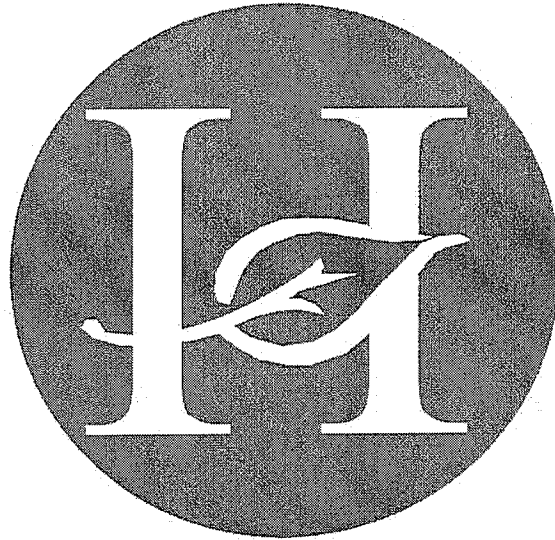


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# **CITY OF HOLLADAY**



## **STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION**

September 2010

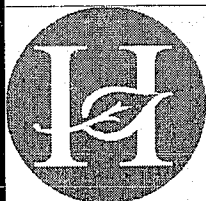
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# ***STANDARD STREET IMPROVEMENT DETAILS***

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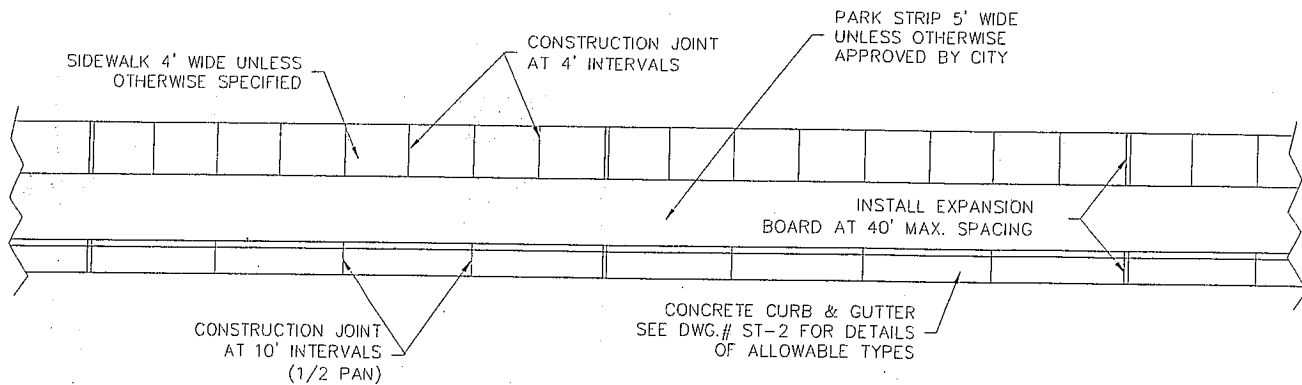


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ST-0

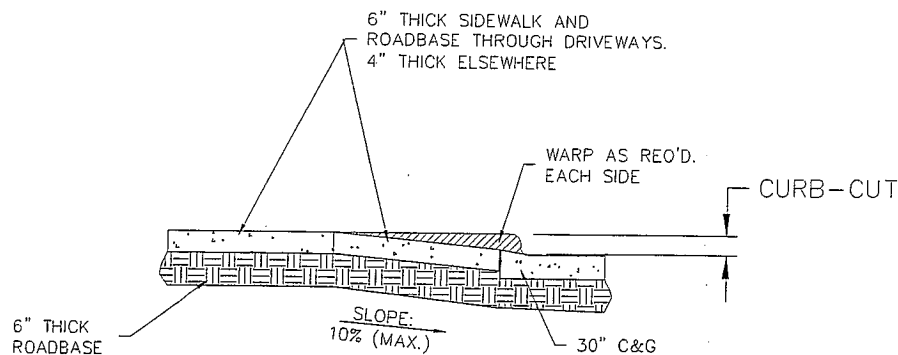
DATE  
SETP /2011

FILE NUMBER  
STANDARD\STREETS



### PLAN VIEW

NO SCALE

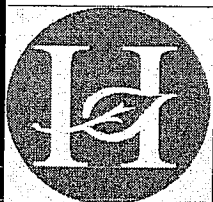


### CROSS-SECTION DRIVEWAY

NO SCALE

### NOTES:

1. A MINIMUM 6" DEPTH OF ROADBASE MATERIAL SHALL BE PLACED TO GRADE AND COMPACTED TO 96% OF MAXIMUM DRY DENSITY (ASTM D-1557) UNDER DRIVEWAY, WATERWAY, AND CURB & GUTTER PRIOR TO PLACEMENT OF CONCRETE.
2. A MINIMUM 4" DEPTH OF ROADBASE MATERIAL SHALL BE PLACED TO GRADE AND COMPACTED TO 96% OF MAXIMUM DRY DENSITY (ASTM D-1557) UNDER SIDEWALK PRIOR TO PLACEMENT OF CONCRETE.
3. WHERE CONSTRUCTION IS ADJACENT TO STATE HIGHWAY FRONTAGE, STATE HIGHWAY DEPARTMENT REQUIREMENTS SHALL GOVERN.
4. CONCRETE SHALL BE 3/4 INCH MAXIMUM AGGREGATE, 6.5 BAGS PER YARD OF TYPE 2 CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
5. EXPANSION JOINTS FOR CURB & GUTTER AND SIDEWALKS SHALL BE SPACED NO MORE THAN EVERY 40 FT. AND AT INTERSECTIONS WITH OTHER SIDEWALK, AND AT RADIUS P.C. AND P.T. EXPANSION JOINTS SHALL BE CONSTRUCTED BY PLACING AN APPROVED MATERIAL, (TYPICALLY BITUMINOUS IMPREGNATED FIBERBOARD), THE FULL DEPTH OF THE CONCRETE. EXPANSION MATERIAL SHALL BE SET 1/2" BELOW THE FINISH LEVEL OF THE SIDEWALK.
6. CONSTRUCTION JOINT IS MADE BY SCORING THE CONCRETE WITH 1/2" RADIUS EDGING TOOL OR OTHER METHOD APPROVED BY ENGINEER.
7. SLOPE SIDEWALK TO ROADWAY AT 2% GRADE.
8. LOCATE ALL INLET GRATES 2' MINIMUM AWAY FROM THE PEDESTRIAN CROSSWALK, WITH ALL DRAINAGE INTERCEPTED BEFORE IT REACHES CROSSWALK AREA.
9. PROVIDE FINE HAIR BROOM FINISH ON LONGITUDINAL GRADES UNDER 6% AND ROUGH HAIR BROOM FINISH ON LONGITUDINAL GRADES OVER 6%.



STANDARD DETAILS

SIDEWALK DETAILS

DRAWING NUMBER

ST-1

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TYPE A

30" HIGH BACK

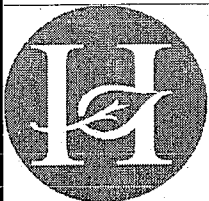
TYPE F

## ROLL CURB

NOTES:

1. MINIMUM SLOPE OF CURB AND GUTTER SHALL BE 1.0%.
2. OTHER CURB AND GUTTER SECTIONS MAY BE UTILIZED TO MATCH EXISTING ADJACENT CURB AND GUTTER SUBJECT TO APPROVAL BY CITY ENGINEER.

## WATERWAY



## STANDARD DETAILS

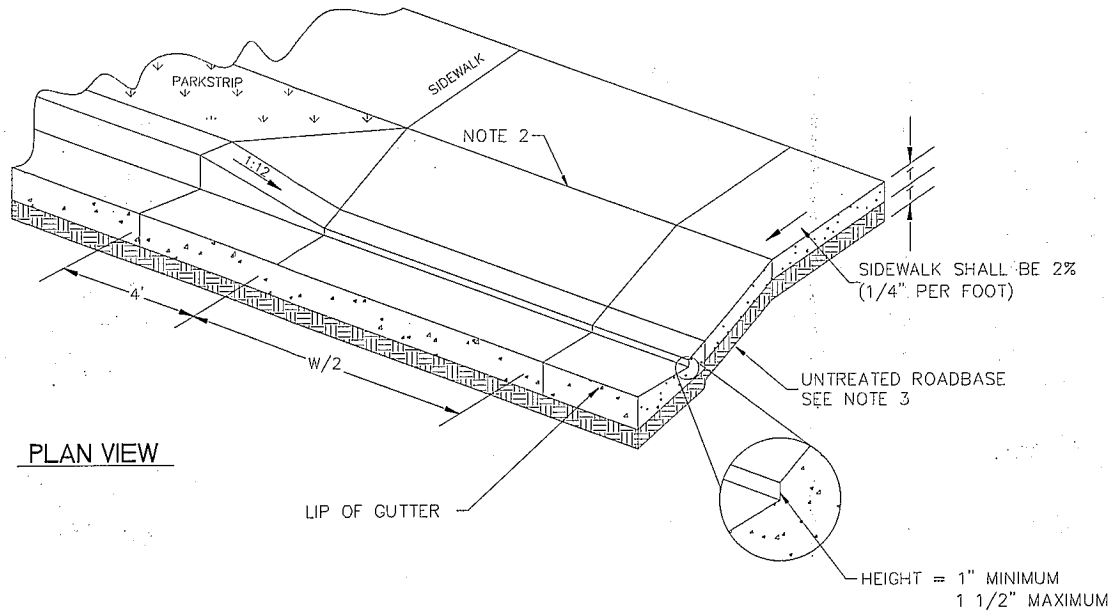
CURB, GUTTER AND WATERWAY

DRAWING NUMBER

ST-2

DATE  
SE TP / 2011

FILE NUMBER  
STANDARD \ STREETS



#### NOTES:

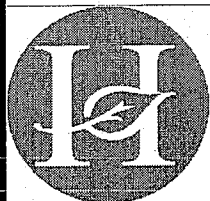
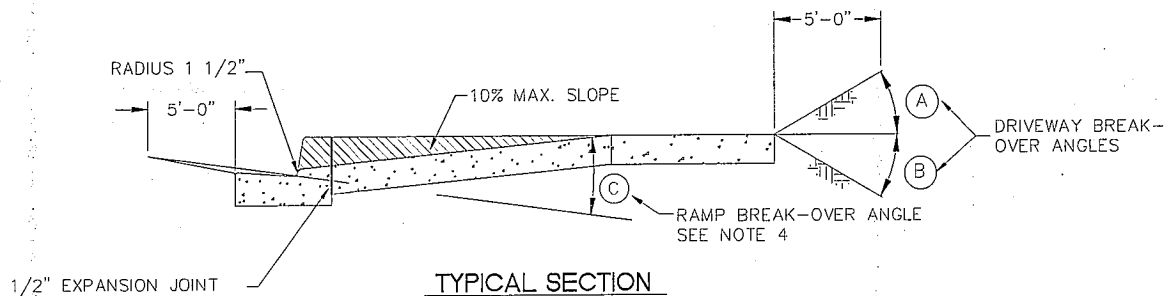
- EDGE CONCRETE WITH 1/2" RADIUS EDGING TOOL.
- PROVIDE 1/2" EXPANSION JOINT BETWEEN DRIVEWAY APRON AND CURB AND IN THE DRIVEWAY CENTERLINE IF "W" IS GREATER THAN 20'. FILLER MATERIAL SHALL BE FULL DEPTH OF CONCRETE PLUS 1", WITH TOP SET FLUSH WITH TOP OF CONCRETE.
- PLACE 6" UNTREATED ROADBASE UNDER CURB, GUTTER AND SIDEWALK. COMPACT TO 96% OF THE MAXIMUM DRY DENSITY (ASTM D-1557).
- DIFFERENCE IN SLOPE OF DRIVEWAY RAMP AND THE SLOPE OF A LINE BETWEEN THE GUTTER AND A POINT ON THE ROADWAY 5' FROM THE FRONT EDGE OF THE GUTTER SHALL NOT EXCEED 15%. REDUCE DRIVEWAY RAMP SLOPE, NOT GUTTER SLOPE, WHERE REQUIRED.
- ALL CONCRETE SLABS WITH A LENGTH/WIDTH RATIO GREATER THAN 2:1 SHALL HAVE CONTRACTION JOINTS INSTALLED AS REQUIRED TO STAY WITHIN 2:1 RATIO.
- FRONT EDGE OF SIDEWALK TO BE SET AT AN ELEVATION 2% HIGHER THAN THE TOP BACK OF CURB.

#### DRIVE APPROACH DIMENSIONS

DIMENSION	LENGTH ACCORDING TO ZONE
W	10'-0" MIN. RESIDENTIAL ZONES 20'-0" MAX. RESIDENTIAL ZONES 30'-0" MAX. COMMERCIAL/INDUSTRIAL ZONES
T	0'-6" RESIDENTIAL ZONES 0'-8" INDUSTRIAL/COMMERCIAL ZONES

#### TABLE OF DIMENSIONS

DIMENSION	ZONE
(A) < 12 % < 6 %	RESIDENTIAL ZONE INDUST. & COMM. ZONE
(B) < 13 % < 6 %	RESIDENTIAL ZONE INDUST. & COMM. ZONE
(C) < 15 % < 6 %	RESIDENTIAL ZONE INDUST. & COMM. ZONE



### STANDARD DETAILS

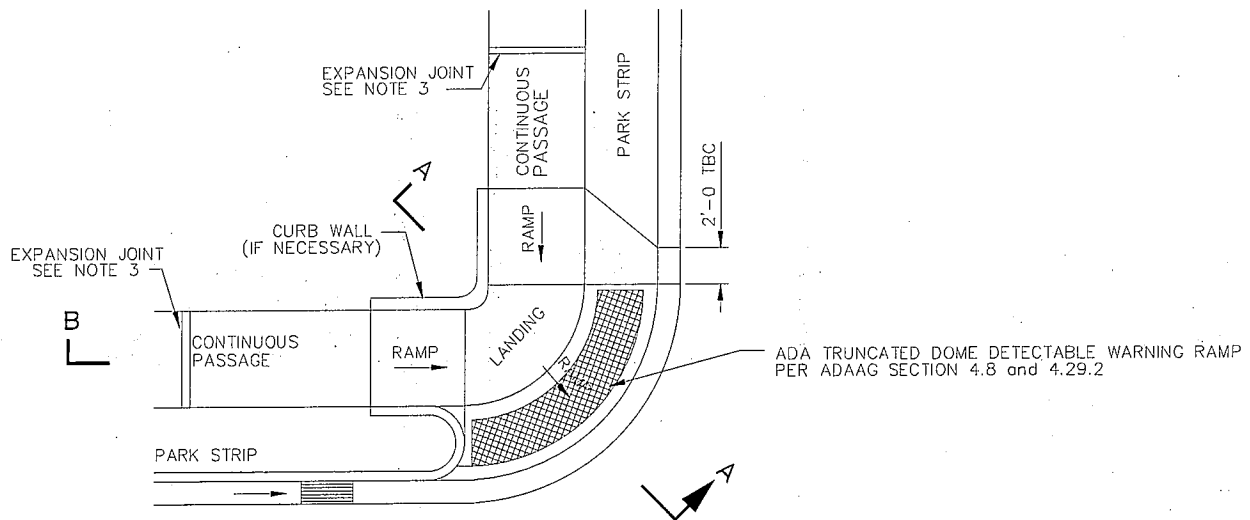
### FLARE DRIVEWAY

DRAWING NUMBER

ST-3

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SETP/2011

FILE NUMBER  
STANDARD\STREETS



### LANDING BETWEEN SIDEWALK AND STREET LEVELS

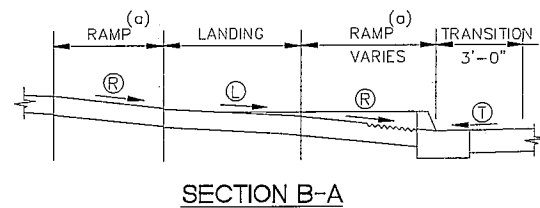
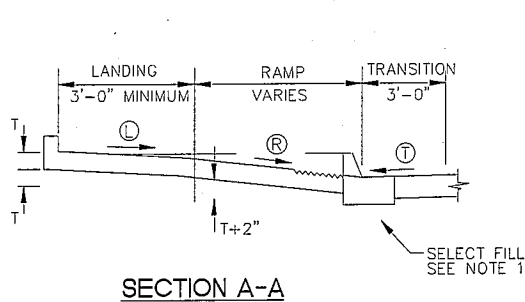
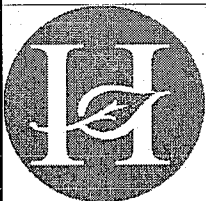


TABLE OF MAXIMUM SLOPES		
ELEMENT OF WORK	NEW CONSTRUCTION	MODIFICATIONS
(R) RAMP (a)	1:12 (8.33%)	1:10 (10%) (b)
(L) LANDING	1:50 (2%)	1:25 (4%)
(T) TRANSITION	1:20 (5%)	1:20 (5%)

NOTES  
 (a) VARIANCES: MUST BE APPROVED BY CITY  
 (b) RAMP LENGTH SHALL BE 10'-0" MAX.  
 WHEN RAMP SLOPE EXCEEDS 1:12 (8.33%)

#### NOTES:

1. A MINIMUM 4" DEPTH OF ROADBASE MATERIAL SHALL BE PLACED TO GRADE AND COMPACTED UNDER HANDICAP RAMPS TO 96% OF MAXIMUM DRY DENISTY (ASTM D-1557) PRIOR TO PLACEMENT OF CONCRETE.
2. LOCATE ALL INLET GRATES 2' MINIMUM AWAY FROM THE PEDESTRIAN CROSSWALK, WITH ALL DRAINAGE INTERCEPTED BEFORE IT GETS TO THE CROSSWALK AREA.
3. EXPANSION JOINTS SHALL BE CONSTRUCTED BY PLACING AN APPROVED MATERIAL, (TYPICALLY BITUMINOUS IMPREGNATED FIBERBOARD), THE FULL DEPTH OF THE CONCRETE. EXPANSION MATERIAL SHALL BE SET 1/2" BELOW THE FINISH LEVEL OF SIDEWALK RAMP.
4. SIDEWALK RAMPS SHALL BE TINTED - COLOR TO BE APPROVED BY CITY.



### STANDARD DETAILS

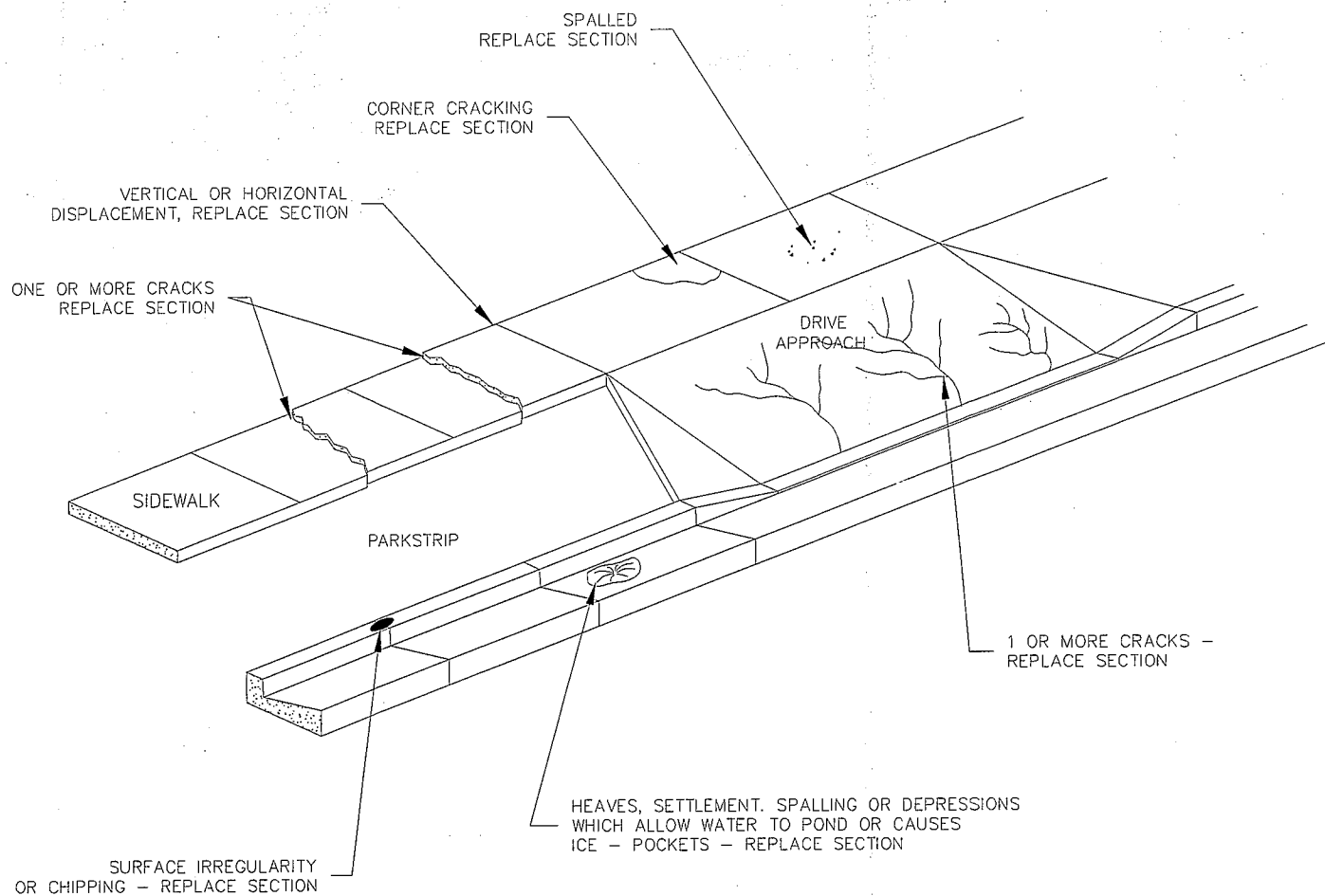
### SIDEWALK RAMP DETAILS

DRAWING NUMBER

ST-4

DATE  
SEP/2011

FILE NUMBER  
STANDARD\STREETS



**NOTES:**

REPLACEMENT IS REQUIRED IF ANY COMPONENT HAS ONE OR MORE OF THE CONDITIONS NOTED ABOVE. OTHER PROPOSED REPAIR METHODS WILL SUBJECT TO APPROVAL BY CITY ENGINEER.



**STANDARD DETAILS**  
**DEFECTIVE CONCRETE WARANTTEE**  
**REPLACEMENT CRITERIA**

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SETP/2011

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STANDARD\STREETS

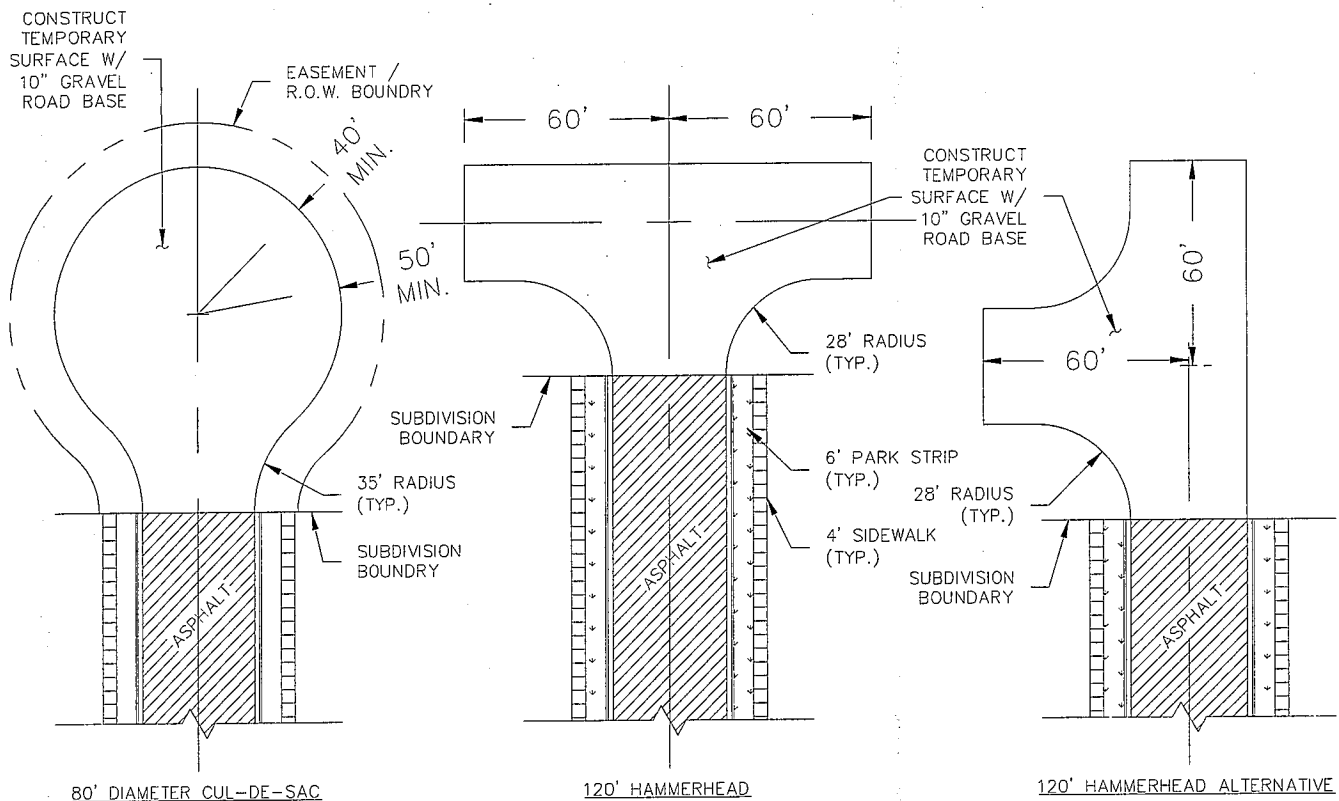
DRAWING NUMBER

ST-5

LENGTH	WIDTH	GRADE	TURNAROUND REQUIREMENTS
* 0' - 150'	16'	10% MAX.	NONE REQUIRED
* 151' - 500'	20'	10% MAX.	120' HAMMERHEAD 80' DIAMETER CUL-DE-SAC
501' - 750'	26'	10% MAX.	120' HAMMERHEAD 80' DIAMETER CUL-DE-SAC
OVER 750'	SPECIAL APPROVAL REQUIRED		

\* CURVES AND TOPOGRAPHICAL CONDITIONS COULD ALTER THE REQUIREMENTS FOR TURNAROUNDS AND THE WIDTH OF ACCESSWAYS.

T.B.C. = TOP BACK OF CURB



#### NOTES:

1. TURN-AROUNDS MUST BE IN COMPLIANCE WITH APPENDIX "D" OF THE INTERNATIONAL FIRE CODE.
2. PROVIDE DRAINAGE DITCH TO CONVEY RUNOFF FROM TURN-AROUND AS NEEDED.



## STANDARD DETAILS

### TEMPORARY TURN-AROUND DETAILS

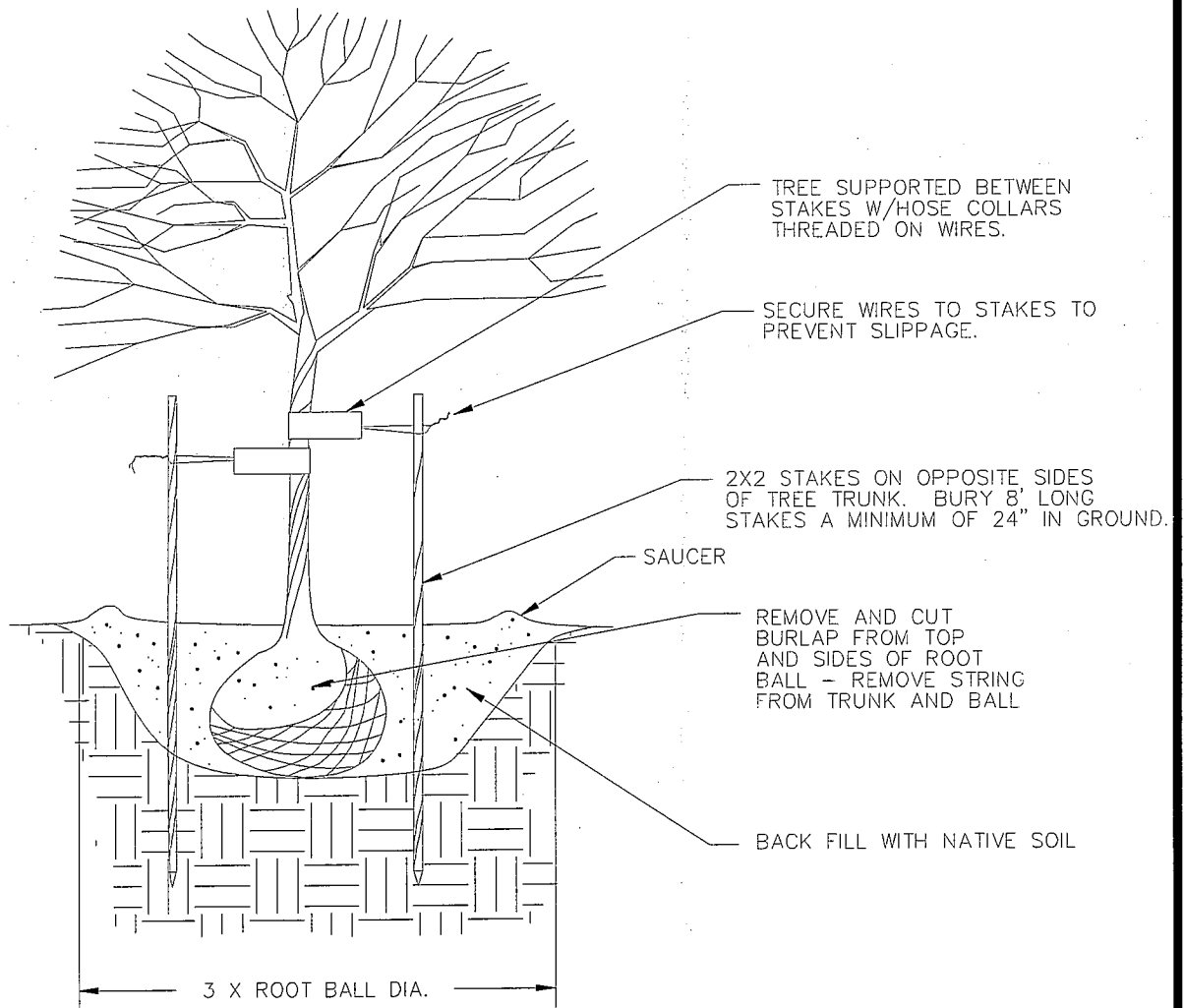
DATE  
SEP/2011

FILE NUMBER  
STANDARD\STREETS

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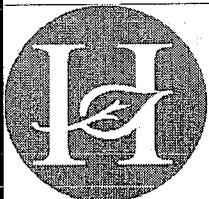
ST-6





#### NOTES:

1. TREES SHALL BE WARRANTED FOR A PERIOD OF 1 YEAR FOLLOWING PROJECT ACCEPTANCE BY THE CITY.
2. TREES WITHIN PUBLIC RIGHT OF WAY SHALL COMPLY WITH CITY ORDENANCE 14.44 AND WILL BE SUBJECT TO CITY APPROVAL.
3. NO STREET TREES SHALL BE PLANTED CLOSER THAN 35 FEET TO ANY STREET CORNER, MEASURED FROM THE POINT OF THE NEAREST INTERSECTION CURBS OR CURBLINES.  
NO STREET TREE SHALL BE PLANTED CLOSER THAN 10 FEET TO ANY FIRE HYDRANT.
4. PROVIDE IRRIGATION FACILITIES FOR ALL TREES LOCATED IN PUBLIC RIGHTS OF WAY.
5. TREES AND LANDSCAPING OVERHANGING STREET PAVEMENT SHALL BE TRIMMED TO A MINIMUM HEIGHT OF 13 1/2 FEET ABOVE STREET PAVEMENT.



STANDARD DETAILS  
TREE PLANTING DETAILS

DRAWING NUMBER

ST-7

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SETP/2011

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STANDARD\STREETS



## STREET TREE PLANTING NOTES

- 1) Comply with City Ordinance 14.44.
- 2) The following trees are not allowed in Public Rights-of-way.

Boxelder Maple	Cottonwood, Aspen & Poplars
Silver Maple	Black Locust
Tree-of-Heaven	Willows
Russian Olive	Siberian Elm
Honeylocust (thorned)	
Any fruit tree that is grown for fruit production	
Evergreens which exceed a height of three or more feet at maturity.	

- 3) The following trees may be allowed in Public Rights-of-way, subject to approval of city.

### Small Trees

Hedge Maple  
Amur Maple  
Bigtooth Maple  
Paperbark Maple  
Tatarian Maple  
Red Buckeye  
Eastern Redbud  
Washington Hawthorn  
English Hawthorn  
Cockspur  
Hawthorn  
Goldenraintree  
Flowering Crabapple  
Flowering Cherry  
Flowering Plum

### Medium Trees

Norway Maple  
Sycamore Maple  
Black Maple  
Red Horsechestnut  
Yellow Buckeye  
Common Hackberry  
White Ash  
Callery Pear  
Green Ash  
Maidenhair Tree  
Honeylocust  
Common Horsechestnut  
Kentucky Coffeetree  
White Mulberry  
American Hophornbeam  
Dawn Redwood  
Amur Corktree  
European Mountain Ash  
European Hornbeam  
American Hornbeam

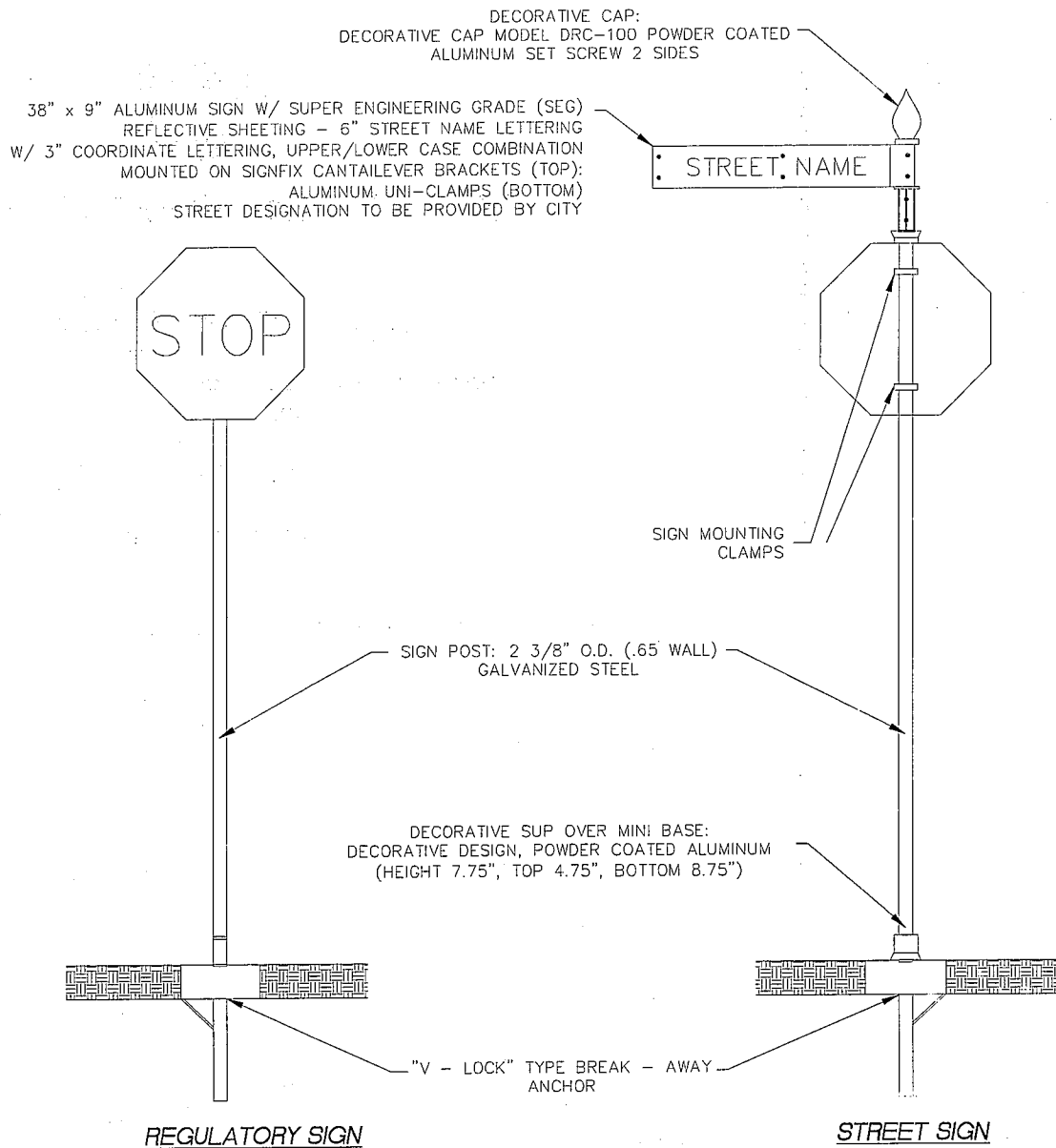
Yellowwood  
Japanese Pagoda  
Ohio Buckeye  
European Beach

### Large Trees

Northern Catalpa  
American Beech  
Sweetgum  
Tulip Tree  
Swamp White Oak  
Bur Oak  
English Oak  
Northern Red Oak  
American Linden  
Littleleaf Linden  
Silver Linden  
Cucumbertree  
London Planetree  
Lacebark or Chinese Elm  
Japanese Zelkova

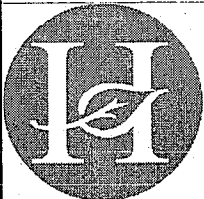
- 4) Spacing:      Small trees: 30' minimum  
                      Medium trees: 40' minimum  
                      Large trees: 50' minimum

Trees shall be no closer than 35 feet to any street corner or 10 feet to any fire hydrant.



NOTES:

1. SECURE CITY'S APPROVAL OF SIGN FORMAT AND INSTALLATION.
2. INSTALL THE EDGE OF THE SIGN TWO FEET FROM THE VERTICAL EXTENSION OF THE BACK OF CURB AS NEAR AS POSSIBLE TO THE APPROACH CURB POINT OF CURVATURE. SIGNS SHOULD NOT OVERHANG SIDEWALK OR CURB & GUTTER.
3. ALL TRAFFIC SIGNS (STOP, SPEED, ETC.) SHALL BE 7' MINIMUM FROM GROUND TO BOTTOM OF SIGN AND SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES"
4. ALL DECORATIVE HARDWARE AND POSTS FOR STREET SIGNS SHALL BE POWDER COATED DARK GREEN.
5. POSTS SHALL BE MANUFACTURED FROM ASTM A-513 STEEL - 55,000 p.s.i. MIN YIELD AND 70,000 p.s.i. MIN TENSILE STRENGTH



STANDARD DETAILS

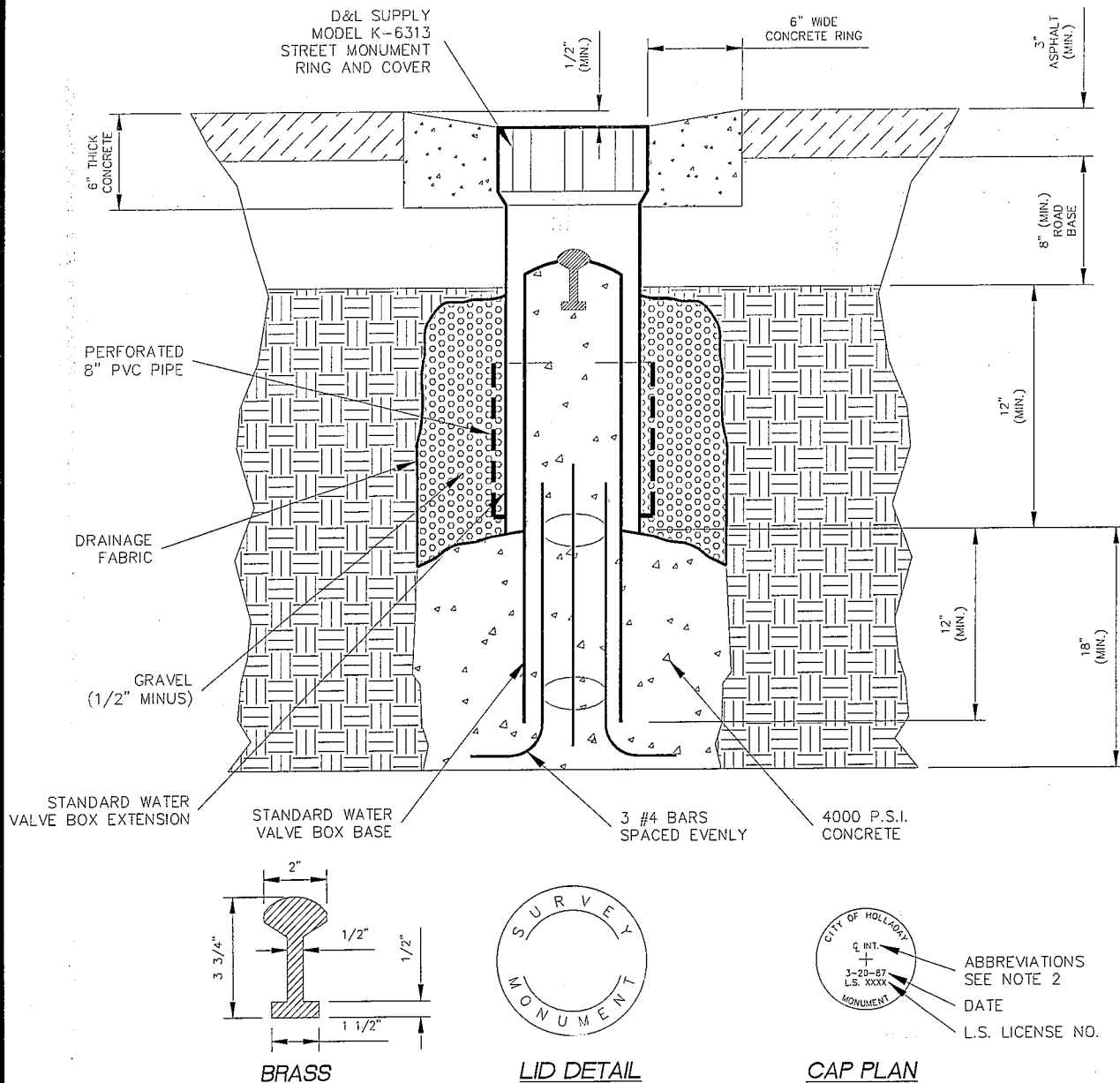
STREET AND REGULATORY SIGNS

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SETP/2011

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STANDARD\STREETS

DRAWING NUMBER

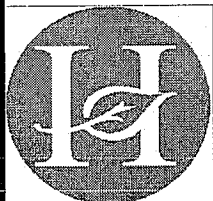
ST-8



#### NOTES:

1. MONUMENT NAILS AND STRADDLES MUST BE CHECKED BY THE CITY TO VERIFY LOCATION ACCURACY WITH FILED PLAT(S) PRIOR TO INSTALLATION OF MONUMENT AND FINAL APPROVAL.
2. ABBREVIATIONS: THE FOLLOWING IS A LIST OF COMMONLY USED ABBREVIATIONS USED ON USED ON THE MONUMENT CAP. APPLY OTHER MARKS AND ABBREVIATIONS AS APPLICABLE.
 

INT	INTERSECTION
ML INT	MONUMENT LINE INTERSECTION
P.C.	POINT OF CURVATURE
P.C.C.	POINT OF COMPOUND CURVE
P.I.	POINT OF INTERSECTION
P.O.C.	POINT ON CURVE
P.O.T.	POINT ON TANGENT
P.R.C.	POINT OF REVERSE CURVE
P.T.	POINT OF TANGENCY
S.C.	SECTION CORNER
W.C.	WITNESS CORNER



**STANDARD DETAILS**

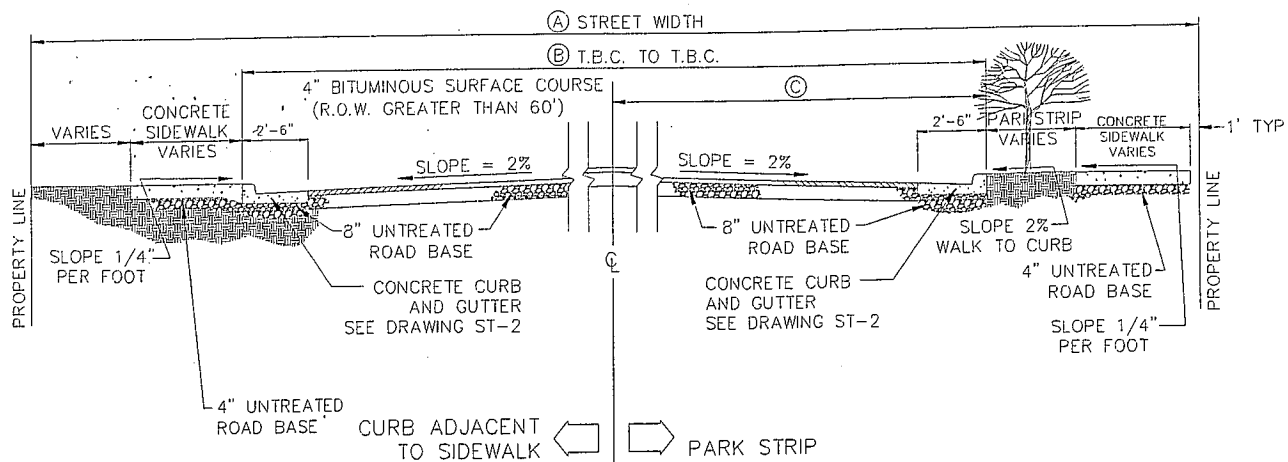
**SURVEY MONUMENT**

DRAWING NUMBER

ST-9

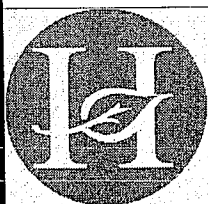
DATE  
SETP/2011

FILE NUMBER  
STANDARD\STREETS



STREET DESIGNATION	STREETS WIDTHS			MIN. SIDEWALK WIDTH	
	(A)	(B)	(C)	ADJACENT TO CURB	WITH PARK STRIP
STANDARD RESIDENTIAL	50'	30'	15'	6'	4'
SPECIAL RESIDENTIAL	60	40'	20'	6'	4'
COLLECTOR	66'	46'	23'	6'	5'
COLLECTOR	80'	60'	30'	6'	6'
MAJOR	106'	86'	43'	6'	6'

STANDARD ROADWAY SECTION A  
1



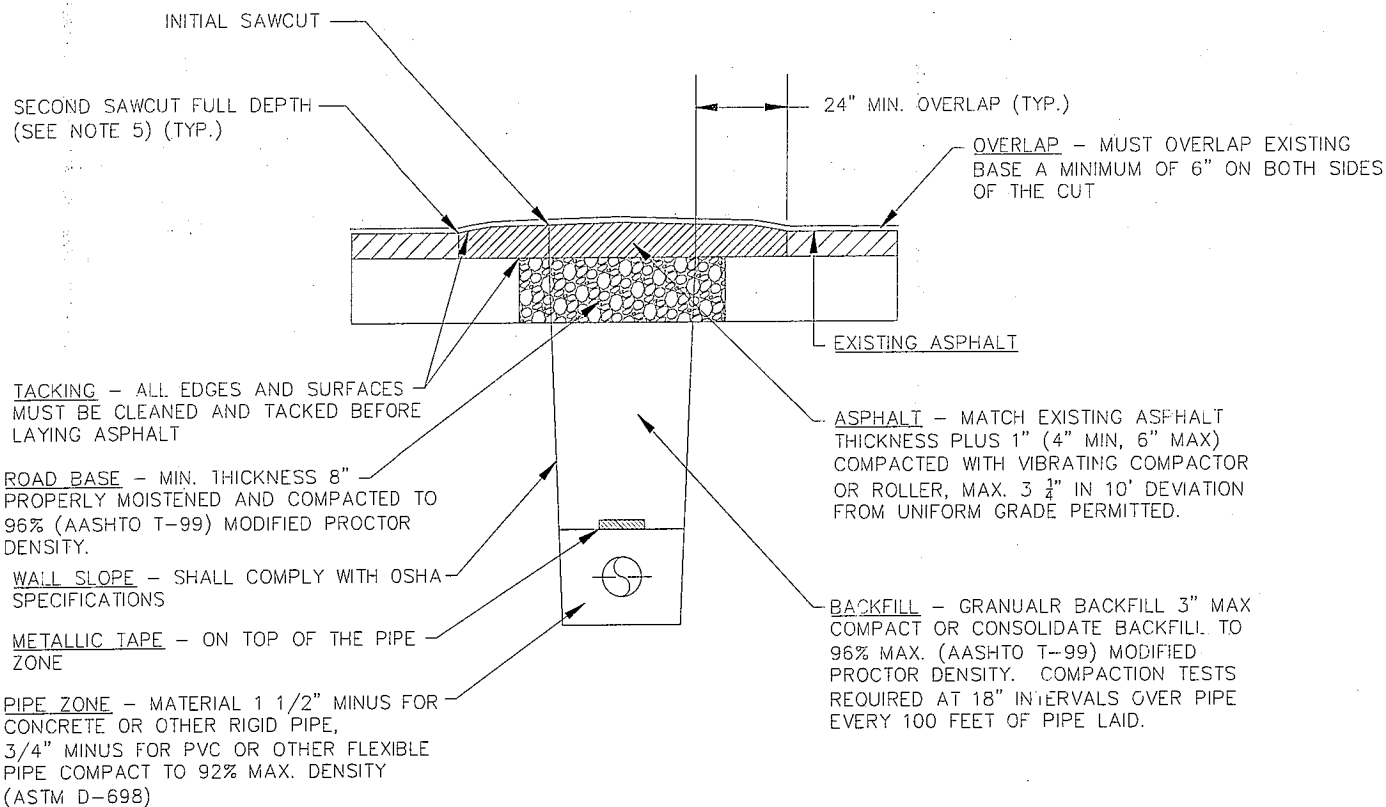
STANDARD DETAILS  
STANDARD ROADWAY SECTION

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SETP/2011

FILE NUMBER  
STANDARD\STREETS

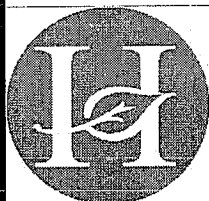
DRAWING NUMBER

ST-10



**NOTES:**

1. REQUIRED ROADBASE AND BACKFILL MUST BE AT JOB SITE BEFORE EXCAVATION BEGINS.
2. APPLICANT MUST PROVIDE PROCTORS AND DENSITY TESTING RESULTS GENERATED BY AN INDEPENDENT TESTING COMPANY AS PROOF OF COMPLIANCE.
3. NO CUTS WILL BE ALLOWED IN STREETS PAVED, OVERLAYED, WITHIN THE PREVIOUS THREE YEARS EXCEPT AS APPROVED BY THE CITY FOR EMERGENCY REPAIRS, IN WHICH CASE PAVEMENT REPAIR DETAIL "B" MUST BE USED.
4. ADDITIONAL PAVEMENT REMOVAL: REMOVE ADDITIONAL PAVEMENT TO A PAINTED LANE STRIPE, A LIP OF GUTTER, A CURB, AN EXISTING PAVEMENT PATCH, OR AN EDGE OF THE PAVEMENT IF SUCH A FEATURE IS WITHIN 2- FEET OF THE SECOND SAW-CUT. IF MORE THAN 50' OF THE PERMANENT SURFACING OF A TRAVELED LANE IS IMPACTED BY THE EXCAVATION, THE ENTIRE LANE WIDTH SHALL BE SAWCUT, REMOVED, AND REPLACED. JAGGED, SAW TOOTH EDGES ARE NOT ALLOWED.
5. JOINT REPAIR - IF A CRACK OCCURS AT THE "T" PATCH CONNECTION TO EXISTING PAVEMENT, CRACK MUST BE CRACK SEALED.



**STANDARD DETAILS**

**PAVEMENT REPAIR DETAIL 'A'**

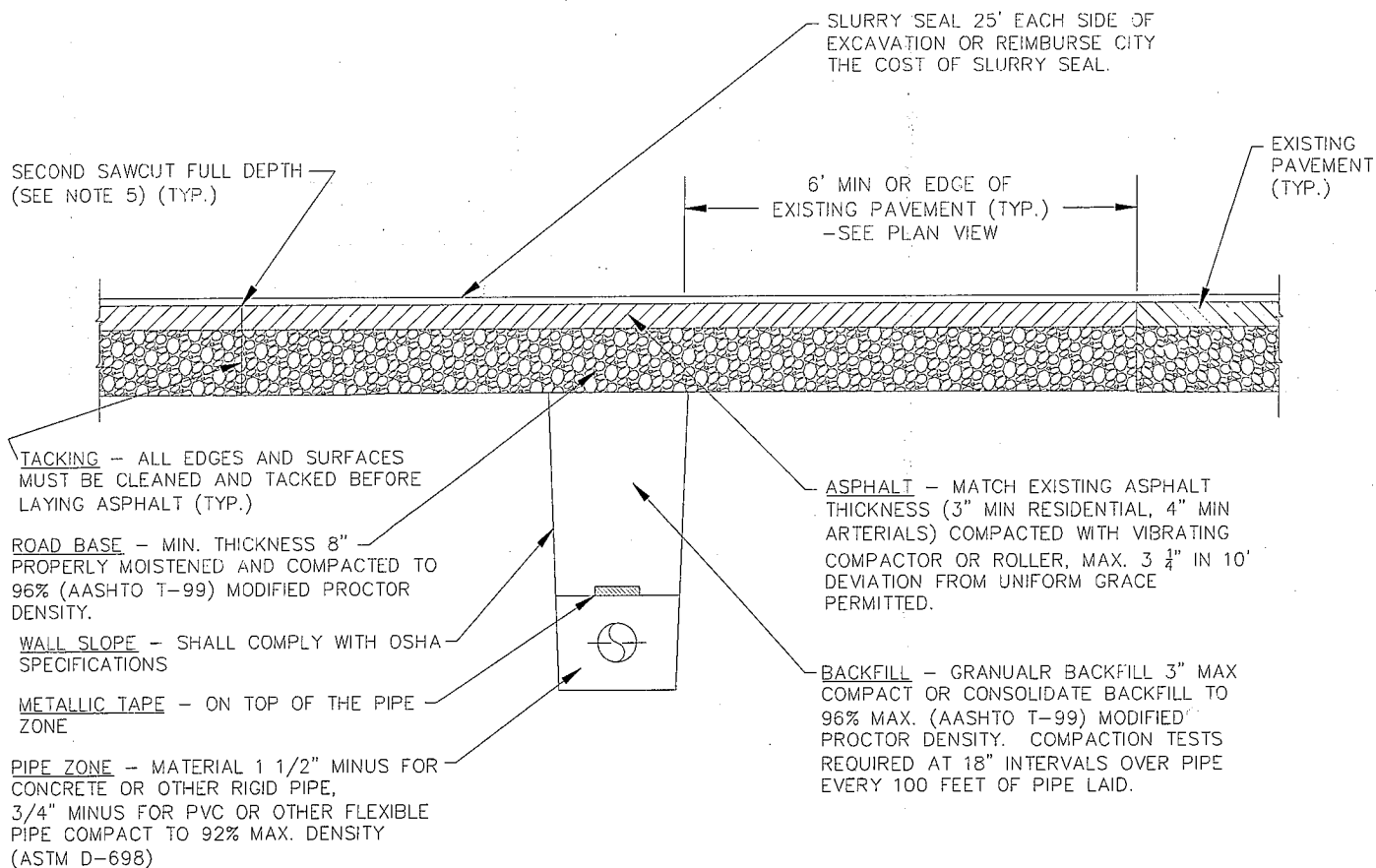
(FOR CUTS IN STREETS PAVED, OVERLAYED, OR SLURRED MORE THAN THREE YEARS PRIOR TO CUT.)

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SETP/2011

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STANDARD\STREETS

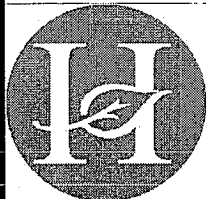
DRAWING NUMBER

ST-11A



**NOTES:**

1. REQUIRED ROADBASE AND BACKFILL MUST BE AT JOB SITE BEFORE EXCAVATION BEGINS.
2. APPLICANT MUST PROVIDE PROCTORS AND DENSITY TESTING RESULTS GENERATED BY AN INDEPENDENT TESTING COMPANY AS PROOF OF COMPLIANCE.
3. NO CUTS WILL BE ALLOWED IN STREETS PAVED, OVERLAYED, WITHIN THE PREVIOUS THREE YEARS EXCEPT AS APPROVED BY THE CITY FOR EMERGENCY REPAIRS, IN WHICH CASE PAVEMENT REPAIR DETAIL "B" MUST BE USED.
4. ADDITIONAL PAVEMENT REMOVAL: REMOVE ADDITIONAL PAVEMENT TO A PAINTED LANE STRIPE, A LIP OF GUTTER, A CURB, AN EXISTING PAVEMENT PATCH, OR AN EDGE OF THE PAVEMENT IF SUCH A FEATURE IS WITHIN 2- FEET OF THE SECOND SAW-CUT. IF MORE THAN 50' OF THE PERMANENT SURFACING OF A TRAVELED LANE IS IMPACTED BY THE EXCAVATION, THE ENTIRE LANE WIDTH SHALL BE SAWCUT, REMOVED, AND REPLACED. JAGGED, SAW TOOTH EDGES ARE NOT ALLOWED.
5. JOINT REPAIR - IF A CRACK OCCURS AT THE "T" PATCH CONNECTION TO EXISTING PAVEMENT, CRACK MUST BE CRACK SEALED.



**STANDARD DETAILS**

**PAVEMENT REPAIR DETAIL 'B'**

(FOR APPROVED EMERGENCY CUTS IN STREETS PAVED, SLURRIED OR OVERLAYED WITHIN THE PREVIOUS THREE YEARS.)

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STANDARD\STREETS

DRAWING NUMBER

ST-11B

NEW ASPHALT  
MATCH EXISTING ASPHALT THICKNESS  
PLUS 1" (4" MIN, 6" MAX)

EXISTING ASPHALT

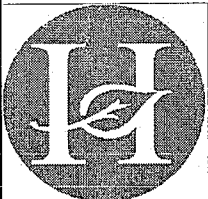
18" MIN

ROAD BASE - 8" MIN  
COMPACTED TO 96%  
(AASHTO T-99) MODIFIED PROCTOR

ST-2 CURB AND GUTTER  
MIN SLOPE = 1/2%

\*SLOPE = 1/2% MIN - 4% MAX

TACK



**STANDARD DETAILS**  
**PAVEMENT REPAIR DETAIL 'C'**  
(CURB AND GUTTER CONSTRUCTION)

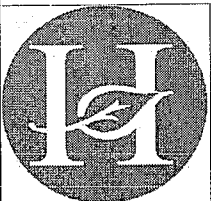
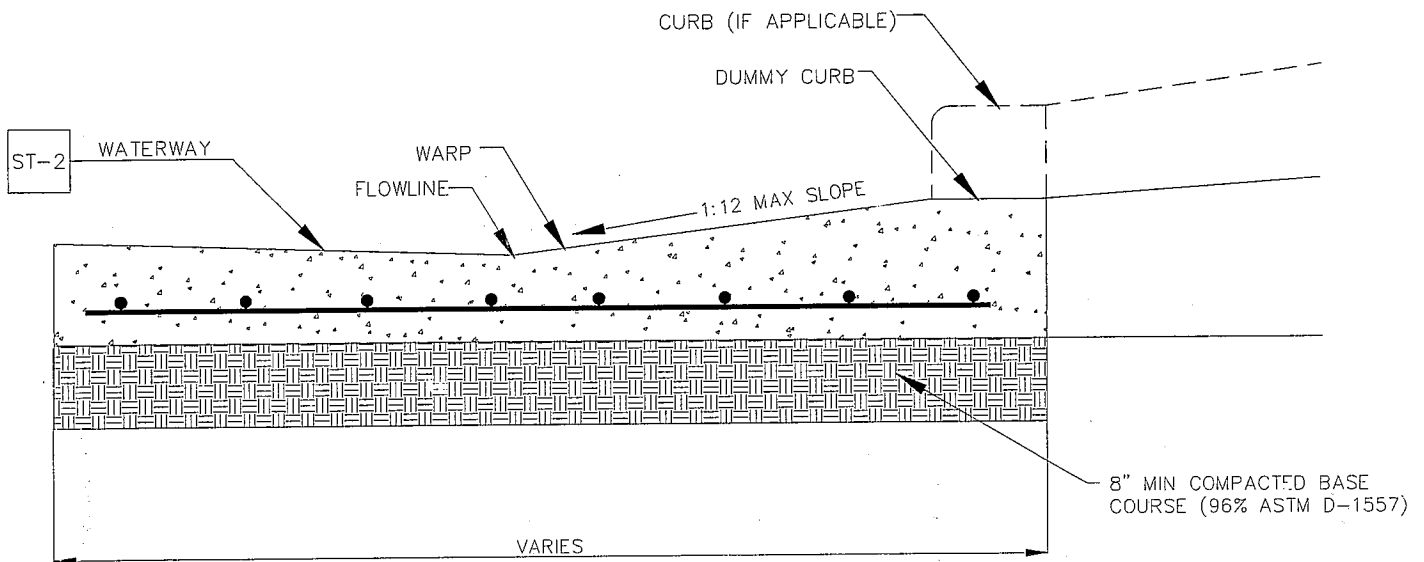
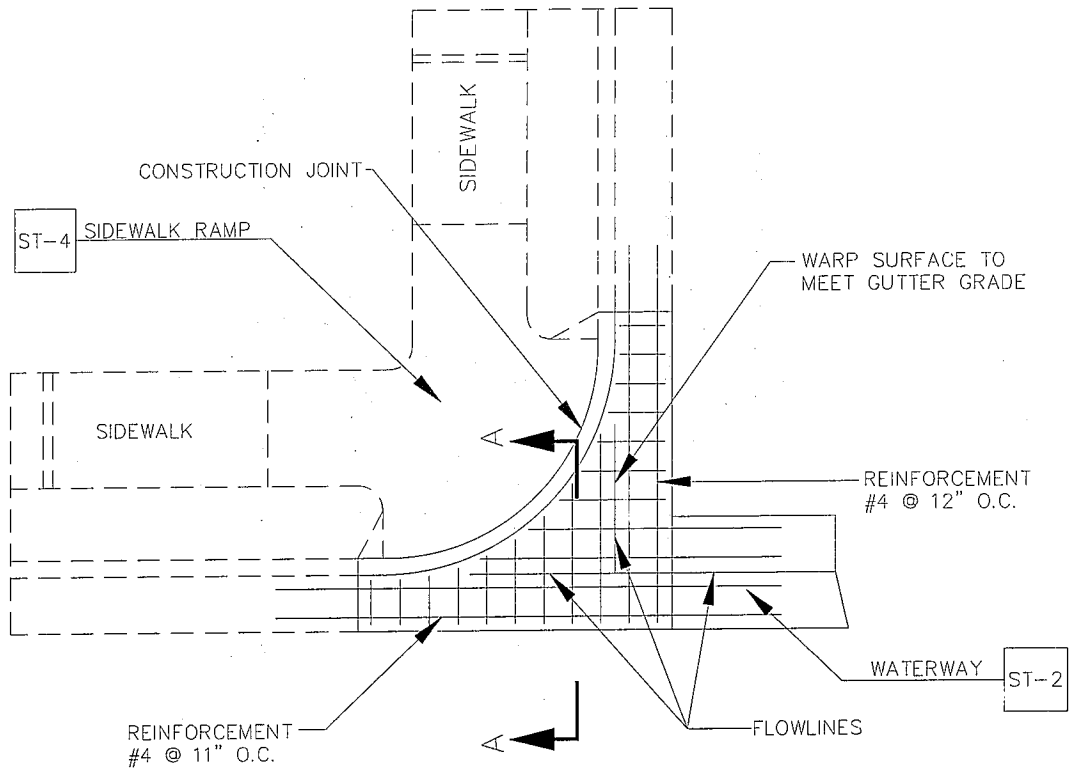
DATE  
SETP/2011

FILE NUMBER  
STANDARD\STREETS

DRAWING NUMBER

ST-11C





STANDARD DETAILS

WATERWAY TRANSITION STRUCTURE

DATE  
SE TP /2011

FILE NUMBER  
STANDARD \STREETS

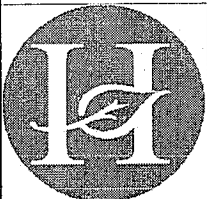
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ST-12

# ***STANDARD STORM DRAIN DETAILS***

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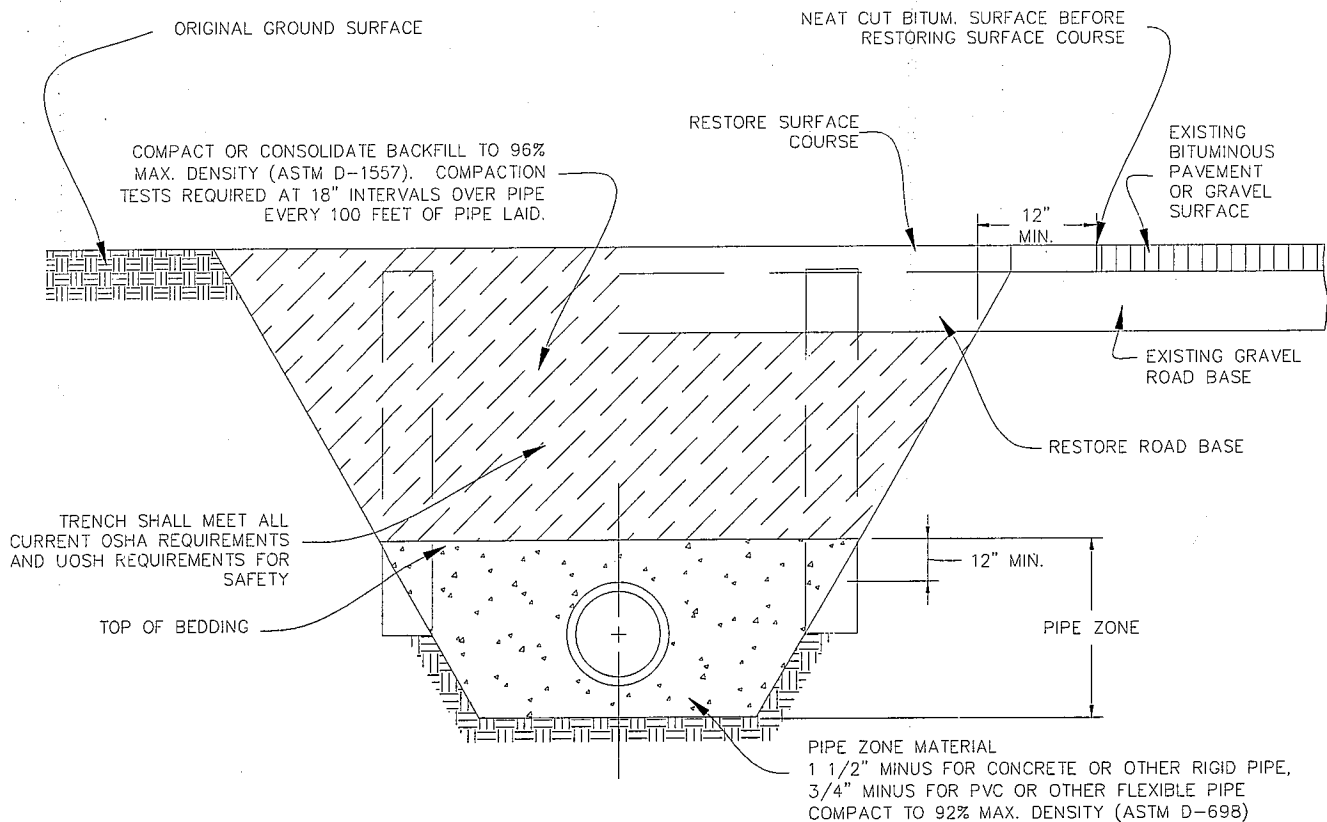


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STANDARD\STORM DRAIN

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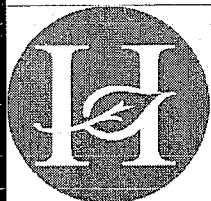
SD-0



CROSS-SECTION: TYPICAL TRENCH

NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL OF THE REQUIREMENTS ESTABLISHED FOR SAFE TRENCHING. (SEE OSHA AND UOSH REQUIREMENTS, LATEST EDITIONS).
2. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE LAYING PIPE WITHIN 50' OF SAID UTILITIES WHICH MAY BE EXPOSED, DAMAGED OR CROSSED AS SHOWN ON THE DRAWINGS. ALL PROJECT SITES SHALL BE "BLUE STAKED" PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL MAKE ARRANGEMENTS WITH THE UTILITY COMPANY TO MOVE THE UTILITY IF NECESSARY OR OBTAIN PERMISSION FROM THE PROJECT ENGINEER TO MODIFY GRADE OF PIPELINE IN ORDER TO GO AROUND UTILITIES.
3. TESTING: ALL NEW STORM DRAINS TO BE "VIDEOED" AND NECESSARY REPAIRS MADE BEFORE ACCEPTANCE. A MANDRAL OR BALL CAN BE USED TO VERIFY DEFORMATION OF A PIPE AS DETERMINED FROM THE VIDEO.



STANDARD DETAILS

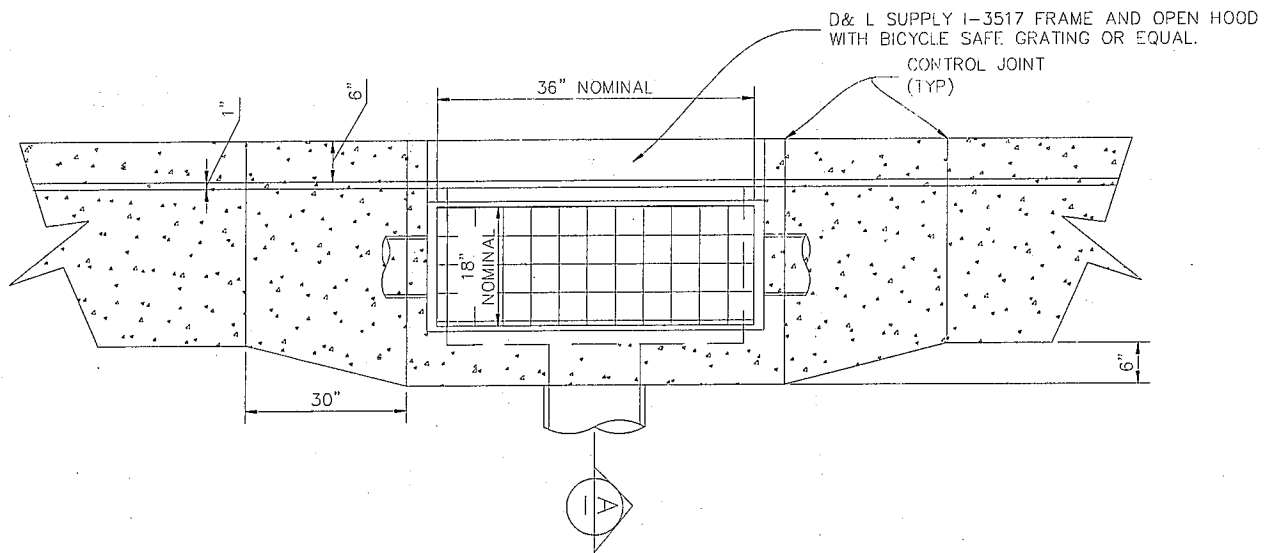
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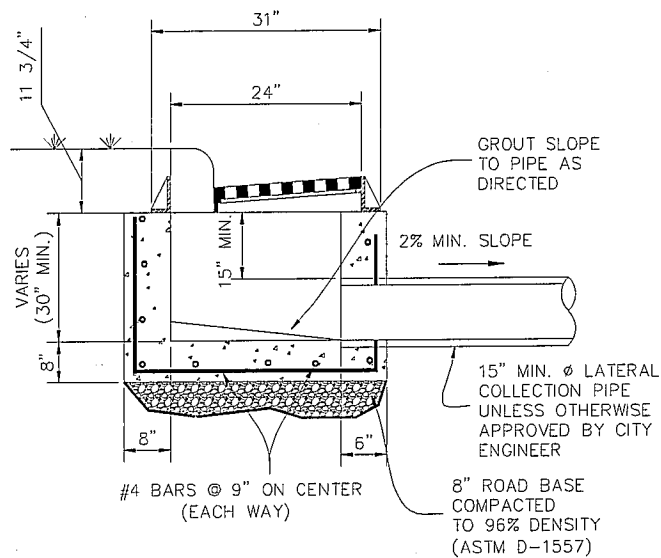
SD-1

DATE  
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STANDARD\STORM DRAIN



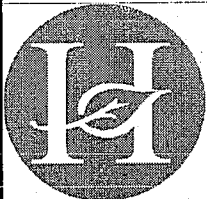
PLAN



SECTION "A"  
(INLET BOX ONLY)

NOTE:

1. DETAILS HERE ARE FOR "CAST IN PLACE" BOX.
2. PRE-CAST BOXES WILL BE ACCEPTED.
3. BOXES AND GUTTINGS MUST BE DESIGNED FOR WATER  
VEHICLE LOADING.



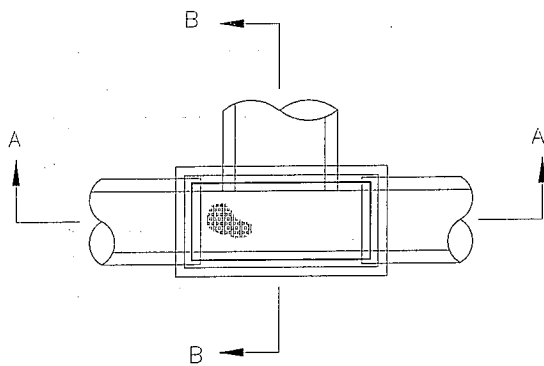
STANDARD DETAILS  
STANDARD GUTTER INLET  
BOX DETAILS

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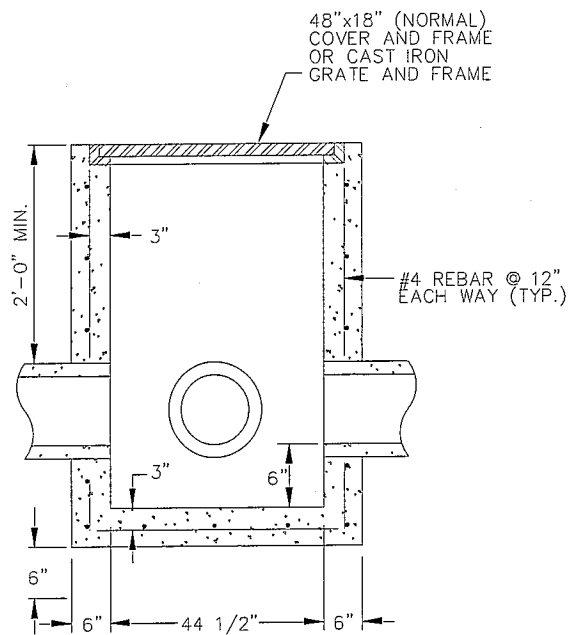
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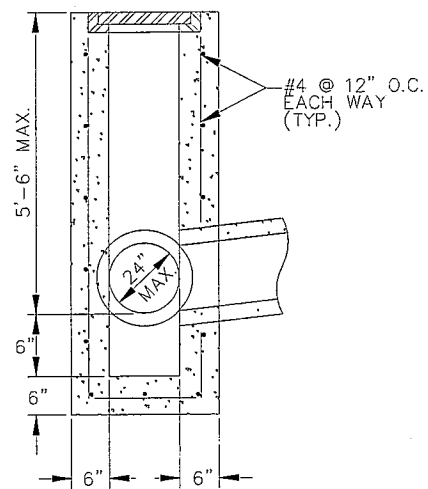
SD-2



PLAN VIEW



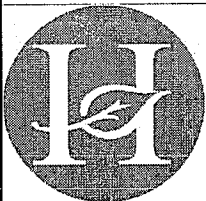
SECTION A-A



SECTION B-B

**NOTE:**

PRECAST BOX MAY  
BE USED IN LIEU OF  
CAST-IN-PLACE.



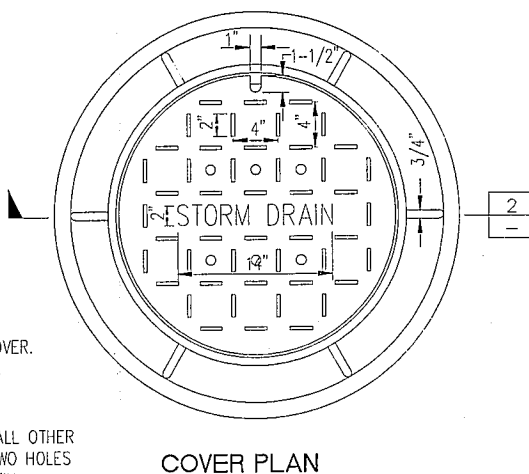
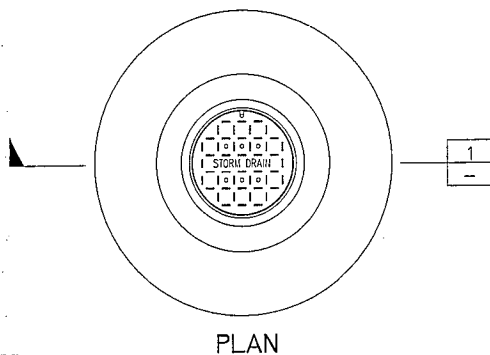
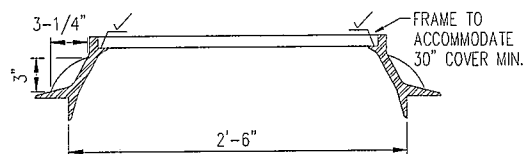
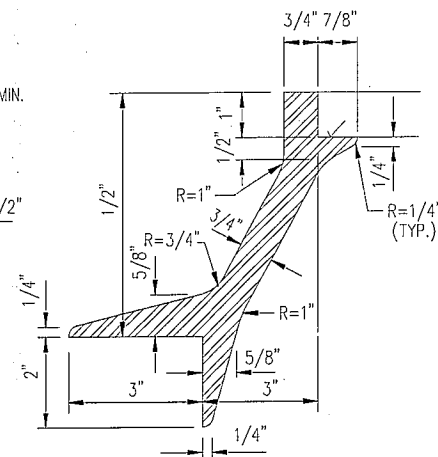
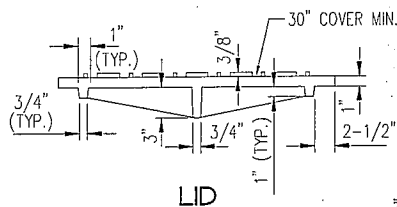
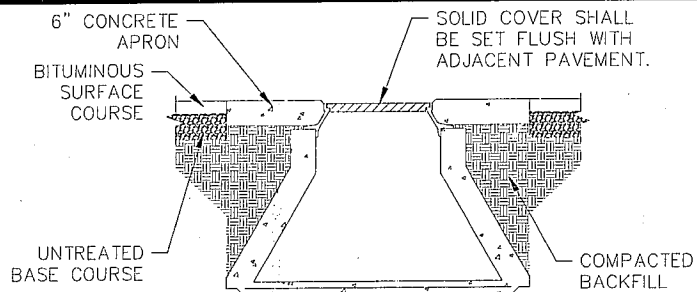
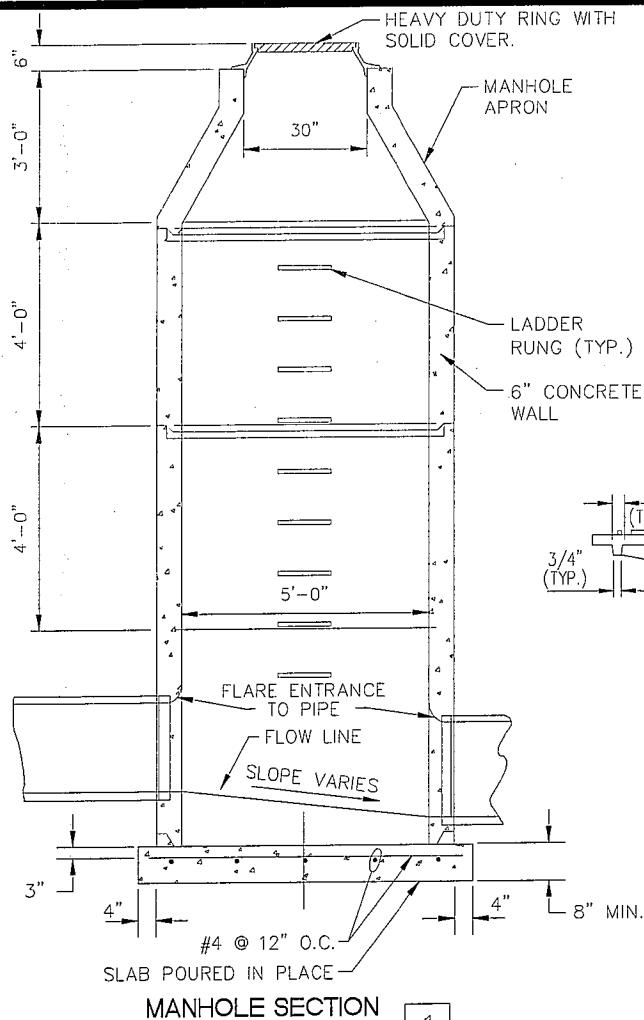
**STANDARD DETAILS**  
**STORM DRAIN CLEAN OUT /**  
**INLET BOX DETAIL**

DATE  
SEP / 2011

FILE NUMBER  
STANDARD \ STORM DRAIN

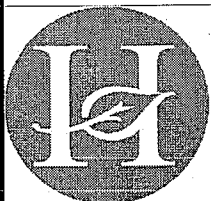
DRAWING NUMBER

SD-3



#### NOTES:

1. MAKE THE MANHOLE FRAME AND COVER OF GRAY CAST IRON, CONFORMING TO THE LATEST A.S.T.M. STANDARD A 48, CLASS 30 OR BETTER.
2. COAT ALL PARTS OF THE MANHOLE FRAME AND COVER, EXCEPT MACHINED SURFACES, WITH ASPHALTUM PAINT.
3. CAST THE WORDS "STORM DRAIN" ON COVER.
4. PLACE FOUNDARY MARK AND HEAT NUMBER ON THE INSIDE OF THE FRAME AND ON THE BOTTOM OF COVER.
5. MAKE SURFACE OF THE WORDS "STORM DRAIN" FLUSH WITH THE FINISHED LUG SURFACE OF THE COVER.
6. GIVE MANHOLE FRAME AND COVER A MACHINE FINISH SUCH THAT IT SHALL NOT ROCK.
7. ✓ DESIGNATES MACHINED SURFACE.
8. PROVIDE COVERS FOR MANHOLES LOCATED IN RIGHT-OF-WAY EASEMENT, ALLEYS, PARKING LOTS, AND ALL OTHER PLACES EXCEPT PAVED STREETS, WITH ALLEN SOCKET SET SCREW LOCKING DEVICES. DRILL AND TAP TWO HOLES TO A DEPTH OF 1" AT 90° TO PICK HOLE AND INSTALL 3/4" X 3/4" ALLEN SOCKET SET SCREWS THEREIN.



### STANDARD DETAILS

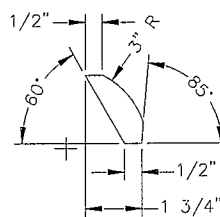
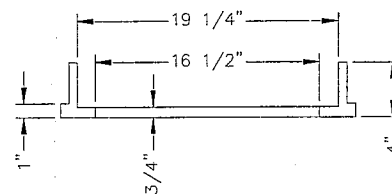
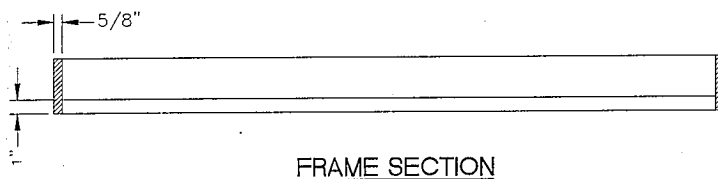
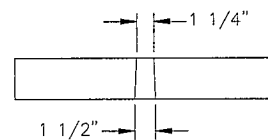
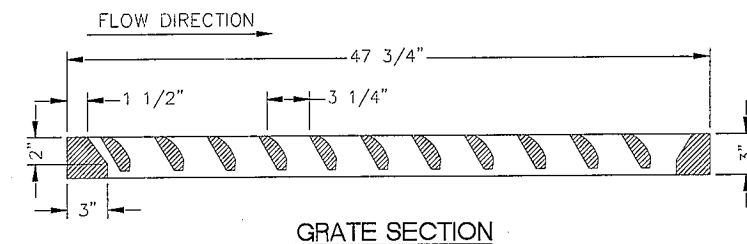
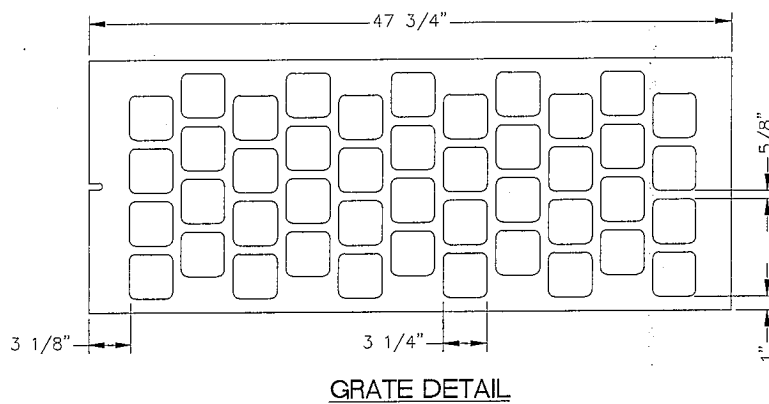
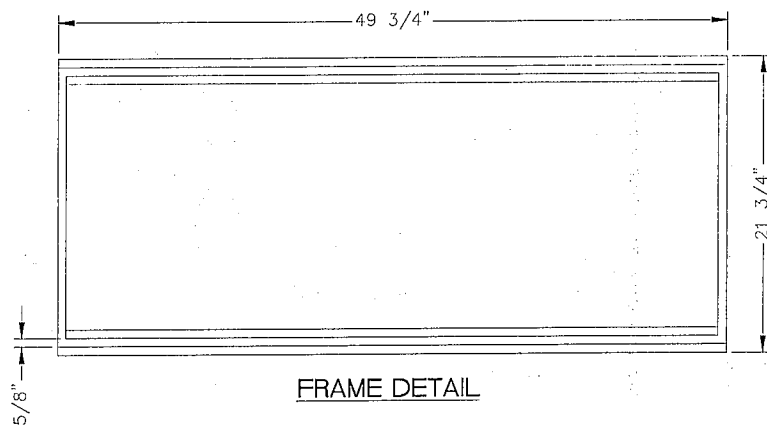
### STORM DRAIN MANHOLE DETAIL

DRAWING NUMBER

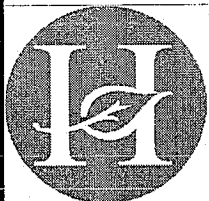
SD-4

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SEP/2011

FILE NUMBER  
STANDARD\STORM DRAIN



VANE DETAIL



STANDARD DETAILS

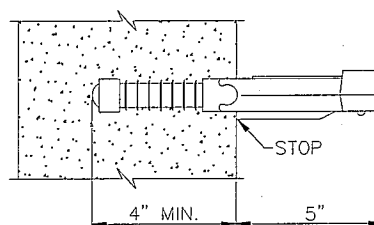
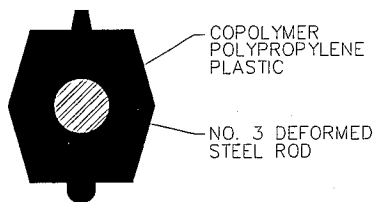
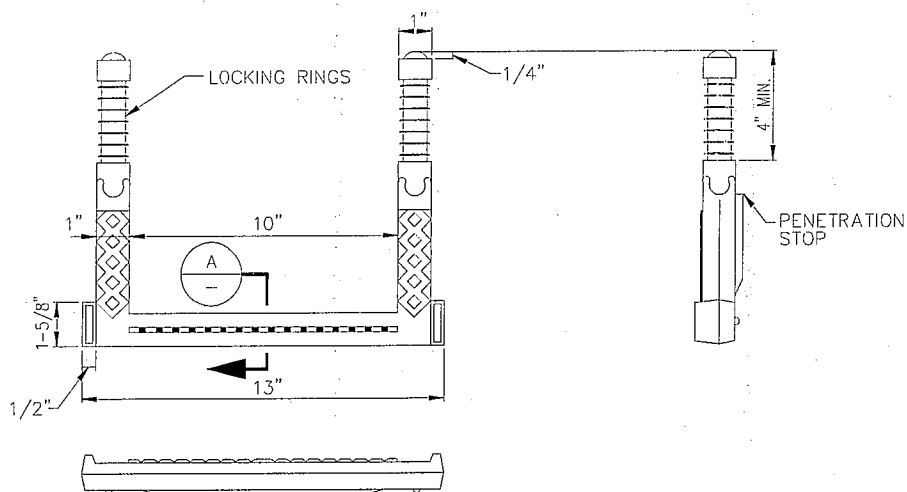
FRAME AND GRATE DETAIL

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SEP/2011

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STANDARD\STORM DRAIN

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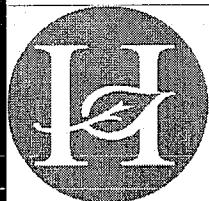
SD-5



SECTION A-A

**NOTES:**

1. ALL MANHOLE STEPS SHALL PROTRUDE 5" FROM INSIDE FACE OF THE STRUCTURE WALL AND SHALL BE EMBEDDED A MINIMUM OF 4" INTO THE STRUCTURE WALL.
2. MANHOLE STEPS SHALL BE CAPABLE OF WITHSTANDING A SINGLE CONCENTRATED LOAD OF 300 POUNDS APPLIED AT A DISTANCE OF 5" FROM THE FACE OF THE STRUCTURE WALL.
3. STEPS ARE TO BE VERTICALLY ALIGNED AND UNIFORMLY SPACED WITH A MINIMUM SPACING OF 12" AND A MAXIMUM SPACING OF 16" UNLESS SHOWN OTHERWISE ON STRUCTURE PLANS.
4. MANHOLE STEPS MAY BE CAST-IN-PLACE, OR GROUTED INTO STRUCTURE WALL IN SUCH A MANNER AS TO PREVENT PULLOUT UNDER A LOAD OF 300 POUNDS APPLIED 5" FROM THE FACE OF THE STRUCTURE WALL.
5. STEEL REINFORCING OF MANHOLE STEPS SHALL CONFORM TO ASTM DESIGNATION A-615, GRADE 60. PLASTIC COATING OF MANHOLE STEPS SHALL CONFORM TO ASTM DESIGNATION D-2146, TYPE II GRADE 16906.
6. DIMENSIONS SHOWN MAY VARY ACCORDING TO MANUFACTURERS DESIGN.



STANDARD DETAILS

LADDER RUNG DETAIL

DRAWING NUMBER

SD-6

DATE  
SEP/2011

FILE NUMBER  
STANDARD\STORM DRAIN



## 14.16.110: RESTORATION OF PUBLIC PROPERTY:

A. Required; Standards And Specifications: The permittee and any other person making any excavation or tunnel in or under any public way shall, at its own expense, restore the surface of any public way to its original condition and replace any removed or damaged pavement with the same type and depth of pavement as that which is adjoining, including the gravel base material. Refills shall be properly tamped down, and any bracing in such tunnel or excavation shall be left in the ground. All restoration shall conform to the engineering design and construction standards and specifications required in this chapter or otherwise adopted by the department and shall be accomplished within the time limits set forth in the permit, unless additional time is granted in writing by the department. There shall be a penalty for each day after the time limits set forth in the permit that restoration is not accomplished. (Ord. 08-18, 7-17-2008; amd. Ord. 2010-27, 12-9-2010)

B. Responsibility Of Permittee: If, within the preceding three (3) years, the pavement to be excavated has been: 1) paved or repaved with asphalt, then the permittee shall be responsible for replacing the entire width of the excavated distance of six feet (6') from each side of the asphalt thickness plus one inch (1"), but in no inches (6"); and slurry seal the entire width of road edge to road edge and to a distance of excavation; or 2) resurfaced with slurry seal restoration obligations under this chapter, then the entire width of the pavement surrounding to a distance of twenty five feet (25') from ea

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Scottmaster  
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C. Suspension Of Operations: The director of th operations  
under excavation permits where, in his opini e adopted  
by the American Association Of State Highway And Transportation Engineers (TO),  
climatic changes would prevent proper restoration of pavement surfaces.

D. Failure To Comply: If the permittee fails to restore the surface of any public right of way to its original condition in accordance with the standards required in this chapter, the department may authorize and employ the necessary assistance to restore the surface to its original condition. The permittee promptly shall pay all expenses incurred to restore the surface. The department shall prepare an itemized statement of all expenses incurred in such restoration and shall deliver a copy thereof to the permittee and/or the bondholder.

E. Guarantee Term: All work by a permittee to restore the surface of any public right of way to its



## **14.20.040: OBSTRUCTING TRAFFIC ON SIDEWALK, CURB RAMP OR HIGHWAY PROHIBITED:**

A. Obstructions: It is unlawful to construct, place, keep or maintain upon or across any sidewalk, curb ramp or highway in the city any open ditch, flume, conduit, waterway, headgate, log, building material, vehicle, railway, or other obstruction; provided, building materials, vehicles or objects may be placed temporarily in such manner on public highways as not to impede, endanger or obstruct ordinary traffic, but no such building material, vehicles or other objects shall be permitted to remain on such highway contrary to instructions from the city. It is unlawful to pile any dirt or other material, or make any other defacement on any sidewalk, curb ramp or highway so as to interfere with the ordinary use thereof.

B. Animals Or Other Objects: It is unlawful to drive or place any vehicle, animal or other object upon or along any sidewalk, curb ramp or highway or to permit the same to remain thereon in a manner likely to impede or obstruct the ordinary use thereof. (1999 Code)