



PUBLIC WORKS DEPARTMENT

1501 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301
(661) 326-3724

RAUL M. ROJAS, DIRECTOR • CITY ENGINEER

October 20, 2000

RE: Modification of City's Temporary Sump Policy

Gentlemen:

Due to a request there is a change in our policy of the attached letter. Percolation tests for temporary sumps will no longer be required unless the submitted boring profiles taken in the vicinity reveal a problem may exist, as determined by the City Engineer. Item #2 of paragraph #4 of the attached letter has been changed to show:

2. percolation tests to ensure the site will drain, if boring profiles in the vicinity indicate a percolation problem may exist.

Should you have any questions, please contact Marian P. Shaw at (661) 326-3579.

Very truly yours,


RAUL ROJAS
Public Works Director

c: Marian P. Shaw, Subdivisions

B A K E R S F I E L D

PUBLIC WORKS DEPARTMENT
1501 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301
(805) 326-3724

RAUL M. ROJAS, DIRECTOR • CITY ENGINEER

January 24, 1997

Gentlemen:

Because of the proliferation of non-maintained, non-standard temporary drainage retention sites, the City is adopting the following policy for temporary facilities. The policy will take effect immediately for improvement plans submitted after this date.

The subdivider/developer is encouraged to install the ultimate terminal drainage system and retention basin. If that is not reasonable because of phasing, lack of a terminal site, needed contributions from adjacent owners/developers of either facilities or property, etc., then temporary facilities may be approved by the City Engineer subject to the following provisions.

Temporary facilities will not be allowed if the ultimate terminal site is within three hundred feet, or otherwise as determined and approved by the City Engineer.

At the time of grading plan submittal, the number and location of temporary retention sites shall be specifically indicated for review and approval by the City Engineer. The subdivider/developer shall submit evidence to support the use of temporary facilities, including but not necessarily limited to the following:

- 1 drainage calculations to verify capacity;
- 2 percolation tests to ensure the site will drain.

Prior to improvement plan approval, the subdivider/developer shall

- 1 grant necessary flowage/drainage easements to the City for the temporary facilities;
- 2 enter into an agreement with the City and
 - 2.1 post approved security to guarantee construction of the ultimate drainage facilities and retention basin;
 - 2.2 post a cash deposit to guarantee maintenance of the temporary facilities, on the schedule and to such criteria as required by the City Engineer and stated in the agreement, until such time as the ultimate facilities are constructed;
 - 2.3 maintain liability for the temporary facilities until such time as the ultimate facilities are constructed.
- 3 provide the necessary easements for the ultimate system and retention basin.

The subdivider/developer shall post \$5,000 cash for a shallow, unfenced site with a maximum size of 2,500 square feet, top to top as measured at the catch point.

Deeper, fenced sites larger than 2,500 square feet shall require a \$10,000 cash deposit.

You may contact Marian Shaw of this office at (805) 326-3724 if you have any questions.

Very Truly Yours,


RAUL M. ROJAS
City Engineer



PUBLIC WORKS DEPARTMENT

1501 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301
(661) 326-3724

RAUL M. ROJAS, DIRECTOR • CITY ENGINEER

September 24, 1999

To Whom it May Concern

Subject: Standard Signal Interconnect Requirements (New T-34)

Dear Sir;

Our department has developed a new standard for the installation of signal interconnect conduit which is attached for your use. This standard will be included in the new version of the Subdivision Design Manual along with specific policies for its use. Until such time as the new manual is formally completed, said policies shall be applicable, effective immediately. The policy, which now formalizes prior unwritten policy which has been in effect for over 2 years, is as follows:

Traffic signal interconnect conduit shall be installed along all collector and arterial streets or as directed by the Traffic Engineer as part of the standard street improvements. Omission of interconnect conduit is permitted where acceptable alternate means of communication is provided for in the City Communication Master Plan. Placement of conduit shall be on the side of the street first developed unless otherwise directed due to prior development or conduit placement.

Interconnect conduit shall be 2" minimum with pull rope or pull wire and shall conform to CalTrans Standard Specifications, current edition. Interconnect conductor shall be installed where a complete segment of conduit is being placed between signalized or future signalized intersections. The standard location for conduit shall be under sidewalk and shall be constructed with No. 5 pull boxes per detail T-34 spaced at a maximum of 400 feet. Alternate design locations may be allowed as approved by the Traffic Engineer.

If you have any questions concerning this, please contact Marian P. Shaw at (805) 326-3579.

Very truly yours,

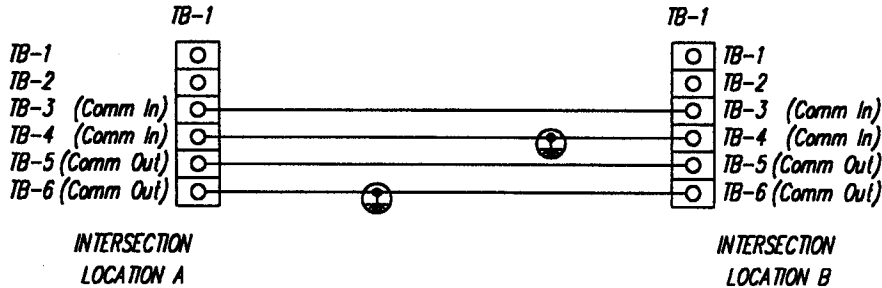
RAUL M. ROJAS
Public Works Director

C2P MODEM INTERCONNECT/TERMINAL BLOCK TB-1

INPUT PANEL #4

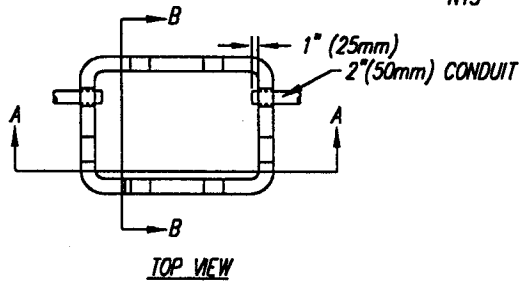
WIRE COLOR ASSIGNMENTS

PIN	FUNCTION	WIRE COLOR MODEM HARNESS	TB-1	WIRE COLOR INTERCONNECT CABLE
A	AUDIO IN	WHITE	TB1-3	WHITE
B	AUDIO IN	BLACK	TB1-4	BLACK
C	AUDIO OUT	RED	TB1-5	BLACK
E	AUDIO OUT	GREEN	TB1-6	GREEN

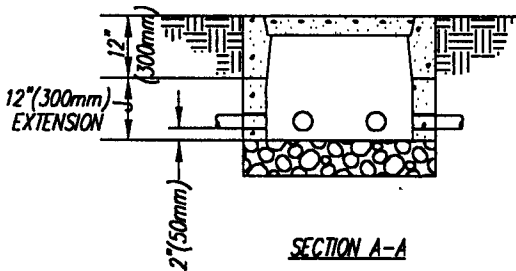


INTERCONNECT DETAIL

NTS

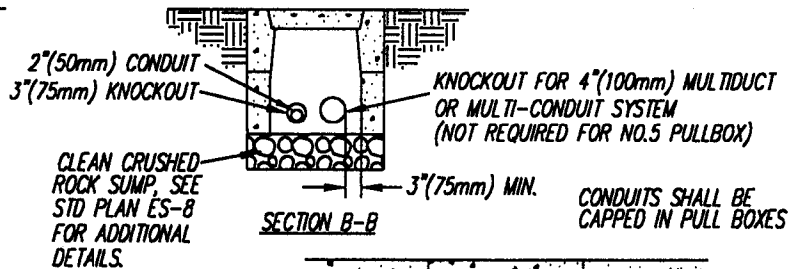


LIDS SHALL READ "TRAFFIC SIGNAL"



SECTION A-A

NO.5 PULLBOX WITH EXTENSION
(NO.6 PULLBOX WITH EXTENSION SIMILAR)



SECTION B-B

CONDUITS SHALL BE CAPPED IN PULL BOXES

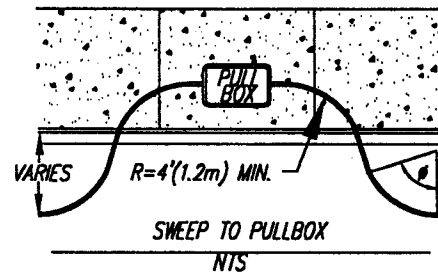
MULTI-DUCT

TRAFFIC SIGNAL INTERCONNECT SHALL BE INSTALLED ALONG ALL ARTERIAL AND COLLECTOR STREETS OR AS DIRECTED AS PART OF THE STANDARD STREET IMPROVEMENT. OMISSION OF INTERCONNECT CONDUIT ALONG ARTERIAL OR COLLECTOR STREETS MAY BE ALLOWED WHERE ACCEPTABLE ALTERNATE MEANS OF COMMUNICATION IS PROVIDED FOR IN THE CITY TRAFFIC COMMUNICATION MASTER PLAN.

MULTI-DUCT CONDUIT IS REQUIRED ON ALL SIGNAL COMMUNICATION BACKBONE ROUTES SHOWN ON THE CITY TRAFFIC COMMUNICATION MASTER PLAN, PULL BOXES ARE TO BE NO. 6.

ALL OTHER ROUTES

INSTALL 2"(50mm) SCHEDULE 40 CONDUIT UNDER SIDEWALK WITH PULL BOXES AT 400'(120m) MAXIMUM INTERVAL. PULL BOXES SHALL BE NO. 5 WITH EXTENSIONS AND KNOCKOUTS. CONDUIT SHALL BE BROUGHT INTO PULL BOXES PARALLEL TO THE EXISTING SURFACE (HORIZONTAL). THE TOTAL ANGULAR BEND OF CONDUIT BETWEEN PULL BOXES SHALL NOT EXCEED 180 DEGREES. A PULL ROPE CONFORMING TO SECTION 86-2.05C "INSTALLATION" OF THE STANDARD SPECIFICATION SHALL BE INCLUDED IN ALL INTERCONNECT CONDUIT FOR INSTALLATION OF FUTURE CONDUCTORS.



VARIES
R=4' MIN.
(1.2m)

NOTE: TO BE USED ONLY WHEN CONDUIT IS ALLOWED TO BE PLACED AT GUTTER LIP LINE. IN ALL OTHER CASES, CONDUIT IS TO BE LOCATED UNDER SIDEWALK AREA.

T-34.DWG

APPROVED	CITY ENGINEER	STANDARD TRAFFIC SIGNAL INTERCONNECT- WIRING AND PULL BOXES	DATE 09/99
			DRAWN R. Starbuck
PUBLIC WORKS DEPARTMENT	CITY OF BAKERSFIELD CALIFORNIA	T-34	CHECKED Bruce Deeter
			SCALE None



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PUBLIC WORKS DEPARTMENT
1501 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301
(805) 326-3724

RAUL M. ROJAS, DIRECTOR • CITY ENGINEER

January 11, 1999

Subject: Standard Trench Backfill and Compaction Requirements (ST-22)
Pavement Patches (ST-6)

Dear Sir;

In our recent correspondence we included the new ST-22 standard for trench backfill and compaction requirements. There have been some revisions to this and the new standard is enclosed.

Due to the City of Bakersfield's past experience with new sewer lines maintaining line and grade, the determination has been made that any sewer lines whose installation does not conform to the revised trench backfill and compaction requirements could place the residents of the immediate area in a condition dangerous to their health. Therefore, the only projects exempt from this new standard are those that were approved by the City Engineer prior to the date of this letter. All other projects must meet this standard as of this date.

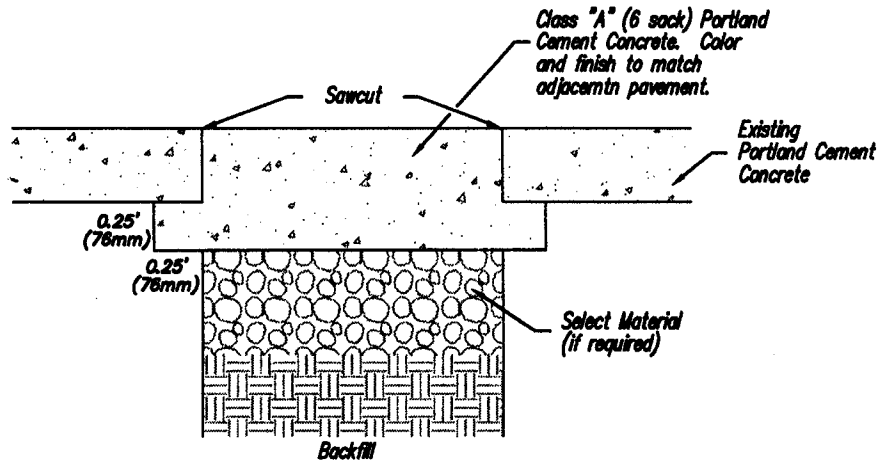
Also enclosed is the new standard for pavement patches. Any project that is approved by the City Engineer prior to the date of this letter is exempt from the new standard. All other projects must meet this standard as of this date. For your information the ST-8 that is referenced on the new Pavement Patches standard is the new number for the Structural Pavement Sections standard in the new Subdivision Design Manual that is currently being revised. The number for that standard in the existing manual is S-25.

If you have any questions concerning this, please contact Marian P. Shaw at (805) 326-3579.

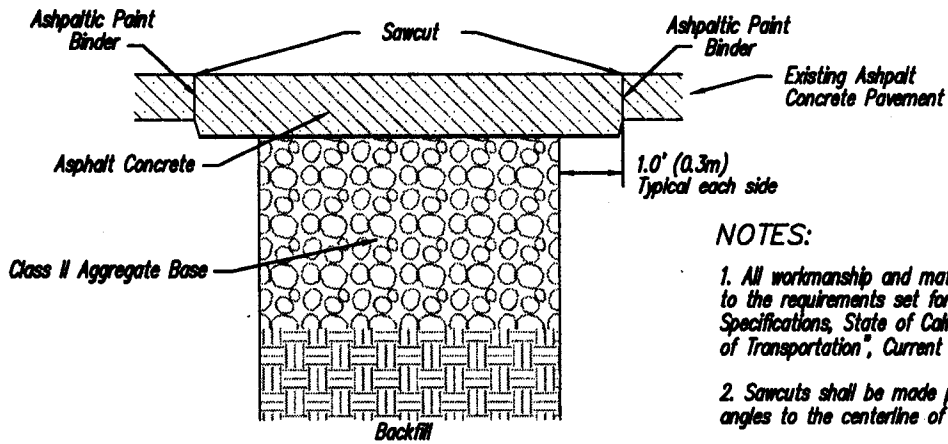
Very truly yours,

RAUL M. ROJAS
Public Works Director

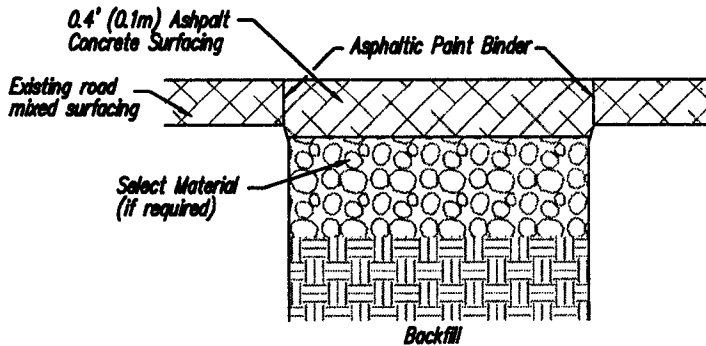
By: 
Jacques R. LaRochelle
Engineering Services Manager



PATCH IN CONCRETE SURFACE



PATCH IN ASPHALT CONCRETE SURFACE



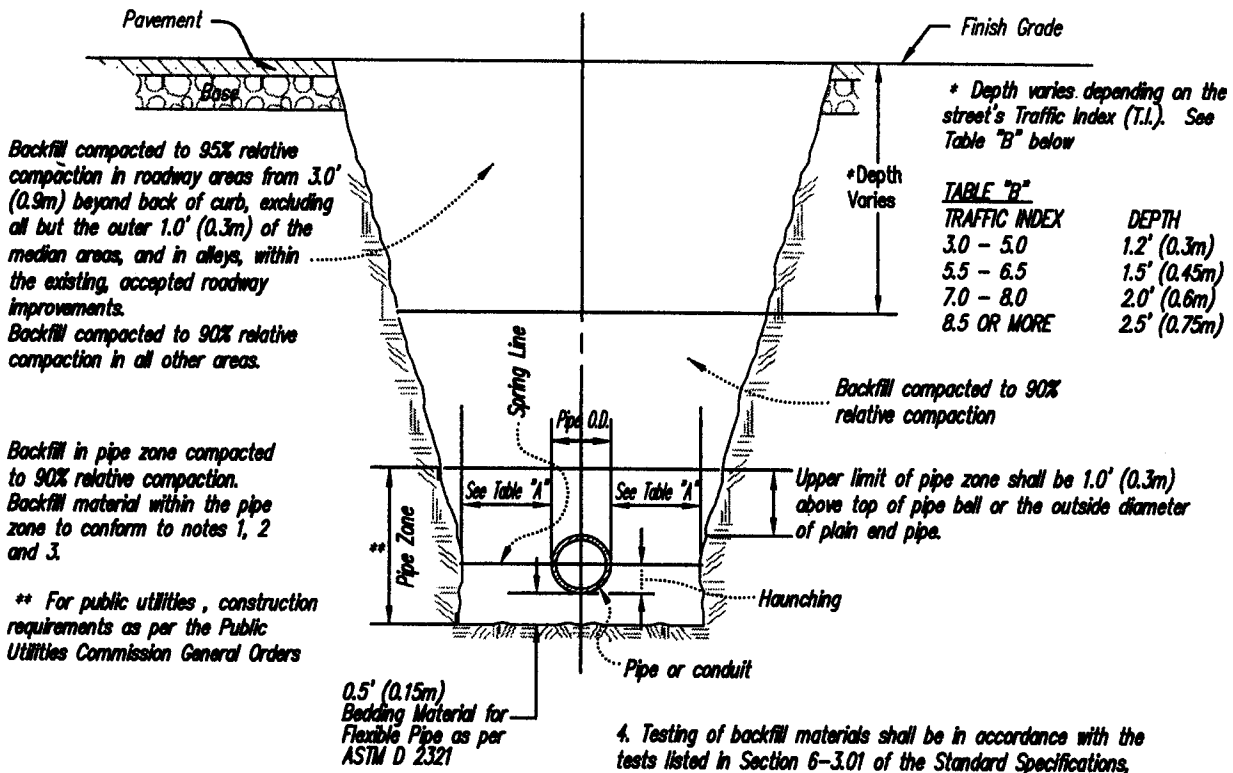
PATCH IN ROAD MIXED SURFACE

NOTES:

1. All workmanship and materials shall conform to the requirements set forth in the "Standard Specifications, State of California, Department of Transportation", Current Edition.
2. Sawcuts shall be made parallel or at right angles to the centerline of the street.
3. Depth of select material, if required, shall be determined in the field by the engineer.
4. Patches less than 2.0' (0.6m) from existing patches, edges of payment, or gutter shall be extended to include the intermediate isolated strip of existing pavement.
5. Minimum patch width shall be 2.0' (0.6m) at its smallest dimension, unless otherwise allowed by the city engineer.
6. Reference standards ST-8 and ST-22 for compaction requirements.
7. For patch in asphalt concrete unless otherwise allowed by the city engineer:
 - A. local streets minimum 0.4' (0.1m) asphalt concrete over 0.5' (0.15m) Class II aggregate base
 - B. Arterial and collector streets minimum 0.7' (0.2m) asphalt concrete over 1.0' (0.3m) Class II aggregate base.

FILENAME: ST-6REV

	STANDARD	DATE 1/11/99
	PAVEMENT PATCHES	DRAWN JCU
	CITY OF BAKERSFIELD CALIFORNIA	CHECKED M. SHAW
		SCALE N.T.S.
APPROVED	ST-6	SHEET NO.
CITY ENGINEER		PUBLIC WORKS DEPARTMENT



* Depth varies depending on the street's Traffic Index (T.I.). See Table "B" below

TRAFFIC INDEX	DEPTH
3.0 - 5.0	1.2' (0.3m)
5.5 - 6.5	1.5' (0.45m)
7.0 - 8.0	2.0' (0.6m)
8.5 OR MORE	2.5' (0.75m)

NOTES:

- Backfill for Rigid Pipe.**
Backfill material within the pipe zone shall be free of deleterious material and shall have a Sand Equivalent of not less than 20 and shall conform to the following grading:

Sieve Size	Percentage passing
3/4" (19mm)	100
No. 4	35-100
No. 30	20-100

This backfill material shall be placed in not to exceed one foot (1.0' loose)(0.3m) layers, simultaneously on each side of the pipe in such a manner as not to damage or disturb the pipe on its alignment and grade. Each layer shall be thoroughly compacted by mechanical tamping. Backfill material shall be properly compacted to springline prior to proceeding.

2. Backfill for flexible pipe.
Pipe and fittings shall be installed in accordance with the current ASTM specification D-2321. Only Class I and II embedment materials within the pipe zone will be considered suitable. Within the pipe zone, water flooding and jetting shall not be used for backfill compaction for flexible pipe. The bedding and haunching shall be hand placed to the Spring line of the pipe and properly compacted. For sewer mains, Class I bedding is required for bedding and haunching. Care shall be taken not to dislocate the pipe. The remaining backfill in the pipe zoned shall be hand placed and compacted in lifts not to exceed 0.5' (0.15m) thickness. Backfill material shall be properly compacted to springline prior to proceeding.

3. Backfill material above the pipe zone shall be free of deleterious material and lumps or stones exceeding 0.25' (80mm) in greatest dimension and shall be placed in not to exceed one foot (1.0' loose) (0.3m) layers and each layer shall be thoroughly compacted by mechanical tamping.

4. Testing of backfill materials shall be in accordance with the tests listed in Section 6-3.01 of the Standard Specifications, (or ASTM D1557, Method "C") for trench width greater than 1.0' (0.3m). If trench width is less than 1.0' (0.3m), backfill with 2 sack slurry.

5. Compaction tests will be required and shall be the responsibility of the Developer / Subdivider / Contractor. The number and location of the tests shall be determined by the City Engineer. The tests shall be in accordance with the tests listed in Section 6-3.01 of the Standard Specifications, (or ASTM D1557, Method "C").

6. Each layer of backfill material shall meet the compaction, sand equivalent and gradation requirements before the next layer is placed.

7. For pavement patches within paved areas, see standard drawing SI-6 in this design manual.

TABLE "A"

The following shall apply for trench widths:		
PIPE	WIDTH	
IN GREATEST DIMENSION	TAMPING	CLASS I BEDDING OR SLURRY
1.0'(0.3m) or less	1.0'(0.3m) wider both sides	0.25'(80mm) wider both sides
1.0'(0.3m) up to 2.0' (0.6m)	1.0'(0.3m) wider both sides	0.5'(0.15m) wider both sides
2.0'(0.6m) or more	1.5'(0.45m) wider both sides	1.0'(0.3m) wider both sides

FILENAME: ST-22REV

APPROVED	CITY ENGINEER	PUBLIC WORKS	DEPARTMENT	DATE 1/11/99
				DRAWN JCU
STANDARD TRENCH BACKFILL AND COMPACTION REQUIREMENTS				CHECKED M. SHAW
				SCALE N.T.S.
CITY OF BAKERSFIELD CALIFORNIA				SHEET NO. ST-22

RAUL M. ROJAS, DIRECTOR • CITY ENGINEER

June 4, 1998

Subject: Fiberglass Street Lights

Dear Sir;

The City of Bakersfield is experiencing problems with fiberglass street lights installed in the City right of way, such as cracking, warping, discoloring and falling down.

Therefore, as of this date the use of all fiberglass street lights in the City right of way are prohibited until further notice.

If you have any questions concerning this, please contact Marian P. Shaw at (805) 326-3579.


Very truly yours,

RAUL M. ROJAS
Public Works Director

By:



Jacques R. LaRochelle
Engineering Services Manager



B A K E R S F I E L D

PUBLIC WORKS DEPARTMENT

1501 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301
(805) 326-3724

RAUL M. ROJAS, DIRECTOR • CITY ENGINEER

November 19, 1997

To Interested Engineers and Contractors,

The Public Works Department currently has a pilot program using polyethylene profile wall pipe for storm drains. It has come to our attention that these lines are experiencing maintenance problems. We are conducting an evaluation of these lines.

As of this date the Public Works Department will not allow installation of polyethylene profile wall pipe for storm drain systems in the City right of way or easements that are maintained by the City until these evaluations have been complete.

If you have any questions concerning this, please contact Jacques LaRoche at (805)326-3724.


Very truly yours,

RAUL M. ROJAS
Public Works Director

By:



Jacques R. LaRoche
Engineering Services Manager



B A K E R S F I E L D

PUBLIC WORKS DEPARTMENT

1501 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301
(805) 326-3724

RAUL M. ROJAS, DIRECTOR • CITY ENGINEER

July 25, 1997

To Whom It May Concern,

Please be advised that any dedications required of new developments will have the recording information of those dedications labeled on the improvement plans prior to the City Engineer's approval of plans. If easements are to be dedicated on the final subdivision map, this also should be noted on the improvement plans. This requirement also applies to any capital improvement project for the City of Bakersfield and any improvement constructed under permit from the City of Bakersfield.

Structural pavement sections for all streets, (arterials, collectors, and locals) shall now be required to have a safety factor of 0.20 per the Caltrans Highway Design Manual.

If you have any questions regarding this matter, please contact Marian Shaw at 326-3724.

Very Truly Yours,

RAUL M. ROJAS
Public Works Director

By: 
Jacques R. LaRochelle
Engineering Services Manager



B A K E R S F I E L D

PUBLIC WORKS DEPARTMENT

1501 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301
(805) 326-3724

RAUL M. ROJAS, DIRECTOR • CITY ENGINEER

February 7, 1997

Subject: Testing of Asphalt Concrete Paving

Gentlemen:

As of March 3, 1997, the City of Bakersfield will require that all asphalt concrete paving meet the testing requirements attached prior to any street being accepted into the City infrastructure. These standards are currently being used in the City's Capital Improvement Program and it is both desirable and prudent to have the same standards govern the work done by the development community.

If you have any questions concerning this, please contact Marian P. Shaw at (805) 326-3579 or Darrell Graves at (805) 326-3780.

Very truly yours,

RAUL M. ROJAS
Public Works Director

By:



Jacques R. LaRochelle
Engineering Services Manager

Attachments

m:\letters\1997\asphalt.ltr

SP7-39.01

7-1. ASPHALT CONCRETE. Asphalt concrete shall be Type "B" and shall conform to the provisions in Section 39, "Asphalt Concrete", of the Standard Specifications and these special provisions.

Aggregate for Type "B" asphalt concrete shall conform to the requirements for three-fourths (3/4) inch maximum, medium grading, as specified in Section 39-2.02, "Aggregate", of the Standard Specifications.

When directed by the City Engineer, aggregate conforming to any of the grading requirements in Section 39-2.02, "Aggregate", of the Standard Specifications shall be used to surface intersections, tapers, and other areas where thin layers of asphalt concrete are being constructed.

Asphalt concrete Type "B" shall have a bituminous binder of paving grade asphalt of AR 4000 viscosity grade, unless otherwise directed by the City Engineer, and shall conform to the requirements shown in the table for "Steam-Refined Paving Asphalt" in Section 92-1.02, "Grades", of the Standard Specifications.

Prior to commencing work on the project, the Contractor shall provide to the City Engineer the following information:

- a. The aggregate and asphalt source;
- b. Documentation that aggregates conform to Section 39-2.02, "Aggregate", of the Standard Specifications. Material sieve analysis and sand equivalent results should not be older than six (6) months. The other test results required in Section 39-2.02, "Aggregate", of the Standard Specifications should not be older than one (1) year.
- c. An asphalt concrete mix design determined by California Test 367. The laboratory test results on which the design is based shall be included for review. The asphalt concrete mix shall also meet the requirements of Section 39-2.02, "Aggregate", of the Standard Specifications. If the submitted data shows that the materials are substantially the same as when the design was prepared, the design may be up to three (3) years old.

The asphalt binder in the concrete shall be four and one-half percent (4.5%) to five and eight-tenths percent (5.8%) based on the weight of the dry aggregate only.

The asphalt concrete shall be compacted so that the void ratio of the completed mix is between six percent (6%) and eight percent (8%).

Paving joints shall match stripe locations.

If the finished surface of the asphalt concrete does not meet the specified surface tolerances, it shall be brought within tolerance by either:

- a. Abrasive grinding with equipment utilizing diamond blades (with fog seal coat on the areas which have been ground),
- b. Removal and replacement, or
- c. Placing an overlay of asphalt concrete. The method will be selected by the City Engineer. The corrective work shall be at the Contractor's expense. If used, the Fog Seal Coat shall be either Asphalt Rejuvenating Agent or Asphaltic Emulsion as directed by the City Engineer.

If abrasive grinding is used to bring the finished surface to specified surface tolerances, additional grinding shall be performed as necessary to extend the area ground in each lateral direction so that the lateral limits of grinding are at a constant offset from, and parallel to the nearest lane line or pavement edge, and in each longitudinal direction so that the grinding begins and ends at lines normal to the pavement centerline, within any ground area. All ground areas shall be neat

rectangular areas of uniform surface appearance. Abrasive grinding shall conform to the requirements in the first paragraph and the last four paragraphs in Section 42-2.02, "Construction", of the Standard Specifications.

Where the compacted thickness is 0.15 foot or less, half width surfacing operations shall be conducted in such a manner that, at the end of each day's work, the distance between the ends of adjacent surfaced lanes shall not be greater than can be completed in the following day of normal surfacing operations. Additional asphalt concrete shall be placed along the transverse edge at the ends of each lane, hand raked, and compacted to form temporary conforms. Kraft paper, or other approved bond breaker, may be placed under the conforms to facilitate the removal of the conforms when paving operations resume.

Where the compacted thickness is more than 0.15 foot, the Contractor shall schedule his paving operations such that each layer of asphalt concrete is placed on all contiguous lanes of a traveled way each work shift. At the end of each work shift, the distance between the ends of the layers of asphalt concrete on adjacent lanes shall not be greater than ten (10) feet. Additional asphalt concrete shall be placed along the transverse edge at the ends of each lane and along the exposed longitudinal edges between adjacent lanes, hand raked, and compacted to form temporary conforms. Kraft paper, or other approved bond breaker, may be placed under the conform feathers to facilitate the removal of the feathers when paving operations resume.

The area to which paint binder has been applied shall be closed to public traffic. Care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond the limits of construction.

A prime coat will not be required on subgrade prior to placement of asphalt concrete.

Intersections and tapered shoulders shall be surfaced as directed by the City Engineer. At road connections and private drives, shown on the plans and as directed by the City Engineer, additional asphalt concrete surfacing material shall be placed and hand raked, if necessary, and compacted to form smooth, tapered connections.

The compaction after rolling shall be ninety-five percent (95%) of the density obtained with the California Kneading Compactor per California Test 304.

The field density of compacted asphalt concrete shall be determined by:

- a. A properly calibrated nuclear asphalt testing device in the field, or
- b. ASTM D1188 when slabs or cores are taken for laboratory testing. Zinc stearate may be substituted with paraffin.

In case of dispute, method 2 above shall be used.

If the test results for any lot of asphalt concrete indicate that the relative density is below ninety-five percent (95%), but above ninety-two and nine-tenths percent (92.9%), the Contractor will be advised that he is not attaining the required relative density and that his materials, or procedures, or both, need adjustment. Asphalt concrete spreading operations shall not continue until the Contractor has notified the City Engineer of the adjustment that will be made in order to meet the required compaction.

If the tests results for any lot of asphalt concrete indicate that the relative density is less than ninety-three percent (93%), the asphalt concrete represented by that lot shall be removed and replaced.



B A K E R S F I E L D

PUBLIC WORKS DEPARTMENT
1501 TRUXTUN AVENUE
BAKERSFIELD, CALIFORNIA 93301
(805) 326-3724

ED W. SCHULZ, DIRECTOR • CITY ENGINEER

April 13, 1993

ALL STREET IMPROVEMENT DESIGNERS

RE: STRIPING & DETOUR PLAN REQUIREMENT

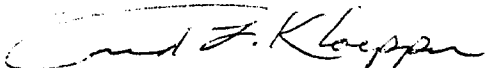
Gentlemen:

City crews will no longer be installing new or revised striping needed for street improvements due to development. Striping will now be included as part of the standard improvement requirements.

Any new street plans shall show existing striping and pavement markings and revisions required thereto. All new striping and marking shall be included with the street improvement plans and shall be installed by the developer's contractor. The developer's engineer shall determine how the new street will be constructed while maintaining existing traffic. If such a determination requires a detour plan, said plan shall also be included.

Striping and detour plans shall generally follow Caltrans Traffic Manual and current edition Caltrans Standard Plans and Specifications. Any questions concerning details shall be directed to our Traffic Engineering Division. Contact either Bruce Deeter (326-3958) or Jack LaRochelle (326-3993). Information on preferred standards, examples and other data may be requested.

Very truly yours,



FRED L. KLOEPPER
Assistant Public Works Director

cc: Ed Schulz
Art Moore
Gerry Claassen
Steve Walker

L:TL41393
FLK:wrn

CITY OF BAKERSFIELD STANDARD STRIPING REQUIREMENTS

1. These requirements are intended to supplement and clarify the requirements contained in the CalTrans Traffic Manual and the standards and specifications in the CalTrans Standard Plans and Specifications, current edition. City Standard Special Provisions shall also apply which include, but are not limited to, the special provision for stripe removal and the special provision for thermoplastic striping (see attached).
2. The attached details, special provisions and these specifications are to be used as a guide for developing signing & striping plans. Specific situations may require special consideration.
3. Signing & striping plans shall show the existing signing, striping and marking within the limits of the project. It shall also extend beyond the project limits an adequate distance needed to determine proper transition.
4. Depending upon the location involved, various methods for dividing traffic may be available or appropriate. These include: a yellow skip stripe, double yellow stripe, double-double yellow stripe (painted median) and two-way turn lane stripe. The Traffic Engineer shall have final determination as to which method is used.
5. Paint shall be thermoplastic conforming to Caltrans Standard Specifications, unless other treatment is allowed. Details for striping from the Standard Plans shall be the types which include raised pavement markers.
6. Existing stripes shall be removed, where necessary, and shall conform to City Specifications.
7. Provisions shall be included to have the Inspector review the "Rabbit Tracked" layout in the field prior to final striping. Field adjustments may be needed.
8. It is the responsibility of the project's Engineer to review the roadwork to be done with relationship to maintaining existing traffic. If the project's Engineer determines a detour is needed then a detour plan shall also be included. If no detour plan is provided but the Inspector finds that one is necessary during construction then the project's Engineer shall provide such a plan at that time and no work shall progress until such plan is approved.
9. Attached are typical striping plans which cover most of the common striping situations encountered. Striping plans shall be designed to provide the total number of lanes for ultimate full width improvements whenever possible. Specific projects may require special treatment to match existing conditions (e.g. - dropping a lane or forcing the outside lane to turn at an intersection, providing only 2-lanes each way on a 6-lane arterial, moving lanes over due to 1/2 width improvements, etc.).

CITY OF BAKERSFIELD

STRIPING AND STRIPE REMOVAL SPECIAL PROVISIONS

REMOVE TRAFFIC STRIPES AND PAVEMENT MARKINGS. Traffic stripes and pavement markings to be removed will be as shown on plans and as designated by the Engineer.

Traffic stripes and pavement markings shall be removed to the fullest extent possible from the pavement by any method that does not materially damage the surface or texture of the pavement or surfacing. Where blast cleaning is used for the removal of painted traffic stripes and pavement markings, the area shall be shielded so that no material from the blasting operation is allowed to enter the area that is open to public traffic. Sand or other material deposited on the pavement as a result of removing traffic stripes and markings shall be removed as the work progresses. Accumulations of sand or other material which might interfere with drainage or might constitute a hazard to traffic will not be permitted.

Traffic stripes shall be removed before any change is made in the traffic pattern.

Blast cleaning for removal of traffic stripes shall be feathered out to irregular and varying widths. Pavement markings shall be removed by blast cleaning a rectangular area, rather than just lettering or markings, so the old message cannot be identified.

After removal of traffic stripes and pavement markings, a fog seal coat shall be applied in conformance with the provisions in Section 37, "Bituminous Seals," of the Standard Specifications and the following:

In traffic stripe removal areas, the fog seal coat shall be applied over the traffic stripe removal area and to irregular and varying widths with an average width of 2 feet on each side of the blast cleaned traffic stripe removal area.

In pavement marking removal areas, the fog seal coat shall be applied to the blast cleaned rectangular area.

Nothing in these special provisions shall relieve the Contractor from his responsibilities as provided in Section 7-1.09, "Public Safety," of the Standard Specifications.

TRAFFIC STRIPES AND PAVEMENT MARKINGS. Traffic Stripes and Pavement markings placed at permanent locations, as designated on the plans, shall be thermoplastic and shall conform to Section 84-2, "Thermoplastic Traffic Stripes and Pavement Markings," of the Standard Specifications, and these special provisions.

The first sentence of Section 84-2.01 "Materials" shall be revised to read:

The thermoplastic materials shall conform to State Specification 8010-21C-19.

Traffic Stripes and Pavement markings placed at temporary locations, as designated on the plans, shall be either Rapid Dry Water Borne paint conforming to Section 84-3 "Painted Traffic Stripes and Pavement Markings" of the Standard Specifications or permanent type striping tape as specified on the CalTrans list of approved prequalified and tested signing and delineation materials and products. Striping tape shall be installed in accordance with the manufacturer's specifications.

PAVEMENT MARKERS. Pavement markers shall conform to Section 85 "Pavement Markers" of the Standard Specifications.



D6.1e—1989

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

FOR STREETS AND HIGHWAYS

TABLE II-1—A Guide For Advance Warning Sign Placement Distance¹

Posted or 85 percentile speed MPH	Condition			General warning signs ²					
	A high judg- ment needed ³ (10 secs. PIEV)	B—Stop condition	C—Deceleration condition to listed advisory speed—MPH (for desired speed at condition)						
				0	10	20	30	40	50
20	175	(⁴)	(⁴)						
25	250	(⁴)	(⁴)						
30	325	100	100						
35	400	150	200						
40	475	225	275				175		
45	550	300	350				250		
50	625	375	425				325	225	
55	700	450	500				400	300	
60	775	525	575				475	400	300
65	850	600	650				550	500	400
							625	575	500
									375

Typical Signs for the Listed Conditions in Table II-1: Condition A—Merge, Right Lane Ends, etc.; Condition B—Cross Road, Stop Ahead, Signal Ahead, Ped-Xing, etc.; Condition C—Turn, Curve, Divided Road, Hill, Dip, etc.

1 Distances shown are for level roadways. Corrections should be made for grades. If 48-inch signs are used, the legibility distance may be increased to 200 feet. This would allow reducing the above distance by 75 feet.

2 In urban areas, a supplementary plate underneath the warning sign should be used specifying the distance to the condition if there is an in-between intersection which might confuse the motorist.

3 Distance provides for 3-second PIEV. 125 feet Sign Legibility Distance, Braking Distance for Condition B and Comfortable Braking Distance for condition C as indicated in A Policy on Geometric Design of Highways and Streets, 1984, AASHTO, Figure II-13.

4 No suggested minimum distance provided. At these speeds, sign location depends on physical conditions at site.

5 Feet

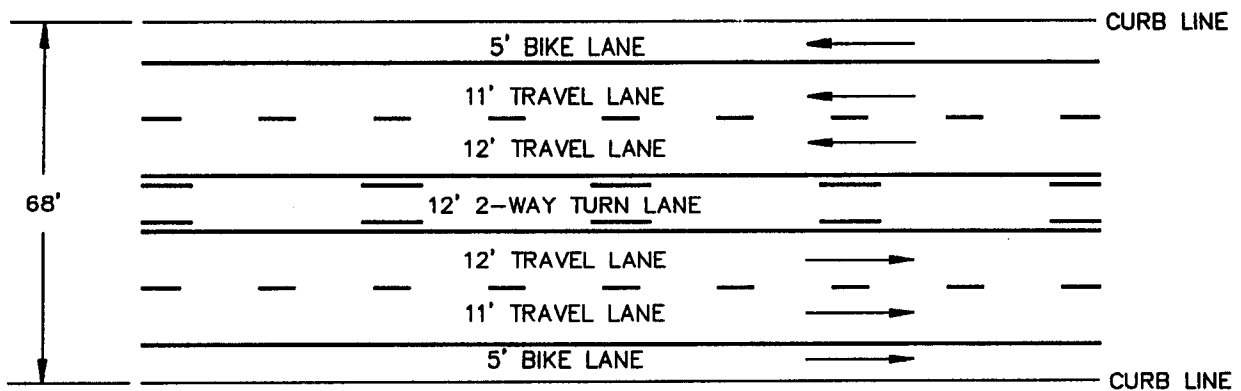
Condition A—a higher driver judgment condition which requires the driver to use extra time in making and executing a decision because of a complex driving situation; i.e., lane changing, passing, or merging. **Condition B**—a condition in which the driver will likely be required to stop; and **Condition C**—a condition in which the driver will likely be required to decelerate to a specific speed. The table is provided as an aid for determining warning sign location. The values contained in the table are for guidance purposes and should be applied with engineering judgment. The placement of temporary warning signs used at highway construction and maintenance sites is covered in Part VI of this Manual and the suggested minimum sign placement distances given in Table II-1 may not apply to that group of signs.

Other miscellaneous warning signs that advise of potential hazards not related to a specific location may be installed in the most appropriate locations since they are not covered in Table II-1. These include DEER CROSSING and SOFT SHOULDER signs. Minimum spacing between warning signs with different messages normally should be based on the PIEV times for driver comprehension and reaction.

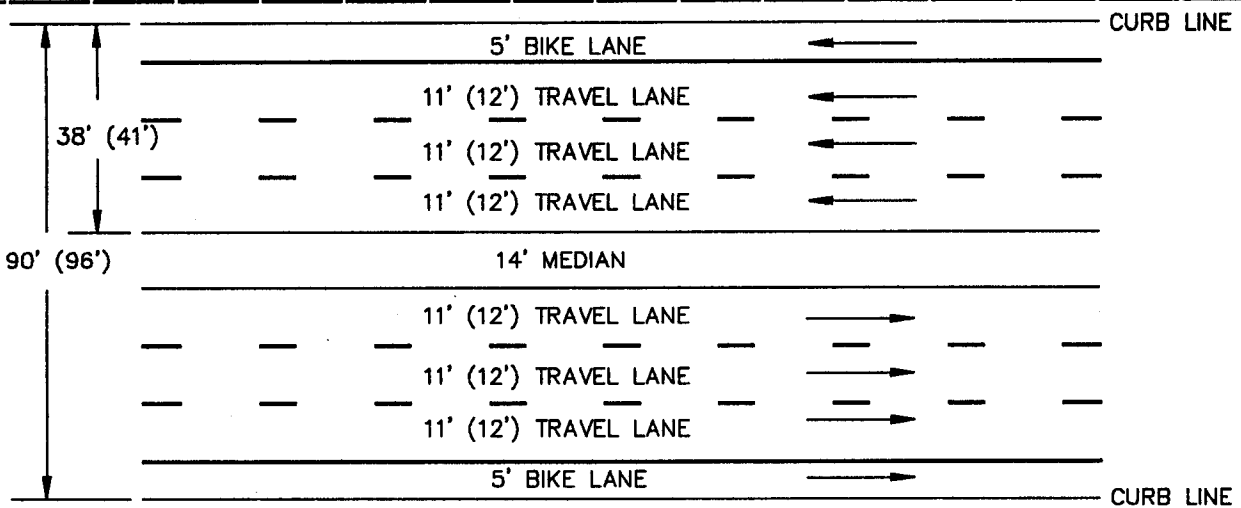
The effectiveness of the placement of any warning sign should be tested periodically under both day and night conditions. Figure 2-5 (page 2A-17) shows typical installations of standard warning signs.

2C-4 Turn Sign (W1-1)

The Turn sign (W1-1R or 1L) is intended for use where engineering investigations of roadway, geometric, and operating conditions show the

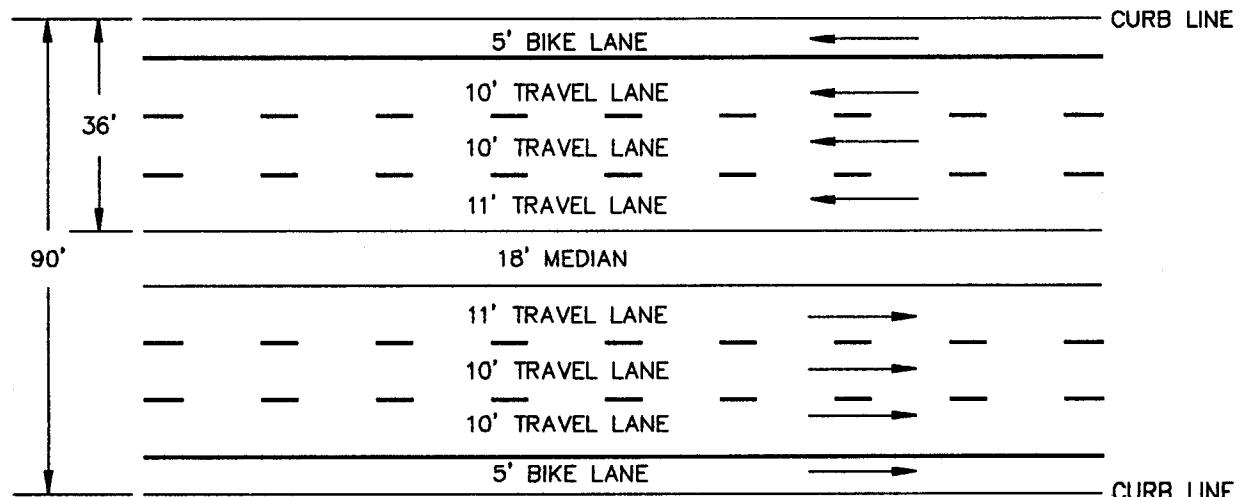


MAJOR COLLECTOR STREET



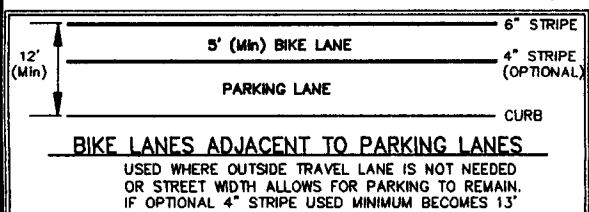
**MAJOR ARTERIAL STREET
(14' MEDIAN)**

(D) DIMENSION FOR NEW STREETS WHICH HAVE BEEN WIDENED 6' TO ACCOMMODATE BIKE LANES.



**MAJOR ARTERIAL STREET
(18' MEDIAN)**

Drawing File: BIKELANE
REVISED 4/16/93



Note: All Bike Lane Signing, Striping & Marking to be in accordance with Chapter 1000 of CalTrans Hwy Design Manual.

APPROVED	CITY OF BAKERSFIELD CALIFORNIA	DATE 8/2/89
		DRAWN BJD
CITY ENGINEER	ENGINEERING	CHECKED JRL
		SCALE NONE
DEPARTMENT		SHEET NO. 1 of 1