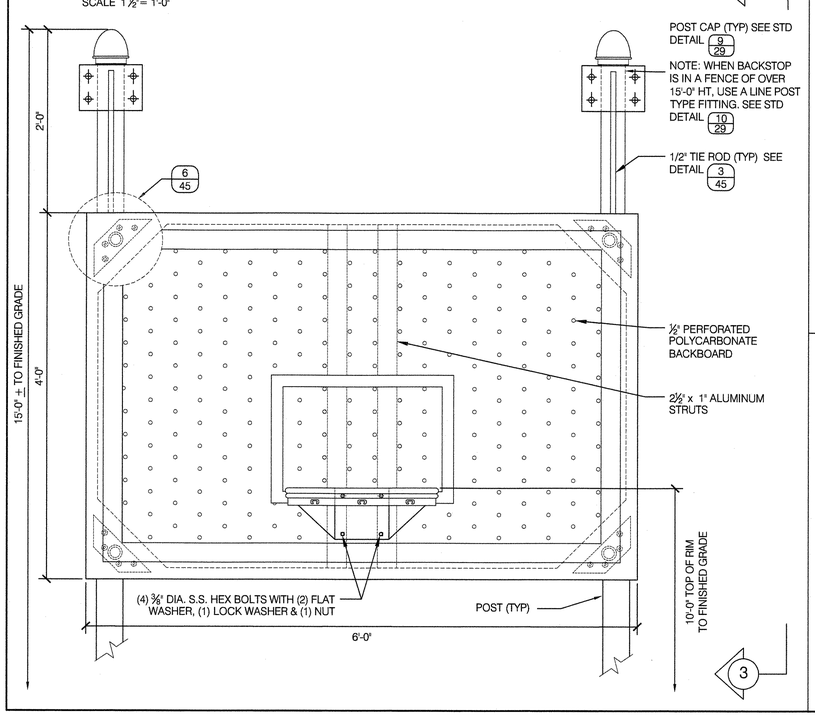
1 PLAN OF BASKETBALL BACKSTOP (FREESTANDING OR AT FENCE)

SCALE 1½"= 1'-0"



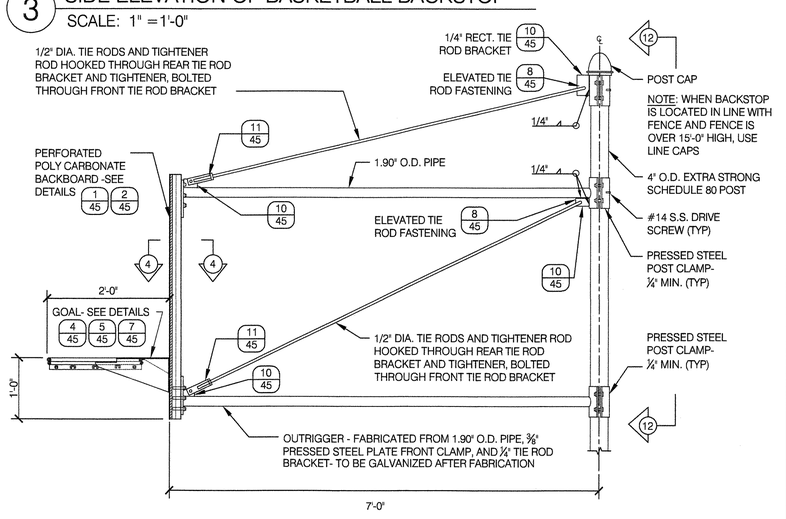
2 FRONT ELEVATION OF BASKETBALL BACKSTOP

SCALE 1½"= 1'-0"



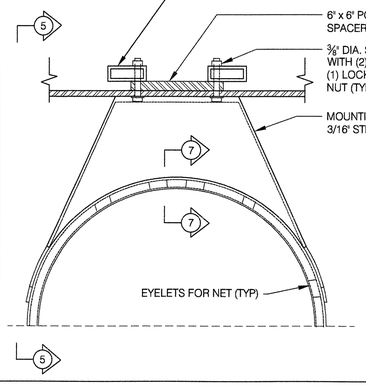
3 SIDE ELEVATION OF BASKETBALL BACKSTOP

SCALE: 1" =1'-0"



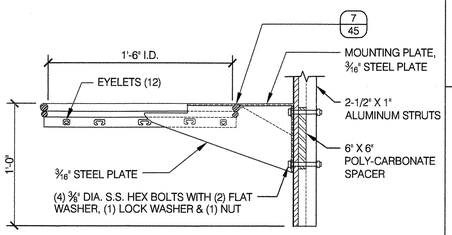
4 PLAN OF GOAL & BRACKET

SCALE 3'= 1'-0"



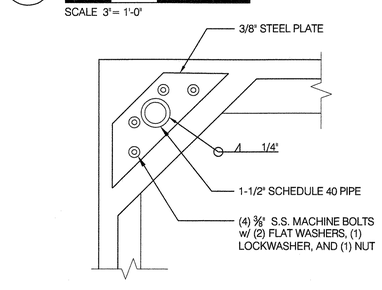
5 ELEVATION OF GOAL & BRACKET

SCALE 2'= 1'-0"



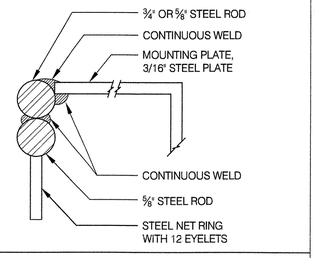
6 BACKBOARD CORNER ENLARGEMENT - REAR VIEW

SCALE 3'= 1'-0"



7 DETAIL OF RIM WELDING

SCALE 1"= 1'-0"

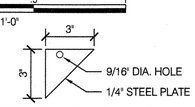


8 ELV. TIE ROD FASTENING

SCALE 3"= 1'-0"

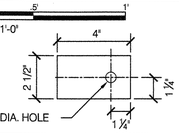
9 TRIANGULAR TIE ROD BRACKET

SCALE 3"= 1'-0"



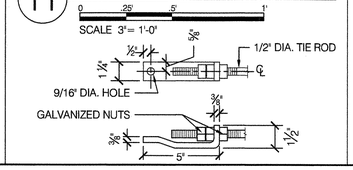
10 RECT. TIE ROD BRACKET

SCALE 3"= 1'-0"



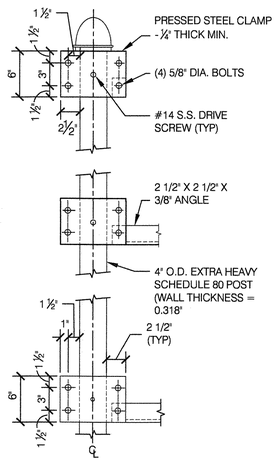
11 TIE ROD AND TIGHTENER

SCALE 3"= 1'-0"



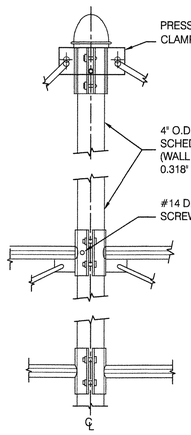
12 POST CONNECT -BACK VIEW

SCALE 1½"= 1'-0"



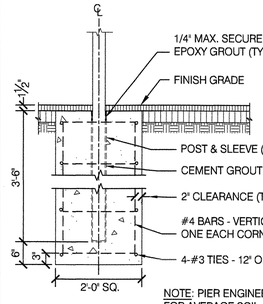
13 BACK-TO-BACK BACKSTOPS

SCALE 1½"= 1'-0"



14 PIER FOR FREE STANDING POST

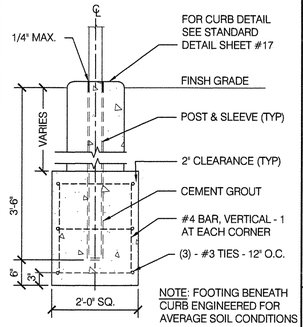
SCALE ¾"= 1'-0"



NOTE: PIER ENGINEERED FOR AVERAGE SOIL CONDITIONS

15 POST IN CURB AT FENCE

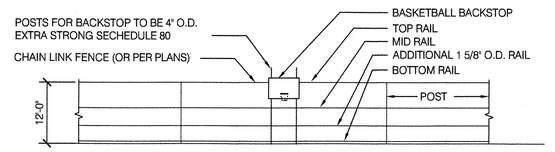
SCALE ¾"= 1'-0"



NOTE: FOOTING BENEATH CURB ENGINEERED FOR AVERAGE SOIL CONDITIONS

16 BACKSTOP ELEVATION IN LINE WITH FENCE

SCALE: NOT TO SCALE



NOTES: (ALSO SEE THE DPR STANDARD SHEET #29 "CHAIN LINK FENCE- DETAILS")

1. TOP OF BACKSTOP POSTS TO BE 15'-0" ABOVE PAVEMENT.
2. THE ADDITIONAL RAIL SHALL EXTEND THE LENGTH OF TWO FENCE PANELS IN EACH DIRECTION BEYOND A SINGLE BACKSTOP. WHERE THERE IS A BATTERY OF BACKSTOPS ON FENCE, THE ADDITIONAL RAILS ARE TO BE CONTINUOUS AND EXTEND TWO FENCE PANELS BEYOND FIRST AND LAST BACKSTOP.
3. ADDITIONAL RAILS ARE TO BE USED FOR ALL BACKSTOPS IN LINE WITH FENCES 12'-0" HEIGHT OR TALLER.

NOTES:

1. ALL PIPE MEASUREMENTS ARE OUTSIDE DIAMETER, FOR OTHER DIMENSIONS SEE ASTM A-53.
2. POSTS FOR BASKETBALL BACKSTOP AND ALL BOLTS AND NUTS SHALL BE GALVANIZED STEEL;
3. DRIVE SCREWS SHALL BE STAINLESS STEEL.
4. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED STEEL; OUTRIGGERS SHALL BE GALVANIZED AFTER FABRICATION;
5. ALL GALVANIZED STEEL COMPONENTS SHALL BE POWDERCOATED PER SPECIFICATION, EXCEPT BACKBOARD AND HARDWARE;
6. ALL FASTENING SHALL BE COATED WITH HIGH LOCKING ADHESIVE IMMEDIATELY PRIOR TO TIGHTENING, SEE SPEC.
7. FOR LAYOUT SEE STANDARD DETAIL "BASKETBALL COURT LAYOUTS".
8. STANDARD ARC AND GAS WELDING IS SHOWN AS FOLLOWS:

1/4"⊿ — THE ADJACENT SYMBOL INDICATES A 1/4 INCH FILLET WELD. THE NUMBER (1/4") EQUALS THE LENGTH OF SIDE AND FACE OF WELD. THIS ⊿ SYMBOL MEANS FILLET WELD. THE WELD IS ALSO ASSUMED TO HAVE 45-DEGREE ANGLE UNLESS OTHERWISE SPECIFIED. CIRCLE MEANS "WELD ALL AROUND".

NYC Parks

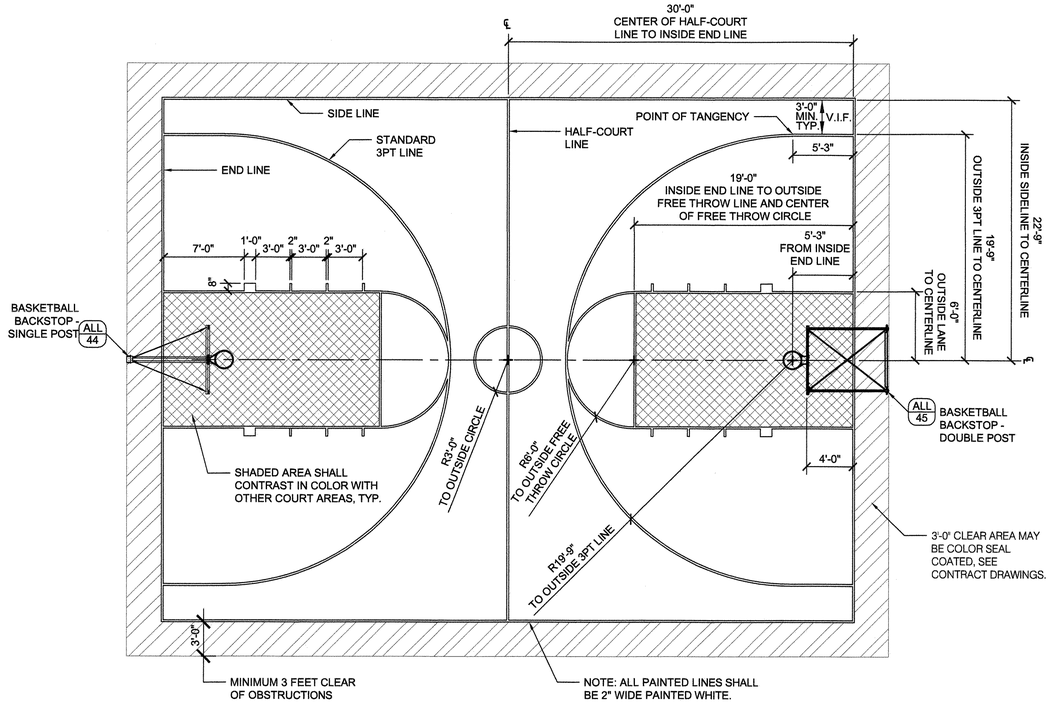
CITY OF NEW YORK
PARKS & RECREATION
OLMSTED CENTER
FLUSHING MEADOWS CORONA PARK
FLUSHING, NEW YORK 11368

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DRAWING TITLE
BASKETBALL BACKSTOP - DOUBLE POST

STATE OF NEW YORK · RUBY S. WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

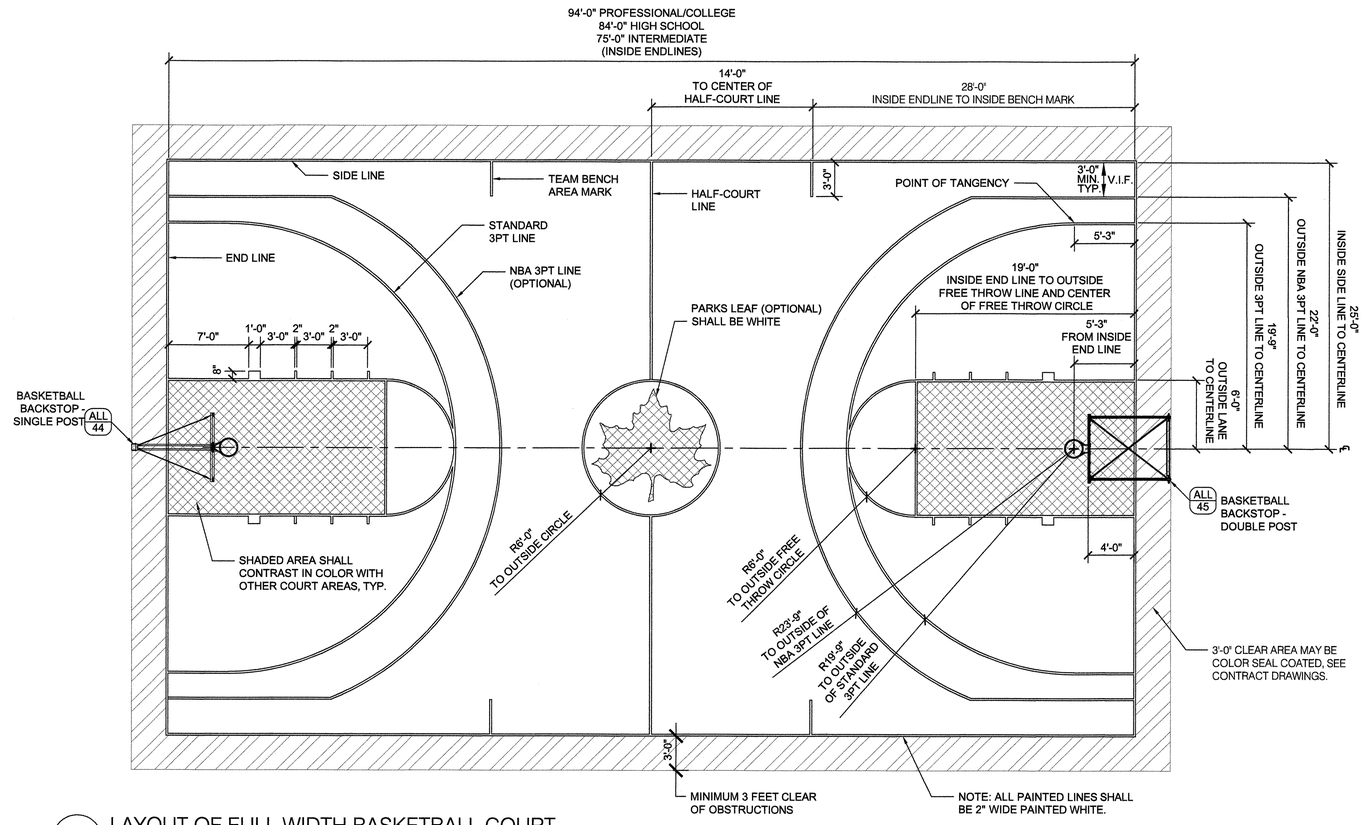
DRAWN BY K. MOULTHROP	CHECKED BY R. WEI, PE
APPROVED BY	STANDARD D.P.R. DETAIL TYLA/186-R10
APPROVED BY DIRECTOR R. WEI, PE	SHEET NO. 45
DATE 09-01-2020	SCALE AS SHOWN



1 LAYOUT OF JUNIOR BASKETBALL COURT

0 2' 4' 6' 12'

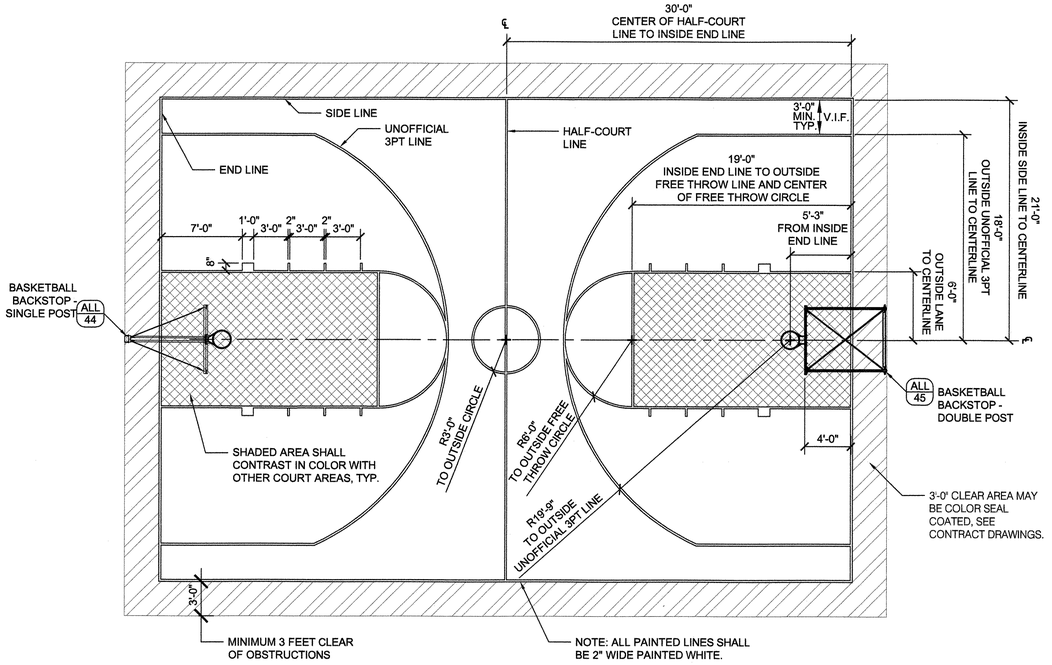
SCALE 3/16"= 1'-0"



2 LAYOUT OF FULL WIDTH BASKETBALL COURT

0 2' 4' 6' 12'

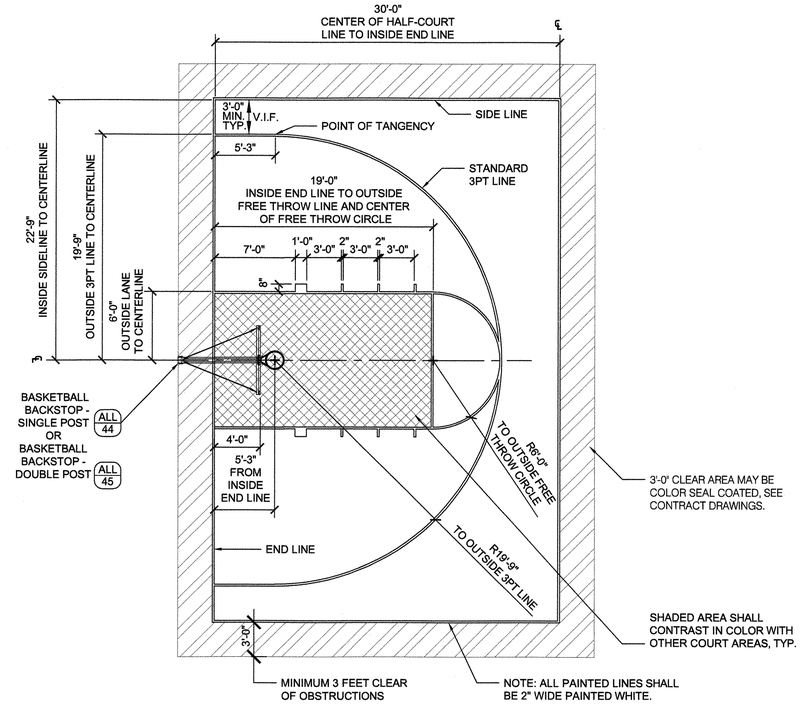
SCALE 3/16"= 1'-0"



3 LAYOUT OF UNOFFICIAL BASKETBALL COURT FOR SMALL SPACES

0 2' 4' 6' 12'

SCALE 3/16"= 1'-0"



4 LAYOUT OF BASKETBALL HALF-COURT

0 2' 4' 6' 12'

SCALE 3/16"= 1'-0"

OVERALL BASKETBALL COURT LAYOUT DIMENSIONS (LENGTH x WIDTH)

1.	PROFESSIONAL/COLLEGE	94'-0" x 50'-0"
2.	HIGH SCHOOL	84'-0" x 50'-0"
3.	INTERMEDIATE	75'-0" x 50'-0"
4.	JUNIOR	60'-0" x 45'-6"
5.	UNOFFICIAL	60'-0" x 42'-0"
6.	HALF-COURT	30'-0" x 45'-6"

NOTES:

1. SEE CONTRACT DRAWINGS FOR COLOR AND AREAS TO BE SEAL COATED.
2. ALL PAINTED LINES SHALL BE WHITE AND 2" WIDE, UNLESS OTHERWISE NOTED.
3. BASKETBALL BACKSTOPS MAY BE SINGLE OR DOUBLE POSTS, SEE CONTRACT DRAWINGS FOR TYPE.
4. COURT SURFACE RECOMMENDED GRADE RANGE: 0.5% - 1.5%
5. NBA 3PT LINE IS OPTIONAL FOR 50'-0" WIDE COURTS, SEE CONTRACT DRAWINGS.

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FLUSHING, NEW YORK 11368

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DRAWING TITLE
BASKETBALL COURT LAYOUTS

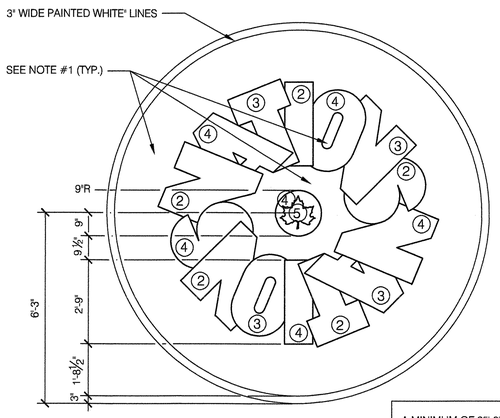
STATE OF NEW YORK · RUBY S. WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: T. PORTO, RLA	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA/186-R10
APPROVED BY DIRECTOR: NANCY PRINCE, RLA	SHEET NO.: 45A
DATE: 09-01-2020	SCALE: AS SHOWN

1 NATIONS

0 1' 2' 4'

SCALE ½"= 1'-0"



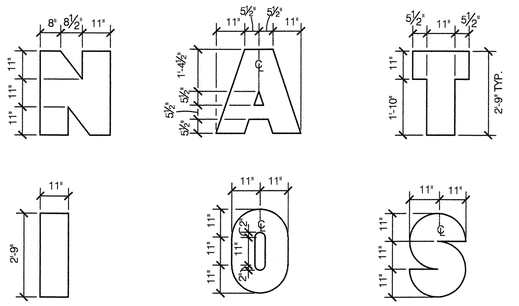
A MINIMUM OF 25'-0" ON ALL SIDES IS SUGGESTED FOR PLAYING THIS GAME

LINE PAINT COLORS

① WHITE ③ BLUE ⑤ GREEN

② RED ④ YELLOW

NOTES:
1. BACKGROUND COLOR IS TO BE COLOR SEAL COAT "LIGHT GREEN" OR AS DESIGNATED BY THE DESIGNER
2. CONTRACTOR SHALL SUBMIT PAINT SAMPLES FOR APPROVAL PRIOR TO PAINTING.
3. ALL NUMERALS ARE TO BE PATTERNED AFTER "HELVETICA MEDIUM" STYLE. SAMPLE TO BE SUBMITTED TO D.P.R. PRIOR TO PAINTING.

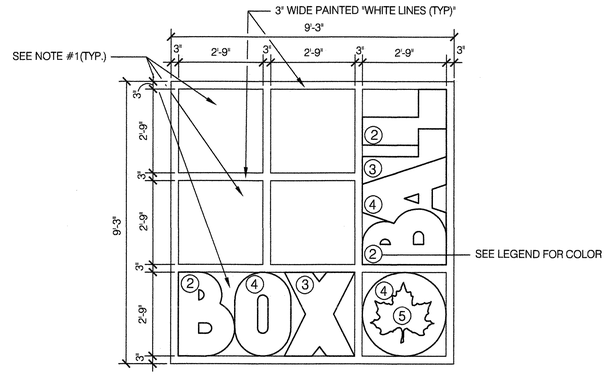


DIMENSIONS FOR LETTERS

2 BOX BALL

0 1' 2' 4'

SCALE ½"= 1'-0"



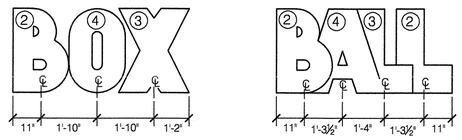
LINE PAINT COLORS

① WHITE ③ BLUE ⑤ GREEN

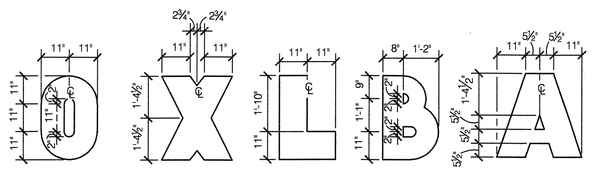
② RED ④ YELLOW

A MINIMUM OF 25'-0" ON ALL SIDES IS SUGGESTED FOR PLAYING THIS GAME

NOTES:
1. BACKGROUND COLOR IS TO BE COLOR SEAL COAT "LIGHT GREEN" OR AS DESIGNATED BY THE DESIGNER.
2. CONTRACTOR SHALL SUBMIT PAINT SAMPLES FOR APPROVAL PRIOR TO PAINTING.
3. ALL NUMERALS ARE TO BE PATTERNED AFTER "HELVETICA MEDIUM" STYLE. SAMPLE TO BE SUBMITTED TO D.P.R. PRIOR TO PAINTING.



LAYOUT OF TEXT

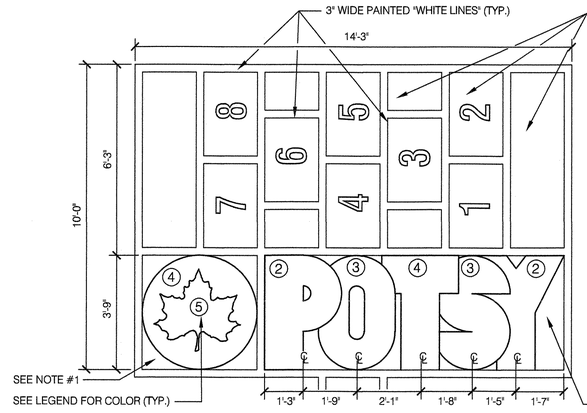


DIMENSIONS FOR LETTERS

3 POTSY

0 1' 2' 4'

SCALE ½"= 1'-0"

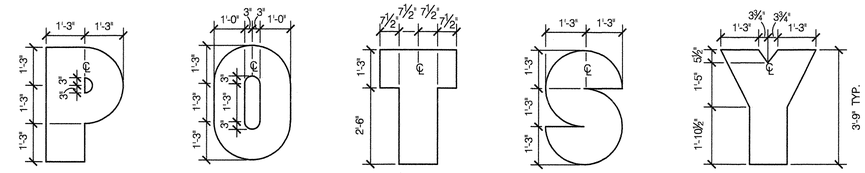


LINE PAINT COLORS

① WHITE ③ BLUE ⑤ GREEN

② RED ④ YELLOW

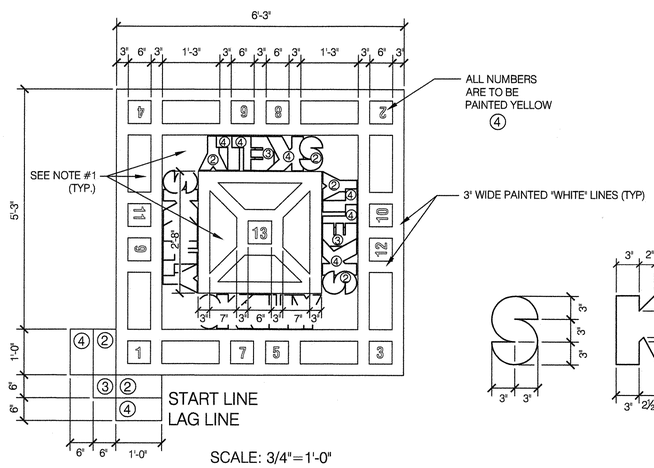
NOTES:
1. BACKGROUND COLOR IS TO BE COLOR SEAL COAT "LIGHT GREEN" OR AS DESIGNATED BY THE DESIGNER
2. CONTRACTOR SHALL SUBMIT PAINT SAMPLES FOR APPROVAL PRIOR TO PAINTING.
3. ALL NUMERALS ARE TO BE PATTERNED AFTER "HELVETICA MEDIUM" STYLE. SAMPLE TO BE SUBMITTED TO D.P.R. PRIOR TO PAINTING.



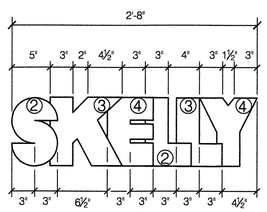
DIMENSIONS FOR LETTERS

4 SKELLY

SCALE: AS SHOWN



SCALE: 3/4"=1'-0"



LAYOUT OF TEXT

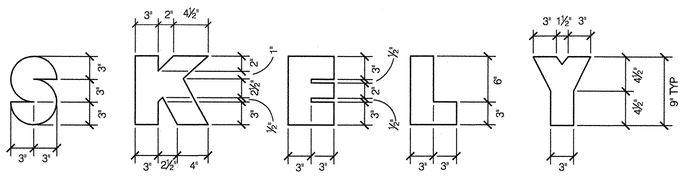
SCALE: 1½"=1'-0"

LINE PAINT COLORS

① WHITE ③ BLUE

② RED ④ YELLOW

NOTES:
1. BACKGROUND COLOR IS TO BE COLOR SEAL COAT "LIGHT GREEN" OR AS DESIGNATED BY THE DESIGNER
2. CONTRACTOR SHALL SUBMIT PAINT SAMPLES FOR APPROVAL PRIOR TO PAINTING.
3. ALL NUMERALS ARE TO BE PATTERNED AFTER "HELVETICA MEDIUM" STYLE. SAMPLE TO BE SUBMITTED TO D.P.R. PRIOR TO PAINTING.



DIMENSIONS FOR LETTERS

SCALE: 1½"=1'-0"

NOTES:

1. LINE PAINT SHALL BE AS MANUFACTURED BY CALIFORNIA PRODUCTS CORP, OR APPROVED EQUAL
2. COLOR SEAL COAT SYSTEM CONSISTS OF MULTIPLE RESURFACER COATS, TWO (2) INTERMEDIATE COATS AND TWO (2) WEARING COATS, COLOR 'LIGHT GREEN', OR AS SPECIFIED BY DESIGNER. ALL AS MANUFACTURED BY CALIFORNIA PRODUCTS CORP., OR APPROVED EQUAL. SEE SPEC. FOR ADDITIONAL DETAILS.

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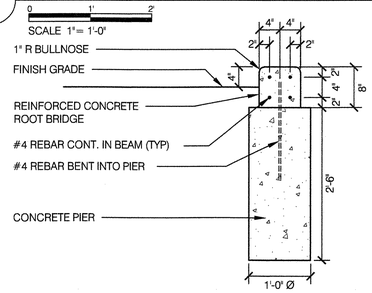
DRAWING TITLE
PAINTED GAME LAYOUT

STATE OF NEW YORK · RUBY S WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: STAFF	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY WEI, PE	SHEET NO.: 52
DATE: 09-01-2020	SCALE: AS SHOWN

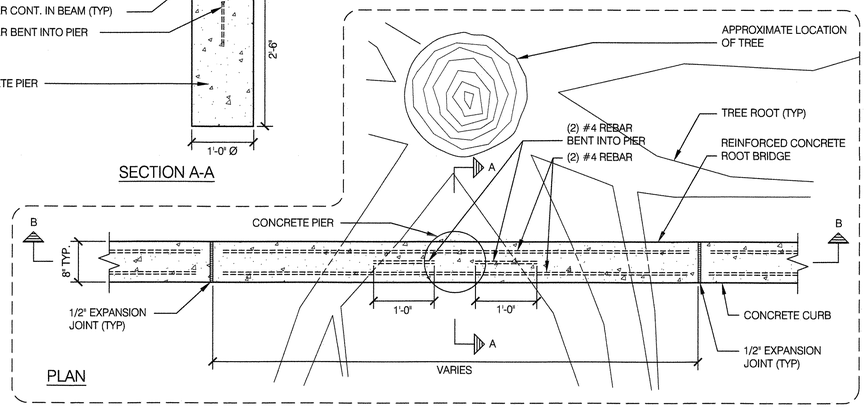
1 TREE ROOT BRIDGE

SCALE 1"= 1'-0"

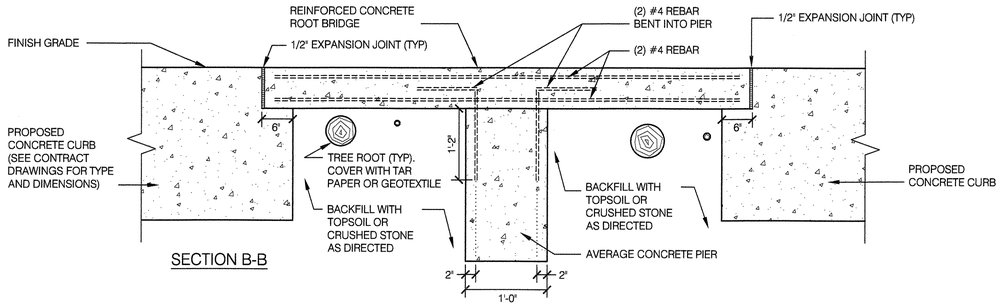


SECTION A-A

NOTE:
1. USE CONCRETE PIER INTERMEDIATE FOR SPANS OVER 12'; NO PIER FOR SPANS UNDER 12', LOCATE TO AVOID CUTTING MAJOR ROOTS.
2. SEE STANDARD DETAIL (1/17) FOR 6' WIDE CURBS



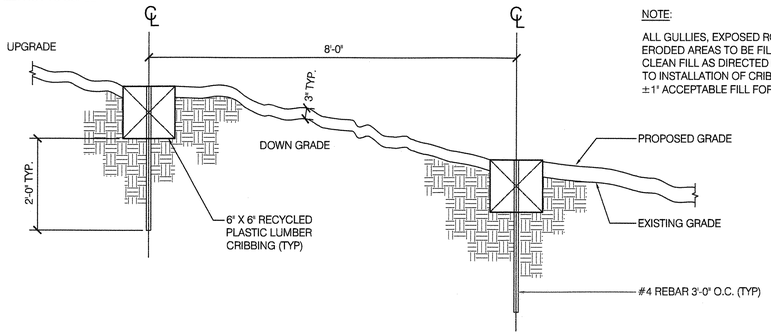
PLAN



SECTION B-B

4 TYPICAL CRIBBING

SCALE: NOT TO SCALE

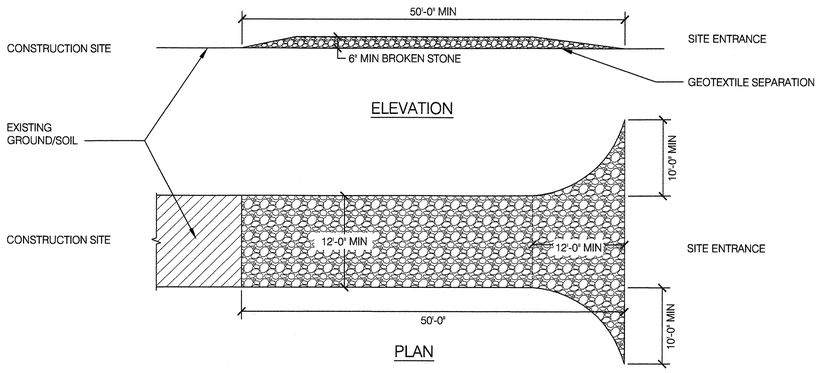


NOTE:

ALL GULLIES, EXPOSED ROOTS, AND SEVERELY ERODED AREAS TO BE FILLED WITH TOPSOIL OR CLEAN FILL AS DIRECTED BY THE ENGINEER PRIOR TO INSTALLATION OF CRIBBING: APPROXIMATELY 4" (±1" ACCEPTABLE FILL FOR PLANTING AREAS).

7 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NOT TO SCALE

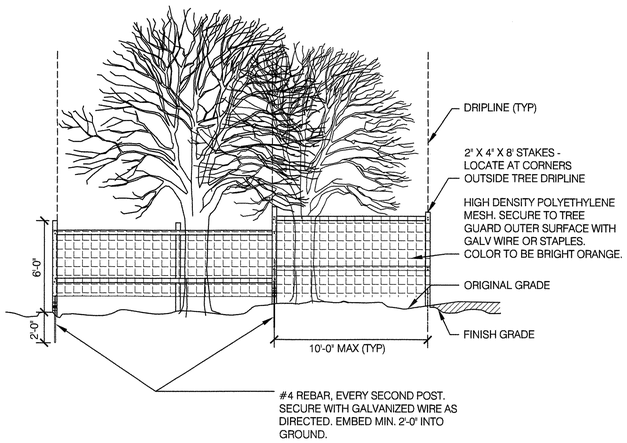


ELEVATION

PLAN

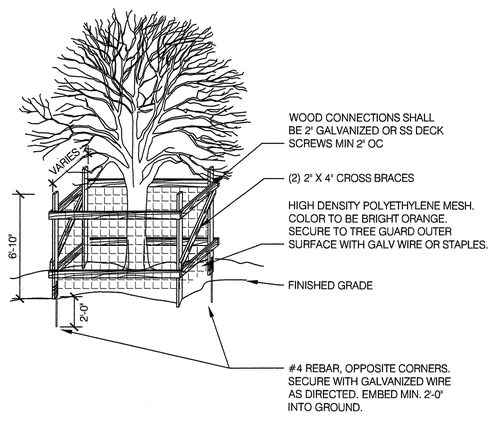
2 TREE GUARD FOR GROVES

SCALE ¼"= 1'-0"

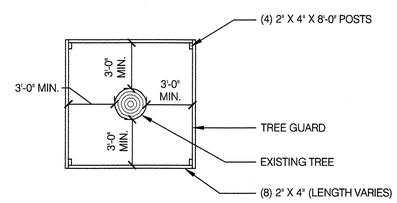


5 TREE GUARD

SCALE ¼"= 1'-0"



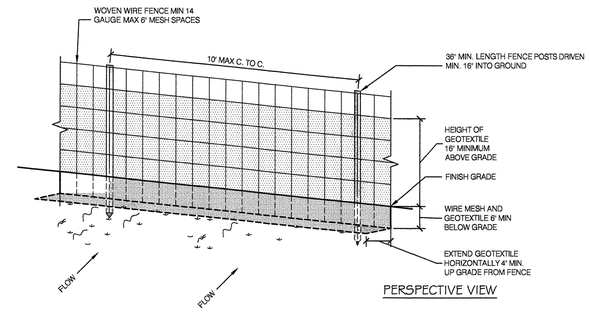
SECTION VIEW



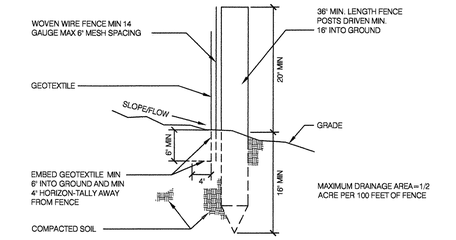
PLAN VIEW

3 SILT FENCE DETAILS

SCALE: NOT TO SCALE



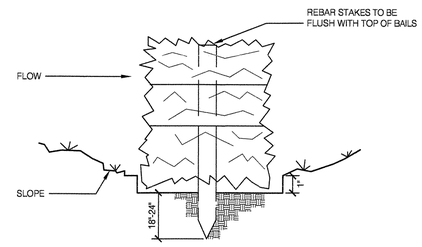
PERSPECTIVE VIEW



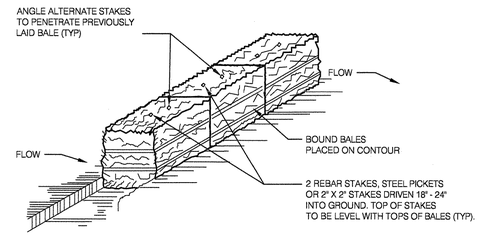
SECTION VIEW

6 STRAW BALE DIKE DETAILS

SCALE: NOT TO SCALE



BEDDING DETAIL



ANCHORING DETAIL

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DRAWING TITLE
TREE PROTECTION AND SEDIMENT CONTROL

STATE OF NEW YORK · RUBY S. WEI · 091042 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY: STAFF	CHECKED BY: R. WEI, PE
APPROVED BY:	STANDARD D.P.R. DETAIL: TYLA / 146-R10
APPROVED BY DIRECTOR: RUBY S. WEI, PE	SHEET NO.: 59
DATE: 09-01-2020	SCALE: AS SHOWN

NEW YORK CITY DOT

THE FOLLOWING SHEET ARE THE NYC DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, CURRENT AS OF JUNE 2026, AND INCLUDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL FOLLOW THE MOST CURRENT NYC DOT STANDARD DETAILS AS APPLICABLE.

SHEET H-1044	CONCRETE CURB	DATED JULY 1, 2010
SHEET H-1045	CONCRETE SIDEWALK	DATED JULY 1, 2010
SHEET H-1055	PAVEMENT KEY TYPE A, B-1, B-2, C	DATED JULY 1, 2010

NYC Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis

NYC Parks

CITY OF NEW YORK
PARKS & RECREATION
Forestry, Horticulture and Natural Resources

NO.	DATE	ISSUED FOR	BY

SEAL

HDR

BLOCK

LOT

PROJECT TITLE
ON-SITE GREEN INFRASTRUCTURE DESIGN

DRAWING TITLE
DIVIDER SHEET - NYCDOT

DESIGNED BY	DRAWN BY	CHECKED BY
B. BARNES	A. BAKHSHAEE	M. BRAUN

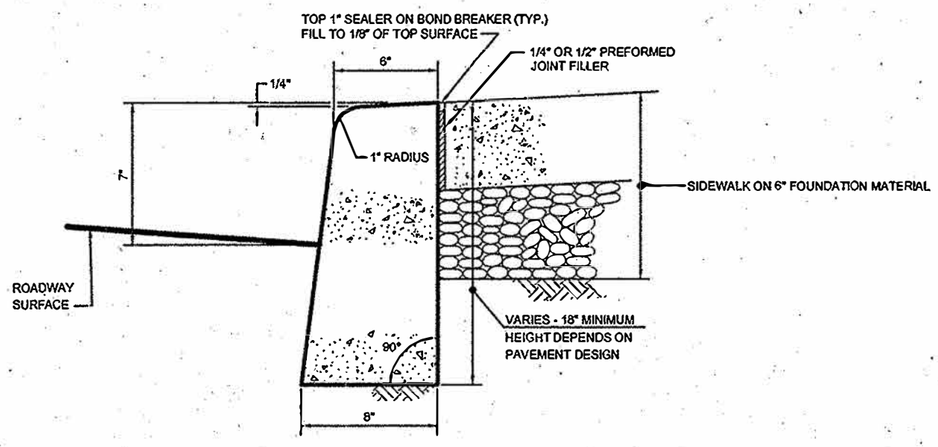
B-SCAN

SCALE: ----

DRAWING NO.: O-8

DATE: JUNE 2026

CONTRACT NO.: GI-CONS-4



DETAIL
N.T.S.

NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTION #4.08 OF THE NYC DEPARTMENT OF TRANSPORTATION STANDARD HIGHWAY SPECIFICATIONS.

CHECKED BY: MZ

HWS-H1044

REVISION NO.	DESCRIPTION	DATE	APPROVED

NEW YORK CITY DOT

New York City
Department of Transportation

CONCRETE CURB

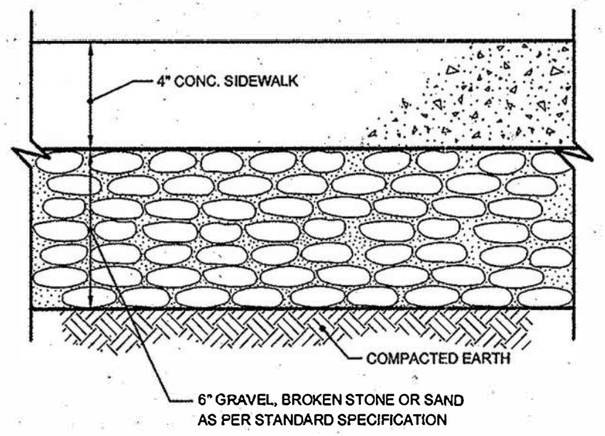
Approved:
Chief Engineer
Department of Transportation

Approved:
Associate Commissioner
Infrastructure/Design
Department of Design + Construction

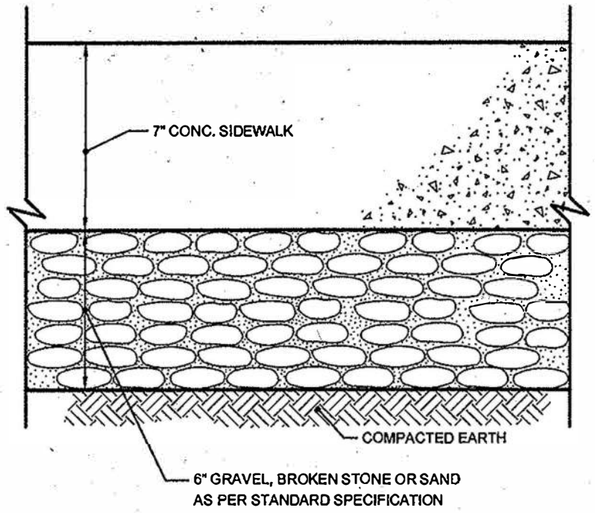
Date Issued: 7/1/10

Scale: None

Drawing # H-1044



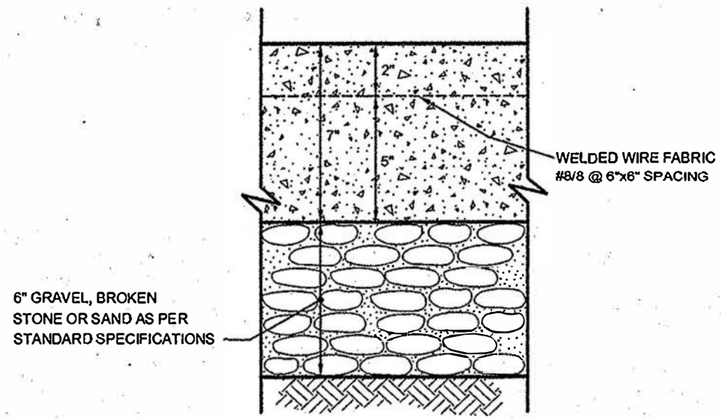
TYPE I - SIDEWALK, OUTSIDE DRIVEWAY AND CORNER QUADRANTS
N.T.S.



TYPE II - SIDEWALK, IN DRIVEWAY AND IN CORNER QUADRANTS
N.T.S.

NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS USED ARE TO CONFORM TO SECTION #4.13 OF THE NYC DEPARTMENT OF TRANSPORTATION (DOT) STANDARD HIGHWAY SPECIFICATIONS.
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 NYCDOT STANDARD HIGHWAY SPECIFICATIONS.



TYPE III - SIDEWALK WITH WELDED WIRE FABRIC
N.T.S.

CHECKED BY: MZ

DWS-H1045

REVISION NO.	DESCRIPTION	DATE	APPROVED

NEW YORK CITY DOT

New York City
Department of Transportation

CONCRETE SIDEWALK

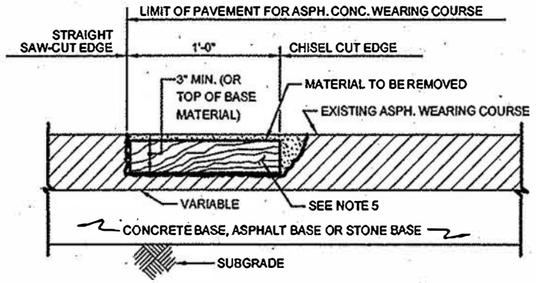
Approved:
Chief Engineer
Department of Transportation

Approved:
Associate Commissioner
Infrastructure/Design
Department of Design + Construction

Date Issued: 7/1/10

Scale: None

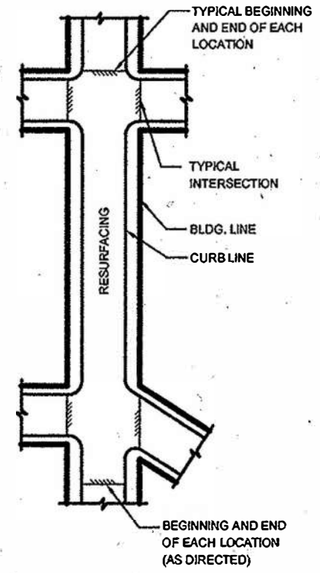
Drawing # H-1045



PAVEMENT KEY-TYPE A
ITEM 6.51A
N.T.S.

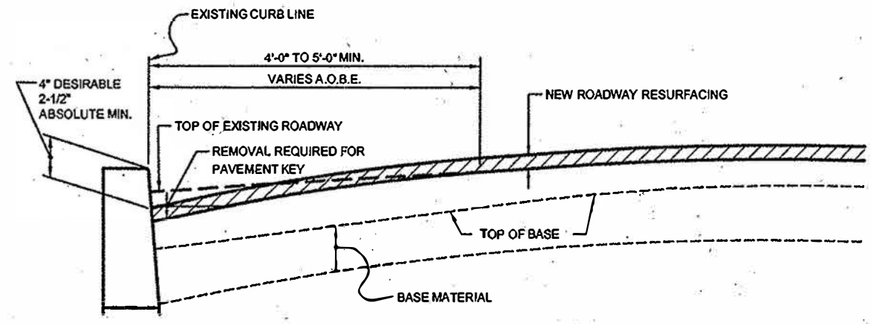
NOTES:

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 6.51A 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"x12" PLANK TO BE PLACED IN KEY WHEN STREET IS OPENED TO TRAFFIC. PLANK TO BE REMOVED PRIOR TO PAVING.



LEGEND:
---- PAVEMENT KEY

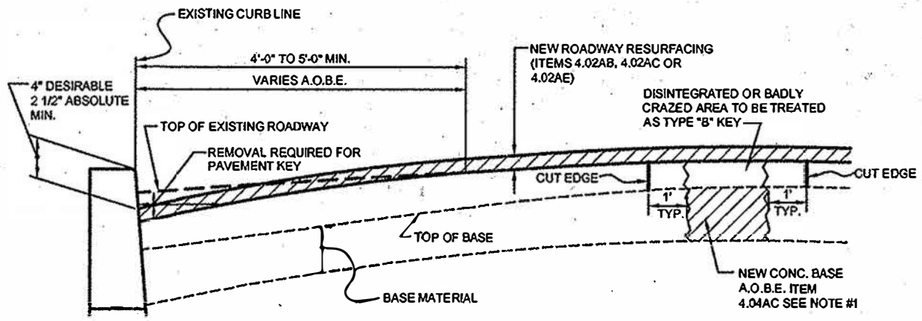
PLAN
TYPICAL LOCATION
N.T.S.



PAVEMENT KEY - TYPE B-1
ITEM 6.51 B-1
N.T.S.

NOTES:

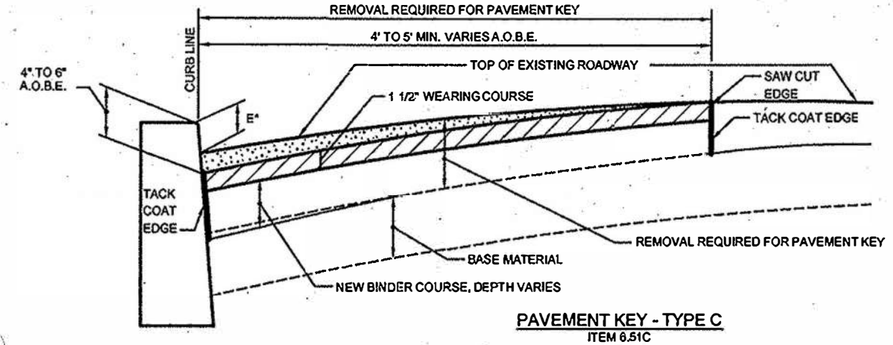
1. WHERE THERE IS NO CONCRETE BASE, OR WHERE IT IS NECESSARY TO REMOVE CONCRETE BASE SUBSEQUENT TO INSTALLING TYPE "B" PAVEMENT KEY, PAYMENT FOR DEPTHS GREATER THAN 3" WILL BE MADE UNDER ITEM 6.02AA, UNCLASSIFIED EXCAVATION.
2. CONTRACTOR MAY AT HIS OPTION, EITHER STRIP OR GRIND THE AREA TO THE REQUIRED DEPTH. IF THE CONTRACTOR CHOOSES TO STRIP THERE WILL BE NO ADDITIONAL PAYMENT FOR OVER-CUTTING OR ADDITIONAL BINDER.
3. THIS ITEM WHEN ORDERED BY THE ENGINEER WILL BE USED TO ELIMINATE HIGH POINTS IN THE EXISTING PAVEMENT PRIOR TO RESURFACING.
4. (A.O.B.E.) AS ORDERED BY ENGINEER.



PAVEMENT KEY - TYPE B-2
ITEM 6.51 B-2
N.T.S.

NOTES:

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 THE UNCLASSIFIED EXCAVATION ITEM.
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.
4. (A.O.B.E.) AS ORDERED BY ENGINEER.



PAVEMENT KEY - TYPE C
ITEM 6.51C
N.T.S.

NOTES:

1. IF THE EXISTING CURB REVEAL E* 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.

REVISION NO.	DESCRIPTION	DATE	APPROVED

CHECKED BY: MB

NEW YORK CITY DOT

New York City
Department of Transportation

PAVEMENT KEY
TYPE A, B-1, B-2, C

Approved:	Approved:
Chief Engineer Department of Transportation	Associate Commissioner Infrastructure/Design Department of Design + Construction
Date Issued: 7/1/10	Scale: None — Drawing # H-1055

Environmental Protection

THE FOLLOWING SHEET ARE THE NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARD DETAILS, CURRENT AS OF JUNE 2026, AND INCLUDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL FOLLOW THE MOST CURRENT NYC DOT STANDARD DETAILS AS APPLICABLE.

SHEET SE 30A, B, C, & D	PRECAST MANHOLE	DATED AUGUST 14, 2018
SHEET SE 46	PLASTIC MANHOLE STEP	DATED AUGUST 14, 2018
SHEET SE 59 A & B	CAST IRON GRATING, BACK PLATE, AND CURB PIECE FOR CATCH BASINS	DATED MARCH 22, 2023

Environmental Protection

CITY OF NEW YORK
ENVIRONMENTAL PROTECTION
Bureau of Environmental Planning and Analysis

NYC Parks
CITY OF NEW YORK
PARKS & RECREATION
Forestry, Horticulture and Natural Resources

NO.	DATE	ISSUED FOR	BY

SEAL

BLOCK

LOT

PROJECT TITLE
ON-SITE GREEN INFRASTRUCTURE DESIGN

DRAWING TITLE
DIVIDER SHEET - NYCDEP

DESIGNED BY	DRAWN BY	CHECKED BY
B. BARNES	A. BAKHSHAEE	M. BRAUN

B-SCAN

SCALE: ----

DRAWING NO.: O-9

CONTRACT NO.: GI-CONS-4

DATE: JUNE 2026

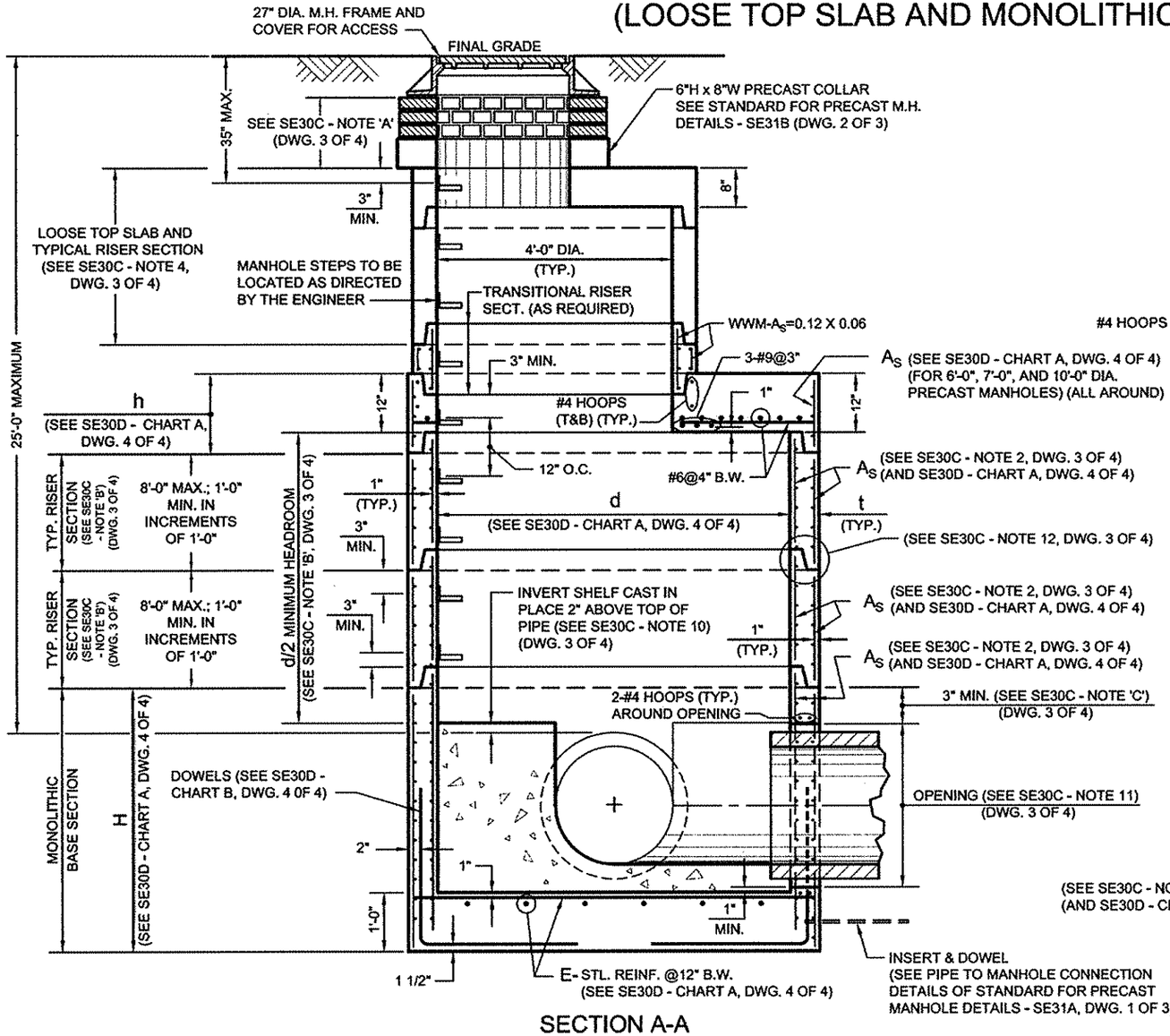
SE30A

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

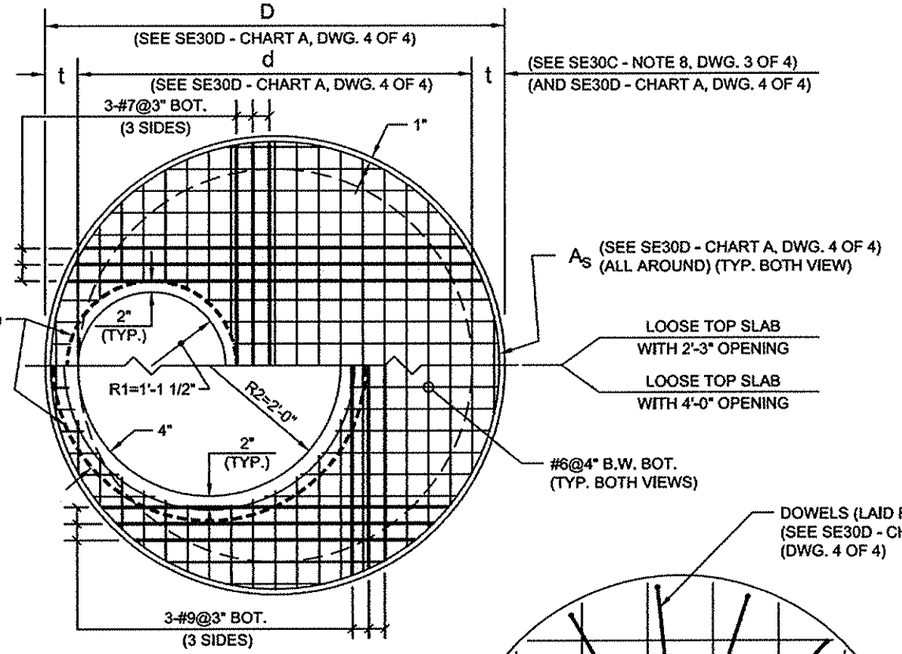
SE30A

STANDARD FOR PRECAST MANHOLE (DWG. 1 OF 4)

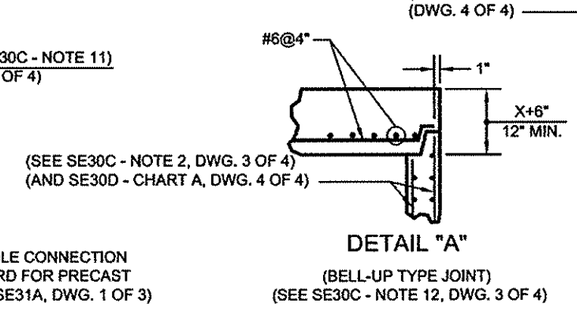
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(LOOSE TOP SLAB AND MONOLITHIC BASE SECTION)



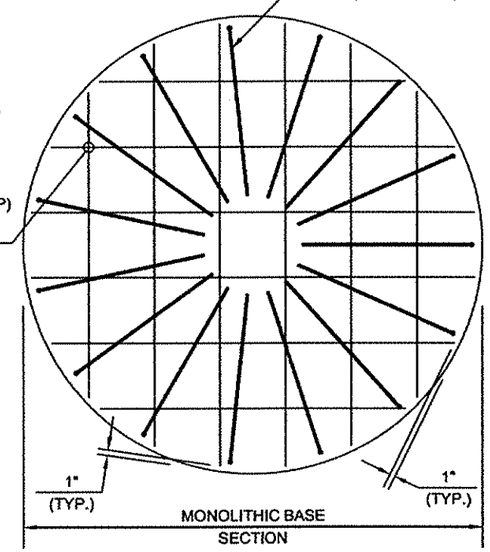
SECTION A-A



PLAN OF LOOSE TOP SLAB



DETAIL "A"
(BELL-UP TYPE JOINT)
(SEE SE30C - NOTE 12, DWG. 3 OF 4)



PLAN OF BOTTOM REINFORCING

Sandip S. Saini P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

REVISED JULY 2018: C. LAM
W. PATALANO/P. MOY

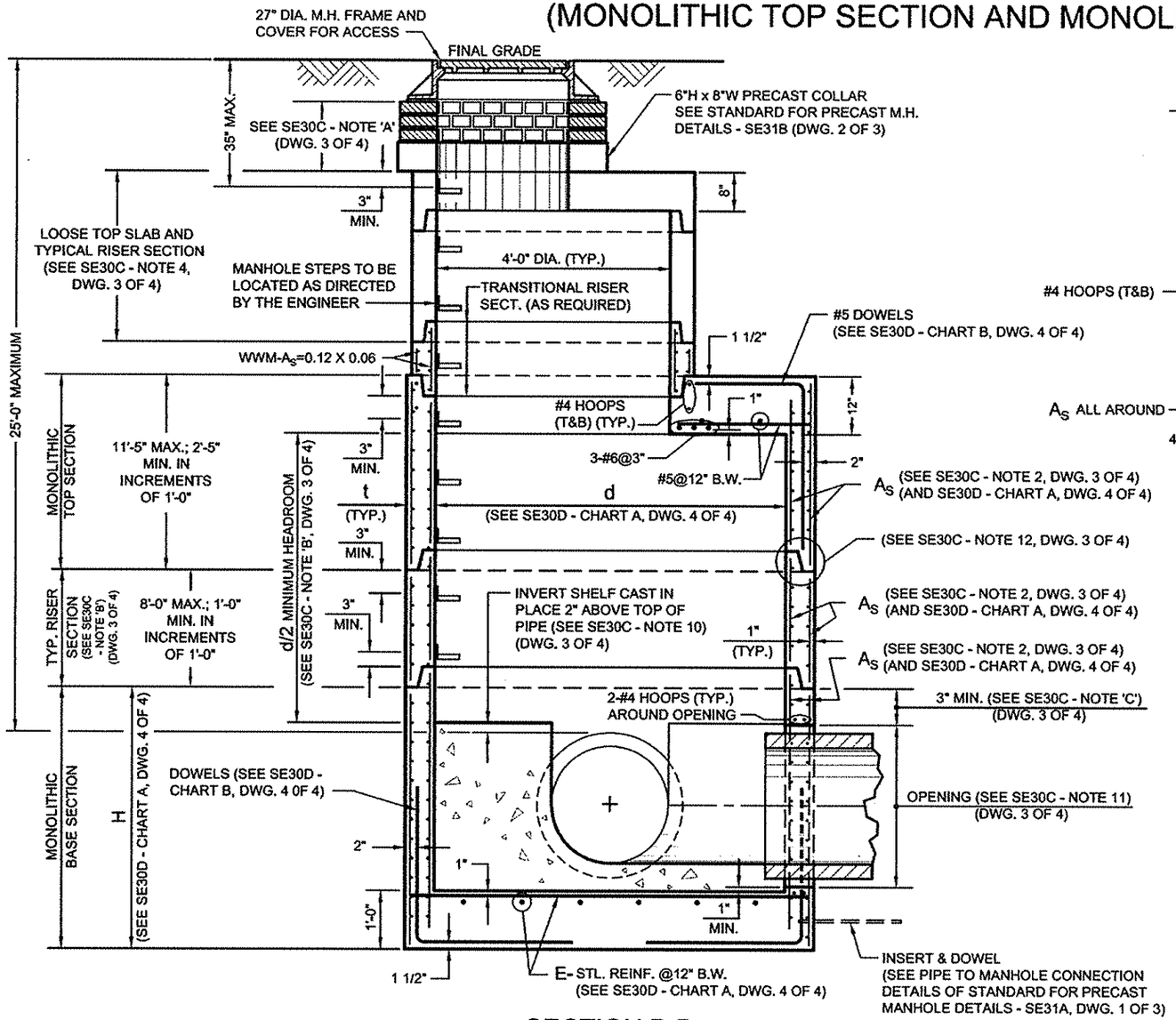
SE30B

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

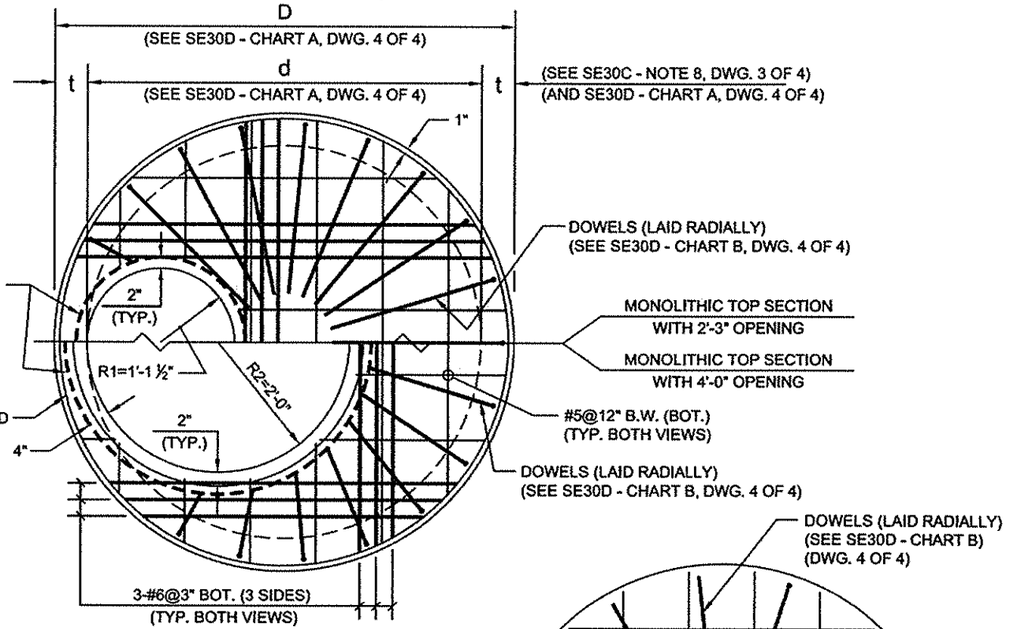
SE30B

STANDARD FOR PRECAST MANHOLE (DWG. 2 OF 4)

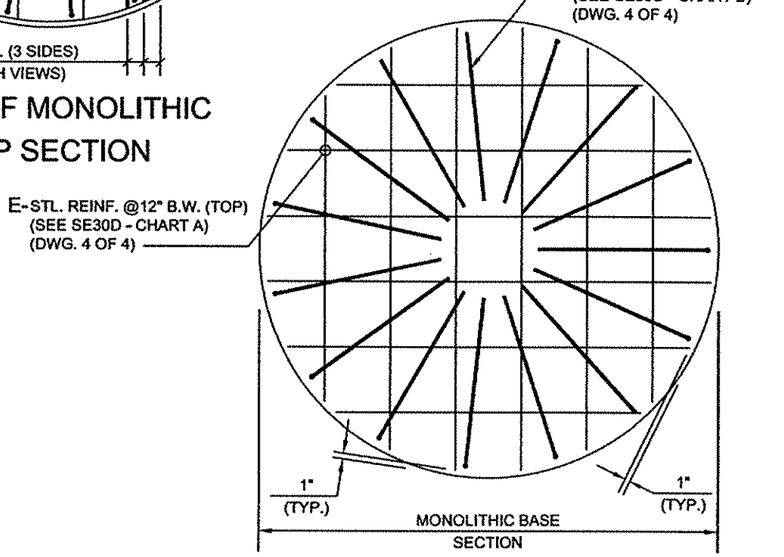
(FOR 6'-0", 7'-0", 8'-0" AND 10'-0" DIA. PRECAST MANHOLE)
(MONOLITHIC TOP SECTION AND MONOLITHIC BASE SECTION)



SECTION B-B



PLAN OF MONOLITHIC TOP SECTION



PLAN OF BOTTOM REINFORCING

REVISED JULY 2018: C. LAM
W. PATALANO/P. MOY

Sandhi S. Saini P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

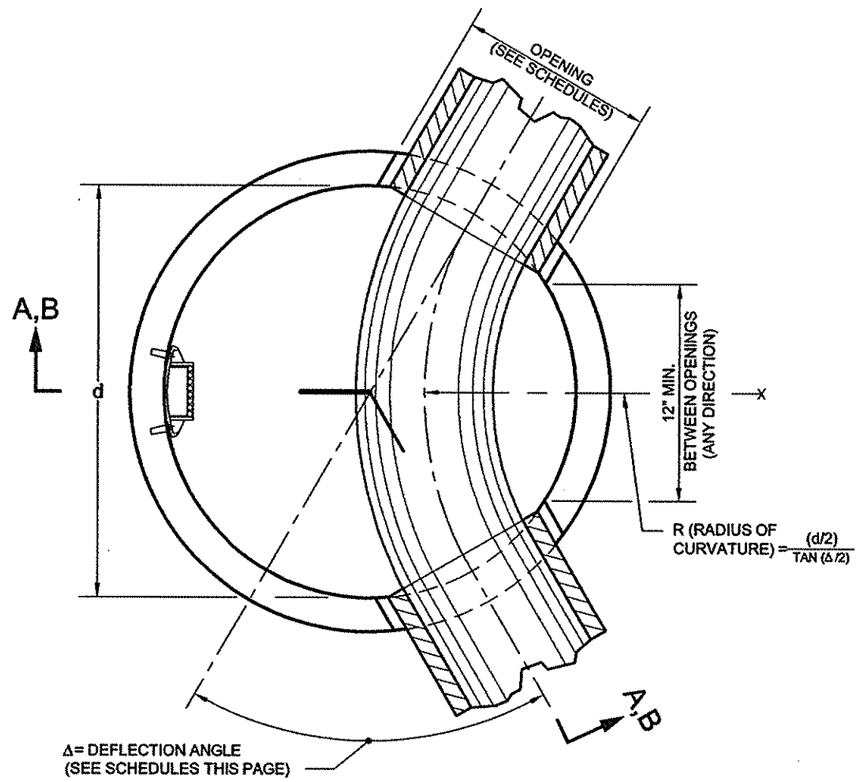
SE30C

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

SE30C

STANDARD FOR PRECAST MANHOLE (DWG. 3 OF 4)

(FOR 6'-0", 7'-0", 8'-0" AND 10'-0" DIA. PRECAST MANHOLE)
(PRECAST MANHOLE MISCELLANEOUS DETAIL, NOTES AND SCHEDULES)



PLAN OF BASE SECTION

NOTE 'A':
9" MIN. TO 20" MAX.; 9" BRICK MIN. LAID RADIALLY, USE 1 OR 2 PRECAST COLLARS OR BRICK AS REQUIRED. (4" BRICK MIN. ONLY FOR SHALLOW MANHOLE CONSTRUCTION.)

NOTE 'B':
USE OF ALTERNATE LOOSE BOTTOM SLAB WILL NOT BE PERMITTED FOR THE 6'-0", 7'-0", 8'-0" AND 10'-0" DIA. PRECAST MANHOLE.
MANHOLE RISER MAY NOT BE REQUIRED IN SHALLOW MANHOLE CONSTRUCTION. A SHALLOW MANHOLE IS A MANHOLE ON A SEWER WHICH HAS A COVER FROM FINAL GRADE TO THE OUTER TOP OF THE PIPE OF LESS THAN 4'-0".

NOTE 'C':
PIPE OPENINGS WILL NOT BE PERMITTED THROUGH JOINTS. DISTANCE FROM TOP OR BOTTOM OF ANY SECTION SHALL BE A MINIMUM OF 3" PLUS THE JOINT DEPTH FOR CAST PIPE OPENINGS AND A MINIMUM OF 12" PLUS THE JOINT DEPTH FOR CORED OPENINGS FOR BASIN CONNECTIONS.

NOTE 'D':
THE MANUFACTURER SHALL ENSURE THAT ALL PRECAST MANHOLE SECTIONS ARE ADDITIONALLY REINFORCED WHERE REQUIRED TO RESIST DAMAGE FROM HANDLING, SHIPPING AND INSTALLATION STRESSES.

GENERAL NOTES:

(1) THESE PRECAST MANHOLE MAY BE SUBSTITUTED FOR STANDARD MANHOLE TYPES A-1, A-2, B-1, B-2, C-1, C-2, D-1 AND D-2 ON SEWERS 84" IN DIAMETER AND LESS ONLY (AS SHOWN IN SCHEDULES).

(2) MANHOLE RISER REINFORCING COMPLIES WITH AREA REQUIREMENTS OF ASTM C478, EXCEPT THAT ALL WALL SECTIONS SHALL BE REINFORCED WITH WWM, A_S=(SEE CHART A - DWG. 4 OF 4) E.F. WITH 2-#4 HOOPS AROUND ALL CAST PIPE OPENINGS (1-E.F.). (THE 2-#4 HOOPS WILL NOT BE REQUIRED AT CORED OPENINGS FOR BASIN CONNECTIONS.) (ALL VALUES OF AREA OF STEEL (A_S) ARE IN SQUARE INCHES AND ARE A MINIMUM.)

(3) CORED OPENINGS WILL BE PERMITTED FOR 12" DIA. BASIN CONNECTIONS ONLY. THE MAXIMUM CORED OPENING SHALL BE 16" FOR THESE BASIN CONNECTIONS. CORED OPENING WILL NOT BE PERMITTED FOR SHALLOW MANHOLES.

(4) FOR DETAILS OF STEPS, JOINTS, GASKETS, PRECAST COLLARS, PIPE TO MANHOLE CONNECTIONS, PILE CAP, POURED IN PLACE ALTERNATE MONOLITHIC BASE SECTIONS AND 4'-0" DIA. PRECAST MANHOLE UNITS SEE STANDARD FOR PRECAST MANHOLE DETAILS, STD. FOR M.H. STEPS, STD. FOR ALTERNATE MONOLITHIC BASE SECTIONS FOR PRECAST MANHOLES (POURED IN PLACE) AND STD. FOR 4'-0" DIA. PRECAST MANHOLE. TYPICAL 4'-0" DIA. PRECAST RISER SECTION WILL NOT BE REQUIRED FOR SHALLOW MANHOLE CONSTRUCTION.

(5) THE MAXIMUM DEPTH OF COVER OF THE 6'-0", 7'-0", 8'-0" AND 10'-0" DIA. PRECAST MANHOLES, FROM FINAL GRADE TO THE OUTER TOP OF THE PIPE, SHALL BE TWENTY-FIVE (25) FEET.

(6) ALL COVER DISTANCES SHOWN FOR REINFORCEMENT ARE CLEAR DISTANCES.

(7) LIFTING HOLES SHALL BE LOCATED IN THE SECTIONS AS PER MANUFACTURER'S RECOMMENDATIONS AND GROUTED PRIOR TO BACKFILLING.

(8) THE VALUES OF THE WALL AND SLAB THICKNESSES ARE A MINIMUM.

(9) CONCRETE DESIGN MIX = 5,000 PSI (MIN. 28 DAY STRENGTH = 4,000 PSI; MAX. W/C = 0.47). REBARS - F_S = 60,000 PSI. WWM - F_S = 65,000 PSI.

(10) INVERT SHELVES SHALL HAVE A 1/2" PER LINEAR FOOT PITCH TOWARDS THE SEWER.

(11) THE OPENING DIAMETERS SHOWN IN THE SCHEDULE ARE MAXIMUM VALUES. THE MINIMUM OPENING DIAMETERS SHALL BE AS FOLLOWS: 8" TO 24" DIA. PIPES = O.D.+3"; 30" TO 48" DIA. PIPES = O.D.+4" AND 54" TO 84" DIA. PIPES = O.D.+5".

(12) BELL-UP TYPE JOINTS SHALL BE ALLOWED FOR 6'-0", 7'-0", 8'-0" AND 10'-0" DIA. PRECAST MANHOLE, WITH THE FOLLOWING MODIFICATION TO THE LOOSE TOP SLAB: (A) THE MINIMUM SLAB THICKNESS SHALL BE X+6" (WHERE 'X' IS JOINT DEPTH), BUT IN NO CASE SHALL IT BE LESS THAN 12" THICK AND (B) THE EMBEDMENT LENGTH SHALL BE t-1" (WHERE 't' IS THE THICKNESS OF RISER WALL); SEE DETAIL "A" ON DWG. 1 OF 4.

SCHEDULE
(6'-0" DIA. PRECAST MANHOLE)

PIPE DIA.	OPENING*	Δ MAX.
18"	26"	106°
24"	34"	90°
30"	42"	77°
36"	49"	67°
42"	56"	58°
48"	63"	38°

* SEE NOTE 11

SCHEDULE
(7'-0" DIA. PRECAST MANHOLE)

PIPE DIA.	OPENING*	Δ MAX.
18"	26"	114°
24"	34"	98°
30"	42"	86°
36"	49"	75°
42"	56"	67°
48"	63"	60°
54"	71"	48°

* SEE NOTE 11

SCHEDULE
(8'-0" DIA. PRECAST MANHOLE)

PIPE DIA.	OPENING*	Δ MAX.
24"	34"	106°
30"	42"	93°
36"	49"	83°
42"	56"	74°
48"	63"	67°
54"	71"	61°
60"	78"	56°
66"	85"	41°

* SEE NOTE 11

SCHEDULE
(10'-0" DIA. PRECAST MANHOLE)

PIPE DIA.	OPENING*	Δ MAX.
36"	49"	96°
42"	56"	87°
48"	63"	79°
54"	71"	73°
60"	78"	67°
66"	85"	62°
72"	92"	58°
78"	99"	54°
84"	106"	44°

* SEE NOTE 11

Sandip S. Saini P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

REVISED JULY 2018: C. LAM
W. PATALANO/P. MOY

SE30D

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

STANDARD FOR PRECAST MANHOLE (DWG. 4 OF 4)

(FOR 6'-0", 7'-0", 8'-0" AND 10'-0" DIA. PRECAST MANHOLES)

CHART A

d	D	t	H	As	E	h
			MONOLITHIC BASE SECTION			
6'-0"	7'-2"	7"	11'-6" MAX.; 3'-5" MIN.	0.18 X 0.09	#4	15" TO 18"
7'-0"	8'-4"	8"	11'-6" MAX.; 3'-5" MIN.	0.21 X 0.10	#4	15" TO 18"
8'-0"	9'-6"	9"	11'-6" MAX.; 4'-1" MIN.	0.24 X 0.12	#5	15" TO 20"
10'-0"	11'-10"	11"	11'-6" MAX.; 5'-4" MIN.	0.30 X 0.15	#6	15" TO 20"

CHART B

d	DOWELS IN MONOLITHIC TOP SECTION		DOWELS IN MONOLITHIC BASE SECTION
	2'-3" OPENING	4'-0" OPENING	
6'-0"	19-#5 DOWELS @12" O.C. (17@23"V x 32"H) (2@23"V x 10"H)	15-#5 DOWELS @12" O.C. (3@23"V x 25"H); (4@23"V x 23"H) (2@23"V x 20"H); (2@23"V x 17"H) (2@23"V x 13"H); (2@23"V x 9"H)	15-#5 DOWELS @17" O.C. (32"V x 32"H)
7'-0"	23-#5 DOWELS @12" O.C. (21@23"V x 38"H) (2@23"V x 10"H)	19-#5 DOWELS @12" O.C. (5@23"V x 38"H); (4@23"V x 35"H) (2@23"V x 31"H); (2@23"V x 28"H) (2@23"V x 23"H); (2@23"V x 17"H) (2@23"V x 12"H)	20-#6 DOWELS @15" O.C. (38"V x 38"H)
8'-0"	27-#6 DOWELS @12" O.C. (25@23"V x 40"H) (2@23"V x 10"H)	23-#6 DOWELS @12" O.C. (15@23"V x 40"H); (2@23"V x 35"H) (2@23"V x 28"H); (2@23"V x 20"H) (2@23"V x 14"H)	25-#6 DOWELS @13 3/4" O.C. (40"V x 40"H)
10'-0"	33-#7 DOWELS @12" O.C. (33@23"V x 46"H)	31-#7 DOWELS @12" O.C. (25@23"V x 46"H); (2@23"V x 40"H) (2@23"V x 25"H); (2@23"V x 16"H)	34-#7 DOWELS @12 3/4" O.C. (46"V x 46"H)

REVISED DECEMBER 2017: P. LEUNG
W. PATALANO/P. MOY

Sandip S. Saini — P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne — P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

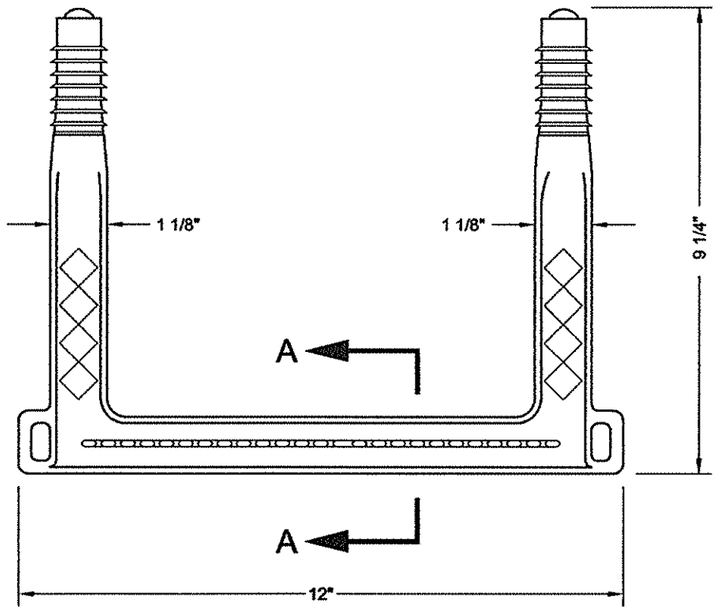
SE46

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

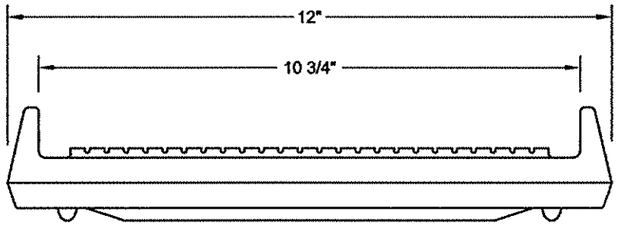
SE46

STANDARD FOR PLASTIC MANHOLE STEP

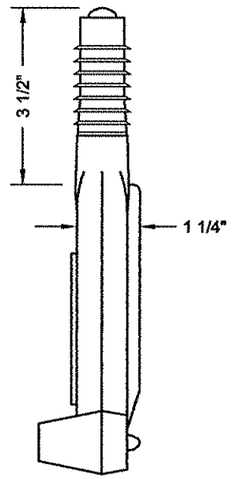
(COPOLYMER POLYPROPYLENE PLASTIC MANHOLE STEP)



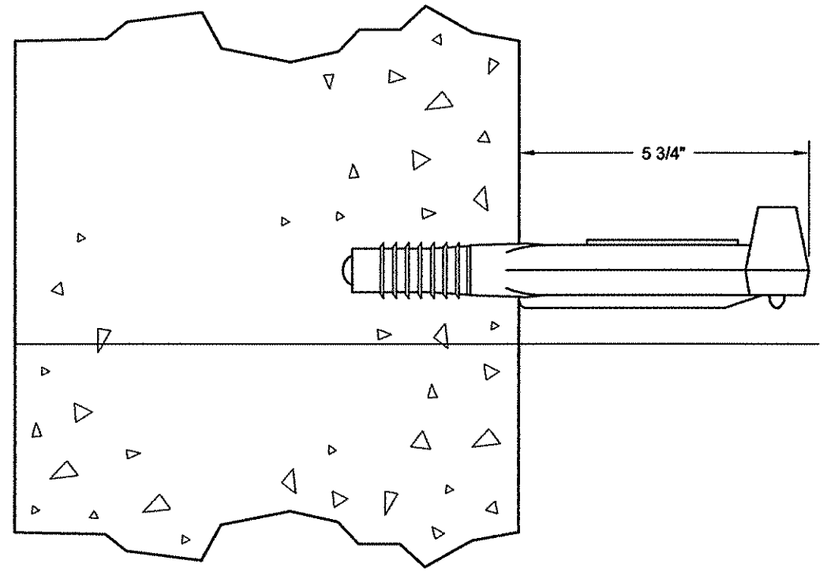
PLAN



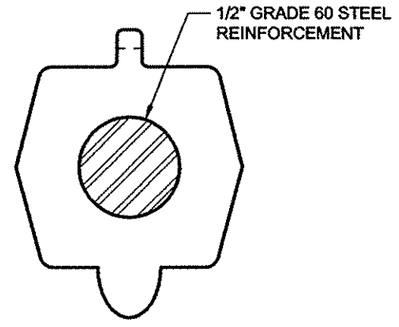
FRONT ELEVATION



SIDE ELEVATION



ANCHORAGE DETAIL



SECTION A-A

NOTE:

PLASTIC MANHOLE STEP MAY BE SUBSTITUTED FOR CAST IRON MANHOLE STEP, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

Gurdip S. Saini P.E.
ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

8/14/18
DATE

Thomas Wynne P.E.
EXECUTIVE DIRECTOR OF ENGINEERING
DEPARTMENT OF ENVIRONMENTAL PROTECTION

8/14/18
DATE

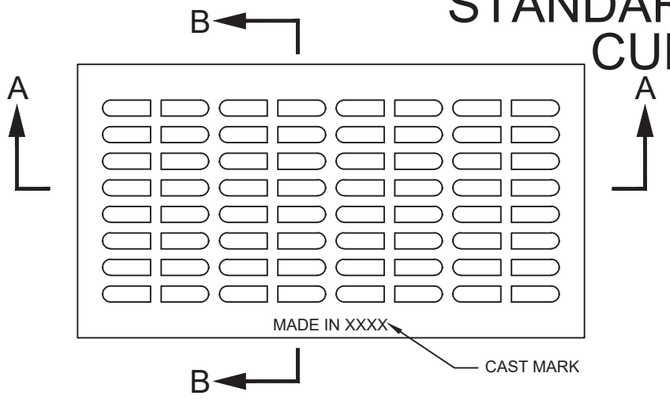
REVISED DECEMBER 2017: P. LEUNG
W. PATALANO/P. MOY

SE59A

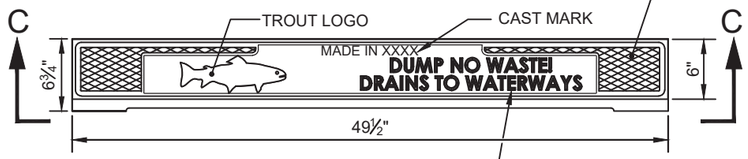
SE59A

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

STANDARD FOR CAST IRON GRATING, BACK PLATE, AND CURB PIECE FOR CATCH BASINS (WITH H=6")

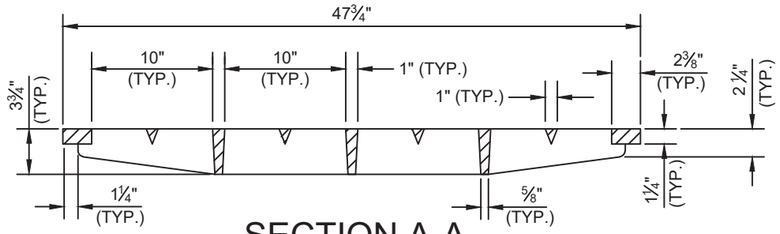


PLAN OF GRATING (TYPE R)

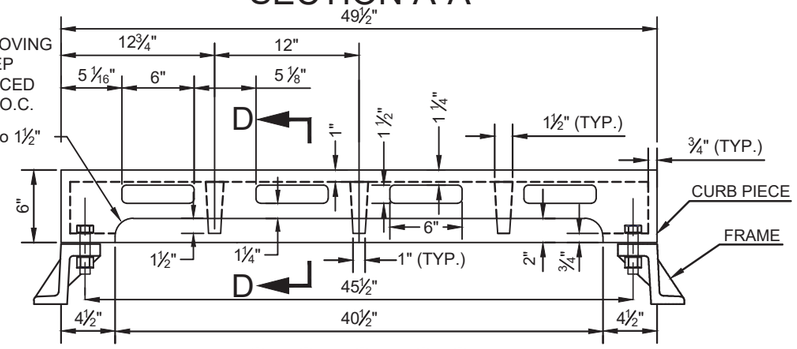


THE FOLLOWING INFORMATION MUST BE INCLUDED ON THE TOP SIDE OF THE CURB PIECE:
* NAME OF PRODUCING FOUNDRY
* DATE OF MANUFACTURE
* PRODUCT NUMBER
* CAST IRON ASTM A-48

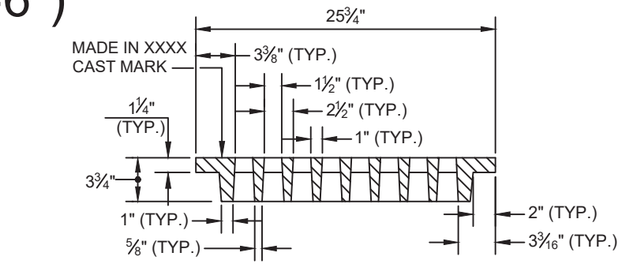
PLAN OF CURB PIECE



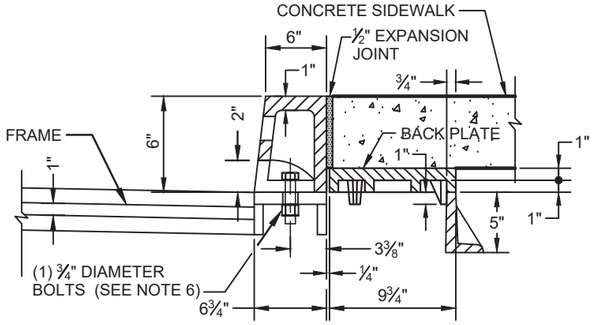
SECTION A-A



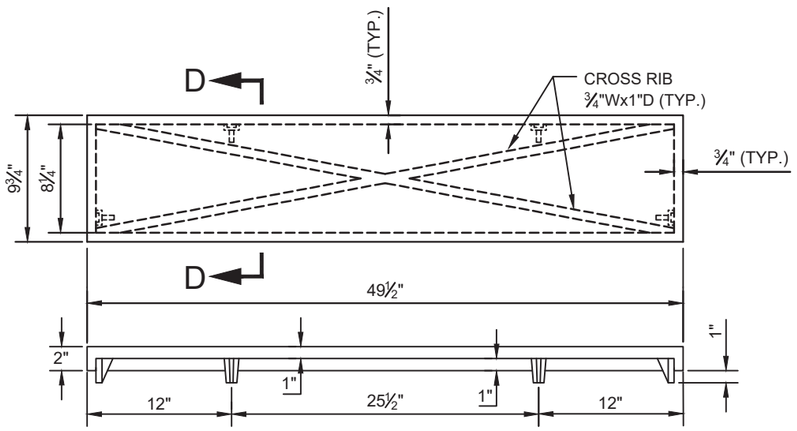
SECTION C-C
ELEVATION OF CURB PIECE



SECTION B-B



SECTION D-D



BACK PLATE

THE FOLLOWING INFORMATION MUST BE INCLUDED ON THE TOP SIDE OF THE BACK PLATE:
* NAME OF PRODUCING FOUNDRY
* DATE OF MANUFACTURE
* PRODUCT NUMBER
* CAST IRON ASTM A-48

NOTES:

(1) GRATING MATERIAL: GRAY CAST IRON ASTM A-48 CLASS 35B.
MINIMUM WEIGHT OF TYPE R GRATING IS 425 LBS.

(2) CURB PIECE MATERIAL: GRAY CAST IRON ASTM A-48 CLASS 35B.
MINIMUM WEIGHT OF 6" IS 163 LBS.
MINIMUM WEIGHT OF 8" IS 210 LBS.

(3) BACK PLATE MATERIAL: GRAY CAST IRON ASTM A-48 CLASS 35B.
MINIMUM WEIGHT IS 165 LBS.

(4) DESIGN LOADING: HS20-44 HIGHWAY LOADING.

(5) ALL CATCH BASIN FRAMES AND GRATES MUST HAVE THE MANUFACTURER'S IDENTIFICATION, CAST DATE OR HEAT NUMBER AND COUNTRY OF ORIGIN INTEGRALLY CAST ON INDIVIDUAL PIECES AT THE TIME OF MANUFACTURE IN ACCORDANCE WITH THE DEP SPECIFICATION.

(6) TWO (2) - 3/4" DIA. CARBON STEEL BOLTS ASTM 307 GRADE - 3 1/2" LONG WITH HEXAGONAL HEAD AND NUT WITH TWO (2) FLAT WASHERS PER BOLT TO BE FURNISHED WITH EACH FRAME TOGETHER WITH 6" CURB PIECE OR 8" CURB PIECE. LONGER BOLTS TO BE FURNISHED FOR CURB HEIGHTS GREATER THAN 6" WHERE FILLER PIECES ARE USED.

REVISED DECEMBER 2022

How Sheen Pau, P.E. — Digitally signed by How Sheen Pau, P.E. Date: 2023.03.24 08:25:34 -04'00'

P.E. _____ DATE _____

ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

Michael S. Farnan, P.E. — Digitally signed by Michael S. Farnan, P.E. Date: 2023.03.22 16:44:13 -04'00'

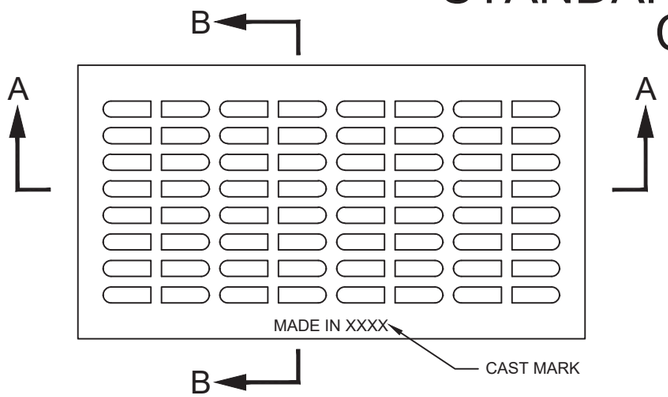
P.E. _____ DATE _____

EXECUTIVE DIRECTOR OF OPERATIONS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

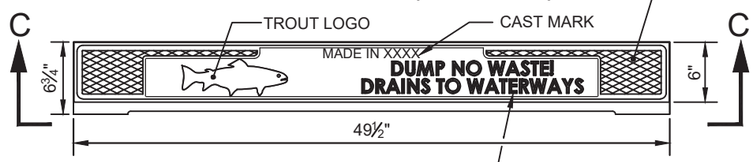
SE59B

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

STANDARD FOR CAST IRON GRATING, BACK PLATE, AND CURB PIECE FOR CATCH BASINS (H=8")

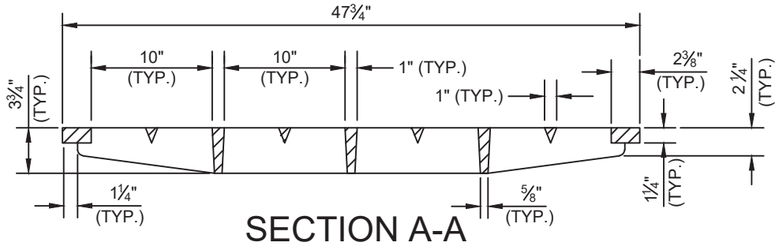


PLAN OF GRATING (TYPE R)

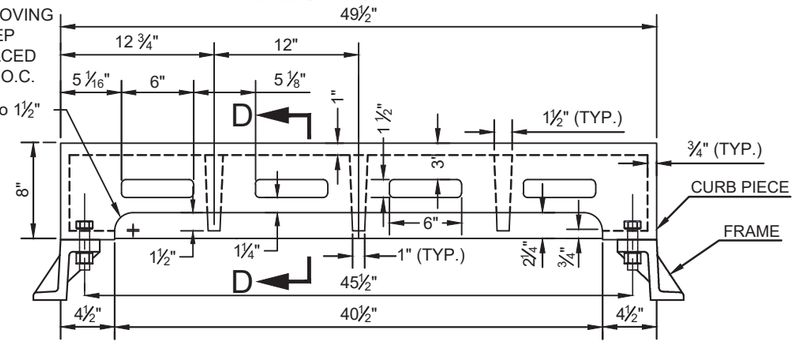


THE FOLLOWING INFORMATION MUST BE INCLUDED ON THE TOP SIDE OF THE CURB PIECE:
* NAME OF PRODUCING FOUNDRY
* DATE OF MANUFACTURE
* PRODUCT NUMBER
* CAST IRON ASTM A-48

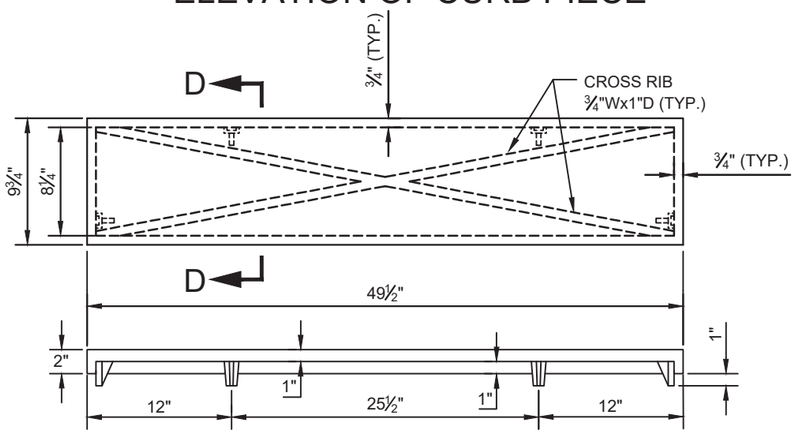
PLAN OF CURB PIECE



SECTION A-A



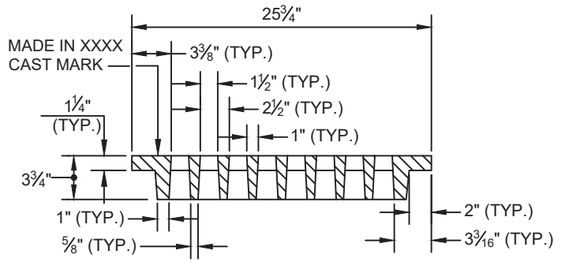
SECTION C-C



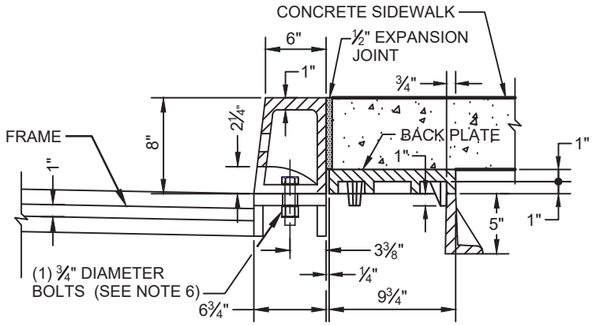
ELEVATION OF CURB PIECE

BACK PLATE

THE FOLLOWING INFORMATION MUST BE INCLUDED ON THE TOP SIDE OF THE BACK PLATE:
* NAME OF PRODUCING FOUNDRY
* DATE OF MANUFACTURE
* PRODUCT NUMBER
* CAST IRON ASTM A-48



SECTION B-B



SECTION D-D

NOTES:

(1) GRATING MATERIAL: GRAY CAST IRON ASTM A-48 CLASS 35B.
MINIMUM WEIGHT OF TYPE R GRATING IS 425 LBS.

(2) CURB PIECE MATERIAL: GRAY CAST IRON ASTM A-48 CLASS 35B.
MINIMUM WEIGHT OF 6" IS 163 LBS.
MINIMUM WEIGHT OF 8" IS 210 LBS.

(3) BACK PLATE MATERIAL: GRAY CAST IRON ASTM A-48 CLASS 35B.
MINIMUM WEIGHT IS 165 LBS.

(4) DESIGN LOADING: HS20-44 HIGHWAY LOADING.

(5) ALL CATCH BASIN FRAMES AND GRATES MUST HAVE THE MANUFACTURER'S IDENTIFICATION, CAST DATE OR HEAT NUMBER AND COUNTRY OF ORIGIN INTEGRALLY CAST ON INDIVIDUAL PIECES AT THE TIME OF MANUFACTURE IN ACCORDANCE WITH THE DEP SPECIFICATION.

(6) TWO (2) - 3/4" DIA. CARBON STEEL BOLTS ASTM 307 GRADE - 3 1/2" LONG WITH HEXAGONAL HEAD AND NUT WITH TWO (2) FLAT WASHERS PER BOLT TO BE FURNISHED WITH EACH FRAME TOGETHER WITH 6" CURB PIECE OR 8" CURB PIECE. LONGER BOLTS TO BE FURNISHED FOR CURB HEIGHTS GREATER THAN 6" WHERE FILLER PIECES ARE USED.

How Sheen Pau, P.E. Digitally signed by How Sheen Pau, P.E.
Date: 2023.03.24 08:27:01 -04'00'
P.E. DATE

ASSOCIATE COMMISSIONER, DESIGN
DEPARTMENT OF DESIGN AND CONSTRUCTION

Michael S. Farnan, P.E. Digitally signed by Michael S. Farnan, P.E.
Date: 2023.03.22 17:16:35 -04'00'
P.E. DATE

EXECUTIVE DIRECTOR OF OPERATIONS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

REVISED DECEMBER 2022