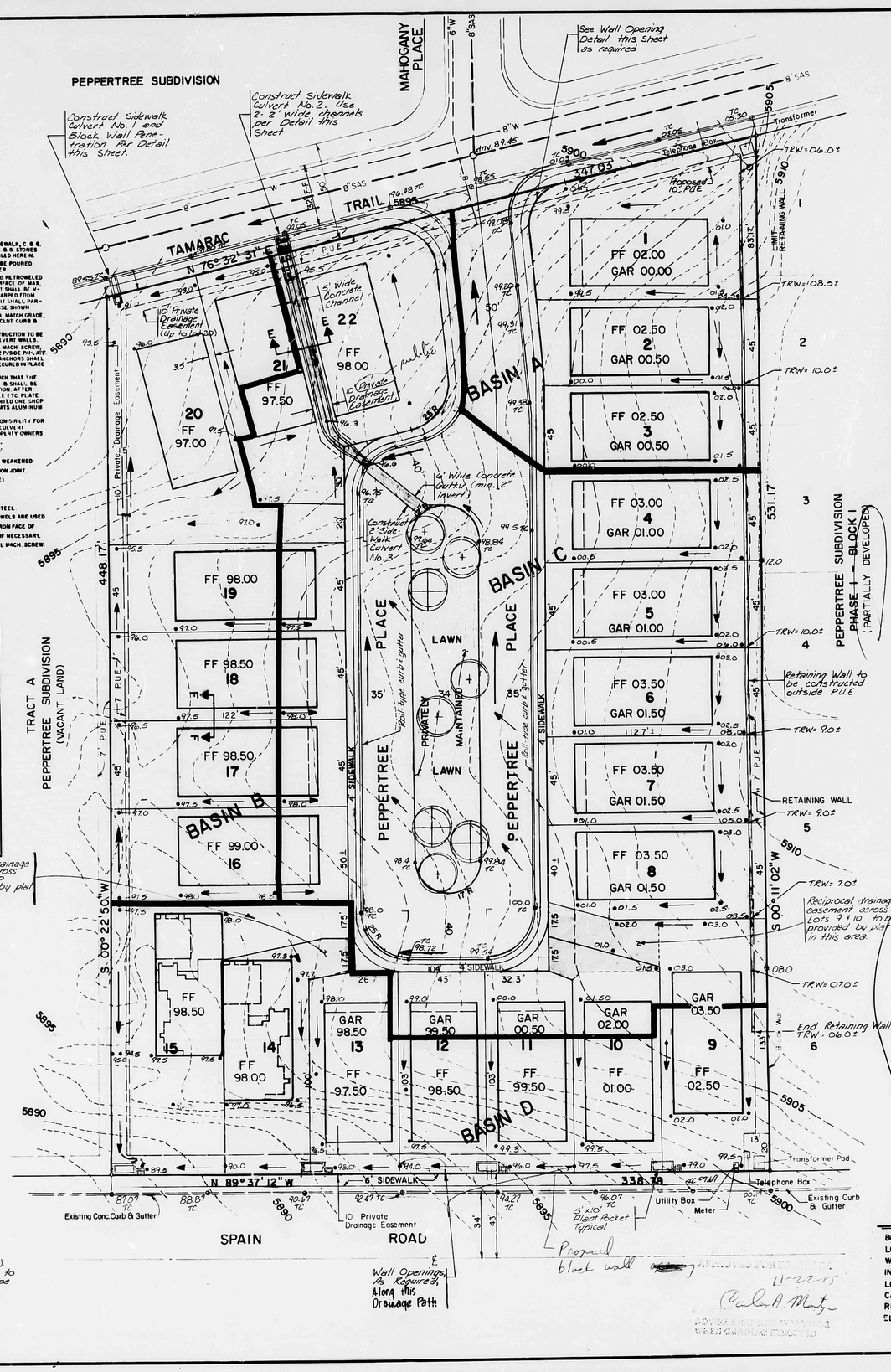
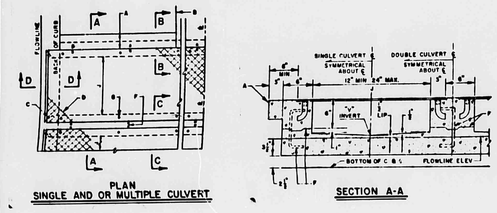
HYDROLOGY

E22/D3A
THREE PLANS

E 22/D3A

3 PLANS



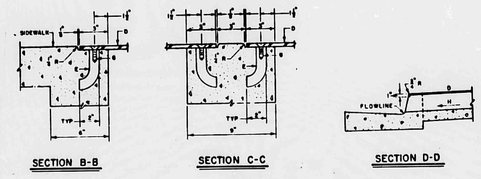


GENERAL NOTES:

1. PLACING OF DRAIN THRU EXIST SIDEWALK, C & G. REQUIRE THAT ENTIRE SIDEWALK, C & G STONES BE REMOVED & REPLACED AS DETAILED HEREIN.
2. BOTTOM SLAB OF CULVERT SHALL BE POURED MONOLITHICALLY WITH NEW GUTTER
3. THE INVERT SHALL BE TROWELED & RETROWELED TO PRODUCE A HARD POLISHED SURFACE OF MAX. DENSITY & SMOOTHNESS. "V" INVERT SHALL BE V-SHAPED TO WITHIN 3" OF OUTLET, WARPED FROM THIS POINT TO OUTLET AT OUTFLT IT SHALL PARALLEL FLOWLINE UNLESS OTHERWISE SHOWN
4. ALL EXPOSED CONC. SURFACE SHALL MATCH GRADE, COLOR, FINISH & SCORING OF ADJACENT CURB & SIDEWALK
5. SIDEWALK REPLACED DURING CONSTRUCTION TO BE POURED MONOLITHICALLY WITH CULVERT WALLS.
6. DRILL & TAP ROD ANCHORS FOR F.H. MACH. SCREW, SPACE AT 24" O.C. MAX., A MIN. OF 2 PER SIDE PYL. PLATE PLACE ONE WITHIN 6" OF EA. END. ANCHORS SHALL BE ATTACHED TO PLATE & PLATE SECURED IN PLACE PRIOR TO POURING OF WALLS.
7. LENGTH OF EA. PLATE SHALL BE SUCH THAT THE WEIGHT WILL NOT EXCEED 50 LBS. & SHALL BE STRESS RELIEVED AFTER FABRICATION. AFTER CLEANING SURFACE OF RUST, SCALE ETC. PLATE & FRAMING MEMBERS WILL BE PAINTED ONE SHOP COAT RED OXIDE & TWO FINISH COATS ALUMINUM PAINT (A&SHTO M 69)
8. THE CITY WILL NOT ASSUME RESPONSIBILITY FOR MAINTENANCE OF ANY SIDEWALK CULVERT INSTALLED BY OR FOR PRIVATE PROPERTY OWNERS

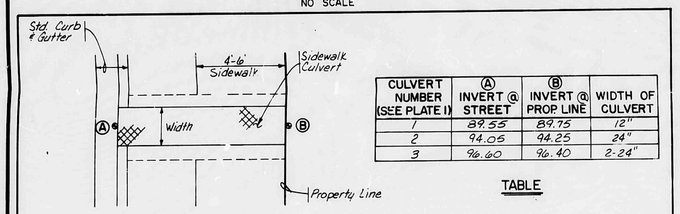
CONSTRUCTION NOTES:

A. JOIN TO NEAREST SCORE LINE OR WEAKENED PLANE JOINT, INSTALL ½" EXPANSION JOINT.
B. SIDEWALK OR SETBACK (VARIABLE)
C. 3" RADIUS (TYPICAL).
D. ¼" CHECKERED STEEL PLATE.
E. ROD ANCHOR ½" x 5" STAINLESS STEEL.
F. CONSTR. JT. & DOWEL (OPT.), IF DOWELS ARE USED SPACE AT 24" O.C. MAX., 1½" MIN. FROM FACE OF CONC., DOWELS MAY BE INCLINED IF NECESSARY.
G. ¼" FH. C'SUNK STAINLESS STEEL MACH. SCREW.
H. SLOPE ¼" PER FT. MIN.
J. DRAIN WIDTH, 12" MIN. 24" MAX.



SIDEWALK CULVERT

NO SCALE



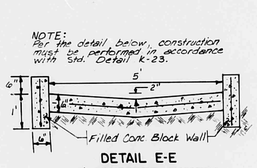
CULVERT NUMBER (SEE PLATE I)	Ⓐ INVERT @ STREET	Ⓑ INVERT @ PROP LINE	WIDTH OF CULVERT
1	89.55	89.75	12"
2	94.05	94.25	24"
3	96.60	96.40	2-24"

TABLE

KEY TO TABLE

(TABLE IS GIVEN AT RIGHT FOR INVERTS AND WIDTHS)

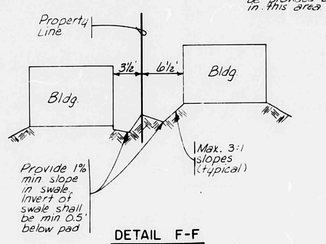
NO SCALE



DETAIL E-E

5' CONCRETE CHANNEL

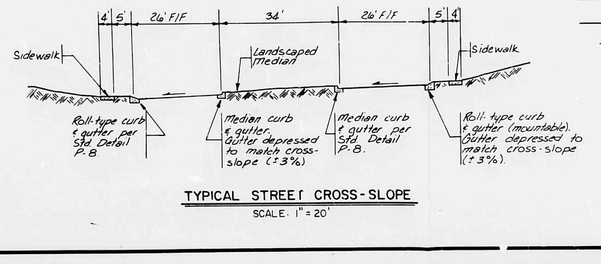
SCALE: 1" = 2'



DETAIL F-F

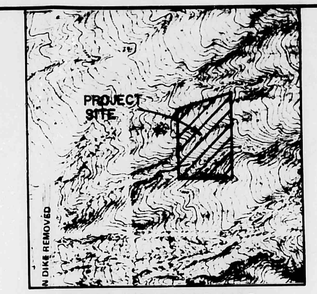
NO SCALE

(TYPICAL SECTION)



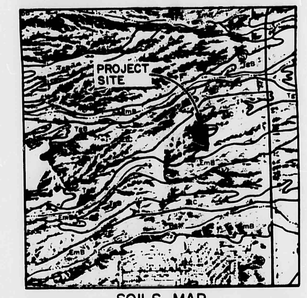
TYPICAL STREET CROSS-SLOPE

SCALE: 1" = 20'



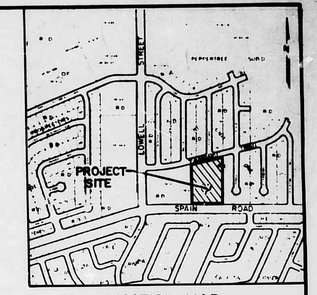
FLOOD INSURANCE MAP

REFERENCE: FLOOD INSURANCE STUDY



SOILS MAP

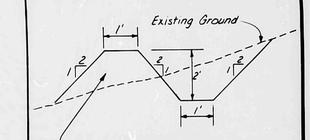
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY



LOCATION MAP

ZONE ATLAS MAP NO. E-22-Z & F-22-Z

A berm with the dimensions shown below shall be built along the northern, southern and western boundaries and maintained during all phases of construction until the drainage system presented hereon is functional.

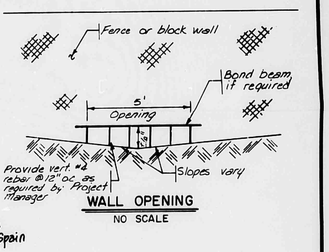


Erosion Control Berm
To provide reasonable compaction moisten soil & wheel roll in 1' lifts.

EROSION CONTROL PLAN

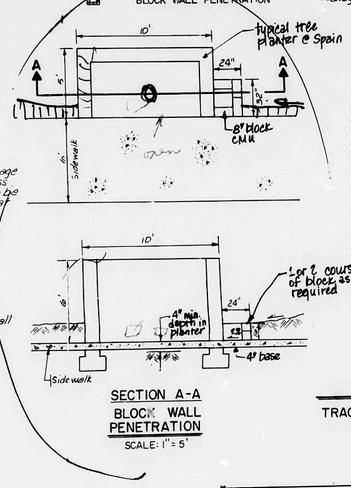
LEGEND

- PROJECT BOUNDARY
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING CURB & GUTTER
- PROPOSED RETAINING WALL
- FF 04.67 FINISH FLOOR ELEVATION
- SAS EXISTING SANITARY SEWER LINE
- W EXISTING WATER LINE
- EXISTING SANITARY SEWER MANHOLE
- 01.67 PROPOSED SPOT ELEVATION
- 96.75 EXISTING SPOT ELEVATION
- BASIN BOUNDARY
- DIRECTION OF FLOW
- TW TOP OF BLOCK WALL
- BW BOTTOM OF WALL
- TRW TOP OF RETAINING WALL
- BLOCK WALL PENETRATION



WALL OPENING

NO SCALE



SECTION A-A

BLOCK WALL PENETRATION

SCALE: 1" = 5'

NOTE

1. Grading tolerances & compaction requirements shall be accomplished per Soils Report.
2. Walls less than 18" in height may be constructed with 8" filled concrete block.
3. Except for P.U.E. Easements, all shown easements are proposed.
4. Wall openings must be constructed where required for runoff conveyance in accordance with this plan.

SITE DESCRIPTION

TRACT B, PEPPERTREE SUBDIVISION

APPROVED FOR ROUGH GRADING (±1')

HYDROLOGY ENGINEER DATE

BENCHMARK

BOHANNAN-HUSTON BRASS CAP LOCATED 4" THE NORTH, NORTH-WEST PROPERTY RETURN OF THE INTERSECTION OF SPAIN ROAD AND LOWELL STREET. THE BRASS CAP IS STAMPED AS FOLLOWS: RET, TRT 4A, 1980, ELEVATION = 5867.69'.

REVISED 11/13/85

Date	Revision	By

PEPPERTREE PLACE

Project No.

DRAINAGE / GRADING PLAN

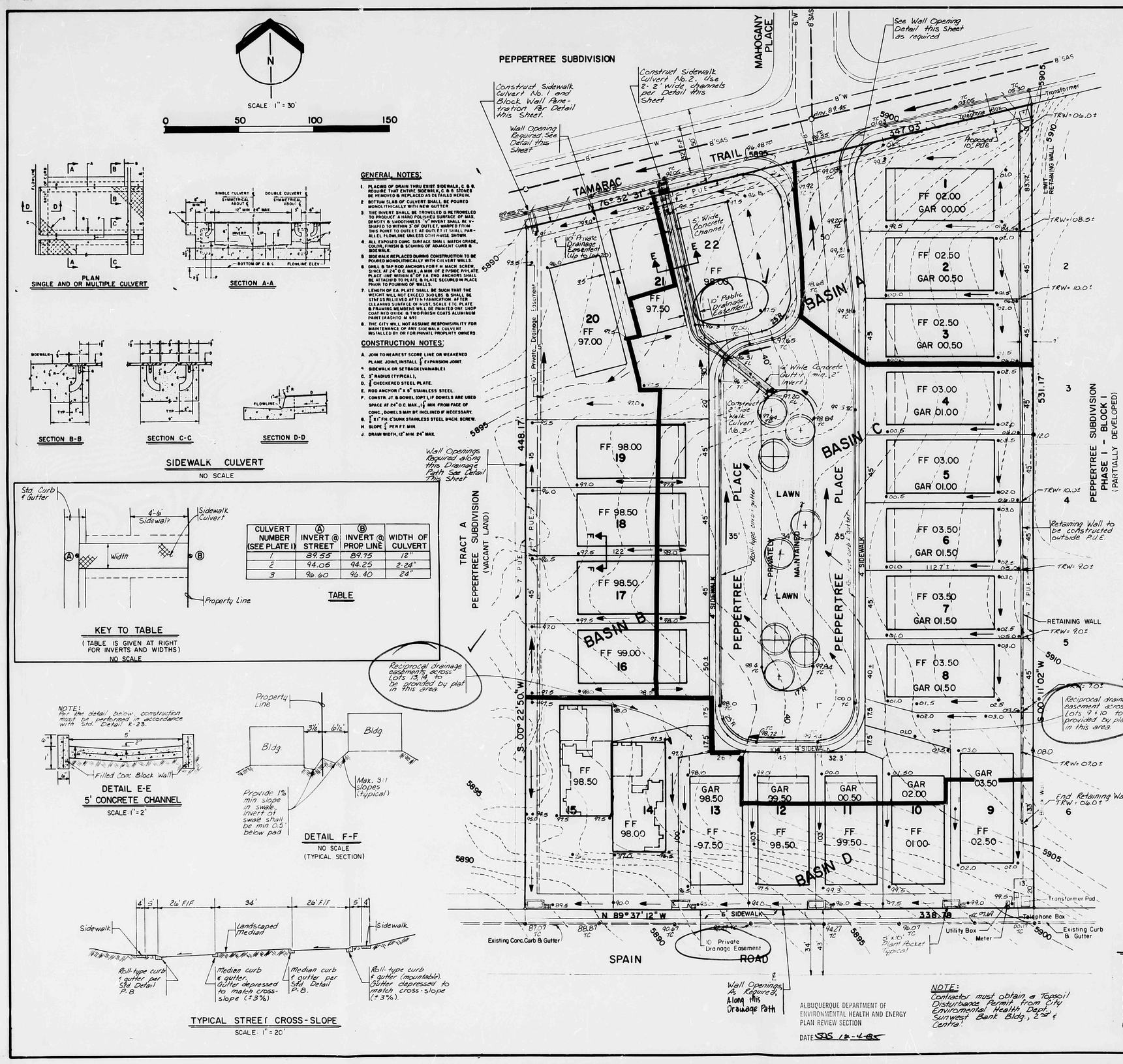
Seal

PLATE I

Job No. 51552		Sheet 1	Of 2
Drawn By: TG		Date: 6/85	
Checked By: JT		Scale: 1" = 30'	

11/21/85

11-22-85



PLAN
SINGLE AND OR MULTIPLE CULVERT

SECTION A-A

GENERAL NOTES:

1. PLACING OF DRAIN THRU EXIST. SIDEWALK, C & G. REQUIRE THAT ENTIRE SIDEWALK, C & G. STONES BE REMOVED & REPLACED AS DETAILED HEREIN.
2. BOTTOM SLAB OF CULVERT SHALL BE POURED MONOLITHICALLY WITH NEW GUTTER
3. THE INVERT SHALL BE TROWELED & RETROWELED TO PRODUCE A HARD POLISHED SURFACE OF MAX. DENSITY & SMOOTHNESS. "V" INVERT SHALL BE V-SHAPED TO WITHIN 5" OF OUTLET, WARPED FROM THIS POINT TO OUTLET. AT OUTLET IT SHALL PARALLEL FLOWLINE UNLESS OTHERWISE SHOWN
4. ALL EXPOSED CONC. SURFACE SHALL MATCH GRADE, COLOR, FINISH & SCORING OF ADJACENT CURB & SIDEWALK.
5. SIDEWALK REPLACED DURING CONSTRUCTION TO BE POURED MONOLITHICALLY WITH CULVERT WALLS.
6. DRILL & TAP ROD ANCHORS FOR F.H. MACH. SCREW, SPACE AT 24" O.C. MAX., A MIN. OF 2 PER SIDE PER PLATE. PLACE ONE WITHIN 6" OF EA. END. ANCHORS SHALL BE ATTACHED TO PLATE & PLATE SECURED IN PLACE PRIOR TO POURING OF WALLS.
7. LENGTH OF EA. PLATE SHALL BE SUCH THAT THE WEIGHT WILL NOT EXCEED 300 LBS. & SHALL BE STRESS RELIEVED AFTER FABRICATION. AFTER CLEANING SURFACE OF RUST, SCALE ETC. PLATE & FRAMING MEMBERS WILL BE PAINTED ONE SHOP COAT RED OXIDE & TWO FINISH COATS ALUMINUM PAINT (AASHTO M 69)
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CONSTRUCTION NOTES:

A. JOIN TO NEAREST SCORE LINE OR WEAKENED PLANE JOINT, INSTALL ½" EXPANSION JOINT.
B. SIDEWALK OR SETBACK (VARIABLE)
C. 3" RADIUS (TYPICAL),
D. ⅜" CHECKERED STEEL PLATE.
E. ROD ANCHOR (1" X 8") STAINLESS STEEL.
F. CONSTR. JT. & DOWEL (OPT.) IF DOWELS ARE USED SPACE AT 24" O.C. MAX., ½" MIN. FROM FACE OF CONC., DOWELS MAY BE INCLINED IF NECESSARY.
G. ¼" X 1" F.H. C'SUNK STAINLESS STEEL MACH. SCREW.
H. SLOPE ¼" PER FT. MIN.
J. DRAIN WIDTH, 12" MIN. 24" MAX.

SECTION B-B SECTION C-C SECTION D-D

SIDEWALK CULVERT
NO SCALE

CULVERT NUMBER (SEE PLATE I)	Ⓐ INVERT @ STREET	Ⓑ INVERT @ PROP LINE	WIDTH OF CULVERT
1	89.55	89.75	12"
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3	96.60	96.40	24"

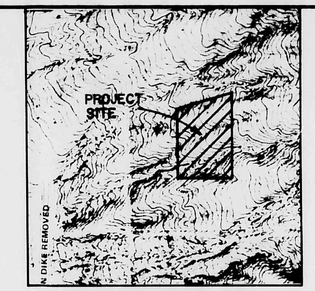
TABLE

KEY TO TABLE
(TABLE IS GIVEN AT RIGHT FOR INVERTS AND WIDTHS)
NO SCALE

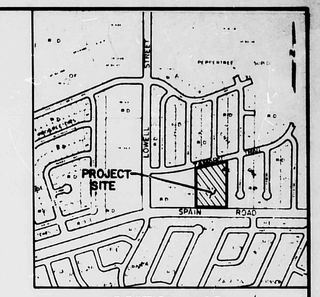
DETAIL E-E
5' CONCRETE CHANNEL
SCALE: 1" = 2'

DETAIL F-F
NO SCALE
(TYPICAL SECTION)

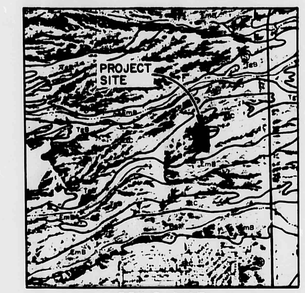
TYPICAL STREET CROSS-SLOPE
SCALE: 1" = 20'



FLOOD INSURANCE MAP
REFERENCE: FLOOD INSURANCE STUDY



LOCATION MAP
ZONE ATLAS MAP NO. E-22Z & F-22-Z



SOILS MAP
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY

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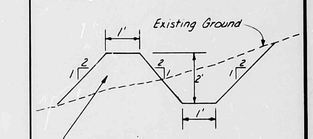

EROSION CONTROL PLAN

LEGEND

- PROJECT BOUNDARY
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING CURB & GUTTER
- PROPOSED RETAINING WALL
- FF 04.67 FINISH FLOOR ELEVATION
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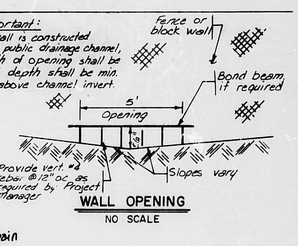
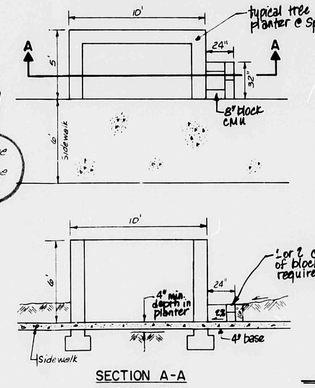
- EXISTING WATER LINE
- EXISTING SANITARY SEWER MANHOLE
- 01.67 PROPOSED SPOT ELEVATION
- 96.75 EXISTING SPOT ELEVATION
- BASIN BOUNDARY
- DIRECTION OF FLOW
- TW TOP OF BLOCK WALL
- BW BOTTOM OF WALL
- TRW TOP OF RETAINING WALL
- BW BLOCK WALL PENETRATION

Important: If wall is constructed over public drainage channel, width of opening shall be 6' & depth shall be min. 8" above channel invert.



WALL OPENING
NO SCALE



SECTION A-A
BLOCK WALL PENETRATION
SCALE: 1" = 5'

NOTE

1. Grading tolerances & compaction requirements shall be accomplished per Soils Report for this site
2. Walls less than 18" in height may be constructed with 8" filled concrete block.
3. Except for P.U.E. Easements, all shown easements are proposed.
4. Wall openings must be constructed where required for runoff conveyance in accordance with this plan

B22-D37

SITE DESCRIPTION

TRACT B, PEPPERTREE SUBDIVISION

APPROVED FOR ROUGH GRADING (±1')
HYDROLOGY ENGINEER — DATE 12-4-85

BENCHMARK

BOHANNAN-HUSTON BRASS CAP LOCATED AT THE NORTH, NORTH-WEST PROPERTY RETURN OF THE INTERSECTION OF SPAIN ROAD AND LOWELL STREET. THE BRASS CAP IS STAMPED AS FOLLOWS: RET, TRT 4A, 1980, ELEVATION = 5867.69'.

REVISED 11/13/85

Wall Openings, As Required, Along this Drainage Path

ALBUQUERQUE DEPARTMENT OF ENVIRONMENTAL HEALTH AND ENERGY PLAN REVIEW SECTION
DATE SDS 12-4-85

NOTE: Contractor must obtain a Topsoil Disturbance Permit from City Environmental Health Dept. Sunwest Bank Bldg., 2nd & Central.

Date	Revision	By

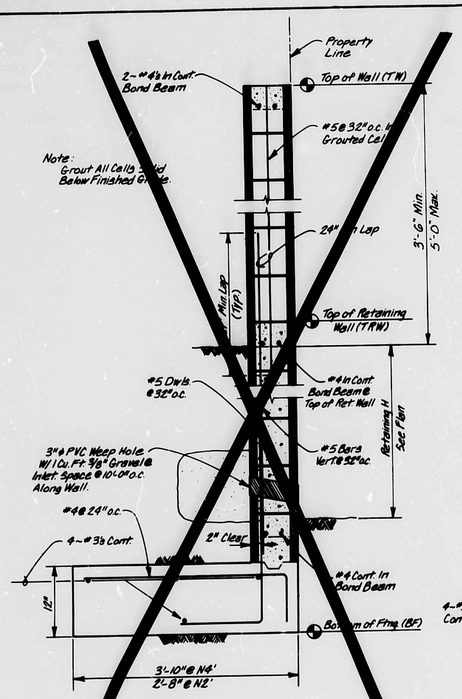
Project No.
Seal: James R. Jennello 11/21/85

PEPPERTREE PLACE

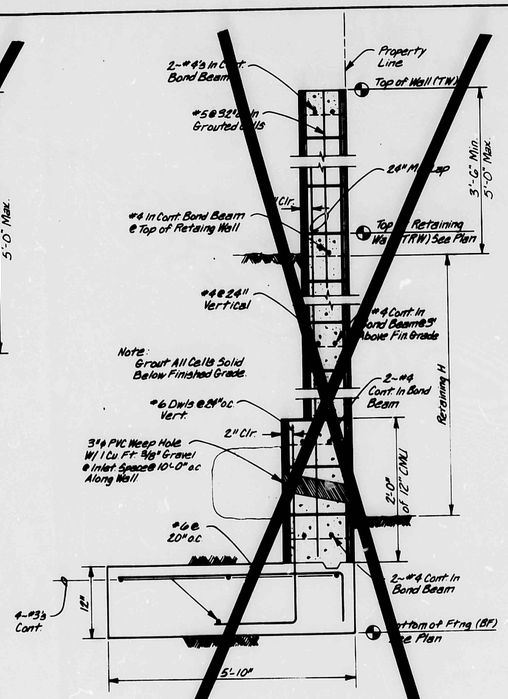
DRAINAGE / GRADING PLAN

PLATE I

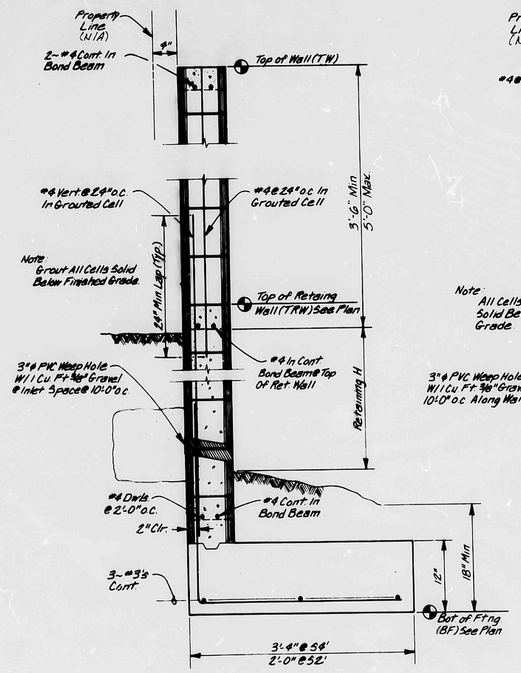
Job No. 51552	Sheet 1 Of 2		
Drawn By: TG	Date: 6/85		
Checked By: JT	Scale: 1" = 30'		



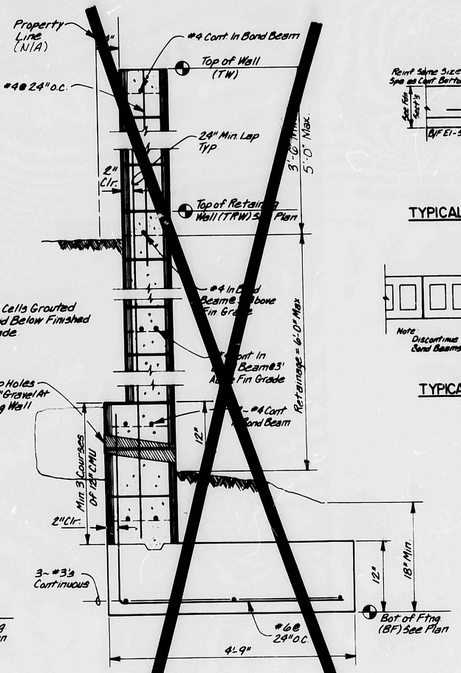
RETAINING WALL
N4'-FOR 4' RETAINING



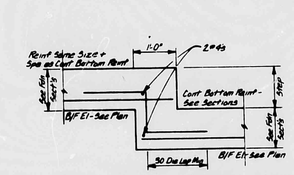
RETAINING WALL
N6'-FOR 6' RETAINING



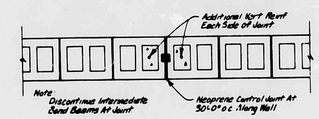
RETAINING WALLS
S4'-FOR 4' RETAINING



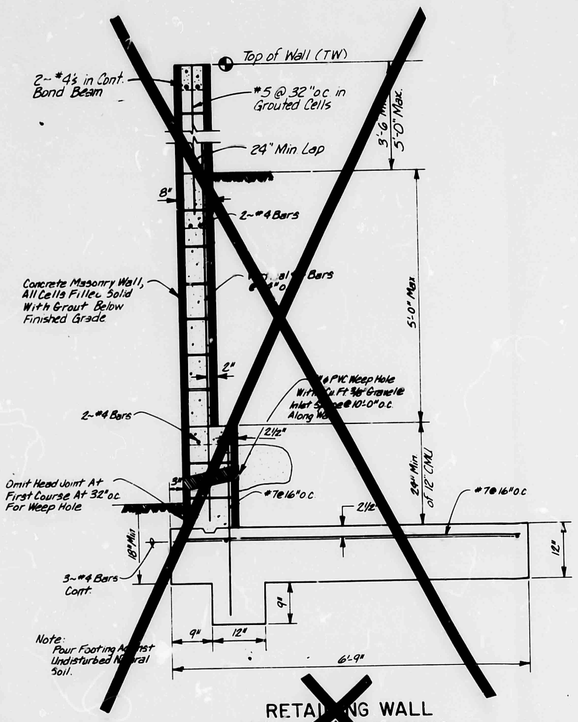
RETAINING WALL
S6'-FOR 6' RETAINING



TYPICAL STEPPED FOOTING DETAIL

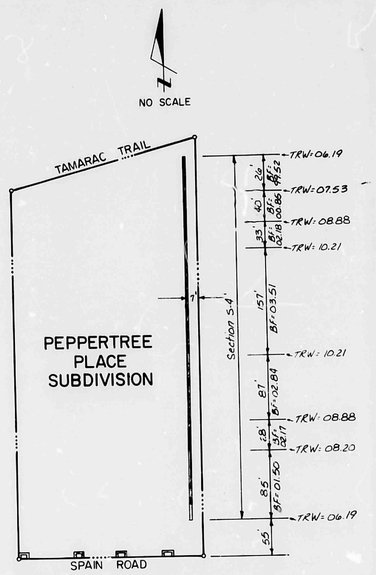


TYPICAL MASONRY CONTROL JOINT



RETAINING WALL
N8'-FOR 8' RETAINING

NOT PART OF THIS CONTRACT



GRADING NOTES

1. Prior to footing or fill placement, the entire building pad should be scarified and moistened to optimum moisture content (± 2%) for a minimum depth of 8 inches. The soils should then be compacted, with a minimum of 20 passes using vibratory compaction equipment, to a minimum of 95% of maximum density as determined by ASTM D-1557.

2. Interior floor slabs should be placed on compacted natural soils or structurally controlled fill. Natural soils should be compacted to a minimum of 95% of maximum density as determined by ASTM D-1557 with a minimum of 20 passes of a heavy vibratory roller.

3. Backfill and any soil disturbed around the foundation walls should be moistened and compacted to 90% of maximum density prior to placing exterior slabs or sidewalks.

4. Foundation soils should be prevented from being wetted after construction. Backfill around the foundation should be free of trash and construction debris, and should be moistened and compacted to a minimum of 90% of maximum density as determined by ASTM D-1557. Only enough water should be added to the backfill material to allow proper compaction. Do not puddle or jet backfill.

5. The final grade should have a good slope away from the foundation walls on all sides. A minimum of 1 foot of fall in the first 10 feet from all foundation walls is recommended.

6. Additional earthwork specifications are noted in the Soils Report. This report must be obtained from Fox and Associates, Consulting Engineers and Geologists, reference Peppertree Subdivision, October 24, 1983, Job #0112300.

GENERAL NOTES

1. **Retaining wall shall not be backfilled until at least 7 days after placing of final grout level.**

2. **Vertical control joints with PVC inserts shall be placed at intervals not to exceed 30'-0" on center.**

3. **Minimum lap splice on reinforcing bars shall be 30 bar diameters or 1'-6" minimum.**

4. **Construction of retaining walls shall conform to requirements of the Uniform Building Code Section 24, lowlift grouting method.**

5. **DESIGN DATA**
   Block Weight 12" = 130 psf.
   Block Weight 8" = 85 psf.
   Soil Weight = 130 pcf.
   Equiv. Fluid Press. = 43 pcf.
   Soil Bearing Press. = 1500 psf.
   (1/3 Increase for Wind/Seismic)
   Coefficient of Friction = 0.4
   Passive Soil Pressure = 390 pcf.
   Concrete f'c (28 Days) = 3000 psi.
   Grout Strength = 2000 psi.
   CMU Grade N = 1500 psi (Grouted)
   Reinforcement = 60 ksi ASTM A-615
   All Block 8" CMU unless otherwise noted

6. Architect/Planner will be responsible for determining height of non-retaining wall above CMU.

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTED BY — DATE
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
James L. Jopmillr 11/25/85

NO.	DATE	REMARKS	BY
		REVISIONS	

DESIGN
DESIGNED BY GAW DATE 1/85
DRAWN BY RL DATE 1/85
CHECKED BY GAW DATE 1/85

TITLE: PEPPERTREE PLACE
RETAINING WALL DETAILS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
			Water		

DRAWING NO | MAP NO | SHEET 2 OF 2

BRUNING 44 132 62236