

CONSTRUCTION PLANS
FOR
SAN FRANCISCO AVENUE
WATERLINE EXTENSION IMPROVEMENTS
ALBUQUERQUE, NEW MEXICO

- BERNALILLO COUNTY TRAFFIC CONTROL GENERAL NOTES**
- The contractor shall be responsible for all existing signage and striping that is removed or damaged due to construction associated with this project.
 - This Project is subject to the requirements of County Ordinance No. 95-12 and Ordinance No. 96-3. The contractor is responsible for acquiring all permits necessary. Contractor shall call 848-1500 for more information.
 - The contractor shall submit a traffic control plan to the County Traffic Control Manager at least 72 hours prior to commencement of work. Traffic control plans shall be prepared in accordance with MUTCD requirements and by certified personnel and must be approved prior to commencement of work on the project. Call 848-1504 for further information.
 - A daily traffic control log shall be maintained by the contractor reflecting the types and locations of all traffic control devices, signs, barricades, etc. being used on the project in compliance with the approved traffic control plan. This log shall be submitted to the Bernalillo County Traffic Control Manager upon completion of the project construction or when so requested by the project or the Bernalillo County Traffic Control Manager.
 - The Contractor shall provide a weekly construction activity schedule to Bernalillo County Public Works Division Attn: Hoss Foster.
 - The contractor shall file weekly written report to the Traffic Control Manager describing the traffic control plan that will be in effect for the following week.
 - Subject to the approved Traffic Control Plan, at least one lane shall be open to traffic at all times. Contractor shall provide proper signage and flagman and shall maintain the traffic lane in such a manner as to assure proper safety to the traveling public on all affected roads. The contractor shall provide access to all private and public property at all times, except when grading, excavating and backfill operations are being conducted immediately in front of the property, in which case access will not be denied for more than 4 hours without approval by the County.
- Traffic lanes provided during construction shall be maintained in such a condition under all weather conditions, so as to permit the reasonable passage of passenger vehicles, and shall be kept graded and smooth, and watered several times daily to control dust.

INDEX TO DRAWINGS	
SHEET NO.	SHEET
1	TITLE SHEET
2	WATER LINE IMPROVEMENTS - SAN FRANCISCO AVENUE
3	TYPICAL TRAFFIC CONTROL & SIGNING EXAMPLES
4	SIGNING & CONSTRUCTION TRAFFIC CONTROL STANDARDS

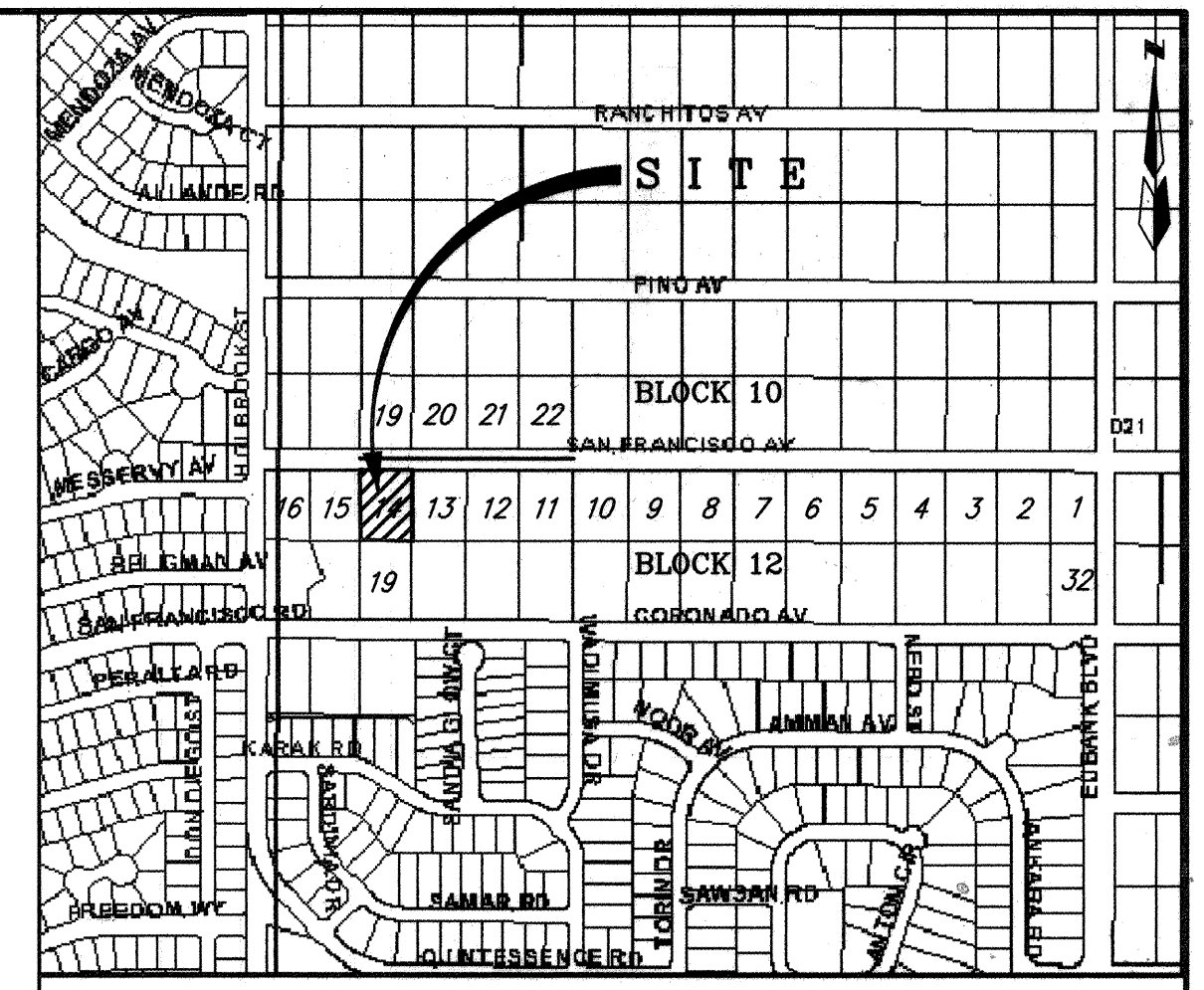
APPROVAL OF RECORD DRAWINGS
CHIEF CONSTRUCTION ENGINEER
Ed Chang
DATE 2/4/02

SURVEYOR'S CERTIFICATION

"I, Timothy Aldrich, a duly qualified Registered Professional Land Surveyor under the laws of the State of New Mexico, do hereby certify that the 'as-built' information shown on these drawings was obtained from field construction and 'as-built' surveys performed by me or under my supervision and that the 'as-built' information shown on these drawings was added by me or under my supervision, and that this 'as-built' information is true and correct to the best of my knowledge and belief." Aldrich Land Surveying is not responsible for any of the design concepts, calculations, or intent of the record drawings.

11-27-01

Timothy Aldrich, P.S. No. 7719



VICINITY MAP ZONE ATLAS D-21-Z SCALE: NONE

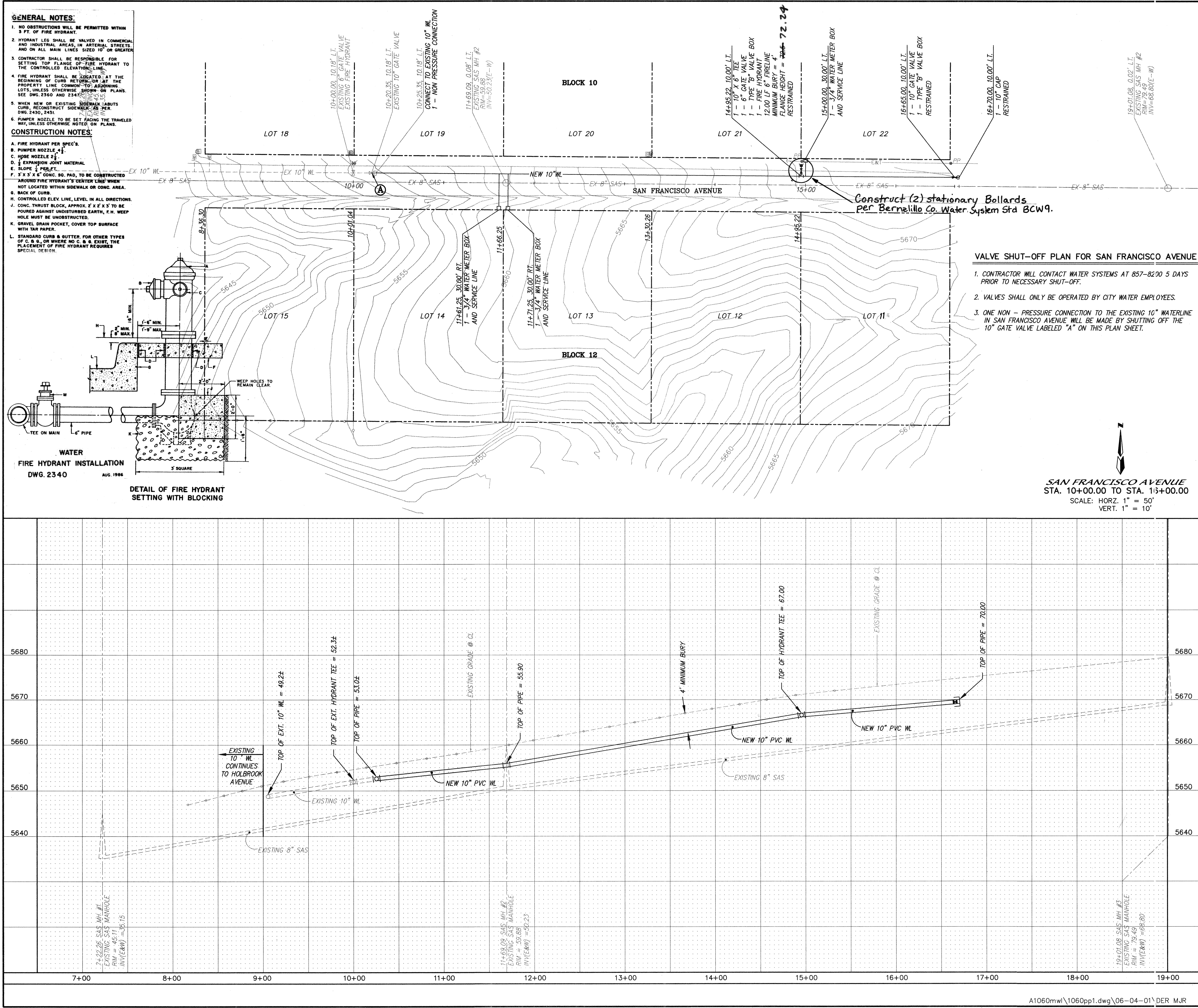
- GENERAL NOTES**
- NOTICE TO CONTRACTORS**
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY.
 - ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #6.
 - TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
 - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
 - FIVE (5) WORKING DAYS PRIOR TO BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION COORDINATION ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
 - ALL WORK AFFECTING ARTERIAL ROADWAYS REQUIRES TWENTY-FOUR HOUR CONSTRUCTION.
 - ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKING BY CONTRACTOR TO THE SAME LOCATION AS WAS EXISTING, OR AS INDICATED BY THIS PLAN SET.
 - CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT TO COVER THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS. CONTRACTOR SHALL RECORD DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF "AS CONSTRUCTED" DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAVE BEEN RECORDED.
 - CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY GRAFFITI FROM ALL EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
 - CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALBUQUERQUE WATER SYSTEMS DIVISION (857-8200) FIVE (5) WORKING DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT EXISTING PUBLIC WATER OR SEWER UTILITIES. EXISTING VALVES TO BE OPERATED BY CITY PERSONNEL ONLY. CONTRACTOR SHALL CONTACT THE WATER SYSTEMS DIVISION THREE (3) WORKING DAYS PRIOR TO NEEDING VALVES TURNED ON OR OFF.

- THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED**
- ☒ ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- ☒ BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
- ☐ TACK COAT REQUIREMENTS SHALL BE DETERMINED BY THE CITY ENGINEER.
- ☐ SIDEWALK AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
- ☐ IF CURB IS DEPRESSED FOR A DRIVEPAD, THE DRIVEPAD SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF CURB AND GUTTER.
- ☐ ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.

CAUTION:
NOTE: THAT ALL EXISTING UTILITIES MAY NOT BE SHOWN. ALL EXISTING SERVICE CONNECTIONS ARE NOT SHOWN. ANY EXISTING UTILITIES THAT ARE SHOWN ARE APPROXIMATE LOCATION ONLY. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL THE UTILITY OWNERS AND TO CONDUCT ALL THE NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATIONS TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS.

dmg D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P. O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS	ENGINEER	DATE	*****		
		DRG CHAIRMAN	<i>Jim Lee</i>	6-27-01	APPROVED FOR CONSTRUCTION		
		TRANSPORTATION	<i>N/A</i>	6-27-01			
		WATER/WASTEWATER	<i>Timothy Aldrich</i>	6/27/01			
		HYDROLOGY	<i>Timothy Aldrich</i>	6/27/01			
		Bernalillo Co.	<i>Timothy Aldrich</i>	6/27/01			
CONSTR. MGMT.		CONSTR. COORD.	<i>Jim Lee</i>	6-27-01	CITY ENGINEER DATE		
CITY PROJECT NO.				6666.81	SHEET OF 1 4		



NOTES

- ALL STATIONING IS CENTERLINE STATION.
- All trench and road compaction shall be at a minimum 95% compaction per ASTM D 1557.
- Bernalillo County inspection of the waterline installation is required. The applicant (owner or contractor) must obtain the required permits from the Bernalillo County Public Works Division, call (505) 848-1520.

LEGEND

— 5650 —	EXISTING CONTOUR (MAJOR)
— 5651 —	EXISTING CONTOUR (MINOR)
=====	EXISTING WALL
—○—○—○—	EXISTING FENCE
○	EXISTING SANITARY SEWER MANHOLE
—EX 8" SAS—	EXISTING SANITARY SEWER LINE
—E&T—	EXISTING OVERHEAD UTILITY LINES
●	EXISTING POWER POLE
—	EXISTING GUY WIRE
□	EXISTING ELECTRIC PED/TRAN
⊞	EXISTING TELEPHONE PEDESTAL
○	EXISTING CATV PEDESTAL
⋈	EXISTING FIRE HYDRANT
⋈	EXISTING WATER VALVE
⋈	EXISTING WATER METER
—EX 10" WL—	EXISTING WATER LINE
□	3/4" WATER METER BOX & SERVICE LINE
□	NEW 10" WATERLINE CAP
⋈	NEW GATE VALVE
⋈	NEW 10" X 6" TEE
⋈	NEW FIRE HYDRANT

RESTRAINED JOINT LENGTH FOR TEES (FT.)

PIPE SIZE	RUN	BRANCH
10"x10"x6"	6'	1'

GENERAL NOTES:

- NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 3 FT. OF FIRE HYDRANT.
- HYDRANT LEG SHALL BE VALVED IN COMMERCIAL AND INDUSTRIAL AREAS, IN ARTERIAL STREETS AND ON ALL MAIN LINES SIZED 10" OR GREATER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF FIRE HYDRANT TO THE CONTROLLED ELEVATION LINE.
- FIRE HYDRANT SHALL BE LOCATED AT THE BEGINNING OF CURB, REVERSE, OR AT THE PROPERTY LINE COMMON TO ADJOINING LOTS, UNLESS OTHERWISE NOTED ON PLANS. SEE DWG. 2340 AND 2341.
- WHEN NEW OR EXISTING SIDEWALKS ADJUTS CURB, RECONSTRUCT SIDEWALK AS PER DWG. 2400, 2401.
- PUMPER NOZZLE TO BE SET FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED ON PLANS.

CONSTRUCTION NOTES:

- FIRE HYDRANT PER SPEC'S.
- PUMPER NOZZLE 4".
- HOSE NOZZLE 1 1/2".
- EXPANSION JOINT MATERIAL.
- SLOPE 1/8" PER FT.
- 5' X 5' X 6" CONC. SO. PAD. TO BE CONSTRUCTED AROUND FIRE HYDRANT'S CENTER LINE WHEN NOT LOCATED WITHIN SIDEWALK OR CONC. AREA.
- BACK OF CURB.
- CONTROLLED ELEV. LINE, LEVEL, IN ALL DIRECTIONS.
- CONC. THRUST BLOCK, APPROX. 2' X 2' X 3' TO BE POURED AGAINST UNDISTURBED EARTH. F.H. WEEP HOLE MUST BE UNOBSTRUCTED.
- GRAVEL DRAIN POCKET, COVER TOP SURFACE WITH TAR PAPER.
- STANDARD CURB & GUTTER, FOR OTHER TYPES OF C & G, OR WHERE NO C & G EXIST, THE PLACEMENT OF FIRE HYDRANT REQUIRES SPECIAL DESIGN.

WATER FIRE HYDRANT INSTALLATION DWG. 2340 AUG. 1986

DETAIL OF FIRE HYDRANT SETTING WITH BLOCKING

VALVE SHUT-OFF PLAN FOR SAN FRANCISCO AVENUE

- CONTRACTOR WILL CONTACT WATER SYSTEMS AT 857-8200 5 DAYS PRIOR TO NECESSARY SHUT-OFF.
- VALVES SHALL ONLY BE OPERATED BY CITY WATER EMPLOYEES.
- ONE NON - PRESSURE CONNECTION TO THE EXISTING 10" WATERLINE IN SAN FRANCISCO AVENUE WILL BE MADE BY SHUTTING OFF THE 10" GATE VALVE LABELED "A" ON THIS PLAN SHEET.

CONTRACTOR'S SEAL

DATE: 10-1-01
NAME: HOELZER
REGISTERED PROFESSIONAL ENGINEER
NEW MEXICO
1987

ENGINEER'S SEAL

MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200, FAX (505) 797-9539

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT

TITLE: **SAN FRANCISCO AVENUE WATERLINE EXTENSION IMPROVEMENTS**

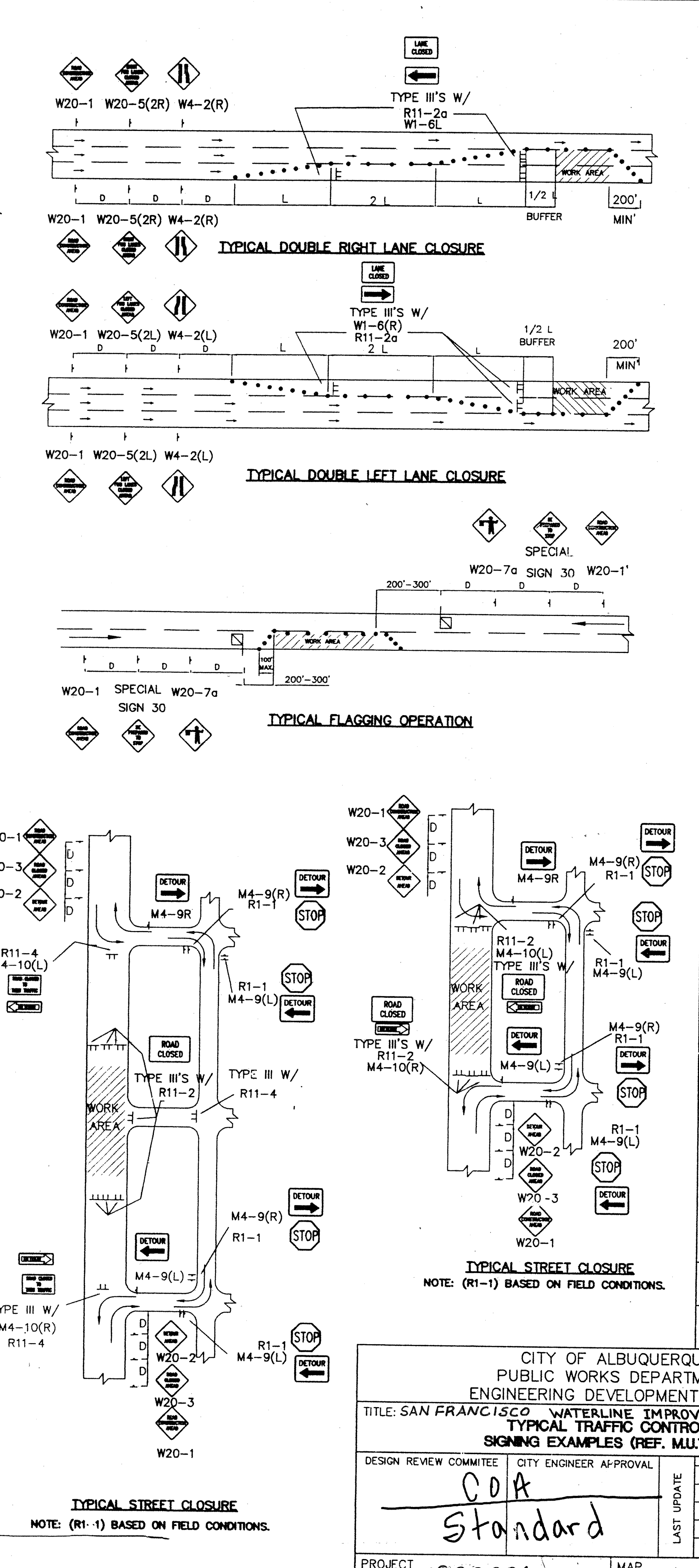
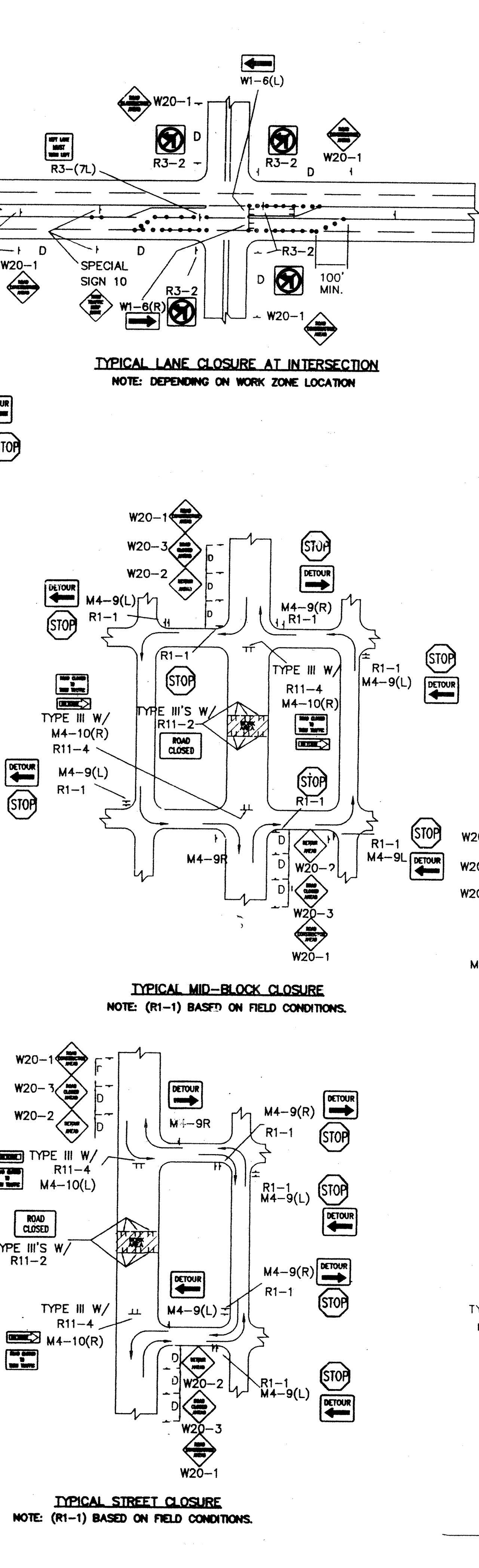
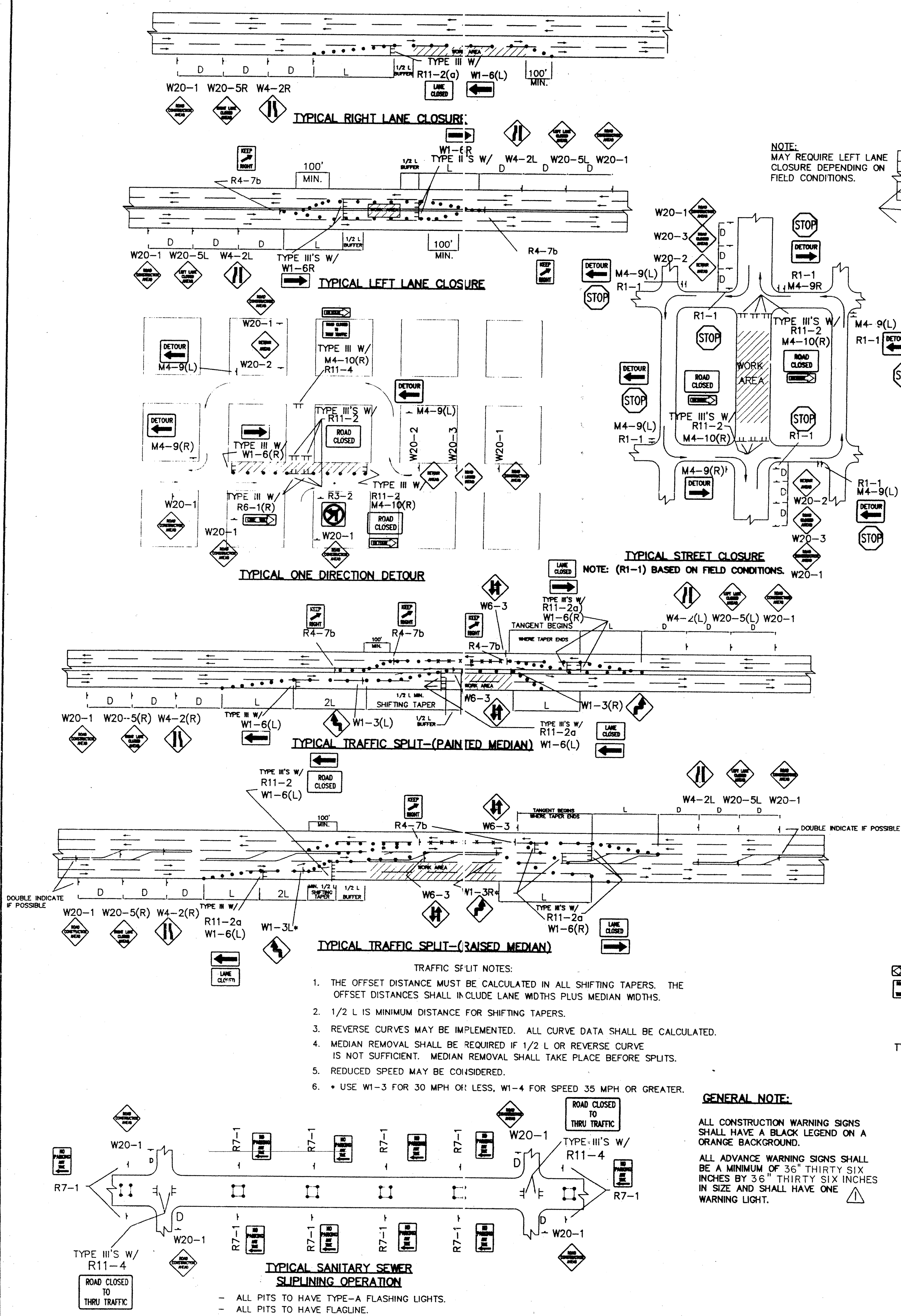
APPROVED
JUN 2 2001
DESIGN REVIEW COMMITTEE

APPROVED
JUN 2 2001
CITY ENGINEER

LAST DESIGN UPDATE

MO./DAY/YR.	MO./DAY/YR.

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
6666.81	D-21-Z	2	4



GENERAL NOTE:



ALL CONSTRUCTION WARNING SIGNS SHALL HAVE A BLACK LEGEND ON AN ORANGE BACKGROUND.

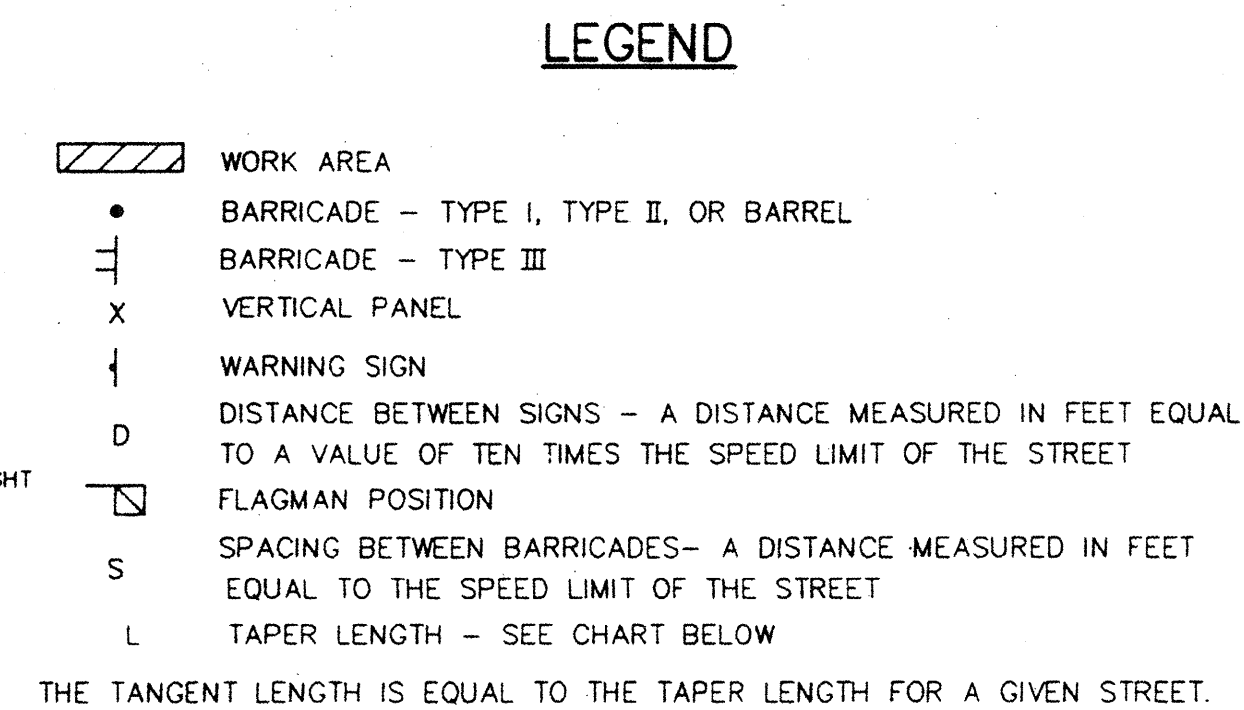
ALL ADVANCE WARNING SIGNS SHALL BE A MINIMUM OF 36" THIRTY SIX INCHES BY 36" THIRTY SIX INCHES IN SIZE AND SHALL HAVE ONE WARNING LIGHT.

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SAN FRANCISCO WATERLINE IMPROVEMENTS TYPICAL TRAFFIC CONTROL & SIGNING EXAMPLES (REF. M.U.T.C.D.)			
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	NO. / DAY / YR.	MO. / DAY / YR.
COA Standard		LAST UPDATE	
PROJECT NO. 666681	MAP NO. D-21-Z	SHEET 3 OF 4	

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	NO.	DATE	NO.	DATE	NO.	DATE
WORK	DATE	NO.	DATE	NO.	DATE	NO.	DATE
STANDARD	DATE	NO.	DATE	NO.	DATE	NO.	DATE
FIELD	DATE	NO.	DATE	NO.	DATE	NO.	DATE
APPROVED BY	DATE	NO.	DATE	NO.	DATE	NO.	DATE
CORRECTED BY	DATE	NO.	DATE	NO.	DATE	NO.	DATE
MICRO-FILM INFORMATION							
RECORDED BY	DATE						
NO.	DATE						
COA 10/15/2022 R. ORTEGA							

ETCSTND1.DWG

21. EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.
22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING:
 1. STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 2. THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION.
 3. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER SECTIONS.
23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.
24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION. WASHING OF EQUIPMENT IS INCIDENTAL TO IT'S PLACEMENT AND MAINTENANCE.
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.
26. ADVANCE WARNING SIGNS SHALL BE 36"x36" MIN. WITH SUPER ENGINEERING GRADE SHEETING OR BETTER. MOUNTING HEIGHT AT TOP OF SIGN SHALL BE THE SAME AS FOR A 48" SIGN AS INDICATED IN THE M.U.T.C.D. 
27. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORKSITE. ALL GRAFFITI SHALL BE PROMPTLY REMOVED FROM ALL EQUIPMENT, BOTH PERMANENT AND TEMPORARY. 



TAPER REQUIREMENTS

SPEED (MPH)	TAPER LENGTH (L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' LANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
25	70	75	80	5	20	20
20	105	115	125	6	25	25
30	150	165	180	7	30	30
35	205	225	245	8	35	35
40	270	295	320	9	40	40
45	450	495	540	13	45	45
50	500	550	600	13	50	50
55	550	605	660	13	55	55

SPEED MILES PER HOUR	MINIMUM DISTANCE IN FEET	
	BETWEEN SIGNS	FROM LAST SIGN TO TAPER
0-20	10 X SPEED LIMIT	10 X SPEED LIMIT
25-30	10 X SPEED LIMIT	10 X SPEED LIMIT
30-35	10 X SPEED LIMIT	10 X SPEED LIMIT
40-45	10 X SPEED LIMIT	10 X SPEED LIMIT
50-60	10 X SPEED LIMIT	10 X SPEED LIMIT

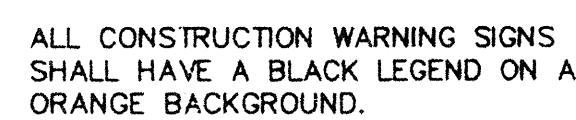
<u>TAPER CRITERIA</u>	
<u>TYPE OF TAPER</u>	<u>TAPER LENGTH</u>
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

SPEED LIMIT

40 MPH OR LESS $L = \frac{WS^2}{60}$

45 MPH OR GREATER, $L = W \times S$

L = TAPER LENGTH
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED OR OFF-PEAK
85-PERCENTILE SPEED IN MPH

[illegible]