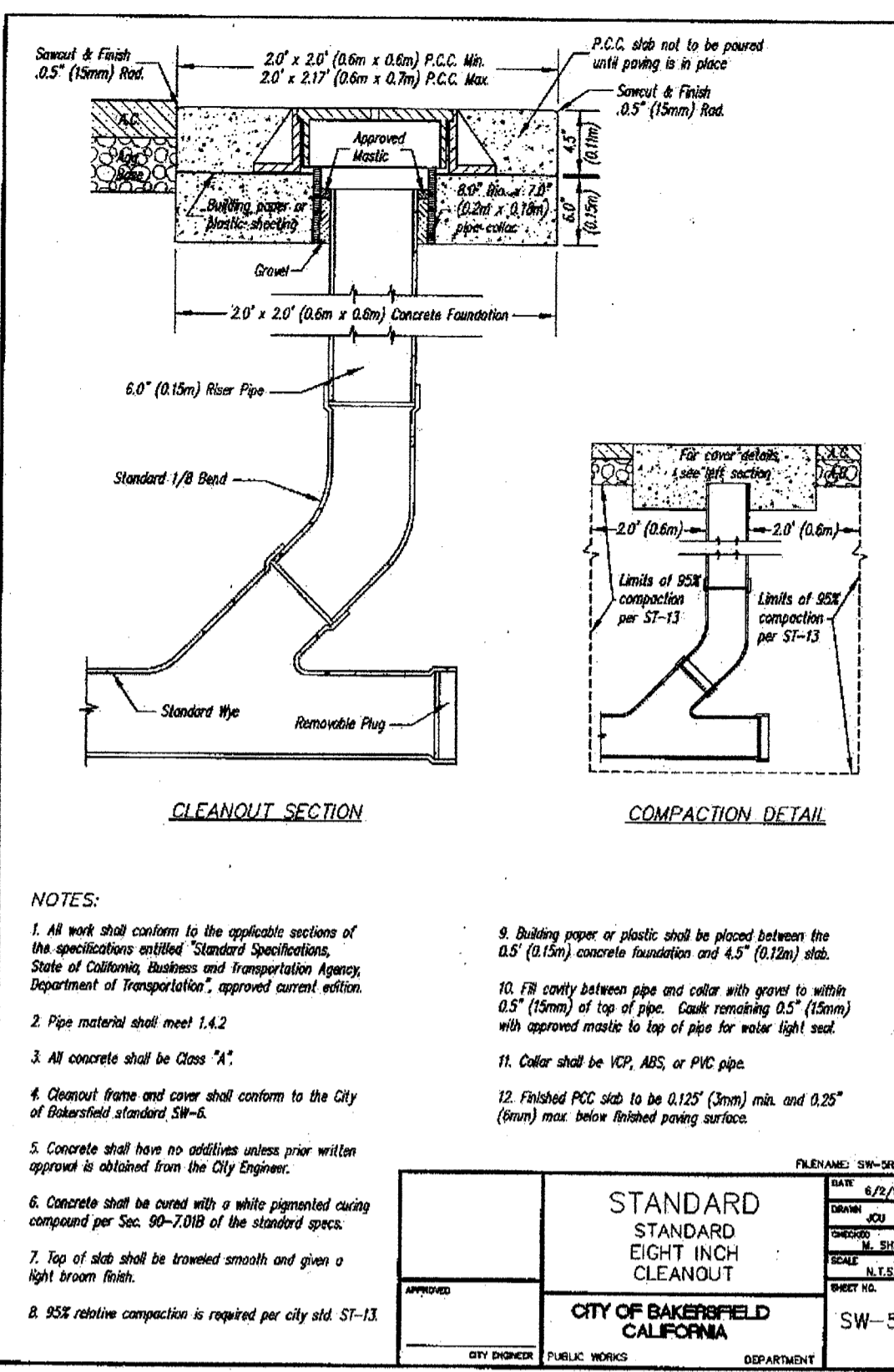


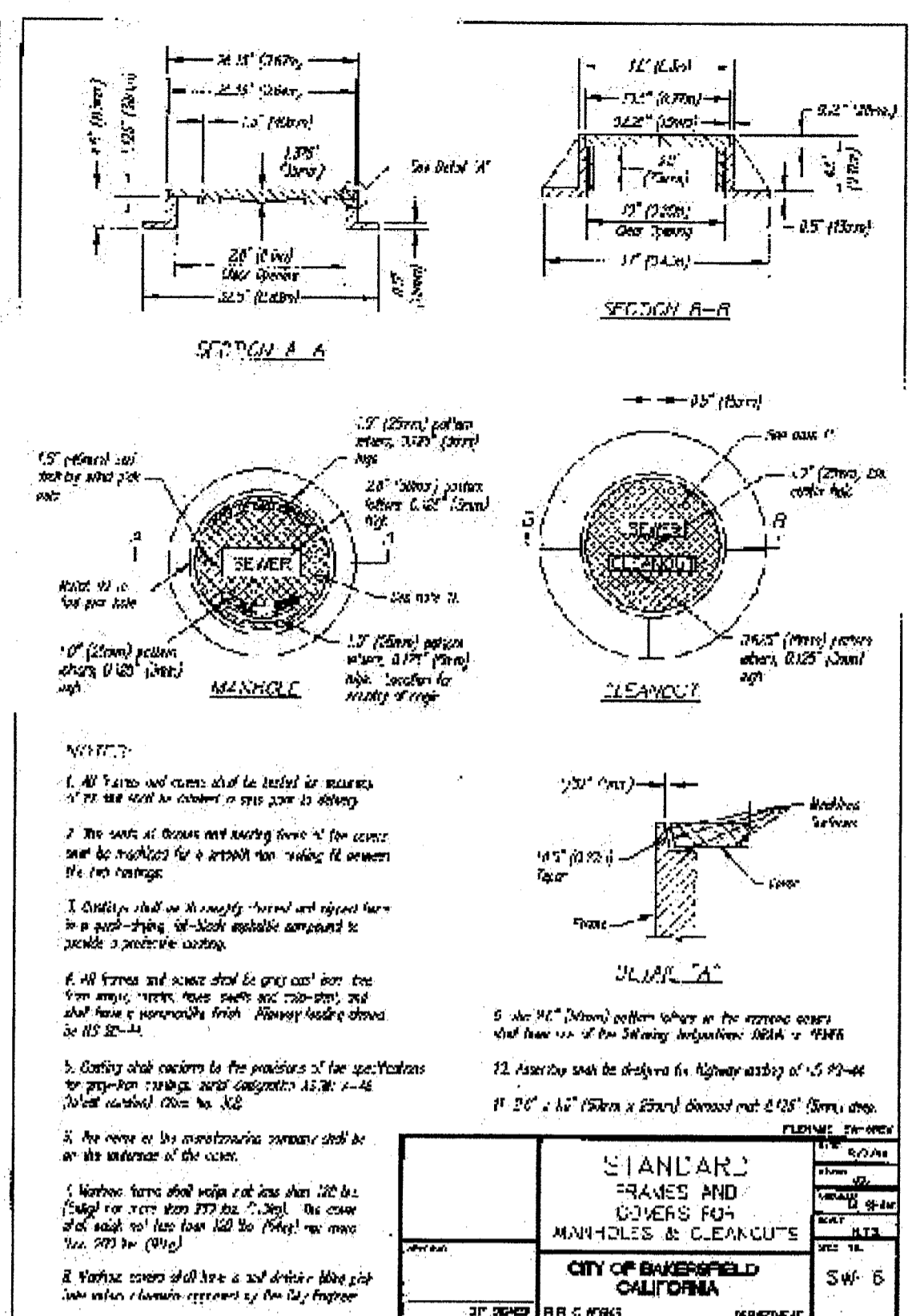
- NOTES:**
- All work shall conform to the applicable sections of the specifications entitled "Standard Specifications, State of California, Department of Transportation," approved current edition.
 - All unlined manhole joints shall be filled with Kent seal or approved lead mastic seal. Leads of materials must be mortared and neatly raised or wiped on inside of pipe.
 - Pre cast reinforced manhole sections shall be constructed in accordance with the provisions of AS10 C-103, current edition.
 - All sewer manholes, for sewer lines larger than 18\"/>

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| FILE NO. 08-288V | DATE 8/2/09 |
| PROJECT SW-2 | DESCRIPTION STANDARD MANHOLE TYPE A |
| CITY ENGINEER | PUBLIC WORKS DEPARTMENT |
| CITY OF BAKERSFIELD CALIFORNIA | |



- NOTES:**
- All work shall conform to the applicable sections of the specifications entitled "Standard Specifications, State of California, Business and Transportation Agency, Department of Transportation," approved current edition.
 - Pipe material shall meet 1.4.2
 - All concrete shall be Class "A"
 - Cleanout frame and cover shall conform to the City of Bakersfield standard SW-6.
 - Concrete shall have no additives unless prior written approval is obtained from the City Engineer.
 - Concrete shall be cured with a white pigmented curing compound per Sec. 90-7.01B of the standard spec.

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| FILE NO. 08-288V | DATE 8/2/09 |
| PROJECT SW-5 | DESCRIPTION STANDARD CLEANOUT |
| CITY ENGINEER | PUBLIC WORKS DEPARTMENT |
| CITY OF BAKERSFIELD CALIFORNIA | |



- NOTES:**
- All frames and covers shall be tested to meet the test set out in section 90-7.01B of the standard spec.
 - The work at cleanout shall be done in a way that will not damage the sewer pipe.
 - Covers shall be tested to meet the test set out in section 90-7.01B of the standard spec.
 - Frames shall be tested to meet the test set out in section 90-7.01B of the standard spec.
 - Frames shall be tested to meet the test set out in section 90-7.01B of the standard spec.

| | |
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| FILE NO. 08-288V | DATE 8/2/09 |
| PROJECT SW-5 | DESCRIPTION STANDARD FRAMES AND COVERS FOR MANHOLES & CLEANOUTS |
| CITY ENGINEER | PUBLIC WORKS DEPARTMENT |
| CITY OF BAKERSFIELD CALIFORNIA | |

Welded Steel Grates with Cross Bars

77% Open Flow Area

Light Duty H-20 Traffic Loading

- Welded steel grates for "U" series catch basins to meet job specifications.
- Individual city, county, district or state requirement information available on request.
- See catch basin page for frame detail.
- ADA accessibility for all sites.

| Ordering Code | Item | Approx. Shipping Weight | Description |
|---------------|-------|-------------------------|---|
| U21-NI | GRATE | 35 | 28 1/2" x 28 1/2" (673 x 673 mm) welded, galvanized, non-traffic |
| U21-HT | GRATE | 75 | 28 1/2" x 28 1/2" (673 x 673 mm) welded, galvanized, H/20 traffic |
| U32-HT | GRATE | 112 | 28 1/2" x 38" (673 x 955 mm) welded, galvanized, H/20 traffic |
| U36-HT | GRATE | 155 | 28 1/2" x 50" (673 x 1270 mm) welded, galvanized, H/20 traffic |
| U43-HT | GRATE | 232 | 36 1/2" x 40" (902 x 1016 mm) welded, galvanized, H/20 traffic |
| U52-HI | GRATE | 280 | 40" x 4 1/2" (1016 x 1200 mm) welded, galvanized, H/20 traffic |

All grates are galvanized, bicycle proof, and bolt down.

| | |
|------------------------------------|-----------------------------------|
| FILE NAME: 08JUN10_150 | ISSUE DATE: January, 2008 |
| MANUFACTURED BY: Oldcastle Precast | WEBSITE: www.oldcastleprecast.com |

U23 CATCH BASIN

CATCH BASIN U23 BOX

WITH OR WITHOUT 2" REEF HOLES

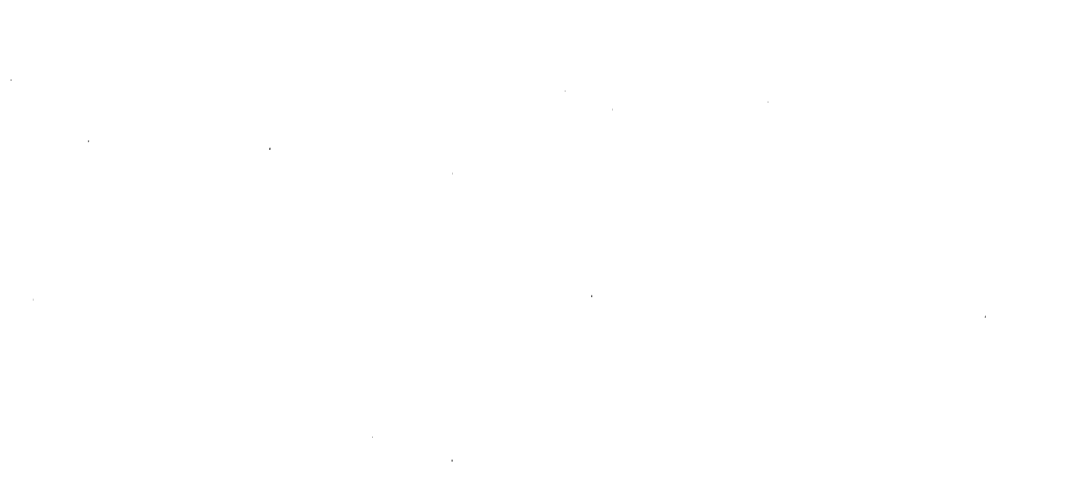
- Concrete catch basins in grade rings and concrete basins.
- Jacking, beveling, and stress to job specifications.
- 4" H or 6" H cast-in-place.
- Progressive welded cross bars provide maximum flexibility, allowing pipes of any size to be jacked and firmly supported in place.
- Standard concrete rings available in 8' increments up to 4' H.
- All materials shall meet the specifications as required.

Cast-in-place concrete frame for grades 1/2" x 1/2" traffic load with standard lifts.

Designed to receive tongue of grade rings with 1/4" H or 6" H.

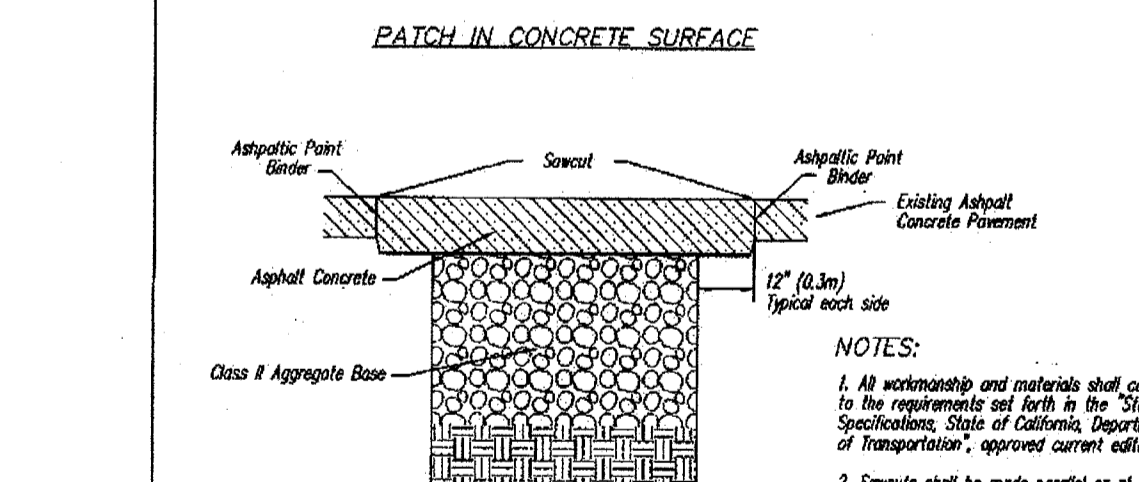
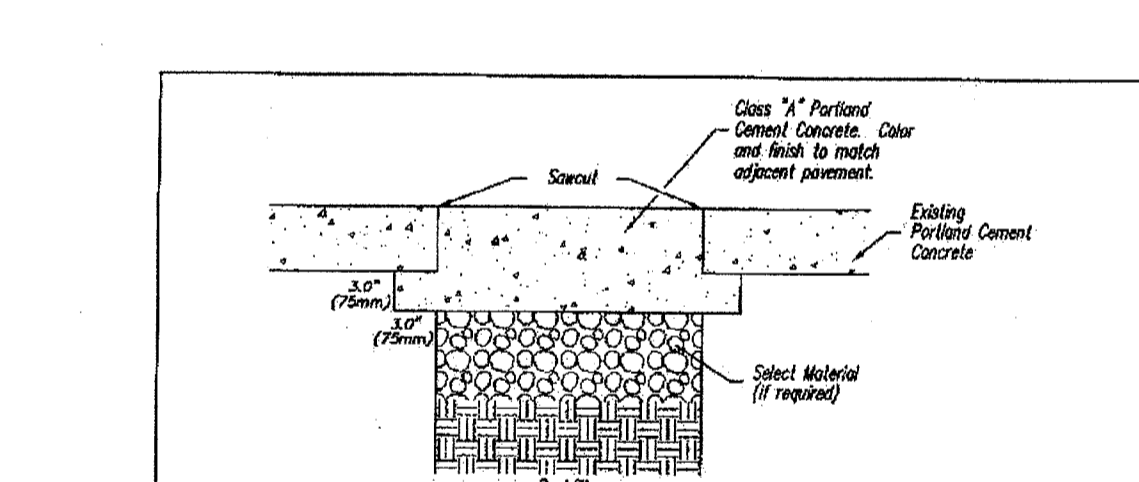
4" reinforced steel job site pouring of concrete with shades of grade level etc.

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| FILE NO. 08-288V | DATE 8/2/09 |
| PROJECT SW-4 | DESCRIPTION U23 CATCH BASIN |
| CITY ENGINEER | PUBLIC WORKS DEPARTMENT |
| CITY OF BAKERSFIELD CALIFORNIA | |



- NOTES:**
- All workmanship and materials shall conform to the requirements set forth in the Standard Specifications, State of California, Department of Transportation, approved current edition.
 - Concrete shall be made parallel to or at right angles to the centerline of the street.
 - Depth of patch material, if required, shall be determined in the field by the engineer.
 - Reference standards ST-13 and ST-14 for compaction requirements.
 - Minimum patch width shall be 2' (0.6m) at its smallest dimension, unless otherwise shown by the city engineer.
 - For patch in asphalt concrete unless otherwise allowed by the city engineer:
 - Local Street: minimum 0.4\"/>
 - For patch in road mixed surface:
 - Material and collector shall be minimum 0.7\"/>

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| FILE NO. 08-288V | DATE 8/2/09 |
| PROJECT SW-12 | DESCRIPTION STANDARD PAVEMENT PATCHES |
| CITY ENGINEER | PUBLIC WORKS DEPARTMENT |
| CITY OF BAKERSFIELD CALIFORNIA | |



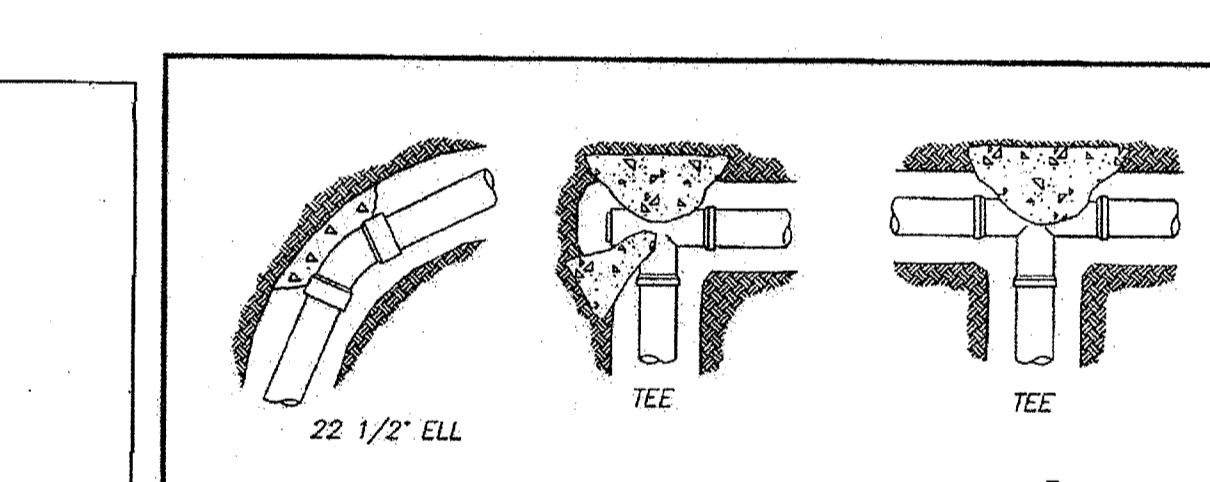
THRUST BLOCK SCHEDULE

| PIPE SIZE | BEARING AREA IN SQUARE FEET | | | | VALVE |
|-----------|-----------------------------|---------|-------------|-------|--------------|
| | TEE OR 90° ELL | 45° ELL | 22 1/2° ELL | CROSS | |
| 8" | 3 | 4 | 2 | 2 | 1.5 EA. 3.0 |
| 10" | 5 | 7 | 4 | 2 | 3.0 EA. 5.5 |
| 12" | 8 | 11 | 6 | 3 | 4.5 EA. 9.0 |
| 14" | 11 | 16 | 8 | 4 | 6.5 EA. 13.0 |
| 16" | 16 | 23 | 13 | 7 | 8.0 EA. 16.0 |

NOTES:

- ALL VALVES, FITTINGS, AND DIRECTIONAL CHANGES ARE TO BE HELD IN PLACE BY CONCRETE THRUST BLOCKS.
- BEARING AREAS INDICATED ARE BASED ON ALLOWABLE SOIL PRESSURE OF 1500 PSF.
- CONCRETE IS NOT TO BEAR AGAINST PIPE. THRUST BLOCK TO ONLY BE IN CONTACT WITH FITTING.
- THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.
- JOINTS SHALL BE KEPT CLEAR OF CONCRETE.

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| FILE NO. 08-288V | DATE 8/2/09 |
| PROJECT SW-4 | DESCRIPTION WATER RESOURCES DEPARTMENT CITY OF BAKERSFIELD, CALIFORNIA THRUST BLOCK DETAIL |
| CITY ENGINEER | PUBLIC WORKS DEPARTMENT |
| CITY OF BAKERSFIELD CALIFORNIA | |



- NOTES:**
- ALL VALVES, FITTINGS, AND DIRECTIONAL CHANGES ARE TO BE HELD IN PLACE BY CONCRETE THRUST BLOCKS.
 - BEARING AREAS INDICATED ARE BASED ON ALLOWABLE SOIL PRESSURE OF 1500 PSF.
 - CONCRETE IS NOT TO BEAR AGAINST PIPE. THRUST BLOCK TO ONLY BE IN CONTACT WITH FITTING.
 - THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.
 - JOINTS SHALL BE KEPT CLEAR OF CONCRETE.
- | | |
|--------------------------------|--|
| FILE NO. 08-288V | DATE 8/2/09 |
| PROJECT SW-4 | DESCRIPTION WATER RESOURCES DEPARTMENT CITY OF BAKERSFIELD, CALIFORNIA BLOWOFF ASSEMBLY - PAVED AREA |
| CITY ENGINEER | PUBLIC WORKS DEPARTMENT |
| CITY OF BAKERSFIELD CALIFORNIA | |

PINNACLE Civil Engineering, Inc.
 2161 Saturn Court, Bakersfield, CA 93308
 Phone: (661) 869-0184 Fax: (661) 377-0076

REVISIONS

DATE

REVISIONS

DATE

REVISIONS

DATE

STANDARD PLAN DETAILS
MUNSEY ELEMENTARY
3801 BRAVE AVENUE
BAKERSFIELD, CALIFORNIA

JOB No.: 09-388
 DWG NO.: 09-388-BM
 DATE: 09/23/2009
 DRAWN BY: ADK
 CHECKED BY: MKY
 SHEET 4 OF 8 SHEETS