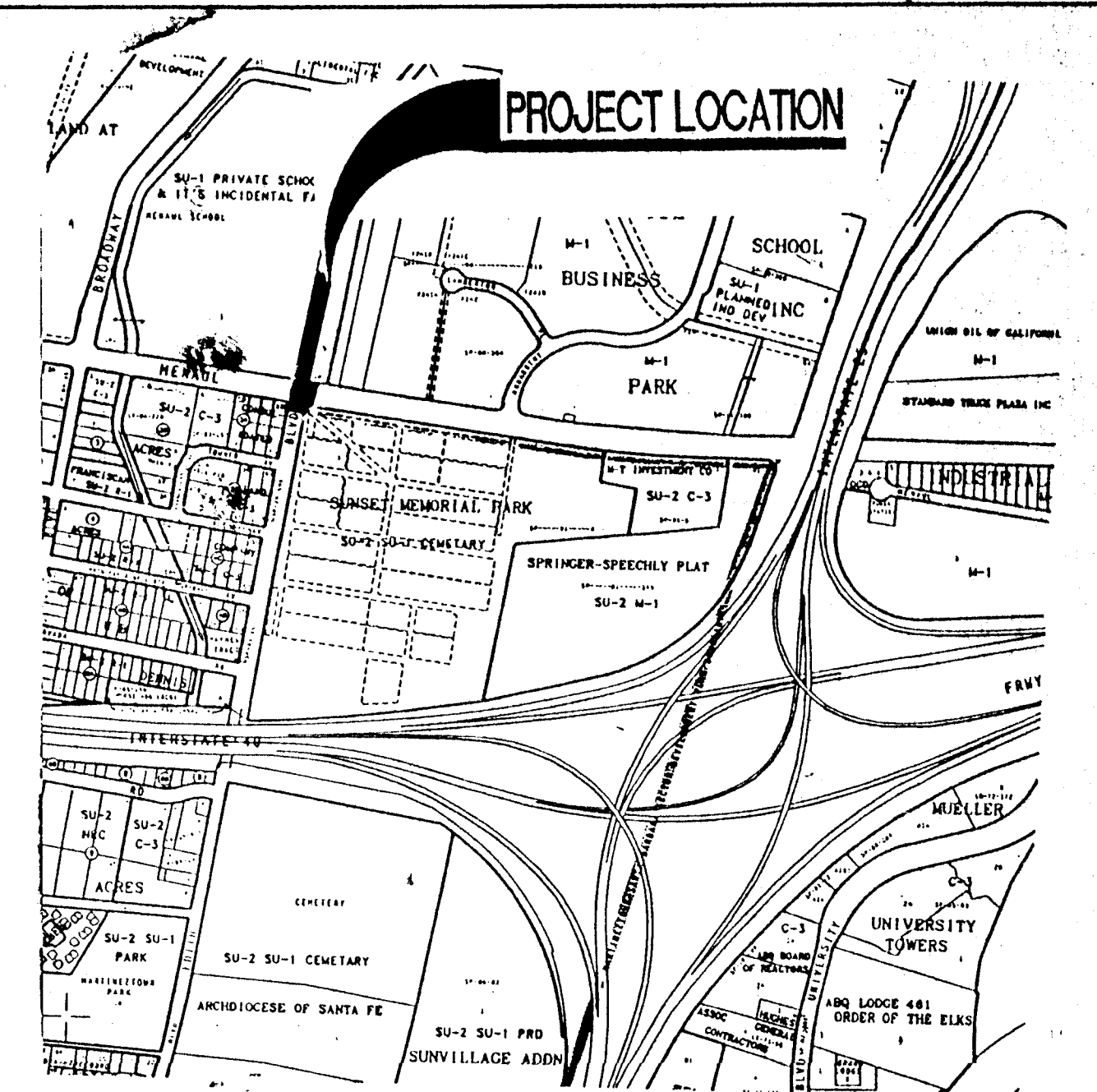




PUBLIC WORKS DEPARTMENT
WASTEWATER UTILITY DIVISION

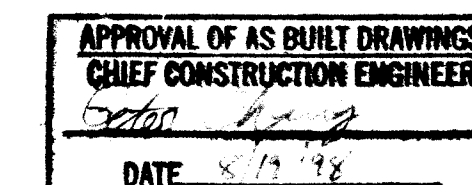
EDITH/MENAU SEWER REHABILITATION



VICINITY MAP
MAP NO. H-15

DRAWING LIST

1. TITLE SHEET
2. GENERAL NOTES AND LEGEND
3. LINE STOP AND LARGE VALVE LOCATION PLAN
4. LINE STOP WATER SHUTOFF PLAN
5. SEWER AND WATER REPLACEMENT PLAN AND PROFILE
6. SEWER LINING PLAN AND PROFILE
7. STORM DRAIN IMPROVEMENTS
8. MISCELLANEOUS DETAILS
9. LARGE DIAMETER VALVE VAULT PLANS AND DETAILS
10. SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS
11. TYPICAL TRAFFIC CONTROL AND SIGNING EXAMPLES (REF. M.U.T.C.D.)
12. SEQUENCE OF CONSTRUCTION
13. WORK ZONE A
14. WORK ZONE B / MENAUL OVERNIGHT DETOUR
15. DETOUR PLAN
16. WORK ZONE C
17. WORK ZONE D
18. WORK ZONE E



RECORD SET
David J. Lamon
8-4-98

URS Greiner



Holmes & Narver
6501 AMERICAS PARKWAY, NE
SUITE 700 (505)889-4100
ALBUQUERQUE, NM 87110

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER	DATE	*****	
		DRC Chairman		Bill G. Bortley	6-3-97	APPROVED FOR CONSTRUCTION	
		Transportation		Bill G. Bortley	6/3/97		
		Water/Wastewater		Bill G. Bortley	6/3/97		
		Hydrology		Steve Bortley	5-2-97		
		C.I.P.		Steve Bortley	5-2-97		
		Constr. Mngmt.		Jennal Bortley	6-3-97		
City Project No.		4778.91		Sheet 1 Of 18			

26 4778.9198H15

REVIEWED BY LASON

GENERAL NOTES

1.

ALL WORK DETAILED ON THESE DRAWINGS TO BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986, AS AMENDED THROUGH UPDATES NO. 6, HEREBY REFERRED TO AS THE SPECIFICATIONS. REFERENCES MADE TO STANDARD DRAWINGS IMPLY THAT SECTION OF THE SPECIFICATIONS WHICH INCLUDES MISCELLANEOUS STANDARD DETAILS.
2.

LOCATION OF UTILITIES ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL PERTINENT UTILITIES IN THE FIELD. CALL ONE CALL SYSTEM, INC. AT 260-1990 TWO WORKING DAYS BEFORE ANY EXCAVATION.
3.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPORT ALL UTILITIES EXPOSED DURING CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR DAMAGE TO ALL UTILITIES, INCLUDING SERVICE LINES.
4.

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 PUBLIC WORKS DEPARTMENT SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
5.

ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKING BY CONTRACTOR TO LOCATION AS EXISTING OR AS INDICATED BY THIS PLAN SET, AS PER COA STANDARDS. ALL PAVEMENT MARKINGS OR OTHER TRAFFIC CONTROL DEVICES INCLUDING TRAFFIC CONTROL CONDUIT, ADVERSELY AFFECTED BY CONSTRUCTION SHALL BE PLACED IN PRE-CONSTRUCTION CONDITION. THESE COSTS SHALL BE INCIDENTAL TO THE PROJECT.
6.

CONTRACTOR SHALL COORDINATE WITH PNM (JIM VANN - 848-3426) WHERE LIP OF TRENCH IS LESS THAN 5' TO POWER POLE. COSTS ASSOCIATED WITH SUPPORT OF EXISTING POLES SHALL BE INCIDENTAL TO THE PROJECT.
7.

CONTRACTOR SHALL BE CHARGED BY PNM FOR ANY DAMAGE TO PNM CABLES AND FOR SUPPORTING OR MINOR RELOCATIONS OF CABLES DURING CONSTRUCTION. THESE COSTS SHALL BE INCIDENTAL TO THE PROJECT.
8.

ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING. FINAL SURFACE COURSE SHALL BE INSTALLED AFTER FULL APPROVAL AND ACCEPTANCE OF THE UTILITY LINES.
9.

PAVEMENT REPLACEMENT SHALL BE BY LAYDOWN MACHINE. PAVEMENT REPLACEMENT AND BACKFILL SHALL BE PER DETAIL ON THIS SHEET.
10.

THE CONTRACTOR SHALL PROVIDE FOUR PROJECT CONSTRUCTION SIGNS PER THE REQUIREMENTS OF SPECIAL PROVISIONS SECTION 3. THE CONTRACTOR SHALL MOVE THE SIGNS DURING THE PROJECT AT THE DIRECTION OF THE ENGINEER.
11.

STATIONING IS BASED ON CENTERLINE OF SANITARY INTERCEPTOR SEWER, CENTERLINE MANHOLE TO CENTERLINE MANHOLE, UNLESS NOTED OTHERWISE.
12.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DEFECTIVE OR DETERIORATED CONDITION UPON VISUAL INSPECTION OF EXISTING SERVICE LINES. THE ENGINEER OR THE CONTRACTOR AS DIRECTED BY THE ENGINEER SHALL NOTIFY PROPERTY OWNERS OF SUCH SITUATION AND SHALL PROVIDE THE PROPERTY OWNERS WITH THE OPPORTUNITY TO VISUALLY OBSERVE AND REPLACE THE SERVICE LINE WITHIN A REASONABLE AMOUNT OF TIME.
13.

SAS WERE

ALL NEW MANHOLES ~~SHALL BE~~ COATED WITH STRONG SEAL.
14.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND RECONNECT ALL EXISTING SEWER SERVICE CONNECTIONS.
15.

SANITARY SEWER SERVICE RECONNECTIONS AND TRANSFERS SHALL BE PAID FOR IN ACCORDANCE TO THE UNIT PRICE LISTED ON THE BID PROPOSAL. HOWEVER, THOSE CONNECTIONS DAMAGED WHILE PERFORMING THE WORK UNDER THIS PROJECT SHOULD BE REPLACED AT NO ADDITIONAL COST TO THE CITY.
16.

ALL SANITARY SEWER MANHOLES SHALL BE BUILT IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD DRAWING 2102. ALL SANITARY SEWER MANHOLES SHALL BE 4 FEET DIAMETER UNLESS OTHERWISE NOTED.
17.

ELECTRONIC MARKER DISCS SHALL BE INSTALLED PER SECTION 170 OF THE TECHNICAL SPECIFICATIONS.
18.

CONTRACTOR SHALL COORDINATE WITH THE GAS COMPANY OF NEW MEXICO (761-7775) TWO WEEKS PRIOR TO NEEDING A GAS LINE SEGMENT RELOCATED.
19.

CONTRACTOR SHALL NOTIFY THE CITY SURVEYOR 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 SECTION. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS.
20.

ALL EXISTING SANITARY SERVICES SHALL BE RECONNECTED TO THE NEW SEWER MAIN AS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2134.
21.

EXISTING MANHOLE FLOORS SHALL BE REHABILITATED AS PER CITY OF ALBUQUERQUE STANDARD DRAWINGS 2101 AND 2102.
22.

CRITICAL INTERSECTION WORK SHALL NOT START UNTIL THE CONTRACTOR HAS ALL MATERIAL, EQUIPMENT, AND NECESSARY PERSONNEL ON-SITE. TRAFFIC CONTROL DEVICES SHALL NOT BE PLACED PREMATURELY.
23.

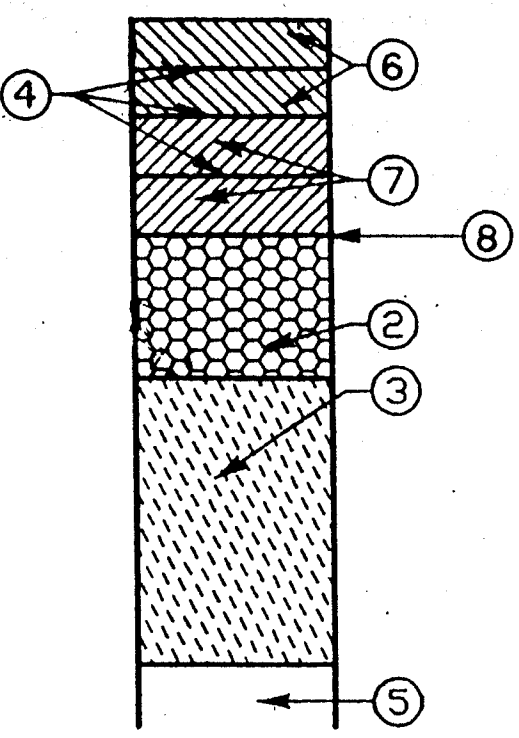
THREE (3) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADE PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION. SEE SECTION 19 OF THE SPECIFICATIONS.
24.

WORK WITH AN ARTERIAL ROADWAY SHALL REQUIRE COMPLIANCE WITH THE "ORANGE BARREL POLICY".
25.

A) ACCESS TO THE MENAUL SCHOOL WILL BE RESTRICTED TO SECURED ACCESS AT THE REAR OF SCHOOL.

B) ALL WORK WITHIN THE MENAUL SCHOOL WILL BE CONFINED TO THE EXISTING EASEMENT.

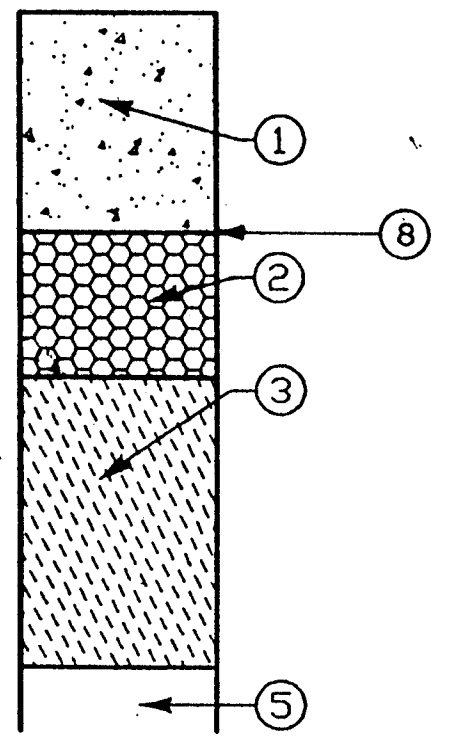
C) ALL MENAUL SCHOOL WORK OPERATIONS SHALL BE COORDINATED WITH MR. CHAVEZ 345-7727.



ARTERIAL PAVING SECTION (BITUMINOUS)

DETAIL

SCALE: NONE



ARTERIAL PAVING SECTION (P. C. CONCRETE)

DETAIL

SCALE: NONE

LEGEND

	EXISTING	PROPOSED
SANITARY SEWER	—○—SAS—	—●—SAS—
STORM DRAIN	—○—SD—	—●—SD—
WATER LINE W/CAP	E—W—	E—W—
FIRE HYDRANT	—H—	—H—
GATE VALVE	—G—	—G—
BUTTERFLY VALVE	—B—	—B—
EXIST VALVE	—NF—	—NF—
NOT FOUND IN FIELD	—NF—	—NF—
TEE & CROSS	—T—	—T—
REDUCER	—R—	—R—
BURED ELECTRICAL CABLE	—UE—	—UE—
BURIED TELEPHONE CABLE	—UT—	—UT—
GAS LINE	—G—	—G—
VALVE TO BE SHUT OFF (WATER SHUT-OFF PLANS)		—V—
LINE STOP		—L—
WATER VALVE	—W—	—W—
UTILITY LINE	—U—	—U—
TRENCHLESS SEWER REHABILITATION		—T—
MANHOLE	—M—	—M—
NOT FOUND	NF	NF
CABLE TELEVISION	—CATV—	—CATV—
POWER POLE	—P—	—P—
PAVEMENT LIMITS (BITUMINOUS)		—P.L.—
POTHOLE		P.H. #—

PAVING NOTES

1. 9" PORTLAND CEMENT CONCRETE
2. 6" AGGREGATE BASE COURSE
3. 12" SCARIFIED AND COMPACTED SUBGRADE 95% MINIMUM COMPACTION, AT OPT MOISTURE ± 2.0%, ASTM D1557, OR OPT MOSITURE TO +4%, ASTM D698 FOR SOIL W/35% OR MORE MATERIAL PASSING THE NO. 200 SIEVE.
4. TACK COAT AS REQUIRED BY THE ENGINEER BETWEEN ALL ASPHALT/AGGREGATE MATERIAL LIFTS. FINISH SURFACE OF SUBGRADE, AGGREGATE BASE COURSE, AND/OR CEMENT TREATED BASE SHALL BE MOISTURE-CONTROLLED AT COMPACTION MOISTURE RANGE, OR PRIME COAT AS REQUIRED BY THE ENGINEER UNTIL NEXT/FINAL SURFACING. COMPLETED SUBGRADE PREPARATION SHALL BE PERFORMED AFTER ALL SUBSURFACE RAW UTILITIES CONSTRUCTION IS COMPLETED.
5. 90% MINIMUM COMPACTION.
6. 2 LIFTS @ 2" ASPHALT CONCRETE 1800 LBS. STABILITY; TYPE A GRADATION.
7. 2 LIFTS @ 2-1/2" ASPHALT CONCRETE 1800 LBS. STABILITY; TYPE A GRADATION.
8. PRIME COAT.

URS Greiner

Holmes & Narver

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

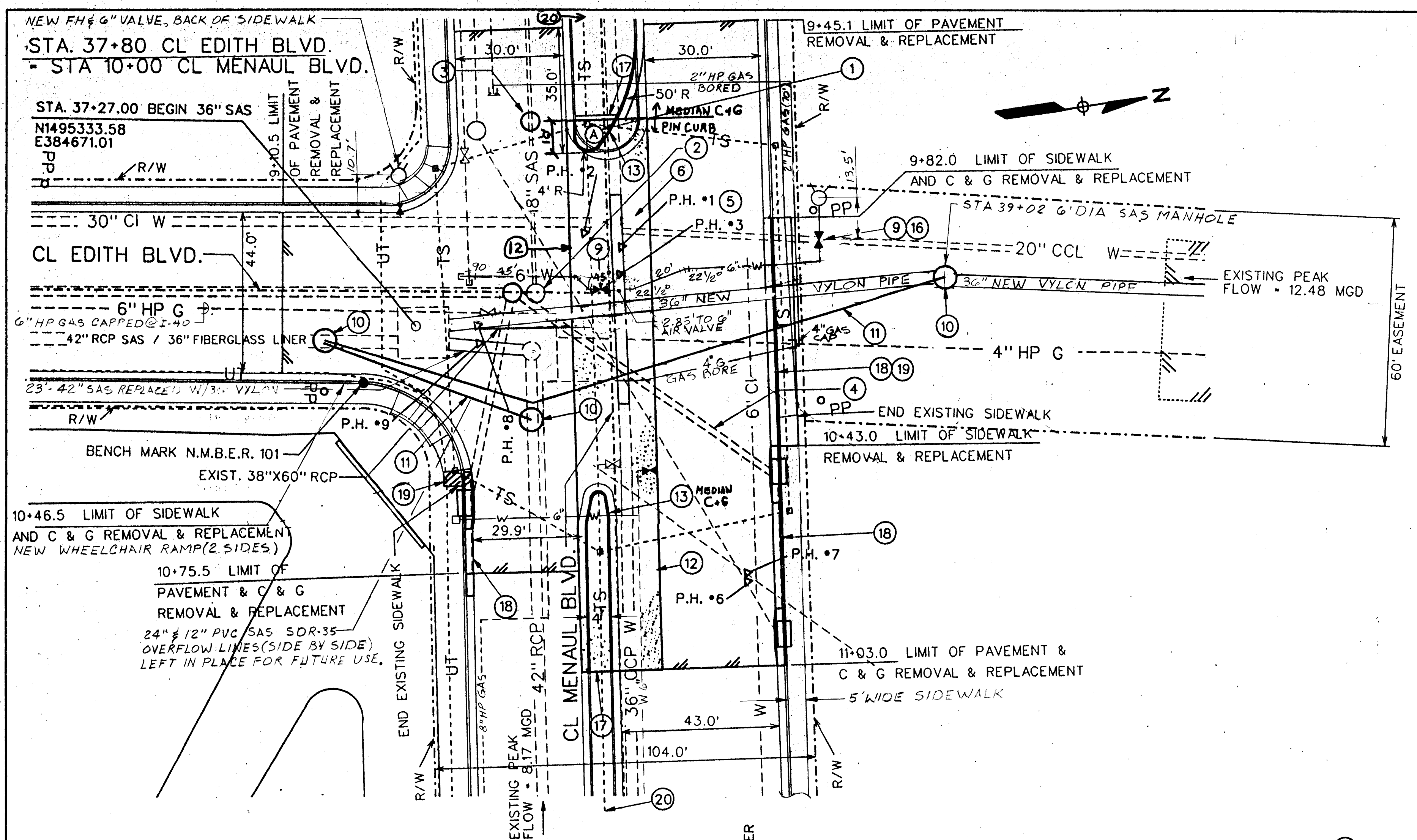
TITLE: EDITH/MENAU SEWER REHABILITATION
GENERAL NOTES
& LEGEND

DESIGN	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
DESIGNED BY: L. BELL			
DRAWN BY: J. MOORE			
CHECKED BY: D. LARROW			

City Project No. 4778.91 Zone Map No. H-15 Sheet 2 of 18

DWG: H:\CAD\MENAU\GNTS
TIME: 04-10-97 02:36:31
User: Johnny Moore
XRef Files: XORDER

City Project No. 4778.91	Zone Map No. H-15	Sheet 4 Of 18
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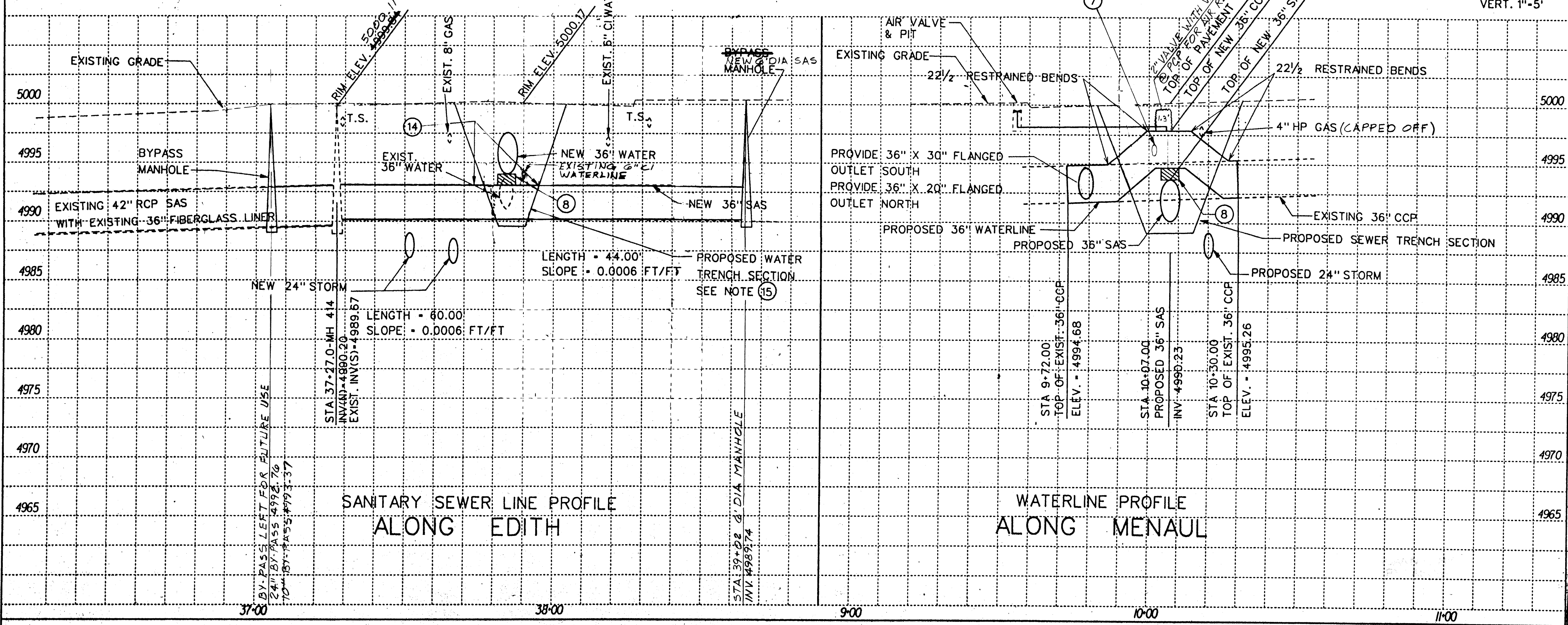


CONSTRUCTION SEQUENCING

- 1 SEE SEQUENCE OF CONSTRUCTION SHEET.
- 2 ALL WATERLINE WORK SHALL BE ACCOMPLISHED BETWEEN OCT 1 AND APRIL 1, Nov. 1 and Feb. 15

KEYED NOTES:

- 1 INSTALL 2" AIR-VACUUM VALVE IN 4' DIAMETER FLAT TOP MANHOLE (APCO SERIES 140 OR APPROVED EQUAL) AS SHOWN.
- 2 REMOVE EXISTING SAS MANHOLE AND PLUG SAS LINE AS REQUIRED.
- 3 CONSTRUCT NEW 4' DIAMETER TYPE C MANHOLE OVER EXISTING 18" SAS. Inv. Elev. = 4986.50
- 4 SEE SHEET 7 FOR NEW STORM DRAIN IMPROVEMENTS.
- 5 SEE CONTRACT DOCUMENTS FOR POTHOLE DATA.
- 6 REMOVE SIX EXISTING VALVES
- 7 STA 9+95, INSTALL TWO NEW 6" OUTLETS OR TAPS TO 36" WATERLINE TO RECONNECT EXISTING 6" WATER LINES. SEE SHEET 8 FOR RESTRAINED LENGTHS
- 8 PROVIDE POLYETHYLENE FOAM MC 1900, PACIFIC STATES FELT & MFR OR APPROVED EQUAL. CUSHION MATERIAL BETWEEN PIPES.
- 9 INSTALL 2 NEW 6" VALVES W/ TYPE A VALVE BOXES. CONNECT TO EXISTING 6" LINES.
- 10 CONSTRUCT MANHOLE FOR BYPASS PUMPING (6' DIA.)
- 11 CONSTRUCT TEMPORARY BYPASS DISCHARGE LINE. 1-24" PVC & 1-12" PVC Over-Flow to 11" Pipe for Future.
- 12 CONSTRUCT 9" P.C. CONCRETE PAVEMENT. (SEE SHEET 2) PROVIDE A CL TYPE A TIED JOINT AND TYPE 2 TRANSVERSE JOINTS AT 12' O.C. PER. STD. DWG. 2450. CONSTRUCT TYPE 6 TRANSITION JOINT PER STD DWG. 2451.
- 13 REMOVE EXISTING MEDIAN CURB AND CONSTRUCT TYPE III PINNED CURB AND MEDIAN CURB & GUTTER PER STD.DWGS. 2415 & 2503 PAINT MEDIAN NOSE YELLOW.
- 14 REMOVED EX. ST. 38" X 60" & 18" X 72" SEWER LINES AND MANHOLES
- 15 THE USE OF LEAN FILL SHALL BE APPROVED BY THE ENGINEER.
- 16 THE ENGINEER WILL DETERMINE THE NEED TO REPLACE ANY 6" WATERLINE
- 17 REMOVE AND REPLACE EXISTING TEXTURED CONCRETE MEDIAN PER STD DWG. 2408.
- 18 REMOVE AND REPLACE EXISTING STANDARD CURB & GUTTER PER STD DWG. 2415.
- 19 REMOVE AND REPLACE EXISTING SIDEWALK PER STD DWG. 2430.
- 20 2" CONDUIT COMPUTER-INTERCONNECT (EXISTING)
- 21 THERE ARE KNOWN LOOP DETECTORS AT THIS INTERSECTION.



SCALE:
HORIZ. 1"=20'
VERT. 1"=5'

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	N.M.B.E.R.	ELEV.	NO.	DATE	NO.	DATE
CONTRACTOR	DATE	N.M.B.E.R. 101	ELEV. 5000.13	1	DATE	1	DATE
WORKED BY	DATE			2	DATE	2	DATE
DESIGNED BY	DATE				DATE		DATE
CHECKED BY	DATE				DATE		DATE
RECORDED BY	DATE				DATE		DATE

NO.	DATE	REVISIONS
1	DATE	REVISIONS
2	DATE	REVISIONS

DESIGNED BY: L. BELL
DRAWN BY: L. BELL
CHECKED BY: D. LARROW

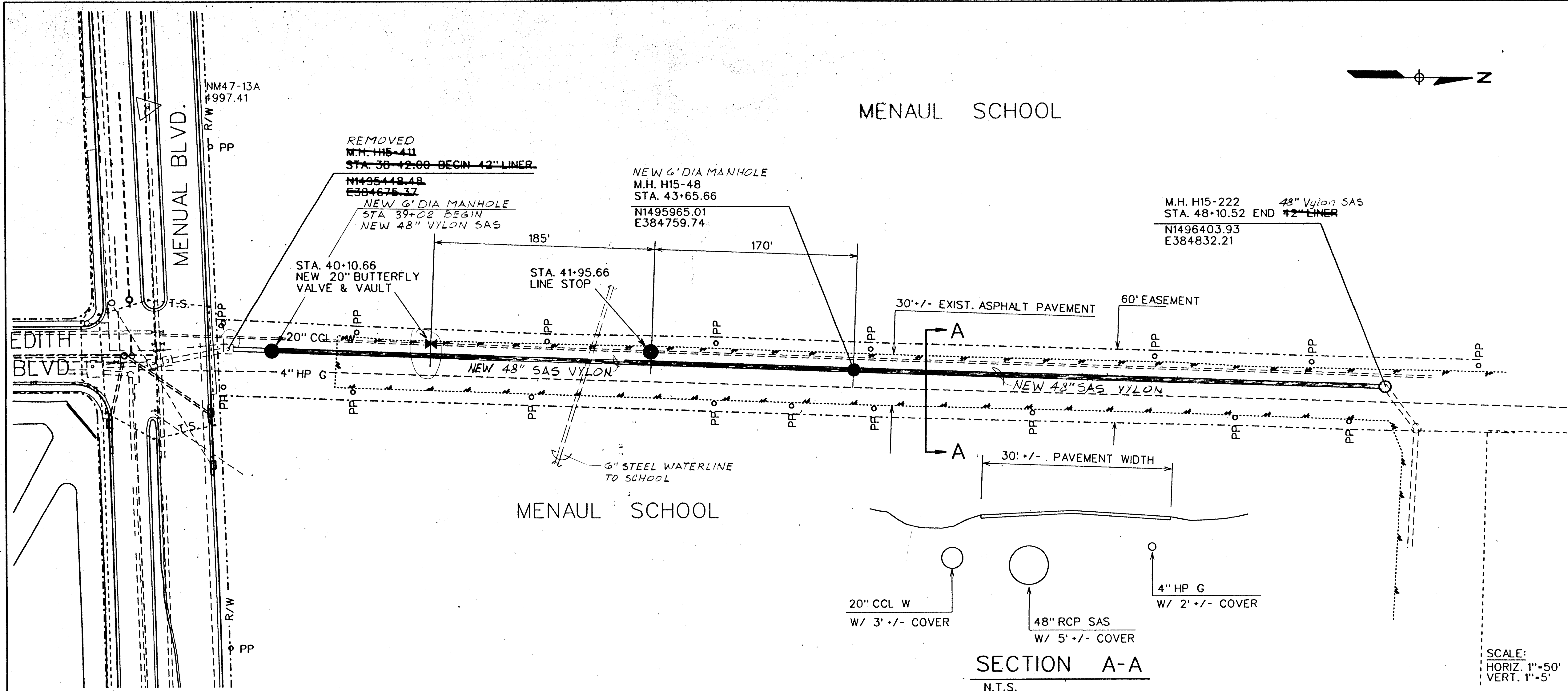
CORD SET
David J. Larson
8-4-98

URS Greiner
HN
Holmes & Narver

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

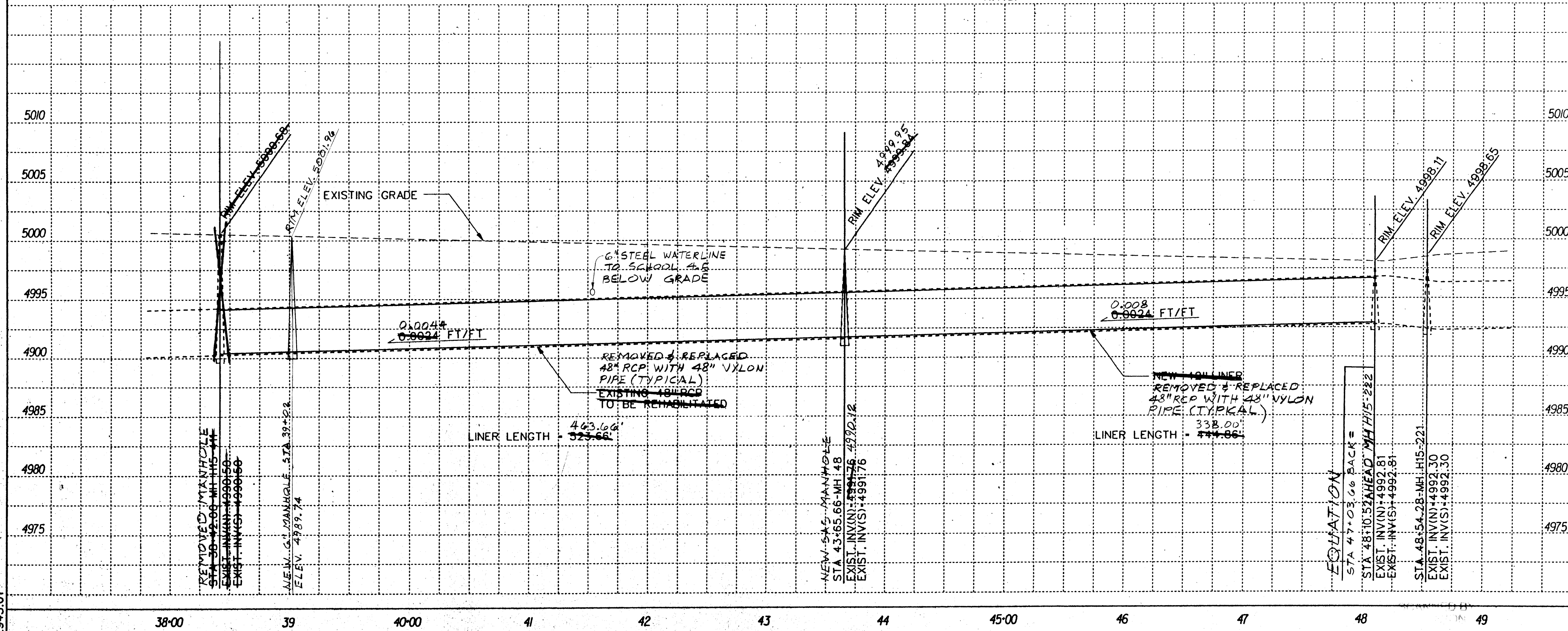
TITLE: EDITH/MENAU SEWER REHABILITATION
SEWER AND WATER REPLACEMENT
PLAN AND PREOFILE

City Project No. 4778.91 Zone Map No. H-15 Sheet 5 Of 18



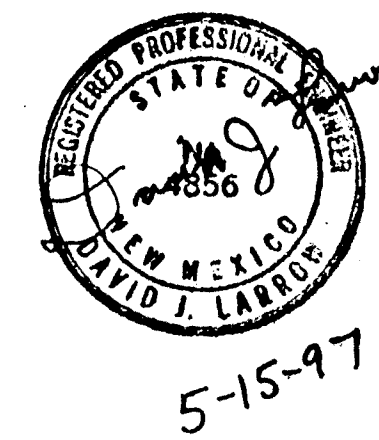
MENAU SCHOOL

SECTION A-A
N.T.S.



- NOTES:**
- THE CONTRACTOR SHALL SUPPORT AND MAINTAIN OPERATIONAL ALL EXISTING UTILITIES AS REQUIRED. ALL COSTS ASSOCIATED WITH THE SHORING, BRACING AND/OR SUPPORT OF EXISTING UTILITIES FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT PRICE.
 - PAVEMENT REMOVAL AND REPLACEMENT AS REQUIRED FOR INSERTION PIT EXCAVATIONS, GROUTING OPERATIONS, OR OTHER REPAIRS SHALL BE IN ACCORDANCE WITH THE PAVEMENT REPLACEMENT SECTION DETAIL. ALL PAVEMENT CUT EDGES SHALL BE SAWCUT TO PRESENT AN EVEN LINE PRIOR TO REPLACEMENT OF PAVING MATERIALS.
 - TRENCH CUT WIDTHS FOR INSERTION PITS, GROUTING OPERATIONS OR OTHER REPAIRS SHALL BE THE MINIMUM WIDTHS REQUIRED FOR UTILITY INSTALLATION, ECONOMICAL BACKFILL & COMPACTION, AND COMPLIANCE WITH CURRENT AND APPLICABLE OSHA SAFETY REGULATIONS. ALL COSTS ASSOCIATED WITH INSERTION PIT EXCAVATIONS, BACKFILL & COMPACTION GROUTING OPERATIONS OR OTHER REPAIRS INCLUDING PAVEMENT REMOVAL AND REPLACEMENT AS REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT PRICE.
 - IN JULY 1993 THE OWNER OBTAINED A CCTV INSPECTION OF THE EDITH INTERCEPTOR BETWEEN MANHOLES H15-411 AND H15-222. THESE TAPES MAY BE VIEWED AT THE OFFICE OF HOLMES & NARVER, INC. 6501 AMERICAS PARKWAY, N.E. SUITE 700.

SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	BY	DATE	N.M.B.R. 101	CONTRACTOR	DATE
1	ALBO. SURV. INC.	7-93	STANDARD BRASS TABLET STAMPED	WORK BY	DATE
2	BOYLE ENGR. INC.	7-93	"N.M.B.R. 101, 1934" SET IN CONC POST.	ACCEPTANCE BY	DATE
			LOCATED AT THE INTERSECTION OF EDITH	DRAWINGS BY	DATE
			AND MENAU IN THE SE QUADRANT.	MICRO-FILM INFORMATION	DATE
				RECORDED BY	DATE



RECORD SET
David J. Larrow
8-4-98



**CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP**

**TITLE: EDITH/MENAU SEWER REHABILITATION
SEWER LINING PLAN & PROFILE**

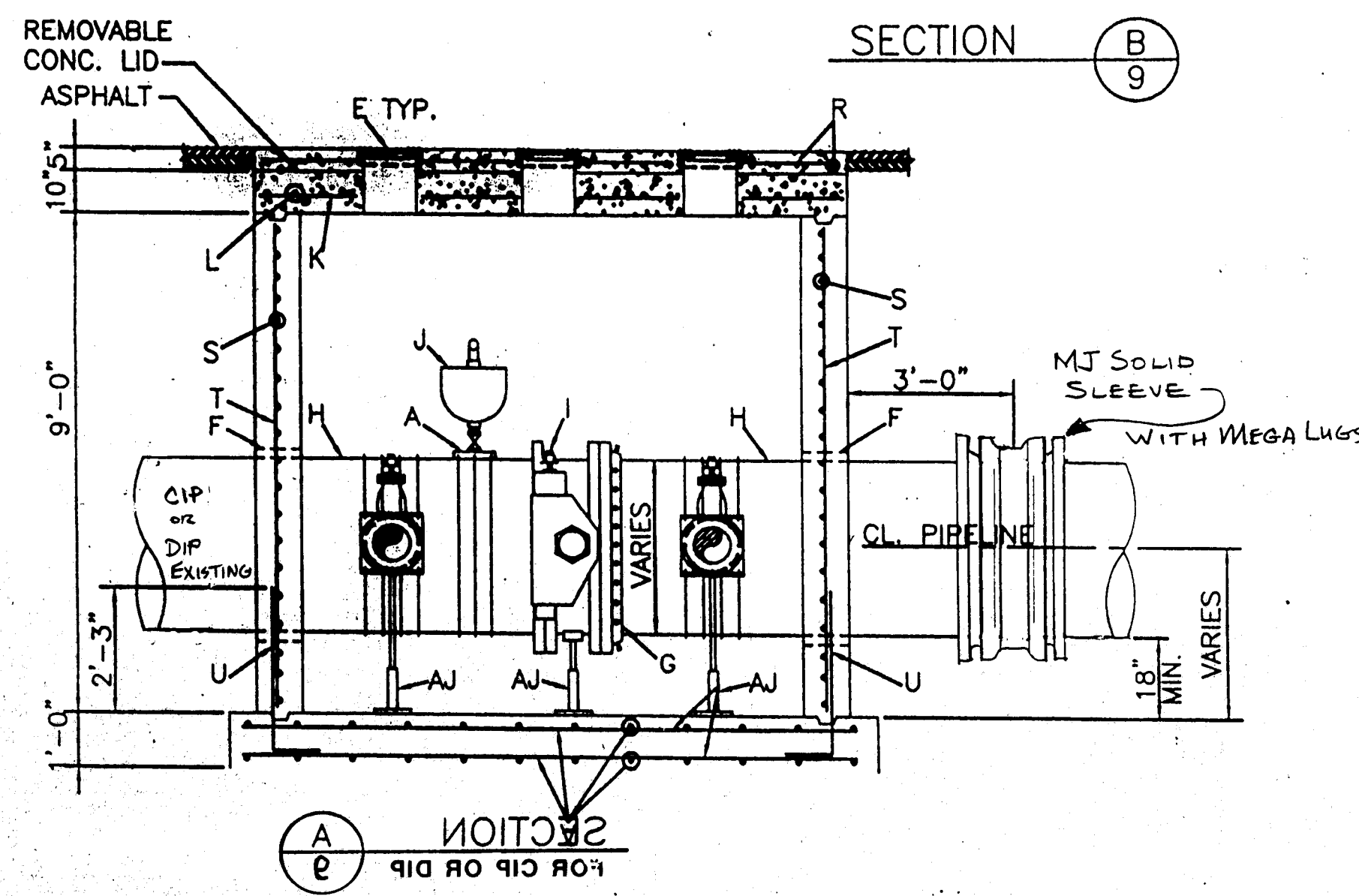
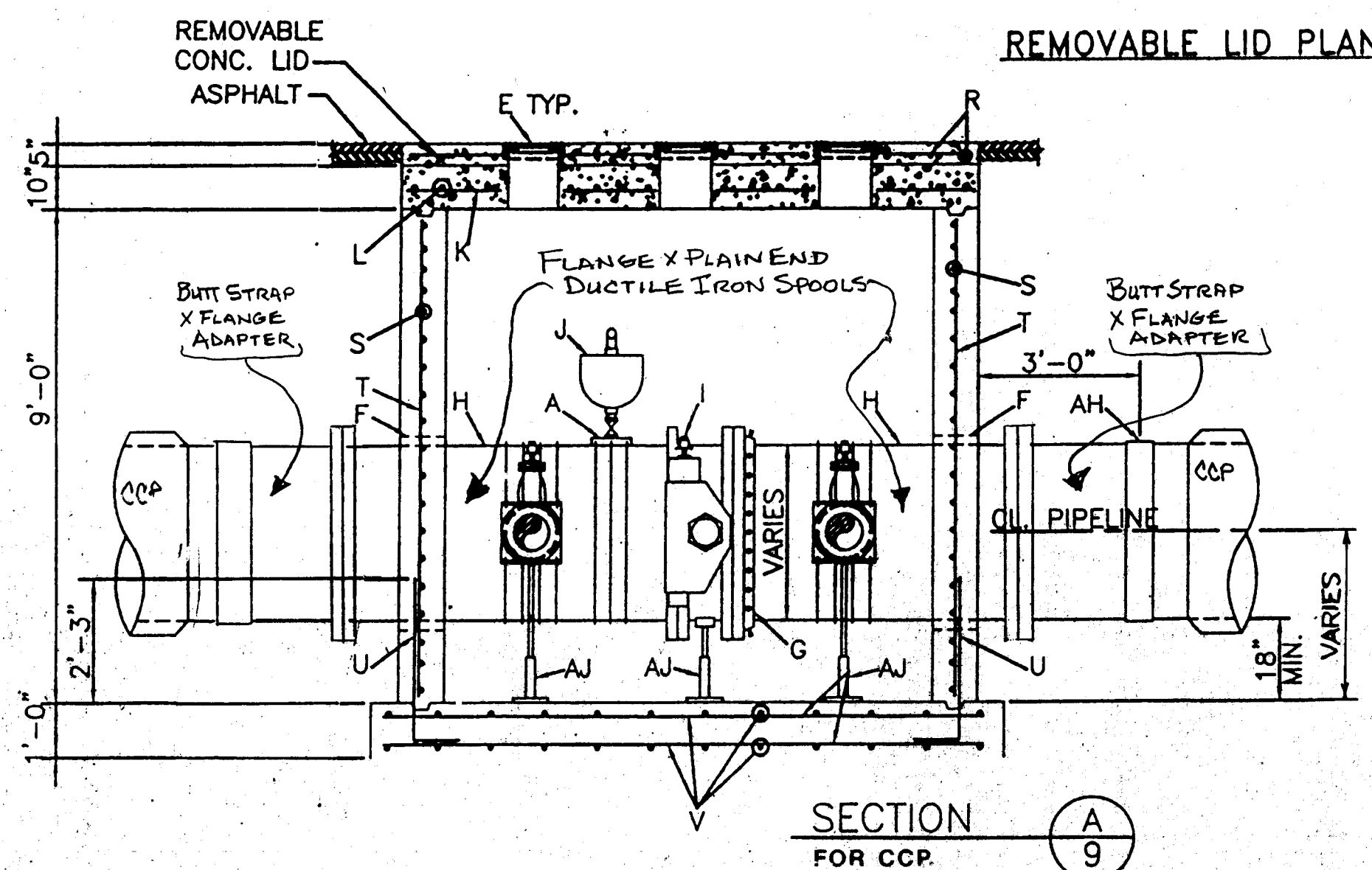
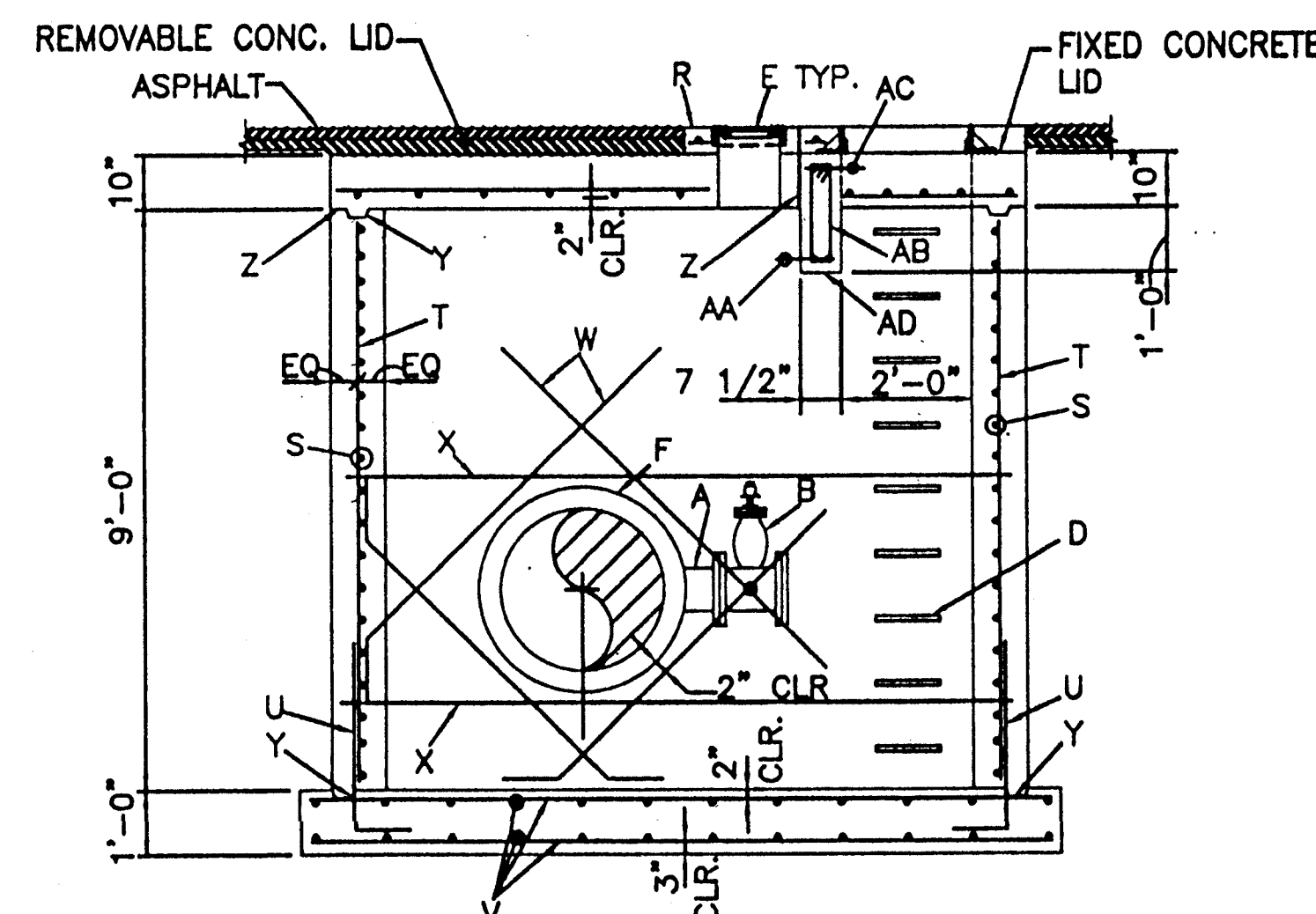
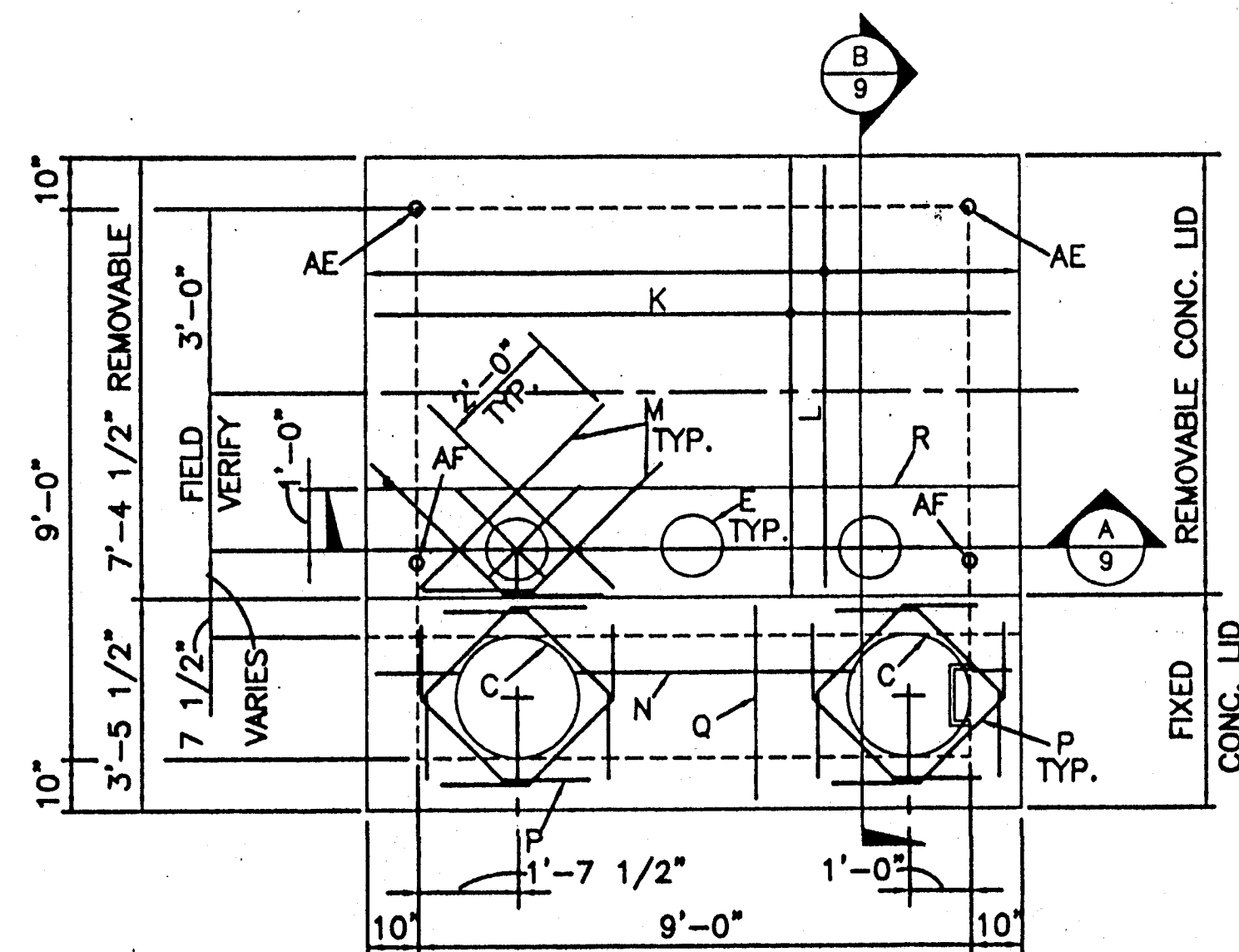
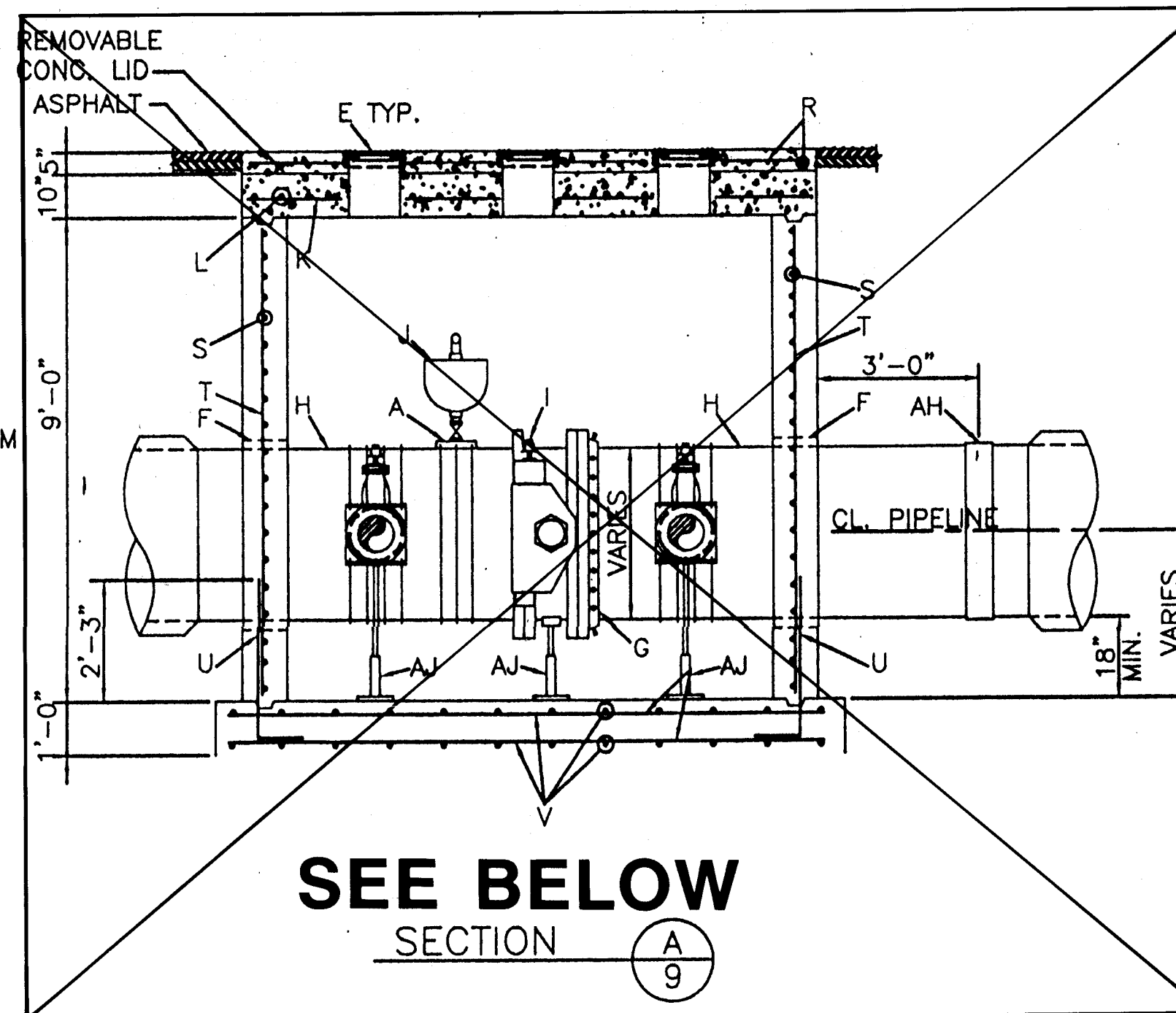
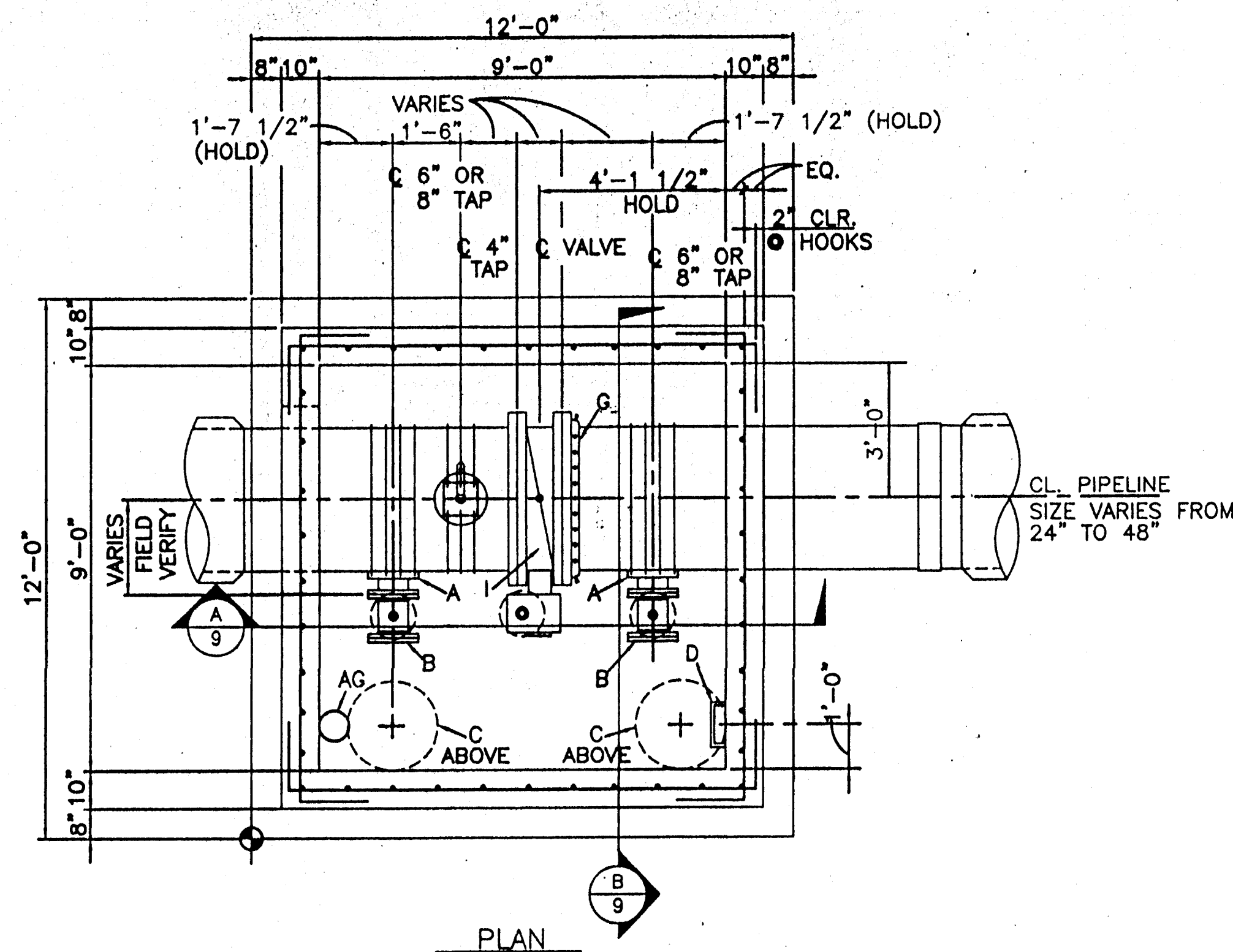
City Project No. 4778.91 Zone Map No. H-15 Sheet 6 of 18

City Engineer Approval

DESIGN REVIEW COMMITTEE

Mo./Day/Yr. Mo./Day/Yr.

DESIGNED BY: L. BELL DATE 5/96
DRAWN BY: L. BELL DATE 5/96
CHECKED BY: D. LARROW DATE 5/96



GENERAL NOTES:

1. VALVE VAULT SHALL NOT BE USED IN GROUND WATER CONDITIONS OR IN CLAY SOILS.
2. CONCRETE SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 510 WITH $F_c = 4000$ PSI. REINFORCING SHALL BE GRADE 60.
3. DESIGN EQUIVALENT FLUID PRESSURE = 91.2 PCF, $K = .5$
4. BACKFILL MATERIAL SHALL BE CLASS II OR III IN ACCORDANCE WITH SPECIFICATION SECTION 501.
5. PIPE DIAMETER VARIES FROM 24" DIA. TO 48" DIA.
6. PIPELINE CENTERLINE IN THE HORIZONTAL PLANE IS FIXED. ASSOCIATED VALVE BOXES ADJUST IN LOCATION DUE TO PIPE SIZE. FIELD VERIFY THESE MEASUREMENTS.
7. PIPELINE VERTICAL CENTERLINE IS ADJUSTABLE WITH THE MINIMUM OF 18" BELOW PIPELINE AS THE ONLY LIMIT.
8. HOLD CENTERLINE OF TAP LOCATIONS AND CENTER OF BUTTERFLY VALVE.

CONSTRUCTION NOTES:

- A TAPPING SADDLE (D.I.P.) OR FLANGED OUTLETS (CCFL).
- B 6" GATE VALVE WITH BLIND FLANGE (24" TO 30").
- C 8" GATE VALVE WITH BLIND FLANGE (36" TO 48").
- D 2'-0" DIA. MANHOLE FRAME & COVER, SEE DWG 2110.
- E MANHOLE STEPS PER SPEC. SECTION 920.4.7
- F VALVE BOX, RING & COVER PER DWG. 2328 WITH VALVE STEM EXTENSION PER DWG. 2330.
- G LINK SEAL OR EQUAL.
- H "MEGA-FLANGE" ADAPTER, EBAA OR EQUAL.
- I 0.25in. WALL STL. PIPE (CCYL ONLY).
- J AWWA C503 BUTTERFLY VALVE (FL).
- K 2" COMBINATION AIR AND VACUUM VALVE W/ ISOLATION VALVE.
- L #8 @ 7 1/2" O.C.x10'-4". ADD BAR EACH SIDE OF OPENING.
- M #6 @ 6" O.C.x7'-0 1/2". ADD BAR EACH SIDE OF OPENING.
- N 4-#5 DIAGONALS AT EACH OPENING.
- O #5 @ 12" O.C.x10'-4". FIELD CUT AT OPENINGS.
- P #5 DIAGONALSx6'-0". BEND AS REQUIRED.
- Q #5 @ 12" O.C.x3'-1 1/2". FIELD CUT AT OPENINGS.
- R 5" CONCRETE TOPPING SLAB WITH #4@6" O.C. EACH WAY. SPREAD BARS AT OPENINGS.
- S #5 @ 6" O.C. HORIZ.x10'-4" WITH 10" HOOKS EACH END.
- T #4 @ 12" O.C. VERT. x 8'-10".
- U #5 FOOTING DOWELS @ 6" O.C. WITH 10" HOOK.
- V #6 @ 6" O.C.x11'-8" EACH WAY TOP & BOTTOM.
- W 2-#5 DIAGONALSx7'-0". BEND AS REQUIRED. (8 TOTAL EACH WALL)
- X 2-#6x10'-4" TOP & BOT. OF PIPE. PLACE OUTSIDE OF DIAGONALS.
- Y 2x4 KEY TYPICAL.
- Z 30# FELT MASTIC
- AA 2-#9x10'-4"
- AB #4 TIES @ 5 1/2" O.C. 1st TIE 1 3/4" FROM FACE OF WALL.
- AC 2-#5x10'-4"
- AD BLOCK OUT WALL FOR BEAM.
- AE COIL INSERT WITH 8000# CAPACITY EACH. PROVIDE GREASED BOLT AND ASPHALT OVER CONNECTION. PROVIDE SINGLE SWIVEL LIFT PLATES. WIRE TIE TO BOTTOM LADDER RUNG.
- AF PROVIDE COIL INSERT "AE" ABOVE IN 10" SLAB. PROVIDE PVC POCKET THROUGH 5" TOPPING SLAB. INSERT BOLT & FILL WITH ASPHALT.
- AG 8" HOLE WITH GRAVEL FILL. PROVIDE 1/2" C.Y. GRAVEL FILL BELOW FOUNDATION.
- AH BUTT STRAP TYP. (CONC CYLINDER PIPE ONLY).
- AJ ADJUSTABLE PIPE SUPPORT.

VAULT ORIENTATION ON CONSTRUCTION DRAWINGS

REVISIONS	DATE
4/24/97	

CITY OF ALBUQUERQUE

WATER
LARGE DIAMETER VALVE VAULT

DWG. 2334

JANUARY 1996

HN
Holmes & Narver

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: EDITH/MENAU SEWER REHABILITATION
LARGE DIAMETER VALVE VAULT
CITY STD. DWG 2334

Design Review Committee City Engineer Approval

Ms./Dsg./Yr. Ms./Dsg./Yr.

City Project No. 4778.91 Zone Map No. H-15

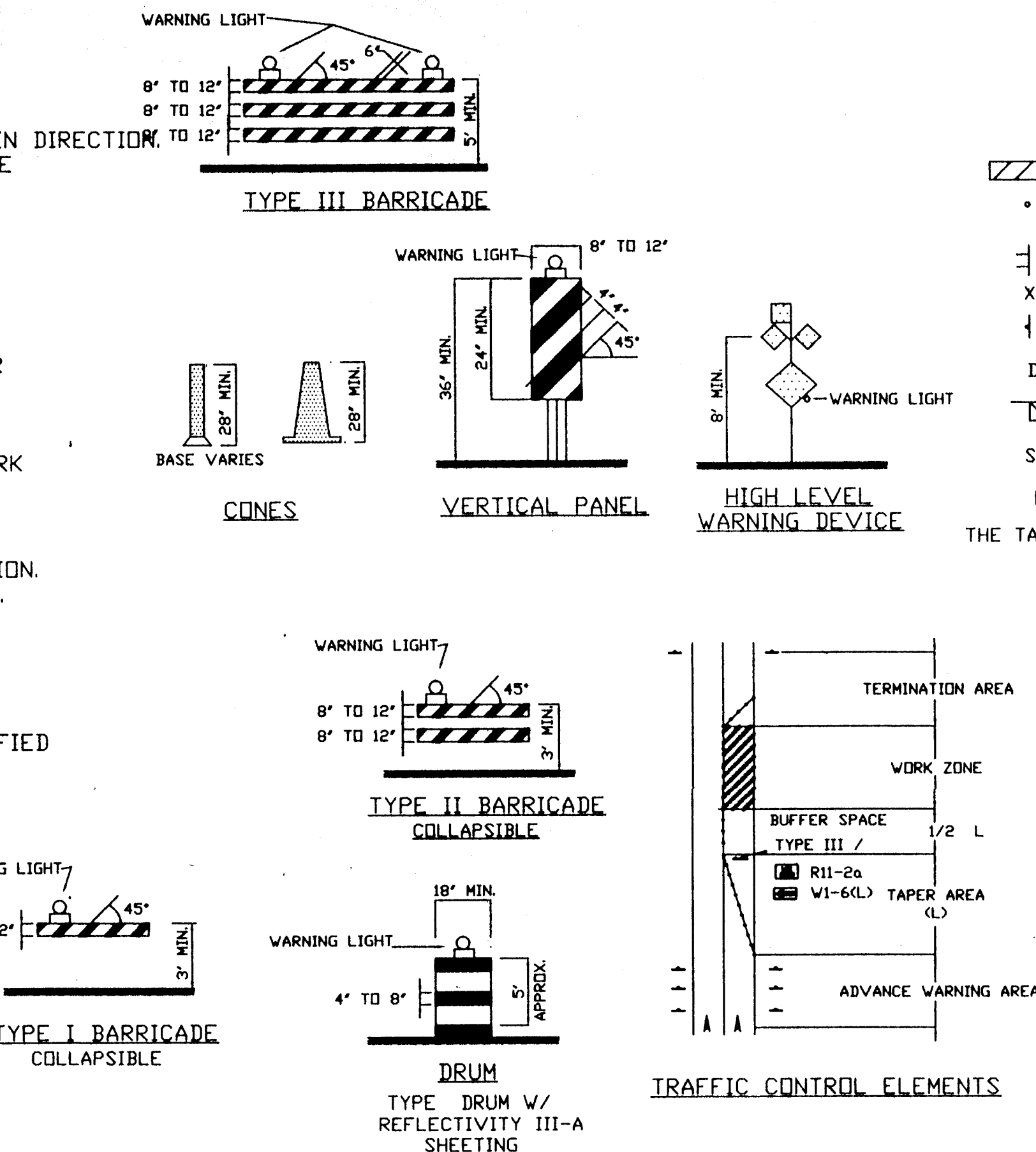
Sheet 9 of 18

David J. Larrow
8-4-98

CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

- CONTRACTOR MUST OBTAIN FROM CONSTRUCTION COORDINATION AN EXCAVATION/BARRICADING PERMIT BEFORE ENGAGING IN ANY CONSTRUCTION, MAINTENANCE OR REPAIR WORK IN ANY OF THE CITY OF ALBUQUERQUE'S RIGHTS-OF-WAY. EMERGENCY WORK THAT WOULD PRESERVE LIFE OR PROPERTY IS EXCLUDED WITH THE UNDERSTANDING, THAT A PERMIT SHALL BE OBTAINED WITHIN 24 TO 48 HOURS.
- CONTRACTOR SHALL AT THE TIME OF PERMIT REQUEST, SUBMIT FOR APPROVAL BY CONSTRUCTION COORDINATION, A TRAFFIC CONTROL PLAN, DETAILING ALL EXISTING TOPOGRAPHY SUCH AS LANE WIDTHS, DRIVEWAYS, AND BUSINESS/RESIDENTIAL ACCESSES. THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PHASES OF WORK AND SCHEDULES INVOLVED IN THE CONSTRUCTION PROJECT. ANY SEPARATE PHASES OF A CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BLANKET PERMITS WILL NOT BE ISSUED.
- TYPICAL TRAFFIC CONTROL PLANS DO NOT REFLECT THE EXISTING TOPOGRAPHY SUCH AS DRIVEWAYS, LANE WIDTHS, AND BUSINESS/RESIDENTIAL ACCESSES. EVERY LOCATION THAT REQUIRES CONSTRUCTION TRAFFIC CONTROL SHALL HAVE A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL EXISTING TOPOGRAPHY.
- CONSTRUCTION SHALL NOT BEGIN UNLESS A TRAFFIC CONTROL PLAN HAS BEEN APPROVED AND VERIFIED BY CONSTRUCTION COORDINATION.
- CONSTRUCTION COORDINATION SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY TRAFFIC CONTROL CHANGES NEEDED BY CONTRACTOR, THAT WERE NOT PREVIOUSLY APPROVED. THESE TRAFFIC CONTROL CHANGES SHALL BE REQUESTED IN WRITING ACCOMPANIED WITH A TRAFFIC CONTROL PLAN REFLECTING SUCH CHANGES.
- ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, SERVICE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL NOT BE REMOVED OR ALTERED IN ANY WAY WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION, PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
- THE CONSTRUCTION TRAFFIC CONTROL INITIAL SET-UP FOR EACH PHASE SHALL BE BY AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED WORKSITE TRAFFIC SUPERVISOR. THE MAINTENANCE AND SERVICING SHALL ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE TRAFFIC SUPERVISOR OR EQUIVALENT.
- CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND SERVICE ALL TRAFFIC CONTROL DEVICES 24 HOURS A DAY, 7 DAYS A WEEK THROUGHOUT LENGTH OF PROJECT. CONTRACTOR IS RESPONSIBLE THAT ALL TRAFFIC CONTROL DEVICES COMPLY WITH THE MUTCD, LATEST EDITION.
- ALL ADVANCE WARNING SIGNS SHALL BE DOUBLE INDICATED WHENEVER THERE IS MULTI-LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.
- ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE PLACED APART, A DISTANCE MEASURED IN FEET, EQUAL TO THAT OF THE POSTED SPEED LIMIT. NO EXCEPTIONS UNLESS APPROVED BY CONSTRUCTION COORDINATION PER MUTCD SECTION 6A-4.
- CONTRACTOR SHALL NOT BEGIN WORK BEFORE 7:00 A.M. OR END WORK AFTER 7:00 P.M. WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE CONSTRUCTION COORDINATION, A WEEKLY LOG OF DAILY INSPECTIONS OF BARRICADE AND MAINTENANCE SCHEDULES ON PROJECTS THAT ARE OVER ONE WEEK DURATION.
- EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN 15 FEET OF A TRAVELLED TRAFFIC LANE DURING NON-WORKING HOURS WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELIZING PEDESTRIAN TRAFFIC AROUND AND THROUGH THE CONSTRUCTION AREA.
- CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFLICTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUSINESSES AND/OR RESIDENTS AT ALL TIMES.
- CONTRACTOR SHALL PROVIDE ACCESS SIGNS FOR BUSINESSES LOCATED WITHIN THE CONSTRUCTION AREA UNDER THE SUPERVISION OF CONSTRUCTION COORDINATION. EACH ACCESS SIGN SHALL HAVE 5 INCH, ORANGE LETTERING ON WHITE BACKGROUND. SHOPPING CENTERS AND MALLS SHALL BE LISTED AS SUCH.
- ALL ADVANCE WARNING SIGNS SHALL MEET THE MINIMUM REFLECTIVE INTENSITY REQUIREMENTS SET FORTH BY THE CITY OF ALBUQUERQUE. CONSTRUCTION COORDINATION SHALL DETERMINE ALL REQUIREMENTS AND APPROVE OR DISAPPROVE ANY ADVANCE WARNING SIGN PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
- 24 HOURS PRIOR TO OCCUPYING OR CLOSING OF A RIGHT-OF-WAY, CONTRACTOR SHALL NOTIFY POLICE, FIRE DEPARTMENT, SCHOOLS, HOSPITALS, TRANSIT AUTHORITY, BUSINESSES AND/OR RESIDENTS THAT WILL BE AFFECTED BY THE CONSTRUCTION.
- ANY FIELD ADJUSTMENTS SHALL BE APPROVED BY CONSTRUCTION COORDINATION.

- EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET, UNLESS OTHERWISE SPECIFIED IN THE PLANS, SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.
- CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING:
 - STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 - THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION.
 - SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AS WELL AS OTHER SECTIONS.
- 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.
- ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION. WASHING OF EQUIPMENT IS INCIDENTAL TO ITS PLACEMENT AND MAINTENANCE.
- TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.
- ADVANCE WARNING SIGNS SHALL BE 36"x36", UNLESS OTHERWISE SPECIFIED IN THE PLANS, WITH SUPER ENGINEERING GRADE SHEETING OR BETTER.
- ITEM 0420.115 - REFLECTORIZED PAINTED MARKINGS IS INCLUDED FOR PAVEMENT STRIPING BETWEEN SURFACING LIFTS AND FOR USE ON TEMPORARY PAVEMENTS, AS DIRECTED BY THE PROJECT MANAGER.
- IMPACT ATTENUATORS SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE FOR ITEM NUMBER 0019.01-CONSTRUCTION TRAFFIC CONTROL AND BARRICADING AND NO ADDITIONAL MEASUREMENT OR PAYMENT WILL BE MADE.



LEGEND

- WORK AREA
- BARRICADE - TYPE I, TYPE II, OR TYPE "H" DRUM W/ REFLECTIVITY III-A SHEETING
- VERTICAL PANEL
- WARNING SIGN
- DISTANCE BETWEEN SIGNS - A DISTANCE MEASURED IN FEET EQUAL TO A VALUE OF TEN TIMES THE SPEED LIMIT OF THE STREET
- FLAGMAN POSITION
- SPACING BETWEEN BARRICADES - A DISTANCE MEASURED IN FEET EQUAL TO THE SPEED LIMIT OF THE STREET
- TAPER LENGTH - SEE CHART BELOW
- THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.

TAPER REQUIREMENTS

SPEED LIMIT (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
20	70	75	80	5	20	20
25	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

RECOMMENDED SIGN SPACING (D) FOR ADVANCE WARNING SIGN SERIES

SPEED MILES PER HOUR	MINIMUM DISTANCE 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

TAPER CRITERIA

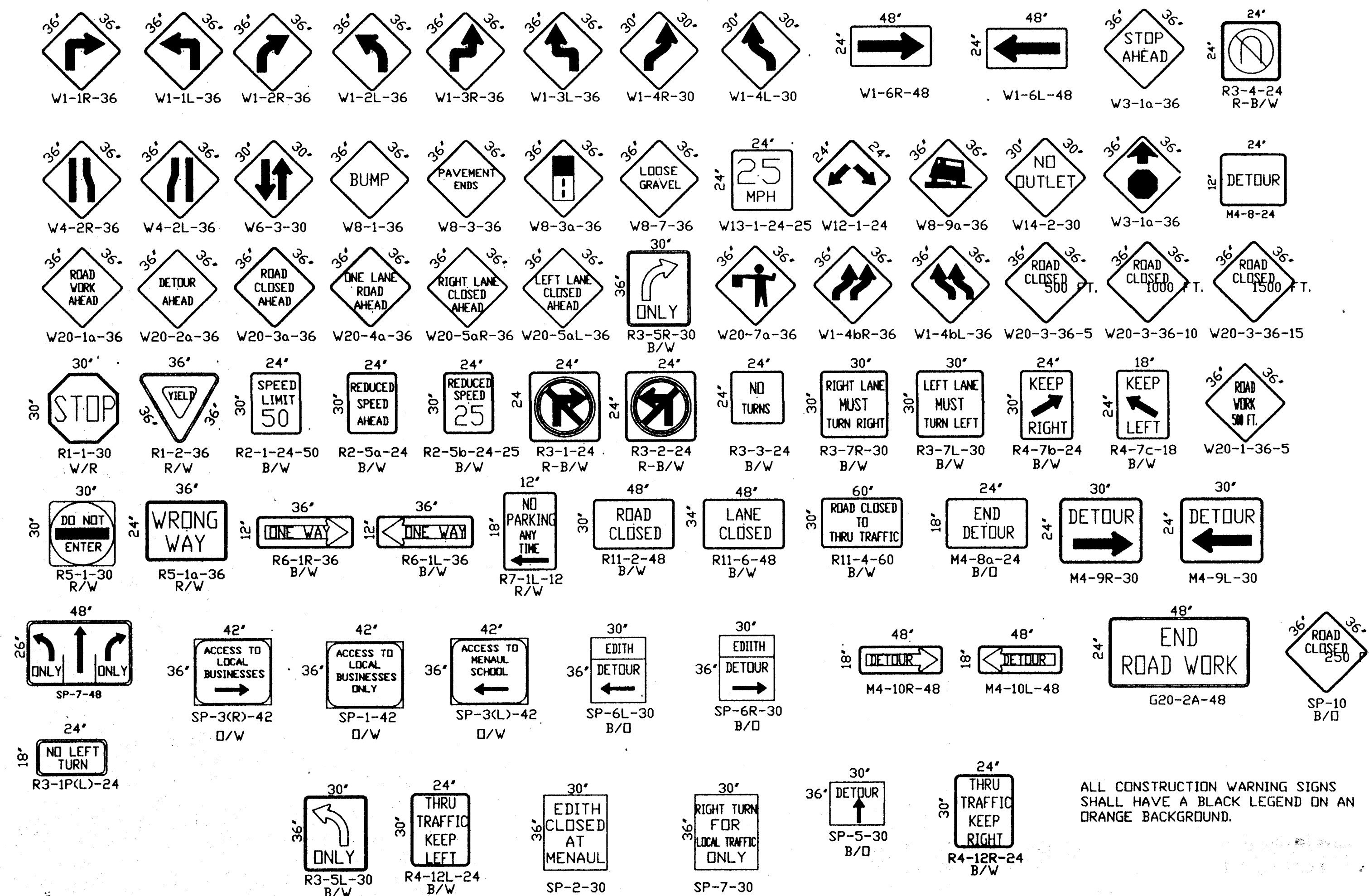
TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

TAPER LENGTH COMPUTATION

SPEED LIMIT	L =
40 MPH OR LESS	$L = \frac{V^2}{60}$
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

SIGN FACE DETAILS



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

URS Greiner

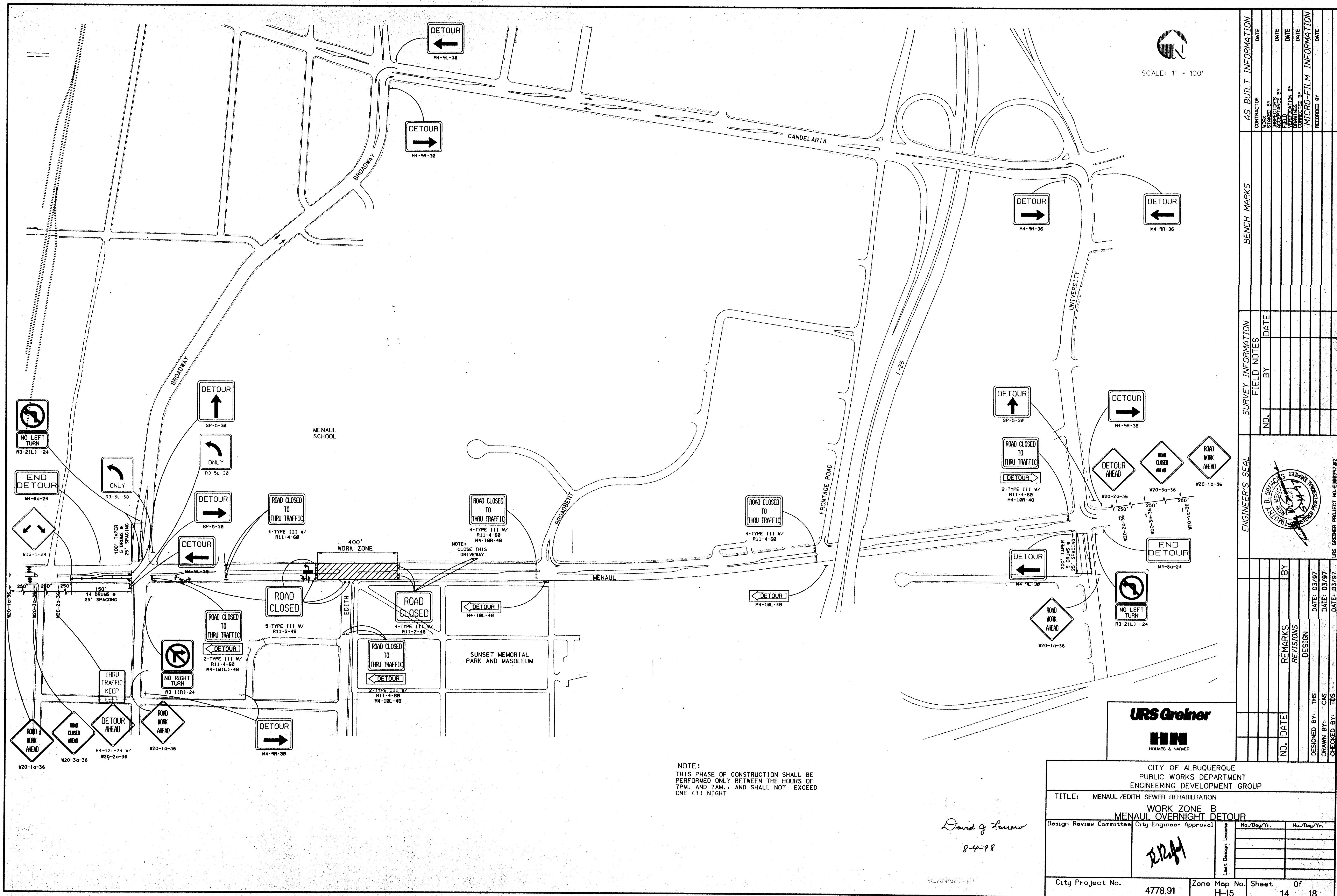
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: MENAUL/EDITH SEWER REHABILITATION
SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS

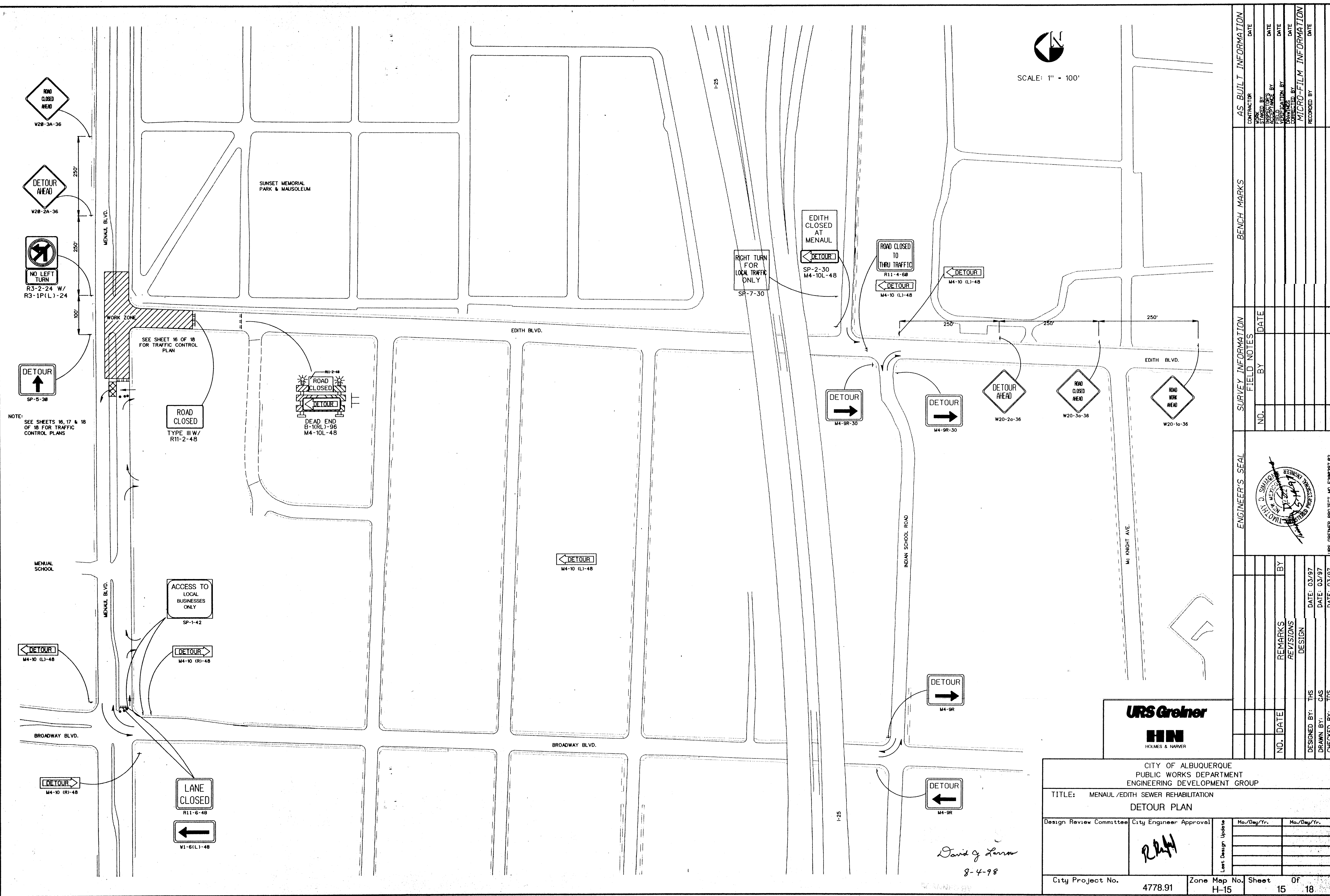
Design Review Committee City Engineer Approval

City Project No. 4778.91 Zone Map No. H-15 Sheet 10 of 18

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DRAWN BY: [Signature] DATE: [Date]
CHECKED BY: [Signature] DATE: [Date]

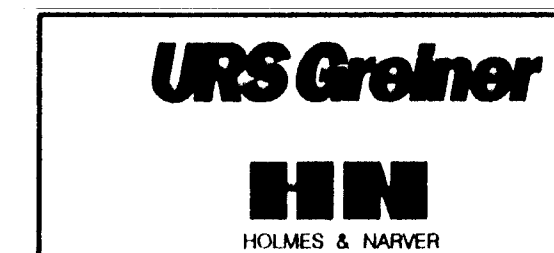


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NOTE: SEE SHEETS 16, 17 & 18 OF 18 FOR TRAFFIC CONTROL PLANS

David G. Larson
8-4-98



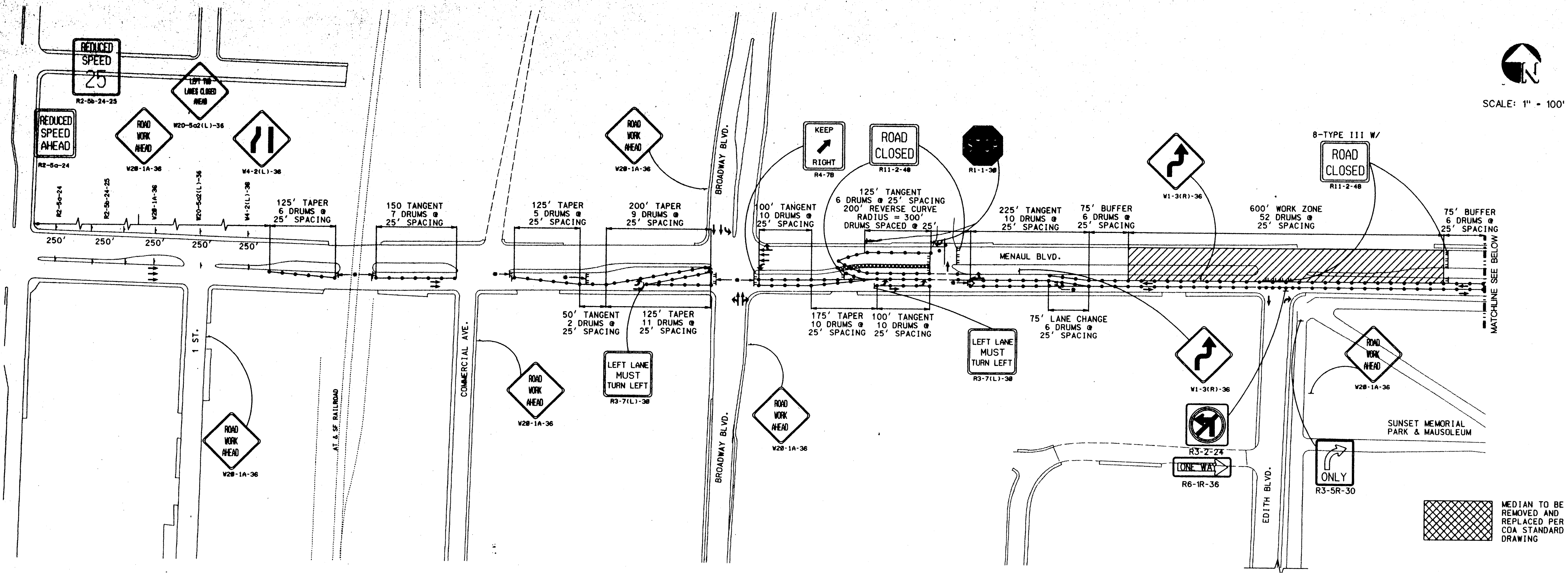
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: MENAUL/EDITH SEWER REHABILITATION DETOUR PLAN			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
	<i>RGL</i>		
City Project No.	Zone Map No.	Sheet	Of
4778.91	H-15	15	18

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE			FIELD NOTES			
WORK ORDER BY	DATE			NO.	BY		
DESIGNED BY	DATE						
REVIEWED BY	DATE						
APPROVED BY	DATE						
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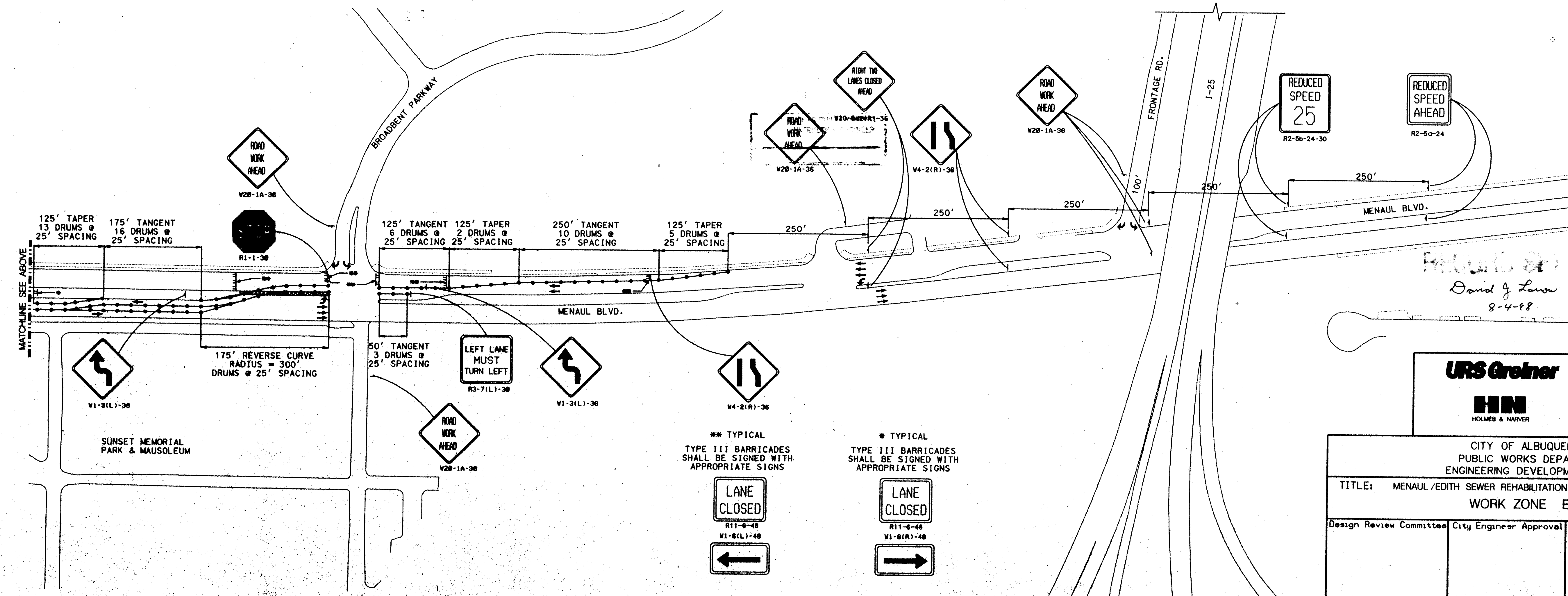
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DRAWN BY: CAS	DATE: 03/97
CHECKED BY: TDS	DATE: 03/97

URS GREINER PROJECT NO. E039102.02

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SCALE: 1" = 100'



** TYPICAL
TYPE III BARRICADES
SHALL BE SIGNED WITH
APPROPRIATE SIGNS

* TYPICAL
TYPE III BARRICADES
SHALL BE SIGNED WITH
APPROPRIATE SIGNS

URS Greiner
HMM
HOLMES & NARVER

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: MENAUL/EDITH SEWER REHABILITATION WORK ZONE E			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	4778.91	Zone Map No.	Sheet 18 Of 18

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	NO.	BY	NO.	BY	NO.	BY
DESIGNED BY	DATE						
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REVIEWED BY	DATE						
MICRO-FILM INFORMATION							
RECORDED BY	DATE						

David J. Larson
8-4-88

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
DESIGNER PROJECT NO. ENR57-42