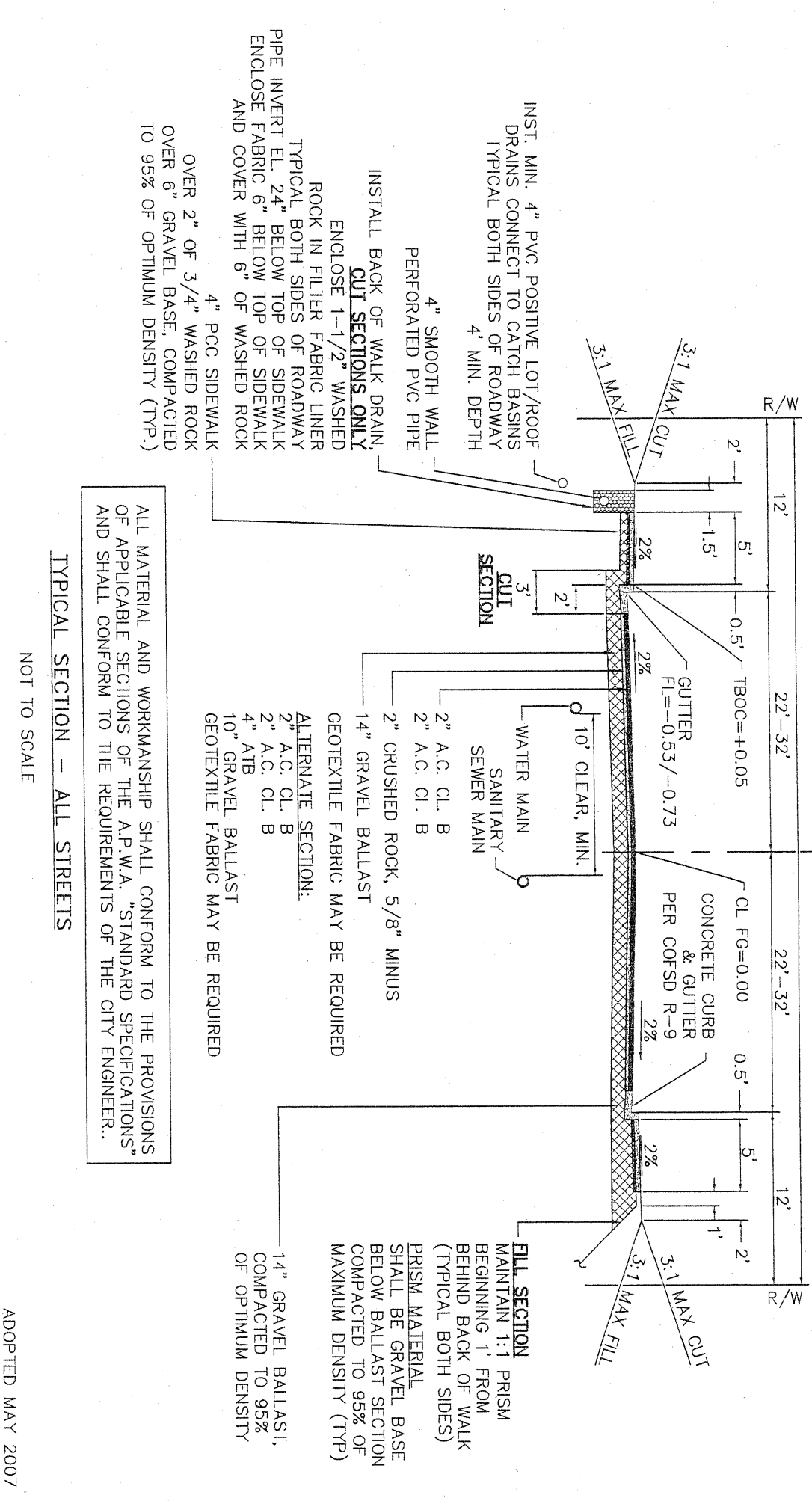




**CITY OF FERNDALE**  
**MINIMUM STANDARD**  
**ASPHALT CONCRETE SECTION**  
**ARTERIALS AND COLLECTORS**



INST. MIN. 4" PVC POSITIVE LOT/ROOF DRAINS CONNECT TO CATCH BASINS TYPICAL BOTH SIDES OF ROADWAY 4' MIN. DEPTH

4" SMOOTH WALL PERFORATED PVC PIPE

INSTALL BACK OF WALK DRAIN ENCLOSE 1-1/2" WASHED ROCK IN FILTER FABRIC LINER TYPICAL BOTH SIDES OF ROADWAY

PIPE INVERT EL. 24" BELOW TOP OF SIDEWALK ENCLOSE FABRIC 6" BELOW TOP OF SIDEWALK AND COVER WITH 6" OF WASHED ROCK

4" PCC SIDEWALK OVER 2" OF 3/4" WASHED ROCK OVER 6" GRAVEL BASE, COMPACTED TO 95% OF OPTIMUM DENSITY (TYP.)

ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE PROVISIONS OF APPLICABLE SECTIONS OF THE A.P.W.A. "STANDARD SPECIFICATIONS" AND SHALL CONFORM TO THE REQUIREMENTS OF THE CITY ENGINEER..

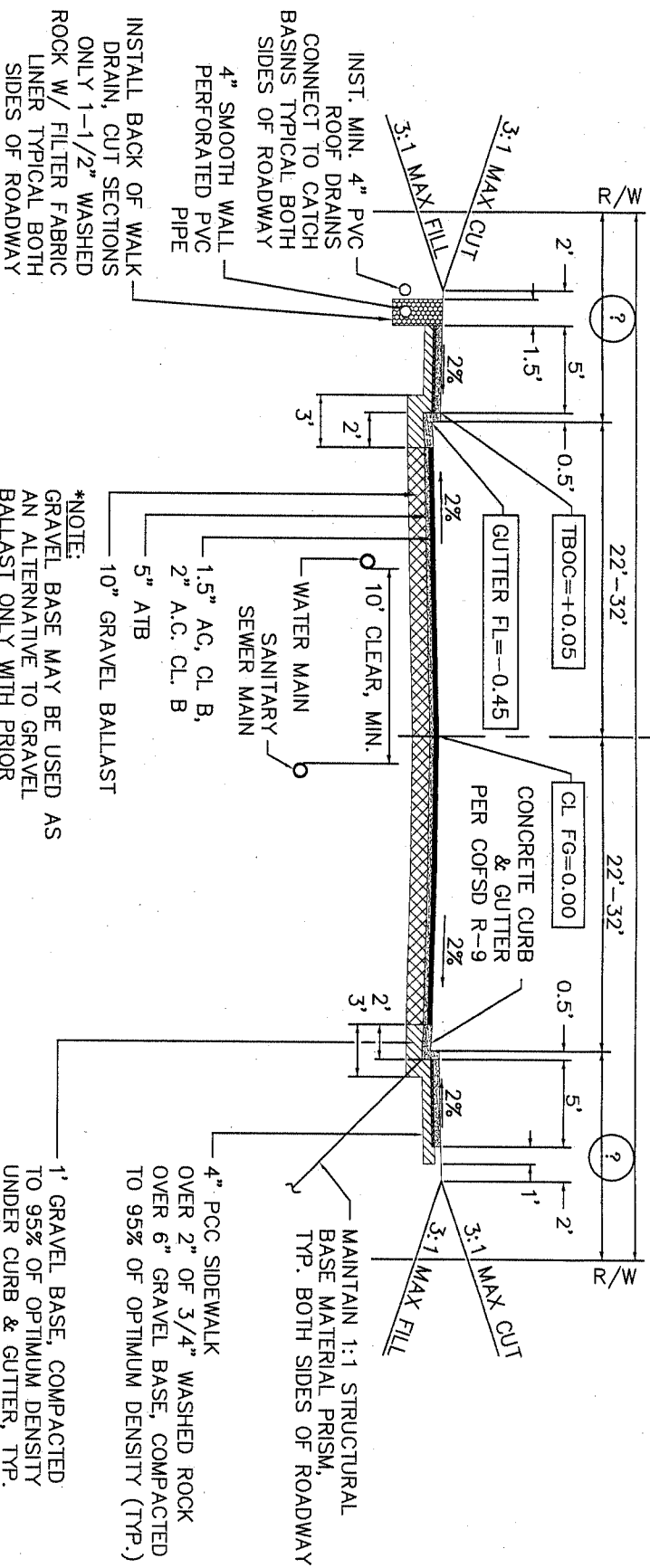
ALTERNATE SECTION:  
 2" A.C. CL. B  
 2" A.C. CL. B  
 4" ATB  
 10" GRAVEL BALLAST  
 GEOTEXTILE FABRIC MAY BE REQUIRED

**FILL SECTION**  
 MAINTAIN 1:1 PRISM BEGINNING 1' FROM BEHIND BACK OF WALK (TYPICAL BOTH SIDES)

PRISM MATERIAL SHALL BE GRAVEL BASE BELOW BALLAST SECTION COMPACTED TO 95% OF MAXIMUM DENSITY (TYP)

14" GRAVEL BALLAST, COMPACTED TO 95% OF OPTIMUM DENSITY

DETAIL  
 R-1



\*NOTE:  
GRAVEL BASE MAY BE USED AS AN ALTERNATIVE TO GRAVEL BALLAST ONLY WITH PRIOR APPROVAL FROM THE DIRECTOR OF PUBLIC WORKS.

ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE PROVISIONS OF APPLICABLE SECTIONS OF THE A.P.W.A. "STANDARD SPECIFICATIONS" AND SHALL CONFORM TO THE REQUIREMENTS OF THE CITY ENGINEER..

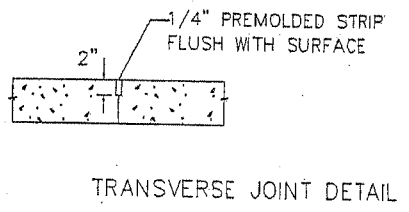
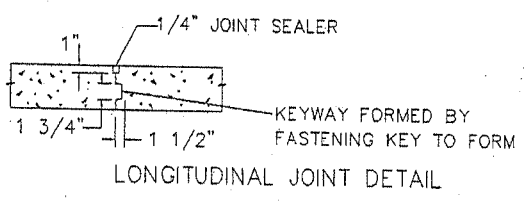
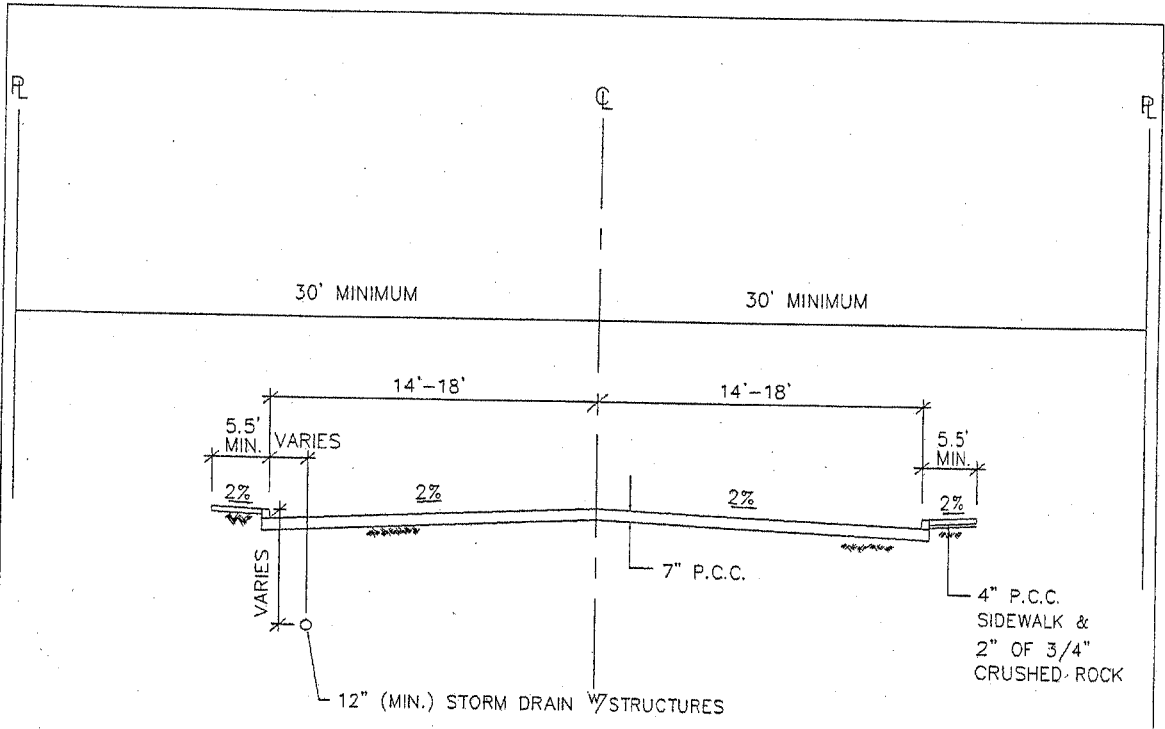
TYPICAL SECTION - ALL STREETS

NOT TO SCALE

NOVEMBER 2004

CITY OF FERNDALE  
STANDARD ASPHALT CONCRETE SECTION  
COMMERCIAL AND INDUSTRIAL

DETAIL  
R-2

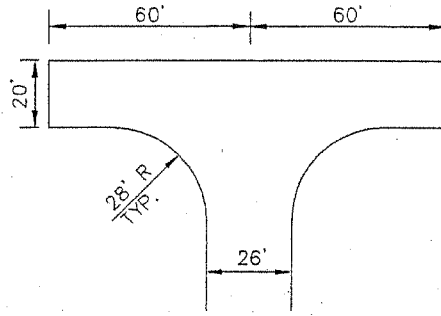


- NOTE: 1. CONCRETE SHALL BE 1-1/2" MAXIMUM AGGREGATE SIZE, 5.5 SACK MINIMUM, 5% AIR ENTRAINED WITH A SLUMP OF 1" TO 2-1/2", CONCRETE SHALL HAVE A MODULUS OF RUPTURE OF NOT LESS THAN 550 P.S.I. AT 28 DAYS WHEN TESTED BY THE THIRD POINT LOADING METHOD.
2. TRANSVERSE JOINTS SHALL NOT BE SPACED AT INTERVALS GREATER THAN 12.5 FEET.
3. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE PROVISIONS OF APPLICABLE SECTIONS OF A.P.W.A. "STANDARD SPECIFICATIONS" AND SHALL CONFORM TO THE REQUIREMENTS OF THE CITY ENGINEER.

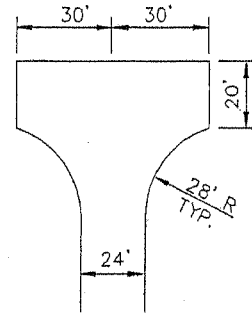
NOT TO SCALE

<p>APPROVED</p> <p><i>John F. Ealey</i></p> <p>Public Works Director Date</p>	<p>CITY OF FERNDAL</p> <p>MINIMUM STANDARD RESIDENTIAL</p> <p>CONCRETE LOCAL STREET</p>	<p>DRAWING</p> <p>R-3</p>
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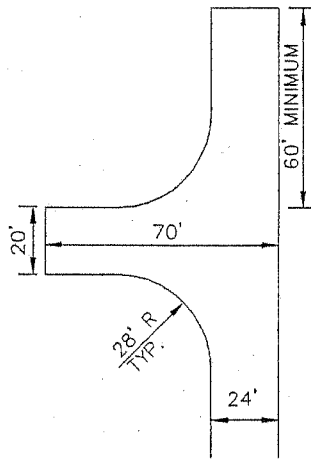




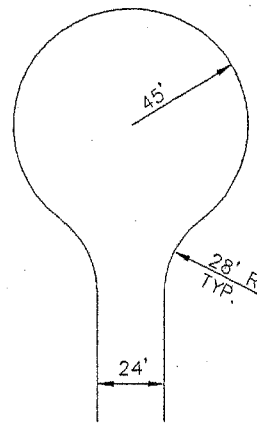
120' HAMMERHEAD



60' HAMMERHEAD

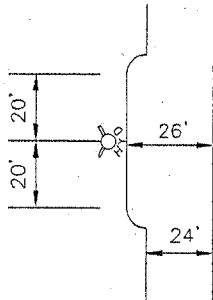


ACCEPTABLE ALTERNATIVE TO 120' HAMMERHEAD



90' DIAMETER CUL-DE-SAC

MINIMUM CLEARANCE AROUND A FIRE HYDRANT



LENGTH	WIDTH	TURNAROUNDS REQUIRED
*0' - 200'	24'	NONE REQUIRED
*200' - 500'	24'	90' DIAMETER 60' HAMMERHEAD
*500' - 750'	26'	90' DIAMETER 120' HAMMERHEAD
OVER 750' - SPECIAL APPROVAL REQUIRED		

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

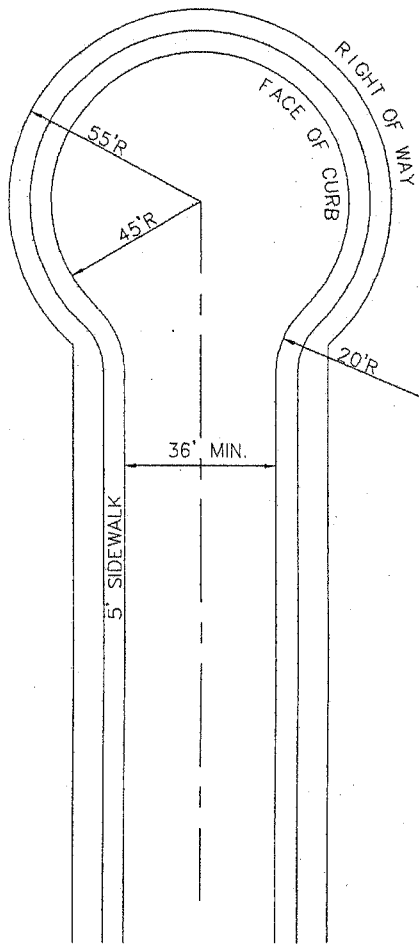
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APPROVED

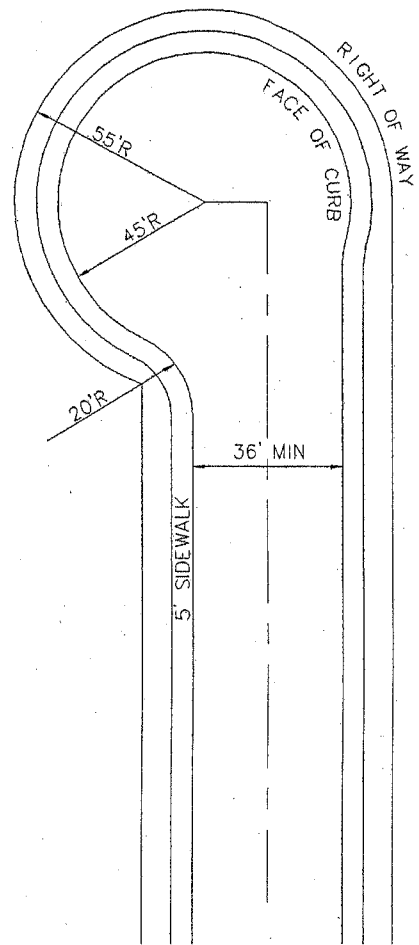
*[Signature]*  
Public Works Director Date

CITY OF FERNDALE  
MINIMUM FIRE APPARATUS ACCESS  
FOR PRIVATE ROADWAYS

DRAWING  
R-5A



TYPICAL



OPTIONAL

MAXIMUM CUL-DE-SAC LENGTH IS 600'.

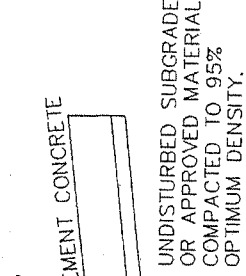
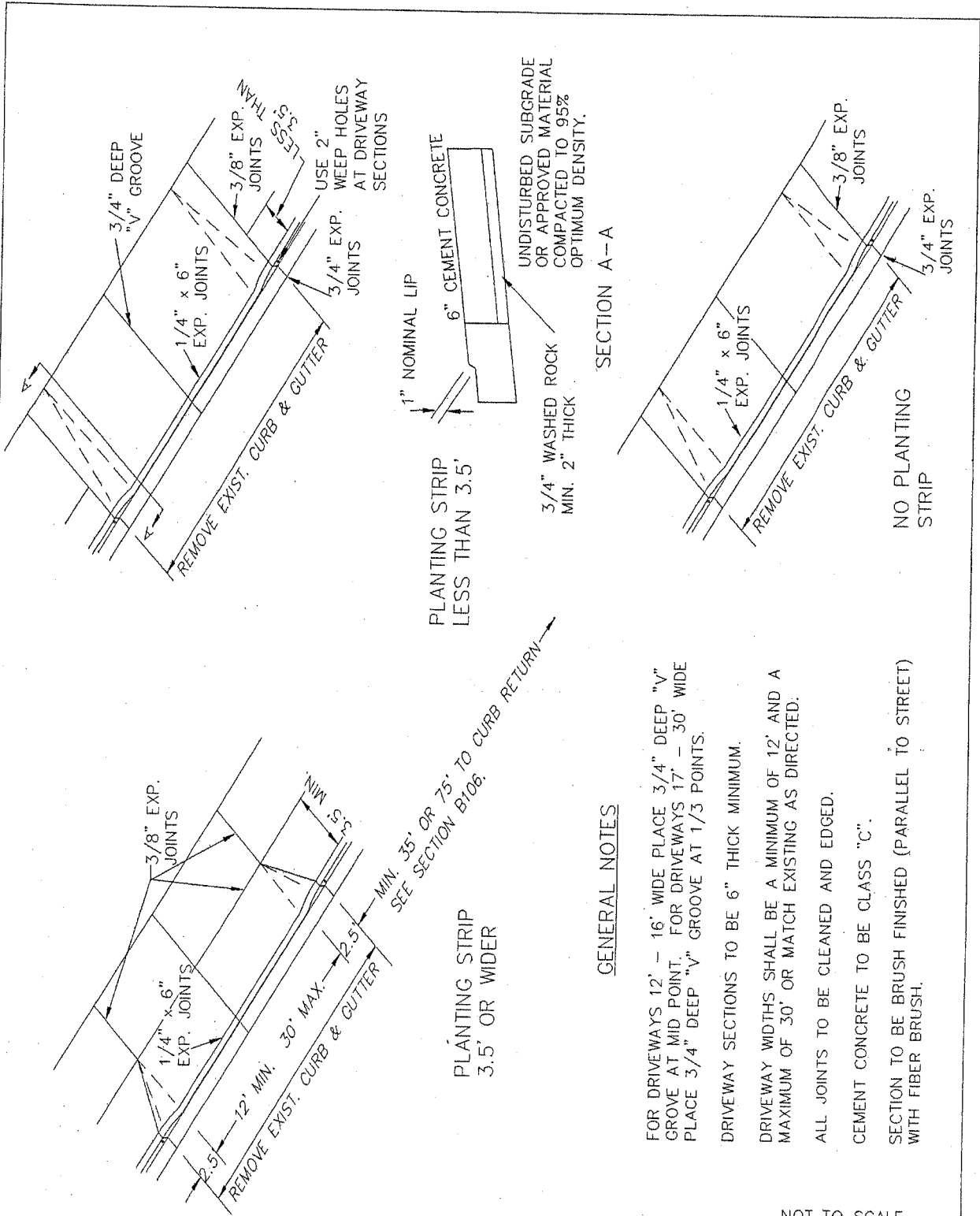
NOT TO SCALE

APPROVED

*John F. Eley*  
Public Works Director Date

CITY OF FERNDALE  
TYPICAL AND OPTIONAL CUL DE SAC

DRAWING  
R-5



SECTION A-A

PLANTING STRIP  
LESS THAN 3.5'

PLANTING STRIP  
3.5' OR WIDER

MIN. 35' OR 75' TO CURB RETURN  
SEE SECTION B106.

GENERAL NOTES

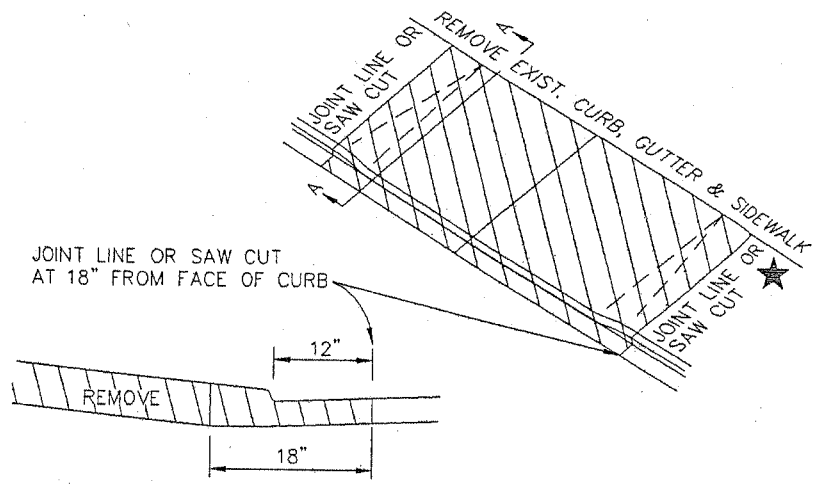
- FOR DRIVEWAYS 12' - 16' WIDE PLACE 3/4" DEEP "V" GROOVE AT MID POINT. FOR DRIVEWAYS 17' - 30' WIDE PLACE 3/4" DEEP "V" GROOVE AT 1/3 POINTS.
- DRIVEWAY SECTIONS TO BE 6" THICK MINIMUM.
- DRIVEWAY WIDTHS SHALL BE A MINIMUM OF 12' AND A MAXIMUM OF 30' OR MATCH EXISTING AS DIRECTED.
- ALL JOINTS TO BE CLEANED AND EDGED.
- CEMENT CONCRETE TO BE CLASS "C".
- SECTION TO BE BRUSH FINISHED (PARALLEL TO STREET) WITH FIBER BRUSH.

NOT TO SCALE

APPROVED  
*John F. Ealey*  
 Public Works Director      Date

CITY OF FERNDALE  
 MINIMUM STANDARD  
 DRIVEWAY SECTIONS

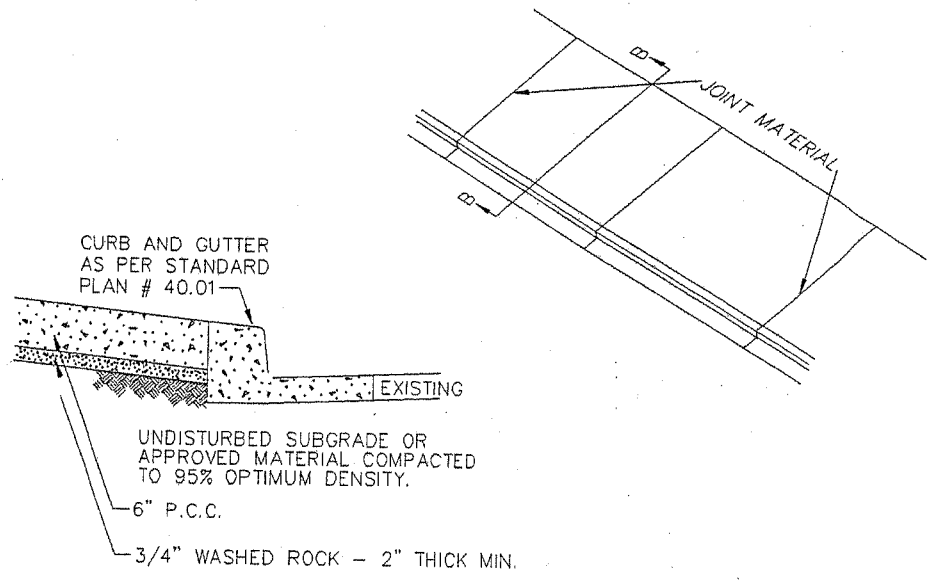
DRAWING  
 R-6



JOINT LINE OR SAW CUT  
AT 18" FROM FACE OF CURB

SECTION A-A

★ WHERE PLANTING STRIP IS 3.5'+  
EXISTING DRIVE SECTION THROUGH  
SIDEWALK NEED NOT BE REPLACED.



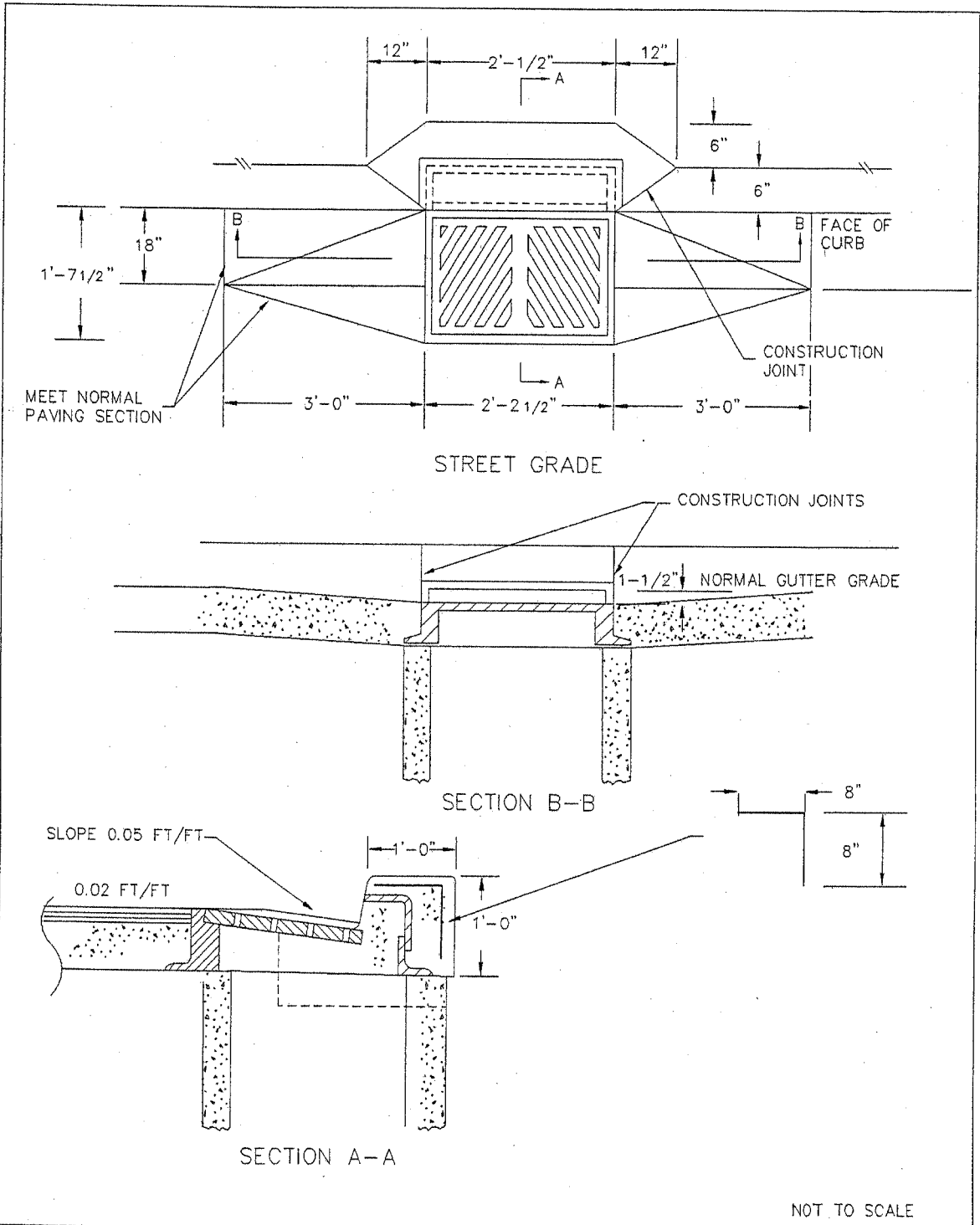
SECTION B-B

NOT TO SCALE

<p>APPROVED</p> <p><i>[Signature]</i></p> <p>Public Works Director Date</p>	<p>CITY OF FERNDALE DRIVEWAY RESTORATION</p>	<p>DRAWING R-7</p>
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JUNE 1995

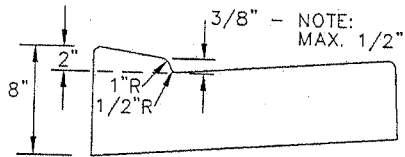
2091RD2A/R-7



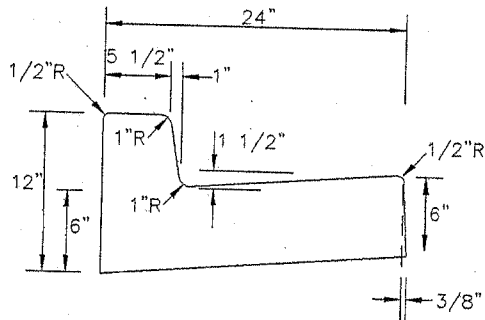
<p>APPROVED</p> <p><i>John F. Kelly</i></p> <p>Public Works Director      Date</p>	<p>CITY OF FERNDALE</p> <p>THRU-CURB INLET FRAME &amp; GRATE WITH VERTICAL CURB INSTALLATION</p>	<p>DRAWING</p> <p>R-8</p>
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JUNE 1995

2091ST5A/R-8

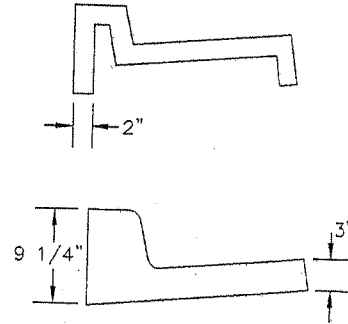


CURB RAMP/DRIVEWAY SECTION



TYPICAL CURB SECTION

CONTRACTION JOINTS



GENERAL NOTES:

CONTRACTION JOINTS OF ONE OF THE TYPES SHOWN ABOVE TO BE PLACED 10' C/C. JOINTS MUST COMPLETELY SEVER THE STRUCTURE TO THE POINTS SHOWN. JOINTS MAY BE MADE BY INSERTING MINIMUM 3/16" BITUMINOUS FILLER DUMMY JOINTS. JOINTS SHALL BE CLEANED AND EDGED.

2" WEEP HOLES TO BE PLACED ON EACH SIDE OF DRIVEWAY SECTION AND A MAXIMUM 60' C/C IN CUT SECTIONS WHERE SIDEWALK DRAIN NOT REQUIRED BY CITY PUBLIC WORKS DIRECTOR.

3/4" EXPANSION JOINTS TO BE PLACED AT DRIVEWAY SECTIONS, CURB RETURNS, CURB RAMPS AND COLD JOINTS OR A MAXIMUM OF 80' C/C. EXPANSION JOINTS SHALL PROTRUDE 1" BELOW THE BOTTOM OF GUTTER.

CONCRETE SHALL BE CEMENT CONCRETE CLASS 3000.

FINISHED WORK SHALL NOT VARY MORE THAN 1/8" IN GRADE AND 1/4" IN ALIGNMENT WHEN CHECKED WITH 10" STRAIGHT EDGE.

EXPOSED SURFACES SHALL BE BRUSHED WITH A FIBER BRUSH.

WHITE PIGMENTED OR TRANSPARENT CURING COMPOUND SHALL BE APPLIED AS OUTLINED IN THE STANDARD SPECIFICATIONS.

FURTHER REQUIREMENTS SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

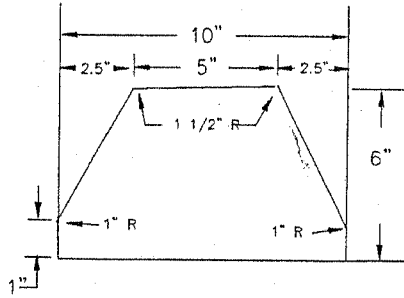
NOT TO SCALE

APPROVED

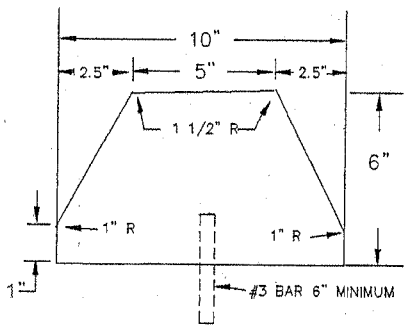
*John F. Elzy*  
Public Works Director Date

CITY OF FERNDALE  
CURB AND GUTTER

DRAWING  
R-9



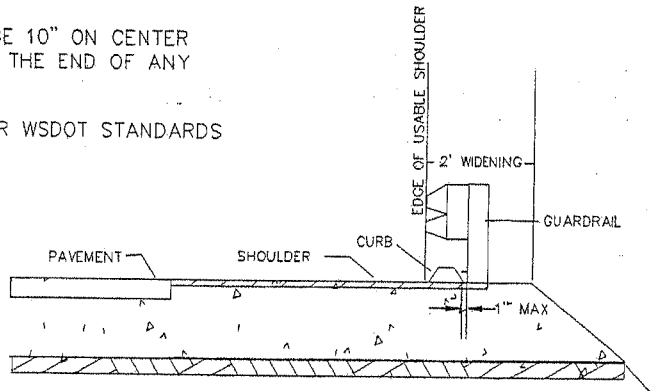
ASPHALT CURB



CEMENT CONCRETE CURB

NOTE: SPACING OF ANCHOR BARS SHALL BE 10" ON CENTER WITH A #3 BAR LOCATED 1'0" FROM THE END OF ANY CUR/SAWED CURB JOINT.

ALTERNATE CURB INSTALLATIONS PER WSDOT STANDARDS F-26 ARE ACCEPTABLE.



NOT TO SCALE

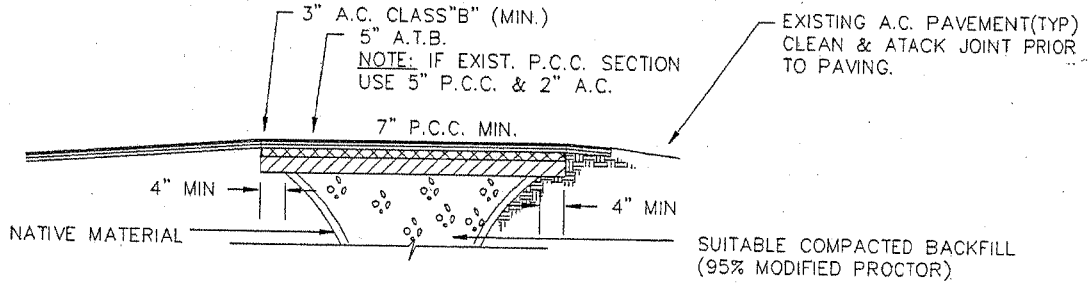
APPROVED  
*John F. Ealey*  
 Public Works Director \_\_\_\_\_ Date \_\_\_\_\_

CITY OF FERNDALE  
 EXTRUDED CURB

DRAWING  
 R-10

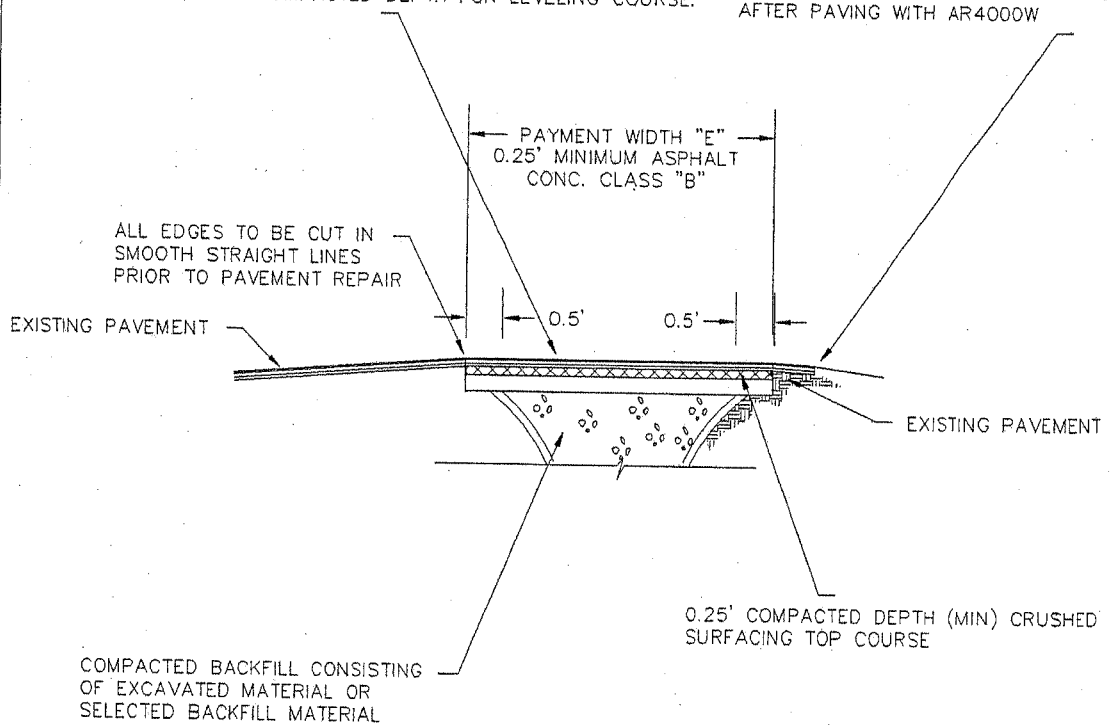
NOTE:

IT SHALL BE THE P.W. DIRECTOR'S DECISION AS TO WHETHER A PAVEMENT OVERLAY IS REQUIRED FOR RESTORATION OF ROADWAYS.  
ROAD SHOULDER AREAS MUST BE COMPACTED.



THICKNESS TO BE EQUAL TO OR GREATER THAN EXISTING ASPHALT SHALL BE CONSTRUCTED IN TWO(2) LIFTS - 0.1' COMPACTED DEPTH FOR WEARING COURSE, 0.15' COMPACTED DEPTH FOR LEVELING COURSE.

CLEAN AND TACK ALL ASPHALT EDGES PRIOR TO PAVING. SEAL ALL JOINTS AFTER PAVING WITH AR4000W



NOT TO SCALE

APPROVED

*[Signature]*  
Public Works Director Date

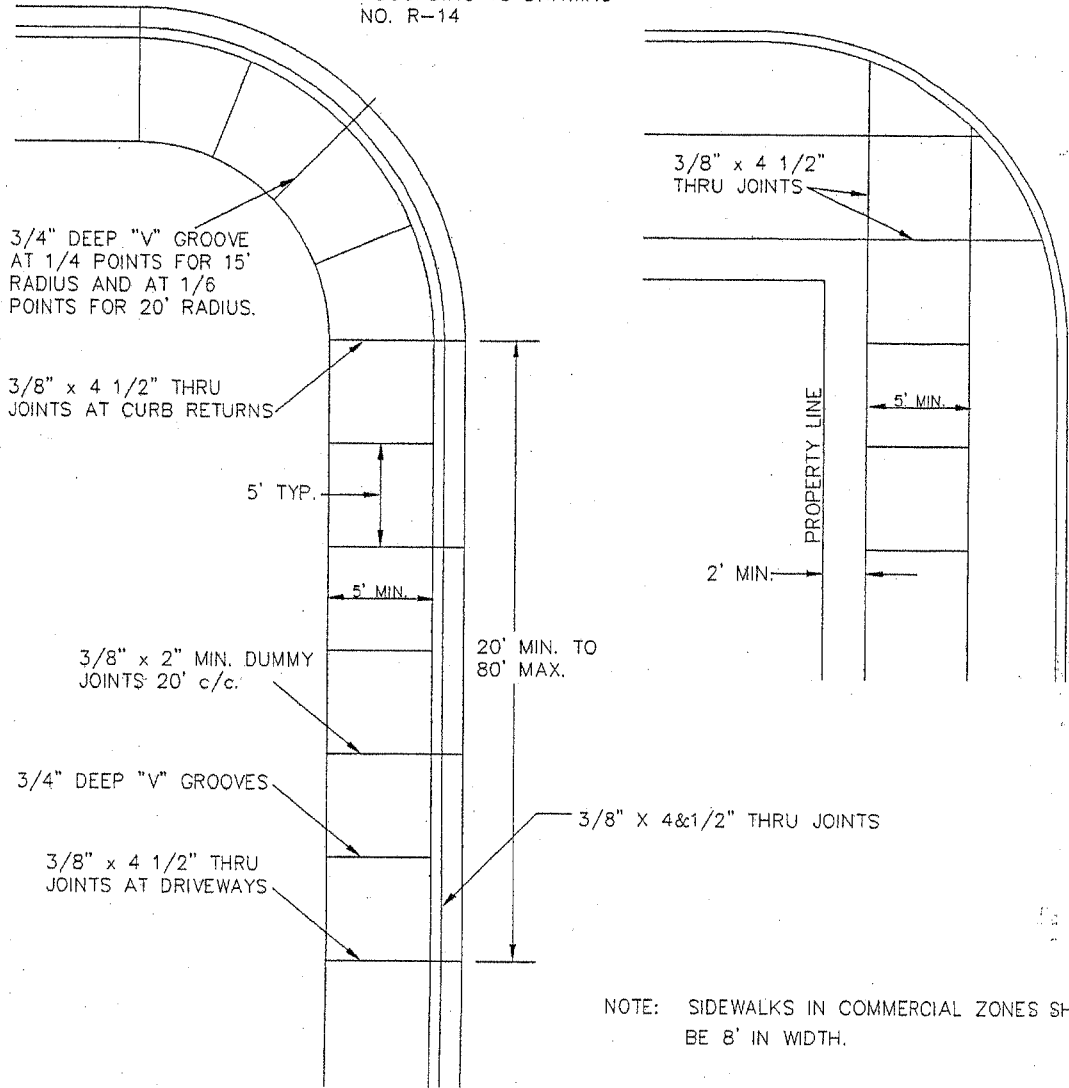
CITY OF FERNDALE  
EXISTING ROADWAY  
RESTORATION REPAIR

DRAWING  
R-11

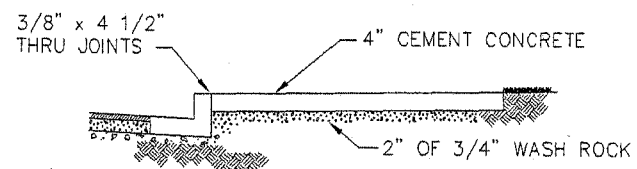
JUNE 1995

2091ST4A/R-12

WHEEL CHAIR RAMPS TO BE  
LOCATED AT ALL RETURNS  
ACCORDING TO DRAWING  
NO. R-14



NOTE: SIDEWALKS IN COMMERCIAL ZONES SHALL  
BE 8' IN WIDTH.



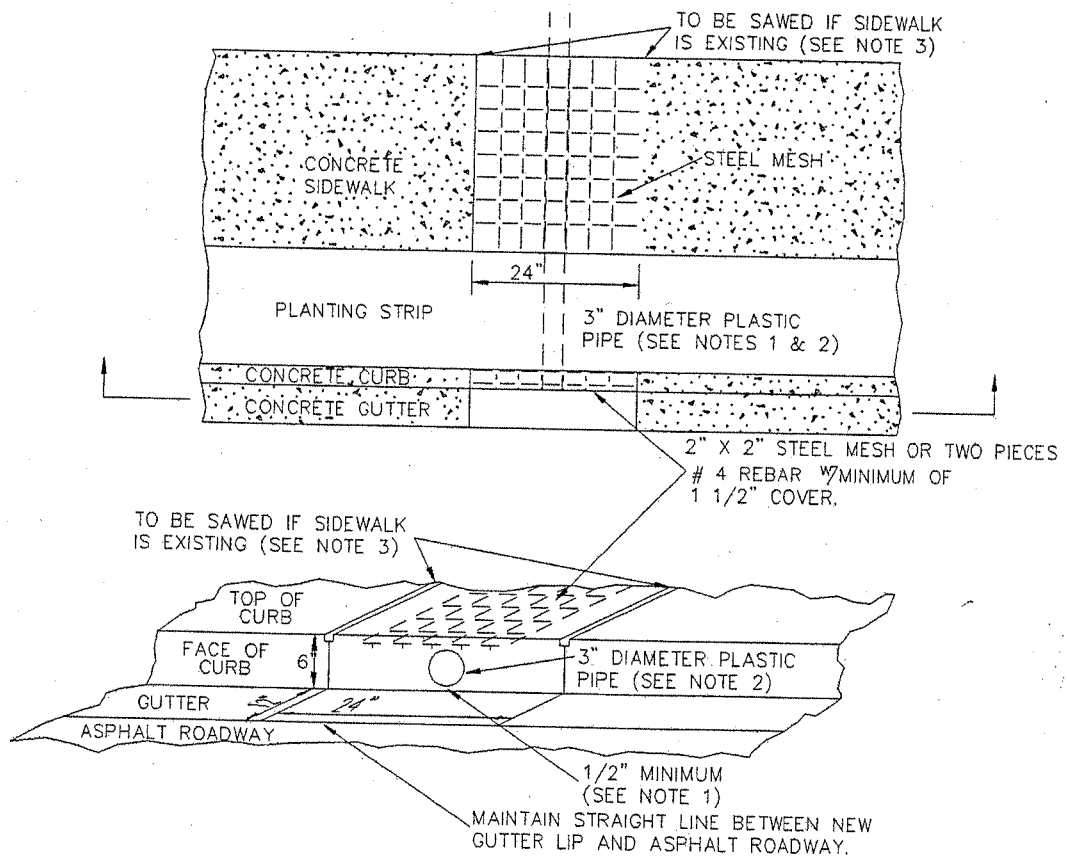
UNDISTURBED SUBGRADE OR APPROVED MATERIAL  
COMPACTED TO 95% OPTIMUM DENSITY.

NOT TO SCALE

<p>APPROVED</p> <p><i>John F. Ealey</i></p> <p>Public Works Director Date</p>	<p>CITY OF FERNDALE TYPICAL SIDEWALK PLAN AND CROSS SECTION</p>	<p>DRAWING R-12</p>
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JUNE 1995

2091RD2A/R-12



NOTES:

- 1) 3" PLASTIC PIPE MAXIMUM DIAMETER - PLACED WITH BOTTOM OF PIPE APPROX. 1/2" ABOVE GUTTER LINE, NOT TO EXTEND BEYOND FACE OF CURB.
- 2) DRAIN TO BE MADE OF RIGID PLASTIC PIPE ONLY - NO FLEXIBLE FOOTING DRAIN PIPE ALLOWED.
- 3) IF THE CURB AND GUTTER IS EXISTING AT THE TIME OF DRAIN INSTALLATION THE CURB, GUTTER AND/OR SIDEWALK MUST BE SAWED ON A NEAT LINE PARALLEL TO THE CONSTRUCTION JOINTS IN THE WALK AND REMOVED AND REPLACED AS INDICATED.
- 4) BEDDING UNDER CONCRETE SIDEWALK AND CURB AND GUTTER TO BE OF SAME MATERIAL THAT EXISTED AT THE TIME OF REMOVAL.
- 5) IF DRAIN BASIN IS AVAILABLE IN ROAD, USE 4" MIN. SIDEWALK DRAIN & CONNECT TO BASIN. (WIRE MESH MAY BE ELIMINATED.)

NOT TO SCALE

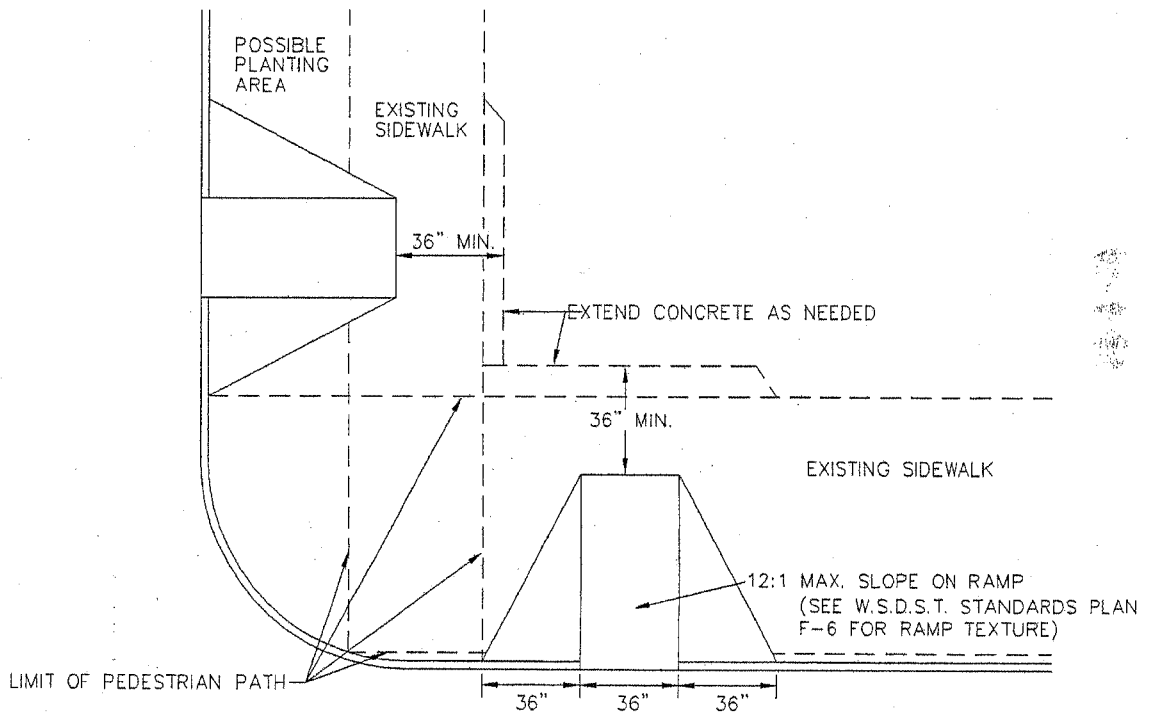
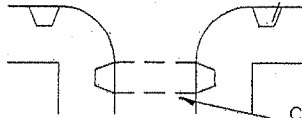
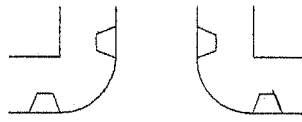
APPROVED

*John F. Elzy*  
Public Works Director Date

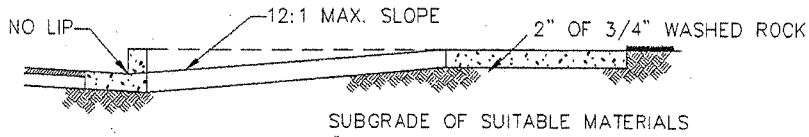
CITY OF FERNDALE  
RESIDENTIAL  
SIDEWALK DRAIN

DRAWING  
R-13

TYPICAL LOCATION PLAN  
ALL STREETS



NOTE: SEE STANDARD DRAWING  
NUMBER R - 9 FOR CURB DETAIL



SUBGRADE OF SUITABLE MATERIALS

NOT TO SCALE

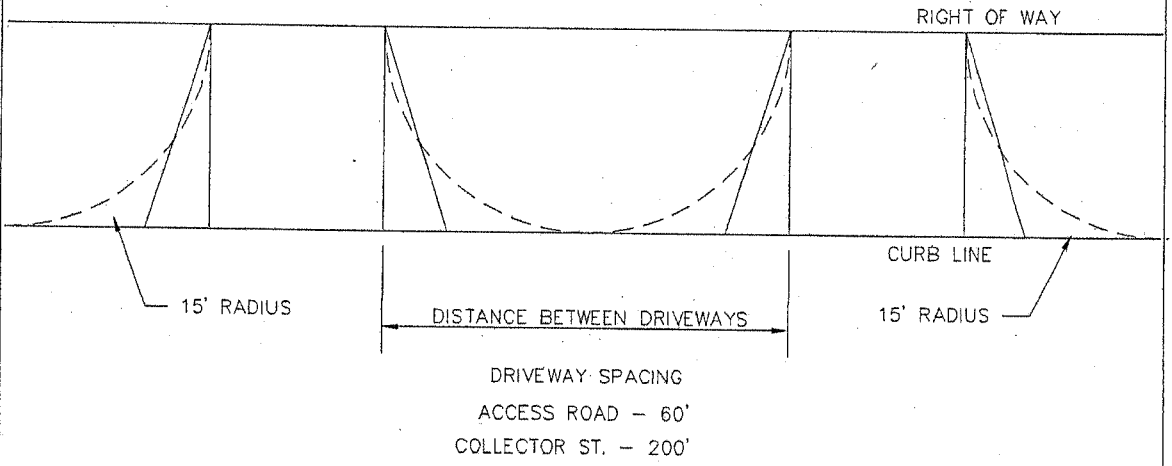
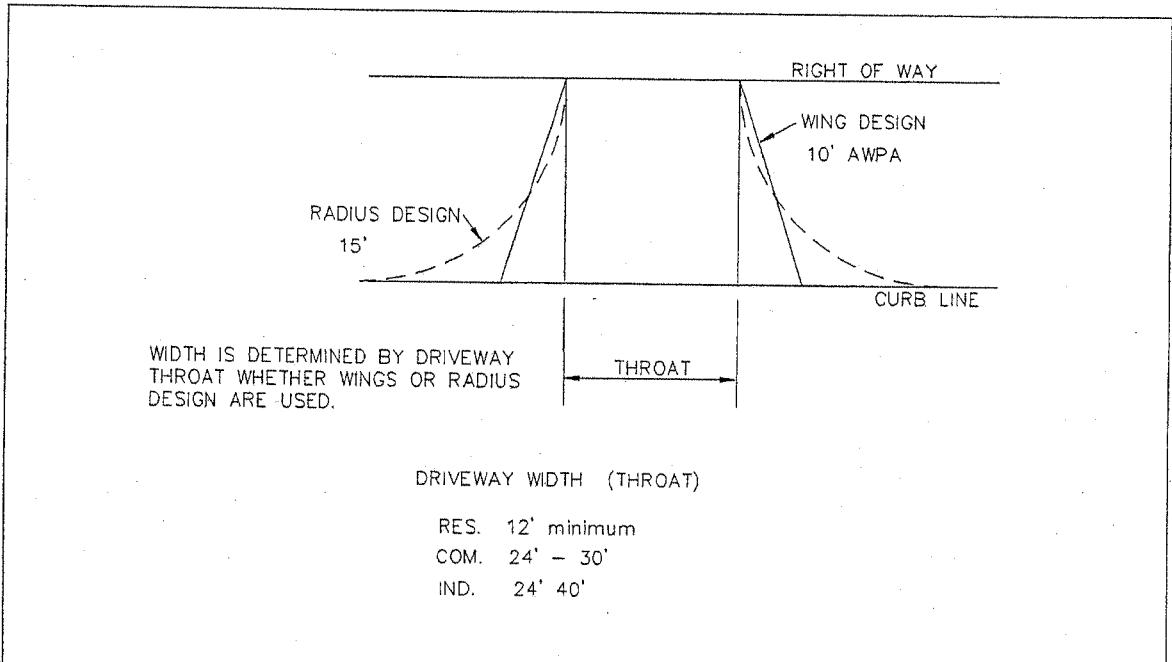
APPROVED

*John T. Ealey*  
Public Works Director Date

CITY OF FERNDALE  
MINIMUM STANDARD  
CURB RAMPS

DRAWING  
R-14





- NOTES:
1. THE MINIMUM DISTANCE BETWEEN A DRIVEWAY AND AN INTERSECTION IS 200' FROM BEGINNING CURB RADIUS TO BEGINNING CURB RADIUS.
  2. MAXIMUM ALLOWABLE DRIVEWAY IS 15%.
  3. A SINGLE FAMILY RESIDENTIAL LOT IS LIMITED TO ONE DRIVEWAY, UNLESS OWNER CAN DEMONSTRATE IMPROVED OPERATION.

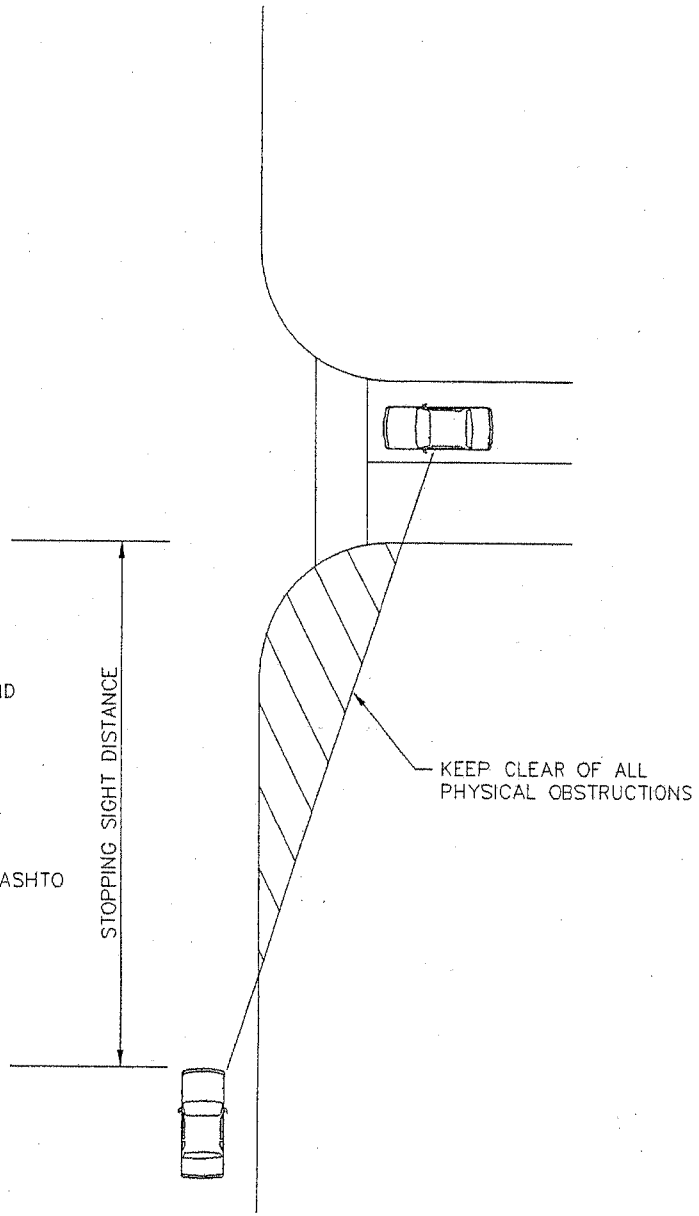
NOT TO SCALE

<p>APPROVED</p> <p><i>[Signature]</i></p> <p>Public Works Director      Date</p>	<p>CITY OF FERNDALE</p> <p>DRIVEWAY WIDTH AND SPACING</p>	<p>DRAWING</p> <p>R-16</p>
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JUNE 1995

SEE A.S.S.H.T.O. FOR  
STOPPING SIGHT  
DISTANCE TRIANGLE.

VEHICLE STORAGE AND  
SIGHT DISTANCE  
20 mph - 175'  
25 mph - 220'  
30 mph - 265'  
35 mph - 310'  
35 mph b PWD & AASHTO



NOT TO SCALE

APPROVED

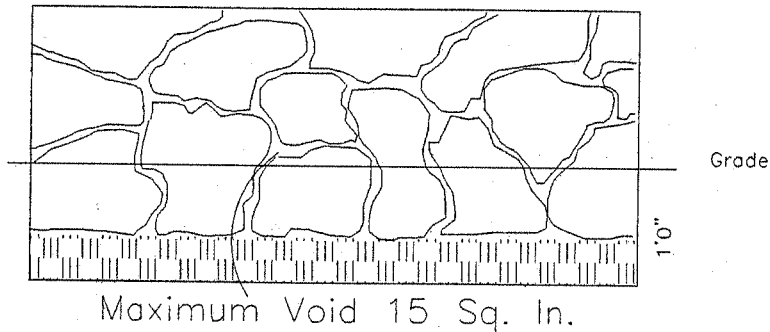
*John F. Ealey*  
Public Works Director Date

CITY OF FERNDALE  
SIGHT DISTANCE

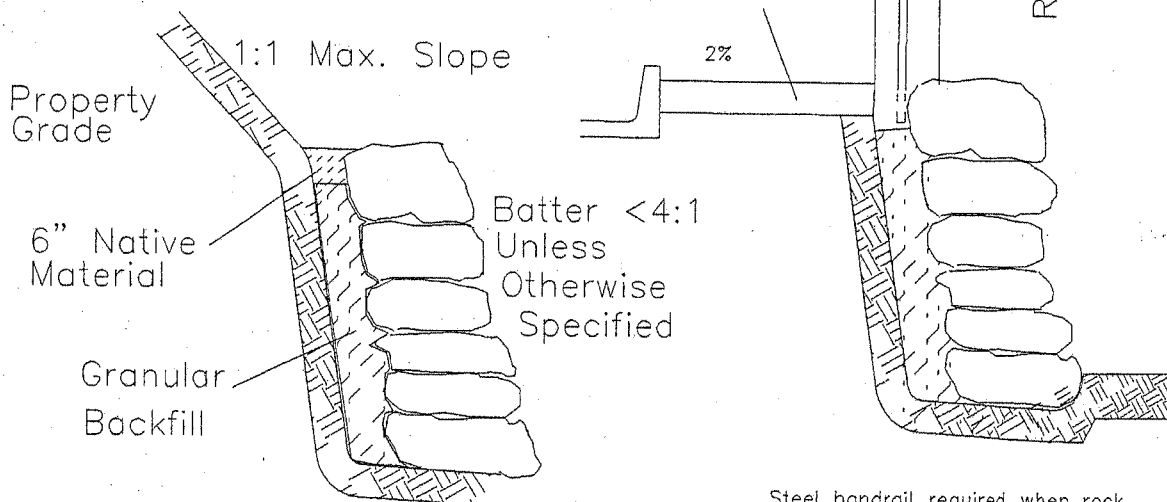
DRAWING

R-17

PLACEMENT DETAIL



SECTION



See specifications for size & type of rocks; where height exceeds 8' the rockery shall be 2 rocks (4') thick, except for the 6', which remain as shown.

Steel handrail required when rock wall is over 3 feet in height measured from original ground.

APPROVED

*John F. Eley*

Public Works Director

\_\_\_\_\_ Date

CITY OF FERNDALE

ROCK WALLS

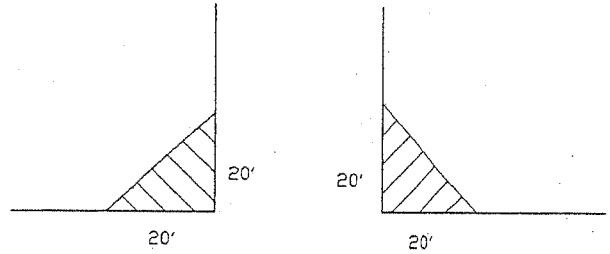
DRAWING

R-18

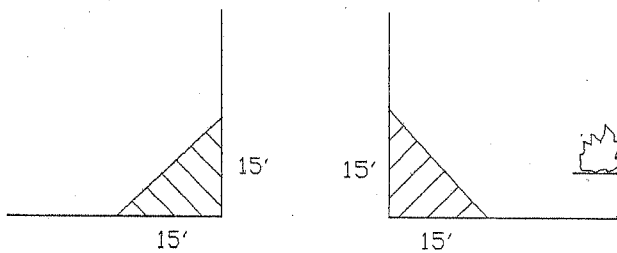
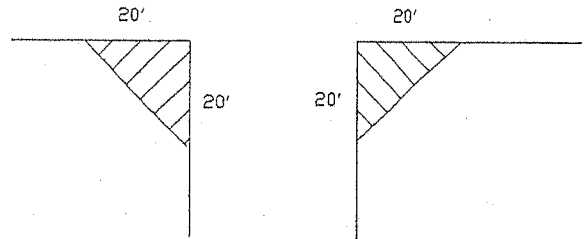
JUNE 1995

NOTES:

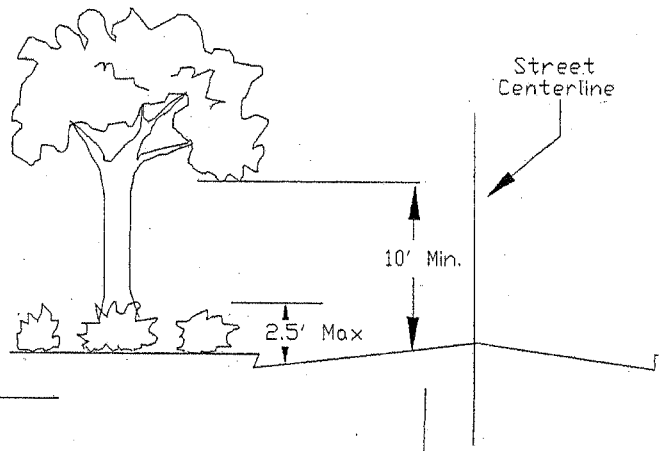
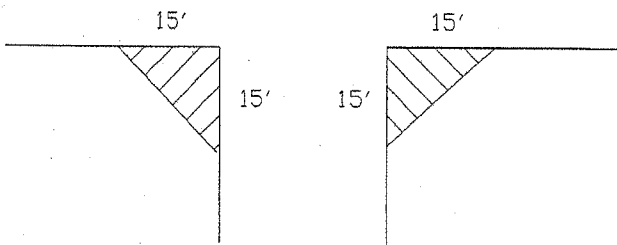
FERNDALE MUNICIPAL CODE SECTION 18.72.040  
 REQUIRES A SPECIAL SETBACK AND CLEAR  
 ZONE FOR ALL SIGHT OBSCURING BUILDINGS,  
 STRUCTURES, SCREENING, FENCES, WALLS,  
 STORED OBJECTS SUCH AS PARKED VEHICLES  
 OR OTHER SIMILAR IMPROVEMENTS OR OBJECTS  
 OF A HEIGHT BETWEEN 2'6" AND 10' AT ALL  
 STREET INTERSECTIONS.



STREETS (in residential zones)



ARTERIAL (other than in residential zones)



NOT TO SCALE

APPROVED

*[Signature]*  
 Public Works Director      Date

CITY OF FERNDALE  
 CLEAR ZONE SETBACK  
 REQUIREMENTS

DRAWING  
 R-19

JUNE 1995