COUNTY OF SAN JOAQUIN

DEPARTMENT OF PUBLIC WORKS
P.O. BOX 1810-1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
(209) 468-3000
FAX # (209) 468-9324

RIDER

Permit No: **PS-0900367**
Date Issued: 09/03/2009
Exp. Date: 11/15/2009
Project No: PWP110005
Quad: SE

ENCROACHMENT PERMIT

To: CITY OF STOCKTON
2500 NAVY DR.
STOCKTON, CA 95206

Encroachment Type:

Trench			

Location:
W/S OF HWY 99 FRONTAGE RD. 1/2 MILE N/O ARCH RD.

In compliance with your request of **02/19/2009** , permission is hereby granted to do work in County right-of-way as shown on attached application and subject to all the terms, conditions and restrictions written below or printed as general or special provisions on any part of this form. See reverse side and attached sheet, if any.

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The Department of Public Works, Field Inspection Section shall receive a notice at least forty-eight hours prior to beginning any work within the County right of way. All work performed under this permit shall conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety and Cal-OSHA.

The jobsite shall be kept in a safe condition at all times by the daily removal of any excess dirt or debris which might be a hazard to either pedestrian or automobile traffic. All necessary traffic convenience and warning devices and personnel shall be provided, placed and maintained by and at the sole expense of the Permittee in accordance with the latest edition of the CALTRANS Manual of Traffic Control.

After completion of the work permitted herein, all debris, lumber, barricades, or any excess material shall be removed and the jobsite left in a neat workmanlike manner. Immediately following completion of construction permitted herein, Permittee shall fill out and mail notice of completion provided by Grantor.

Special Comments:
Traffic Control per MUTCD- See attached "Special Conditions"- Frontage Road Closure is extended for one week until Friday (10/16/2009) from 7:00 a.m. to 4:00 p.m., after 4:00 P.M. road shall be opened to through traffic.

FORMS:

SS/WW, R-29		

Est. Permit Fee: $5,000.00

THOMAS R. FLINN, Director
Department of Public Works

By: _____
Permit Section

WHITE	-Permitee
GOLDENROD	-PWD Central File
YELLOW	-Field Inspection
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ENCROACHMENT PERMIT

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   STREETS AND HIGHWAYS CODE
   1. Division 1, Chapter 3
   2. Division 2, Chapter 2, Section 942
   3. Division 2, Chapter 4, Section 1126
   4. Division 2, Chapter 6

   SAN JOAQUIN COUNTY ORDINANCES NUMBERED: 324, 441, 648, 662, 672, 695, 700, 860, and 892.

2. It is understood and agreed by the Permittee that the doing of any work under this permit shall constitute an acceptance of all the provisions contained herein and failure on the Permittee's part to comply with any provision will be cause for revocation of this permit. Except as otherwise provided for public agencies and franchise holders, this permit is revocable on five days notice.

3. All work shall be done subject to the supervision of and the satisfaction of the grantor. The Permittee shall at all times during the progress of the work keep the County Highway in as neat and clean a condition as is possible and upon completion of the work granted herein, shall leave the County Highway in a thoroughly neat, clean and usable condition.

4. The Permittee also agrees by the acceptance of this permit to properly maintain any encroachment structure placed by the Permittee on any part of the County Highway and to immediately repair any injury to any portion of the highway, which occurs as a result of the maintenance of the said encroachment structure, until such time as the Permittee may be relieved of the responsibility of such maintenance of the encroachment structure by the County of San Joaquin.

5. The Permittee also agrees by the acceptance of this permit to make, at its own expense, such repairs as may be deemed necessary by the County Director of Public Works or his representative.

6. It is further agreed by the Permittee that whenever construction, reconstruction or maintenance work upon the highway may. require, the installation provided for herein shall, upon request of the County Department of Public Works, be immediately moved by and at the sole expense of the Permittee.

7. No material used for fill or backfill in the construction of the encroachment shall be borrowed or taken from within the County right of way.

8. All work shall be planned and carried out so that there will be as little inconvenience as possible to the traveling public. No material shall be stacked within eight feet (8') of the edge of the pavement or traveled way unless otherwise provided herein. Adequate provision shall be made for the protection of the traveling public. Barricades shall be placed, With approved Signs and lights at light, and flagmen shall be employed, all as may be required by the particular work in progress.

9. The Permittee, by the acceptance of this permit, shall assume full responsibility for all liability for personal injury or damage to property which may arise out of the work herein permitted or which may arise out of the failure of the part of the Permittee to do the work provided for under this permit. In the event any .claim of such liability is made against the County of San Joaquin or any department, official or employee thereof, the Permittee shall defend, indemnify, and hold them and each of them harmless for such claim.

10. All backfill material is to be moistened as necessary and thoroughly compacted with mechanical means. If required by the County Director of Public Works, such backfill shall consist of gravel or crushed rock. The Permittee shall maintain the surface over structures placed hereunder as may be necessary to insure the return of the roadway to a completely Stable condition and until relieved of such responsibility by the County Department of Public Works. Wherever a gravel, crushed rock or asphalt surfacing is cut or damaged in the work of placing an encroachment structure, such material shall either be separately stored and replaced in the roadway as nearly as possible.in its original state or shall be replaced in kind, and the roadway shall be left in at least as good a condition as It was before the commencement of operations of placing the encroachment structure.

11. Whenever necessary to, secure permission from abutting property owners, such authority must be secured by the Permittee prior to starting work..

12. The future safety and convenience of the traveling public shall be given every consideration in the location and type of construction.

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RIDER

Permit No: **PS-0900367**
Date Issued: 09/03/2009
Exp. Date: 11/15/2009
Project No: PWP110005
Quad: SE
Extended To: 02/01/2010

ENCROACHMENT PERMIT

To: CITY OF STOCKTON
2500 NAVY DR.
STOCKTON, CA 95206

Encroachment Type:

Trench			

Location:
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FORMS:

SS/WW, R-29		

Est. Permit Fee: $5,000.00

THOMAS R. FLINN, Director
Department of Public Works

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SPECIAL CONDITIONS FOR
MARFARGOA RD. (ARCH RD. PROJECT)
ENCROACHMENT PERMIT

1. Maintain traffic controls for all roads. Traffic control delays shall not exceed 15 minutes. Two-way traffic shall be maintained during non-working hours with excavated areas backfilled or plated. During working hours, Hwy 99 Frontage Road shall be closed between Marfargoa Rd. and Imperial Way from 7:00 A.M. to 4:00 P.M. for a period of one week. The road shall reopen to thru traffic at the end of each work day at 4:00 P.M. The contractor shall submit traffic control plans for all signing, detours, and any lane closure impacting County right-of-Way.

2. Any road closures requiring 24-hours or more shall be approved by San Joaquin County Board of Supervisors.

3. Contractor shall notify residents of Marfargoa Road that the only access during closure times is through SR99/Clark Drive/Frontage Road.

4. Contractor shall obtain a permit from Caltrans for sign placement on Clark Drive ramps.

5. There shall be 24-hour access provided on Marfargoa Road.

6. The Frontage Road shall not be closed north of Marfargoa Road, there is no outlet for the traffic.

7. Access to all properties shall be maintained at all times except when work is occurring at the access point. Minimal delays will be allowed to provide access within the work zone area. Driveway access shall be fully restored at the end of each workday. Driveways disturbed by the contractor shall be replaced with in-kind or better materials.

8. Residents and businesses shall be notified in writing, as approved by the County, 48-hours in advance of any impacts to their access.

9. Any areas where parking is to be restricted shall have signs noticing the time period placed at least 48 hours in advance of the work.

10. No trench cutting of County roads shall occur between November 1 and March 31 without prior authorization by the County.

11. Final paving for trench repair or road resurfacing shall be per Caltrans' specifications and shall not occur between November 1 and March 31 unless authorized by the County.

12. All pipe and pipeline-related facilities including, but not limited to, valves, utility boxes and vaults, and frames and covers shall be maintained by the City of Stockton. The City shall be responsible for any and all costs associated with the future relocation and/or adjustment of these facilities as determined by the County at the City's expense. (Streets and Highways Code 1463)

13. All future maintenance of the pipeline and related facilities within the County right-of-way will require a San Joaquin County Encroachment Permit.

14. Length of open, unbackfilled trench shall be limited to a total maximum length of 250 linear feet during working hours.

15. Trenches shall be maintained in a smooth and even condition to the satisfaction of the County throughout the project limits at all times.

16. All trenches shall be completely backfilled or shored and plated at the end of each workday, and the roadway restored to two-way traffic. If plating is to be used, a trench shoring and plating plan suitable for traffic loadings shall be prepared by a registered civil engineer and submitted for prior approval by the County.

17. The contractor shall use San Joaquin County Standard R-29 when backfilling trenches within the County right-of-way. Where the existing road structural section is below standard, a minimum section of 3 inches of asphalt concrete over 8 inches of aggregate base shall be required.

18. Temporary pavement shall be provided for all trench areas within three days of pavement removal or by Friday of each week, whichever is more restrictive.

19. Final trench paving shall be placed when the length of temporarily surfaced trench exceeds 1,500 linear feet or by segment of road as determined by the County. Final trench paving will also be required to be placed when interruptions or delays of the work exceed two (2) weeks.

20. Roadway areas subject to pavement cuts shall receive a 0.12-foot asphalt concrete overlay from the centerline to the edge of the traveled way. If the pavement is disturbed on both sides of the centerline, then the entire roadway shall be resurfaced, in such areas as bore location. All pavement conforms shall be ground to provide a flush surface. Contractor shall grind and overlay within 10 working days of permanent trench paving. Shoulder areas shall be brought up to the finish grade as directed by the County.

21. Contractor shall establish existing roadway and drainage grades within the construction area. Any repair to roadways and adjacent areas shall match existing grades. Any proposed grade changes shall receive prior approval from County.

22. City of Stockton shall defend and hold harmless the County for any accidents that may occur on County Right-of-Way within the limits of the detour as well as in the construction zone.

23. Shoulder backing in areas without curb and gutter shall be Class II Aggregate Base.

24. A report describing a public information campaign to inform affected residents and businesses shall be submitted to the County for approval prior to beginning work.

25. Frontages of commercial properties shall not be blocked in a manner that restricts access of the public to the site.

26. Concrete pavement shall be removed to existing joints and shall be replaced in kind. Concrete pavement mix design shall be approved by County prior to placement.

27. Above ground ARV boxes and other similar facilities will be allowed within the right-of-way if located as far to the outside edge as possible and if the location either meets AASHTO Clear Zone guidelines or is protected by an existing obstruction such as a tree or utility pole.

PS-0900367

APPLICATION FOR ENCROACHMENT PERMIT

PLEASE PRINT:

Date 1/9/09

To: San Joaquin County
Department of Public Works

City of Stockton
(Applicant Name)

2500 Navy Drive
(Mailing Address)

Stockton, CA, 95206
(City, State, Zip Code)

(209) 937-8790
(Area Code - Telephone Number)

OFFICE USE ONLY

JOB #	76051	REF #	
APN		CR #	
EXP. DATE	6/1/09		
VALID	3/1/09 TO 6/1/09	DRIVEWAYS:	
STREET	W. Hwy 99 Frontage Rd.	*	
AREA	STKN QUAD SE	*	
TYPE	TRENCHING	*	
FORMS	SS/WW, R-29		
NOTES			

Sketch (Detailed plans may be submitted)

SEE Attached Plans.

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the West side of Frontage Road approximately 0.4 feet/mile North of Arch Road, by performing the following work (description of work):

Construction of 24" Sanitary Sewer Force Main

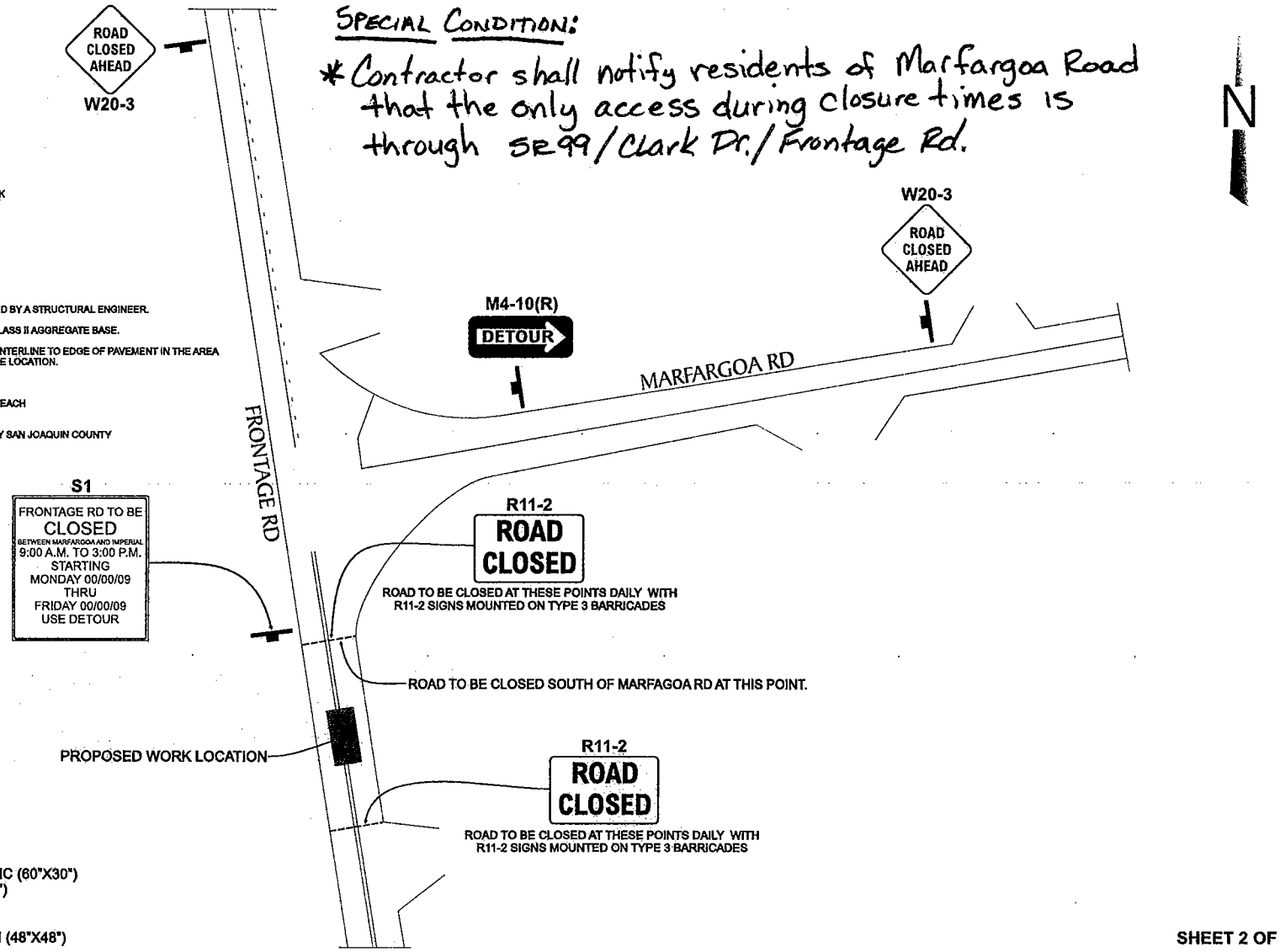
Work will commence on or about 3/09 for approximately ~~30~~ 60 days.

I, the undersigned, certify that I am the owner of the respective property, or am qualified to represent the owner and agree to do the work described above in accordance with the rules and regulations of San Joaquin County and subject to inspection and approval.

Antonio S. Tarr
Signature of Applicant - Title

1/9/09
Date

E:\PUB-SV.WK\MASTER P'S\ENCROACHMENT PERMIT APPLICATION.DOC (01/08)



GENERAL NOTES:

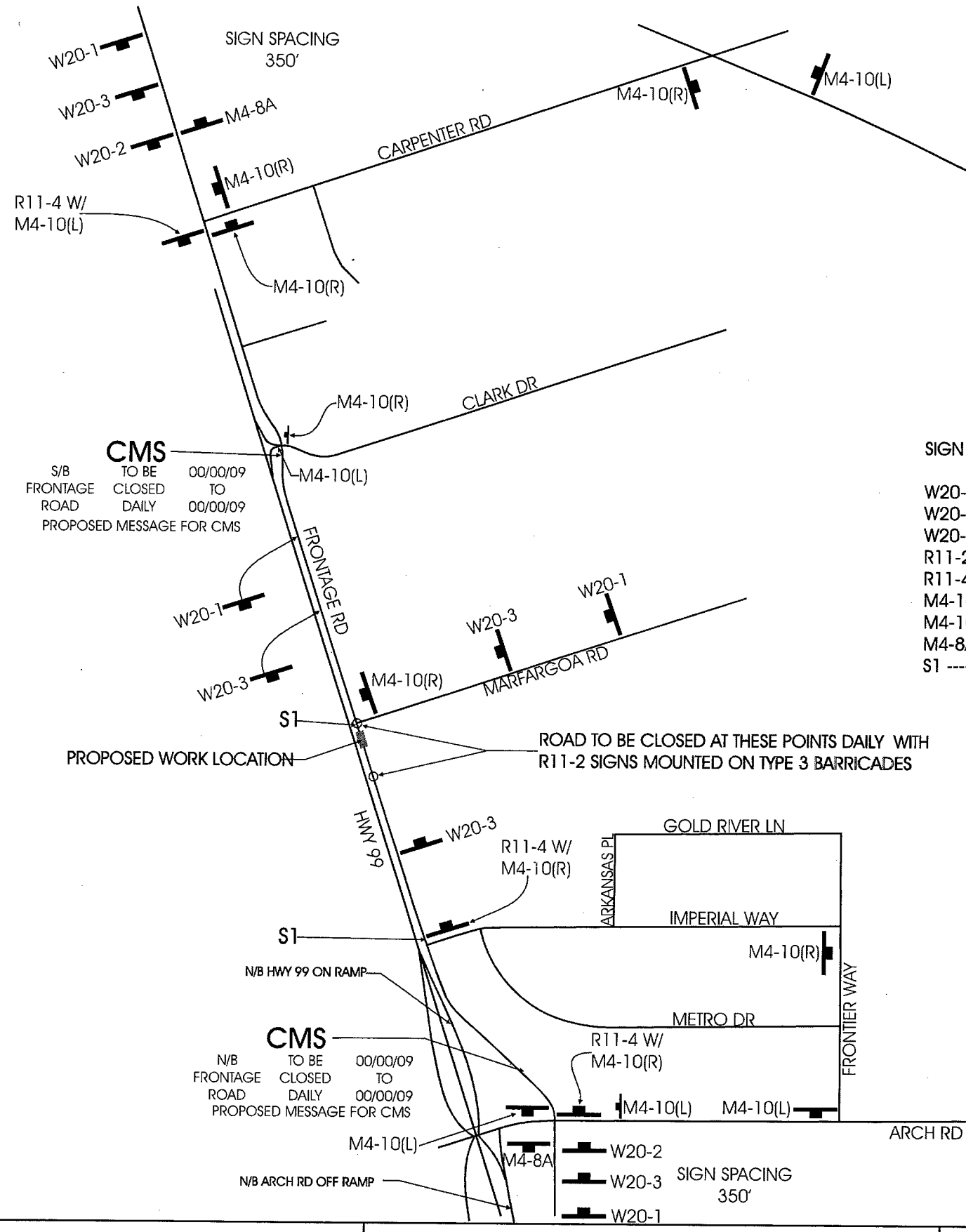
1. FRONTAGE ROAD TO BE CLOSED ON A DAILY BASIS FOR APPROX. 1 WEEK
2. ALL TRAFFIC TO BE DETOURED TO MARIPOSA RD.
3. ADVANCE NOTICE (S1) AND CMS BOARDS TO BE IN PLACE A MINIMUM 7 DAYS PRIOR TO ANY ROAD WORK.
4. DETOUR ROUTE SHALL BE IN PLACE PRIOR TO ROAD CLOSURE.
5. CLOSURE HOURS TO BE 9:00A.M TO 3:00P.M DAILY.
6. PLATING AND SHORING SUBJECT TO TRAFFIC LOADS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
7. SHOULDER BAKING IN AREAS WITH OUT CURB AND GUTTER SHALL BE CLASS II AGGREGATE BASE.
8. WHEN BORE IS COMPLETED ROADWAY SHALL BE OVER-LAYED FROM CENTERLINE TO EDGE OF PAVEMENT IN THE AREA OF OPEN CUT TRENCH INSTALLATION AND THE ENTIRE WIDTH OF THE BORE LOCATION.
9. RESIDENTIAL/COMMERCIAL ACCESS TO BE PROVIDED AT ALL TIMES.
10. ALL SIGNS SHALL BE COVERED AND OR FLIPPED DOWN AT THE END OF EACH DAY SO AS TO NOT CONFUSE PUBLIC TRAFFIC.
11. ANY CLOSURE REQUIRING 24 HOURS OR MORE SHALL BE APPROVED BY SAN JOAQUIN COUNTY BOARD OF SUPERVISORS.

SIGN LEGEND

W20-1 ——— ROAD WORK AHEAD (48"X48")
W20-2 ——— DETOUR AHEAD (48"X48")
W20-3 ——— ROAD CLOSED AHEAD (48"X48")
R11-2 ——— ROAD CLOSED (48"X30")
R11-4 ——— ROAD CLOSED TO THRU TRAFFIC (60"X30")
M4-10(R) ——— DETOUR ARROW RIGHT (48"X18")
M4-10(L) ——— DETOUR ARROW LEFT (48"X18")
M4-8A ——— END DETOUR (36"X18")
S1 ——— CUSTOM ADVANCE NOTICE SIGN (48"X48")

SHEET 2 OF 2

CONTRACTOR:	PROJECT NAME:	START DATE:	TYPE OF TRAFFIC CONTROL:	PLAN PROVIDED BY:
DA WOOD CONSTRUCTION, INC. ANDY JENSEN (209)491-4970	ARCH ROAD SANITARY SEWER FORCE MAIN	TO BE DETERMINED	DAILY ROAD CLOSURE	SAFE T LITE Construction, Engineering, Safety Supplies & Signs Sales Rentals Service 1051 N EMERALD AVE. MODESTO, CA 95351 www.safetlite.com 209-522-8913 1-800-851-6262



GENERAL NOTES:

1. FRONTAGE ROAD TO BE CLOSED ON A DAILY BASIS FOR APPROX. 1 WEEK
2. ALL TRAFFIC TO BE DETOURED TO MARIPOSA RD.
3. ADVANCE NOTICE (S1) AND CMS BOARDS TO BE IN PLACE A MINIMUM 7 DAYS PRIOR TO ANY ROAD WORK.
4. DETOUR ROUTE SHALL BE IN PLACE PRIOR TO ROAD CLOSURE.
5. CLOSURE HOURS TO BE ~~7:00~~ 7:00 A.M TO ~~3:00~~ 4:00 P.M DAILY.
6. PLATING AND SHORING SUBJECT TO TRAFFIC LOADS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.
7. ALL SIGNS SHALL BE COVERED AND OR FLIPPED DOWN AT THE END OF EVERY DAY SO AS TO NOT CONFUSE ANY PUBLIC TRAFFIC.

N

SIGN LEGEND

W20-1 ---------- ROAD WORK AHEAD (48"X48")
W20-2 ---------- DETOUR AHEAD (48"X48")
W20-3 ---------- ROAD CLOSED AHEAD (48"X48")
R11-2 ---------- ROAD CLOSED (48"X30")
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M4-8A ---------- END DETOUR (36"X18")
S1 ---------- CUSTOM ADVANCE NOTICE SIGN (48"X48")

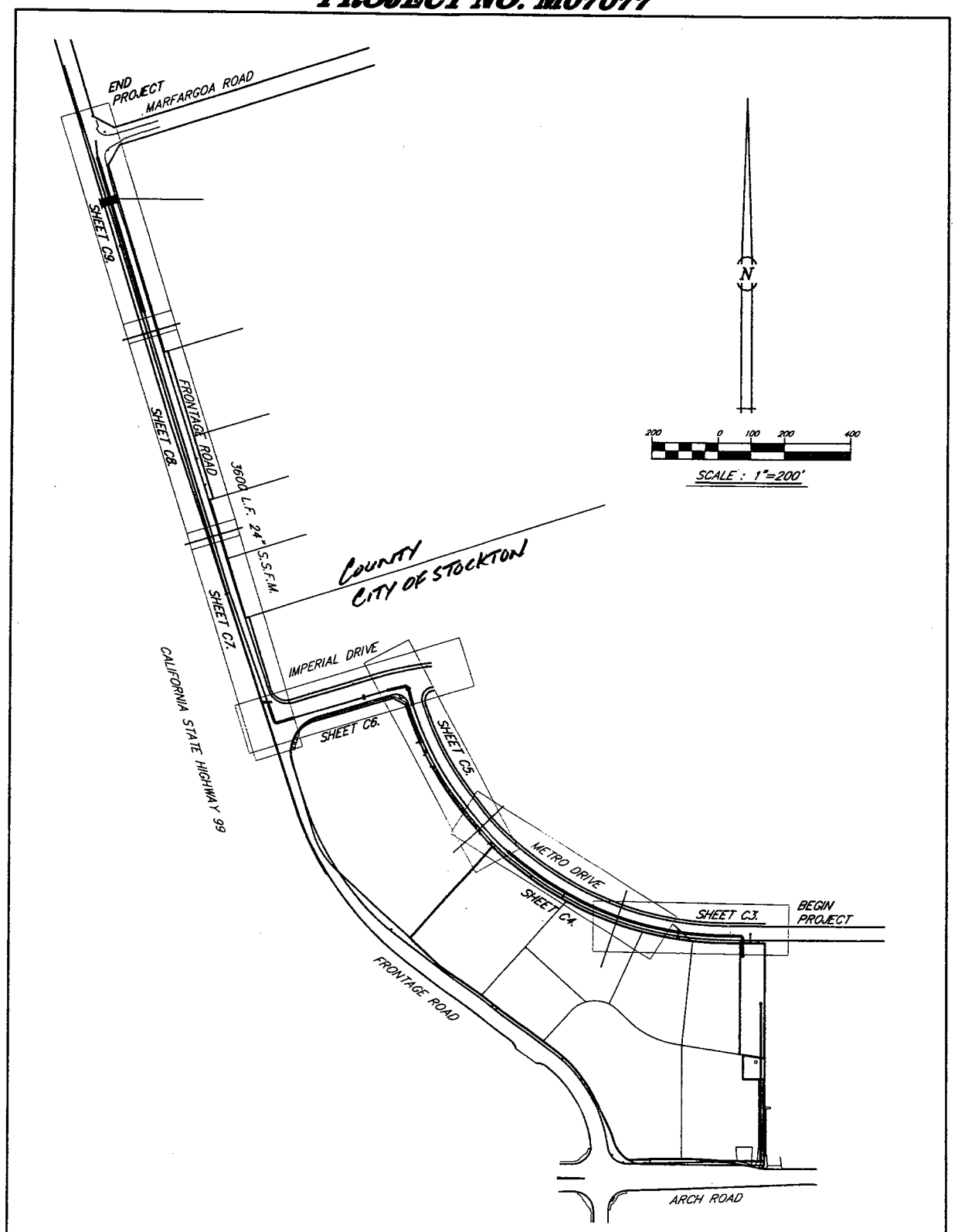
S1

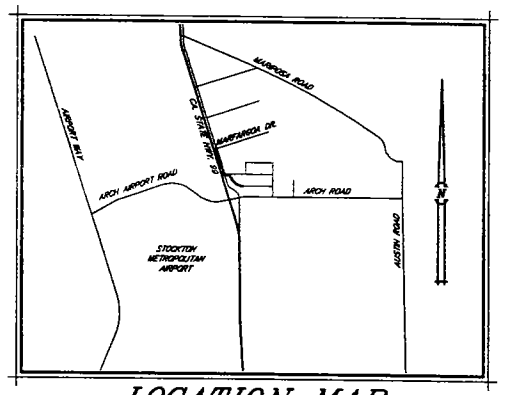
FRONTAGE RD TO BE
CLOSED
BETWEEN MARFARGOA AND IMPERIAL
~~8:00~~ A.M. TO ~~3:00~~ P.M.
7:00 STARTING 4:00
MONDAY 00/00/09
THRU
FRIDAY 00/00/09
USE DETOUR

THIS SIGN TO BE IN PLACE AS INDICATED ON TCP 5 DAYS PRIOR TO ANY ROAD WORK

CONTRACTOR:	PROJECT NAME:	START DATE:	TYPE OF TRAFFIC CONTROL:	PLAN PROVIDED BY:
DA WOOD CONSTRUCTION, INC. ANDY JENSEN (209)491-4970	ARCH ROAD SANITARY SEWER FORCE MAIN	TO BE DETERMINED	DAILY ROAD CLOSURE	SAFE T LITE Construction, Engineering, Safety Supplies & Signs Sales Rentals Service 1051 N. EMERALD AVE. MODESTO, CA 95351 www.safetlite.com 209-522-8913 1-800-851-6262

CITY OF STOCKTON
MUNICIPAL UTILITIES DEPARTMENT
IMPROVEMENT PLANS
ARCH ROAD SANITARY SEWER FORCE MAIN
STOCKTON, CALIFORNIA
METRO DRIVE TO MARFARGOA ROAD
PROJECT NO. M07077





LOCATION MAP
NO SCALE

INDEX

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C-3. PLAN & PROFILE – METRO DRIVE STA. 1+00 – 5+50
C-4. PLAN & PROFILE – METRO DRIVE STA. 5+50 – 10+50
C-5. PLAN & PROFILE – METRO DRIVE STA. 10+50 – 15+35.57
C-6. PLAN & PROFILE – IMPERIAL WAY STA. 15+35.57 – 19+55.37
C-7. PLAN & PROFILE – FRONTAGE ROAD STA. 19+55.37 – 25+50
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BEFORE DIGGING CALL USA, TOLL FREE 800-227-2600

BEFORE PLANTING TREES, TRENCHING, POST HOLING, BLASTING, GRADING, EXCAVATING, BORING, DRILLING, ETC. CALL UNDERGROUND SERVICE ALERT FOR UNDERGROUND CLEARANCE. THEY WILL PROVIDE INFORMATION OR LOCATE AND MARK UNDERGROUND FACILITIES FOR YOU.

CONSTRUCTION STAKING LIABILITY WAIVER

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED WITH THE INTENT THAT THE FIRM OF HAWKINS & ASSOCIATES ENGINEERING WILL BE PERFORMING THE CONSTRUCTION STAKING FOR THE COMPLETE PROJECT. IF, HOWEVER, ANOTHER ENGINEERING AND/OR SURVEYING FIRM SHOULD BE EMPLOYED TO USE THESE PLANS FOR THE PURPOSE OF CONSTRUCTION STAKING, NOTICE IS HEREBY GIVEN THAT THE FIRM OF HAWKINS & ASSOCIATES ENGINEERING WILL NOT ASSUME ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS, IF ANY, WHICH MIGHT OCCUR AND WHICH COULD HAVE BEEN AVOIDED, CORRECTED OR MITIGATED IF HAWKINS & ASSOCIATES ENGINEERING HAD PERFORMED THE STAKING WORK.

CAUTION: UTILITY LOCATION NOTES

1. EXISTING UNDERGROUND UTILITIES ARE SHOWN AS THEY ARE BELIEVED TO EXIST. THE LOCATIONS SHOWN ARE BASED ON RECORD INFORMATION, PURCHASED BY OTHERS, AND BY FIELD LOCATION OF SURFACE FEATURES. THIS INFORMATION IS PROVIDED ONLY AS AN AID TO THE CONTRACTOR. THEREFORE, THE OWNER AND ENGINEER CANNOT ACCEPT RESPONSIBILITY FOR THE LOCATION AND/OR DESIGNATION OF EXISTING UNDERGROUND FACILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL HAVE EACH UTILITY COMPANY ACCURATELY LOCATE IN THE FIELD THEIR MAINS AND SERVICE LINES. CONTRACTOR SHALL VERIFY LOCATION (BOTH VERTICAL AND HORIZONTAL) OF ALL EXISTING UNDERGROUND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONFLICTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES, SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF HIS WORK. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT U.S.A. AT 1-800-227-2600.

2. SECTION 1540 (A) (1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540) ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973, AS AMENDED, STATES:
"PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS, I.E. SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING AND WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION."

REGISTERED PROFESSIONAL ENGINEER — GARY E. HAWKINS — No. 70308 — Exp. 9-30-09 — CIVIL — STATE OF CALIFORNIA

0989X

HAWKINS & ASSOCIATES ENGINEERING, INC.
WWW.HAWKINS-ENG.COM
436 MITCHELL ROAD • MODESTO, CALIFORNIA
VOICE: (209) 575 - 4595 • FAX: (209) 578-4595

STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN

VICINITY MAP & INDEX

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

APPROVED BY: DATE: 2-6-09	SCALE: 1"=200'	APPROVED BY: DATE: 2/6/09	SHEET NO. C-1
MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	DESIGNED BY: GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	OF 14 SHEETS
	DRAWN BY: DRF		PROJECT NO. 2788
	CHECKED BY: GEM		
	RECORD DWG.:		

I:\2788\2788.8\Improvement Plans\2788_BASE.dwg PLOTTED 2-06-09 09:52:16 AM

SPECIFICATIONS

HAWKINS AND ASSOCIATES ENGINEERING, INC.-GENERAL NOTES

1. WHERE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS, IT IS UNDERSTOOD THAT ONLY FIRST QUALITY WORKMANSHIP AND MATERIALS ARE TO BE USED.
2. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING CONSTRUCTION, INCLUDING JOB SITE SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HAWKINS & ASSOCIATES ENGINEERING, INC. HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEDGED, IN CONNECTION WITH WORK PERFORMED ON THIS PROJECT; EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF HAWKINS & ASSOCIATES ENGINEERING, INC.
3. THE EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY AND ARE BASED UPON INFORMATION PROVIDED BY UTILITY COMPANIES AND BY MEASUREMENT OF SURFACE FEATURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND FACILITIES AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO FAILURE TO LOCATE AND PRESERVE SUCH UTILITIES.
4. CONTRACTOR SHALL LOCATE AND PRESERVE ALL FACILITIES INCLUDING GAS, WATER, IRRIGATION, SEWER, POWER, STREET LIGHTS, TELEPHONE, AND OTHERS WHICH MAY BE IN THE AREA OF CONSTRUCTION. RESPECTIVE UTILITY COMPANIES SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK.
5. ALL MANHOLE, LAMPHOLE, AND WATER VALVE CASTINGS AND COVERS SHALL BE ADJUSTED TO FINISH GRADE BY THE PAVING CONTRACTOR AFTER STREET IMPROVEMENTS ARE COMPLETE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL STAKES AND CONTROL POINTS PROVIDED FOR PROJECT CONSTRUCTION. EXPENSES INCURRED FOR THE REPLACEMENT OF SUCH STAKES OR CONTROL POINTS SHALL BE BORN BY THE CONTRACTOR.
7. WARNING: HAWKINS & ASSOCIATES ENGINEERING, INC. WILL NOT BE RESPONSIBLE, OR LIABLE FOR UNAUTHORIZED USES OR CHANGES TO THESE PLANS AND SPECIFICATIONS. ONLY A SIGNED AND APPROVED HARD COPY OF THESE PLANS SHALL BE USED FOR CONSTRUCTION. ANY CHANGES TO THESE PLANS MUST BE IN WRITING AND APPROVED BY HAWKINS & ASSOCIATES ENGINEERING, INC.
8. THESE IMPROVEMENT PLANS HAVE BEEN PREPARED WITH THE INTENT THAT THE FIRM OF HAWKINS & ASSOCIATES ENGINEERING, INC. WILL BE PERFORMING THE CONSTRUCTION STAKING FOR THE COMPLETE PROJECT. IF, HOWEVER, ANOTHER ENGINEERING AND/OR SURVEYING FIRM SHOULD BE EMPLOYED TO USE THESE PLANS FOR THE PURPOSE OF CONSTRUCTION STAKING, NOTICE IS HEREBY GIVEN THAT THE FIRM OF HAWKINS & ASSOCIATES ENGINEERING, INC. WILL NOT ASSUME ANY RESPONSIBILITY FOR ERROR OR OMISSIONS, IF ANY, WHICH MIGHT OCCUR AND WHICH COULD HAVE BEEN AVOIDED, CORRECTED, OR MITIGATED IF HAWKINS & ASSOCIATES ENGINEERING, INC. HAD PERFORMED THE STAKING WORK.
9. EXISTING CURB AND SIDEWALK WITHIN THE PROJECT LIMITS THAT ARE DAMAGED OR DISPLACED, EVEN THOUGH THEY WERE NOT TO BE REMOVED, SHALL BE REPAIRED OR REPLACED PER CITY STANDARD DETAILS AT THE CONTRACTOR'S EXPENSE.
10. ALL CONSTRUCTION SITE ACTIVITIES SHALL CONFORM TO THE STATE WATER RESOURCES CONTROL BOARD, NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES OF STORM WATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY.
11. THESE PLANS HAVE BEEN CHECKED BY ALL RESPECTIVE GOVERNING AGENCIES AND/OR THEIR AUTHORIZED REPRESENTATIVES, BUT SUCH CHECKING DOES NOT RELIEVE THE DEVELOPER FROM HIS RESPONSIBILITY TO CORRECT ERRORS, OMISSIONS, OR MAKE CHANGES REQUIRED BY CONDITIONS DISCOVERED IN THE FIELD DURING THE COURSE OF CONSTRUCTION.
12. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, AFTER PROPER BACKFILLING AND/OR CONSTRUCTION, WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.
13. THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL MECHANICAL; ELECTRICAL AND INSTRUMENTATION EQUIPMENT; PIPING AND CONDUITS; STRUCTURES AND OTHER FACILITIES. THE AS-BUILTS OF THE ELECTRICAL SYSTEM SHALL INCLUDE THE STREET LIGHT LAYOUT PLAN SHOWING LOCATION OF LIGHTS, CODUITS, CONDUCTORS AND POINTS OF CONNECTIONS TO SERVICES, PULLBOXES, AND WIRE SIZES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER, ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.

(Items above printed as 11., 12. in the second column.)

13. BENCHMARKS:
    BENCHMARK: NO. 134
    ELEVATION: 29.62
    DATUM: CITY OF STOCKTON, CALIFORNIA
    DESCRIPTION: BRASS DISK MARKING CITY OF STOCKTON MONUMENT STAMPED "35-9" IN A MONUMENT BOX ON THE WEST SIDE OF SOUTH HIGHWAY 99 FRONTAGE ROAD AT NORTH LITTLE JOHN CREEK.
14. PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE IN THE FIELD THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY MEMBERS OF THE UNDERGROUND SERVICE ALERT (U.S.A.) 48 HOURS IN ADVANCE OF PERFORMING EXCAVATION WORK BY CALLING THE TOLL-FREE NUMBER (800) 227-2600.
15. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING AND OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 5' OR MORE. EXCAVATIONS OF 5 FEET OR MORE IN DEPTH WILL REQUIRE AN EXCAVATIONS PERMIT FROM THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY FOR TRENCHES 5 FEET OR MORE IN DEPTH. THE CONTRACTOR SHALL COMPLY WITH SECTION 5-1.02A OF THE CALTRANS STANDARDS, SECTION 6705 OF THE STATE OF CALIFORNIA LABOR CODE, AND ANY LOCAL CODES OR ORDINANCES.
16. ACTUAL CONNECTIONS TO EXISTING WATER LINES WILL NOT BE PERMITTED PRIOR TO THE COMPLETION OF STERILIZATION AND TESTING OF NEW WATER MAINS. ALL WATER VALVES TO BE OPERATED UNDER THE DIRECTION OF THE WATER DIVISION OF THE REGULATORY AGENCY PERSONNEL ONLY.

NPDES NOTES:

IN ORDER TO COMPLY WITH THE STATE WATER RESOURCES CONTROL BOARD ORDER NUMBER 99-08-DWQ, THE STORMWATER DIVISION REQUIRES THAT ALL NEW CATCH BASINS INSTALLED COMPLY WITH COS STORMWATER STANDARD DESIGN CRITERIA PAGES 4-3 & 4-4. IN ACCORDANCE WITH THE REQUIREMENTS OF THE RECENTLY ADOPTED STORM WATER NPDES PERMIT, M.U.D. IS REVISING IT'S PROCEDURE FOR REVIEW OF STORM WATER POLLUTION PREVENTION PLANS (SWPPPs). IN LIEU OF SUBMITTING A SWPPP FOR REVIEW, THE FOLLOWING MUST BE SUBMITTED PRIOR TO OR DURING THE PRECONSTRUCTION MEETING.

1. TRANSMITTAL MEMO THAT INCLUDES:
   THE NAME AND PHONE NUMBER OF THE PERSON RESPONSIBLE FOR SWPPP IMPLEMENTATION, AND IF APPLICABLE, A LISTING OF THE POST-CONSTRUCTION BEST MANAGEMENT PRACTICES THAT WILL BE INSTALLED TO SATISFY THE REQUIREMENTS OF ORDINANCE 10-97.
2. COPY OF A SIGNED NOTICE OF INTENT FORM OR A WASTE DISCHARGE IDENTIFICATION NUMBER.

THE DISCHARGE OF CHLORINATED AND DE-CHLORINATED WATER INTO THE STORM DRAIN SYSTEM IS PROHIBITED. THE DISCHARGE OF CHLORINATED AND DECHLORINATED WATER INTO THE SANITARY SEWER SYSTEM REQUIRES PRIOR APPROVAL FROM MUD. CONTACT TONY TOVAR AT (209) 937-8790.

SAW CUTTING:

LOCATION OF SAW CUTTING AS REPRESENTED ON THESE PLANS SHALL BE DETERMINED IN THE FIELD WITH THE PUBLIC WORKS INSPECTOR. IF THE EXISTING SECTION REQUIRES GRINDING OR OVERLAYING OF AC, IT SHALL BE DETERMINED IN THE FIELD WITH THE PUBLIC WORKS INSPECTOR.

STREET SECTIONS:

STREET SECTIONS ARE DESIGNED USING AN R-VALUE OF 5 PURSUANT TO THE SOILS REPORT BY KLEINFELDER DATED JULY 18, 2008. SUPPLEMENTAL GEOTECHNICAL TESTING SHALL BE REQUIRED AFTER INSTALLATION OF UNDERGROUND UTILITIES AND STREET ROUGH GRADING HAS BEEN COMPLETED.

BLUE REFLECTOR AND FIRE HYDRANT NOTE

CONTRACTOR SHALL INSTALL A BLUE REFLECTOR 6-INCHES FROM CENTERLINE ON FIRE HYDRANT SIDE AT ALL FIRE HYDRANT LOCATIONS PER MUTCD, CALIFORNIA SUPPLEMENT, SECTION 3B.11 AND FIGURE 3B-102. CONTRACTOR SHALL PAINT FIRE HYDRANTS WITH ENAMEL SAFETY YELLOW PAINT. FIRE HYDRANT STEM BREAKAWAY MUST COINCIDE WITH BREAKAWAY SPOOL. ANY FIRE HYDRANTS TO BE REMOVED NEED TO BE RETURNED TO THE FIRE DEPARTMENT. CONTACT BILL CATLETT AT (209) 639-2327.

STREET MICROSURFACING

THE PAVEMENT SECTION FOR ALL NEW PUBLIC STREETS SHALL INCLUDE A MICRO SURFACING LAYER AS PER SECTION 101 OF THE STANDARD SPECIFICATIONS. THIS LAYER SHALL BE INSTALLED WHEN EITHER: 1) 80% OF THE PROPERTIES FRONTING THE NEW STREET HAVE BEEN DEVELOPED AND OCCUPIED, OR 2) THE TOP LAYER OF THE ASPHALT CONCRETE ON THE NEW STREET HAS BEEN IN PLACE FOR TWO YEARS.

FOG SEAL

ALL A.C. PAVING SHALL BE FOG SEALED PER SECTION 37 OF CALTRANS STANDARD SPECIFICATIONS, PER THE LATEST EDITION.

CITY OF STOCKTON GENERAL NOTES

IMPROVEMENT PLANS:

1. ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE FOLLOWING: CITY OF STOCKTON STANDARD SPECIFICATIONS AND PLANS ADOPTED NOVEMBER 25, 2003, AND ALL AMENDMENTS THERETO TO DATE, CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (CALTRANS) LATEST EDITION, WHERE APPLICABLE. WHERE THERE IS A CONFLICT BETWEEN THE PLANS AND THE CITY'S STANDARD SPECIFICATIONS AND PLANS, THE CITY OF STOCKTON STANDARD SPECIFICATIONS AND PLANS SHALL PREVAIL. ALL WORK SHALL BE UNDER THE INSPECTION OF THE CITY OF STOCKTON.
2. PRIOR TO THE SCHEDULING OF A PRE-CONSTRUCTION MEETING OR THE ISSUANCE OF AN ENCROACHMENT PERMIT THE CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF STOCKTON'S COMMUNITY DEVELOPMENT DEPARTMENT, BUILDING DIVISION.
3. THE CONTRACTOR SHALL CONTACT TONY TOVAR (209) 937-8790 OF THE CITY OF STOCKTON FOR A PRE-CONSTRUCTION CONFERENCE A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO THE COMMENCEMENT OF WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT, AND SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS AND CONDITIONS OF ALL PERMITS AND APPROVALS APPLICABLE TO THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT THE NECESSARY RIGHTS-OF-WAY, EASEMENTS, ANS/OR PERMITS ARE SECURED PRIOR TO CONSTRUCTION.
5. CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT WHERE APPLICABLE FOR ANY WORK DONE WITHIN RIGHTS-OF-WAY OR EASEMENTS FROM CITY OF STOCKTON. THE CONTRACTOR SHALL NOTIFY CITY, 24 HOURS IN ADVANCE OF COMMENCING THE WORK OR AS REQUIRED BY SAID PERMITS.
6. ALL STATIONS REFER TO DISTANCES ALONG FORCE MAIN CENTERLINE, UNLESS OTHERWISE NOTED. ALL STATIONS OFF CENTERLINE ARE PERPENDICULAR TO OR RADIALLY OPPOSITE CENTERLINE STATIONS.
7. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.
8. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL AND/OR DETOUR PLAN FOR APPROVAL BY THE CITY OF STOCKTON TRAFFIC ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER AND THE CITY ENGINEER.
10. DUST CONTROL SHALL BE PROVIDED AT ALL TIMES, AT THE CONTRACTOR'S EXPENSE TO MINIMIZE ANY DUST NUISANCE AND SHALL BE IN ACCORDANCE WITH SECTION 10 OF CALTRANS STANDARD SPECIFICATIONS AND THE REQUIREMENTS OF THE CITY OF STOCKTON. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE CITY OF STOCKTON MUNICIPAL UTILITIES DEPARTMENT FOR USE OF WATER FROM FIRE HYDRANTS FOR CONSTRUCTION PURPOSES. THE PERMIT SHALL BE APPROVED BY THE CITY OF STOCKTON FIRE DEPARTMENT.

STRIPING AND SIGNAGE NOTES:

1. ALL PAVEMENT MARKINGS, STRIPING AND CROSSWALKS SHALL BE THERMOPLASTIC. CROSSWALKS SHALL BE 12" WHITE THERMOPLASTIC STRIPE.
2. SIGNING, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN STRICT CONFORMANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA-MUTCD) LATEST EDITION AND CALTRANS STANDARD SPECIFICATIONS (LATEST EDITION) SECTION 84. PAINT SHALL CONFORM TO STATE SPECIFICATIONS 8010-31K-02 OR -04 UNLESS OTHERWISE NOTED.
3. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PER CALTRANS STANDARDS SPECIFICATIONS SECTIONS 15-2.02B AND 15-2.02C.
4. THE CONTRACTOR SHALL NOTIFY THE CITY TRAFFIC ENGINEERING DIVISION A MINIMUM OF 48 HOURS IN ADVANCE OF THE LAYOUT AND CAT-TRACKING OF THE PROPOSED IMPROVEMENTS. CAT-TRACKING TO BE APPROVED BY TRAFFIC ENGINEERING PRIOR TO FINAL ACCEPTANCE OF PAINT AND MARKINGS.
5. THE CONTRACTOR SHALL ENSURE THAT THE APPROPRIATE STRIPING AND PAVEMENT MARKINGS ARE IN PLACE AT ALL TIMES. TEMPORARY STRIPING AND/OR PAVEMENT MARKINGS SHALL BE INSTALLED TO REPLACE ANY EXISTING STRIPING OR MARKINGS WHICH HAVE BEEN REMOVED. ANY CONFLICTING STRIPING SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR PRIOR TO REOPENING THE STREET TO TRAFFIC.
6. THE CONTRACTOR SHALL CONTACT THE CITY OF STOCKTON PUBLIC WORKS OPERATION AND MAINTENANCE DIVISION FOR THE EXACT LOCATION OF SIGNS.
7. THE CONTRACTOR SHALL REMOVE OR RELOCATE ANY EXISTING SIGNS IN CONFLICT WITH THESE PLANS AS DIRECTED BY THE CITY ENGINEER. EXISTING STRIPING AND MARKINGS IN CONFLICT WITH THESE PLANS SHALL BE REMOVED BY THE CONTRACTOR. PAVEMENT SHALL BE REPAIRED IF DAMAGED IN CONJUNCTION WITH REMOVAL OF MARKERS.
8. R1 SIGN, LIMIT LINE & LEGEND BY CITY OF STOCKTON.
9. ALL TRAFFIC SIGNS SHALL BE INSTALLED WITH UNISTRUT POST (REFER TO C.O.S. STD. DWG. NO.S 16 & 36A) OR MOUNTED ON STREET LIGHT POLE (COORDINATE WITH CITY INSPECTOR).

UTILITY NOTES

1. ALL UTILITY WORK TO BE DONE SHALL BE DONE IN ACCORDANCE WITH THE CITY OF STOCKTON'S STANDARD SPECIFICATIONS AND THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
2. CONTRACTOR TO POTHOLE TO LOCATE THE HIGH PRESSURE GAS LINE WITHIN THE AREA OF WORK.
3. P.G.E MUST BE PRESENT AT ALL TIMES WHEN WORKING IN THE AREA OF THE HIGH PRESSURE GAS LINE.

COMPACTION TESTING

1. COMPACTION TESTS : PAVING CONTRACTOR TO PROVIDE COMPACTION TESTS IN STREETS AS REQUIRED BY THE CITY OF STOCKTON, AT THE CONTRACTOR'S EXPENSE.

CLEAN-UP

DURING CONSTRUCTION THE CONTRACTOR SHALL CLEAN UP THE DIRT AND DEBRIS CAUSED BY HIS CONSTRUCTION FROM ANY OR ALL ADJACENT CONSTRUCTION AREAS AS WELL AS ANY CROSSING USED BY THE CONTRACTOR IN HIS HAULING OPERATIONS. ALL SIDEWALKS, CURB AND GUTTERS, DRIVEWAYS, EXISTING DRAIN INLETS, LAWNS, ETC., SHALL BE KEPT FREE OF EXCESS DIRT AND RUBBISH, AND KEPT IN A CLEAN AND NEAT CONDITION. BEFORE A FINAL INSPECTION IS REQUESTED, THE FOLLOWING SHALL BE COMPLETED:

A. ALL OF THE RIGHT-OF-WAY, ADJACENT PROPERTY, ADJACENT STREETS AND ALLEYS, AND ANY AREA USED BY THE CONTRACTOR IN CONNECTION WITH THIS PROJECT SHALL BE CLEARED OF ALL DEBRIS AND EXCESS MATERIAL, AND LEFT IN A NEAT AND PRESENTABLE CONDITION.

B. ALL PAVED AREAS SHALL BE FREE OF DIRT AND DEBRIS.

SANITARY SEWER SPECIFICATIONS

FORCE MAINS:

1. BACKFILL SHALL CONFORM TO SECTION 71-1.03 OF THE CITY OF STOCKTON STANDARD SPECIFICATIONS, PER CITY STD. DETAIL 50. JETTING SHALL NOT BE ALLOWED WITHIN CITY OF STOCKTON LIMITS.
2. COMPACTION WITHIN COUNTY LIMITS SHALL CONFORM TO SAN JOAQUIN COUNTY SPECIFICATIONS AND STANDARD DRAWING NO. R-29.
3. PAVEMENT SECTIONS:

   METRO DRIVE AND IMPERIAL WAY
   MATCH EXISTING SECTION PER RECORD INFORMATION 4"AC/8"AB/13"ASB CONTRACTOR TO VERIFY. CONTRACTOR TO NOTIFY ENGINEER IF FIELD VERIFICATION VARIES FROM RECORD INFORMATION.

   FRONTAGE ROAD
   MATCH EXISTING SECTION PER RECORD INFORMATION 4"AC/8"AB/13"ASB CONTRACTOR TO VERIFY. CONTRACTOR TO NOTIFY ENGINEER IF FIELD VERIFICATION VARIES FROM RECORD INFORMATION.
4. AFTER PIPE HAS BEEN PROPERLY INSTALLED, THE INITIAL BACKFILL CONSISTING OF SELECT FINE EARTH FROM THE EXCAVATED MATERIAL, SHALL BE HAND-TAMPED IN 6" THICK LAYERS EXTENDING TO 12" OVER THE TOP OF THE PIPE. THE FINAL BACKFILL SHALL BE PLACED IN LAYERS AND COMPACTED TO A RELATIVE DENSITY OF AT LEAST 95%.
5. MINIMUM PIPE COVER SHALL BE 30 INCHES BELOW SUBBASE. ASSUMED EXISTING PAVEMENT SECTION IS 4 INCHES A.C. OVER 18 INCHES A.B. IF ANOTHER SECTION IS OTHERWISE ENCOUNTERED, UTILIZE THE COVER OF 30 INCHES BELOW SUBBASE REGARDLESS OF SECTION THICKNESS.
6. PIPE: FORCE MAIN PIPE SHALL BE CLASS 200 POLYETHYLENE ENCASED DUCTILE IRON PIPE THAT MEETS THE REQUIREMENTS OF ANSI/AWWA C151/A21.51 AND ANSI/AWWA C150/A21.50. FORCE MAIN PIPE SHALL BE SUITABLE TO WITHSTAND FULL WATER COLUMN SEPARATION OPERATING CONDITIONS.
7. JOINTS: FORCE MAIN JOINTS SHALL BE TYTON OR APPROVED EQUAL AND MEET THE REQUIREMENTS OF ANSI/AWWA C111/A21.11.
8. COATING AND LINING: OUTSIDE COATING SHALL BE ASPHALTIC COATING IN ACCORDANCE WITH ANSI/AWWA C151/A21.51. PIPE SHALL BE EITHER CEMENT-MORTAR LINED PER ANSI/AWWA C104/A21.4 OR PROTECTO 401 CERAMIC EPOXY PER PLANS. PIPE LINING SHALL BE SUITABLE TO WITHSTAND FULL WATER COLUMN SEPARATION OPERATING CONDITIONS.

CASING PIPE:

1. PIPE: STEEL PIPE SHALL BE PLAIN END, HAVE A MINIMUM YIELD POINT STRENGTH OF 35,000 PSI AND CONFORM TO ASTM A 252 GRADE 2 OR ASTM A 139 GRADE B WITHOUT HYDROSTATIC TESTS. THE STEEL PIPE SHALL HAVE WELDED JOINTS AND BE IN AT LEAST 18 FOOT LENGTHS (EXCEPT LAST SECTION, IF A SHORTER SECTION IS NEEDED TO OBTAIN TOTAL CASING LENGTH).
2. INSTALLATION: LARGE DIAMETER CASING PIPE SHALL BE INSTALLED IN ACCORDANCE WITH BEST INDUSTRY STANDARDS AND PRACTICES. FOR SEWER PIPE CASING, REDWOOD SKIDS, FORMED TO FIT THE CARRIER AND CASING PIPES SHALL BE USED TO SUPPORT THE CARRIER PIPE WITHIN THE CASING. SKIDS SHALL BE AT LEAST 4" x 4" x 24" IN SIZE. SKIDS SHALL BE STRAPPED ON EACH SIDE OF EACH JOINT OF THE CARRIER PIPE AND EXTEND CONTINUOUSLY THE FULL LENGTH OF THE PIPE PER PIPE MANUFACTURER'S RECOMMENDATION. ENOUGH SKIDS SHALL BE USED AROUND THE CIRCUMFERENCE OF THE PIPE TO PREVENT THE CARRIER PIPE FROM ROTATING OFF THE SKIDS AS IT IS PUSHED THROUGH THE CASING PIPE. REDWOOD SKIDS SHALL BE FASTENED TO THE CARRIER PIPE WITH STAINLESS STEEL STRAPS.
3. GROUTING: AFTER INSTALLATION AND INSPECTION, THE ENDS OF ALL CASING PIPE INSTALLED BELOW THE DESIGN FLOOD PLANE SHALL BE SEALED AND THE ANNULAR SPACE BETWEEN THE CASING AND CARRIER PIPE SHALL BE FILLED WITH GROUT PER THE REQUIREMENTS OF THE STATE RECLAMATION BOARD.

PIPELINE TESTING:

* THE CONTRACTOR SHALL SUBMIT A PIPELINE TESTING PLAN TO THE CITY OF STOCKTON FOR APPROVAL AND PIPELINE TESTING SHALL NOT BEGIN UNTIL AFTER THE PLAN IS APPROVED. ALL PIPELINE TESTING SHALL BE CONDUCTED ACCORDING TO THE APPROVED PLAN.

1. GRAVITY SEWER: PRIOR TO PERFORMING TESTS, ALL PIPING SHALL BE THOROUGHLY CLEANED BY THE CONTRACTOR AS DESCRIBED IN THE CITY OF STOCKTON STANDARD SPECIFICATIONS AND PLANS, SECTION 71-1.11A. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT NECESSARY TO PERFORM THE CLEANING AND TESTING OF THE SEWER PIPING. ALL LEAKAGE, EXFILTRATION, INFILTRATION, AND AIR PRESSURE TESTS FOR GRAVITY SEWER PIPING SHALL BE CONDUCTED IN ACCORDANCE THE C.O.S. STANDARD SPECIFICATIONS AND PLANS, SECTION 71-1.11. PER CITY OF STOCKTON STANDARD SECTION 71-1.11F, THE MINIMUM HOLDING TIME REQUIRED FOR THE AIR PRESSURE TO DROP FROM 3.5 PSI TO 2.5 PST SHALL BE 852 SECONDS FOR THE 30-INCH DIAMETER GRAVITY SEWER LINE AND 1,020 SECONDS FOR THE 36-INCH DIAMETER GRAVITY SEWER.
2. FORCE MAIN: PRESSURE TESTING OF FORCE MAIN PIPING SHALL BE PERFORMED USING A TEST MEDIUM OF WATER. THE TEST PRESSURE REQUIRED FOR THE 24-INCH DIAMETER FORCE MAIN SHALL BE 173 PSI TO ME MAINTAINED FOR A DURATION OF 2 HOURS WITH AN ALLOWABLE LEAKAGE OF 0.1 GA/HR/IN DIAMETER OF THE PIPE TESTED.

T.V. INSPECTIONS:

* T.V. INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR AND A RECORDED COPY OF THE INSPECTION SHALL BE PROVIDED TO THE CITY IN DVD FORMAT FOR REVIEW. COSTS FOR INSPECTION AND ALL REQUIRED RE-INSPECTIONS SHALL BE BORNE BY THE CONTRACTOR. THE SEWER SYSTEM SHALL BE COMPLETELY CLEANED BY AN APPROVED METHOD PRIOR TO T.V. INSPECTION. THE SEWER SYSTEM SHALL BE REJECTED IF ANY OF THE FOLLOWING CONDITIONS EXIST:

1. STANDING WATER OR SAGS GREATER THAN 7.5% OF THE INSIDE DIAMETER;
2. STANDING WATER IN SERVICES OR FUTURE CONNECTOR PIPES;
3. OFFSET JOINTS;
4. JOINT SEPARATIONS GREATER THAN 1/2 INCH WIDE; AND
5. DAMAGED PIPE.

NOTES TO CONTRACTOR :

THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FOR ALL IMPROVEMENTS WITHIN COUNTY RIGHT-OF-WAY FROM SAN JOAQUIN COUNTY.

W.D.I.D. NO. 5539C353065

CONSTRUCTION STAKING LIABILITY WAIVER

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED WITH THE INTENT THAT THE FIRM OF HAWKINS & ASSOCIATES ENGINEERING WILL BE PERFORMING THE CONSTRUCTION STAKING FOR THE COMPLETE PROJECT. IF, HOWEVER, ANOTHER ENGINEERING AND/OR SURVEYING FIRM SHOULD BE EMPLOYED TO USE THESE PLANS FOR THE PURPOSE OF CONSTRUCTION STAKING NOTICE IS HEREBY GIVEN THAT THE FIRM OF HAWKINS & ASSOCIATES ENGINEERING WILL NOT ASSUME ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS, IF ANY, WHICH MIGHT OCCUR AND WHICH COULD HAVE BEEN AVOIDED, CORRECTED OR MITIGATED IF HAWKINS & ASSOCIATES ENGINEERING HAD PERFORMED THE STAKING WORK.

BEFORE DIGGING CALL USA, TOLL FREE 800-227-2600

BEFORE PLANTING TREES, TRENCHING, POST HOLING, BLASTING, GRADING, EXCAVATING, BORING, DRILLING, ETC. CALL UNDERGROUND SERVICE ALERT FOR UNDERGROUND CLEARANCE. THEY WILL PROVIDE INFORMATION OR LOCATE AND MARK UNDERGROUND FACILITIES FOR YOU.

CAUTION: UTILITY LOCATION NOTES

1. EXISTING UNDERGROUND UTILITIES ARE SHOWN AS THEY ARE BELIEVED TO EXIST. THE LOCATIONS SHOWN ARE BASED ON RECORD INFORMATION, PROVIDED BY OTHERS, AND BY FIELD LOCATION OF SURFACE FEATURES. THIS INFORMATION IS PROVIDED ONLY AS AN AID TO THE CONTRACTOR. THEREFORE, THE OWNER AND ENGINEER CANNOT ACCEPT RESPONSIBILITY FOR THE LOCATION AND/OR DESIGNATION OF EXISTING UNDERGROUND FACILITIES. PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL HAVE EACH UTILITY COMPANY ACCURATELY LOCATE IN THE FIELD THEIR MAINS AND SERVICE LINES. CONTRACTOR SHALL VERIFY LOCATION (BOTH VERTICAL AND HORIZONTAL) OF ALL EXISTING UNDERGROUND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONFLICTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES, SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF HIS WORK. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT U.S.A. AT 1-800-227-2600.
2. SECTION 1540 (A) (1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540) ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973, AS AMENDED, STATES: "PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS, I.E. SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING AND WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION."

0989X

HAWKINS & ASSOCIATES ENGINEERING, INC.
WWW.HAWKINS-ENG.COM
436 MITCHELL ROAD • MODESTO, CALIFORNIA
VOICE: (209) 575-4295 • FAX: (209) 578-4295

STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN
PROJECT SPECIFICATIONS

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE:	NONE	APPROVED BY: DATE: 2/6/09	SHEET NO. C-2
DESIGNED BY:	GEM		OF 14 SHEETS
DRAWN BY:	DRF		PROJECT NO.
CHECKED BY:	GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	2718B
RECORD DWG.:			

REGISTERED PROFESSIONAL ENGINEER GARY E. MADSEN No. 70508 Exp. 9/30/09 CIVIL STATE OF CALIFORNIA

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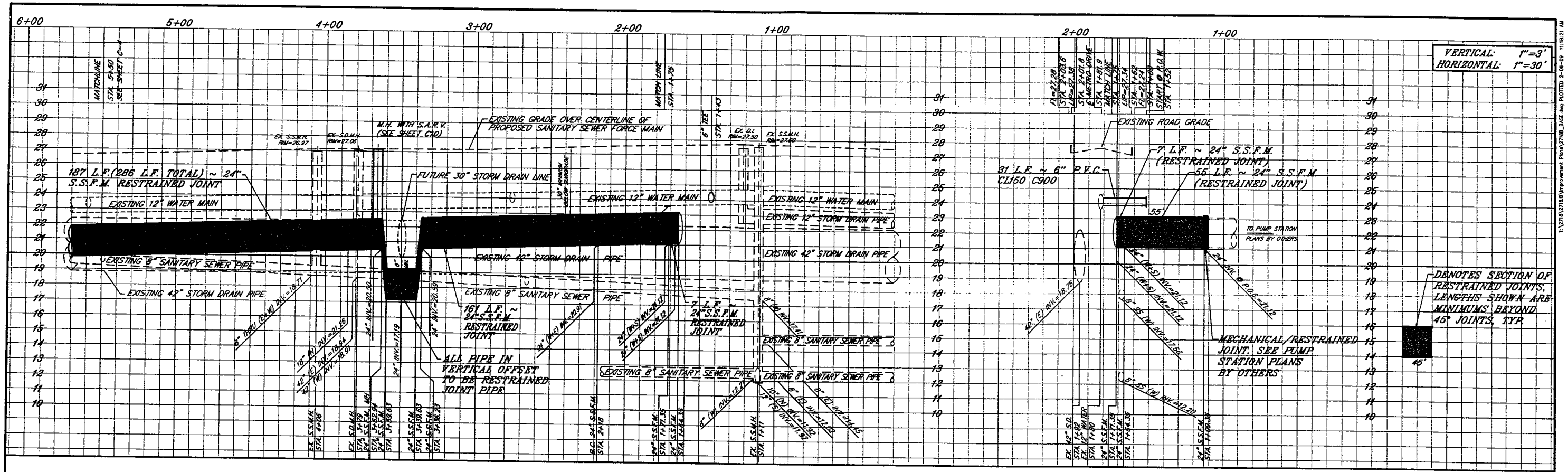
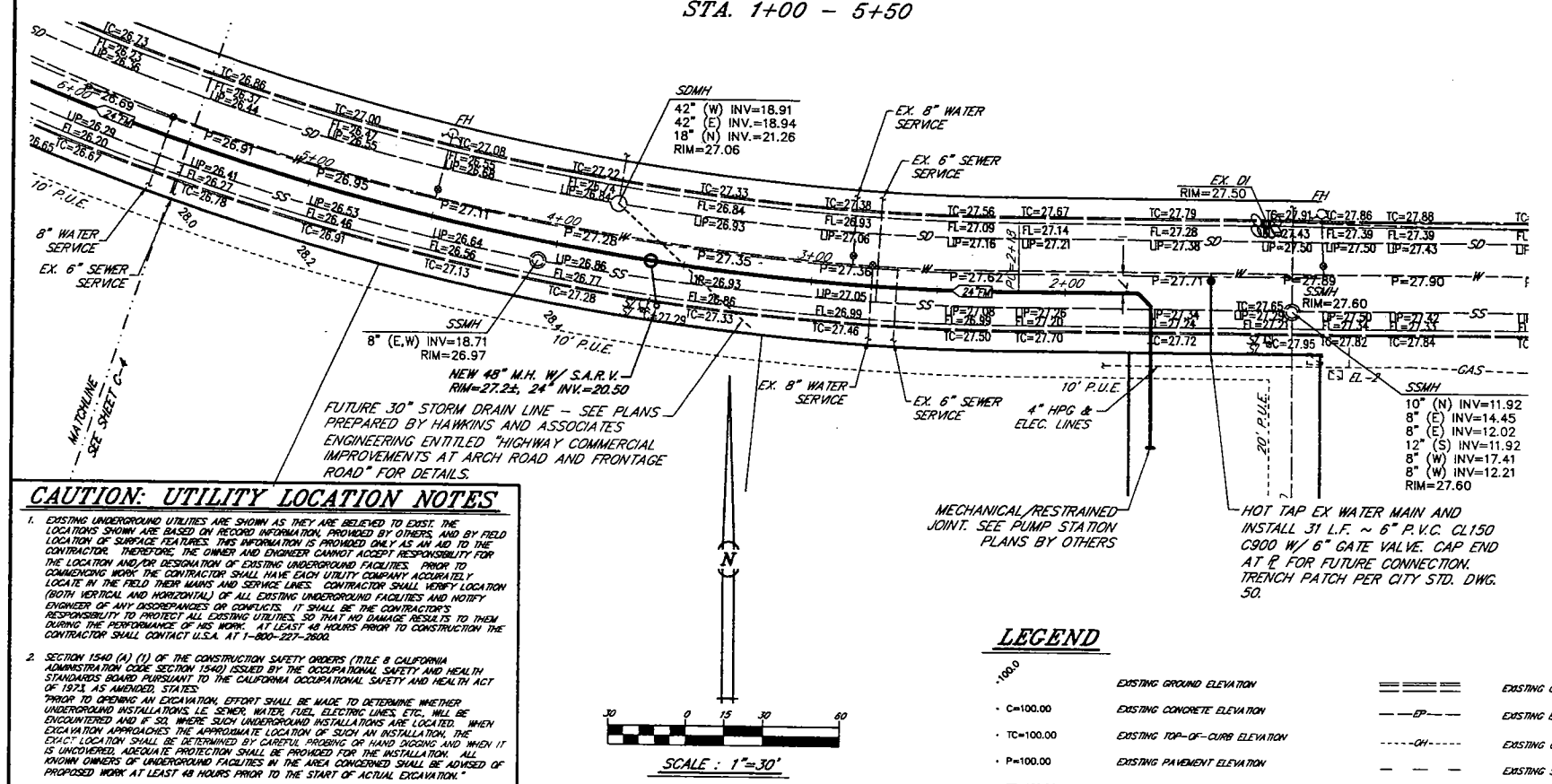
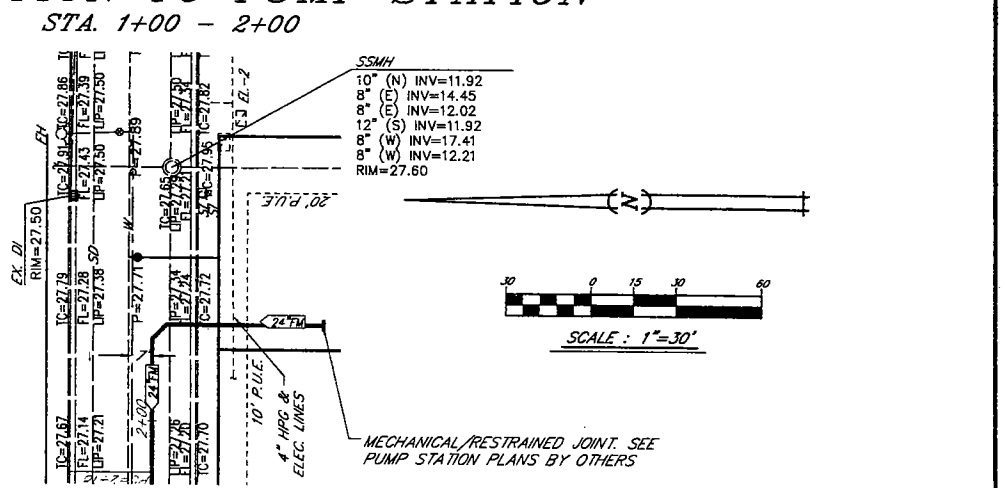


METRO DRIVE
STA. 1+00 – 5+50



CONNECTION TO PUMP STATION
STA. 1+00 – 2+00



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CONSTRUCTION STAKING LIABILITY WAIVER

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BEFORE DIGGING CALL USA, TOLL FREE 800-227-2600

BEFORE PLANTING TREES, TRENCHING, POST HOLING, BLASTING, GRADING, EXCAVATING, BORING, DRILLING, ETC. CALL UNDERGROUND SERVICE ALERT FOR UNDERGROUND CLEARANCE. THEY WILL PROVIDE INFORMATION OR LOCATE AND MARK UNDERGROUND FACILITIES FOR YOU.

LEGEND

100.0	EXISTING GROUND ELEVATION	═══	EXISTING CURB & GUTTER
C=100.00	EXISTING CONCRETE ELEVATION	—EP—	EXISTING EDGE-OF-PAVEMENT
TC=100.00	EXISTING TOP-OF-CURB ELEVATION	—OH—	EXISTING OVERHEAD LINE
P=100.00	EXISTING PAVEMENT ELEVATION	— — —	EXISTING STRIPING
EP=100.00	EXISTING EDGE-OF-PAVEMENT ELEVATION	SIGN	EXISTING SIGN, AS NOTED
FL=100.00	EXISTING FLOWLINE ELEVATION	—8"W—	EXISTING WATER LINE
LIP=100.00	EXISTING LIP ELEVATION		EXISTING WATER VALVE
RIM=100.00	EXISTING RIM ELEVATION	FH	EXISTING FIRE HYDRANT
INV=100.00	EXISTING INVERT ELEVATION	—8"SS—	EXISTING SANITARY SEWER LINE
		EX. SSMH	EXISTING SANITARY SEWER MAINTENANCE HOLE
		—12"SD—	EXISTING STORM DRAIN LINE
		EX. SDMH	EXISTING STORM DRAIN MAINTENANCE HOLE
		INV=100.00	PROPOSED INVERT ELEVATION
			PROPOSED SANITARY SEWER FORCE MAIN
		45'	PROPOSED SANITARY SEWER FORCE MAIN WITH RESTRAINED JOINTS, MINIMUM LENGTH SHOWN.
			ROCK BAGS AT ALL EXISTING CATCH BASINS WITHIN CONSTRUCTION AREAS.

REGISTERED PROFESSIONAL ENGINEER — BART E. MADE — No. 78508 Exp. 9/30/09 — CIVIL — STATE OF CALIFORNIA

0989Y

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STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN

PLAN AND PROFILE – METRO DRIVE
STA. 1+00 TO STA. 5+50

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE:	1"=30'	APPROVED BY: DATE: 2/26/09	SHEET NO. C-3
DESIGNED BY:	GEM		OF 14 SHEETS
DRAWN BY:	DRF		PROJECT NO. 2718B
CHECKED BY:	GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	
RECORD DWG.:			

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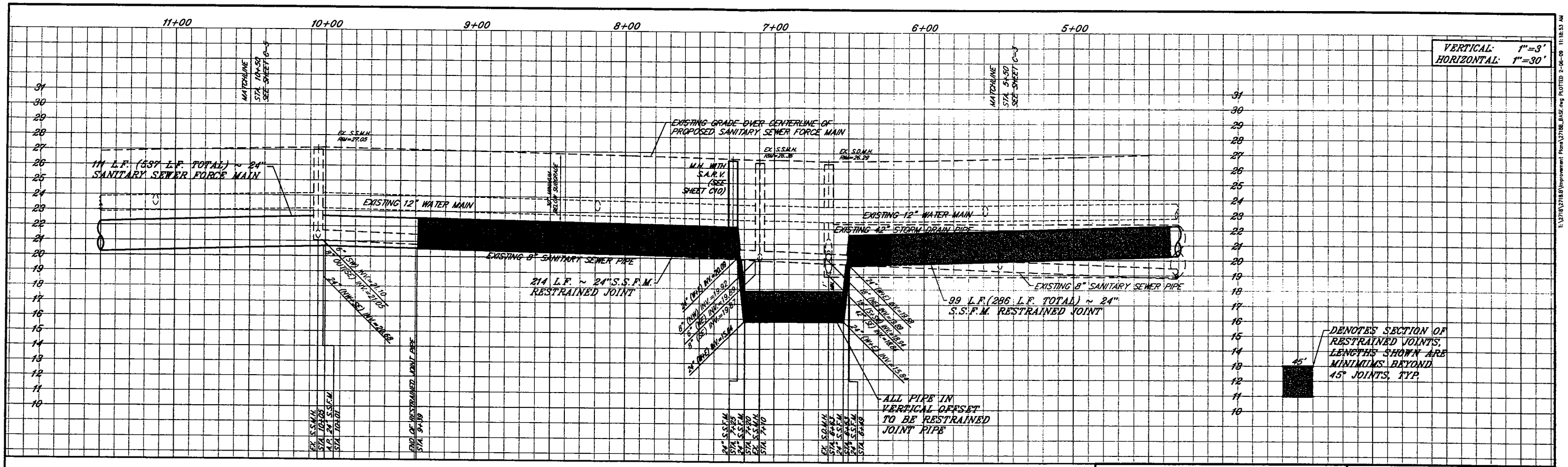
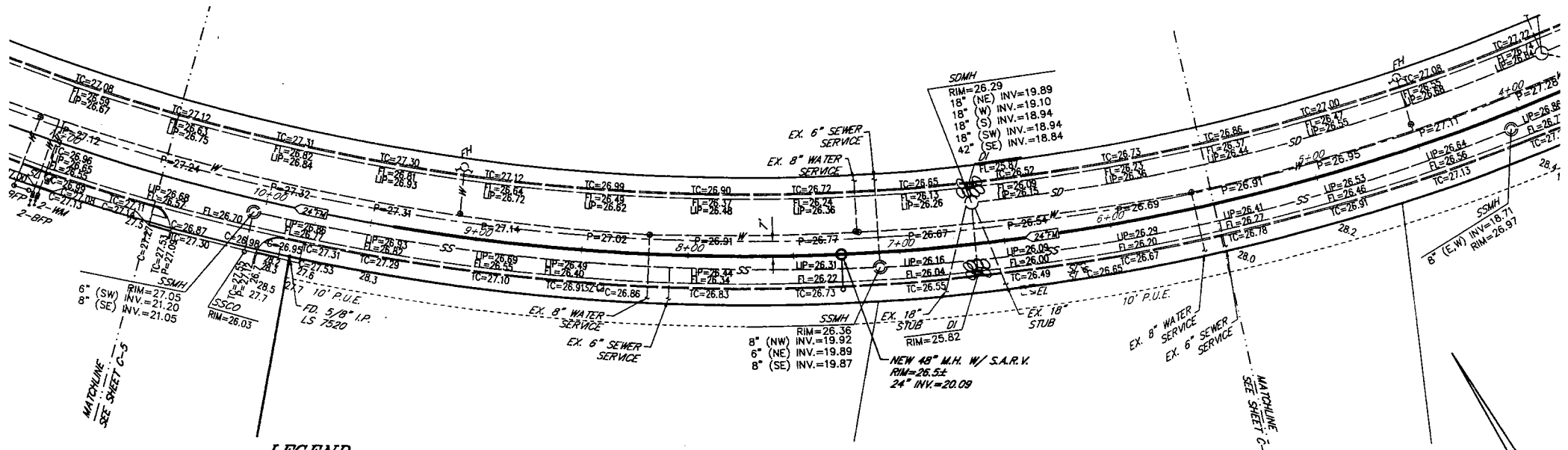


METRO DRIVE
STA. 5+50 – 10+50



LEGEND

.100.0	EXISTING GROUND ELEVATION	EXISTING CURB & GUTTER	EXISTING SANITARY SEWER LINE
• C=100.00	EXISTING CONCRETE ELEVATION	EXISTING EDGE-OF-PAVEMENT	EX. SSMH EXISTING SANITARY SEWER MAINTENANCE HOLE
• TC=100.00	EXISTING TOP-OF-CURB ELEVATION	EXISTING OVERHEAD LINE	EXISTING STORM DRAIN LINE
• P=100.00	EXISTING PAVEMENT ELEVATION	EXISTING STRIPING	EX. SDMH EXISTING STORM DRAIN MAINTENANCE HOLE
• EP=100.00	EXISTING EDGE-OF-PAVEMENT ELEVATION	SIGN EXISTING SIGN, AS NOTED	INV=100.00 PROPOSED INVERT ELEVATION
• FL=100.00	EXISTING FLOWLINE ELEVATION	EXISTING WATER LINE	PROPOSED SANITARY SEWER FORCE MAIN
• LIP=100.00	EXISTING LIP ELEVATION	EXISTING WATER VALVE	45' PROPOSED SANITARY SEWER FORCE MAIN WITH RESTRAINED JOINTS, MINIMUM LENGTH SHOWN.
RIM=100.00	EXISTING RIM ELEVATION	FH EXISTING FIRE HYDRANT	ROCK BAGS AT ALL EXISTING CATCH BASINS WITHIN CONSTRUCTION AREAS.
INV=100.00	EXISTING INVERT ELEVATION		

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REGISTERED PROFESSIONAL ENGINEER — KENT E. NEWTON — No. 70908 — Exp. 9/30/09 — CIVIL — STATE OF CALIFORNIA

0989X

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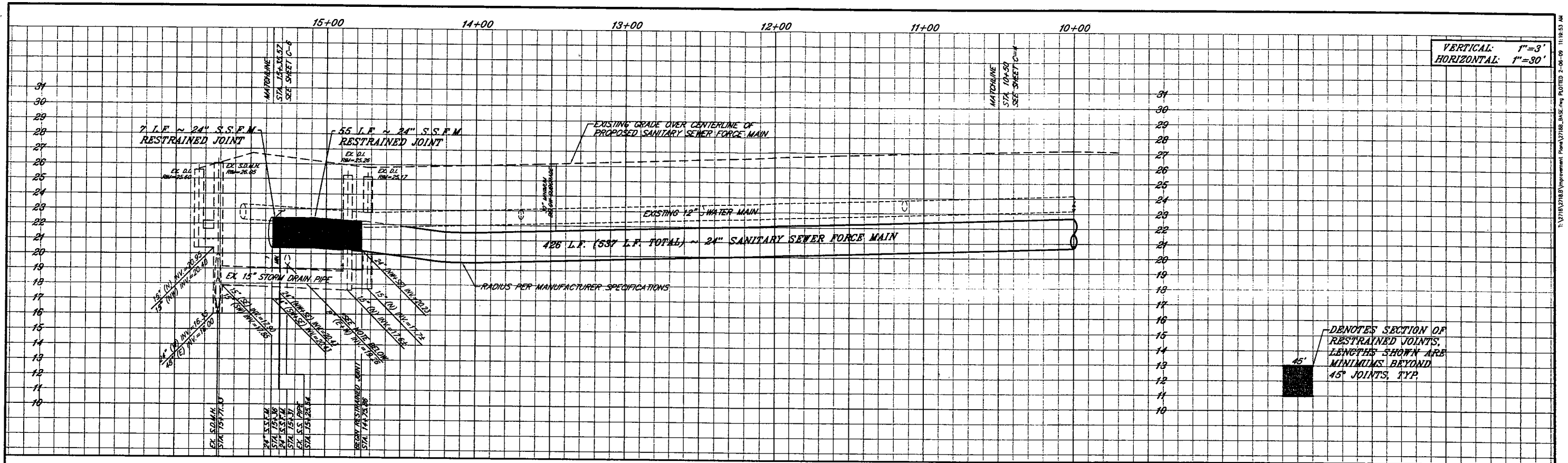
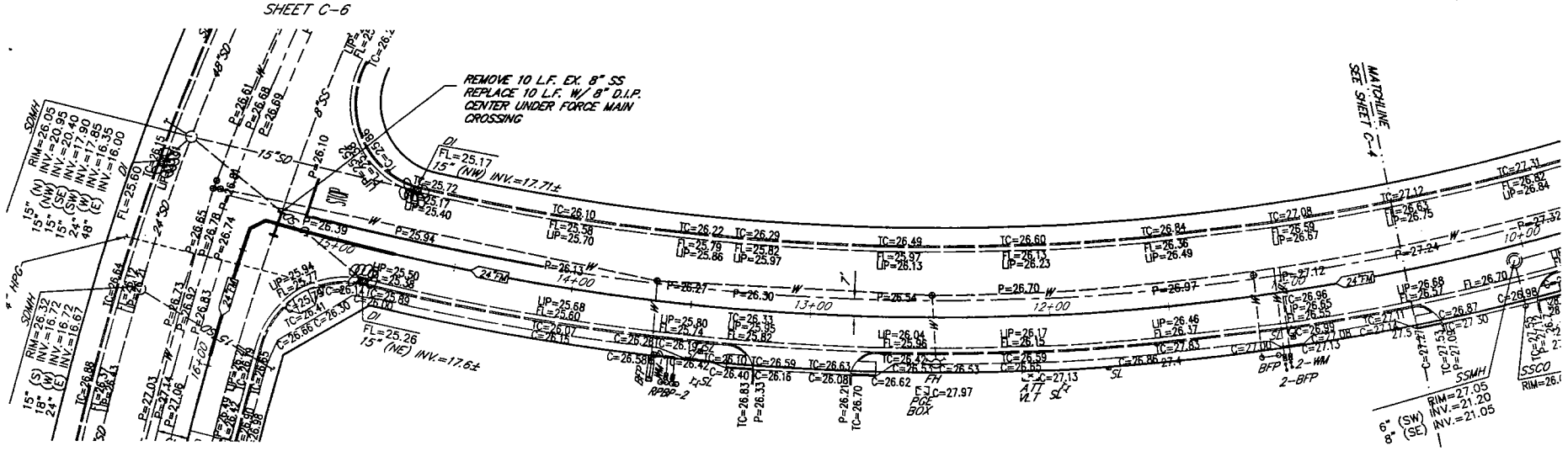
416 MITCHELL ROAD • MODESTO, CALIFORNIA
VOICE: (209) 575 - 4295 • FAX: (209) 576-4295

STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN
PLAN AND PROFILE – METRO DRIVE
STA. 5+50 TO STA. 10+50

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE:	1"=30'	APPROVED BY: DATE: 2/6/09	SHEET NO. C-4
DESIGNED BY:	GEM		OF 14 SHEETS
DRAWN BY:	DRF		PROJECT NO
CHECKED BY:	GEM	ASSIST. MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	27188
RECORD DWG.:			





METRO DRIVE
STA. 10+50 – 15+35.57

IMPERIAL WAY
SHEET C-6

CONSTRUCTION STAKING LIABILITY WAIVER

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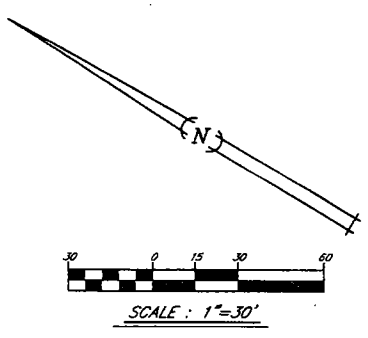
LEGEND

·100.0	EXISTING GROUND ELEVATION	═══	EXISTING CURB & GUTTER
· C=100.00	EXISTING CONCRETE ELEVATION	—EP—	EXISTING EDGE-OF-PAVEMENT
· TC=100.00	EXISTING TOP-OF-CURB ELEVATION	-----OH-----	EXISTING OVERHEAD LINE
· P=100.00	EXISTING PAVEMENT ELEVATION	— — —	EXISTING STRIPING
· EP=100.00	EXISTING EDGE-OF-PAVEMENT ELEVATION	SIGN	EXISTING SIGN, AS NOTED
· FL=100.00	EXISTING FLOWLINE ELEVATION	—8"W—	EXISTING WATER LINE
· LIP=100.00	EXISTING LIP ELEVATION		EXISTING WATER VALVE
RIM=100.00	EXISTING RIM ELEVATION	FH	EXISTING FIRE HYDRANT
INV=100.00	EXISTING INVERT ELEVATION	—8"SS—	EXISTING SANITARY SEWER LINE
		EX. SSMH	EXISTING SANITARY SEWER MAINTENANCE HOLE
		—12"SD—	EXISTING STORM DRAIN LINE
		EX. SDMH	EXISTING STORM DRAIN MAINTENANCE HOLE
		INV=100.00	PROPOSED INVERT ELEVATION
		═══	PROPOSED SANITARY SEWER FORCE MAIN
		45°	PROPOSED SANITARY SEWER FORCE MAIN WITH RESTRAINED JOINTS, MINIMUM LENGTH SHOWN.
			ROCK BAGS AT ALL EXISTING CATCH BASINS WITHIN CONSTRUCTION AREAS.



REGISTERED PROFESSIONAL ENGINEER GARY E. MEDLIN No. 70508 Exp. 9/30/09 CIVIL STATE OF CALIFORNIA

0989x

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STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN

PLAN AND PROFILE – METRO DRIVE
STA. 10+00 TO STA. 15+35.57

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE:	1"=30'	APPROVED BY: DATE: 2/6/09	SHEET NO. C-5
DESIGNED BY:	GEM		OF 14 SHEETS
DRAWN BY:	DRF		PROJECT NO. 2718B
CHECKED BY:	GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	
RECORD DWG.:			

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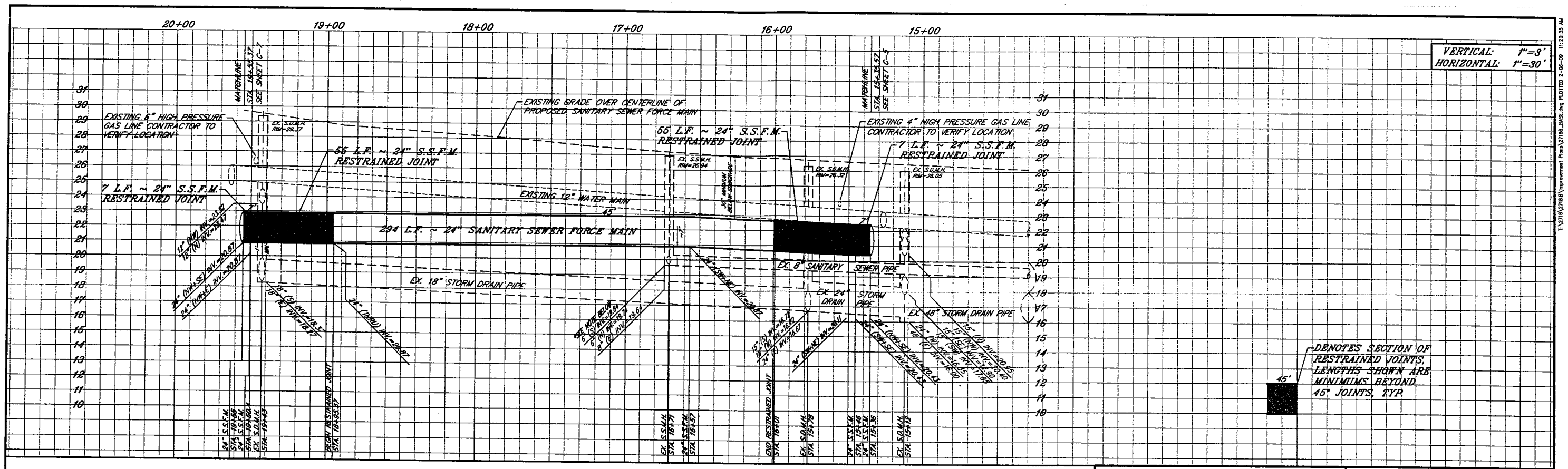
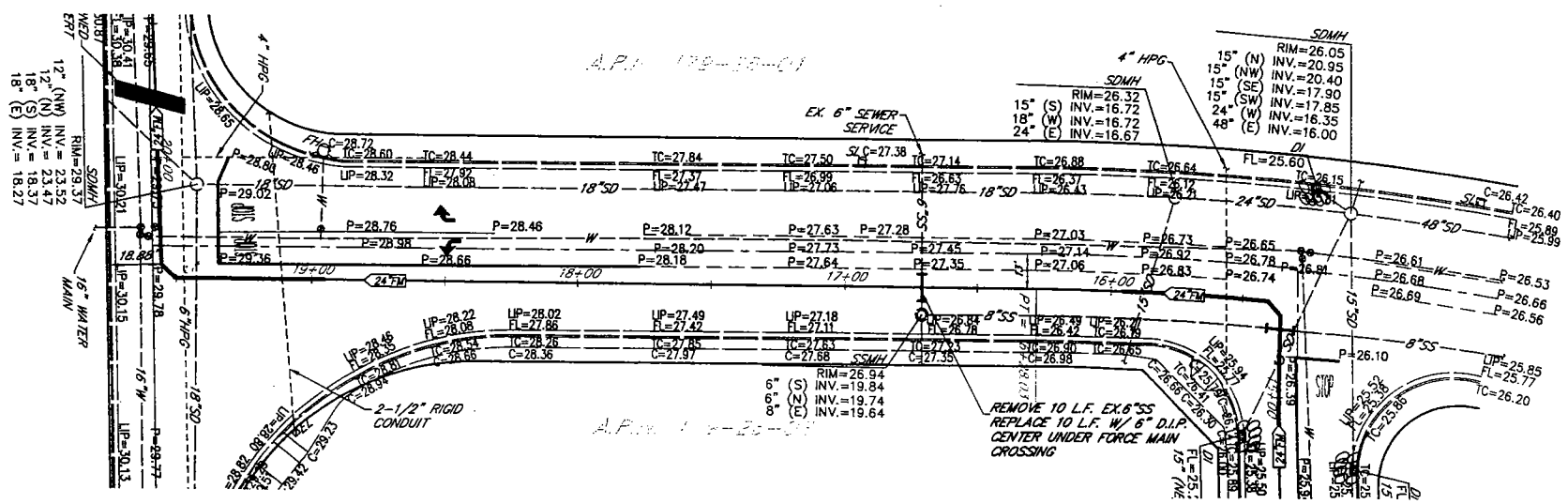


FRONTAGE ROAD
SHEET C-7

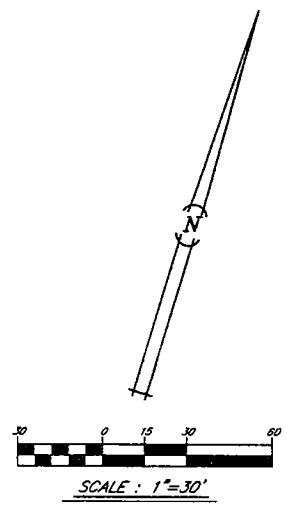
IMPERIAL WAY
STA. 15+35.57 – 19+55.37

METRO DRIVE
SHEET C-5



LEGEND

100.0	EXISTING GROUND ELEVATION	EXISTING CURB & GUTTER	8"SS — EXISTING SANITARY SEWER LINE
C=100.00	EXISTING CONCRETE ELEVATION	EP — EXISTING EDGE-OF-PAVEMENT	EX. SSMH — EXISTING SANITARY SEWER MAINTENANCE HOLE
TC=100.00	EXISTING TOP-OF-CURB ELEVATION	OH — EXISTING OVERHEAD LINE	12"SD — EXISTING STORM DRAIN LINE
P=100.00	EXISTING PAVEMENT ELEVATION	EXISTING STRIPING	EX. SDMH — EXISTING STORM DRAIN MAINTENANCE HOLE
EP=100.00	EXISTING EDGE-OF-PAVEMENT ELEVATION	SIGN — EXISTING SIGN, AS NOTED	INV=100.00 PROPOSED INVERT ELEVATION
FL=100.00	EXISTING FLOWLINE ELEVATION	8"W — EXISTING WATER LINE	PROPOSED SANITARY SEWER FORCE MAIN
UP=100.00	EXISTING UP ELEVATION	EXISTING WATER VALVE	45' PROPOSED SANITARY SEWER FORCE MAIN WITH RESTRAINED JOINTS, MINIMUM LENGTH SHOWN
RIM=100.00	EXISTING RIM ELEVATION	FH EXISTING FIRE HYDRANT	ROCK BAGS AT ALL EXISTING CATCH BASINS WITHIN CONSTRUCTION AREAS.
INV=100.00	EXISTING INVERT ELEVATION	6"HPG — EXISTING HIGH PRESSURE GAS LINE	



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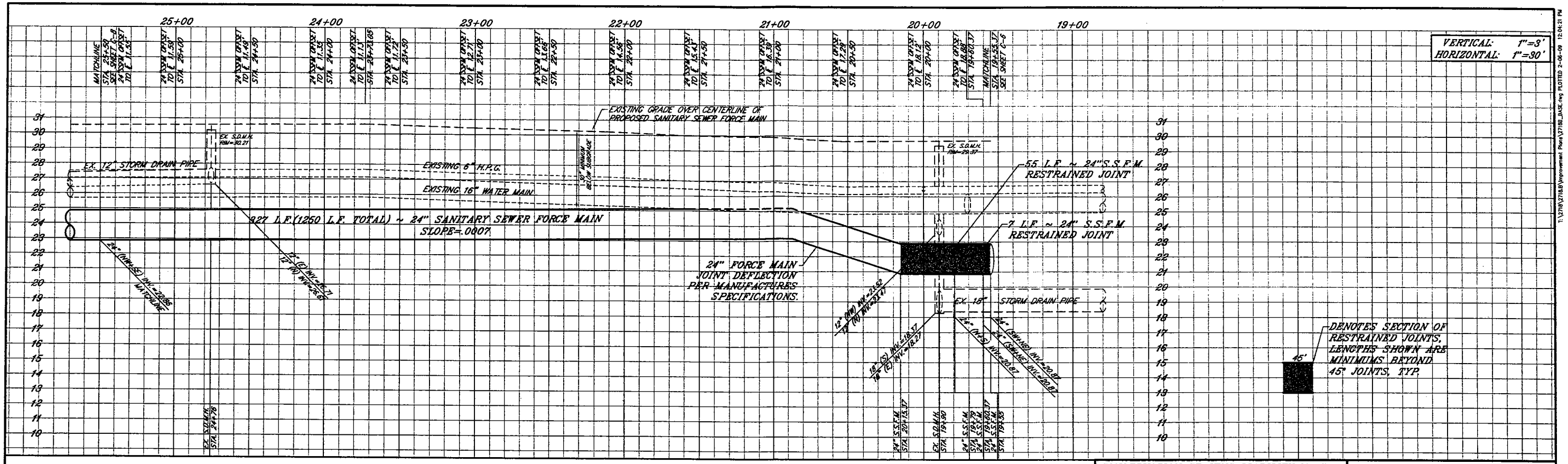
STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN
PLAN AND PROFILE – IMPERIAL WAY
STA. 15+35.57 TO STA. 19+55.37

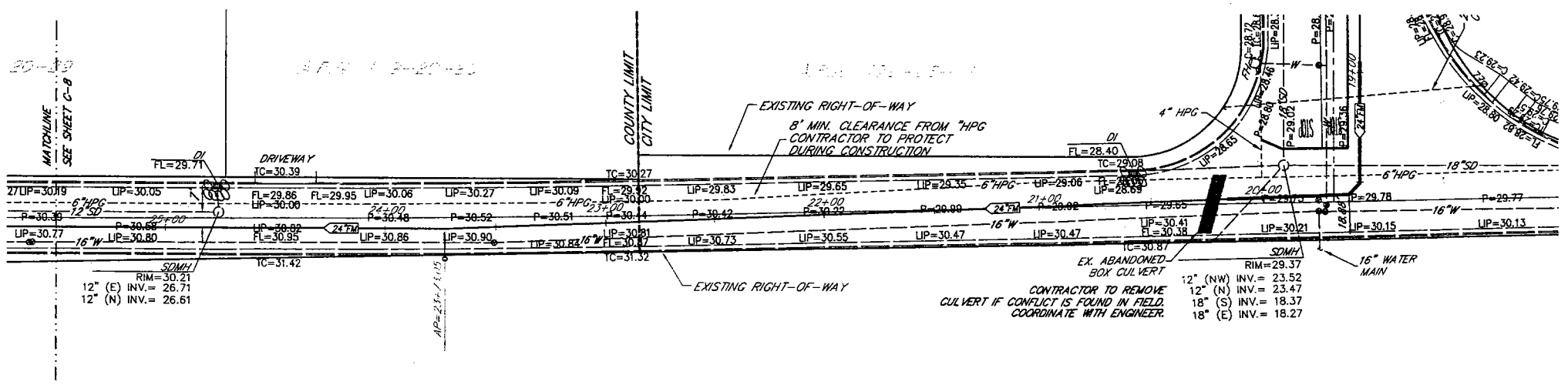
MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=30'	APPROVED BY:	DATE: 2/16/09	SHEET NO. C-6
DESIGNED BY: GEM			OF 14 SHEETS
DRAWN BY: DRF			PROJECT NO. 27188
CHECKED BY: GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR		
RECORD DWG.:	STOCKTON, CALIFORNIA		



FRONTAGE ROAD
STA. 19+55.37 – 25+50

IMPERIAL WAY
SHEET C-6



LEGEND

.100.0	EXISTING GROUND ELEVATION	EXISTING CURB & GUTTER	EXISTING SANITARY SEWER LINE
• C=100.00	EXISTING CONCRETE ELEVATION	EP — EXISTING EDGE-OF-PAVEMENT	EX. SSMH — EXISTING SANITARY SEWER MAINTENANCE HOLE
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RIM=100.00	EXISTING RIM ELEVATION	FH — EXISTING FIRE HYDRANT	ROCK BAGS AT ALL EXISTING CATCH BASINS WITHIN CONSTRUCTION AREAS.
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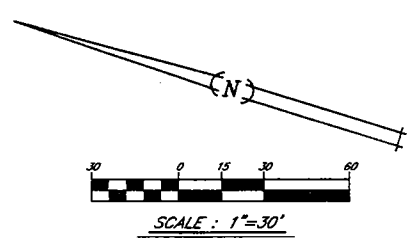

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REGISTERED PROFESSIONAL ENGINEER — SCOTT E. MANSELL — No. 77508 — Exp. 9/30/09 — CIVIL — STATE OF CALIFORNIA

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STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN
PLAN AND PROFILE – FRONTAGE ROAD
STA. 19+55.37 TO STA. 25+50

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE: 1"=30'	APPROVED BY: DATE: 2/6/09	SHEET NO.	C-7
DESIGNED BY: GEM		OF 14 SHEETS	
DRAWN BY: DRF		PROJECT NO.	2718B
CHECKED BY: GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA		
RECORD DWG.:			

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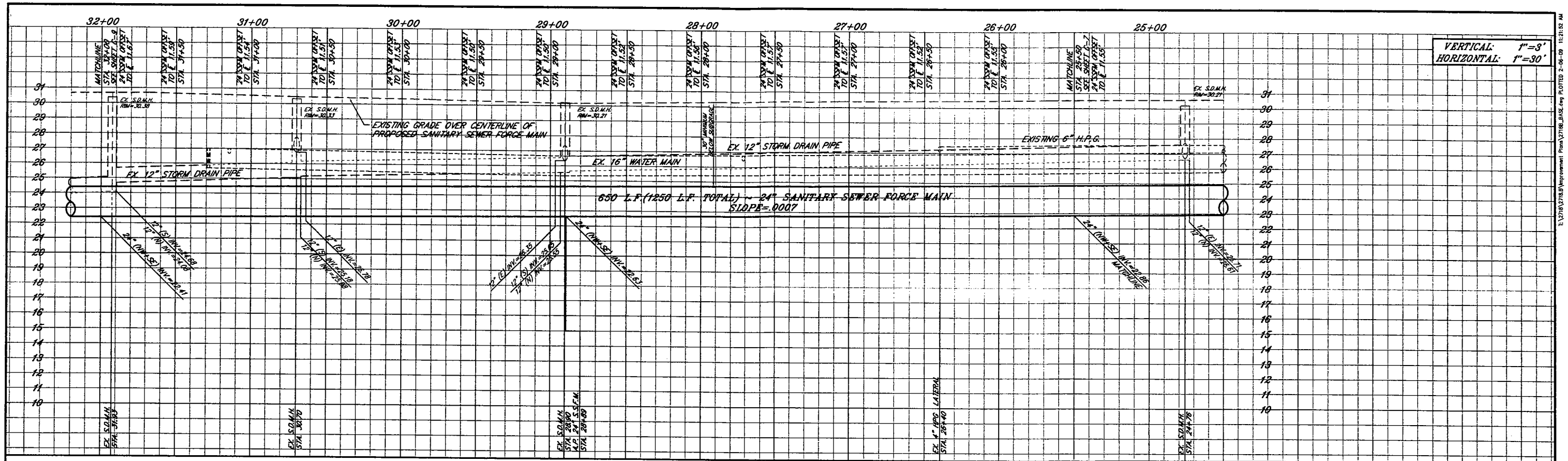

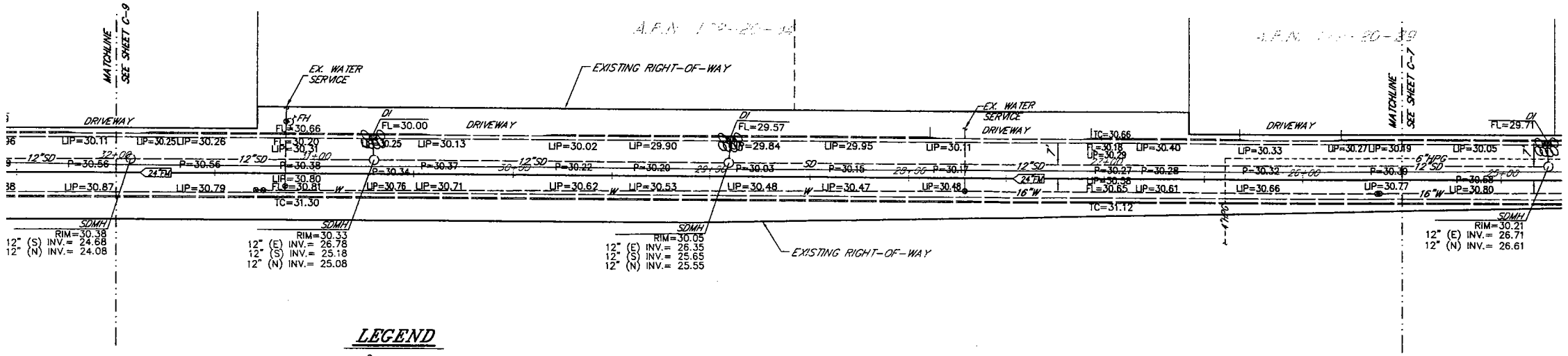

FRONTAGE ROAD
STA. 25+50 – 32+00

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2. SECTION 1540 (A) (1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540) ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973, AS AMENDED, STATES:
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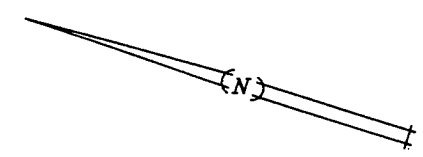
LEGEND

.100.0	EXISTING GROUND ELEVATION	═══	EXISTING CURB & GUTTER
• C=100.00	EXISTING CONCRETE ELEVATION	——EP——	EXISTING EDGE-OF-PAVEMENT
• TC=100.00	EXISTING TOP-OF-CURB ELEVATION	-----OH-----	EXISTING OVERHEAD LINE
• P=100.00	EXISTING PAVEMENT ELEVATION	— — —	EXISTING STRIPING
• EP=100.00	EXISTING EDGE-OF-PAVEMENT ELEVATION	-o- SIGN	EXISTING SIGN, AS NOTED
• FL=100.00	EXISTING FLOWLINE ELEVATION	——8"W——	EXISTING WATER LINE
• UP=100.00	EXISTING UP ELEVATION	-->><--	EXISTING WATER VALVE
RIM=100.00	EXISTING RIM ELEVATION	FH	EXISTING FIRE HYDRANT
INV=100.00	EXISTING INVERT ELEVATION	----6"HPG----	EXISTING HIGH PRESSURE GAS LINE
		——8"SS——	EXISTING SANITARY SEWER LINE
		EX. SSMH	EXISTING SANITARY SEWER MAINTENANCE HOLE
		——12"SD——	EXISTING STORM DRAIN LINE
		EX. SDMH	EXISTING STORM DRAIN MAINTENANCE HOLE
		INV=100.00	PROPOSED INVERT ELEVATION
		————	PROPOSED SANITARY SEWER FORCE MAIN
			ROCK BAGS AT ALL EXISTING CATCH BASINS WITHIN CONSTRUCTION AREAS.



SCALE : 1"=30'

REGISTERED PROFESSIONAL ENGINEER GARY E. HAWKINS No. 70528 Exp. 9/30/09 CIVIL STATE OF CALIFORNIA

0989X

HAWKINS & ASSOCIATES ENGINEERING, INC.
WWW.HAWKINS-ENG.COM
436 MITCHELL ROAD • MODESTO, CALIFORNIA
VOICE: (209) 575-4295 • FAX: (209) 575-4295

STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN

PLAN AND PROFILE – FRONTAGE ROAD
STA. 25+50 TO STA. 32+00

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE:	1"=30'	APPROVED BY: DATE: 2/6/09	SHEET NO. C-8
DESIGNED BY:	GEM		OF 14 SHEETS
DRAWN BY:	DRF		PROJECT NO. 2718B
CHECKED BY:	GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	
RECORD DWG.:			

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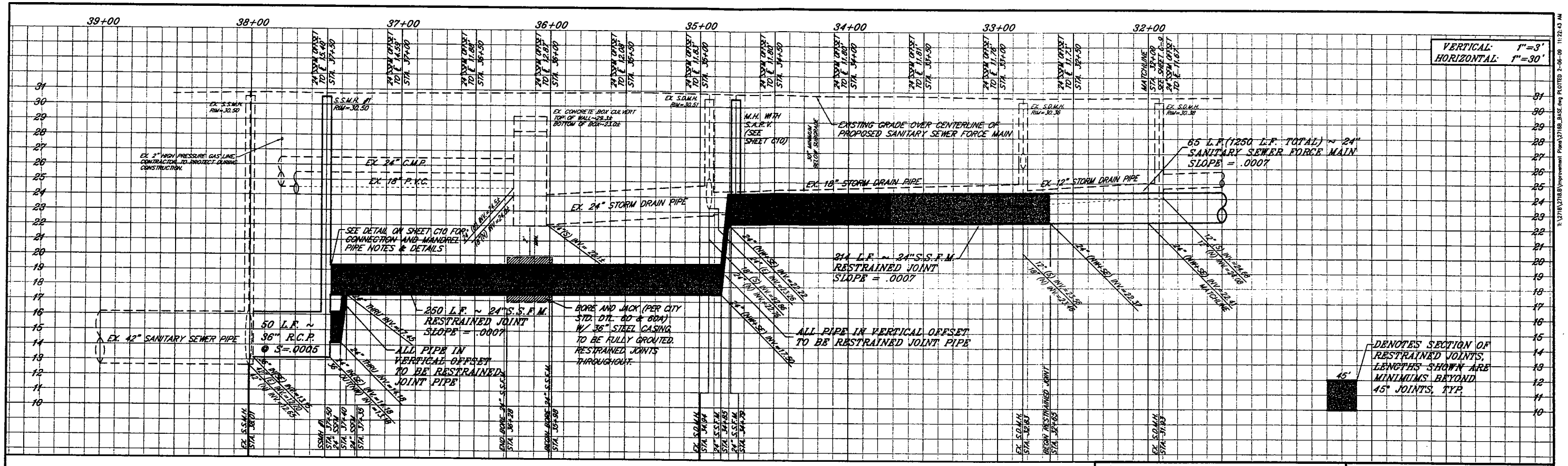
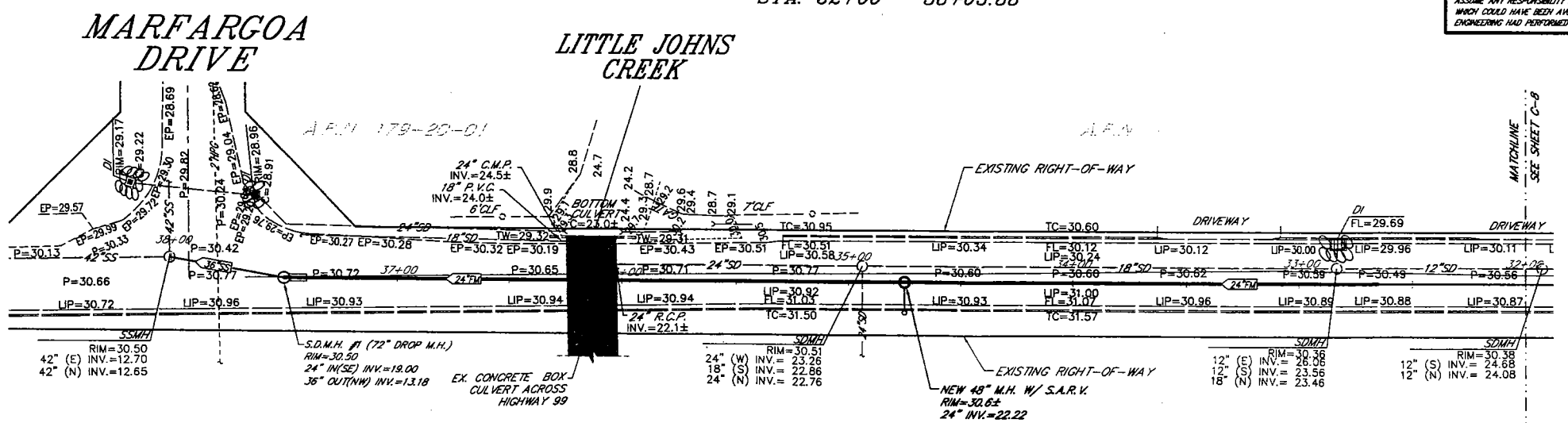


FRONTAGE ROAD
STA. 32+00 – 38+03.88



LEGEND

100.0	EXISTING GROUND ELEVATION		EXISTING CURB & GUTTER
C=100.00	EXISTING CONCRETE ELEVATION	EP	EXISTING EDGE-OF-PAVEMENT
TC=100.00	EXISTING TOP-OF-CURB ELEVATION	OH	EXISTING OVERHEAD LINE
P=100.00	EXISTING PAVEMENT ELEVATION		EXISTING STRIPING
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FL=100.00	EXISTING FLOWLINE ELEVATION	8"W	EXISTING WATER LINE
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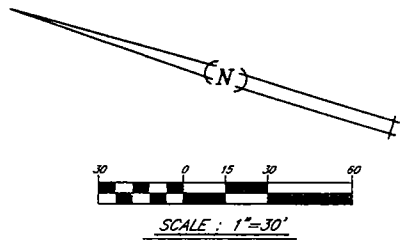
EX. SDMH	EXISTING STORM DRAIN MAINTENANCE HOLE
RIM=100.00	PROPOSED RIM ELEVATION
INV=100.00	PROPOSED INVERT ELEVATION
S.S.M.H.	PROPOSED SANITARY SEWER MAINTENANCE HOLE
	PROPOSED SANITARY SEWER FORCE MAIN
45°	PROPOSED SANITARY SEWER FORCE MAIN WITH RESTRAINED JOINTS, MINIMUM LENGTH SHOWN.
	ROCK BAGS AT ALL EXISTING CATCH BASINS WITHIN CONSTRUCTION AREAS.



SCALE : 1"=30'

CONSTRUCTION STAKING LIABILITY WAIVER

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BEFORE DIGGING CALL USA, TOLL FREE 800-227-2600

BEFORE PLANTING TREES, TRENCHING, POST HOLING, BLASTING, GRADING, EXCAVATING, BORING, DRILLING, ETC. CALL UNDERGROUND SERVICE ALERT FOR UNDERGROUND CLEARANCE. THEY WILL PROVIDE INFORMATION ON LOCATE AND MARK UNDERGROUND FACILITIES FOR YOU.

CAUTION: UTILITY LOCATION NOTES

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REGISTERED PROFESSIONAL ENGINEER — JEFFREY E. HAWKINS — No. 70508 — Exp. 9/30/09 — CIVIL — STATE OF CALIFORNIA

0989X

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STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN

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STA. 32+00 TO STA. 38+03.88

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE:	1"=30'	APPROVED BY: DATE: 2/6/09	SHEET NO. C-9
DESIGNED BY:	GEM		OF 14 SHEETS
DRAWN BY:	DRF		PROJECT NO. 2718
CHECKED BY:	GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	
RECORD DWG.:			

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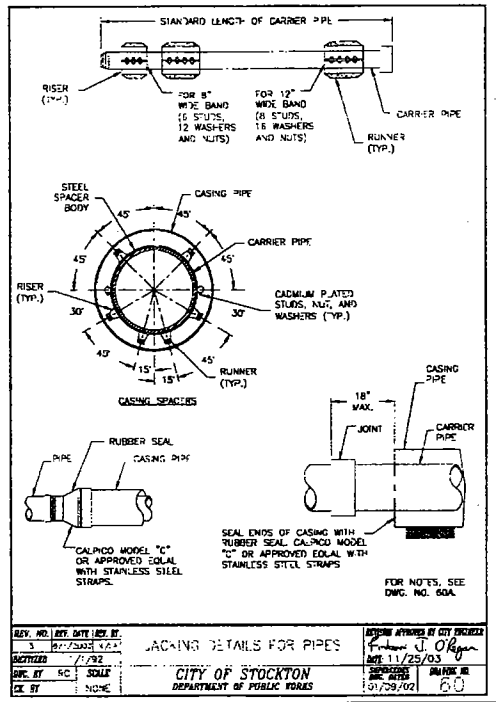
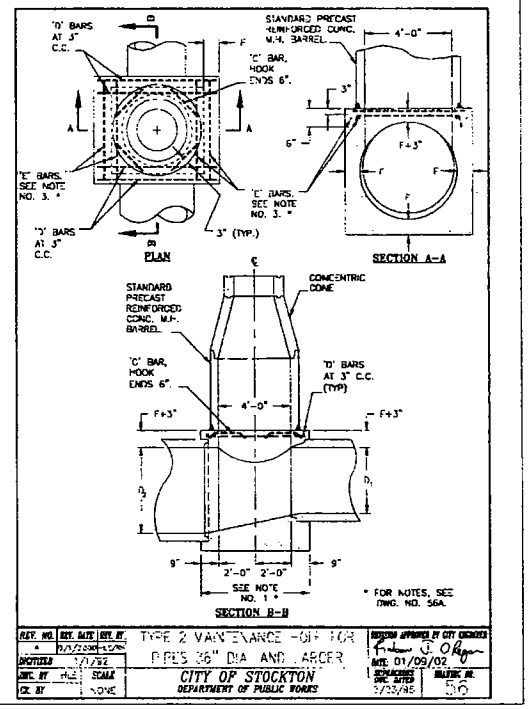


REV. NO.	REV. DATE	REV. BY	
3	8/17/2003	KAS	
NOTICED	7/1/92		
DRC. BY	RC	SCALE	
CK. BY		NONE	

JACKING DETAILS FOR PIPES

CITY OF STOCKTON
DEPARTMENT OF PUBLIC WORKS

REVISIONS APPROVED BY CITY ENGINEER: Graham J. O'Hagan
DATE: 11/25/03
SUPERVISORS DIST. NUMBER: 91/59/102
DRAWING NO. 60

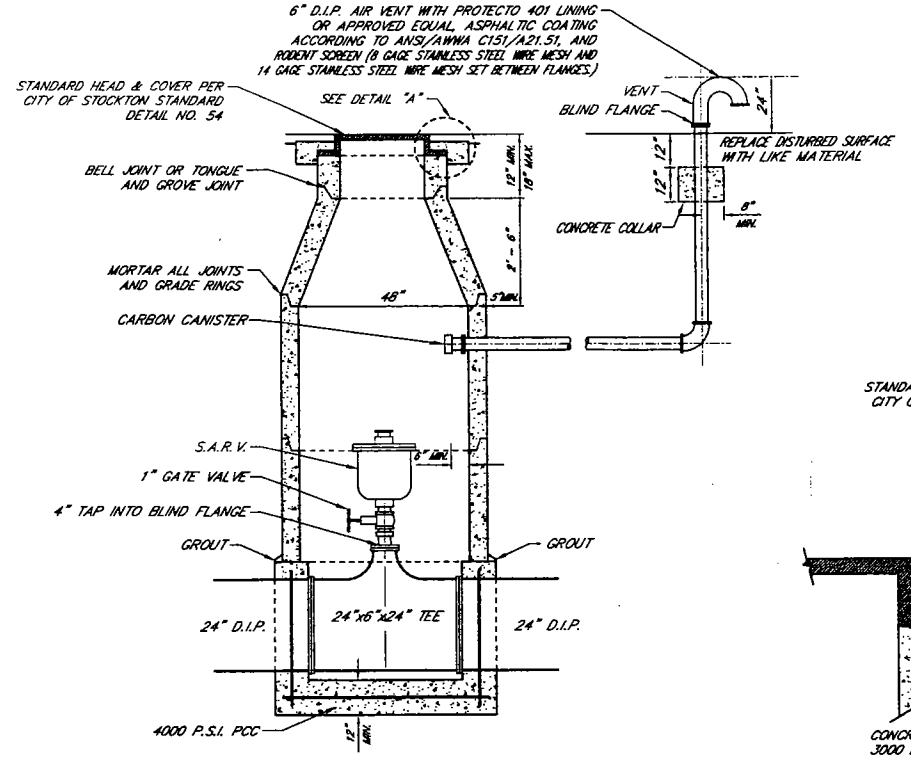


REV. NO.	REV. DATE	REV. BY	
*	11/1/2000	KAS	
NOTICED	7/1/92		
DRC. BY	HLE	SCALE	
CK. BY		NONE	

TYPE 2 MAINTENANCE HOLE FOR PIPES 36" DIA. AND ABOVE

CITY OF STOCKTON
DEPARTMENT OF PUBLIC WORKS

REVISIONS APPROVED BY CITY ENGINEER: Graham J. O'Hagan
DATE: 01/09/02
SUPERVISORS DIST. NUMBER: 7/35/45
DRAWING NO. 56



NOTES :

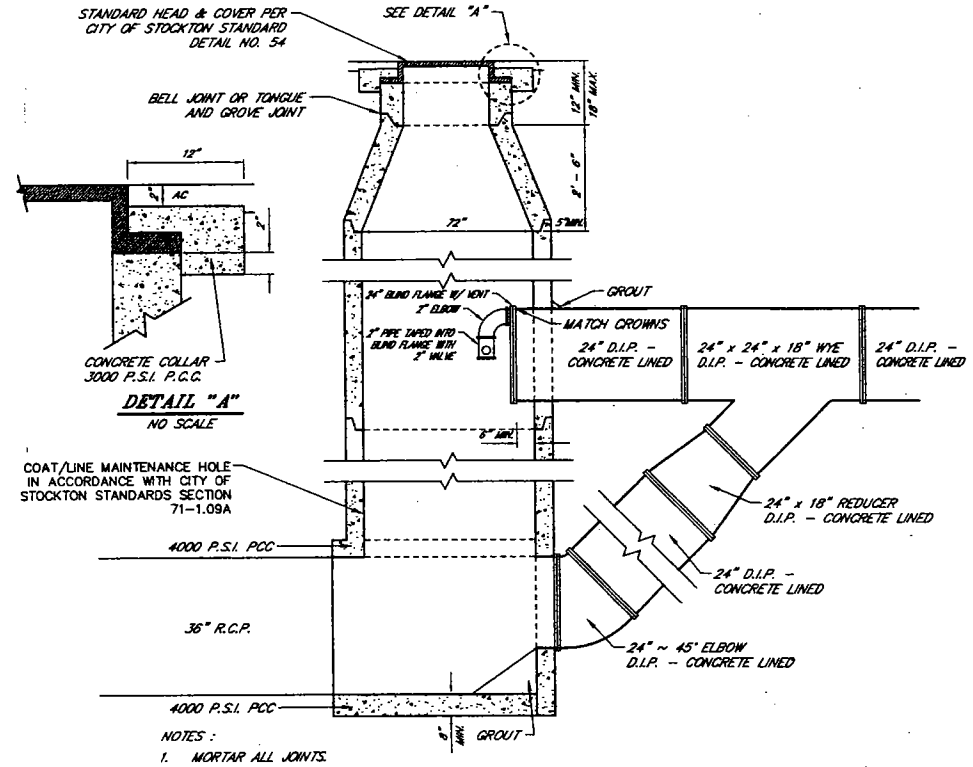
1. VENT S.A.R.V. TO ABOVE GROUND VENT AS SHOWN. LOCATIONS TO BE APPROVED BY THE CITY PRIOR TO CONSTRUCTION.
2. M.H. JOINTS SHALL BE TONGUE AND GROVE AND SHALL BE SEALED WITH PRE-EXTRUDED CONCRETE JOINT SEALANT. FINISH INSIDE AND OUTSIDE OF SEALED JOINTS WITH NON-METALIC, NON-SHRINK GROUT.
3. INSTALL A PIPE JOINT WITHIN 2 FEET OF THE STRUCTURE ON EACH SIDE.

SEWAGE AIR RELIEF VALVE INSIDE MAINTENANCE HOLE DETAIL

NO SCALE

DETAIL "A"

NO SCALE



NOTES :

1. MORTAR ALL JOINTS.
2. INCOMING SMALLER PIPES SHALL MATCH CROWNS OF THE LARGER PIPE.
3. ADJUST FRAME TO GRADE AFTER PAVING.
4. ALL PRECAST CONCRETE SHALL BE DESIGNED TO WITHSTAND H20 LOADING.
5. IN TRAFFIC AREAS, CONCRETE COLLAR SHALL BE MADE WITH 3000 P.S.I. PCC, HIGH EARLY STRENGTH. BARRICADES SHALL BE REMOVED IN 24 HOURS.

PRECAST TRUNK - DROP MAINTENANCE HOLE DETAIL

NO SCALE

(CON'T'D FROM DWG. 60)

STEEL CASING SCHEDULE		
PIPE SIZE & TYPE	CASING	THICK
6" VITRIFIED CLAY	14" I.D.	1/8
8" VITRIFIED CLAY	16" I.D.	1/4
10" VITRIFIED CLAY	20" I.D.	1/4
12" VITRIFIED CLAY	22" I.D.	1/4

NOTES:

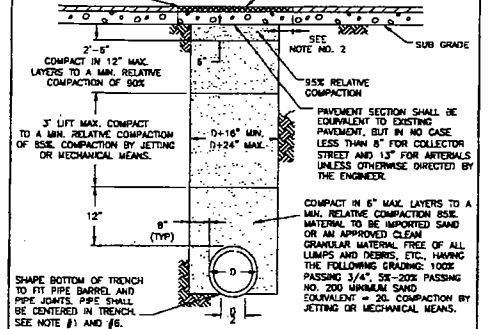
1. CASING SHALL BE INSTALLED BY THE JACKING AND BORING METHOD.
2. CASING JOINTS SHALL BE WELDED IN ACCORDANCE WITH AWWA STANDARD C-206 EXCEPT THAT HYDROSTATIC TESTING WILL NOT BE REQUIRED.
3. CASING SPACERS SHALL BE PROVIDED AS PER DETAIL (SEE DRAWING NO. 60).
4. ENDS OF BORE HOLE SHALL BE SEALED TO PREVENT ENTRANCE OF FILL MATERIAL, AS REQUIRED.
5. JOINT SHALL BE INSTALLED AT END OF CASING PIPE. SEE DETAIL (SEE DRAWING NO 60).
6. CASING OF LARGER SIZE THAN SHOWN IN THE ABOVE CHART OR CASING FOR PIPES LARGER THAN 12" OR OF DIFFERENT TYPE THAN SHOWN SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO INSTALLATION.

REV. NO.	REV. DATE	REV. BY	
3	8/17/2003	KAS	
NOTICED	7/1/92		
DRC. BY	RC	SCALE	
CK. BY		NONE	

JACKING DETAILS FOR PIPES

CITY OF STOCKTON
DEPARTMENT OF PUBLIC WORKS

REVISIONS APPROVED BY CITY ENGINEER: Graham J. O'Hagan
NOTE: 11/25/03
SUPERVISORS DIST. NUMBER: 91/59/102
DRAWING NO. 60A



TYPICAL TRENCH SECTION IN EXISTING IMPROVED STREETS

NOTES

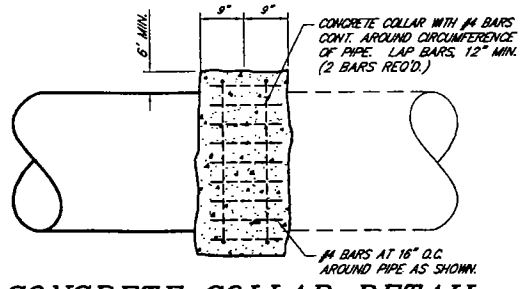
1. FOR RIGID PIPE, CONTRACTOR MAY, AT THEIR EXPENSE, EXCAVATE 6" BELOW THE BOTTOM OF THE PIPE AND REPLACE WITH SAND OR AGGREGATE SUBBASE IN LIEU OF SHAPING BOTTOM OF TRENCH TO FIT PIPE BARREL. JOINTS SHALL BE SHAPED IN EITHER CASE. COMPACT TO 85%.
2. WHEN TRENCH AND EXCAVATION IS IN EXISTING PAVED STREETS, REPLACE PAVEMENT 12" ON EACH SIDE OF TRENCH.
3. DEVIATION FROM ABOVE MAY BE ALLOWED WHEN APPROVED BY THE CITY ENGINEER.
4. TRENCH - WHERE THE TRENCH SECTION PARALLELS THE EXISTING CURB AND GUTTER, THE EDGE OF THE TRENCH SHALL BE A MIN. OF 1'-0" FROM LIP OF THE EXISTING GUTTER. THE PAVEMENT SHALL BE REMOVED AND REPLACED TO THE LIP OF THE GUTTER.
5. CONTROLLED DENSITY FILL (CDF) MAY BE USED IN LIEU OF SPECIFIED BACKFILL METHOD. MINIMUM TRENCH WIDTH MAY BE REDUCED TO 2-1/2" CLEAR OF EACH SIDE OF PIPE.
6. FLEXIBLE PIPE SHALL HAVE A 6" BEDDING OF GRANULAR MATERIAL AS DESCRIBED IN NOTE NO. 1.
7. ALL VERTICAL EDGES OF EXISTING ASPHALT CONCRETE SHALL BE TACK COATED.

REV. NO.	REV. DATE	REV. BY	
4	11/1/2000	KAS	
NOTICED	7/1/91		
DRC. BY	RC	SCALE	
CK. BY		NONE	

EXISTING STREET TRENCH SECTION FOR PIPES LARGER THAN 4"

CITY OF STOCKTON
DEPARTMENT OF PUBLIC WORKS

REVISIONS APPROVED BY CITY ENGINEER: Graham J. O'Hagan
DATE: 01/09/02
SUPERVISORS DIST. NUMBER: 3/23/95
DRAWING NO. 50



CONCRETE COLLAR DETAIL

NO SCALE

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REGISTERED PROFESSIONAL ENGINEER — CIVIL — No. 70508 — Exp. 9/30/09 — STATE OF CALIFORNIA

0989X

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WWW.HAWKINS-ENG.COM
436 MITCHELL ROAD • MODESTO, CALIFORNIA
VOICE (209) 575 - 4295 • FAX: (209) 578-4295

STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN

CONSTRUCTION DETAILS

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE:	NONE	APPROVED BY: DATE: 2/6/09	SHEET NO. C-10
DESIGNED BY:	GEM		OF 14 SHEETS
DRAWN BY:	DRF		PROJECT NO 2718B
CHECKED BY:	GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	
RECORD DWG.:			

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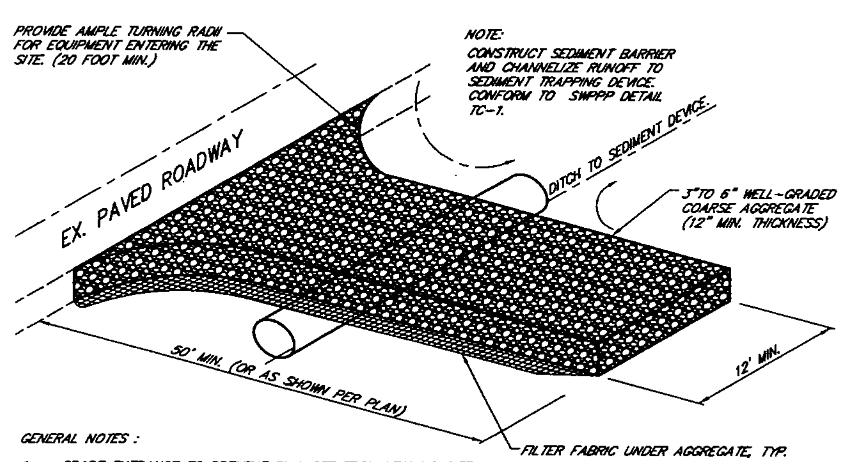
LEGEND

ROCK BAGS AT ALL EXISTING CATCH BASINS WITHIN CONSTRUCTION AREAS.



GENERAL NOTES :

1. GRADE ENTRANCE TO PREVENT RUN-OFF FROM LEAVING SITE.
2. INSPECT ENTRANCE MONTHLY AND AFTER EACH RAINFALL.
3. INSPECT FOR DAMAGE AND REPAIR AS NEEDED.
4. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS DAILY.
5. REMOVE ENTRANCE MATERIALS AT COMPLETION OF CONSTRUCTION.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

NO SCALE

CAUTION: UTILITY LOCATION NOTES

1. EXISTING UNDERGROUND UTILITIES ARE SHOWN AS THEY ARE BELIEVED TO EXIST. THE LOCATIONS SHOWN ARE BASED ON RECORD INFORMATION, PROVIDED BY OTHERS, AND BY FIELD LOCATION OF SURFACE FEATURES. THIS INFORMATION IS PROVIDED ONLY AS AN AID TO THE CONTRACTOR. THEREFORE, THE OWNER AND ENGINEER CANNOT ACCEPT RESPONSIBILITY FOR THE LOCATION AND/OR DESIGNATION OF EXISTING UNDERGROUND FACILITIES. PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL HAVE EACH UTILITY COMPANY ACCURATELY LOCATE IN THE FIELD THEIR MAINS AND SERVICE LINES. CONTRACTOR SHALL VERIFY LOCATION (BOTH VERTICAL AND HORIZONTAL) OF ALL EXISTING UNDERGROUND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONFLICTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES, SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF HIS WORK. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT U.S.A. AT 1-800-227-2600.
2. SECTION 1540 (A) (1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540) ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973 AS AMENDED, STATES: "PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS, I.E. SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING AND WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION."

CONSTRUCTION STAKING LIABILITY WAIVER

THESE IMPROVEMENT PLANS HAVE BEEN PREPARED WITH THE INTENT THAT THE FIRM OF HAWKINS & ASSOCIATES ENGINEERING WILL BE PERFORMING THE CONSTRUCTION STAKING FOR THE COMPLETE PROJECT. IF, HOWEVER, ANOTHER ENGINEERING AND/OR SURVEYING FIRM SHOULD BE EMPLOYED TO USE THESE PLANS FOR THE PURPOSE OF CONSTRUCTION STAKING, NOTICE IS HEREBY GIVEN THAT THE FIRM OF HAWKINS & ASSOCIATES ENGINEERING WILL NOT ASSUME ANY RESPONSIBILITY FOR ERRORS OR OMISSIONS, IF ANY, WHICH MIGHT OCCUR AND WHICH COULD HAVE BEEN AVOIDED, CORRECTED OR MITIGATED IF HAWKINS & ASSOCIATES ENGINEERING HAD PERFORMED THE STAKING WORK.

BEFORE DIGGING CALL USA, TOLL FREE 800-227-2600

BEFORE PLANTING TREES, TRENCHING, POST HOLING, BLASTING, GRADING, EXCAVATING, BORING, DRILLING, ETC. CALL UNDERGROUND SERVICE ALERT FOR UNDERGROUND CLEARANCE. THEY WILL PROVIDE INFORMATION OR LOCATE AND MARK UNDERGROUND FACILITIES FOR YOU.

GENERAL NOTES

1. CONSTRUCTION SITES ARE COMMON SOURCES OF STORM WATER POLLUTION. MATERIALS AND WASTES THAT BLOW OR WASH INTO A STORM DRAIN, GUTTER, OR STREET HAVE A DIRECT IMPACT ON STORM WATER POLLUTION. THE CONTRACTOR OR OWNER MAY BE RESPONSIBLE FOR ENVIRONMENTAL DAMAGE CAUSED BY SUBCONTRACTORS OR EMPLOYEES.
2. PROVIDE TRAINING FOR EMPLOYEES AND SUBCONTRACTORS REGARDING THE REQUIREMENTS OF THE SWPPP AND THEIR RESPONSIBILITIES RELATING TO IT.
3. COVER EXPOSED PILES OF SOIL OR CONSTRUCTION MATERIALS WITH PLASTIC SHEETING OR TEMPORARY ROOFS. BEFORE IT RAINS, SWEEP AND REMOVE MATERIALS FROM SURFACES THAT MAY CONTRIBUTE STORM WATERS TO STORM DRAIN FACILITIES.
4. KEEP POLLUTANTS OFF EXPOSED SURFACES. PLACE TRASH CANS AND RECYCLING BINS AROUND THE SITE TO MINIMIZE LITTER.
5. CLEAN UP LEAKS, DRIPS AND OTHER SPILLS IMMEDIATELY SO THEY DO NOT CONTAMINATE SOIL OR GROUNDWATER OR LEAVE RESIDUE ON PAVED SURFACES.
6. COVER AND MAINTAIN DUMPSTERS. CHECK FREQUENTLY FOR LEAKS. PLACE DUMPSTERS UNDER ROOFS OR COVER WITH TARPS OR PLASTIC SHEETING SECURED TO THEM. NEVER CLEAN OUT A DUMPSTER BY HOSING IT DOWN ON THE CONSTRUCTION SITE.
7. MAINTAIN PORTABLE TOILETS IN GOOD WORKING ORDER. INSPECT FREQUENTLY FOR LEAKS.
8. REMOVE ANY EXISTING VEGETATION ONLY WHEN ABSOLUTELY NECESSARY.
9. PROTECT DOWNSLOPE DRAINAGE COURSES, AND STORM DRAINS WITH "WATTLES", SILT FENCES, OR DIRT BERMS AS NECESSARY.
10. USE CHECK DAMS OR DITCHES TO DIVERT RUNOFF AROUND EXCAVATIONS.
11. PRACTICE SOURCE REDUCTION – MINIMIZE WASTE WHEN YOU ORDER MATERIALS. SUPPLY ONLY SUCH QUANTITIES NECESSARY TO COMPLETE THE JOB.
12. USE RECYCLABLE MATERIALS WHENEVER POSSIBLE.
13. DISPOSE OF ALL WASTES PROPERLY. MANY CONSTRUCTION MATERIALS AND WASTES, INCLUDING SOLVENTS, WATER BASED PAINTS, BROKEN ASPHALT, CONCRETE, WOOD, AND VEGETATION CAN BE RECYCLED. MATERIALS THAT CANNOT BE RECYCLED MUST BE TAKEN TO AN APPROPRIATE LANDFILL OR DISPOSED OF AS HAZARDOUS WASTE. NEVER BURY WASTE MATERIALS OR LEAVE THEM IN STREETS OR NEAR STORM DRAIN FACILITIES.
14. DESIGNATE ONE AREA OF THE CONSTRUCTION SITE, WELL AWAY FROM STORM DRAIN INLETS, FOR AUTO AND EQUIPMENT PARKING. AS PRACTICAL, REFUELING AND ROUTINE VEHICLE AND EQUIPMENT MAINTENANCE TO BE OFF-SITE AT APPROPRIATE SERVICE CENTERS.
15. MAINTAIN ALL VEHICLES AND HEAVY EQUIPMENT. INSPECT FREQUENTLY.
16. PERFORM MAJOR MAINTENANCE, REPAIR, AND VEHICLE/EQUIPMENT WASHING OFF-SITE.
17. DO NOT USE DIESEL OIL TO LUBRICATE EQUIPMENT OR PARTS.
18. NEVER HOSE DOWN "DIRTY" PAVEMENT OR IMPERMEABLE SURFACES WHERE FLUIDS HAVE SPILLED. USE DRY CLEANUP METHODS (ABSORBENT MATERIALS, CAT LITTER, RAGS, ETC.) WHEN POSSIBLE. IF WATER MUST BE USED, USE JUST ENOUGH TO KEEP THE DUST DOWN.
19. SWEEP UP SPILLED DRY MATERIALS IMMEDIATELY. NEVER ATTEMPT TO "WASH THEM AWAY" WITH WATER, OR BURY THEM. USE AS LITTLE WATER AS POSSIBLE FOR DUST CONTROL.
20. CLEAN SPILLS ON DIRT AREAS BY EXCAVATION AND DISPOSAL OF CONTAMINATED SOILS.
21. REPORT SIGNIFICANT SPILLS TO THE APPROPRIATE SPILL RESPONSE AGENCIES IMMEDIATELY.
22. AVOID CREATING EXCESS DUST WHEN BREAKING ASPHALT OR CONCRETE.
23. MAKE SURE BROKEN PAVEMENT DOES NOT COME IN CONTACT WITH RAINFALL OR RUNOFF.
24. SHOVEL OR VACUUM SAW-CUT SLURRY AND REMOVE FROM THE SITE. COVER OR BARRICADE STORM DRAIN DURING SAW-CUTTING AS NECESSARY.
25. STORE BOTH DRY AND WET MATERIALS UNDER COVER, PROTECTED FROM RAINFALL AND RUNOFF. PROTECT DRY MATERIALS FROM WIND.
26. SECURE BAGS OF CEMENT AFTER THEY ARE OPEN. BE SURE TO KEEP WIND-BLOWN CEMENT POWDER AWAY FROM GUTTERS, STORM DRAINS, RAINFALL, AND RUNOFF.
27. WASH OUT CONCRETE MIXERS ONLY IN DESIGNATED ON-SITE WASH-OUT AREAS. WHERE POSSIBLE, RECYCLE WASHOUT BY PUMPING BACK INTO MIXERS FOR REUSE. NEVER DISPOSE OF WASHOUT INTO STREETS, STORM DRAINS, DRAINAGE DITCHES OR BASINS.
28. WHEN CLEANING UP AFTER CONCRETE POURS, WASH FINES ONTO DIRT AREAS, NOT DOWN DRIVEWAYS, STREETS, OR STORM DRAINS.
29. PLACE "WATTLES" OR OTHER EROSION CONTROL DOWN-SLOPE TO CAPTURE RUNOFF CARRYING MORTAR OR CEMENT BEFORE IT REACHES THE STORM DRAIN.
30. WHEN BREAKING UP PAVING, THOROUGHLY CLEAR ALL PIECES AND DISPOSE PROPERLY. RECYCLE LARGE CHUNKS OF BROKEN CONCRETE AT A LANDFILL. DISPOSE OF SMALL AMOUNTS OF EXCESS DRY CONCRETE, GROUT, AND MORTAR AT AN APPROVED DUMP SITE.
31. REFER TO SWPPP ATTACHMENT O FOR DETAILED BMP'S WHICH MAY BE APPLICABLE FOR SITE STORM WATER PROTECTION.

IMPORTANT NOTES

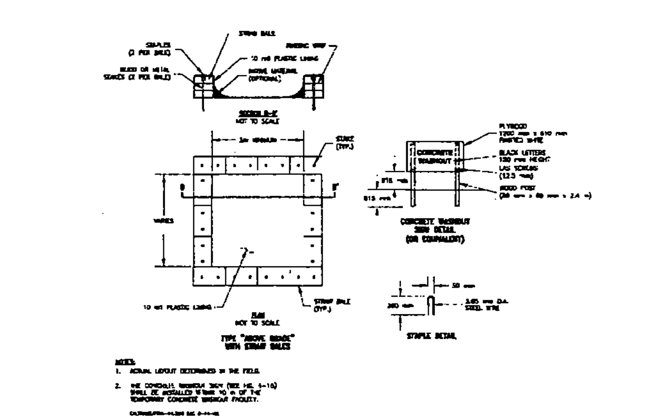
THIS DRAWING IS A PART OF THE PROJECT SWPPP (STORM WATER POLLUTION PREVENTION PLAN), ATTACHMENT B. THE GENERAL NOTES SHOWN HEREON ARE PROVIDED AS A CONVENIENCE TO THE CONTRACTOR. THE SWPPM (STORM WATER POLLUTION PROJECT MANAGER), OR HIS SUBSEQUENT ASIGNEE, IS DIRECTED TO THE SWPPP TO IMPLEMENT ADDITIONAL BMP'S AS SHOWN, AND TO MODIFY, UPDATE, MONITOR AND REPORT MEASURES TAKEN TO MINIMIZE POLLUTANT DISCHARGES FROM THE PROJECT SITE.

ALL EMPLOYEES AND SUBCONTRACTORS SHALL BE INFORMED ABOUT THE SWPPP REQUIREMENTS AND THEIR RESPONSIBILITY TO COMPLY WITH BMP'S APPLICABLE TO THEIR TO THEIR CONSTRUCTION OPERATIONS.

BECAUSE CONSTRUCTION IS A COMMON SOURCE OF STORM WATER POLLUTION SPECIAL ATTENTION SHALL BE GIVEN TO PREVENT MATERIALS AND/OR WASTES, WHICH MAY HAVE A DIRECT IMPACT ON STORM WATER POLLUTION, FROM BLOWING OR WASHING INTO STORM WATER SURFACES OR TRIBUTARIES.

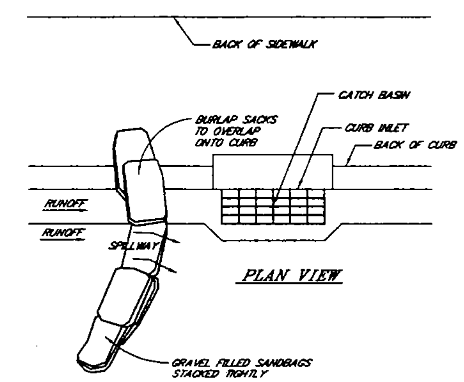
THE PROJECT SWPPP SHALL BE MAINTAINED ON SITE. PROACTIVE MEASURES SHALL BE APLIED, INCLUDING PRE-STORM INSPECTIONS, SITE CLEANUP AND WORK SCHEDULING IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED THEREIN. THE SWPPP IS A DYNAMIC DOCUMENT WHICH IS TO BE MODIFIED BASED UPON CHANGE OF PERSONNEL, USE OF MATERIALS, AND/OR CIRCUMSTANCES EFFECTING THE MAINTAINANCE, MONITORING, AND STORM WATER POLLUTION PREVENTION EFFORTS WHICH MAY BE REQUIRED TO ACHIEVE CONFORMANCE WITH ITS INTENT.

Concrete Waste Management WM-8



Caltrans Storm Water Quality Handbooks
Construction Site Best Management Practices Manual
September 1, 2004

Concrete Waste Management WM-8
Section 6
7 of 7



GENERAL NOTES :

1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF. BAGS TO BE PLACED AT ALL INLETS AND PROJECT LIMITS.
2. SANDBAGS OF EITHER BURLAP OR WOVEN 'GEOTEXTILE' FABRIC ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
3. LEAVE A ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELLED WAY IMMEDIATELY.

GRAVEL BAG DETAIL

NO SCALE

REGISTERED PROFESSIONAL ENGINEER GARY E. WILSON No. 70508 Exp. 9/30/09 CIVIL STATE OF CALIFORNIA

0989X

HAWKINS & ASSOCIATES ENGINEERING, INC.
WWW.HAWKINS-ENG.COM
436 MITCHELL ROAD • MODESTO, CALIFORNIA
VOICE: (209) 575-4295 • FAX: (209) 578-4295

STREET IMPROVEMENT PLANS FOR
ARCH ROAD SANITARY SEWER FORCE MAIN
EROSION CONTROL DETAILS

MUNICIPAL UTILITIES DEPARTMENT
CITY OF STOCKTON, CALIFORNIA

SCALE:	NONE	APPROVED BY: DATE: 2/6/09	SHEET NO. C-11
DESIGNED BY:	GEM		OF 14 SHEETS
DRAWN BY:	DRF		PROJECT NO.
CHECKED BY:	GEM	ASSISTANT MUNICIPAL UTILITIES DIRECTOR STOCKTON, CALIFORNIA	2718B
RECORD DWG.:			

T:\2718\2718.B\Improvement Plans\2718B_BASE.dwg PLOTTED 2-06-09 10:41:55 AM

TEST STATION SCHEDULE
(24" DIP SSFM)

STATION	TS TYPE	DESCRIPTION	REFERENCE ELECTRODE
1+00	IJTS	TIE-IN TO P.S.	YES
7+40	ATS	CP	NO
13+16	ATS	CP	NO
19+24	ATS	CP	YES
25+32	ATS	CP	NO
31+40	ATS	CP	NO
37+50	ATS	TIE-IN TO 36" RCP/MANHOLE	YES

NOTES:

KEY: IJTS – DETAIL 2/CP-2;
ATS – DETAIL 1/CP-2.

1. INSTALL REFERENCE ELECTRODES AT SPECIFIC LOCATIONS INDICATED ON THIS SCHEDULE.

GENERAL NOTES

1. BOND ALL NON-WELDED, NON-ISOLATING JOINTS FOR ELECTRICAL CONTINUITY PER DETAIL 4/CP-3.

2. INSTALL BOND CABLES AROUND MANHOLES AND ARV'S PER DETAIL 3/CP-2. DO NOT INSTALL BOND CABLES AT MANHOLES THAT SEPARATE NEW PIPELINE FROM EXISTING PIPELINE.

3. ELECTRICALLY ISOLATE PROJECT PIPELINE FROM EXISTING AND PLANT PIPING USING DIELECTRIC INSULATING FLANGE KITS.

4. TEST STATION LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE MOVED ±5 FEET TO AVOID OBSTRUCTIONS. THE CONCRETE TRAFFIC BOX FOR TEST STATION MAY BE POSITIONED AWAY FROM TRAFFIC LANES OR IN SIDEWALK AS NEEDED.

5. LABEL ALL CABLES IN TEST STATIONS PER DETAIL 5/CP-3.

6. ALL DIP TO BE POLYETHYLENE-ENCASED PER ANSI/AWWA C105.

NOTES FOR ANODE INSTALLATION

7. ANODES SHALL BE INSTALLED VERTICALLY OR HORIZONTALLY, A MINIMUM OF 2 FEET FROM THE METALLIC FITTING/PIPE, AT OR BELOW PIPE INVERT.

8. ANODES SHALL BE INSTALLED AT THE LOCATIONS AND IN THE MANNER INDICATED ON THE DRAWINGS. ANODES SHALL NOT BE CARRIED, SUSPENDED, OR LOWERED BY MEANS OF ANODE LEAD WIRES. DAMAGED ANODES SHALL BE REPLACED BY THE CONTRACTOR AT HIS SOLE EXPENSE. PROTECTIVE PLASTIC OR PAPER COVERING SHALL BE REMOVED BEFORE ANODES ARE INSTALLED.

9. ANODE SHALL BE INSTALLED IN NATIVE SOIL AND SHALL BE BACKFILLED WITH NATIVE SOIL FREE OF ROCKS, CLODS, VEGETATION AND DEBRIS OF ANY TYPE. ANODES SHALL BE BACKFILLED WITH SIX INCH LIFTS OF NATIVE SOIL, EACH LIFT COMPACTED SUFFICIENTLY AND TIGHTLY, TAKING CARE TO CAUSE NO PUNCTURES OR DAMAGE TO CLOTH BAG, ANODE BACKFILL MATERIAL, ANODE LEAD WIRE OR THE ANODE ITSELF. AFTER BACKFILLING THE ANODE, THE ANODE LOCATION MUST BE SATURATED BY ADDING 10 GALLONS OF WATER.

10. ANODE LEAD WIRES SHALL RUN TO APPROPRIATE TEST STATION, AS SHOWN ON THE DRAWINGS, IN ONE CONTINUOUS LENGTH WITH NO SPLICING. ANODE LEAD WIRES SHALL BE OF SUFFICIENT LENGTH TO SPLICING. ANODE LEAD WIRES SHALL BE OF SUFFICIENT LENGTH TO PROVIDE A MINIMUM SLACK OF 18" AT ANODE AND TEST STATION INSTALLATIONS TO AVOID STRESS DURING BACKFILLING. CARE MUST BE TAKEN TO ENSURE THAT NO DAMAGE OCCURS TO WIRES AND INSULATION.

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REVISION | DATE | ENGINEER | DESCRIPTION

ENGINEER: G.B.
CAD: C.J.
CHECK: I.M.
JOB NUMBER: 572-5327
SCALE: NTS
DATE: 12/22/08
FILE NAME: 5327-CP-HAWKINS-12-19-08

corrpro®

2799 MILLER ST.
SAN LEANDRO CALIFORNIA 94577
PH: (510) 614-8800
FAX: (510) 614-8811

HAWKINS & ASSOCIATES ENGINEERS
24" DIP, ARCH ROAD SANITARY SEWER FORCE MAIN
STOCKTON, CA
CATHODIC PROTECTION SYSTEM

APPROVED BY: DATE 2/6/09
ASSISTANT MUNICIPAL UTILITIES DIRECTOR
STOCKTON, CALIFORNIA

NOTES

CP-1

SHEET 12 OF 14 SHEETS

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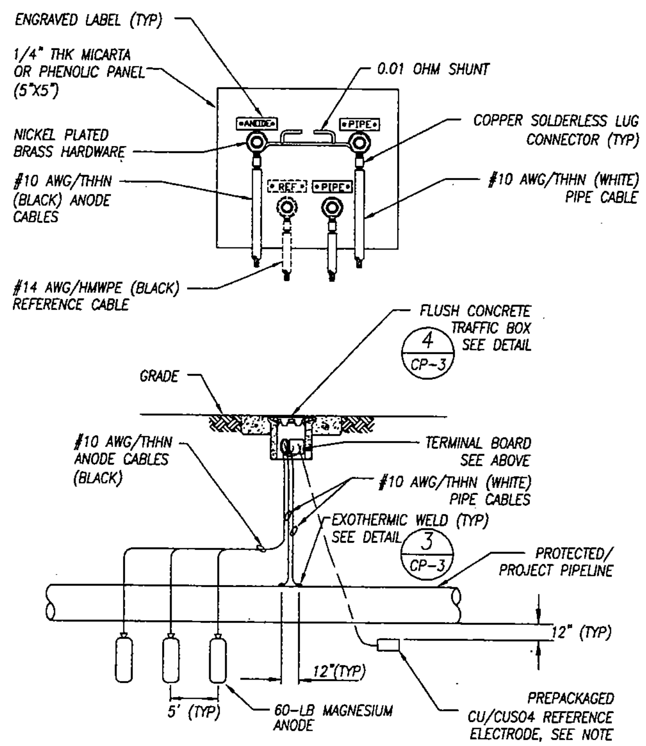
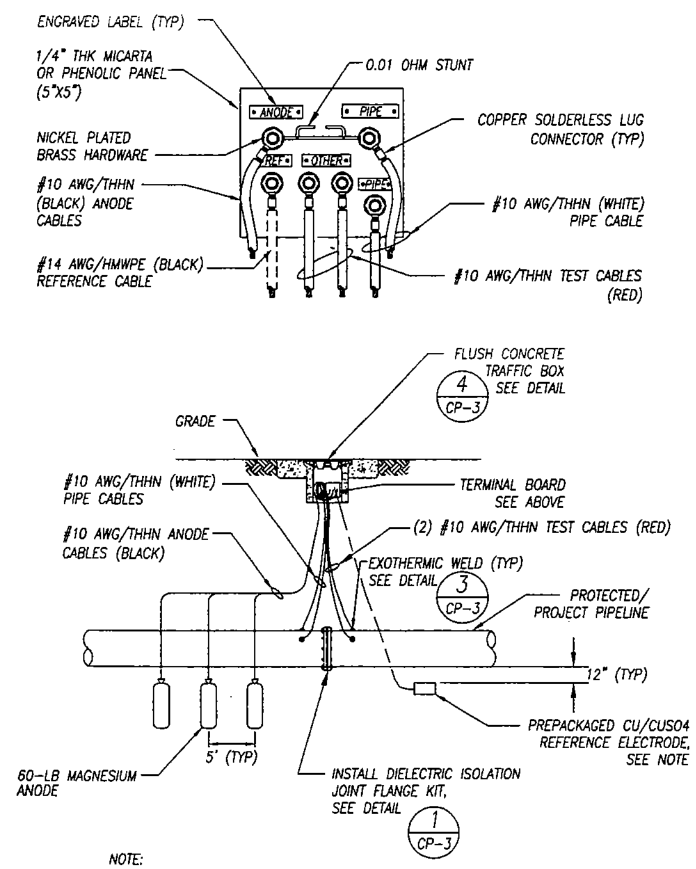


NOTE:

INSTALL REFERENCE ELECTRODE ONLY WHERE INDICATED ON TEST STATION SCHEDULE. SEE SHEET CP-1.

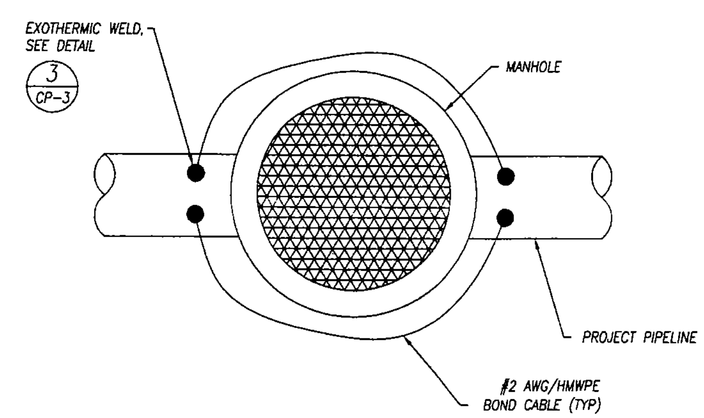
1 / CP-2 — ATS – ANODE TEST STATION
NOT TO SCALE



NOTE:

INSTALL REFERENCE ELECTRODE ONLY WHERE INDICATED ON TEST STATION SCHEDULE. SEE SHEET CP-1.

2 / CP-2 — IJTS – ANODE TEST STATION
NOT TO SCALE



3 / CP-2 — BOND CABLES AT MANHOLE AND ARV
NOT TO SCALE

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REVISION | DATE | ENGINEER | DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER — IVAN MATHEW — CR1141 — STATE OF CALIFORNIA

corrpro®

2799 MILLER ST. SAN LEANDRO CALIFORNIA 94577
PH: (510) 614-8800 FAX: (510) 614-8811

HAWKINS & ASSOCIATES ENGINEERS
24" DIP, ARCH ROAD SANITARY SEWER FORCE MAIN
STOCKTON, CA
CATHODIC PROTECTION SYSTEM

ENGINEER:	G.B.
CAD:	C.J.
CHECK:	I.M.
JOB NUMBER:	572-5327
SCALE:	NTS
DATE:	12/22/08
FILE NAME:	5327-CP-HAWKINS-12-19-08

APPROVED BY: DATE: 2/6/09
ASSISTANT MUNICIPAL UTILITIES DIRECTOR
STOCKTON, CALIFORNIA

DETAILS

CP-2

SHEET 13 OF 14 SHEETS

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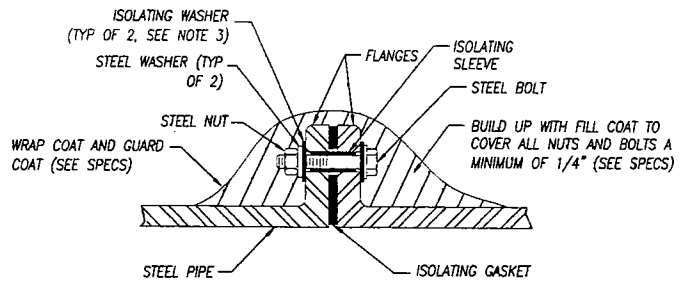
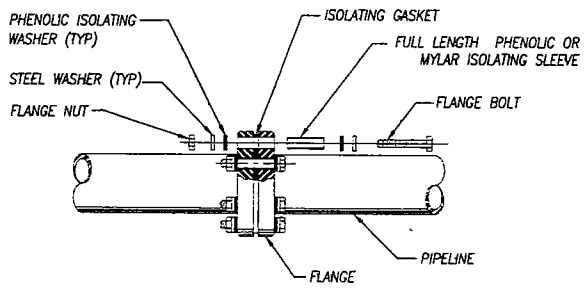


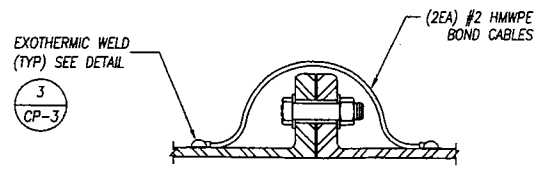
NOTES:
1. GASKET SHALL BE FOR WATER SERVICE AND BE OF SAME PRESSURE RATING AS THE FLANGE.
2. DELETE COATING IF FLANGE IS LOCATED ABOVE GRADE OR IN VAULTS.
3. DELETE ISOLATING WASHER ON THE SIDE OF THE FLANGE THAT IS UNDER CATHODIC PROTECTION. IF BOTH SIDES ARE PROTECTED, DELETE ISOLATING WASHERS ON ONE SIDE.

BELOW GRADE ISOLATING JOINT COATING

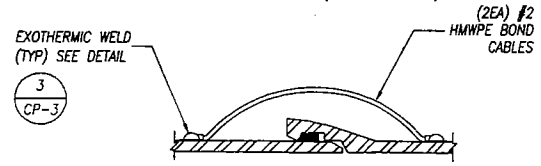


ABOVE GRADE ISOLATING JOINT

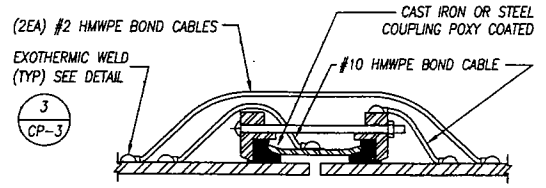
1 CP-3 IJ – DIELECTRIC INSULATING JOINT FLANGE KIT
NOT TO SCALE



FLANGED JOINT (NON-ISOLATING)



PUSH-ON JOINT



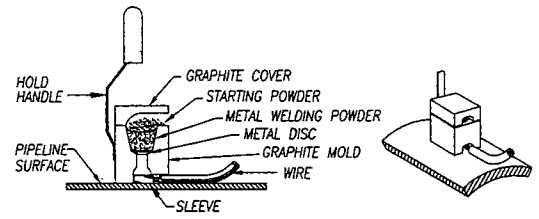
NOTE: BOND EACH INDIVIDUAL METALLIC COMPONENT.

FLEXIBLE COUPLING (MULTIPLE COMPONENT COUPLING)

NOTES:

1. ALL JOINTS, VALVES & FITTINGS REQUIRE BONDING TO ACHIEVE ELECTRICAL CONTINUITY.

2 CP-3 BONDING JUMPER INSTALLATION
NOT TO SCALE



STEP 1. GRIND STRUCTURE CONNECTION AREA (3"x 3") TO BARE SHINY METAL AND CLEAN.

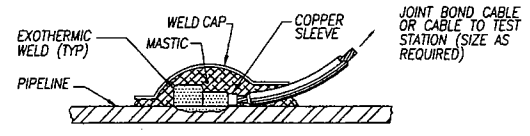
STEP 2. STRIP INSULATION FROM WIRE. ATTACH SLEEVE.

STEP 3. HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR AND IGNITE WITH FLINT GUN.

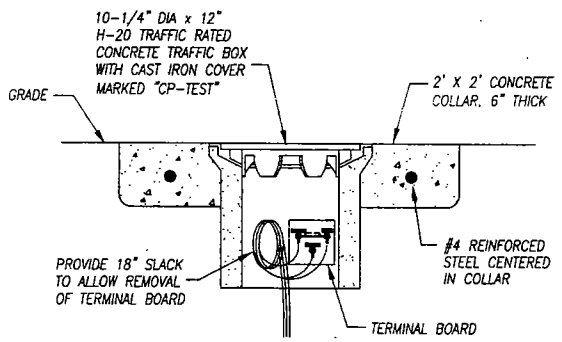
STEP 4. REMOVE SLAG FROM CONNECTION AND PEEN WELD FOR SOUNDNESS.

STEP 5. COVER CONNECTION AND EXPOSED STRUCTURE SURFACE WITH A BITUMINOUS COATING COMPOUND.

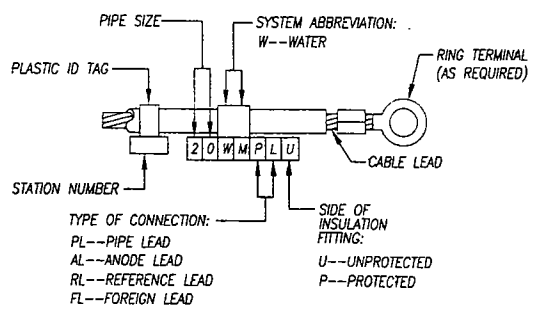
NOTE:
PROCEDURE SHOWN ABOVE IS TO BE USED AS A GENERAL GUIDE ONLY. CONSULT MANUFACTURER'S LITERATURE FOR SPECIFIC INSTALLATION INSTRUCTIONS.



3 CP-3 EXOTHERMIC WELD
NOT TO SCALE



4 CP-3 CONCRETE TRAFFIC BOX (PAVED AREAS)
NOT TO SCALE



NOTE: LABEL PLASTIC ID TAG USING BLACK PERMANENT MARKER.

5 CP-3 CABLE IDENTIFICATION
NOT TO SCALE

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Fax: (510) 614-3811
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24" DIP, ARCH ROAD SANITARY SEWER FORCE MAIN
STOCKTON, CA

ENGINEER: G.B.
CAD: C.J.
CHECK: I.M.
JOB NUMBER: 572-5327
SCALE: NTS
DATE: 12/22/08
FILE NAME: 5327-CP-HAWKINS-12-19-08

CATHODIC PROTECTION SYSTEM

APPROVED BY: DATE: 2/6/09
ASSISTANT MUNICIPAL UTILITIES DIRECTOR
STOCKTON, CALIFORNIA

DETAILS

CP-3

SHEET 14 OF 14 SHEETS

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