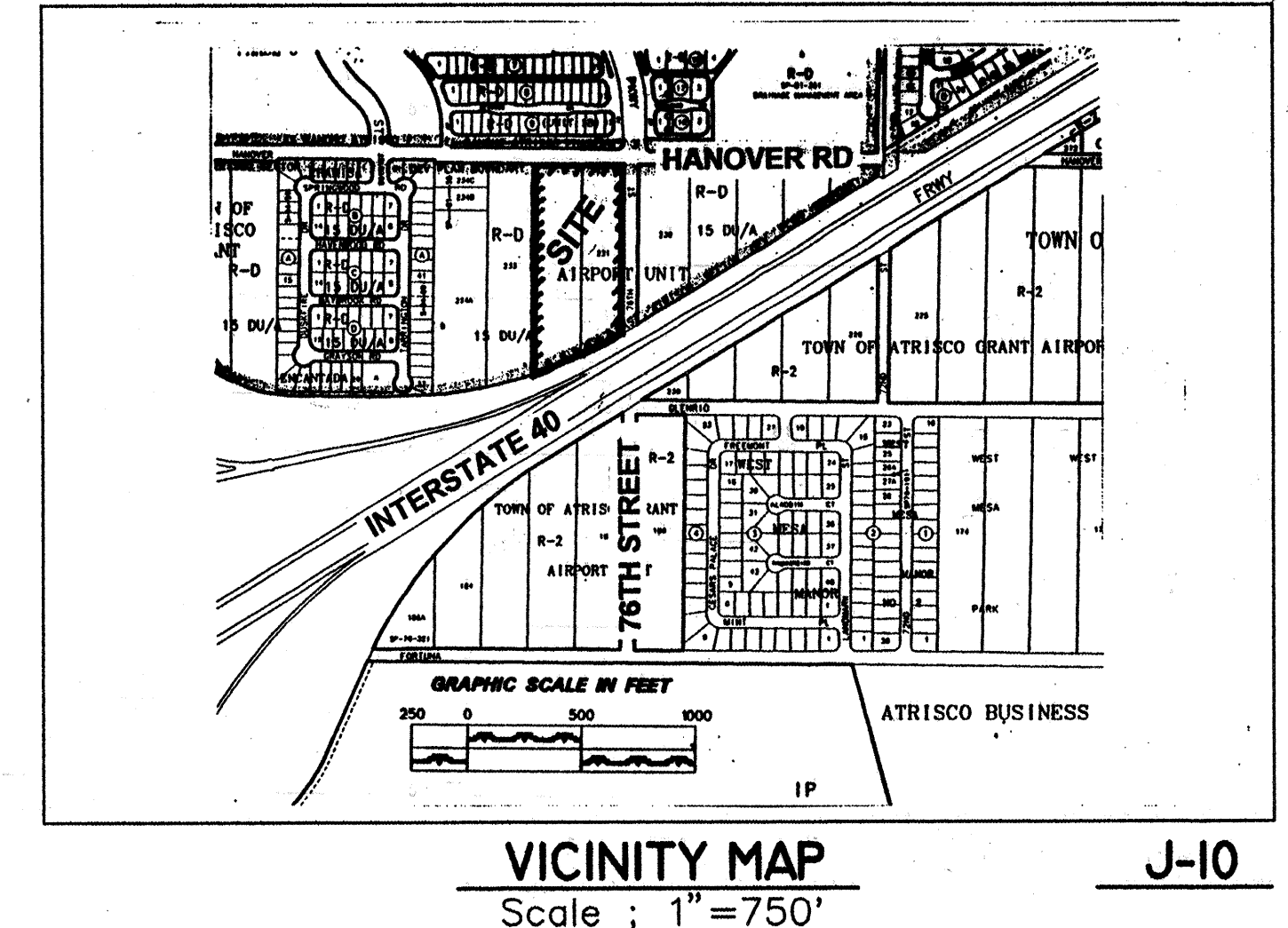


SCANNED BY
MESA REPRO

PUBLIC IMPROVEMENT PLANS FOR THE TANGLEWOOD SUBDIVISION TOWN OF ATRISCO GRANT, AIRPORT UNIT SEPTEMBER, 1997



PREPARED FOR:

ARGUS DEVELOPMENT COMPANY
6400 UPTOWN BLVD., NE SUITE 200-W
ALBUQUERQUE, NEW MEXICO 87110

PREPARED BY:

PROTEC CONSULTING
P.O. BOX 27007
ALBUQUERQUE, NEW MEXICO 87125

INDEX TO DRAWINGS

SHEET NO.	TITLE
1	TITLE SHEET
2	SUBDIVISION PLAT
3	GRADING AND DRAINAGE PLAN
<u>PAVING DRAWINGS</u>	
4	MASTER PAVING PLAN
5	TANGLEWOOD ROAD, NW
6	TANBARK COURT & BRENDAN COURT, NW
<u>UTILITY DRAWINGS</u>	
7	MASTER UTILITY PLAN
8	TANGLEWOOD ROAD, NW
9	TANGLEWOOD ROAD, NW
10	TANBARK COURT & BRENDAN COURT, NW

GENERAL NOTES

- 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 AMENDED WITH UPDATE NO. 6.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VARIIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM DELAY.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, INC. @ 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER WHICH WILL MINIMIZE INTERFERENCE WITH LOCAL TRAFFIC. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY, AND TO PROTECT THEM FROM DAMAGE, INJURY, OR LOSS. CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS, THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADHERE TO SECTION 19 OF THE GENERAL CONDITIONS OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986, AS AMENDED WITH UPDATE NO. 6.
- THE CONTRACTOR AGREES THAT HE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER & ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- TRAFFIC CONTROL: FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAIL CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY THE BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION. SEE SECTION 19 OF THE SPECIFICATIONS. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS BY CONTRACTOR TO THE SAME LOCATION AS EXISTING OR AS SHOWN IN THIS PLAN SET AT NO ADDITIONAL COST TO THE OWNER.
- WHEN ABUTTING EXISTING PAVEMENT TO NEW, SAWCUT EXISTING PAVEMENT TO A STRAIGHT EDGE AND AT A RIGHT ANGLE, OR AS APPROVED BY THE FIELD ENGINEER. REMOVAL OF BROKEN OR CRACKED PAVEMENT WILL ALSO BE REQUIRED.
- EXISTING CURB AND GUTTER, S/W, PAVEMENT, W.C.PAMPS, ETC. NOT TO BE REMOVED UNDER THE CONTRACT WHICH ARE DAMAGED OR REPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS EXPENSE, AND PER CITY STANDARDS.
- ALL FINAL BACKFILL FOR TRENCHES SHALL BE COMPACTED TO A MINIMUM 90% MAXIMUM DENSITY PER ASTM D-1557 AND AS DIRECTED BY SECTION 701.14.2 AND STANDARD DRAWING NUMBER 2315.
- ALL EXISTING SIGNS, MARKERS, DELINEATORS, ETC. WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED, STORED AND RE-SET BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT OF WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET OR INTO ANY PUBLIC DRAINAGE FACILITY.
- PROPOSED WATERLINE MATERIALS SHALL BE EITHER PVC PIPE MEETING AWWA C900 REQUIREMENTS (6"-12") OR DUCTILE IRON PIPE, THICKNESS CLASS 50 (6"-16").
- ALL SANITARY SEWER LINE STATIONING REFERS TO SANITARY SEWER CENTERLINE STATIONING.
- ALL FITTINGS ON WATERLINES SHALL HAVE RESTRAINED JOINTS AS NOTED ON THE PLANS.
- CONTRACTOR SHALL SUPPORT ALL EXISTING, UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION, PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATERLINE AND/OR SEWERLINE COSTS.
- CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF RECORD DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND MAINTAINING ALL EXISTING MONUMENTATION CONTROLS. IN THE EVENT OF INADVERTENT DESTRUCTION OR ALTERATION, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE CITY CHIEF SURVEYOR.
- PNM WILL PROVIDE AT NO COST TO THE CITY OR THE CONTRACTOR THE REQUIRED PERSONNEL FOR INSPECTION OR OBSERVATION DEEMED NECESSARY BY PNM WHILE THE CONTRACTOR IS EXPOSING PNM'S CABLES. HOWEVER, THE CONTRACTOR SHALL BE CHARGED THE TOTAL COST ASSOCIATED WITH REPAIRS TO ANY DAMAGED CABLES OR FOR ANY COST ASSOCIATED WITH SUPPORTING OR RELOCATING THE POLES AND CABLES DURING CONSTRUCTION.
- WARNING: EXISTING UTILITY LINE LOCATIONS ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. THE LOCATION OF ANY SUCH EXISTING LINES IS BASED UPON INFORMATION PROVIDED BY THE UTILITY COMPANY, THE OWNER, OR BY OTHERS, AND THE INFORMATION MAY BE INCOMPLETE OR MAY OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.
- THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY, AND PRESERVE ANY AND ALL EXISTING UTILITIES. THE CONTRACTOR SHALL COMPLY WITH STATE, STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES, IN PLANNING AND CONDUCTING EXCAVATION, WHETHER BY CALLING OR NOTIFYING THE UTILITIES, COMPLYING WITH "NEW MEXICO ONE CALL SYSTEM" PROCEDURES, OR OTHERWISE.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER 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 COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
- ANY WORK OCCURRING WITHIN AN ARTERIAL ROADWAY REQUIRES 24 HOURS CONSTRUCTION.

RECORD DRAWING

These Record Drawings are intended to show significant changes made during construction of this Project. These Record Drawings are based on information provided by other parties which are assumed to be reliable. PROTEC Consulting shall not be responsible for the accuracy of information provided by other parties.

R.W. Macy
PROTEC Consulting

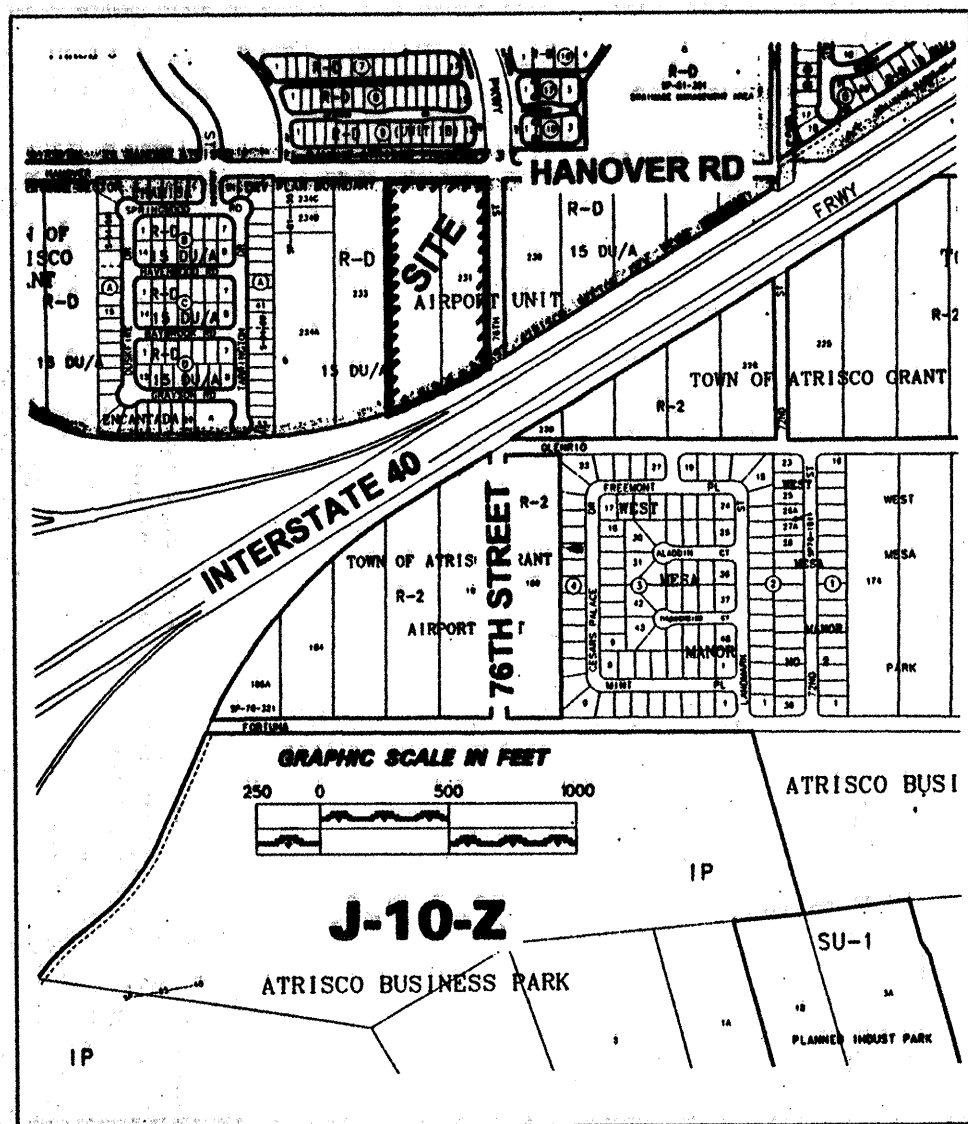
3/4/98
Date

AS-BUILT

APPROVAL OF AS-BUILT DRAWINGS
CHIEF CONSTRUCTION ENGINEER
[Signature]
DATE 6-5-98

DRB CASE NO. 96-544

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER		DATE	
		DRC Chairman		<i>Billie J. Bentley</i>		9-26-97	
		Transportation		<i>[Signature]</i>		9-25-97	
		Water/Wastewater		<i>R.W. Macy</i>		9-16-97	
		Hydrology		<i>[Signature]</i>		9-23-97	
		CIP		<i>[Signature]</i>		9-14-97	
Constr. Mngmt.		<i>[Signature]</i>		<i>[Signature]</i>		10/2/97	
City Project No.				Sheet			
576081				1 of 10			



VICINITY MAP

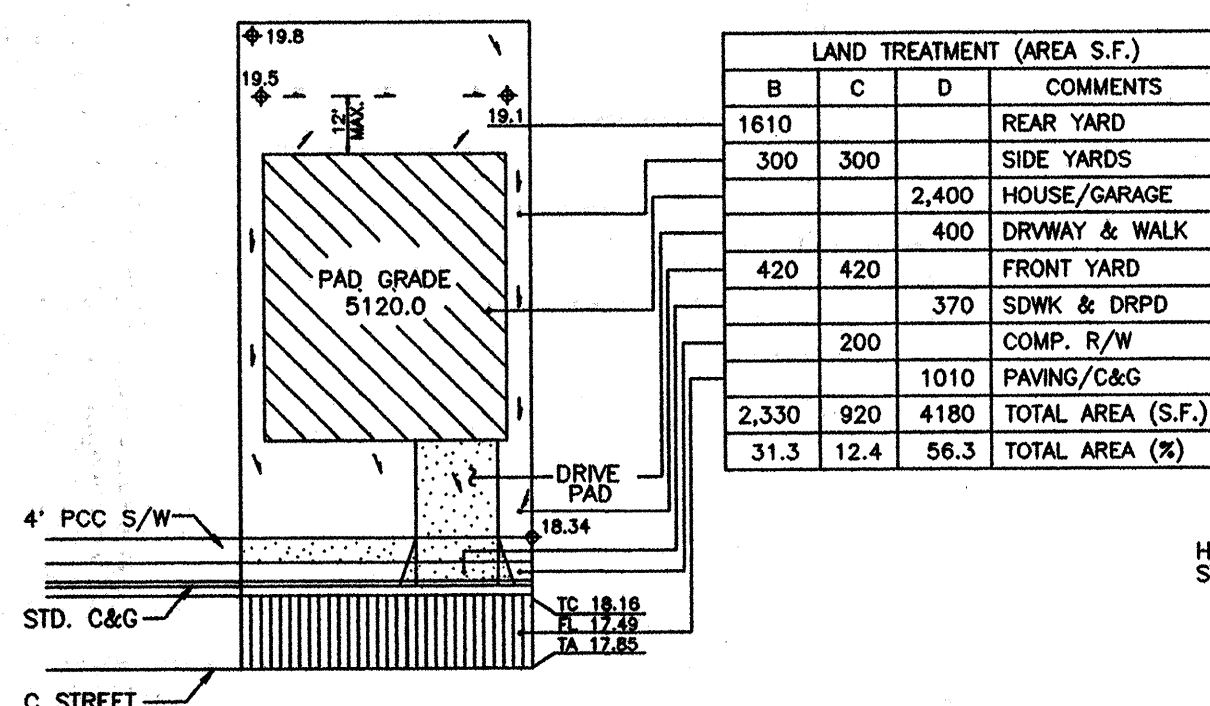
Approximate Scale: 1"=750'

LEGEND

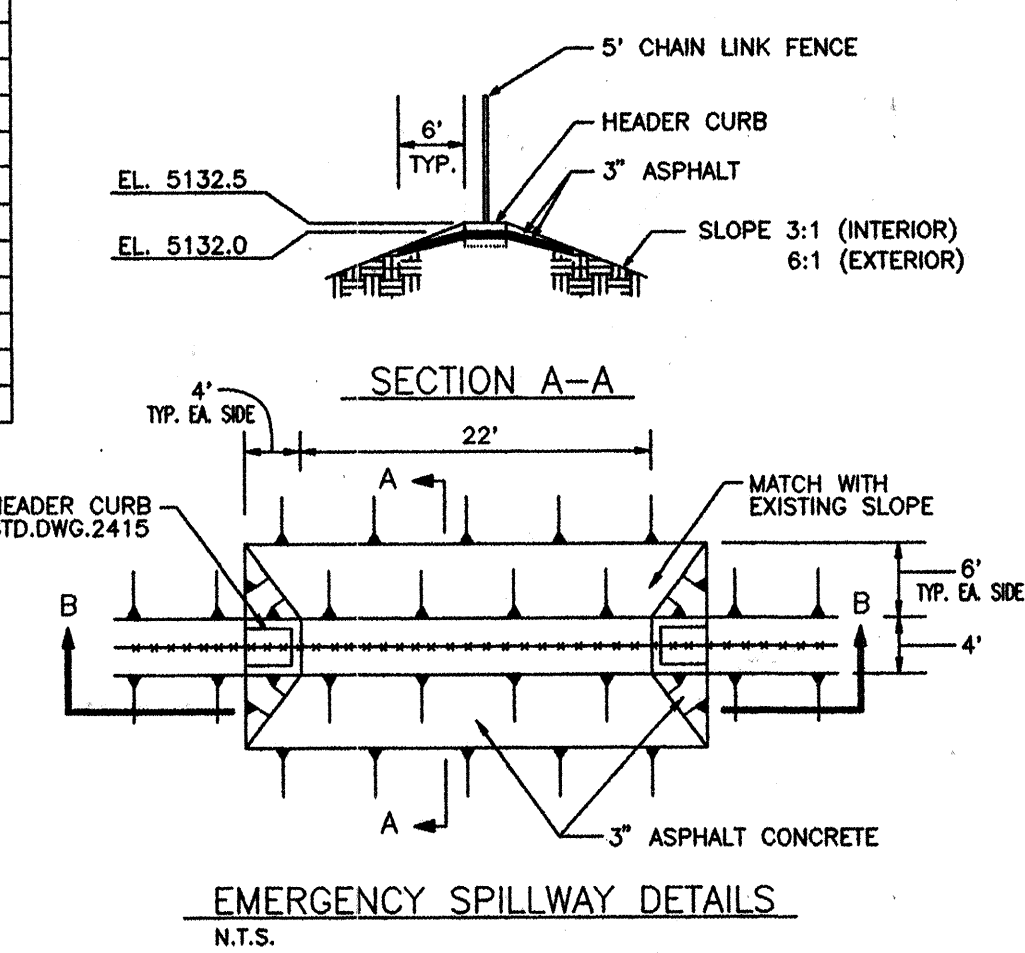
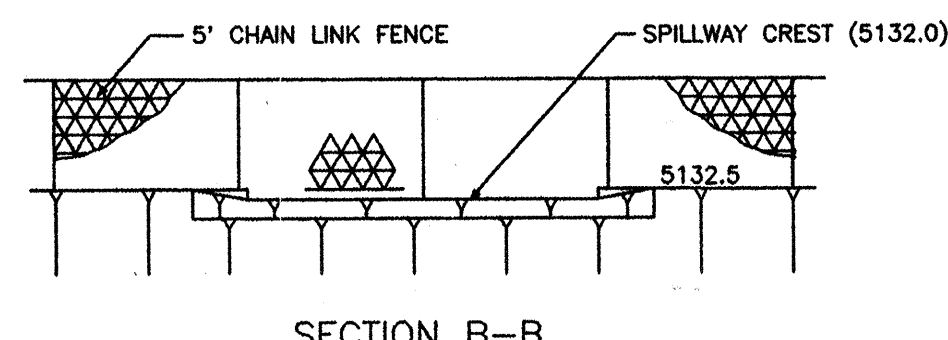
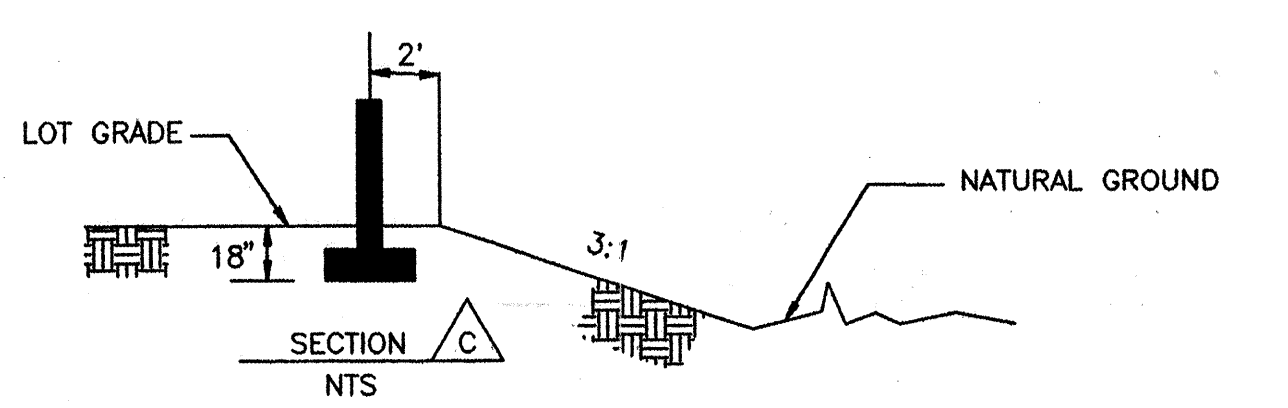
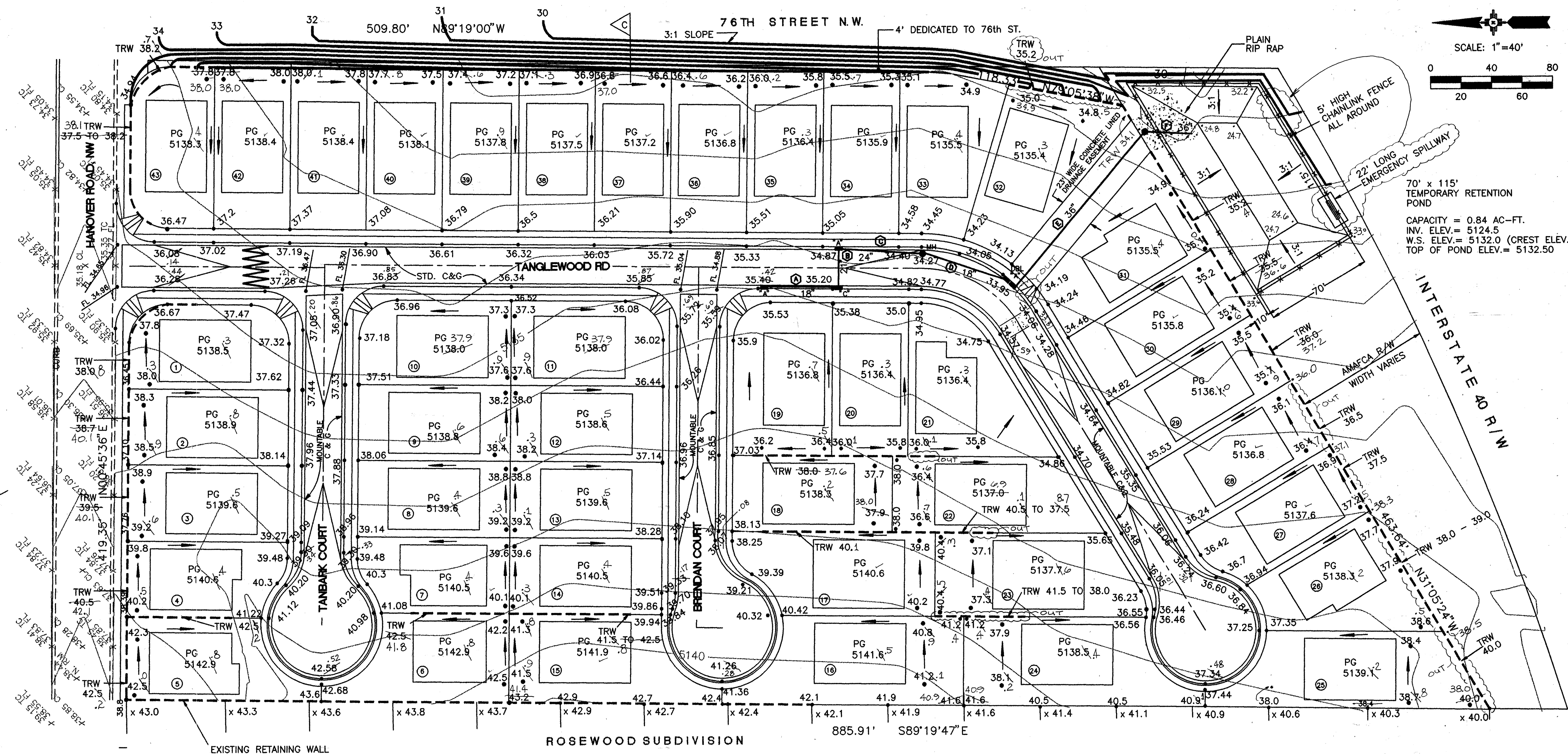
EXISTING CONTOURS	
PROPOSED SPOT ELEVATIONS	• 45.7
TOP OF RETAINING WALL ELEVATION	TRW 46.5
EXISTING SPOT ELEVATIONS	x 50.1
FLOW LINE ELEVATIONS	FL
PAD GRADE	PG
FLOW DIRECTION	→
RETAINING WALL	---
EXISTING RETAINING WALL	---
CHAIN LINE FENCE	x-x-x
LOT NO.	③
WATER BLOCK	WWW
DOUBLE INLET	---
SINGLE INLET	---
STORM DRAIN MH	⊙
STORM PIPE WITH SIZE AND LABEL	⊙ 21"

NOTES

- THERE IS A WATER BLOCK ON TANGLEWOOD RD. APPROXIMATELY 90' SOUTH OF HANOVER ROAD TO PREVENT STREET FLOW IN HANOVER ROAD FROM ENTERING TANGLEWOOD RD.
- LOCATE HOUSE PADS ON LOTS 6, 15 & 16, NOT LESS THAN 12' FROM THE WEST LOT LINE.
- SPOT ELEVATIONS ALONG THE CURB LINE ARE TOP OF CURB. FLOW LINE ELEVATIONS ARE 0.33' BELOW TOP OF CURB FOR MOUNTABLE CURB AND 0.67' BELOW TOP OF CURB FOR STANDARD CURB.



LAND TREATMENTS and TYPICAL LOT GRADING PLAN
N.T.S.



LEGAL DESCRIPTION

A CERTAIN TRACT OF LAND, BEING AND COMPRISING A PORTION OF TRACT 231, AIRPORT UNIT, TOWN OF ATRISCO GRANT, TOGETHER WITH A PORTION OF TRACT 232, AIRPORT UNIT, TOWN OF ATRISCO GRANT, AS SHOWN AND DESIGNATED ON THE PLAT THEREOF, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON DECEMBER 5, 1944 IN A MAP BOOK D, FOLIO 117, LESS AND EXCEPTING THAT PORTION OF SAID TRACTS TAKEN FOR THE RIGHT-OF-WAY OF I-40 AS THE SAME IS SHOWN ON THE NEW MEXICO STATE HIGHWAY COMMISSION RIGHT-OF-WAY MAP I-40-03(28) AND AS SET FORTH IN THAT CERTAIN DECREE ENTERED IN DISTRICT COURT CAUSE NO A-38229 AND RECORDED MARCH 26, 1973 IN BOOK MISC., PAGE 346, RECORDS OF BERNALILLO COUNTY, NEW MEXICO AND LESS AND EXCEPTING THAT PORTION CONVEYED TO THE ALBUQUERQUE METROPOLITAN FLOOD CONTROL AUTHORITY BY THAT CERTAIN DOCUMENT RECORDED IN THE BOOK BCR96-28, PAGE 6129 AS DOCUMENT NUMBER 96-116539, RECORDS OF BERNALILLO COUNTY, NEW MEXICO.

ENGINEER

PROTEC CONSULTING
P.O. BOX 27007
ALBUQUERQUE, NEW MEXICO 87125
(505) 833-0177

SURVEYOR

SOUTHWEST SURVEYING CO., INC.
333 LOMAS BOULEVARD, N.E.
ALBUQUERQUE, NEW MEXICO 87102
(505) 247-4444

BENCHMARK

8-J10 AN N.M.S.H.C. BRASS CAP STAMPED "HWY.R.W. STA. 1206+46.93, 8-J10" SET IN CONCRETE POST FLUSH WITH THE GROUND. ELEVATION 5130.013.

TBM

SOUTH SIDE OF POWER POLE AT THE SOUTHEAST CORNER OF HANOVER ROAD AND 76TH STREET, NW. ELEVATION 5135.31

ZONING

R-D (15 DU/AC MAX.)

PROPOSED

43 SINGLE FAMILY RESIDENTIAL LOTS.

AREA

7.2749 ACRES MORE OR LESS (316,894.64 SQUARE FEET, MORE OR LESS)

ENGINEER'S CERTIFICATION

I, the undersigned, being a Professional Engineer registered in the state of New Mexico, do hereby certify that this drawing was prepared by me, and that the as-built information shown hereon is based on actual field measurements performed by Aldrich Land Surveying and the City of Albuquerque Survey Division. I further certify that the as-built condition of the site meets City of Albuquerque requirements for rough grading tolerances and is in substantial conformance with the Grading and Drainage Plan prepared by PROTEC Consulting and approved by the City of Albuquerque Public Works Department, Hydrology Division on August 26, 1997.

Raymond W. Mac, PE (NMPE #6414)

3/4/98
Date

FLOOD HAZARD

THE PROPOSED SITE (TRACT 231 AND 232, AIRPORT UNIT, TOWN OF ATRISCO GRANT) IS LOCATED WITHIN THE FLOOD HAZARD ZONE C (AREA OF MINIMAL FLOODING) AS DESIGNATED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S (FEMA'S) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY-PANEL NO. 350002 0027C (OCTOBER 14, 1983)

LOCATION AND DESCRIPTION

THE PROPOSED 7.2749 ACRE SITE IS UNDEVELOPED AND MOSTLY UNDISTURBED AT THE WRITING OF THIS DRAINAGE REPORT. EXISTING GROUND COVER ACROSS THE SITE IS COMPRISED OF SAGE BRUSH AND VARIOUS NATIVE GRASSES. THE PROPOSED SITE IS BOUNDED ON THE NORTH BY HANOVER ROAD, NW, ON THE SOUTH BY INTERSTATE 40, ON THE WEST BY THE ROSEWOOD SUBDIVISION, AND ON THE EAST BY 76TH STREET RIGHT-OF-WAY, WHICH IS PRESENTLY UNDEVELOPED.

EXISTING CONDITIONS

HANOVER ROAD, NW INTERCEPTS OFFSITE FLOWS ORIGINATING FROM NORTH OF THE PROPOSED TANGLEWOOD SUBDIVISION AND DIVERTS THEM EASTWARD TO THE LAURELWOOD PARK DRAINAGE MANAGEMENT AREA AT THE NORTHWEST CORNER OF HANOVER ROAD, NW AND 72ND STREET, NW. THE ROSEWOOD SUBDIVISION IS IMMEDIATELY WEST OF THE PROPOSED SITE AND UPON ITS COMPLETION WILL INTERCEPT ALL OVERLAND RUNOFF THAT PREVIOUSLY DRAINED ONTO THE PROPOSED TANGLEWOOD SUBDIVISION. PRESENTLY, RUNOFF ORIGINATING ON THE PROPOSED TANGLEWOOD SUBDIVISION DRAINS EASTWARD PRIMARILY AS SHEET FLOW WITH A GRADIENT OF APPROXIMATELY 2%. THE RUNOFF ENTERS THE SOUTH EDGE OF THE I-40 RIGHT-OF-WAY AND DRAINS TO A 24-INCH DIAMETER CMP UNDER I-40 AT THE SOUTH END OF TRACT 227. APPROXIMATELY 1500' FARTHER EAST, A DOUBLE 5' X 3' CONCRETE BOX CULVERT UNDER THE INTERSTATE COLLECTS ANY RUNOFF THAT ESCAPES THE 24-INCH CULVERT.

PROPOSED IMPROVEMENTS

EXCEPT FOR A SMALL AREA AT THE ENTRANCE TO THE SITE AT HANOVER ROAD, THE DEVELOPED RUNOFF WILL BE COLLECTED FROM EACH LOT AND DRAINED TO THE INTERIOR STREETS. THE INTERIOR RUNOFF WILL DRAIN VIA THE PROPOSED STREETS TO A LOW POINT IN TANGLEWOOD ROAD NEAR WHERE IT CURVES TO THE SOUTHWEST. FROM HERE THE RUNOFF WILL BE COLLECTED IN A STORM DRAIN PIPE SYSTEM WITH A CAPACITY TO CARRY RUNOFF FROM TWO TIMES THE 100 YEAR AMOUNT AND BE DIRECTED INTO A TEMPORARY RETENTION BASIN AT THE SOUTH END OF THE SUBDIVISION WITHIN THE ADJACENT AMAFCA RIGHT-OF-WAY. THE TEMPORARY RETENTION POND WILL BE EQUIPPED WITH A 22' LONG EMERGENCY SPILLWAY CAPABLE OF DISCHARGING A FLOW RATE EQUAL TO THE 100-YEAR, 6-HOUR RUNOFF FROM THE TANGLEWOOD SUBDIVISION INTO THE I-40 RIGHT-OF-WAY. WHEN THE WEST BLUFF OUTFALL CHANNEL IS CONSTRUCTED, THE TEMPORARY RETENTION POND WILL BE REMOVED. THE 36-INCH STORM PIPE WILL BE EXTENDED AND CONNECTED TO THE NORTH SIDE OF THE CHANNEL, AND SO WILL THE 24" WIDE CONCRETE LINED SURFACE DRAINAGE EASEMENT THAT ALSO SERVES AS A PEDESTRIAN ACCESS TO THE FUTURE TRAIL SYSTEM PLANNED AT THE NORTH EDGE OF THE CHANNEL.

EROSION CONTROL MEASURES: THE CONTRACTOR SHALL PREVENT SOIL EROSION FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. CONSTRUCTION OF TEMPORARY BERMS OR EROSION FENCING AT PROPERTY LINES AND WETTING THE SOIL MAY BE REQUIRED TO PREVENT SOIL EROSION DUE TO WIND OR WATER RUNOFF.

THE CONTRACTOR SHALL PROMPTLY REMOVE ANY MATERIAL EXCAVATED WITHIN PUBLIC RIGHT-OF-WAY TO PREVENT IT FROM BEING WASHED DOWN THE STREET.

THE CONTRACTOR SHALL OBTAIN A TOPSOIL DISTURBANCE PERMIT PRIOR TO STARTING CONSTRUCTION.

Bruno Matija
APPROVED FOR ROUGH GRADING
DATE 8/27/97

John Kelly
AMAFCA APPROVAL
DATE 9/3/97

AS-BUILT

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: TANGLEWOOD SUBDIVISION
GRADING AND DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 576081	Zone Map No. J-10	Sheet 3	of 10



DESIGN		
DESIGNED BY	DATE	
DRAWN BY	DATE	
CHECKED BY	DATE	
REVISIONS		
NO.	DATE	REMARKS
		1

AS BUILT INFORMATION	BENCH MARKS	SURVEY INFORMATION	ENGINEER'S SEAL
CONTRACTOR 8-J10 AN N.M.S.H.C. BRASS CAP STAMPED "HWY.R.W. STA. 1206+46.93, 8-J10" SET IN CONCRETE POST FLUSH WITH THE GROUND ELEVATION 5130.013.	DATE	NO.	

0 20 40 60 80

SCALE: 1" = 40'

CONCRETE CURB AND GUTTER AS SHOWN ON THE PLANS

12"

6"

6"

12"

1-1/2" ASPH. SURFACE CRSE W/ 1500LB STABILITY TYPE B GRADATION

TACK COAT (IF REQUIRED)

1-1/2" ASPH. BASE COURSE W/ 1500LB STABILITY TYPE B GRADATION

CONSTRUCTION JOINT AT 1:1 SLOPE

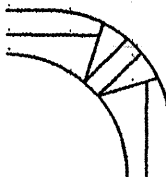
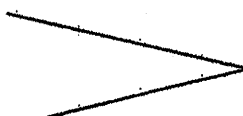
2-6" COMPACTED LIFTS OF SUBBASE SOIL UNDER ALL CURBS AND PAVEMENT, W/ R-VALUE >50, COMPACTED TO 95% MIN.

SUBGRADE COMPACTED TO 90%

NOTE: SUBGRADE SOILS WITH $R < 50$ SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

RESIDENTIAL PAVING SECTION – COA STANDARD DETAIL 2405

LEGEND

=====	EXIST C & G OR SIDEWALK
=====	PROPOSED C & G
	WHEELCHAIR RAMP W/ SIDEWALK
	VALLEY GUTTER
(26)	LOT NUMBER
—○—	PROPOSED STREET LIGHT
—	SINGLE "A" OR "C" STORM INLET
— —	DOUBLE "C" STORM INLET
	STORM DRAIN W/ MANHOLE
=====	SIDEWALK BY OTHERS
▲	STREET C MONUMENT
-----	C STREET
-----	RETAINING WALL
	CROWN—NO—CROWN TRANSITION (50')

ENGINEER'S SEAL						SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
						FIELD NOTES		ASC MONUMENT "8-110" LOCATED NORTH OF I-40 RIGHT-OF-WAY AT 76th STREET, N.W.			
						NO.	BY	DATE	ELEVATION 5130.013	INSPECTOR'S STAMPED BY	DATE
										RECORDING BY	DATE
										VERIFICATION BY	DATE
										DRAWINGS CHECKED BY	DATE
						<i>MICRO-FILM INFORMATION</i>					
						DESIGNED BY RM DATE 06/01/97					
DESIGN						DRAWN BY TERRA CAD SERVICES DATE 08/25/97					
						NO.					

FINISH GRADE AT PROPERTY LINE
TO BE 0.18 FT ABOVE T.C. ELEV. (TYP.)

AS-BUILT

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: TANGLEWOOD SUBDIVISION
MASTER PAVING PLAN

Design Review Committee

APPROVED

SEP 28 1997

DESIGN REVIEW COMMITTEE

City Engineer Approval

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

...ast Design Update

Mo

Day

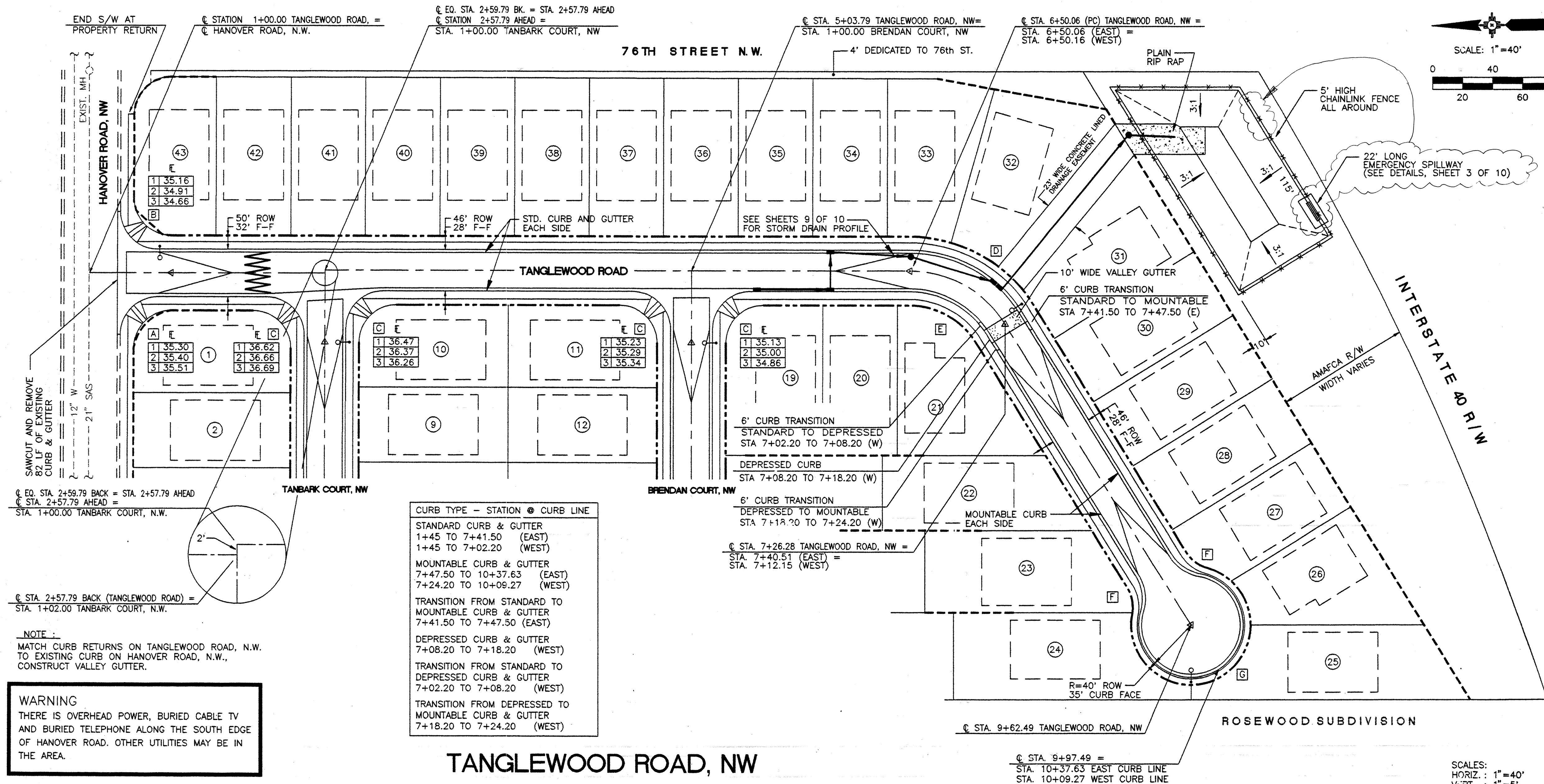
Yr. _____

Mo./D

City Project No.

Zone Map No.	Sheet	of
--------------	-------	----

NOTE: SIDEWALK CONSTRUCTION IS NOT
PART OF THIS CONTRACT EXCEPT
ALONG THE SOUTH SIDE OF
HANOVER ROAD.



1. CONSTRUCT WHEELCHAIR RAMPS PER COA STD. DWG #2441, CASE II
2. CONSTRUCT STANDARD, MOUNTABLE OR DEPRESSED CURB & GUTTER AS INDICATED PER COA STD. DWG #2415.
3. CONSTRUCT PCC VALLEY GUTTER 6' WIDE, 3/4" INVERT PER COA STD. DWG #2420.
4. 50' MINIMUM TRANSITION LENGTH FROM CROWN TO NO-CROWN.
5. ALL C&G PROFILE STATIONING AND GRADES ARE TAKEN ALONG FACE OF CURB.
6. CONSTRUCT WALL AT NE CORNER OF LOT 1 AND NW CORNER OF LOT 43 TO PROVIDE CLEAR SITE TRIANGLE PER DPM, SECTION 23.3, PARAGRAPH D.5a, CONDITION 2.

FACE OF CURB CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH
A	90°00'39"	25.00'	39.27'
B	89°59'21"	25.00'	39.27'
C	90°00'00"	25.00'	39.27'
D	58°13'39"	89.00'	90.45'
E	58°13'39"	61.00'	61.99'
F	47°23'47"	30.00'	24.82'
G	27°47'34"	35.00'	167.86'
H	65°27'23"	30.00'	34.27'
I	26°53'42"	35.00'	162.28'
J	20°12'19"	30.00'	10.58'

AS-BUILT

LEGEND

	EXISTING CURB & GUTTER OR SIDEWALK
	PROPOSED CURB & GUTTER
	WHEEL CHAIR RAMP & ADJACENT SIDEWALK
	VALLEY GUTTER
	LOT NUMBER
	PROPOSED STREET LIGHT
	SIDEWALK BY OTHERS
	STREET & MONUMENT
	RETAINING WALL
	STORM INLET
	STORM DRAIN W/MANHOLE
	WATER BLOCK
	CROWN-TO-CROWN TRANSITION (50')

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: TANGLEWOOD SUBDIVISION
TANGLEWOOD ROAD, NW - PAVING

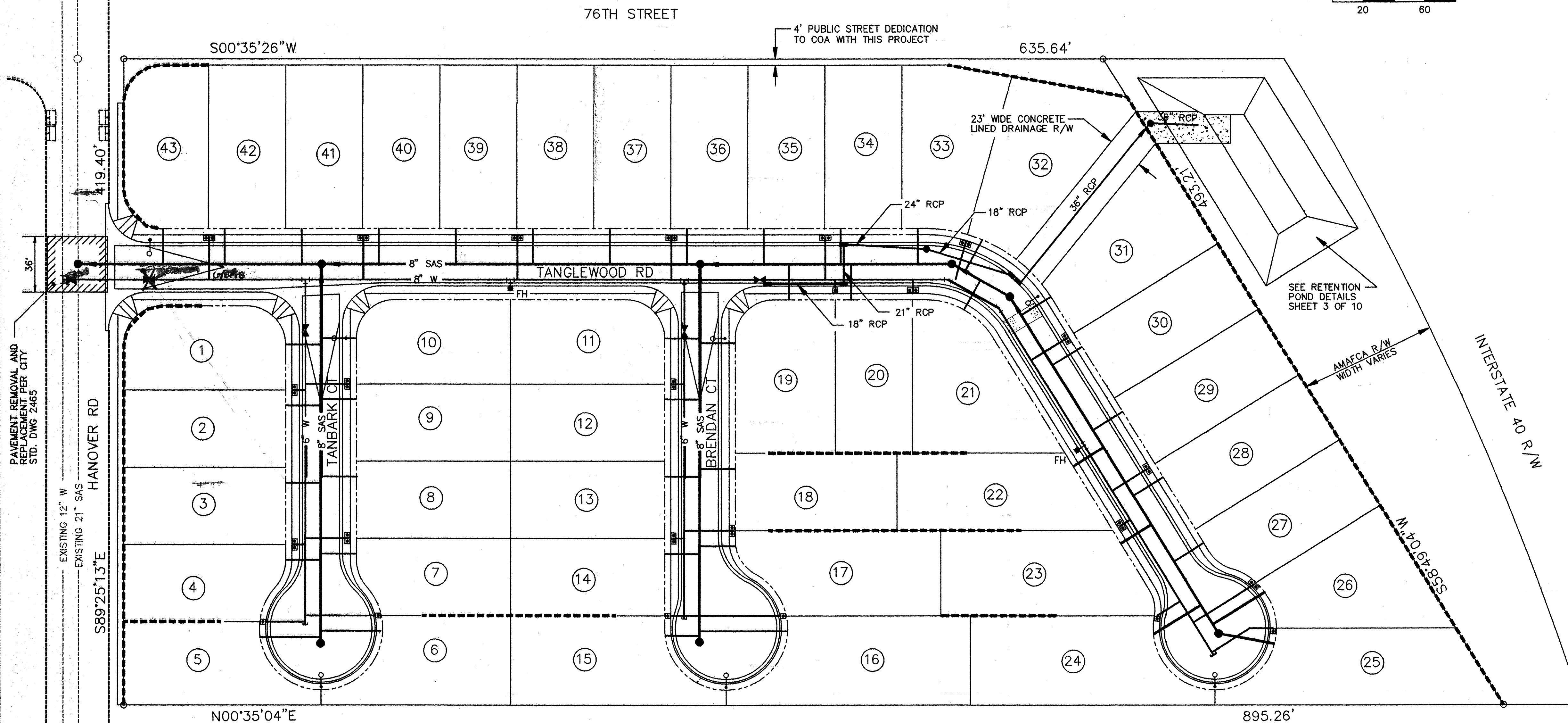
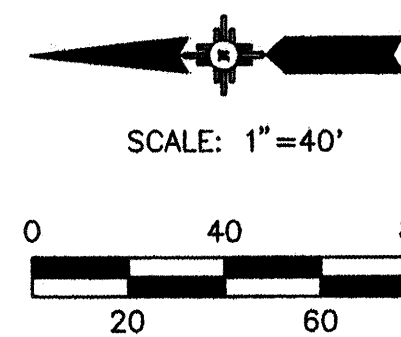
Design Review Committee	City Engineer Approval	Mo./Yr.	Mo./Yr.
SEP 26 1997			
DESIGN REVIEW COMMITTEE			

AS BUILT INFORMATION			
CONTRACTOR	DATE	DATE	DATE
WORK BY	DATE	DATE	DATE
INSPECTION BY	DATE	DATE	DATE
ACCEPTANCE BY	DATE	DATE	DATE
VERIFICATION BY	DATE	DATE	DATE
DRAWN BY	DATE	DATE	DATE
CHECKED BY	DATE	DATE	DATE
RECORDED BY	DATE	DATE	DATE
MICRO-FILM INFORMATION			
NO.			



REVISIONS			
NO.	DATE	REMARKS	BY
		DESIGN	
		RM	
		TIERRA CAD SERVICES	
		DATE 06/12/97	
		DATE 08/12/97	
		DATE	

TRACT 230
TOWN OF ATRISCO GRANT
AIRPORT UNIT



PAVEMENT REMOVAL AND
REPLACEMENT PER CITY
STD. DWG 2463

EXISTING 12" W
S89°25'13"E

EXISTING 21" SAS

HANOVER RD

S89°25'13"E

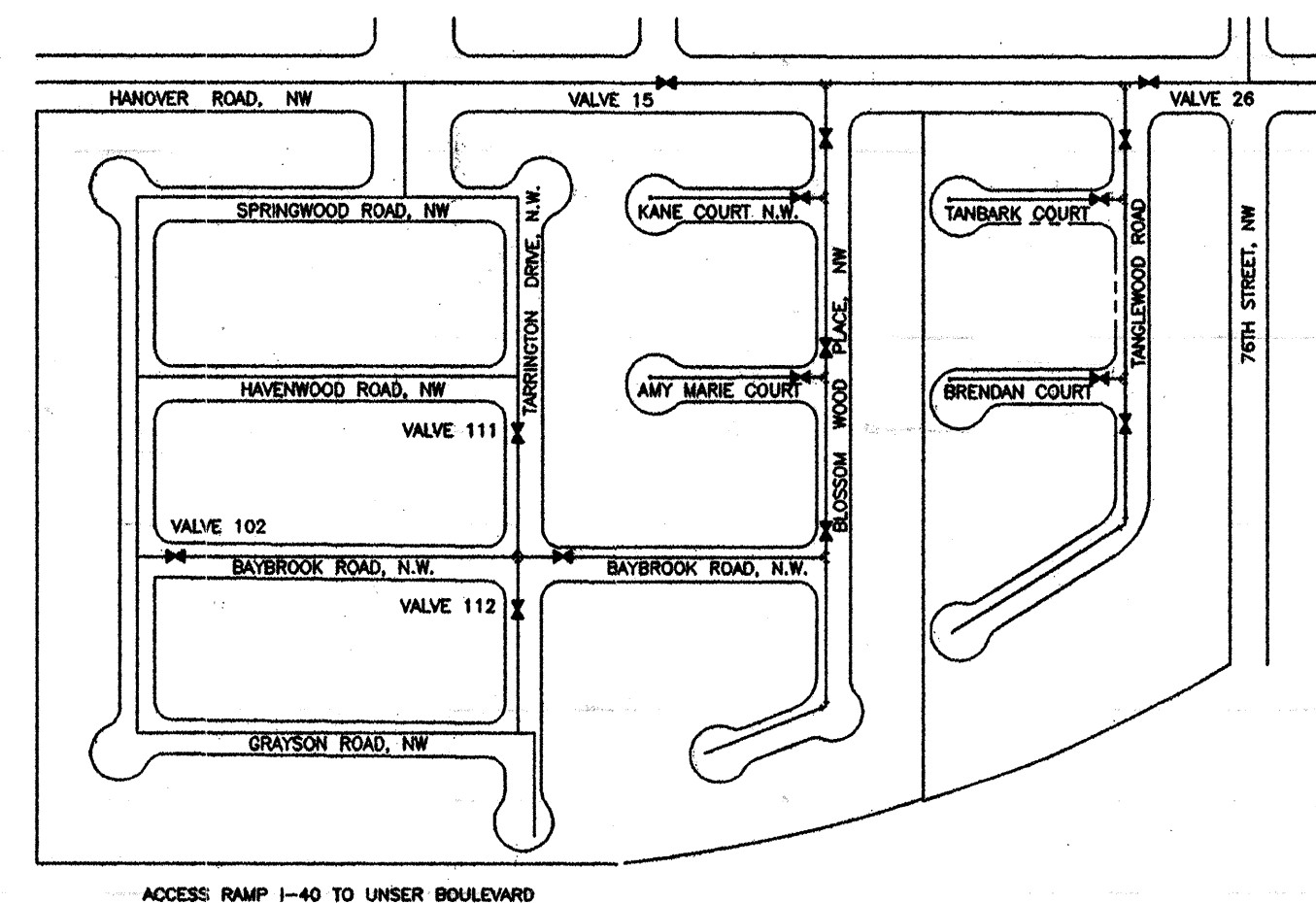
N00°35'04"E

ROSEWOOD SUBDIVISION

895.26'

LEGEND

- SINGLE WATER METER & BOX
- DOUBLE WATER METER & BOX
- GATE VALVE w/TYPE 'A' VALVE BOX
- FIRE HYDRANT
- MANHOLE & FLOW DIRECTION
- WATER LINE w/FITTING
- RETAINING WALL
- STORM INLET
- STORM DRAIN W/MANHOLE



WATER SHUT-OFF PLAN

CLOSE MAIN LINE VALVE NOS. 15 & 26 IN HANOVER ROAD, NW AND THE 8-INCH VALVE IN BLOSSOM WOOD PLACE, NW JUST SOUTH OF HANOVER ROAD, NW BEFORE CONNECTING THE 8-INCH WATERLINE IN TANGLEWOOD PLACE, NW TO THE EXISTING 12-INCH WATERLINE IN HANOVER ROAD.

THE CONTRACTOR SHALL CONTACT WATER SYSTEMS DIVISION (857-8200) FIVE (5) WORKING DAYS PRIOR TO THE CLOSING OR OPENING OF WATER LINE VALVES, ONLY CITY WATER SYSTEMS PERSONNEL ARE AUTHORIZED TO OPERATE VALVES.

Restrained Joint Lengths, L, for Horizontal Bends and Valves, (ft.)					
SIZE	HORIZ. BENDS				VALVES
	90°	45°	22.5°	11.25°	
12	30	12	6	3	85
10	26	11	5	3	72
8	22	9	4	2	60
6	17	7	3	2	46
4	12	5	2	1	32

Restrained Joint Lengths, L, for Reducers, (ft.)					
Minimum, unobstructed, straight-run length: Restrained either large pipe, or small pipe.					
SIZE	LARGE SIDE	SMALL SIDE	SIZE	LARGE SIDE	SMALL SIDE
12x10	25	30	10x6	44	73
12x8	45	68	10x4	58	141
12x6	62	121	8x6	25	33
12x4	74	213	8x4	43	83
10x8	24	30	6x4	24	35

Note. These tables are based upon the following criteria:

Depth of Bury 3.0 ft. minimum
Factor of Safety 1.25
Material PVC Pipe
Soil Type GM/SM-Silty gravels and silty sands, gravel-sand-silt mixtures.
Test Pressure 150 psi
Trench Type 4: Pipe bedded in sand, gravel, or crushed stone to depth of 1/6 pipe diameter, 4 inch minimum, backfill compacted to top of pipe.

Different criteria, e.g. ductile iron pipe, greater depth of bury, etc., will require different restrained lengths. These must be calculated by a qualified Professional Engineer and approved by the Public Works Department.

* RESTRAINED JOINT LENGTHS REFER TO EACH WAY FROM FITTING

Restrained Joint Lengths, L, for TEES, (ft.)					
All Joints at the Tee must be restrained.					
SIZE	MINIMUM RUN LENGTH		MINIMUM BRANCH LENGTH		
	Run	Branch	Run	Branch	
12x12x12	15	17	18	3	
12x12x10	10	18	13	1	
12x12x8	6	19	8	5	
12x12x6	3	19	5	1	
12x12x4	1	19	2	6	
10x10x10	12	18	15	5	
10x10x8	8	15	10	4	
10x10x6	4	16	6	1	
10x10x4	2	4	3	1	
8x8x8	9	20	13	3	
8x8x6	5	17	7	5	
8x8x4	2	15	3	7	
6x6x6	6	20	10	2	
6x6x4	2	20	4	7	

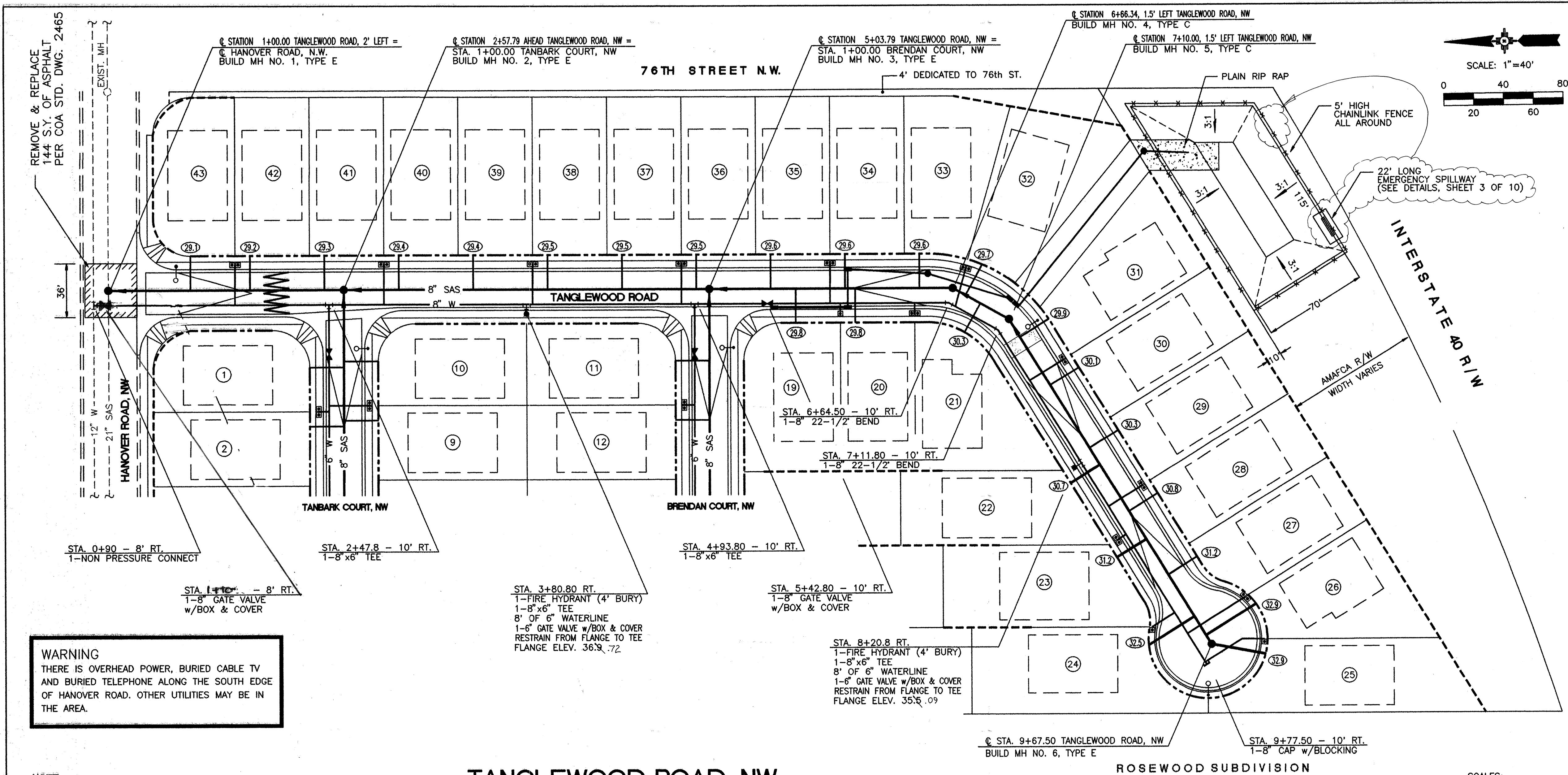
WARNING
THERE IS OVERHEAD POWER, BURIED CABLE TV AND BURIED TELEPHONE ALONG THE SOUTH EDGE OF HANOVER ROAD. OTHER UTILITIES MAY BE IN THE AREA.

AS-BUILT

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	ASC MONUMENT "8-110" LOCATED NORTH OF RIGHT-OF-WAY AT 76th STREET, N.W.	DATE	FIELD NOTES	DATE		
WORK BY	DATE	ELEVATION 5130.013	DATE	BY	DATE		
SUPPLEMENTED BY	DATE		DATE	NO.		REVISIONS	
ACCEPTANCE BY	DATE		DATE				
DRAWINGS BY	DATE		DATE			DESIGN	
CHECKED BY	DATE		DATE				
RECORDED BY	DATE		DATE			TERRA CAD SERVICES	
NO.							

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: TANGLEWOOD SUBDIVISION MASTER UTILITY PLAN			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 576081	Zone Map No. J-10	Sheet 7	of 10

SCANNED BY
MESA REPRO



GENERAL NOTES:

1. CONSTRUCT SAS SERVICES PER COA STD. DWG #2125
2. CONSTRUCT FIRE HYDRANT AT DESIGNATED DEPTHS & LENGTHS PER COA STD. DWG #2340
3. CONSTRUCT ALL SINGLE AND DOUBLE WATER SERVICES PER COA STD. DWG'S #2361, #2362, #2363.
4. SEE THE MASTER UTILITY PLAN DWG FOR RESTRAINED JOINT LENGTHS FOR WATERLINE FITTINGS.
5. THE LENGTH AND SLOPE OF SAS SHOWN IN THE PROFILE IS BASED ON THE DISTANCE BETWEEN MANHOLE CENTERS LESS THE MANHOLE DIAMETER.
6. UNLESS SHOWN OTHERWISE, MH'S SHALL BE LOCATED ALONG STREET CENTERLINE.
7. PROVIDE PRESSURE REGULATION VALVE ON EACH WATER SERVICE LINE EXCEPT FOR LOTS 4, 5, 6, 7, 14, 15, 16 & 17.

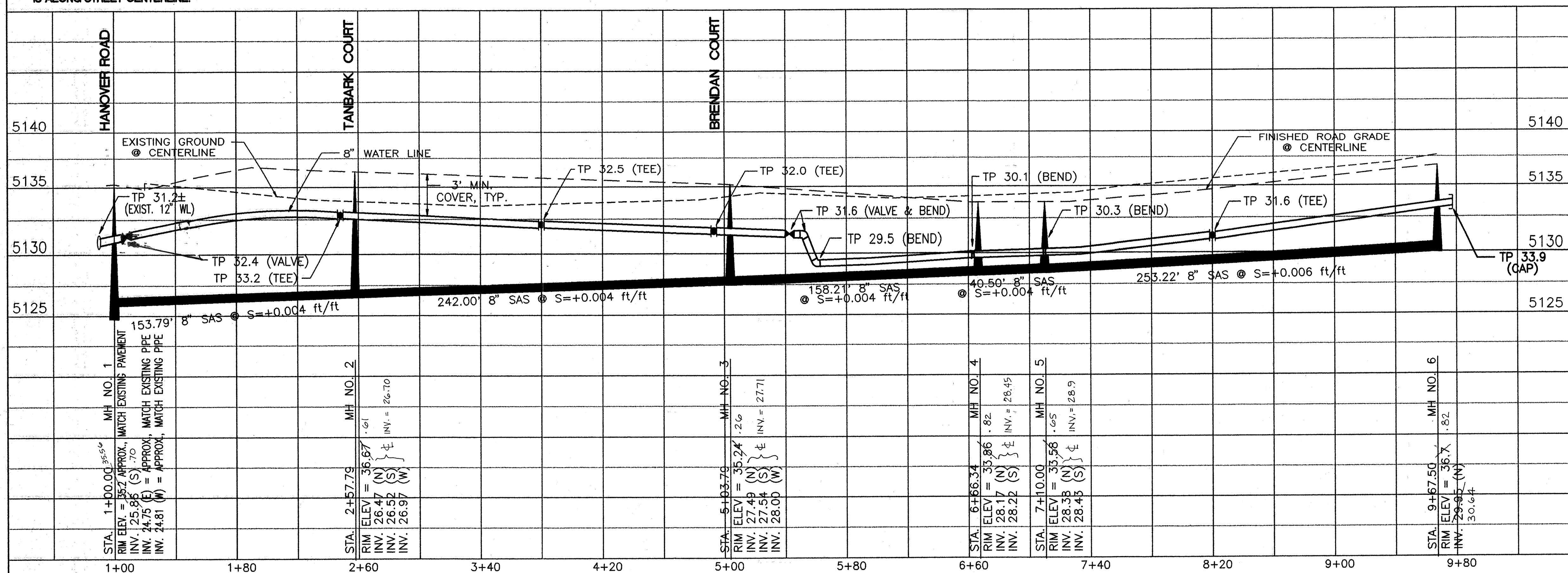
SAS SERVICE TABLE

LOT NO.	C STATION	INV. @ R/W
19	5+60	29.8
20	6+02	29.8
21	7+00	30.3
22	8+24	30.7
23	8+84	31.2
24	9+45.5	32.5
25	9+63	32.9
26	9+60	32.9
27	9+12	31.2
28	8+62	30.8
29	8+12	30.3
30	7+62	30.1
31	7+24	29.9
32	6+83	29.7
33	6+44	29.6
34	5+94	29.6
35	5+44	29.6
36	4+94	29.5
37	4+44	29.5
38	3+94	29.5
39	3+44	29.4
40	2+94	29.4
41	2+44	29.3
42	1+94	29.2
43	1+54	29.1

LEGEND

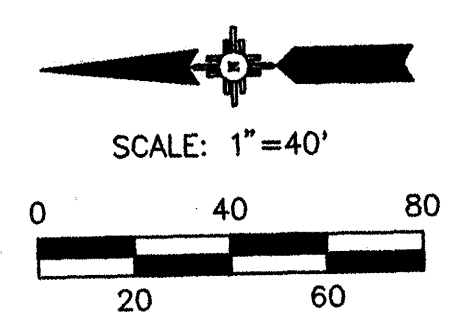
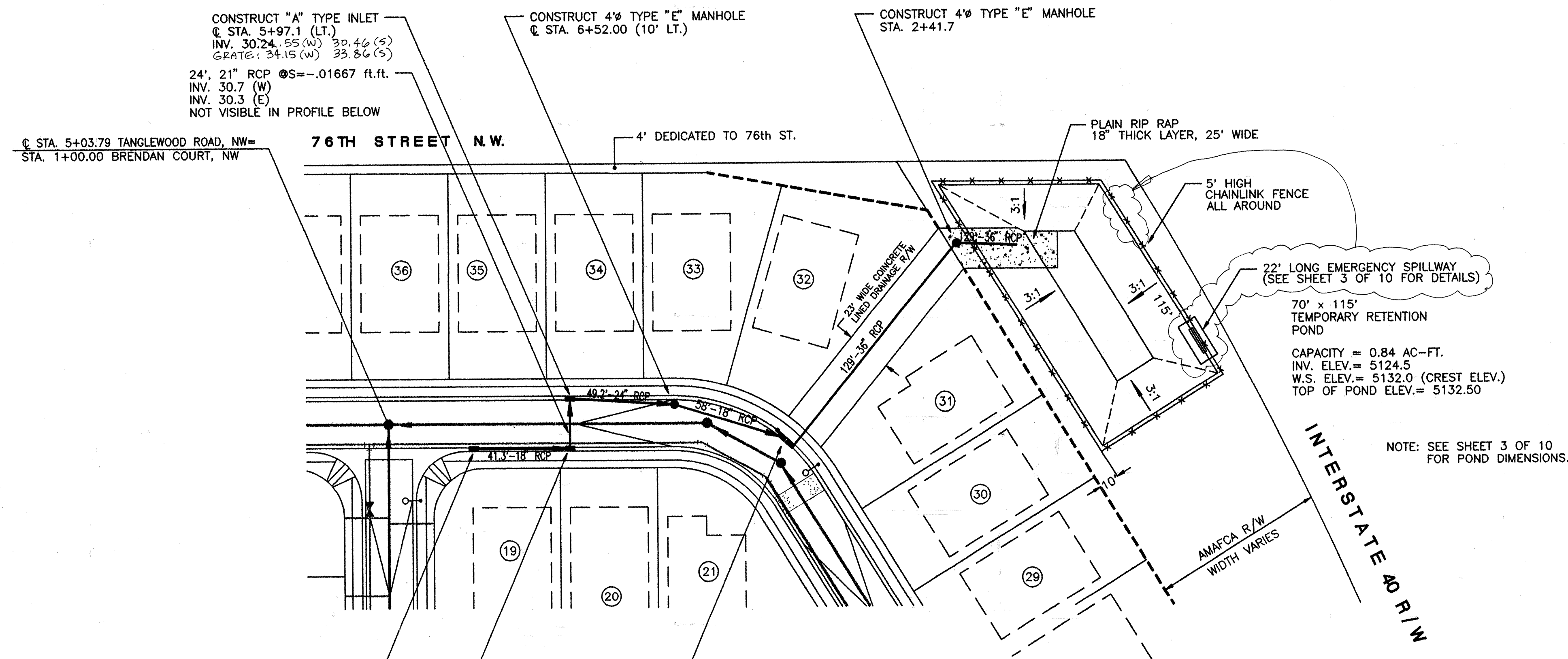
- SAS SERVICE LINE INVERT @ R
- SINGLE WATER METER & BOX
- DOUBLE WATER METER & BOX
- ✕ GATE VALVE w/TYPE 'A' VALVE BOX
- FIRE HYDRANT
- MANHOLE & FLOW DIRECTION
- WATER LINE w/FITTING
- STORM INLET

AS-BUILT



CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: TANGLEWOOD SUBDIVISION TANGLEWOOD ROAD, NW - UTILITIES			
Design/Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED			
City Project No.	Zone Map No.	Sheet	of
576081	J-10	8	10

SCANNED BY
MESA REPRO



- GENERAL NOTES:**
1. CONSTRUCT INLETS PER CITY STD. DWGS. 2201, 2202, 2205, 2207, 2215, 2216, 2220.
 2. PROVIDE STEPS PER CITY STD. DWG. 2229 ON INLETS DEEPER THAN 4'.
 3. CONSTRUCT STORM DRAIN MH PER CITY STD. DWG. 2102.
 4. CONSTRUCT PCC LINED DRAINAGE EASEMENT PER CITY STD. DWG. 2260, TYPE B, WITH 1'-0" HIGH SIDE WALL. BEGIN AT BACK OF SIDEWALK.
 5. LENGTH OF STORM DRAIN PIPE AND SLOPE ARE BASED ON DISTANCE FROM INSIDE FACE TO INSIDE FACE OF CONNECTED STRUCTURES.
 6. CHAIN LINK FENCE AROUND POND SHALL BE 2' OUTSIDE OF POND SIDE SLOPE, AND NOT CLOSER THAN 10' FROM THE SUBDIVISION PERIMETER WALL.

WARNING
THERE IS OVERHEAD POWER, BURIED CABLE TV AND BURIED TELEPHONE ALONG THE SOUTH EDGE OF HANOVER ROAD. OTHER UTILITIES MAY BE IN THE AREA.

NOTE
UTILITY PROFILE STATIONING IS ALONG STREET CENTERLINE.

TANGLEWOOD ROAD, NW

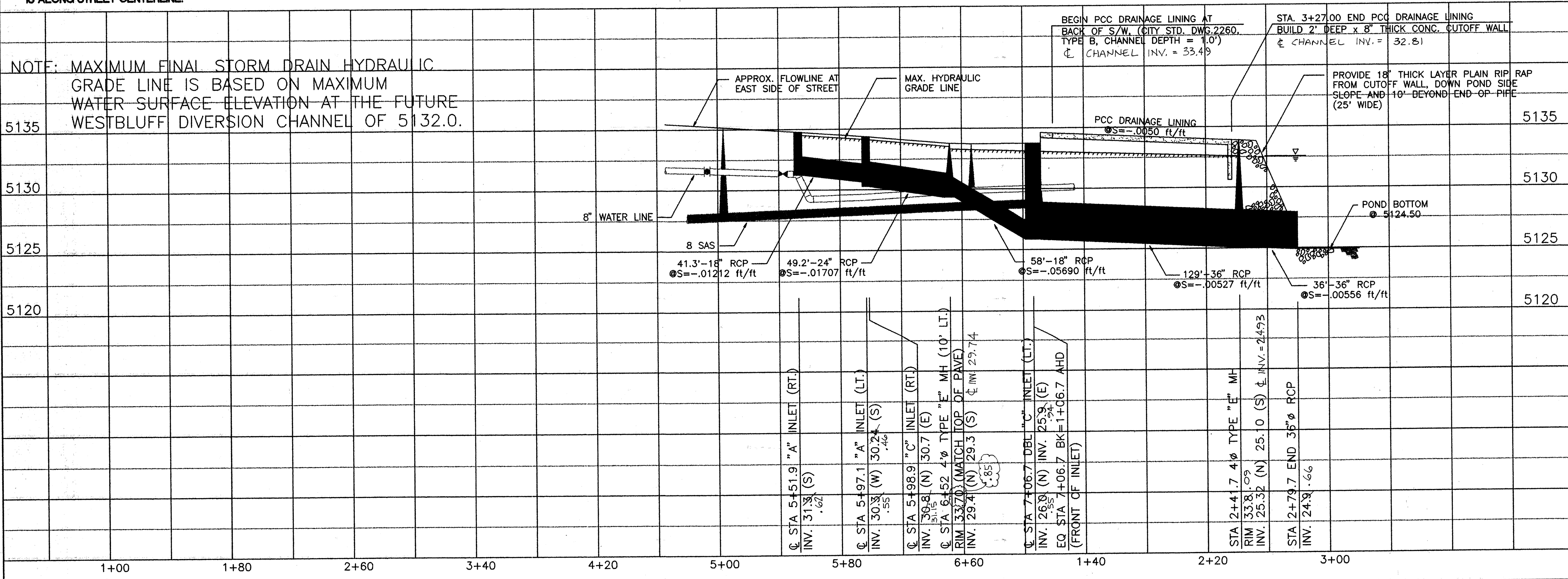
PIPE DIA.	SLOPE	LENGTH	Q **	V
18"	.01212 ft./ft.	41.3'	9	11.0
21"	.01667 ft./ft.	24'	18	7.8
24"	.01707 ft./ft.	49.2'	25.6	8.5
18"	.05690 ft./ft.	58'	25.6	14.5
36"	.00527 ft./ft.	129'	47.7	6.8
36"	.00556 ft./ft.	36'	47.7	6.8

** 2 TIMES THE 100 YEAR RUNOFF RATE

SCALES:
HORIZ.: 1" = 40'
1" = 5'

- LEGEND**
- MANHOLE & FLOW DIRECTION
 - WATER LINE w/FITTING
 - SINGLE STORM INLET
 - DOUBLE STORM INLET
 - CHAINLINK FENCE
 - RETAINING WALL
 - HYDRAULIC GRADE LINE

AS-BUILT



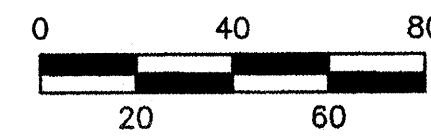
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: TANGLEWOOD SUBDIVISION TANGLEWOOD ROAD, NW - UTILITIES	
Design/Review Committee	City Engineer Approval
Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 576081	Zone Map No. Sheet 9 of 10

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO. DATE		FIELD NOTES		ASC MONUMENT "8-J10" LOCATED NORTH OF I-40 RIGHT-OF-WAY AT 76th STREET, N.W. ELEVATION 5130.013		CONTRACTOR WORK DATE	
REVISIONS		BY		DATE		DATE	
DESIGN		DATE 06/01/97		DATE 06/29/97		DATE	
RM		TERRA CAD SERVICES		DATE		DATE	
DRAWN BY		CHECKED BY		RECORDED BY		NO.	



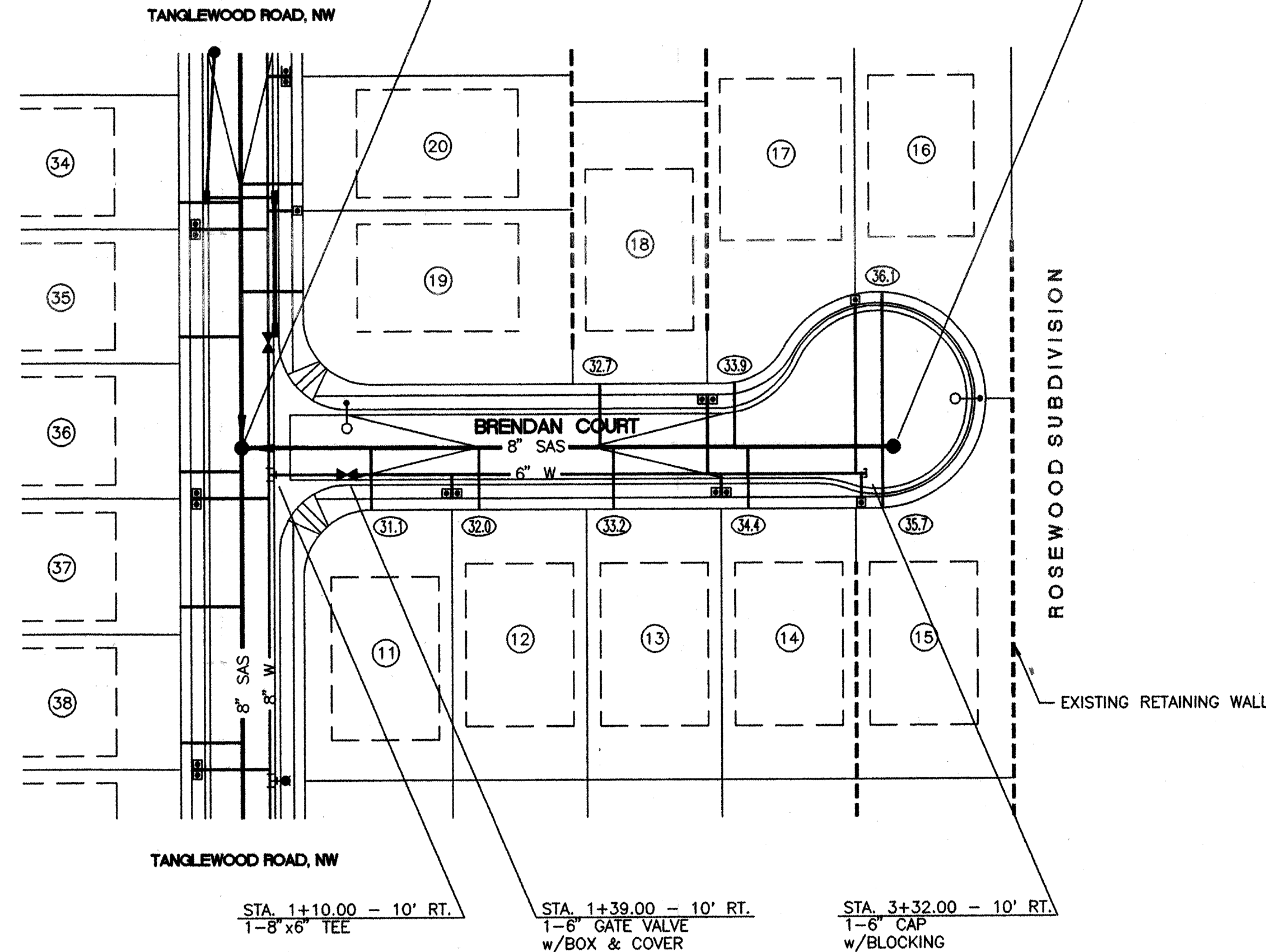
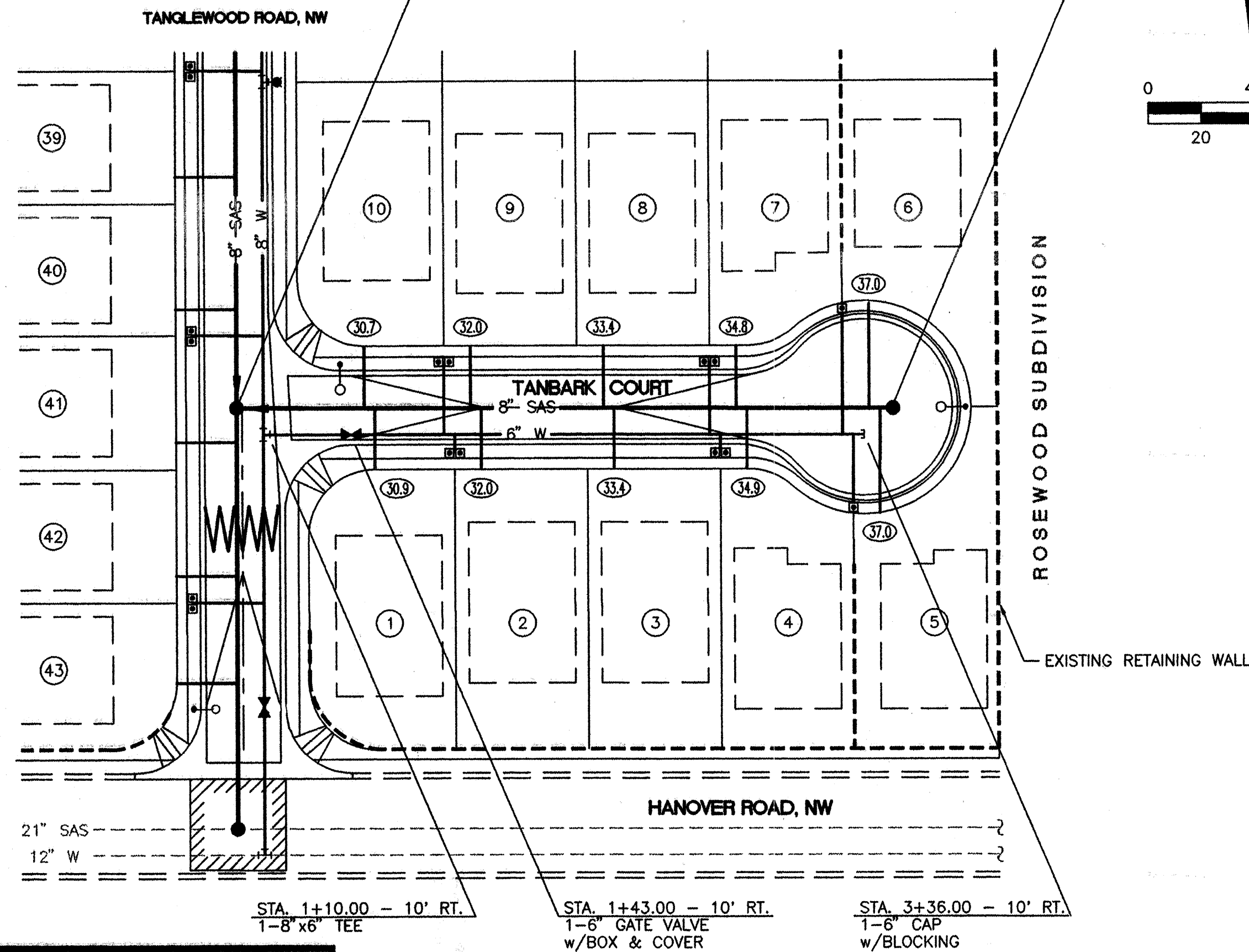
© STA. 1+00.00 TANBARK COURT, NW =
© STA. 2+57.79 AHD, TANGLEWOOD ROAD
BUILD MANHOLE NO. 2, TYPE E

© STA. 3+46.00 TANBARK COURT, NW
BUILD MANHOLE NO. 7, TYPE E



© STA. 1+00.00 BRENDAN COURT, NW =
© STA. 5+03.79 TANGLEWOOD ROAD
BUILD MANHOLE NO. 3, TYPE E

© STA. 3+44.90 BRENDAN COURT, NW
BUILD MANHOLE NO. 8, TYPE E



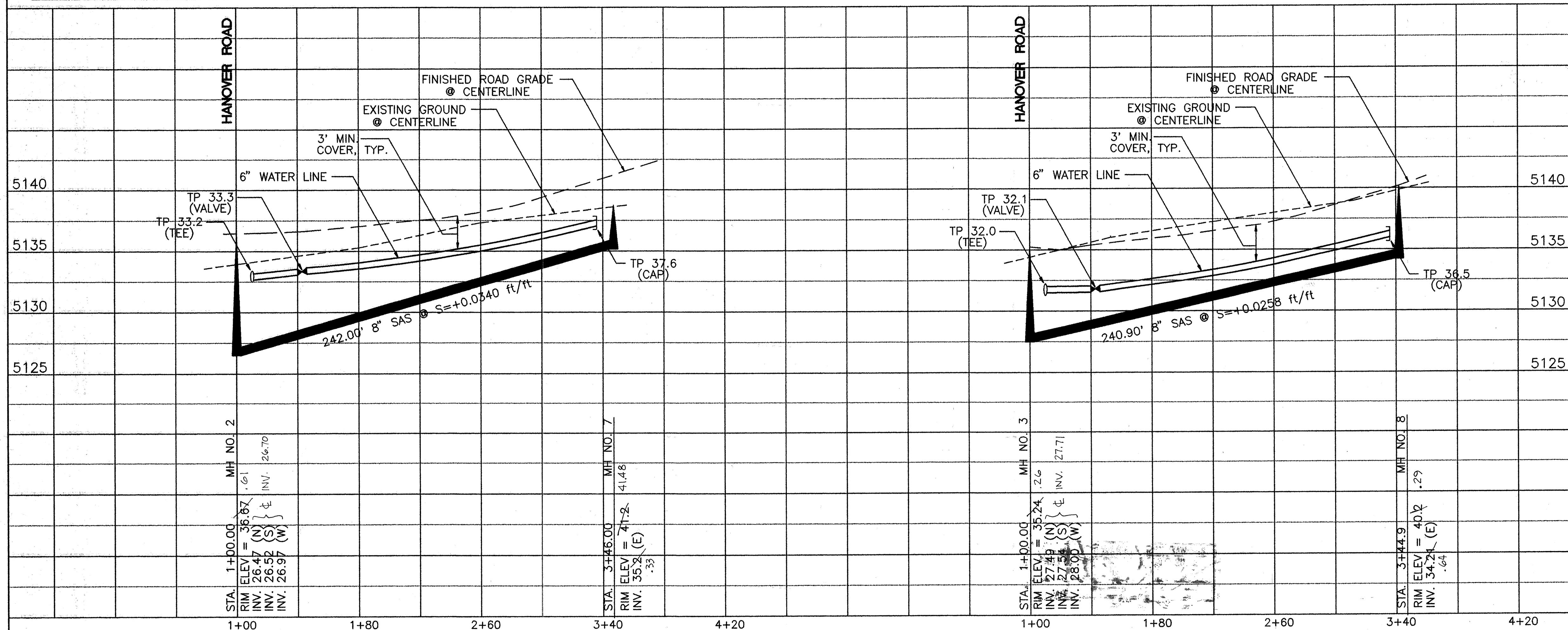
WARNING
THERE IS OVERHEAD POWER, BURIED CABLE TV
AND BURIED TELEPHONE ALONG THE SOUTH EDGE
OF HANOVER ROAD. OTHER UTILITIES MAY BE IN
THE AREA.

TANBARK COURT, NW

NOTE
UTILITY PROFILE STATIONING
IS ALONG STREET CENTERLINE.

BRENDAN COURT, NW

SCALES:
HORIZ. : 1"=40'
VERT. : 1"=5'



GENERAL NOTES:

1. CONSTRUCT SAS SERVICES PER COA STD. DWG #2125
2. CONSTRUCT FIRE HYDRANT AT DESIGNATED DEPTHS & LENGTHS PER COA STD. DWG #2340
3. CONSTRUCT ALL SINGLE AND DOUBLE WATER SERVICES PER COA STD. DWG'S #2361, #2362, #2363.
4. SEE THE MASTER UTILITY PLAN DWG FOR RESTRAINED JOINT LENGTHS FOR WATERLINE FITTINGS.
5. THE LENGTH AND SLOPE OF SAS SHOWN IN THE PROFILE IS BASED ON THE DISTANCE BETWEEN MANHOLE CENTERS LESS THE MANHOLE DIAMETER.
6. UNLESS SHOWN OTHERWISE, MH'S SHALL BE LOCATED ALONG STREET CENTERLINE.
7. PROVIDE PRESSURE REGULATION VALVE ON EACH WATER SERVICE LINE EXCEPT FOR LOTS 4, 5, 6, 7, 14, 15, 16 & 17.

SAS SERVICE TABLE

LOT NO.	© STATION	INV. © R/W
1	1+52	30.9
2	1+92	32.0
3	2+42	33.4
4	2+92	34.9
5	3+42	37.0
6	3+38	37.0
7	2+88	34.8
8	2+38	33.4
9	1+88	32.0
10	1+48	30.7
11	1+48	31.1
12	1+88	32.0
13	2+38	33.2
14	2+88	34.4
15	3+40.9	35.7
16	3+37.9	36.1
17	2+83	33.9
18	2+33	32.7

LEGEND

- 8" SAS SERVICE LINE INVERT © R
- SINGLE WATER METER & BOX
- DOUBLE WATER METER & BOX
- GATE VALVE w/TYPE 'A' VALVE BOX
- FIRE HYDRANT
- MANHOLE & FLOW DIRECTION
- WATER LINE w/FITTING
- STORM INLET



AS-BUILT

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: TANGLEWOOD SUBDIVISION
TANBARK COURT & BRENDAN COURT - UTILITIES

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED			
Design Review Committee			

City Project No. 576081 Zone Map No. J-10 Sheet 10 of 10