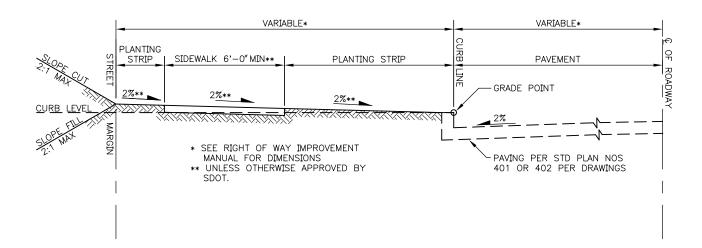
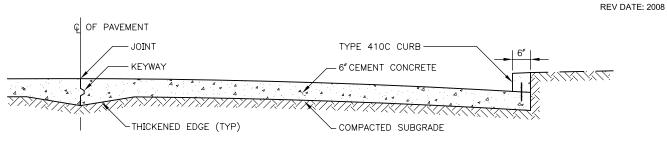
REV DATE: 2008

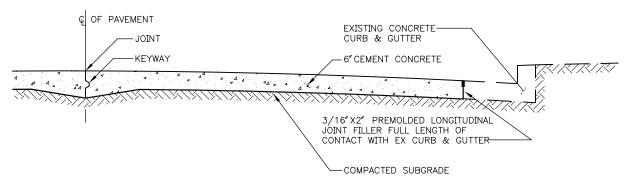


REF STD SPEC SEC 2-03

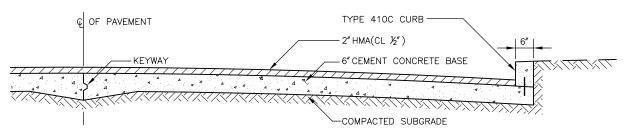




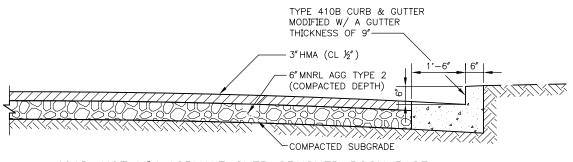
401A-CEMENT CONCRETE PAVEMENT WITH INTEGRAL CURB



401B-CEMENT CONCRETE PAVEMENT WITH EXISTING CURB & GUTTER



### 401C-HOT MIX ASPHALT ON CEMENT CONCRETE BASE



### 401D-HOT MIX ASPHALT OVER CRUSHED ROCK BASE

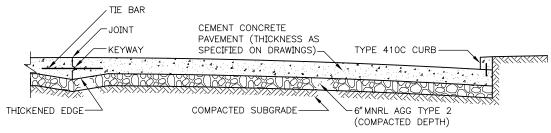
### NOTES:

- CONC CL 6 (11/2) UNLESS OTHERWISE SPECIFIED ON DRAWINGS
- FOR JOINT DETAILS, SEE STD PLAN NO 405
- 3 MILLION EASL'S UNLESS OTHERWISE SPECIFIED ON DRAWINGS
- USE ASPHALT PG 64-22 UNLESS OTHERWISE SPECIFIED ON DRAWINGS

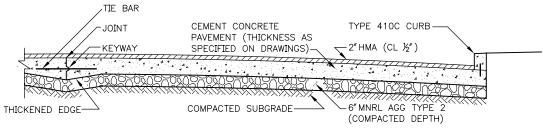
REF STD SPEC SEC 4-04, 5-04, 5-05 & 8-04



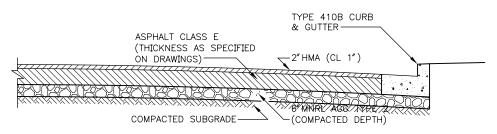
RESIDENTIAL PAVEMENT NOT TO SCALE **SECTIONS** 



### 402A-CEMENT CONCRETE PAVEMENT ON CRUSHED ROCK



### 402B-HOT MIX ASPHALT ON CEMENT CONCRETE ON CRUSHED ROCK



### 402D-HOT MIX ASPHALT ON CRUSHED ROCK BASE

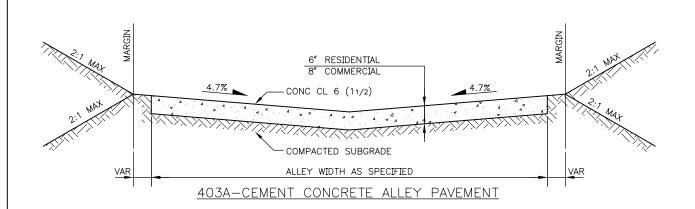
### NOTES:

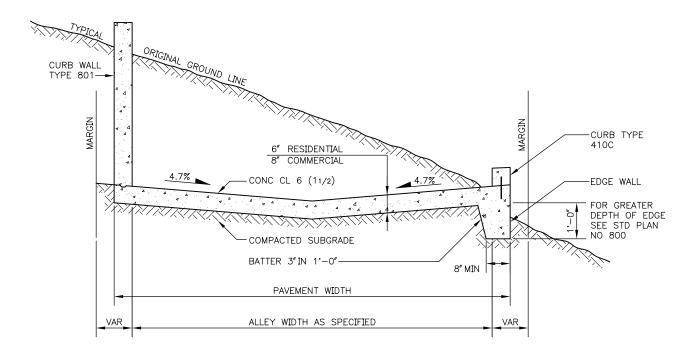
- 1. PAVEMENT WIDTH AND THICKNESS AS SPECIFIED ON DRAWINGS
- 2. CONC CL 6.5 (11/2) UNLESS OTHERWISE SPECIFIED ON DRAWINGS
- 3. TIE BARS AND DOWELL BARS ARE REQUIRED FOR CEMENT CONCRETE PAVEMENT AND BASE (SEE STD PLAN NO 405)
- 4. FOR THICKENED EDGE AND JOINT DETAILS, SEE STD PLAN NO 405
- 5. 10 MILLION ESAL'S UNLESS OTHERWISE SPECIFIED ON DRAWINGS
- 6. USE ASPHALT PG 64-22 UNLESS OTHERWISE SPECIFIED ON DRAWINGS

REF STD SPEC SEC 4-04, 5-04, 5-05 & 8-04



COMMERCIAL AND
ARTERIAL PAVEMENT
SECTIONS





### CEMENT CONCRETE ALLEY PAVEMENT 403B-FOR SHALLOW EMBANKMENT AREA

### **NOTES:**

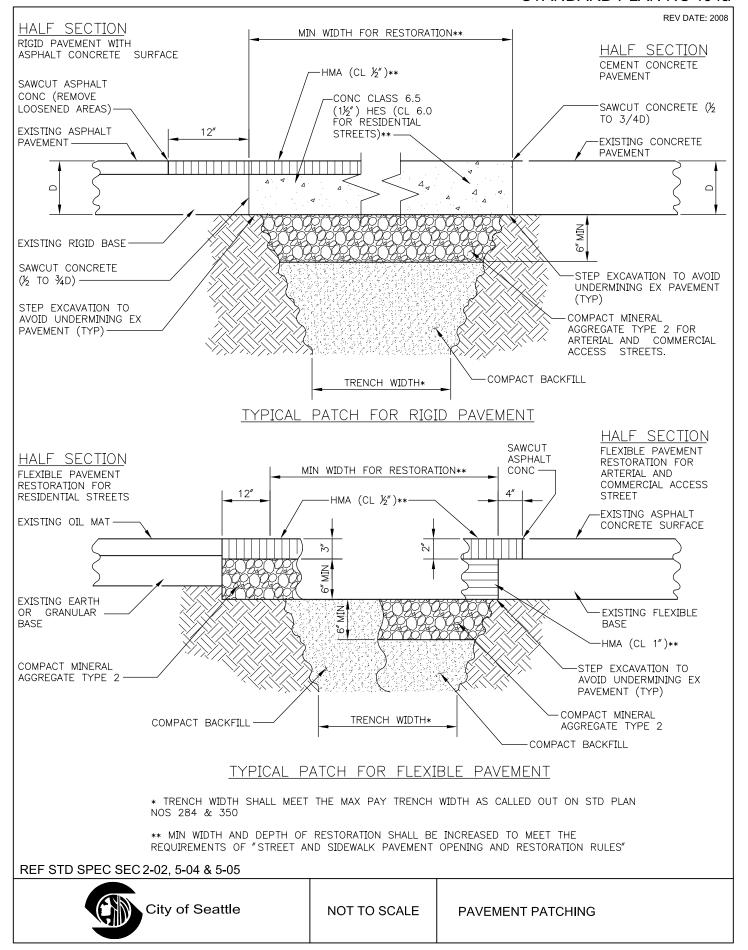
- 1. WHEN ALLEY PAVEMENT IS 16'-0" OR WIDER PLACE CONSTRUCTION JOINT TYPE II PER STD PLAN NO 405 ALONG CENTERLINE OF ALLEY
- 2. CONC CL 6(11/2)
- 3. SPECIFIC APPLICATION OF THIS STANDARD PLAN SHALL CONSIDER ADA ACCESSIBLE ROUTE FOR ENTIRE ALLEY

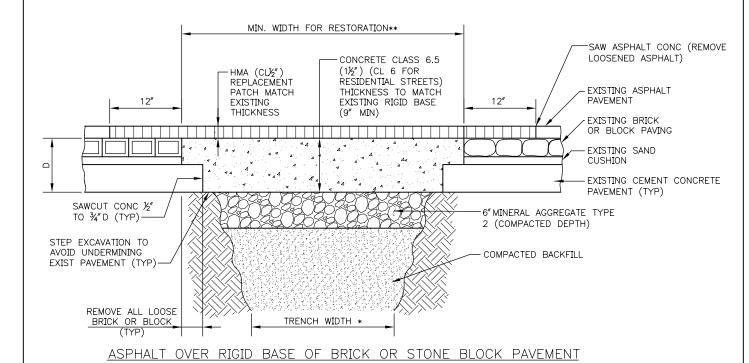
### **REF STD SPEC SEC 5-05**



CEMENT CONCRETE ALLEY **PAVEMENTS** 

### STANDARD PLAN NO 404a





### NOTES:

- WHEN A STONE OR BRICK PAVEMENT IS OVERLAYED WITH HMA. THE STREET SURFACE PAVEMENT BECOMES AN ASPHALT CONC STREET OVER RIGID BASE
- IF A STONE OR BRICK PAVEMENT IS NOT OVERLAYED, THE METHOD OF RESTORATION IS IN KIND
- \* MIN. TRENCH WIDTH SHALL MEET THE MAX PAY TRENCH WIDTH AS
- CALLED OUT ON STD PLAN NOS. 284 & 350

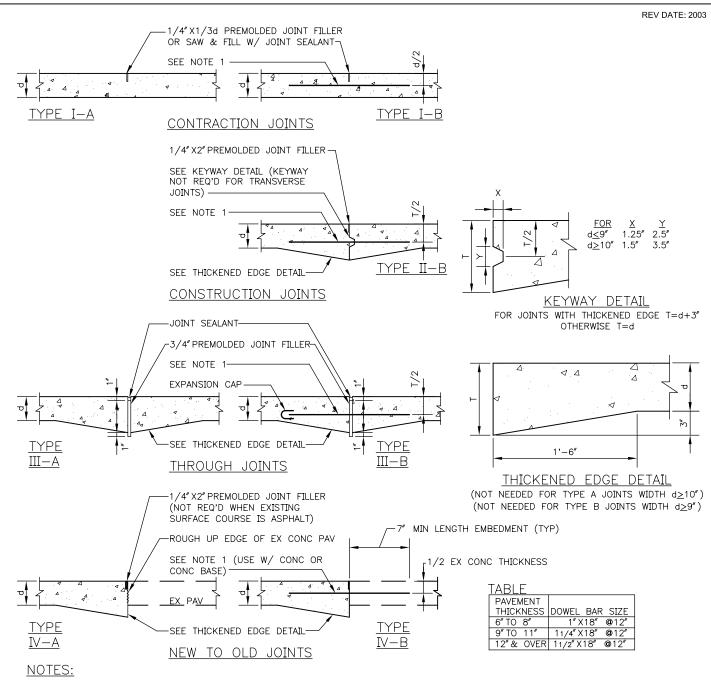
  \*\* ACTUAL WIDTH AND DEPTH OF RESTORATION SHALL MEET REQUIREMENTS OF "STREET AND SIDEWALK PAVEMENT OPENING AND RESTORATION RULES"

REF STD SPEC SEC 2-02, 5-04 & 5-05



NOT TO SCALE

PAVEMENT PATCHING



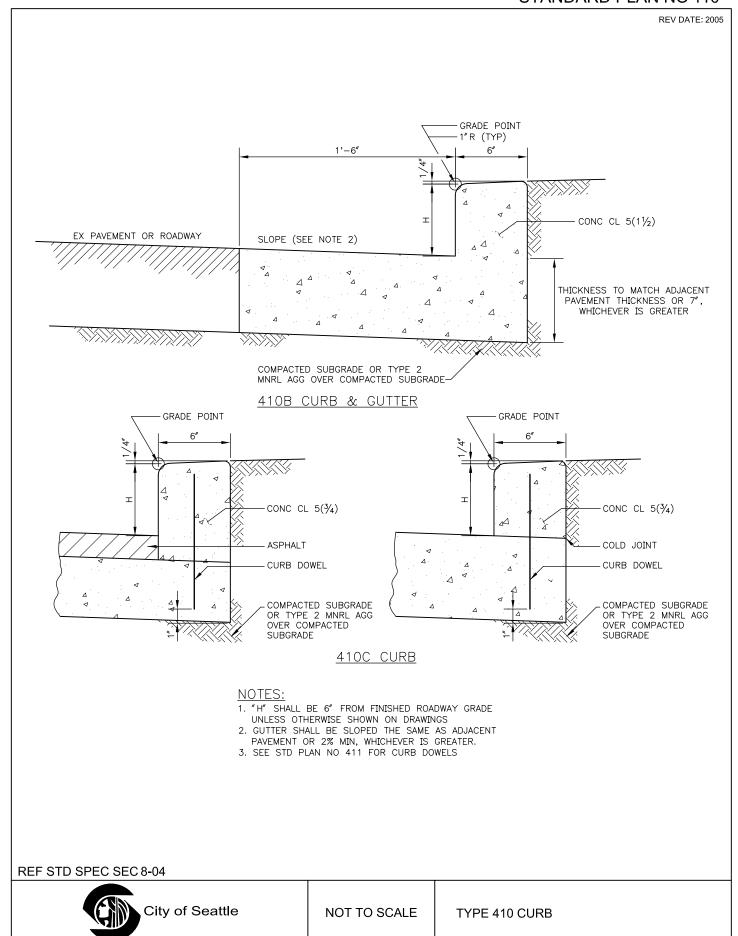
- 1. WHERE REQUIRED AT LONGITUDINAL JOINTS, TIE BARS SHALL BE 5/8"X2'-6" @ 3'-0", DEFORMED GRADE 40 OR BETTER, EPOXY COATED. WHERE REQUIRED AT TRANSVERSE JOINTS, DOWEL BARS SHALL BE SIZED AS SHOWN IN THE TABLE, SMOOTH ROUND GRADE 60 OR BETTER, EPOXY COATED AND GREASED
- 2. LONGITUDINAL JOINT SPACING SHOULD NOT EXCEED 15'-6"(TO BACK OF CURB). TRANSVERSE JOINT SPACE SHALL NOT EXCEED 15'-0". THE AREA OF THE PANEL SHALL NOT EXCEED 225 SQUARE FEET
- 3. JOINT OFFSETS AT RADIUS POINTS SHOULD BE AT LEAST 1'-6"LONG
- 4. JOINT INTERSECTION ANGLES OF LESS THAN 60 DEGREES SHALL BE USED
- 5. WHEN A JOINT IS CLOSER THAN 1'-0"TO A CASTING, THEN A MINOR ADJUSTMENT IN THE JOINT LOCATION SHOULD BE MADE BY SKEWING OR SHIFTING THE JOINT ALIGNMENT TO MEET THE CASTING AT 90° OR NORMAL TO THE CASTING.
- 6. WHERE POSSIBLE, LONGITUDINAL JOINTS SHOULD MATCH LANE MARKINGS
- 7. LONGITUDINAL JOINTS ARE TO BE CONSTRUCTION JOINTS UNLESS PAVED BY MACHINE CAPABLE OF PLACING AND FINISHING CONCRETE FOR TWO OR MORE PANEL WIDTHS (IN WHICH CASE A CONTRACTION JOINT IS ALLOWED)
- 8. DOWEL BARS SHALL NOT BE PLACED WITHIN 1'-O' OF THE EDGE OF PAVEMENT OR A PARALLEL JOINT

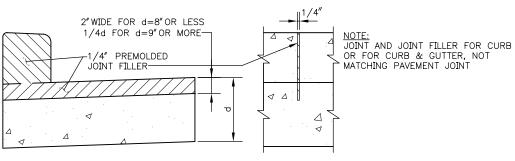
### **REF STD SPEC SEC 5-05 & 6-02**



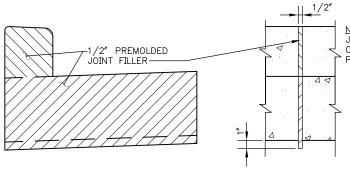
NOT TO SCALE

TYPES OF JOINTS FOR CONCRETE PAVEMENT



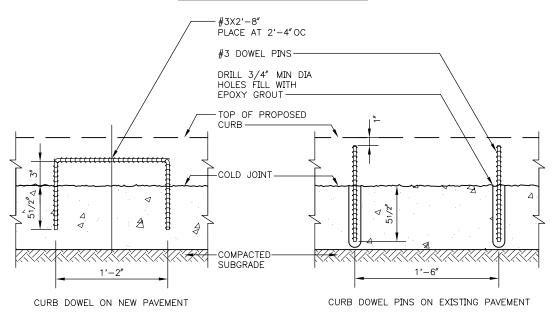


# CONTRACTION JOINT FOR CURB OR CURB & GUTTER



NOTE:
JOINT AND JOINT FILLER FOR CURB
OR FOR CURB & GUTTER, MATCHING
PAVEMENT JOINT

# THROUGH JOINT FOR CURB OR CURB & GUTTER



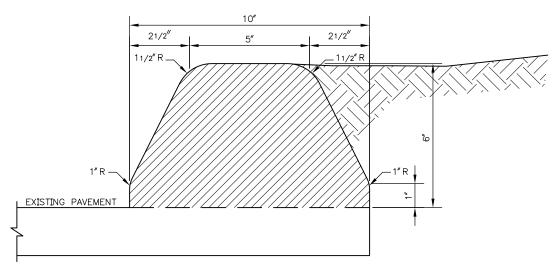
DOWELS FOR DOWELLED CURB CONSTRUCTION

### **REF STD SPEC SEC 6-02 & 8-04**

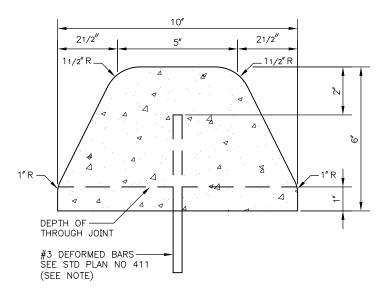


NOT TO SCALE

**CURB JOINTS & DOWELS** 



### EXTRUDED ASPHALT CONCRETE CURB



### EXTRUDED CEMENT CONCRETE CURB

### NOTE:

ALTERNATELY, THE USE OF EPOXY BONDING AGENT, IN PLACE OF #3 DEFORMED BARS, WILL BE ALLOWED.

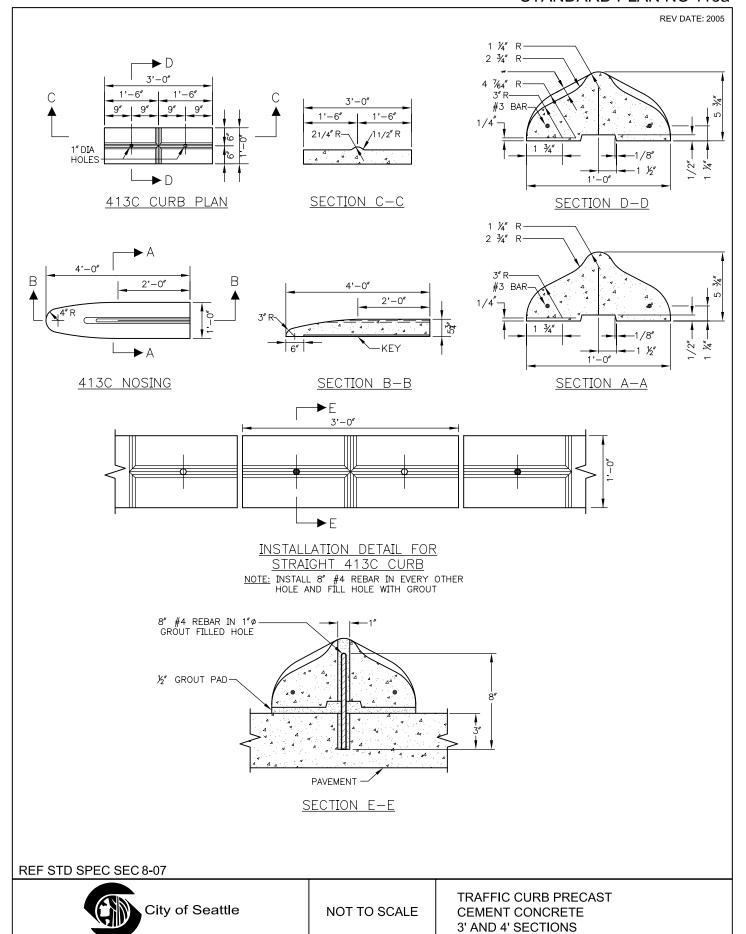
REF STD SPEC SEC 8-06



NOT TO SCALE

**EXTRUDED CURB** 

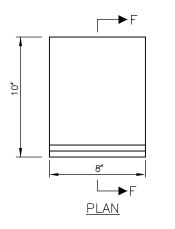
### STANDARD PLAN NO 413a

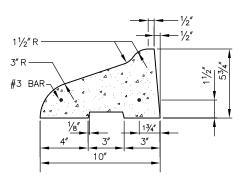


### STANDARD PLAN NO 413b



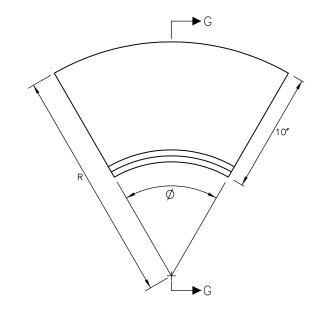
REV DATE: 2005





SECTION F-F

8" STRAIGHT 413A CURB



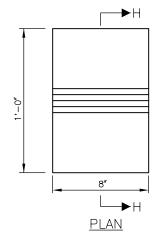
- 1/2" 1½"R 3" R -#3 BAR 13/4" 10″ SECTION G-G

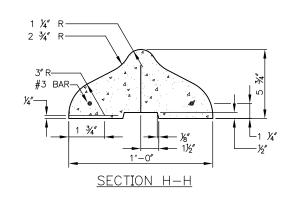
- 1/2"

413 A RADIAL CURB							
UNIT	RADIUS	CURB RETURN					
		ANGLE(Ø)MULTIPLE					
R1	1'- 3"	45°00'					
R2	1'-10"	30°00'					
R3	2'- 6"	22°30'					
R4	5'- 0"	11°27.54'					
R5	10'- 0"	5°43.77'					
FOR RADII GREATER THAN 10'-0"							
USE SEGMENTS OF STRAIGHT CURB							

413A RADIAL CURB

RADIUS CURB TABLE



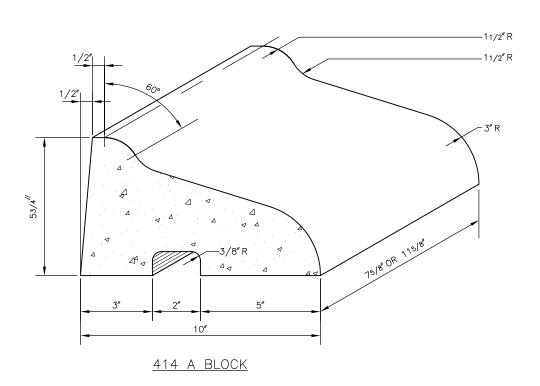


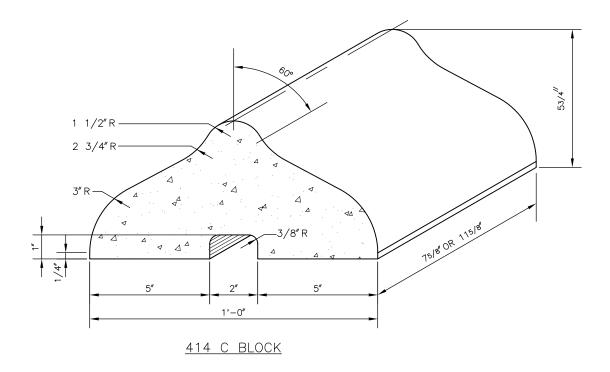
REF STD SPEC SEC 8-07



NOT TO SCALE

TRAFFIC CURB PRECAST **CEMENT CONCRETE** 8" SECTION AND RADIAL

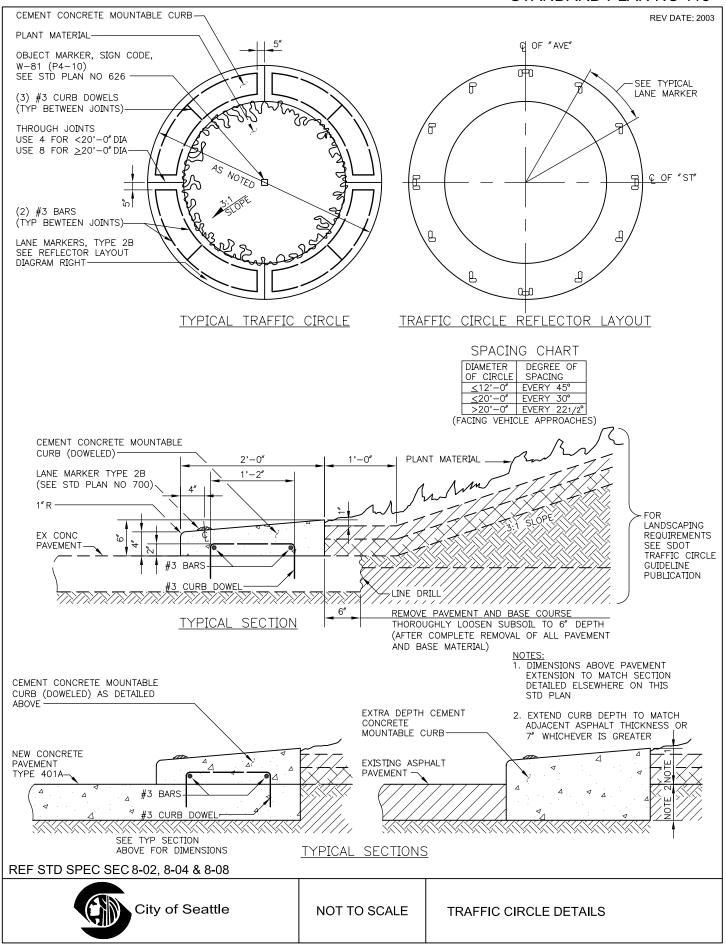


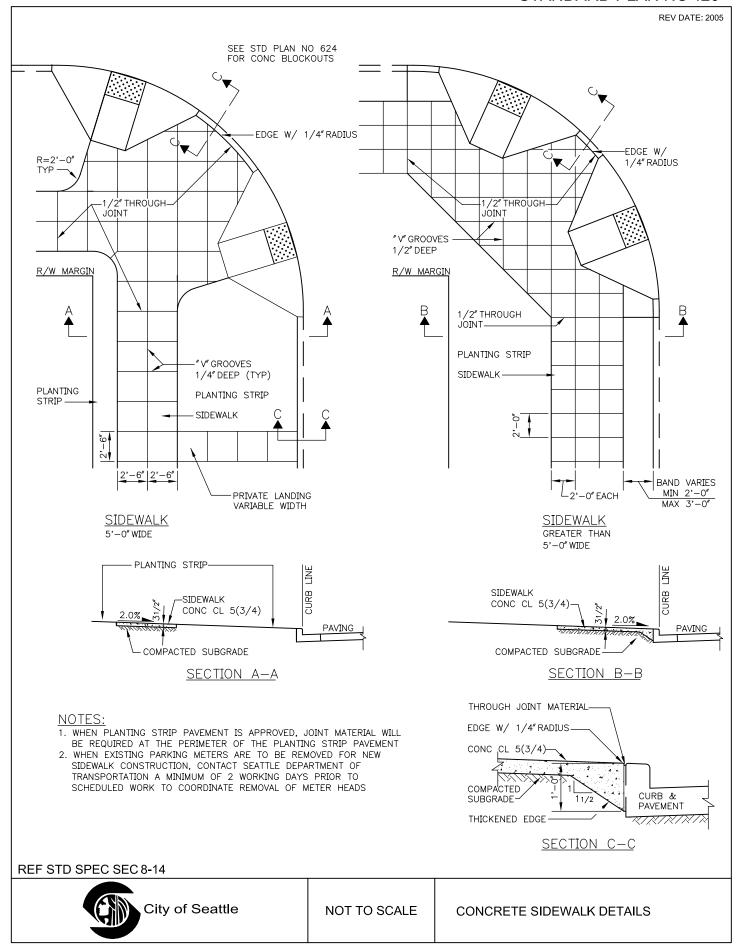


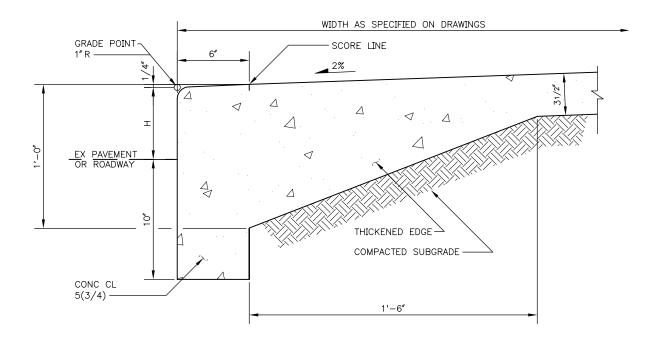
REF STD SPEC SEC 8-07



BLOCK TRAFFIC CURBS
CALE PRECAST CEMENT CONCRETE







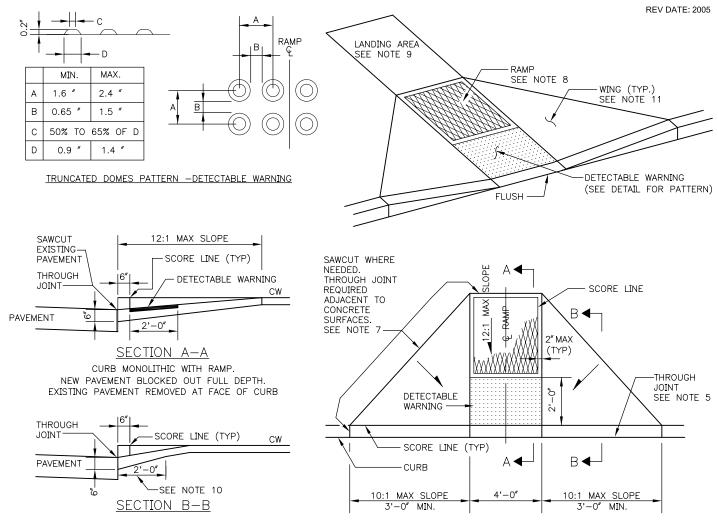
### NOTES:

- 1. "H" SHALL BE 6" FROM FINISHED GRADE UNLESS OTHERWISE SPECIFIED
  2. VERTICAL BACKFACE OF CURB SHALL BE FORMED AGAINST NATIVE EARTH WHERE PRACTICAL, OTHERWISE BY BACKFORM LEFT IN PLACE

REF STD SPEC SEC 8-14



SIDEWALK WITH MONOLITHIC CURB



### **NOTES:**

- 1. TWO CURB RAMPS SHALL BE INSTALLED AT EACH CORNER UNLESS DIRECTED OTHERWISE BY SDOT. SEE STD PLAN NO 422b.
- 2. CURB RAMPS SHALL BE CONSTRUCTED WITH COMPANION RAMPS ON OPPOSITE SIDES OF THE STREET UNLESS DIRECTED OTHERWISE BY SDOT
- WHERE CURB IS INSTALLED AT A LOCATION WITH NO SIDEWALK, CURB SHALL BE DEPRESSED FOR FUTURE CURB RAMP INSTALLATION.
- 4. TYPE 422a CURB RAMP SHALL BE USED. HOWEVER IF NOT FEASIBLE, THEN TYPE 422b CURB RAMP MAY BE INSTALLED WITH THE APPROVAL OF SDOT
- 5. NEW PAVEMENT SHALL BE BLOCKED OUT FULL DEPTH. EXISTING PAVEMENT SHALL BE REMOVED AT THE FACE OF THE CURB.
- 6. MIN DISTANCE BETWEEN ADJACENT CURB RAMPS SHOULD BE 3'-0".
- 7. CURB RAMPS SHALL BE ISOLATED FROM ALL OTHER CONCRETE BY THROUGH JOINTS.
- 8. RAMPS SHALL HAVE A COARSE TEXTURED SURFACE OBTAINED WITH A 3/4" 9-11 FLATTENED EXPANDED METAL MESH BEING PRESSED INTO THE STILL FRESH CONCRETE. THE LONG AXIS OF THE DIAMOND PATTERN SHALL BE ALIGNED WITH THE SLOPE OF THE RAMP.
- 9. ADDITIONAL SIDEWALK PAVING MAY BE NECESSARY IN THE PLANTING STRIP OR AT THE BACK OF SIDEWALK TO ACCOMODATE ACCESS TO THE RAMP. A MINIMUM 4'-0" x 4'-0" 2% GRADE LANDING SHALL BE PROVIDED AT THE TOP OF RAMP ON TYPE 422a.
- 10. THE SIDEWALK THICKENED EDGE SHALL BE CONTINUED THROUGH BOTH WINGS ON TYPE 422a AND BOTH RAMPS ON TYPE 422b. SEE STD. PLAN NO 420.
- 11. THE WINGS ON TYPE 422a SHALL HAVE A SLIGHTLY BRUSHED FINISH PARALLEL TO THE CURB.
- 12. MIN LATERAL CLEARANCE FROM INLETS, POLES, HYDRANTS AND OTHER ABOVE GROUND OBSTACLES SHALL BE 1'-0" MINIMUM FROM THE SCORED AND THE DETECTABLE WARNING PORTIONS OF THE CURB RAMP.
- 13. INLETS SHALL BE SO LOCATED THAT GUTTER FLOW DOES NOT FLOW PAST. THE CURB RAMP.
- 14. DECTECTABLE WARNING SURFACE SHALL BE "CITY OF SEATTLE SAFETY YELLOW", AND SHALL BE LOCATED 6 INCHES OFF THE CURB FACE. SEE STD SPEC SEC 8-3(7)A.
- 15. CURB RAMP SHALL BE PERPENDICULAR TO THE CURB.
- 16. THE RAMP PORTION OF THE TYPE 422g CURB RAMP SHALL BE WHOLLY CONTAINED WITHIN THE MARKED CROSSING (SEE STD PLAN NO. 422b)

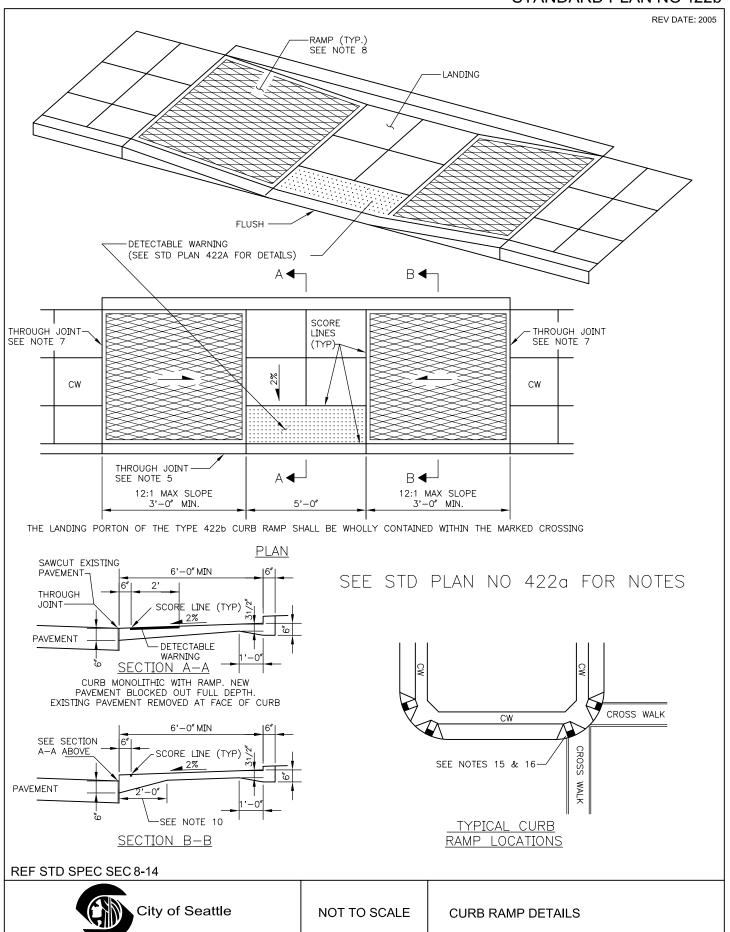
### **REF STD SPEC SEC 8-14**

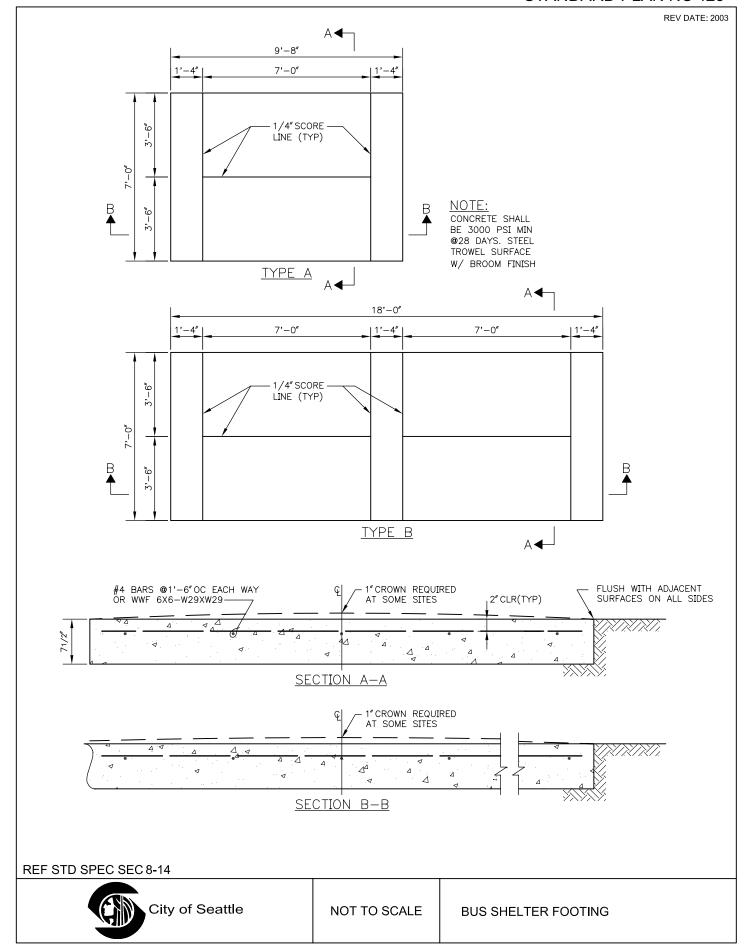


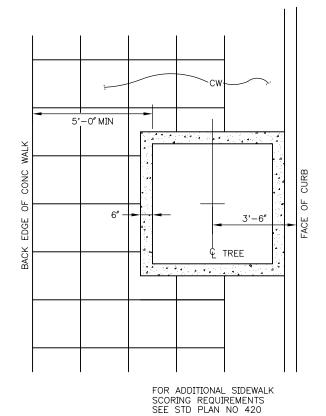
NOT TO SCALE

**CURB RAMP DETAILS** 

### STANDARD PLAN NO 422b







- TREE PIT DIMENSIONAL REQUIREMENTS:

   24 SQ FT MIN TREE PIT SIZE

   3'-6"MIN REQ'D BETWEEN TREE Q
  & FACE OF CURB

   2'-0"MIN REQ'D BETWEEN TREE Q
  & CONC SIDEWALK

   5'-0"MIN CONC WALKING SURFACE
- 5'-0"MIN CONC WALKING SURFACE

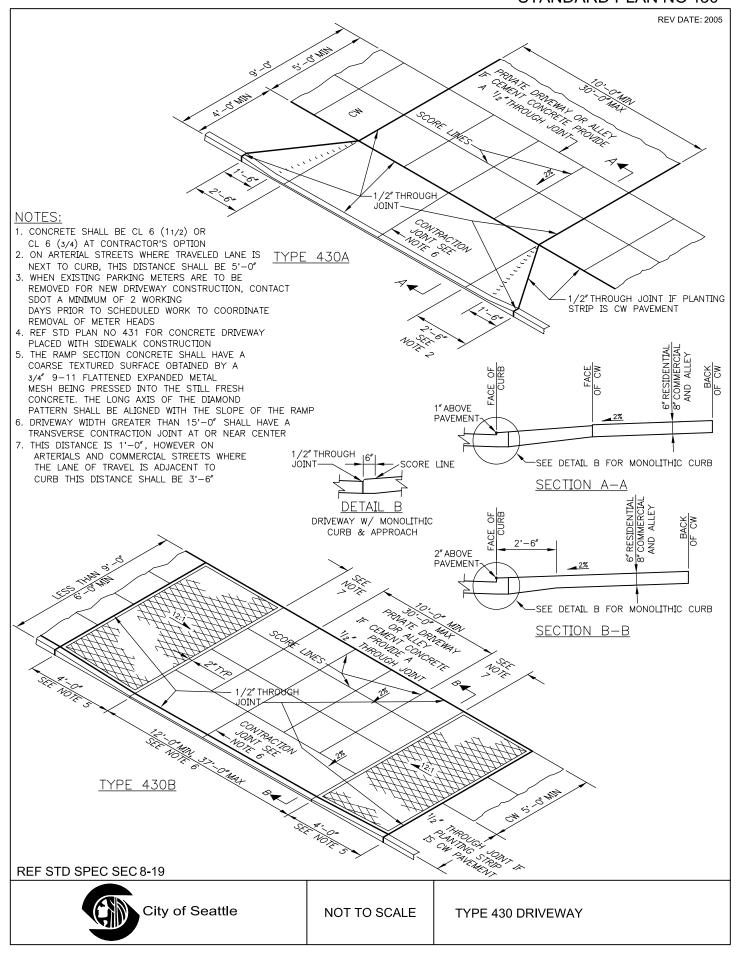
NOTE:
INSTALLATIONS REQUIRING LESS THAN STANDARD MIN CLEARANCES SHALL BE ALLOWED ONLY WITH SPECIFIC APPROVAL BY SEATTLE TRANSPORTATION

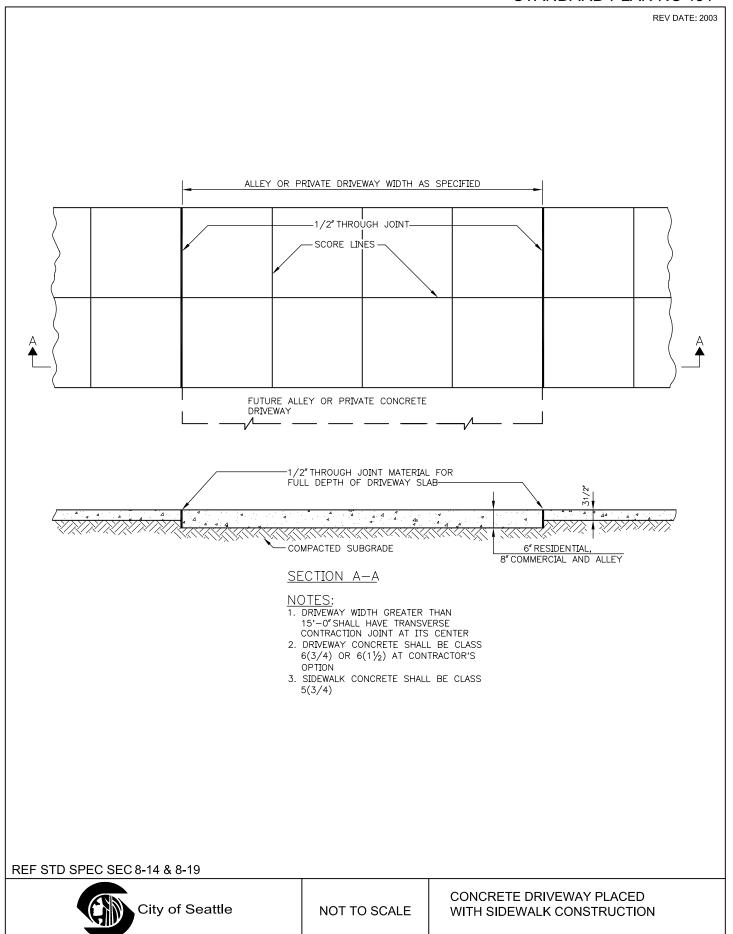
**REF STD SPEC SEC 8-02 & 8-14** 



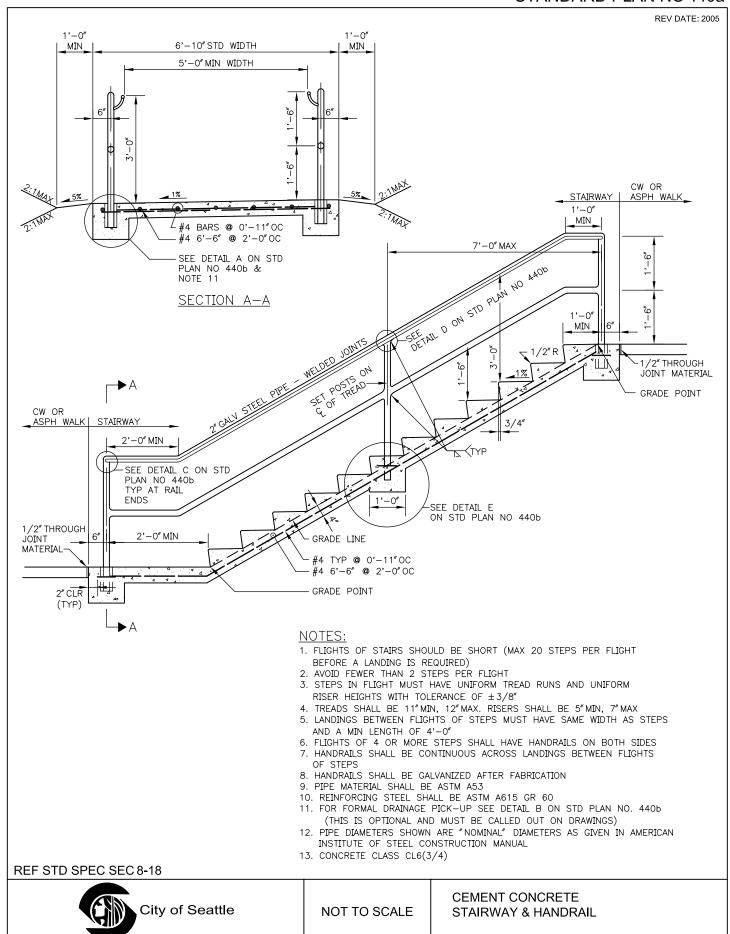
NOT TO SCALE

TREE PIT DETAIL

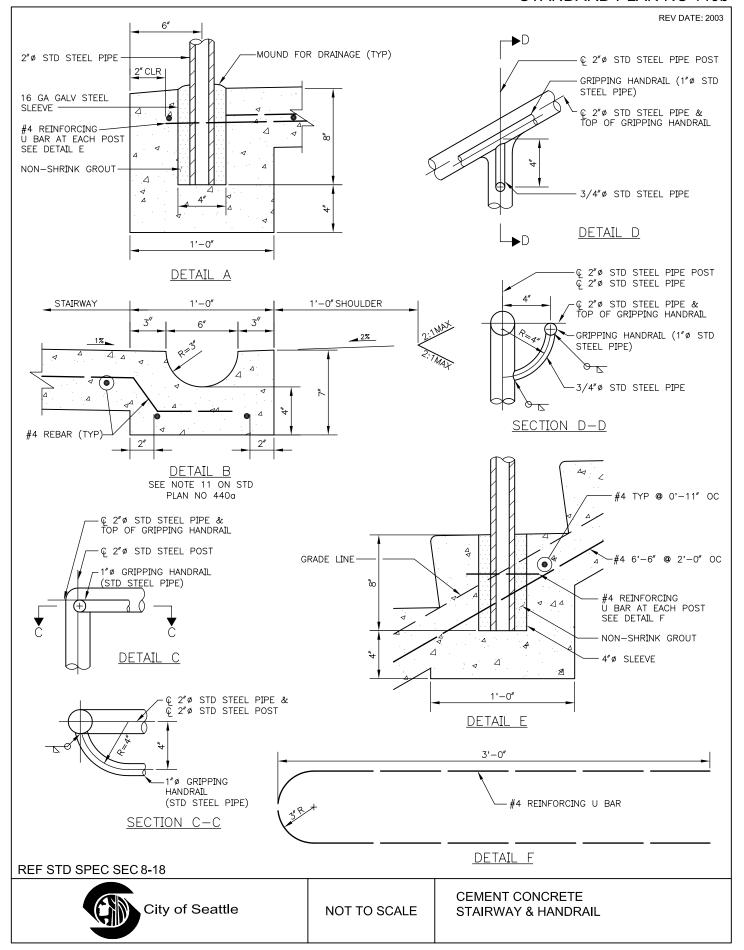


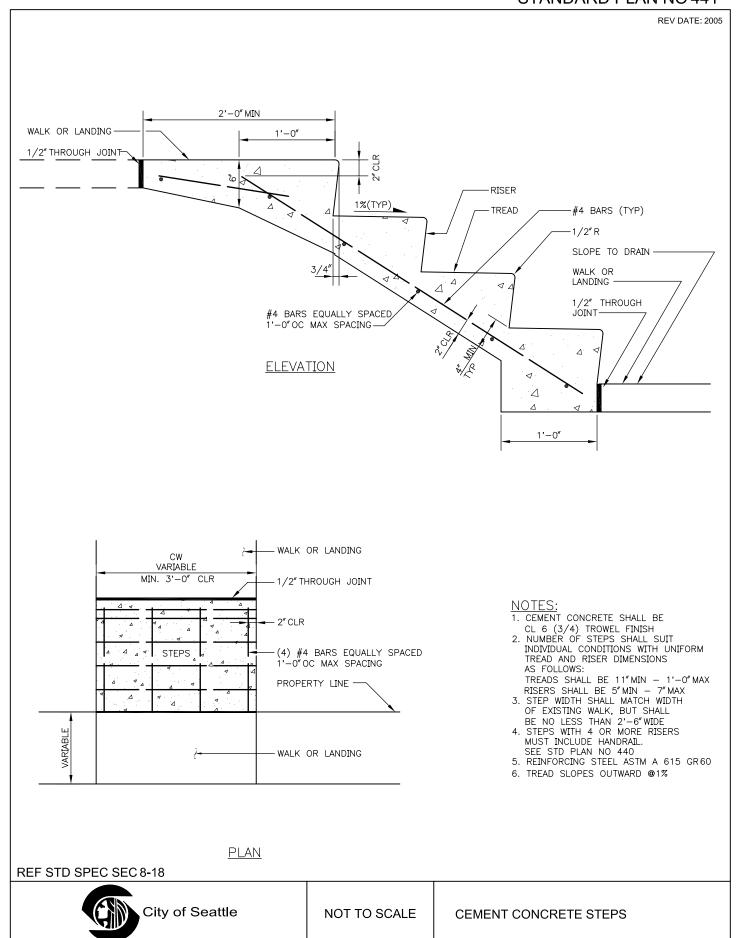


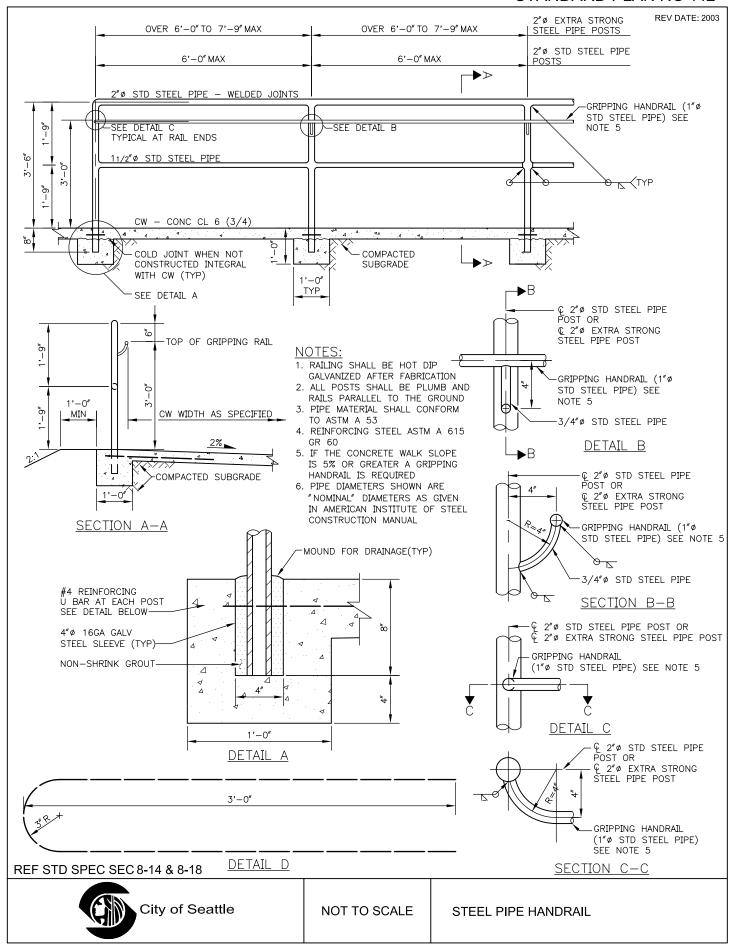
### STANDARD PLAN NO 440a



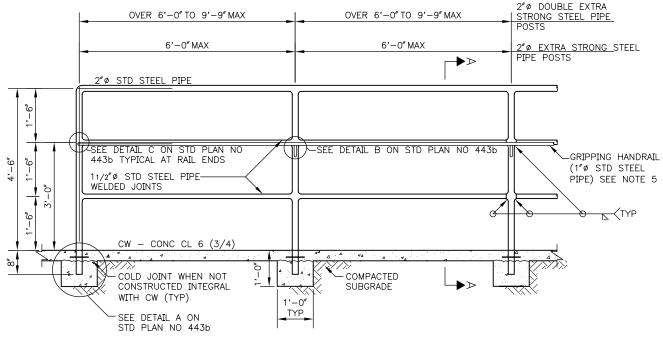
### STANDARD PLAN NO 440b











# TOP OF GRIPPING RAIL SEE NOTE 5 CW WIDTH AS SPECIFIED #4 U BAR 2% COMPACTED SUBGRADE

### NOTES:

- 1. RAILING SHALL BE HOT DIP GALVANIZED AFTER FABRICATION
- 2. ALL POSTS SHALL BE PLUMB AND RAILS PARALLEL TO GRADE
- 3. PIPE MATERIAL SHALL CONFORM TO ASTM A53
- 4. REINFORCING STEEL ASTM A615 GR 60
- 5. IF THE CONCRETE WALK SLOPE IS 5% OR GREATER A GRIPPING HANDRAIL IS REQUIRED
- 6. PIPE DIAMETERS SHOWN ARE "NOMINAL" DIAMETERS AS GIVEN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL

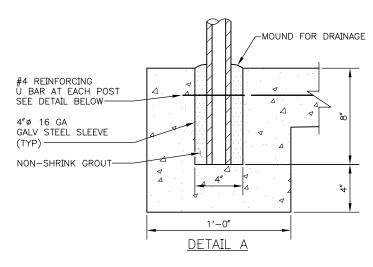
REF STD SPEC SEC 8-18

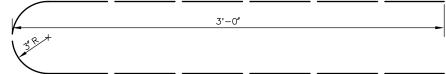


SECTION A-A

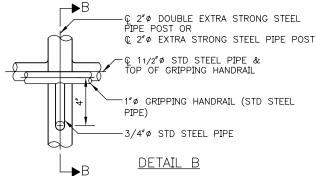
NOT TO SCALE FOR

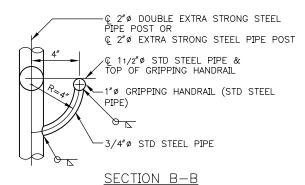
STEEL PIPE RAILING FOR BIKE PATH

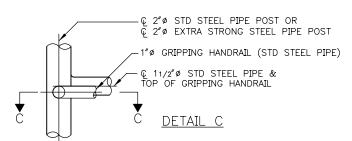


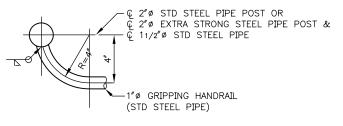


### U BAR DETAIL









SECTION C-C

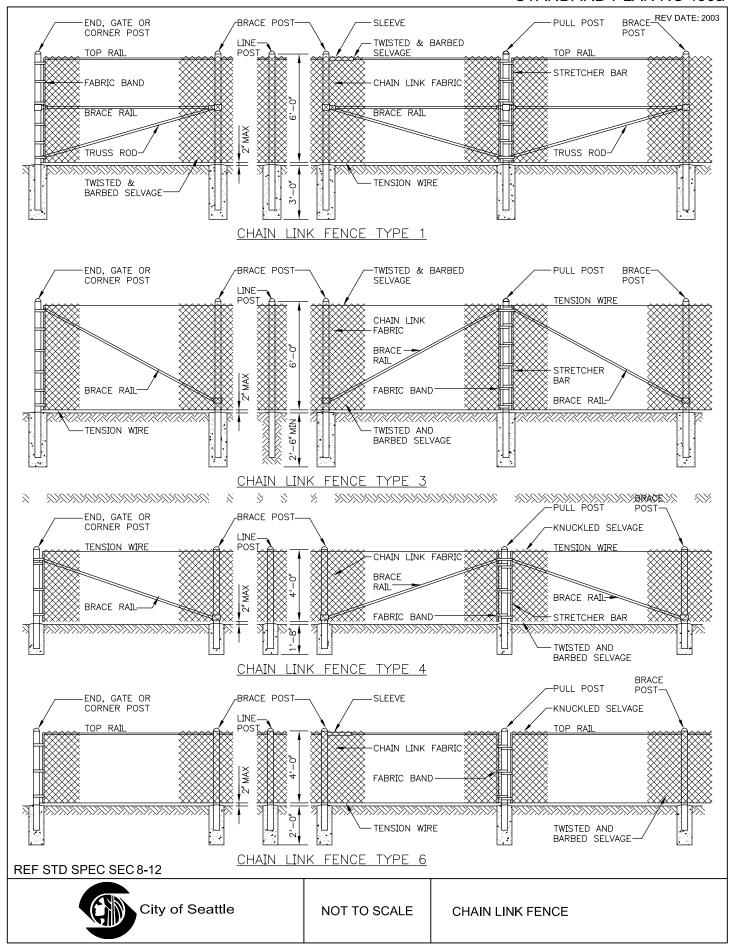
### **REF STD SPEC SEC 8-18**

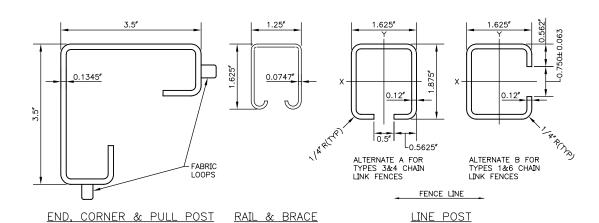


NOT TO SCALE

STEEL PIPE RAILING FOR BIKE PATH

### STANDARD PLAN NO 450a





### **ROLL FORMED SECTIONS**

			MEMBER										
	BRACE RAIL & TOP RAIL							LINE & BRACE POST					
TYPE	RO	ROUND H-COLUMN		ROLL FORMED		ROUND		H-COLUMN		ROLL FORMED			
	ID	WEIGHT		WEIGHT		WEIGHT	ID	WEIGHT		WEIGHT		WEIGHT	
	PIPE	PER FT	SIZE	PER FT	SIZE	PER FT	PIPE	PER FT	SIZE	PER FT	SIZE	PER FT	
	INCHES	POUNDS	INCHES	POUNDS	INCHES	POUNDS	INCHES	POUNDS	INCHES	POUNDS	INCHES	POUNDS	
1			1.25X1.62	1.35			2	3.65	21/4	4.0			
3	1.25	2.27			15/8X11/4	1.35	11/2	2.72	17/8	2.72	15/8X17/8	2.34	
4							11/2	2.72	17/8	2.72	15/8X17/8	2.34	
6			1.25X1.62	1.35			2	3.65	21/4	4.0			

	MEMBER									
		ORNER &		GATE	ALL					
TYPE	ROUI		ROLL F	ORMED	ROL	POSTS				
	ID	WEIGHT		WEIGHT	ID	WEIGHT				
	PIPE	PER FT	SIZE	PER FT	PIPE	PER FT	LENGTH			
	INCHES	POUNDS	INCHES	POUNDS	INCHES	POUNDS				
1	21/2	5.79					8'-8"			
3	2	3.65	31/2X	5.14	31/2	9.1	8'-8"			
4	2	3.65	31/2				5'-6"			
6	21/2	5.79					5'-6"			

### NOTES:

- 1. ALL CONCRETE POST BASES SHALL BE 10" MINIMUM DIAMETER, CL 5 (11/2)

- ALL CONCRETE POST BASES SHALL BE 10"MINIMUM DIAMETER, CL 5 (11/2)
   POSTS SHALL BE SPACED AT 10"-O" MAXIMUM INTERVALS UNLESS OTHERWISE DIRECTED BY THE ENGINEER
   TOP OR BOTTOM TENSION WIRES SHALL BE PLACED WITHIN THE LIMITS OF THE FIRST FULL FABRIC WEAVE
   THE ILLUSTRATIVE DETAIL SHOWN HEREON SHALL NOT BE CONSTRUED AS LIMITING TO HARDWARE DESIGN OR POST SELECTION FOR ANY PARTICULAR FENCE TYPE
   CONCRETE OR GROUT AROUND POST AT GROUND LINE SHALL BE MOUNDED FOR DRAINAGE

### REF STD SPEC SEC 8-12



