#### INTRODUCTION

The Kingsport Geodetic Reference Network (KGRN) is a network of high order control monuments established for the City of Kingsport as part of our recent re-mapping project. The network consists of one-hundred-ten (110) monuments with backsites within an area bounded on the North by the TN/VA state line, on the East by Exit 66 of I-81, on the South by the Sullivan/Washington county line, and on the West by Exit 50 of I-81. Sixteen (16) of these monuments are existing NGS stations, three (3) are existing TVA stations, with the remainder being new concrete monuments placed by the City of Kingsport. These are identified by an aluminum cap bearing the words "CITY OF KINGSPORT" and "1990 GPS SURVEY". An azimuth mark has been set for seventy-nine (79) of the monuments and is identified by an aluminum cap described above. Of the remainder, twenty-seven (27) monuments use the WKPT radio mast on Bays Mountain as a backsite and four (4) use a radio mast located on the J.T. Parker property near Indian Springs.

Each monument and its azimuth mark have been stamped with an ID number which corresponds with the station number at the top of the station reports contained within this booklet. Where feasible, a red metal witness post with an orange sign has been set at each monument and a green metal witness post set at each backsite. All the monuments are located within a road right-of-way except two (2) within Bays Mountain Park and one (1) in East Lawn Cemetery.

The Tennessee state plane coordinates and geographic coordinates given for each point were established by GPS survey methods during the summer of 1991. The horizontal control used as a basis for this data was the Order B GPS Survey Network established by the Tennessee Department of Transportation. The elevations given for ninety-nine (99) of the monuments were established by field-run levels using a Wild NA-2000 level with loop closures within the NGS second-order, class I specifications. The basis for the elevations was an NGS second-order monument located at the Kingsport Public Library. Because of their remote location, eleven (11) monuments were given elevations by GPS methods and will be so noted on the station report. The elevations given for the backsites were established by GPS methods as well. The scale factor given for each monument is the scale factor for the Lambert projection.

In the event one of these monuments or backsites is found to be disturbed or destroyed, please report this to the City of Kingsport Engineering Department immediately. This department will maintain a listing of those monuments deleted or added to the network.

Anyone seeking more information on the state plane coordinate system may consult a booklet titled "Fundamentals of the State Plane Coordinate System" published by the National Oceanic and Atmospheric Administration.

### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0001	STATION NAME FRISCO
USGS QUAD SHEET CHURCH HILL	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 838502.391
LATITUDE: 36°35'23.89459"	EASTING: 2958120.479
LONGITUDE: 82°37'43.43037"	ELEVATION: 1332.474
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000035331	CONVERGENCE: 1*58'25.230"
BACKSIGHT STATION NO: 0201	REFERENCE AZIMUTH: 219°56'01"
NORTHING: 837852.092 EASTING:	2957576.094 GPS HEIGHT: 1336.682

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5 MILES N.W. OF KINGSPORT ON THE N. SIDE OF CARTER'S VALLEY RD. AND THE W. SIDE OF A SIDE ROAD. LEADING TO FRISCO.

STARTING AT THE INTERSECTION OF LYNN GARDEN DR. & W. CARTER'S VALLEY ROAD, GO WEST FOR 3.2 MILES TO THE STATION ON THE RIGHT AT A SIDEROAD HEADING NORTH. STATION IS IN THE NORTHWEST QUADRANT OF THE INTERSECTION STATION IS 2' SOUTH OF WITNESS POST.

RECOVERY NOTES:		

9000 pr. vaissi oi" W. CARTERS VALLEY ROAD TO Kingsport 201

### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

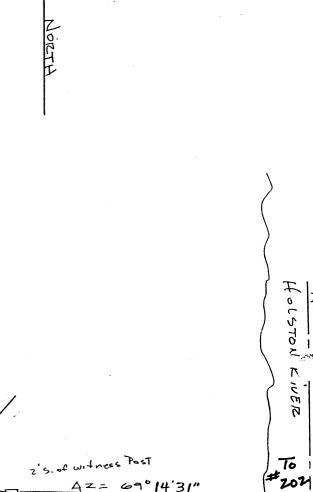
STATION NO. 0002	STATION NAME NORTH FORK		
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 838430.957		
LATITUDE: 36°35'21.01582"	EASTING: 2964480.799		
LONGITUDE: 82*36'25.52092"	ELEVATION: 1209.197		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000035147	CONVERGENCE: 1°59'10.841"		
BACKSIGHT STATION NO: 0202	REFERENCE AZIMUTH: 69°14'31"		
NORTHING: 838672.971 EASTING:	2965119.313 GPS HEIGHT: 1207.827		
TO REACH DESCRIPTION:			

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4 MILES N.W. OF KINGSPORT, JUST WEST OF THE SULLIVAN & HAWKINS COUNTY LINE ON THE N.SIDE OF W. CARTER'S VALLEY ROAD AT A SIDEROAD.

STARTING AT THE INTERSECTION OF LYNN GARDEN DRIVE & W. CARTER'S VALLEY RD., GO WEST FOR 1.95 MILES TO THE STATION ON THE RIGHT AT A SIDEROAD HEADING NORTH. STATION IS ON NORTH SIDE OF CARTER'S VALLEY ROAD AND EAST OF THE SIDE ROAD. STATION IS 2' SOUTH OF WITNESS POST.

RECOVERY NOTES:		



W. CARTERS VALLEY ROAD

p.Pole

EASTERN

PETROLEUM SERVICES

To Kingsport

Hawkins Court

BRID

OVER FORK H RIVER

## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

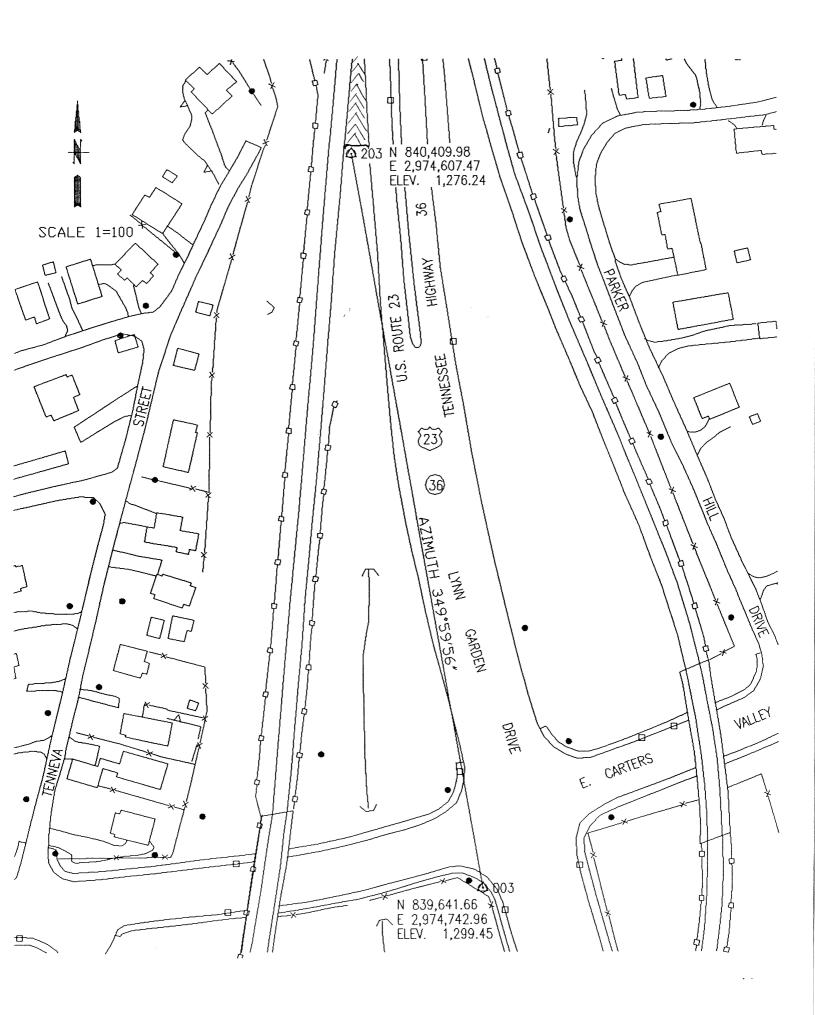
STATION NO. 0003	STATION NAME MORRISON CITY
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 839641.655
LATITUDE: 36°35'29.44439"	EASTING: 2974742.955
LONGITUDE: 82°34'19.25073"	ELEVATION: 1299.450
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000035686	CONVERGENCE: 2'00'24.765"
	2 90 2 117 90
BACKSIGHT STATION NO: 0203	REFERENCE AZIMUTH: 349'59'56"
NORTHING: 840409.976 EASTING:	2974607.465 GPS HEIGHT: 1276.239

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 3 MILES NORTH OF KINGSPORT AT THE INTERSECTION OF LYNN GARDEN DRIVE & W. CARTER'S VALLEY ROAD, NORTH OF I-181.

STATION IS LOCATED IN THE SOUTHWEST QUADRANT OF THE INTERSECTION BETWEEN THE SIDEWALK AND THE FENCE. STATION IS 2' N.E. OF THE WITNESS POST.

RECOVERY NO	TES:		



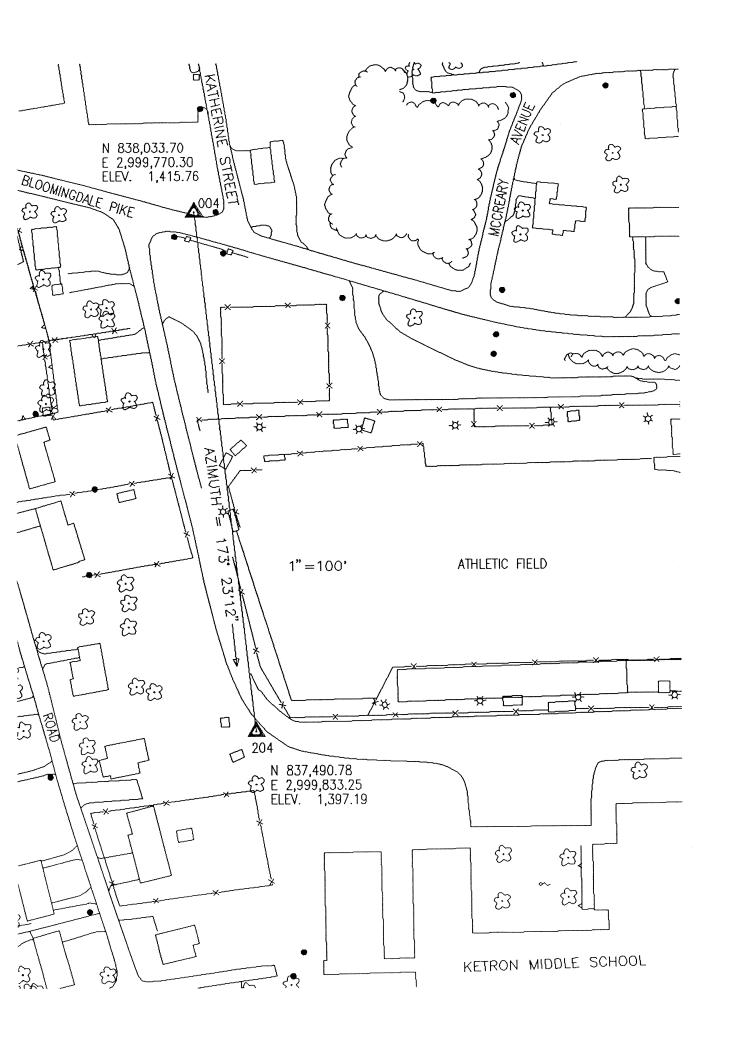
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0004	STATION NAME KETRON		
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 838033.704		
LATITUDE: 36°35'4.78189"	EASTING: 2999770.303		
LONGITUDE: 82°29'13.27868"	ELEVATION: 1415.763		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000034112	CONVERGENCE: 2°03'23.893"		
BACKSIGHT STATION NO: 0204	REFERENCE AZIMUTH: 173°23'12"		
NORTHING: 837490.779 EASTING:	2999833.250 GPS HEIGHT: 1397.194		

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4.7 MILES N.E. OF KINGSPORT AT THE INTERSECTION OF BLOOMINGDALE ROAD AND KATHERINE STREET. TO REACH STATION START AT THE INTERSECTION OF JOHN B. DENNIS HWY. N. AND BLOOMINGDALE ROAD. GO EAST ON BLOOMINGDALE ROAD FOR 1.2 MILES TO THE STATION ON THE LEFT. STATION LIES ON THE NORTH SIDE OF BLOOMINGDALE ROAD AND THE WEST SIDE OF KATHERINE STREET IN FRONT OF BLOOMINGDALE BAPTIST CHURCH. STATION IS 2' SOUTH OF WITNESS POST.

RECOVERY NO		



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0005	STATION NAME NGS BM Z108X		
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 838845.978		
LATITUDE: 36°35'10.82505"	EASTING: 3005344.098		
LONGITUDE: 82°28'4.62570"	ELEVATION: 1434.373		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000034496	CONVERGENCE: 2'04'4.085"		
BACKSIGHT STATION NO: 0205	REFERENCE AZIMUTH: 67°27'59"		
NORTHING: 839053.493 EASTING:	3005844.251 GPS HEIGHT: 1457.991		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.7 MILES N.E. OF KINGSPORT AT THE INTERSECTION OF BLOOMINGDALE ROAD AND BANCROFT CHAPEL ROAD. TO REACH STATION START AT THE INTERSECTION OF BLOOMINGDALE ROAD AND JOHN B. DENNIS HWY. N. GO EAST ON BLOOMINGDALE ROAD FOR 2.3 MILES TO THE STATION ON THE RIGHT. STATION IS LOCATED ON THE SOUTH SIDE OF BLOOMINGDALE ROAD AND THE EAST SIDE OF BANCROFT CHAPEL ROAD. STATION IS AN NGS DISK SET IN A ROCK OUT—CROP AND STAMPED Z108X.

RECOVERY NOTES:	

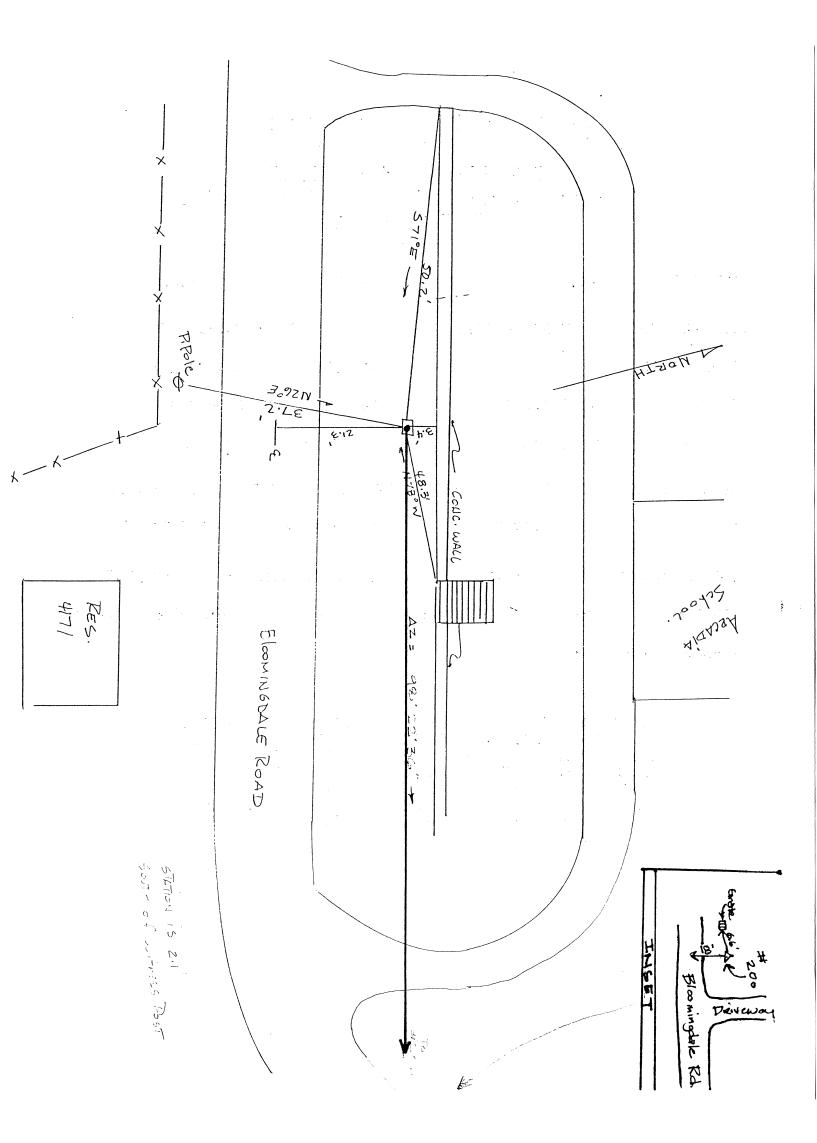
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0006	STATION NAME ARCADIA
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 838500.129
LATITUDE: 36°35'5.82850"	EASTING: 3009760.857
LONGITUDE: 82°27'10.66159"	ELEVATION: 1448.539
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000034178	CONVERGENCE: 2°04'35.678"
BACKSIGHT STATION NO: 0206	REFERENCE AZIMUTH: 98°22'36"
NORTHING: 838399.075 EASTING:	3010447.118 GPS HEIGHT: 1445.246

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 6.4 MILES N.E. OF KINGSPORT ON THE NORTH SIDE OF BLOOMINGDALE RD. IN FRONT OF THE OLD ARCADIA SCHOOL. TO REACH STATION START AT INTERSECTION OF BLOOMINGDALE ROAD AND JOHN B. DENNIS HWY. N. GO EAST ON BLOOMINGDALE ROAD FOR 3.1 MILES TO THE STATION ON THE LEFT. STATION LIES ON THE NORTH SIDE OF BLOOMINGDALE ROAD IN FRONT OF ARCADIA SCHOOL, BETWEEN EDGE OF PAVEMENT AND A CONCRETE WALL. STATION IS 2.1' SOUTH OF WITNESS POST.

RECOVERY NOTES:		



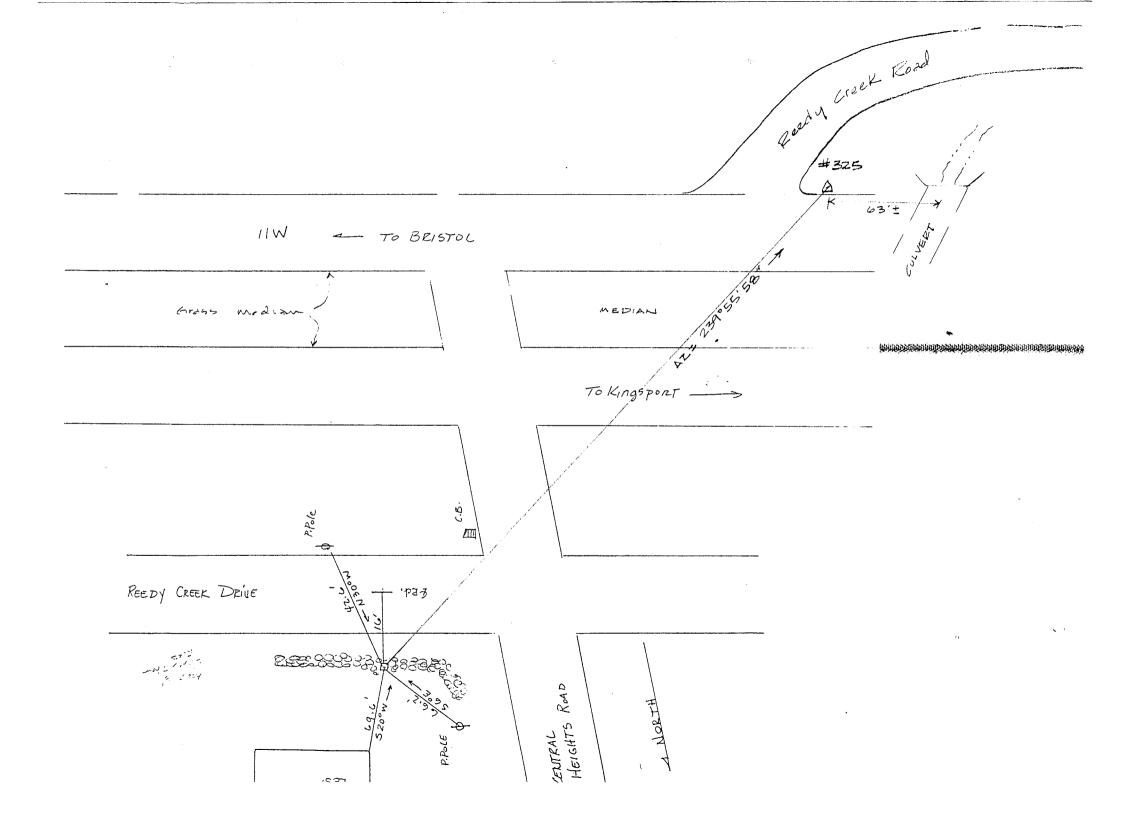
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0007	STATION NAME NGS Z101		
USGS QUAD SHEET BLOUNTVILLE	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 836769.155		
LATITUDE: 36°34'38.81248"	EASTING: 3037069.330		
LONGITUDE: 82°21'36.86232"	ELEVATION: 1586.037		
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)			
SCALE FACTOR: 1.000032470 CONVERGENCE: 2°07'51.097"			
BACKSIGHT STATION NO: 0325	REFERENCE AZIMUTH: 239'55'58"		
NORTHING: 836323.5698 EASTING:	3036299.6439 GPS HEIGHT:		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 11.3 MILES N.E. OF KINGSPORT NEAR THE INTERSECTION OF CENTRAL HEIGHTS ROAD AND REEDY CREEK DRIVE. TO REACH STATION START AT THE THE INTERSECTION OF E. STONE DRIVE AND JOHN B. DENNIS HWY. GO EAST ON E. STONE DRIVE (11W) FOR 8.75 MILES TO CENTRAL HEIGHTS ROAD. GO NORTH ON CENTRAL HEIGHTS ROAD FOR 0.05 MILES TO REEDY CREEK DRIVE. GO EAST ON REEDY CREEK DRIVE AND STATION IS IMMEDIATELY ON THE LEFT. STATION IS A CAP SET IN A ROCK OUT—CROP APPROXIMATELY 3' ABOVE ROAD.

RECOVERY NOTES:		



## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

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STATION NO. 0008	STATION NAME NGS U108X		
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 834530.677		
LATITUDE: 36°34'19.05701"	EASTING: 3030622.407		
LONGITUDE: 82°22'56.85849"	ELEVATION: 1403.794		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000031231	CONVERGENCE: 2°07'4.264"		
BACKSIGHT STATION NO: 0208	REFERENCE AZIMUTH: 298°31'37"		
NORTHING: 834869.848 EASTING:	3029998.435 GPS HEIGHT: 1450.089		
TO REACH DESCRIPTION:			

#### TO REACH DESCRIPTION:

STATION IS LOCATE APPROXIMATELY 10.0 MILES N.E. OF KINGSPORT NEAR THE INTERSECTIONS OF MARKET STREET AND HARR TOWN ROAD. TO REACH STATION, START AT THE INTERSECTION OF E. STONE DRIVE (11W) AND JOHN B. DENNIS HWY. GO EAST ON EAST STONE DRIVE FOR 7.1 MILES TO MARKET STREET. GO EAST ON MARKET STREET FOR 0.4 MILES TO HARR TOWN ROAD. GO SOUTH ON HARR TOWN FOR 0.03 MILES TO STATION ON THE RIGHT. STATION IS A BRASS CAP SET IN A ROCK OUT—CROP STAMPED U108X.

RECOVERY NOTES:	

HIJOH CHOP SHOP SNAPPS MARKET STREET anos and 65.3 NECON MES CAPTICODO 302 PASTURE 14.19 1 Edstkound 11-E TUSET 802# V P spood Limit Lustus Violin S

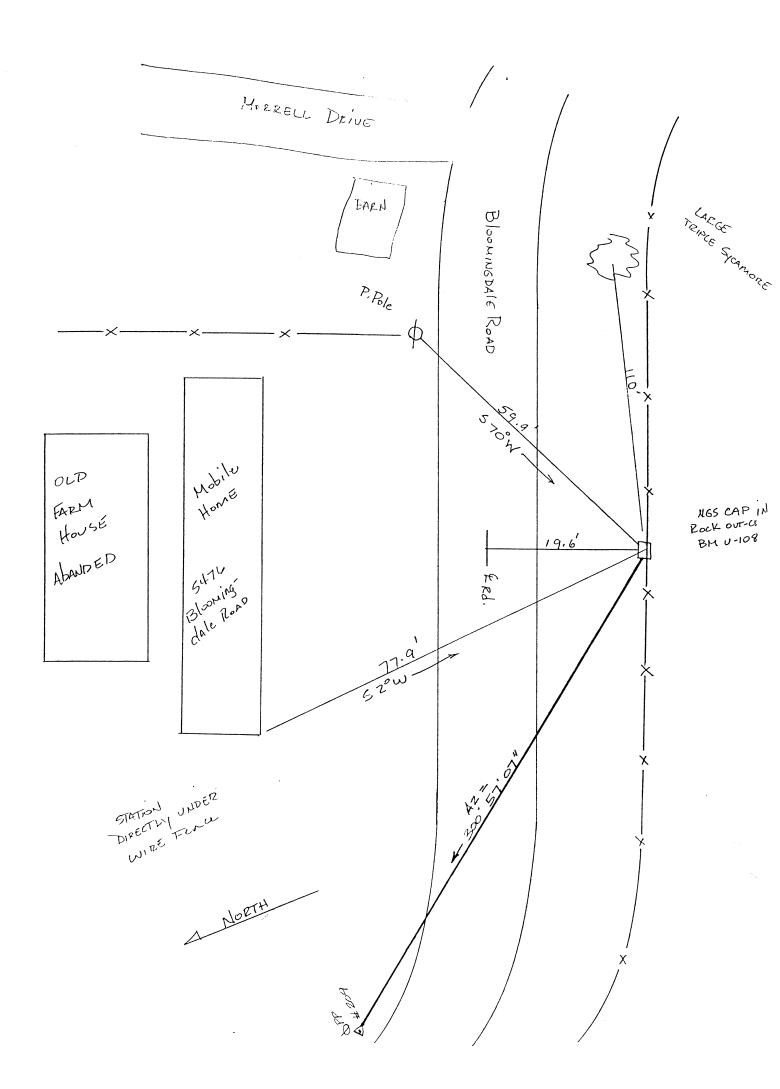
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0009	STATION NAME NGS U108	
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 834975.570	
LATITUDE: 36°34'25.46432"	EASTING: 3025103.908	
LONGITUDE: 82°24'4.26154"	ELEVATION: 1377.814	
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)	
SCALE FACTOR: 1.000031632	CONVERGENCE: 2'06'24.804"	
BACKSIGHT STATION NO: 0209	REFERENCE AZIMUTH: 300°57'07"	
NORTHING: 835054.906 EASTING:	3024971.619 GPS HEIGHT: 1384.961	

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 9 MILES N.E. OF KINGSPORT ON BLOOMINGDALE ROAD. TO REACH STATION START AT INTERSECTION OF BLOOMINGDALE ROAD AND JOHN B. DENNIS HWY. N. GO EAST ON BLOOMINGDALE ROAD FOR 6.3 MILES TO THE STATION ON YOUR RIGHT. STATION LIES ON THE SOUTH SIDE OF BLOOMINGDALE ROAD DIRECTLY ACROSS FROM A MOBILE HOME AT 5476 BLOOMINGDALE ROAD AND UNDER A WIRE FENCE. STATION IS A NGS CAP SET IN ROCK OUT—CROP AND STAMPED U108.

RECOVERY NOTES:		



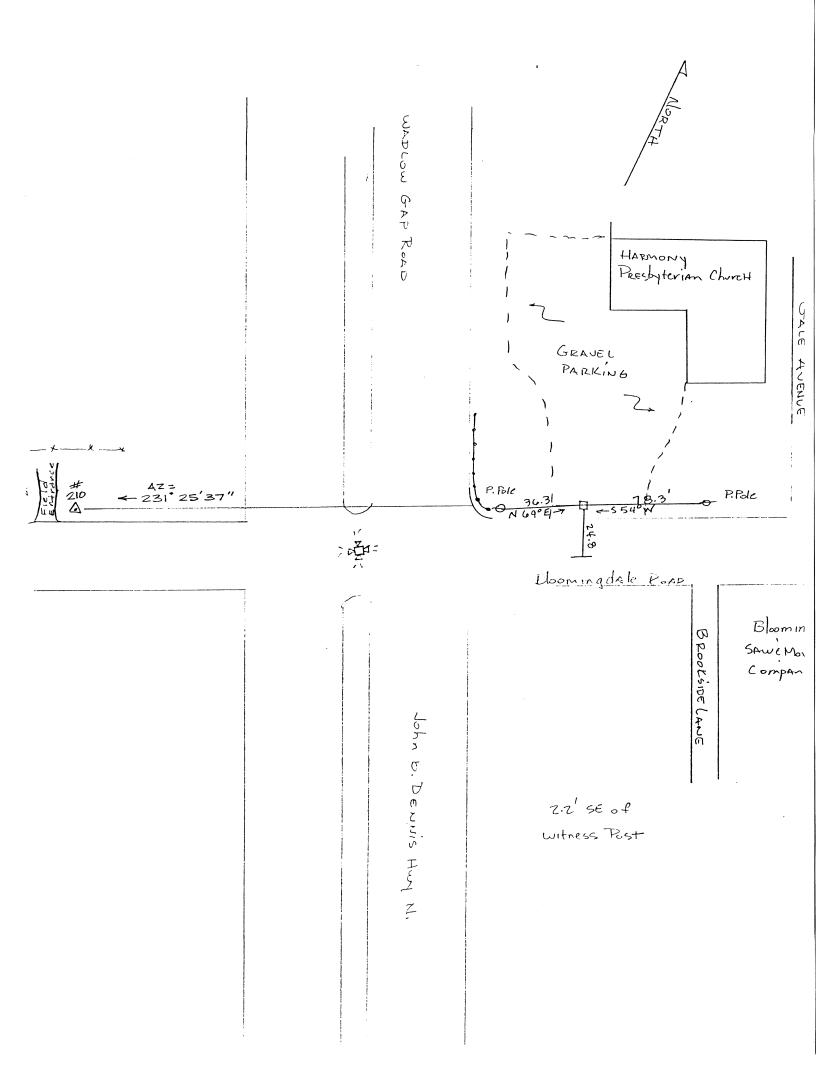
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0010	STATION NAME BLOOMINGDALE		
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 835394.508		
LATITUDE: 36°34'40.82266"	EASTING: 2993778.609		
LONGITUDE: 82°30'27.84815"	ELEVATION: 1346.353		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000032596	CONVERGENCE: 2'02'40.237"		
BACKSIGHT STATION NO: 0210	REFERENCE AZIMUTH: 231°25'37"		
NORTHING: 835136.242 EASTING:	2993454.744 GPS HEIGHT: 1349.162		
TO DEACH DESCRIPTION:			

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 3.5 MILES N.E. OF KINGSPORT IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF JOHN B. DENNIS AT WADLOW GAP AND BLOOMINGDALE ROAD IN THE PARKING AREA OF HARMONY PRESBYTERIAN CHURCH. TO REACH STATION START AT THE INTERSECTION OF E. STONE DR. (11W) AND JOHN B. DENNIS HWY. N. GO NORTH ON JOHN B. DENNIS HWY. FOR 2.5 MILES TO BLOOMINGDALE ROAD. GO EAST ON BLOOMINGDALE ROAD AND STATION IS ON THE LEFT. STATION IS 2.2 S.E. OF THE WITNESS POST.

RECOVERY NOTES:		



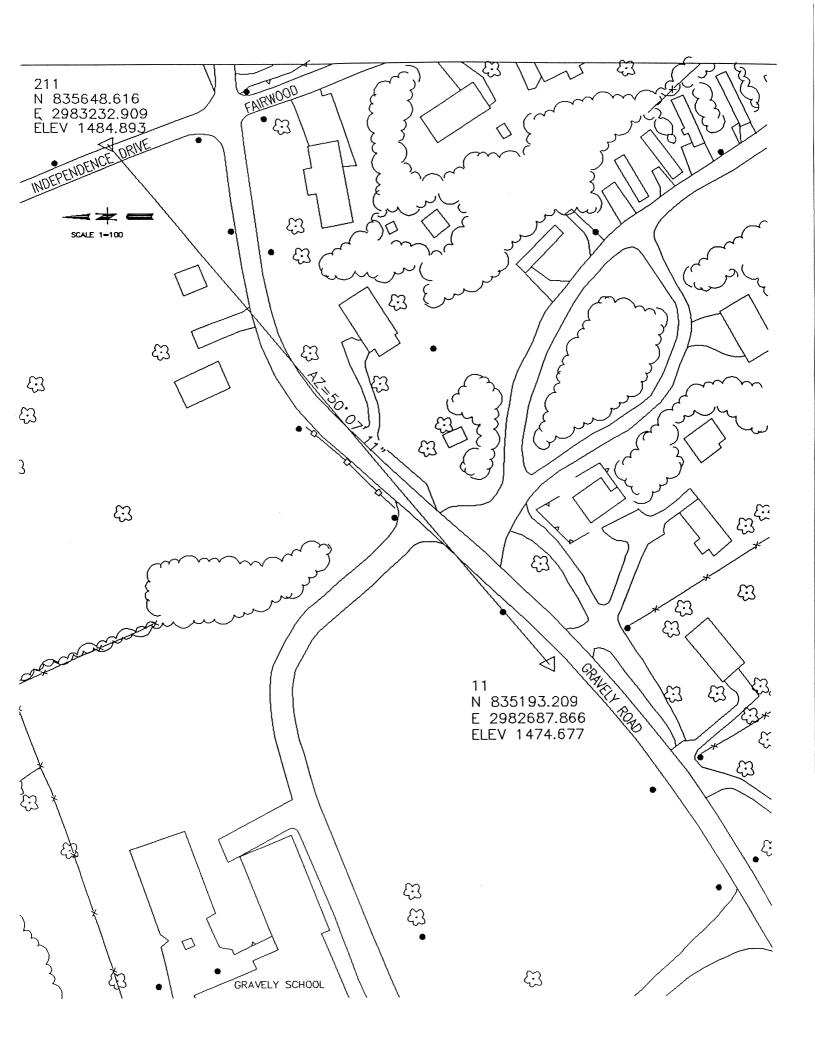
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0011	STATION NAME GRAVELY		
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 835193.209		
LATITUDE: 36°34'42.72469"	EASTING: 2982687.866		
LONGITUDE: 82°32'43.81839"	ELEVATION: 1474.677		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000032716	CONVERGENCE: 2°01'20.635"		
BACKSIGHT STATION NO: 0211	REFERENCE AZIMUTH: 50°07'11"		
NORTHING: 835648.616 EASTING:	2983232.909 GPS HEIGHT: 1484.893		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 2.1 MILES NORTH OF KINGSPORT IN FRONT OF THE GRAVELY SCHOOL. TO REACH THE STATION START AT THE INTERSECTION OF LYNN GARDEN DRIVE AND STONE DRIVE (11W). GO NORTH ON LYNN GARDEN FOR 1.0 MILES TO GRAVELY ROAD. GO EAST ON GRAVELY ROAD FOR 1.35 MILES TO THE STATION ON THE LEFT, AND LYING BETWEEN THE ROAD AND CHAIN LINK FENCE. STATION IS 2' S.E. OF THE WITNESS POST.

RECOVERY NOTES:			



## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0012	STATION NAME LYNN VIEW		
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 834294.596		
LAΠTUDE: 36°34'35.65867"	EASTING: 2977476.477		
LONGITUDE: 82°33'48.05564"	ELEVATION: 1469.809		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000032271	CONVERGENCE: 2°00'43.028"		
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 198°53'31"		
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:		

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 1.9 MILES NORTH OF KINGSPORT IN FRONT OF LYNN VIEW MIDDLE SCHOOL. TO REACH STATION START AT THE INTERSECTION OF LYNN GARDEN DR. AND STONE DR. (11W). GO NORTH ON LYNN GARDEN DRIVE FOR 1.15 MILES TO WALKER STREET. GO EAST ON WALKER STREET FOR 0.2 MILES TO THE STATION ON THE LEFT AND LYING BETWEEN THE SIDEWALK AND PARKING AREA FOR LYNN VIEW MIDDLE SCHOOL IN A GRASS AREA. STATION IS 2' SOUTH OF WITNESS POST.

RECOVERY NOTES:		

### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0013	STATION NAME MIDFIELDS	
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 833295.788	
LATITUDE: 36°34'27.50098"	EASTING: 2972531.796	
LONGITUDE: 82°34'49.06501"	ELEVATION: 1516.118	
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000031759	CONVERGENCE: 2°00'7.310"	
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 184°22'02"	
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:	

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 2.2 MILES N.W. OF KINGSPORT NEAR THE INTERSECTION OF GRANBY ROAD AND FAIRVIEW AVENUE AT THE PROPERTY OWNED BY VICTORY BAPTIST CHURCH. TO REACH STATION, START AT THE INTERSECTION OF W. STONE DR. (11W) AND I—181 GO WEST ON W. STONE DR. FOR 0.2 MILES. THEN, GO NORTH ON UNION ST., CHANGING TO DRY HOLLOW RD. FOR 1.05 MILES TO GRANBY ROAD. GO EAST ON GRANBY ROAD FOR 0.6 MILES TO THE STATION ON THE LEFT. STATION IS NEAR THE R/W OF I—181 ON THE CHURCH PROPERTY. STATION IS 1.9' SOUTH OF WITNESS POST.

RECOVERY NOTES:		

FAIRNEW AVENUE

### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0014	STATION NAME BAILEY
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 833641.876
LATITUDE: 36°34'32.20385"	EASTING: 2968811.000
LONGITUDE: . 82*35'34.50296"	ELEVATION: 1477.320
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000032054	CONVERGENCE: 1°59'40.709"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 172°15'57"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 2.7 MILES N.W. OF KINGSPORT IN THE N.W. QUADRANT OF THE INTERSECTIONS OF CLOUDS FORD RD. AND PARKER LANE, OPPOSITE EARL STREET. TO REACH STATION, BEGIN AT THE AT THE INTERSECTION OF W. STONE DR. (11W) AND I-181. GO WEST ON W. STONE DR. 0.2 MILES TO UNION ST. GO NORTH ON UNION ST., CHANGING TO DRY HOLLOW RD. AND THEN TO CLOUDS FORD RD. FOR 1.45 MILES TO THE STATION IN THE N.W. INTERSECTION OF CLOUDS FORD RD. AND PARKER LN. STATION IS 2.1' EAST OF WITNESS POST.

RECOVERY NOTES:		

CLOUDS FORD ROAD P. Pole 127.6 Anchor Pole 5T. PARKER LANE EARL 9 P.Pole Z.1 EAST of Witness Post

## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0015	STATION NAME LOWELL
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 830295.176
LATITUDE: 36°33'58.03666"	EASTING: 2971989.926
LONGITUDE: 82°34'56.98800"	GPS ELEVATION: 1598.848
HORIZONTAL DATUM: 1983 NAD VERTICAL	. DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000029923	CONVERGENCE: 2°00'2.672"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 183°07'15"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 1.8 MILES N.W. OF KINGSPORT ON THE TOP OF A LARGE HILL ON LOWELL DR. TO REACH STATION, START AT THE INTERSECTION OF W. STONE DR. (11W) AND I—181. GO EAST ON W. STONE DR. FOR 0.3 MILES TO FAIRVIEW AVENUE. GO NORTH ON FAIRVIEW AVENUE FOR 0.7 MILES TO LOWELL DR. GO WEST ON LOWELL DR. FOR 0.3 MILES TO THE TOP OF THE HILL AND STATION ON THE LEFT. STATION IS 9.0' EAST OF THE CENTER LINE NEAR THE APPROXIMATE PROPERTY LINE OF THE RESIDENCE'S OF 1729 LOWELL DR. AND 1728 PENDLETON STREET. STATION IS 2' S.W. OF THE WITNESS POST.

RECOVERY NOTES:
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Lowell Arc PORCH BES. Lowell Drive \$ \frac{4}{6} 7°6 SMALL GARDEN APPROX. Prop. Line 9.0' N39 % . B 9 שנוֹט לאיזסן PES. Pendleton STREET Z SW of Witness Post PENDLETON STREET 1 TO WKPT MAST

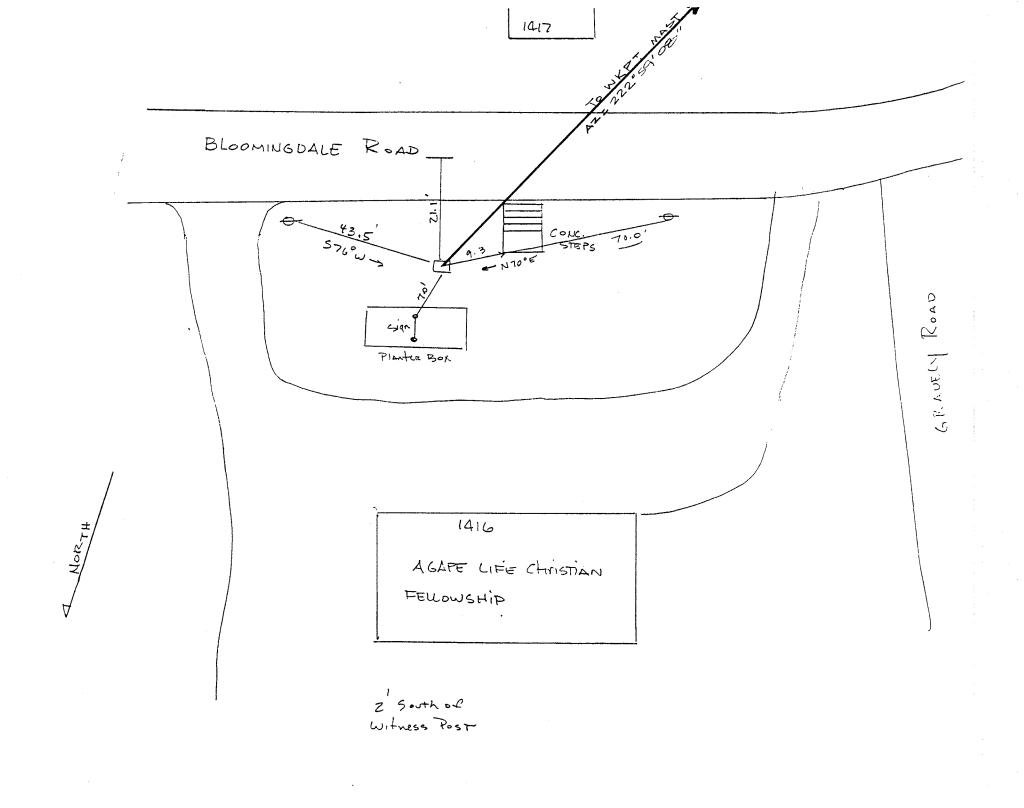
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0016	STATION NAME AGAPE
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 831972.343
LATITUDE: 36°34'9.69998"	EASTING: 2986113.467
LONGITUDE: 82'32'3.24606"	ELEVATION: 1336.858
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000030647	CONVERGENCE: 2°01'44.387"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 222°59'08"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 2.0 MILES N.E. OF KINGSPORT ON THE NORTH SIDE OF BLOOMINGDALE ROAD IN FRONT OF THE AGAPE LIFE CHRISTIAN FELLOWSHIP CHURCH. TO REACH THE STATION START AT THE INTERSECTION OF E. STONE DR. (11W) AND LYNN GARDEN DRIVE (SR36). GO EAST ON E. STONE DR. FOR 0.85 MILES TO BLOOMINGDALE ROAD. GO NORTH EAST ON BLOOMINGDALE ROAD FOR 1.3 MILES TO THE STATION ON YOUR LEFT. STATION IS 2' SOUTH OF THE WITNESS POST.

RECOVERY NOTES:		



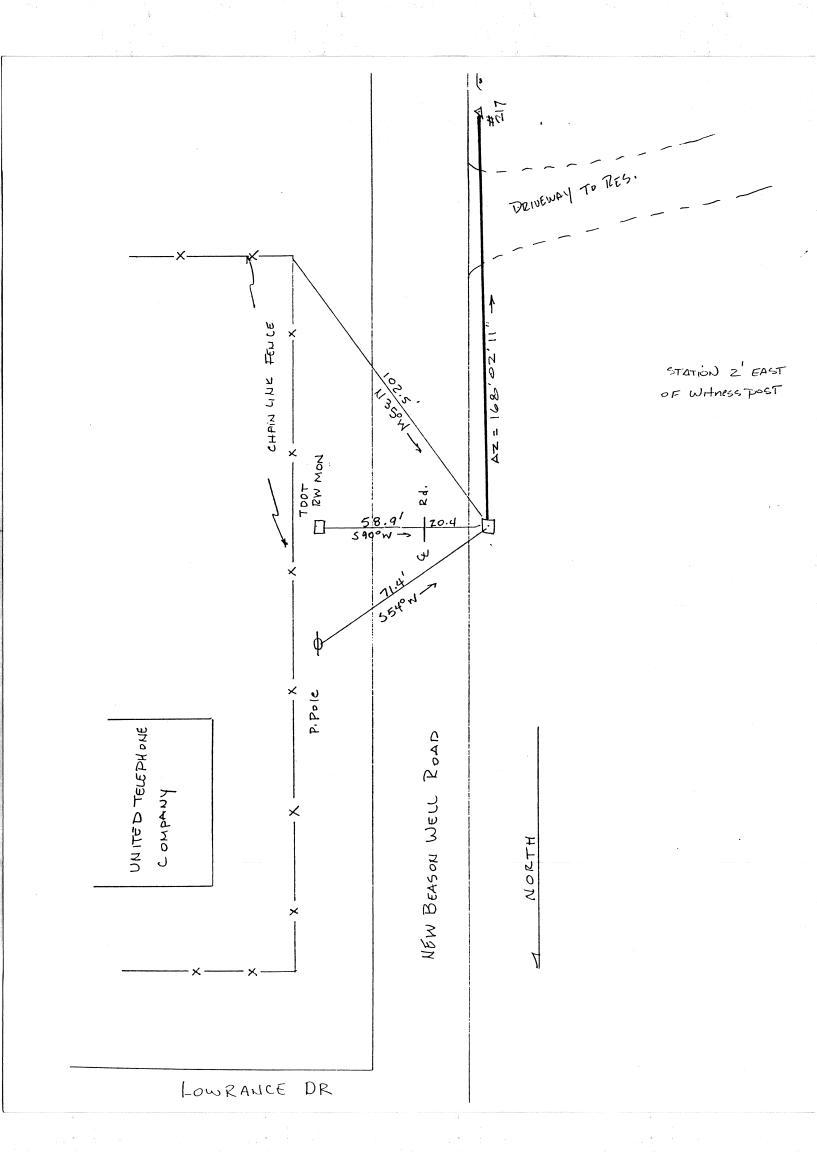
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0017	STATION NAME LAKESIDE
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 832570.243
LATITUDE: 36°34'11.38835"	EASTING: 2998096.695
LONGITUDE: 82°29'36.18454"	ELEVATION: 1294.871
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000030753	CONVERGENCE: 2*03'10.483"
BACKSIGHT STATION NO: 0217	REFERENCE AZIMUTH: 168°02'11"
NORTHING: 831763.437 EASTING:	2998267.653 GPS HEIGHT: 1278.859

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4.0 MILES N.E. OF KINGSPORT ON THE NEW BEASON WELL RD. TO REACH STATION START AT THE INTERSECTION OF JOHN B. DENNIS HWY. N. AND BLOOMINGDALE ROAD. GO EAST ON BLOOMINGDALE ROAD FOR 0.6 MILES TO THE NEW BEASON WELL ROAD. GO SOUTH ON NEW BEASON WELL ROAD FOR 0.8 MILES TO STATION ON THE RIGHT. STATION LIES ON THE WEST SIDE OF NEW BEASON WELL ROAD OPPOSITE UNITED TELEPHONE COMPANY. STATION IS 2' EAST OF WITNESS POST.

COVERY NOTES:	



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

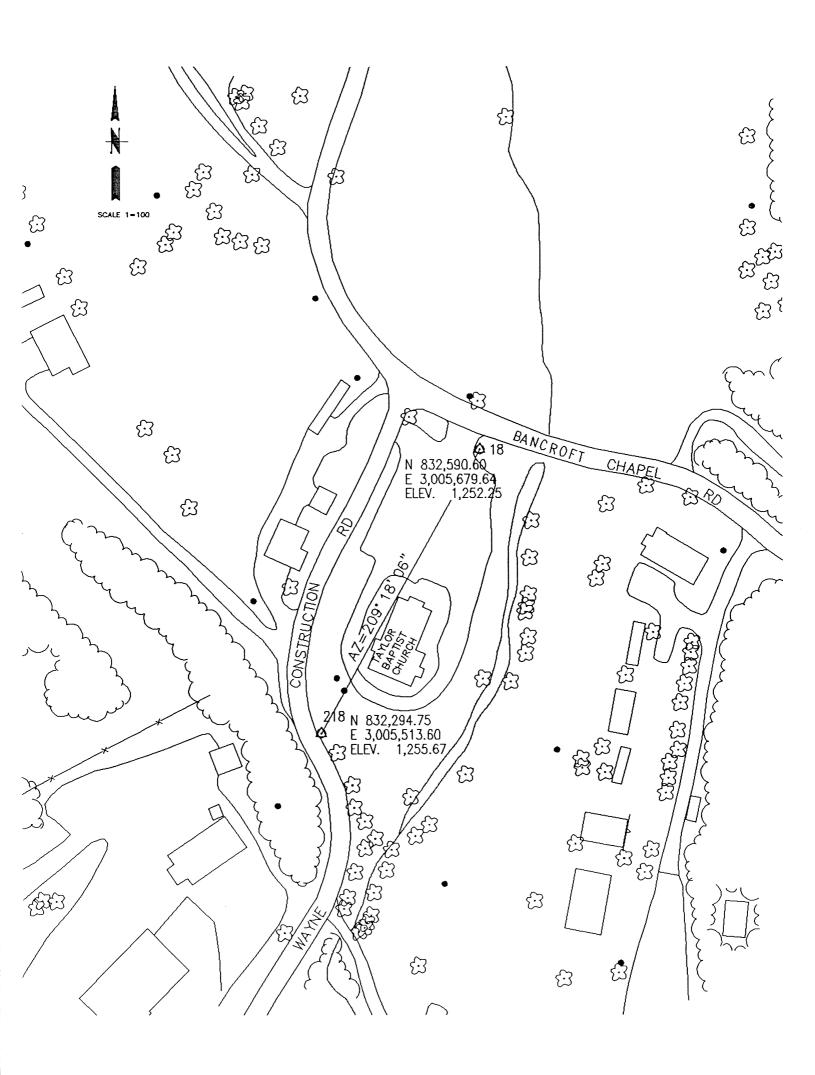
TT

STATION NO. 0018	STATION NAME BANCROFT	
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 832590.605	
LATITUDE: 36°34'8.89376"	EASTING: 3005679.637	
LONGITUDE: 82°28'3.28203"	ELEVATION: 1252.251	
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)	
SCALE FACTOR: 1.000030597	CONVERGENCE: 2*04'4.872"	
BACKSIGHT STATION NO: 0218	REFERENCE AZIMUTH: 209'18'06"	
NORTHING: 832294.749 EASTING:	3005513.599 GPS HEIGHT: 1255.671	
TO REACH DESCRIPTION:		

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.3 MILES N.E. OF KINGSPORT ON BANCROFT CHAPEL ROAD IN FRONT OF TAYLOR BAPTIST CHURCH. TO REACH STATION START AT THE INTERSECTION OF E. STONE DR. (11W) AND JOHN B. DENNIS HWY. GO EAST ON E. STONE DR. FOR 3.0 MILES TO BANCROFT CHAPEL ROAD. GO NORTH ON BANCROFT CHAPEL ROAD FOR 0.7 MILES TO THE STATION ON THE LEFT. STATION LIES ON THE SOUTH SIDE OF BANCROFT CHAPEL RD. AND THE SOUTHEAST SIDE OF DRIVEWAY LEADING TO TAYLOR BAPTIST CHURCH IN A GRASS AREA. STATION IS 2.1' N.E. OF THE WITNESS POST.

RECOVERY NOTES:		



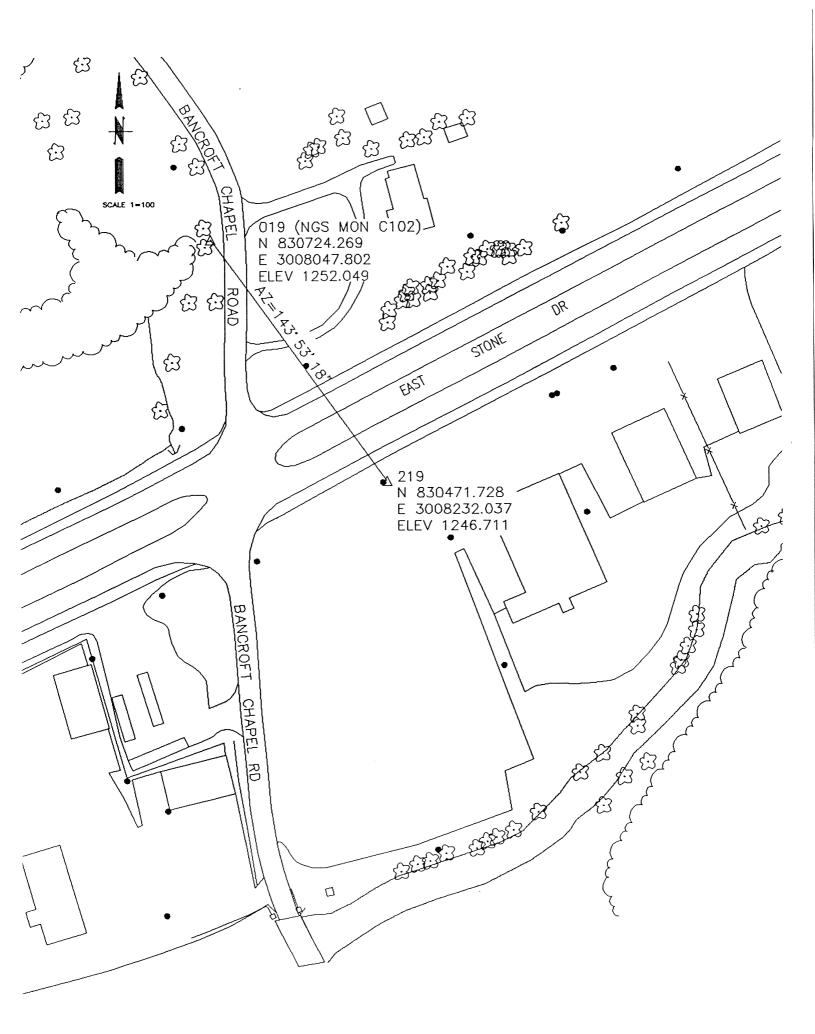
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0019	STATION NAME NGS C102		
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 830724.269		
LATITUDE: 36°33'49.60583"	EASTING: 3008047.802		
LONGITUDE: 82°27'35.09897"	ELEVATION: 1252.049		
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)			
SCALE FACTOR: 1.000029401 CONVERGENCE: 2°04'21.371"			
·			
BACKSIGHT STATION NO: 0219	REFERENCE AZIMUTH: 143°53'18"		
NORTHING: 830471.728 EASTING:	3008232.037 GPS HEIGHT: 1246.711		

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.6 MILES N.E. OF KINGSPORT ON BANCROFT CHAPEL ROAD. TO REACH STATION, START AT THE INTERSECTION OF E. STONE DR. (11W) AND JOHN B. DENNIS HWY N. GO EAST ON E. STONE DR. FOR 3.0 MILES TO BANCROFT CHAPEL ROAD. GO NORTH ON BANCROFT CHAPEL ROAD FOR 262' TO THE STATION ON THE LEFT. STATION LIES ON THE WEST SIDE OF BANCROFT CHAPEL ROAD DIRECTLY ACROSS FROM A WHITE FRAME HOUSE. STATION IS AN NGS MONUMENT STAMPED C102.

RECO	VERY	NOTES:	



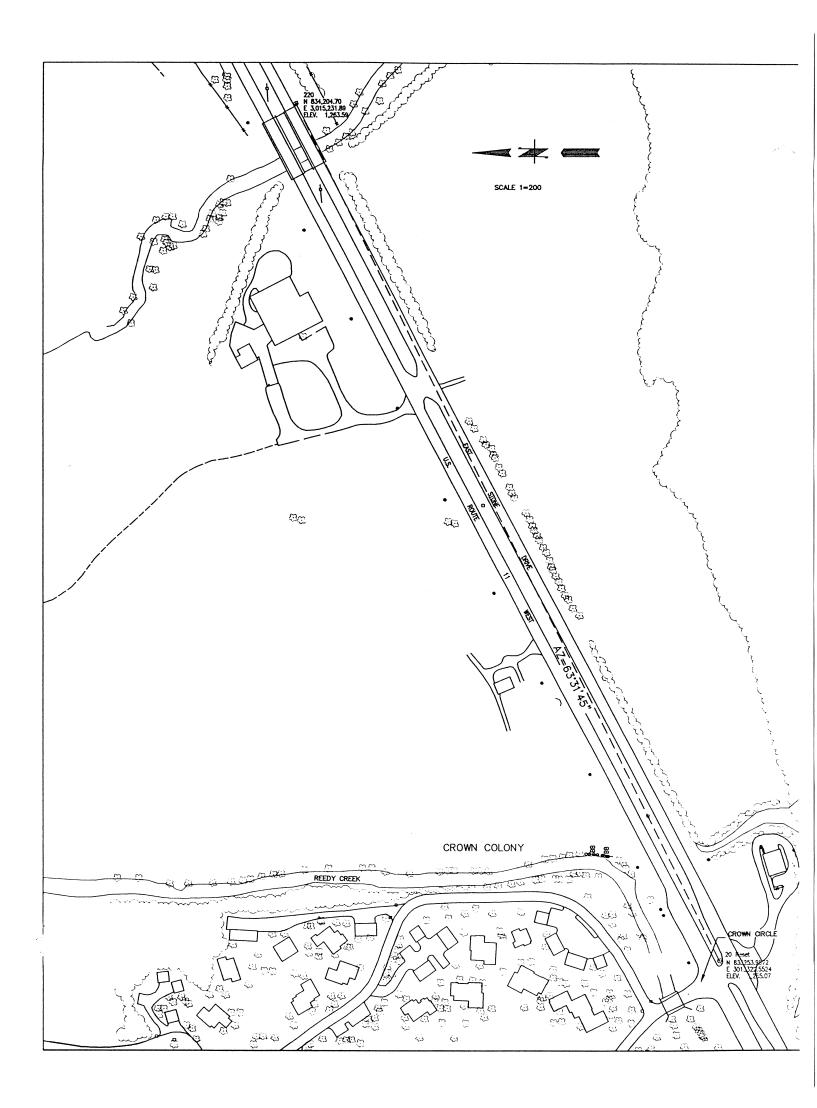
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 020 Reset STATION NAME Crown Colony Reset USGS QUAD SHEET Indian Springs TN. STATE PLANE COORDINATES GEODETIC POSITION NORTHING: 833253.9572 LATITUDE: 36° 34' 12.71142" **EASTING:** 3013322.5524 LONGITUDE: 82' 26' 29.35996" **ELEVATION:** 1255.07 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: CONVERGENCE: 1.000030835 2 '04' 59.85760" BACKSIGHT STATION NO: 220 REFERENCE AZIMUTH: 63° 31′ 45″ **NORTHING: EASTING:** 3015231.895 GPS HEIGHT: 1263.587 834204.702

#### TO REACH DESCRIPTION:

Station is located approximately 6.8 miles Northeast of Kingsport in the center of the grass median of E. Stone Drive and opposite the entrance to Crown Colony Condominiums. To reach the station start at the intersection of Stone Drive and John B. Dennis Bypass and go east on Stone Drive for 4.1 miles to the station located 9.9 feet behind the edge of pavement of the east side of the median crossover.

**RECOVERY NOTES:** 



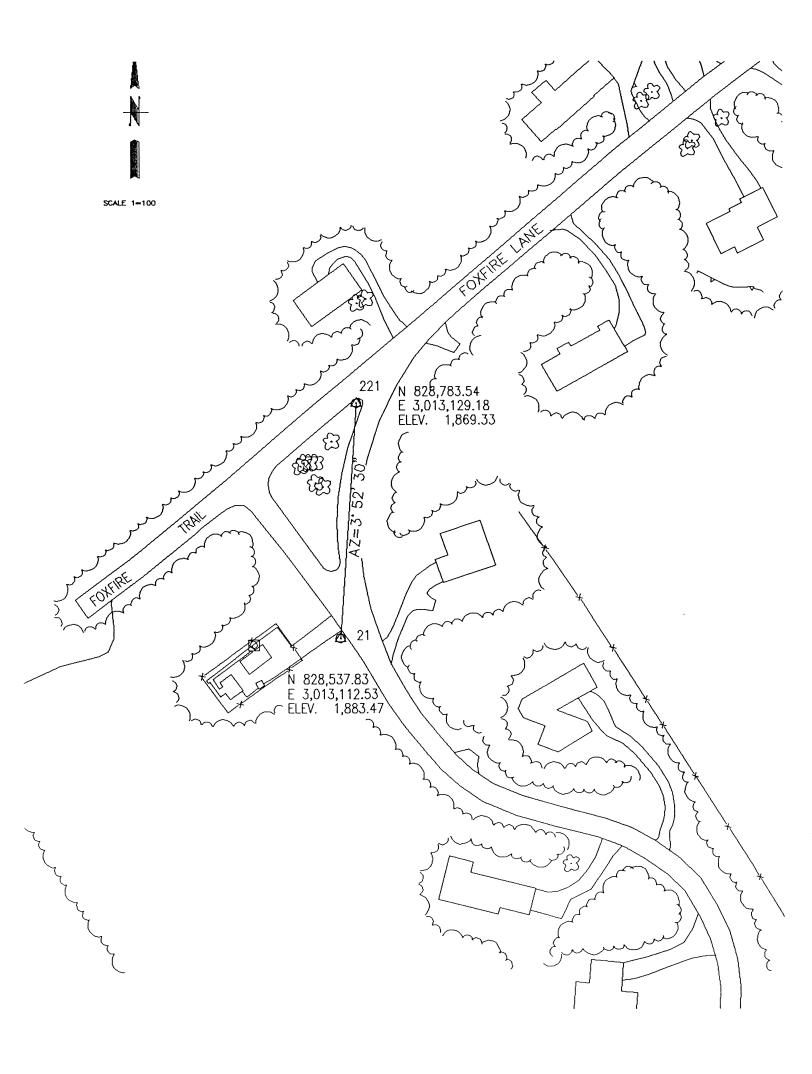
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0021	STATION NAME FOXFIRE
USGS QUAD SHEET INDIANS SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 828537.835
LATITUDE: 36°33'26.18538"	EASTING: 3013112.534
LONGITUDE: 82°26'34.03358"	GPS ELEVATION: 1883.472
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000027961	CONVERGENCE: 2°04'57.121"
BACKSIGHT STATION NO: '0221	REFERENCE AZIMUTH: 3°52'30"
NORTHING: 828783.540 EASTING:	3013129.177 GPS HEIGHT: 1869.328

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 6.5 MILES EAST OF KINGSPORT ATOP A LARGE HILL. TO REACH STATION START AT THE INTERSECTION OF MEMORIAL BLVD (SR126) AND JOHN B. DENNIS HWY. GO EAST ON MEMORIAL BLVD. FOR 3.8 MILES TO ISLAND ROAD. GO NORTHEAST ON ISLAND RD. FOR 0.3 MILES TO FOXFIRE LANE. GO NORTH ON FOXFIRE LANE FOR 0.45 MILES TO THE STATION ON THE LEFT. STATION IS IN THE FRONT OF A TOWER BELONGING TO UNITED TELEPHONE SYSTEMS AND DIRECTLY ACROSS ROAD FROM 4014 FOXFIRE LN. STATION IS 1.6' EAST OF WITNESS POST.

RECOVERY NOTES:	



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0022	STATION NAME NGS R108		
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 827840.994		
LATITUDE: 36°33'21.91573"	EASTING: 3005806.156		
LONGITUDE: 82°28'3.83304"	GPS ELEVATION: 1385.170		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000027700	CONVERGENCE: 2°04'4.549"		
BACKSIGHT STATION NO: 0222	REFERENCE AZIMUTH: 67°36'48"		
NORTHING: 828084.145 EASTING:	3006396.475 GPS HEIGHT: 1417.025		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.1 MILES N.E. OF KINGSPORT IN OREBANK. TO REACH STATION START AT THE INTERSECTION OF MEMORIAL BLVD. (SR126) AND OREBANK RD. GO EAST ON OREBANK ROAD FOR 2.75 MILES TO THE STATION ON THE LEFT. STATION IS ON THE NORTH SIDE OF OREBANK RD. IN FRONT OF THE HOUSE AT 5724 OREBANK RD. STATION IS AN NGS MONUMENT STAMPED R108.

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#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

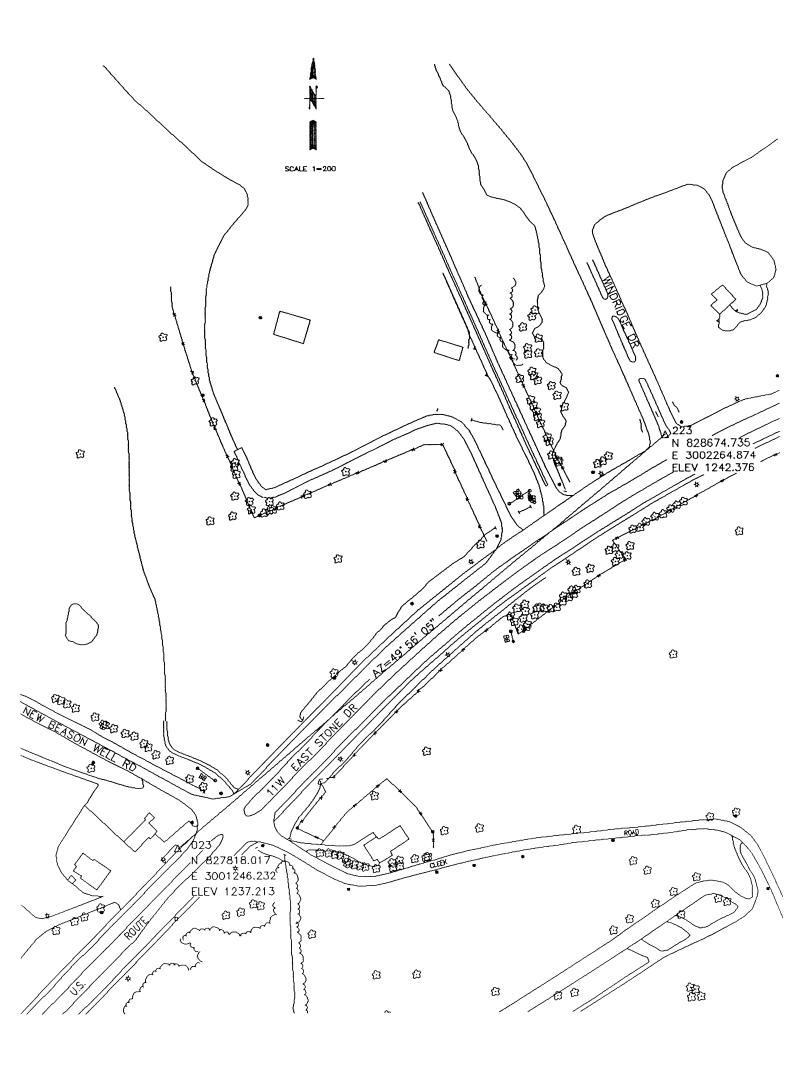
TT

STATION NO. 0023	STATION NAME RALPH'S
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 827818.017
LATITUDE: 36'33'23.31207"	EASTING: 3001246.232
LONGITUDE: 82°28'59.69430"	ELEVATION: 1237.213
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000027786	CONVERGENCE: 2°03'31.846"
BACKSIGHT STATION NO: 0223	REFERENCE AZIMUTH: 49'56'05"
NORTHING: 828674.735 EASTING:	3002264.874 GPS HEIGHT: 1242.376
TO DEADLE DECORPTION	

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4.3 MILES N.E. OF KINGSPORT ON THE NORTH SIDE OF E. STONE DR. (11W) AND WEST OF NEW BEASON WELL ROAD IN FRONT OF KINGSPORT TRANSMISSION COMPANY. TO REACH STATION START AT THE INTERSECTION OF E. STONE DR. AND JOHN B. DENNIS HWY. GO EAST ON EAST STONE DR. FOR 1.6 MILES TO THE STATION ON THE LEFT. STATION IS DIRECTLY IN FRONT OF THE KINGSPORT TRANSMISSION COMPANY AND IS IN A GRASS ISLAND. STATION IS 2' SOUTH OF WITNESS POST.

RECOVERY NOTES:	
NECOVERT NOTES.	



#### FNGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK STATION REPORT

STATION NO.: 024

STATION NAME:

WEXFORD

USGS QUAD SHEET: KINGSPORT

TN. STATE PLANE COORDINATES

**GEODETIC POSITION** 

**LATITUDE**: 36 ' 33 ' 20.48453"

LONGITUDE: 82° 30'27.41535"

**NORTHING**: 827275.998

EASTING:

2994103.764

**ELEVATION**: 1371.396

BACKSIGHT STATION NO: 224 RESET

REFERENCE AZIMUTH: 206° 09'50"

**NORTHING**: 826438.905

**EASTING**: 2993692.516

**ELEVATION**: 1356.84

HORIZONTAL DATUM: 1983 NAD

VERTICAL DATUM: 1929 NGVD

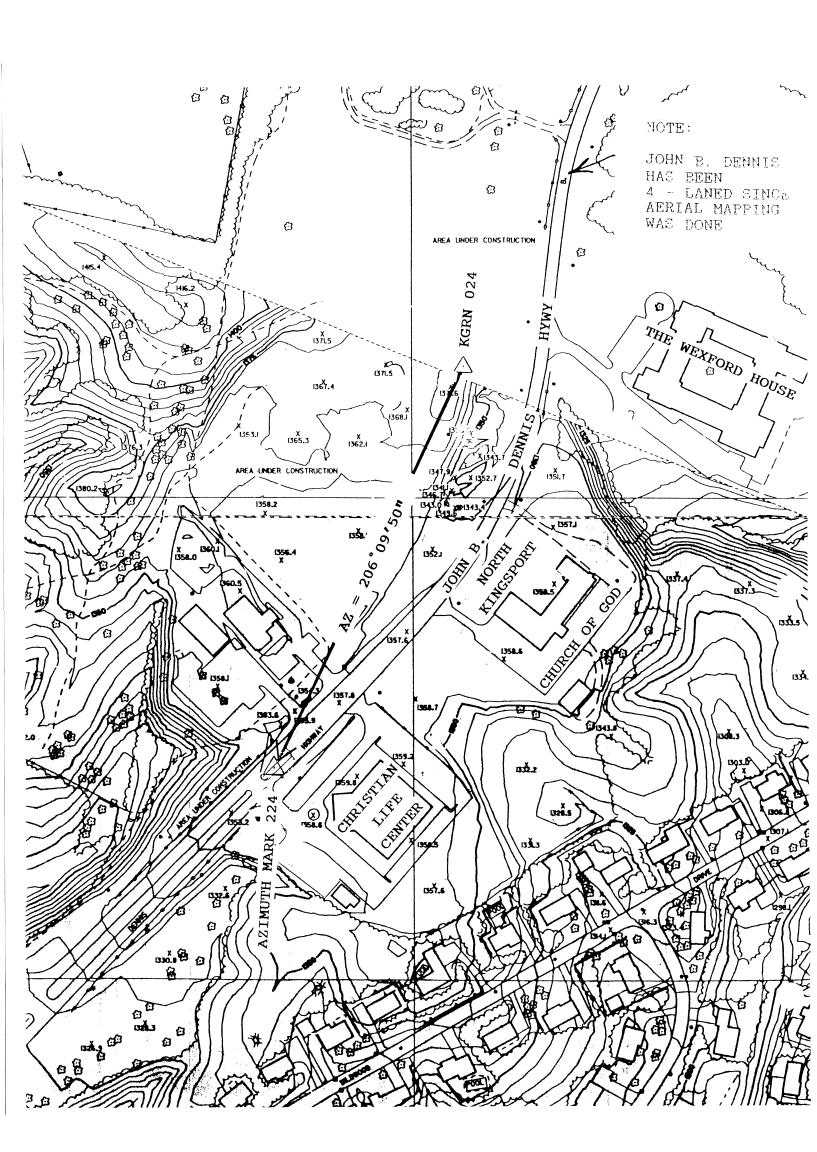
ZONE:4100 (TN)

**SCALE FACTOR**: 1.000027613

CONVERGENCE: 02 " 02 '40 .491"

#### TO REACH DESCRIPTION:

STATION IS APPROXIMATELY 2.9 MILES EAST OF KINGSPORT ON JOHN B. DENNIS HIGHWAY. TO REACH STATION, START AT THE INTERSECTION OF E. STONE DRIVE AND JOHN B. DENNIS HIGHWAY, THEN GO NORTH ON JOHN B. DENNIS FOR 0.95 MILES TO THE STATION ON THE LEFT. STATION IS ON A HIGH HILL ON THE WEST SIDE OF JOHN B. DENNIS HWY. STATION IS 1.1 FOOT EAST OF THE WITNESS POST.



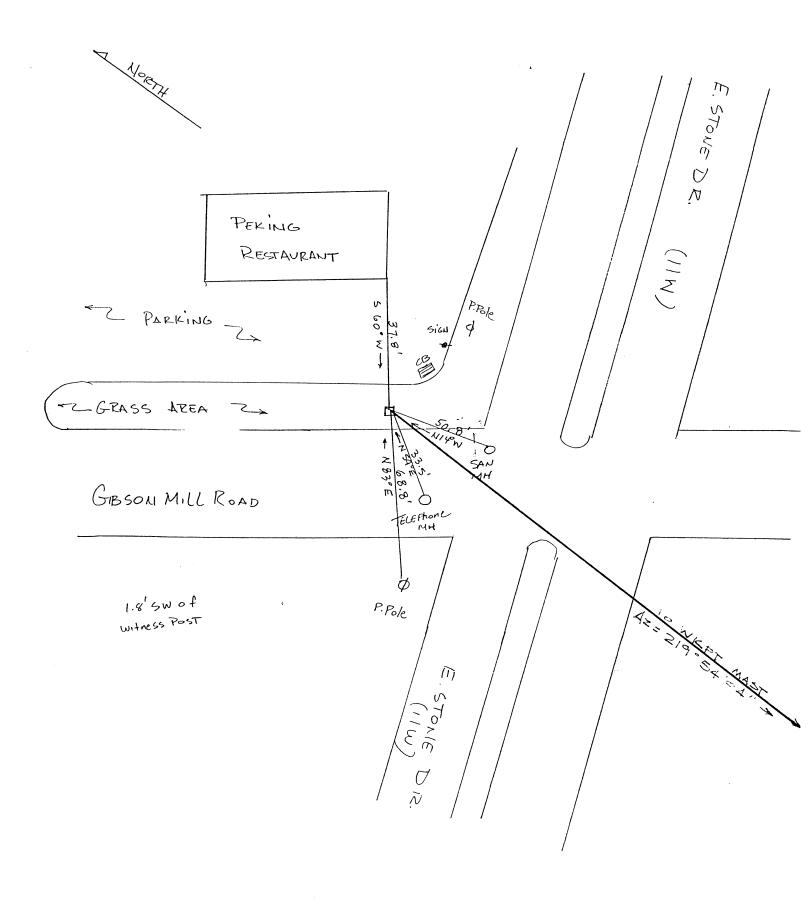
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0025	STATION NAME PEKING
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 828198.351
LATITUDE: 36°33'34.04422"	EASTING: 2981424.566
LONGITUDE: 82°33'2.31820"	ELEVATION: 1224.700
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000028443	CONVERGENCE: 2°01'9.804"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 219°54'05"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 0.9 MILES N.E. OF KINGSPORT AT THE INTERSECTION OF E. STONE DR. (11W) AND GIBSON MILL RD. IN FRONT OF PEKING RESTAURANT. TO REACH THE STATION START AT THE INTERSECTION OF E. STONE DR. AND LYNN GARDEN DR. (SR36). GO EAST ON STONE DR. FOR 1.05 MILES TO GIBSON MILL RD. GO N.W. ON GIBSON MILL RD. TO THE STATION IMMEDIATELY ON YOUR RIGHT. STATION IS 1.8' S.W. OF THE WITNESS POST.

RECOVERY NOTES:		



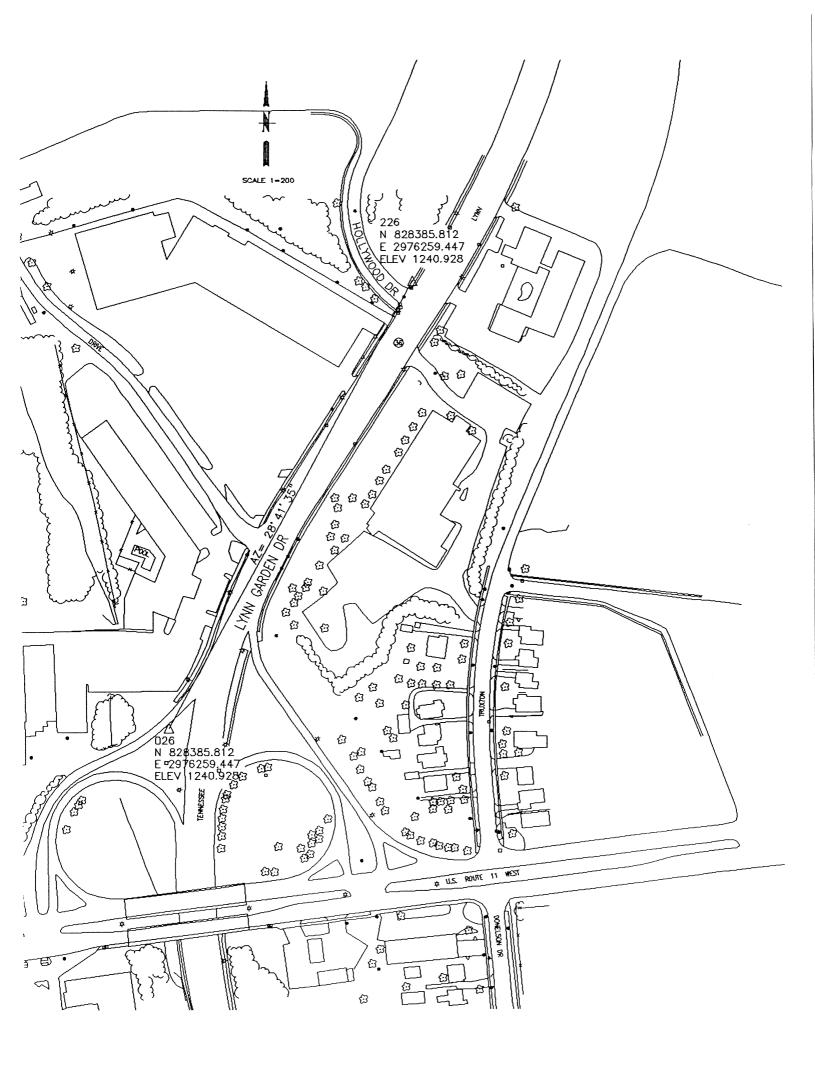
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0026	STATION NAME LYNN GARDEN
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 828385.812
LATITUDE: 36°33'37.69174"	EASTING: 2976259.447
LONGITUDE: 82°34'5.50604"	ELEVATION: 1240.928
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000028667	CONVERGENCE: 2'00'32.812"
BACKSIGHT STATION NO: 0226 '	REFERENCE AZIMUTH: 28'41'35"
NORTHING: 829318.199 EASTING:	2976769.768 GPS HEIGHT: 1275.629

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 1 MILE NORTH OF KINGSPORT IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF LYNN GARDEN DRIVE & STONE DR. (11W). STATION IS LYING BETWEEN THE SIDEWALK AND THE ON RAMP TO STONE DR. STATION IS 2' N.W. OF WITNESS POST.

RECOVERY NOTES:		



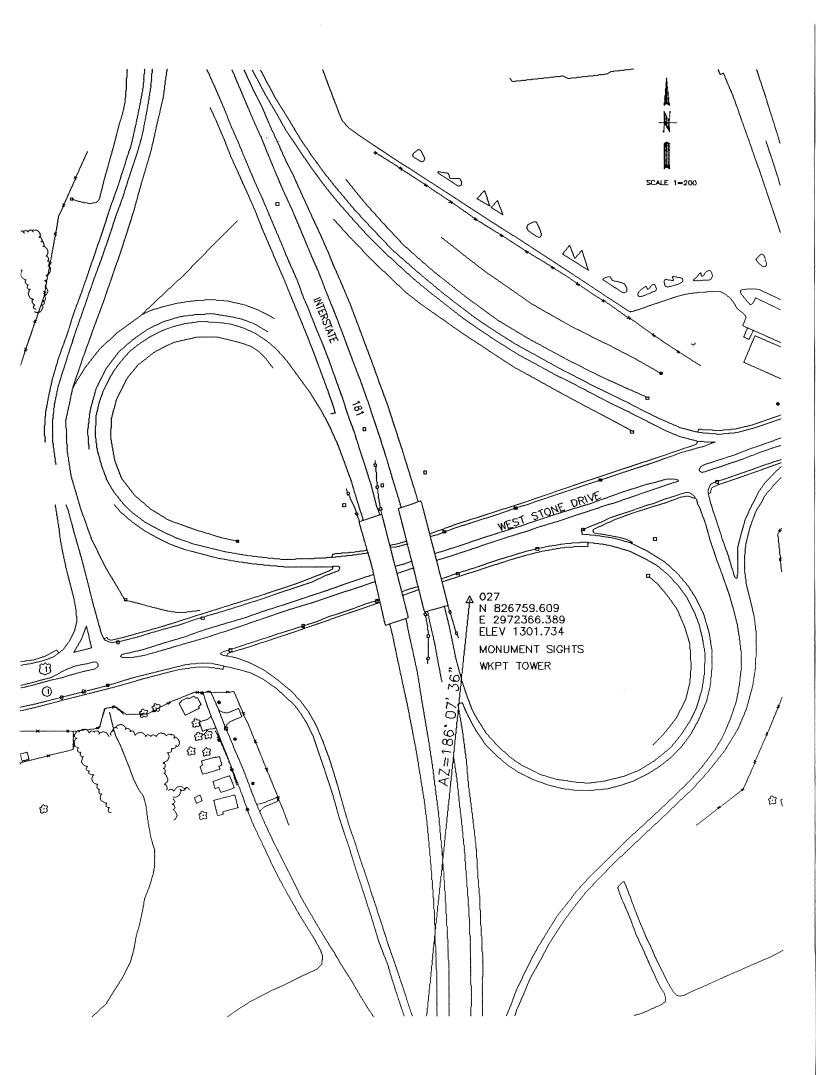
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0027	STATION NAME STONEGATE			
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES			
GEODETIC POSITION	NORTHING: 826759.609			
LATITUDE: 36°33'22.96880"	EASTING: 2972366.389			
LONGITUDE: 82°34'53.88964"	ELEVATION: 1301.734			
HORIZONTAL DATUM: 1983 NAD VERTICAL	. DATUM: 1929 NGVD ZONE: 4100(TN)			
SCALE FACTOR: 1.000027765	CONVERGENCE: 2'00'4.486"			
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 186°07'36"			
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:			
TO 001 011 011 011				

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 1.5 MILES N.W. OF KINGSPORT AT THE INTERSECTION OF W. STONE DR. (11W) AND I—181. STATION IS ON THE TOP OF A HILL OVERLOOKING 11W. STATION IS APPROXIM—ATELY 8' SOUTH OF THE TOP OF BANK AND 2' NORTH OF WITNESS POST.

RECOVERY NOTES:		N-0-195 (10-4)



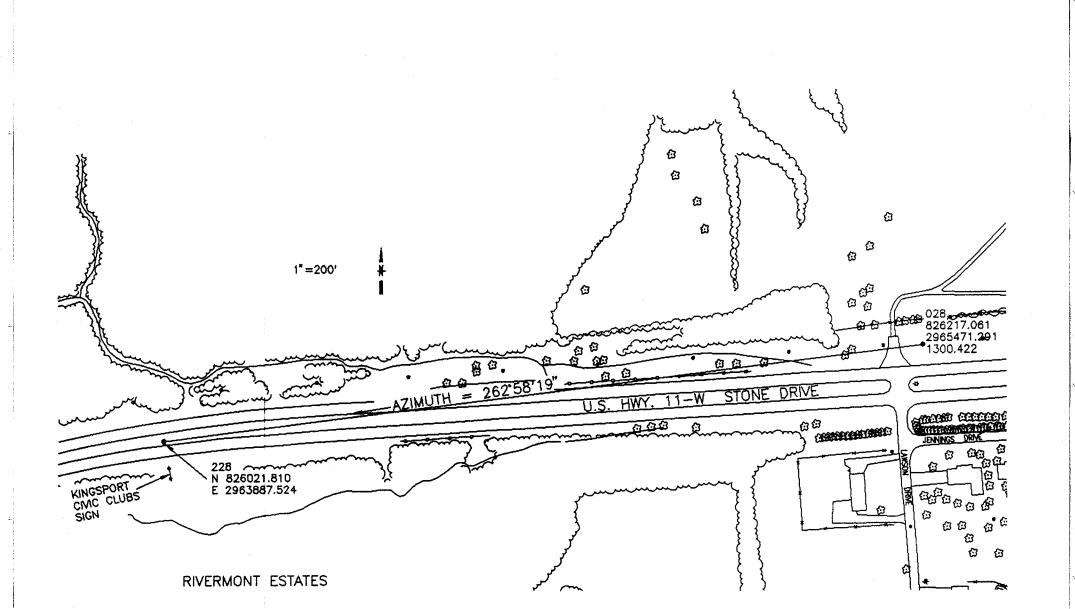
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0028	STATION NAME VULCAN			
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES			
GEODETIC POSITION	NORTHING: 826217.061			
LATITUDE: 36°33′19.98007″	EASTING: 2965471.291			
LONGITUDE: 82'36'18.57726"	ELEVATION: 1300.422			
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)			
SCALE FACTOR: 1.000027582	CONVERGENCE: 1*59'14.906"			
BACKSIGHT STATION NO: 228	REFERENCE AZIMUTH: 262'58'19"			
NORTHING: 826021.810 EASTING:	2963887.524 GPS HEIGHT:			

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 2.7 MILES WEST OF KINGSPORT ON THE NORTH SIDE OF 11W AT THE INTERSECTION OF LAWSON ST. TO REACH STATION, START AT THE INTERSECTION OF W. STONE DR.(11W) AND I—181. GO WEST ON W. STONE DR. FOR 1.3 MILES TO THE STATION ON THE RIGHT. STATION IS ON THE NORTH SIDE OF W. STONE DR. ATOP A BANK BETWEEN THE ROAD AND FENCE LINE. STATION IS 2.2' SOUTH OF THE WITNESS POST.

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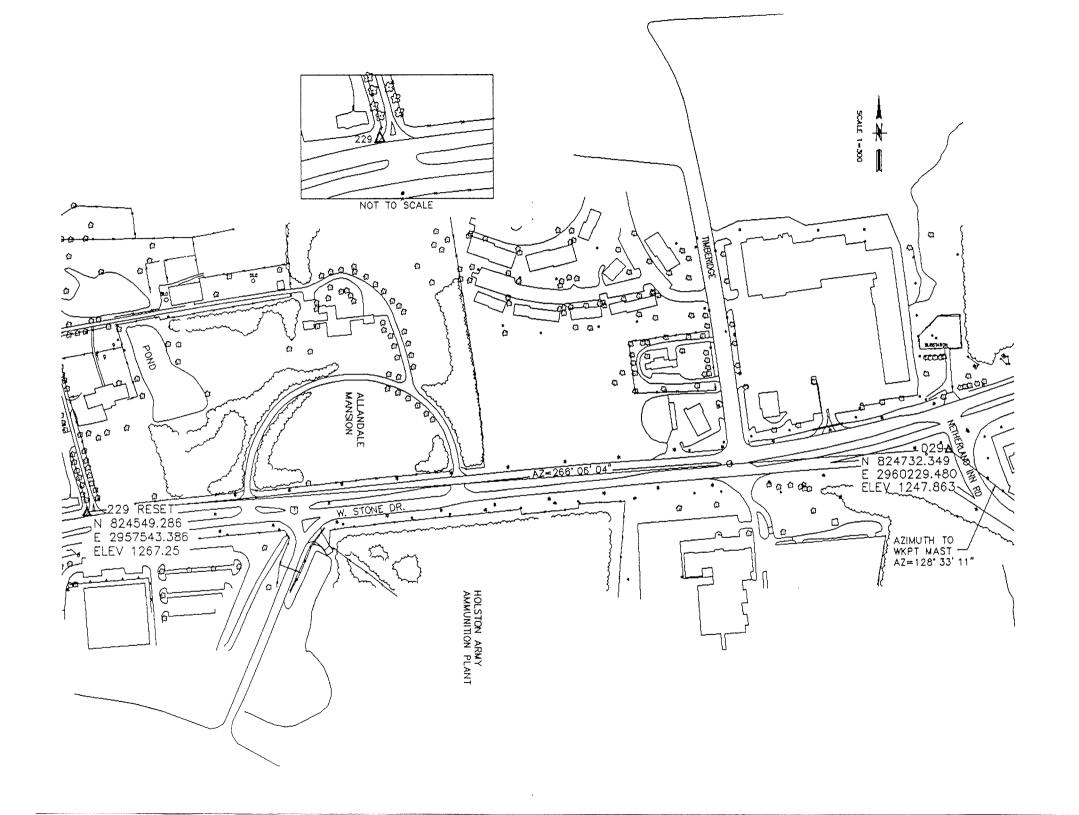
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NAME NETHERLAND INN				
TN. STATE PLANE COORDINATES				
NORTHING: 824732.349				
EASTING: 2960229.480				
ELEVATION: 1247.863				
DATUM: 1929 NGVD ZONE: 4100(TN)				
CONVERGENCE: 1'58'36.950"				
REFERENCE AZIMUTH: 65°30'41"				
2957543.386 GPS HEIGHT: 1267.25				

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 3.7 MILES WEST OF KINGSPORT IN HAWKINS COUNTY ON THE SOUTH SIDE OF 11W AT THE INTERSECTION OF 11W AND NETHERLAND INN ROAD IN HAWKINS COUNTY. TO REACH THE STATION, START AT THE INTERSECTION OF W. STONE DR. AND I—181. GO WEST ON STONE DR. FOR 2.3 MILES TO NETHERLAND INN ROAD. GO SOUTH AND STATION WILL BE IMMEDIATELY ON THE RIGHT IN A GRASS AREA BETWEEN THE RAMPS TO NETHERLAND INN RD. STATION IS 2' EAST OF WITNESS POST.

RECOVERY	NOTES:		



#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NAME WASTE WATER PLANT STATION NO. 0030 TN. STATE PLANE COORDINATES USGS QUAD SHEET **KINGSPORT** GEODETIC POSITION NORTHING: 824030.865 LATITUDE: 36'32'55.18252" EASTING: 2974742.045 LONGITUDE: 82'34'25.96148" ELEVATION: 1185.365 VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) HORIZONTAL DATUM: 1983 NAD SCALE FACTOR: 1.000026075 CONVERGENCE: 2'00'20.836" BACKSIGHT STATION NO: 426 REFERENCE AZIMUTH: 203'41'44" GPS HEIGHT: **EASTING:** 

2971209.503

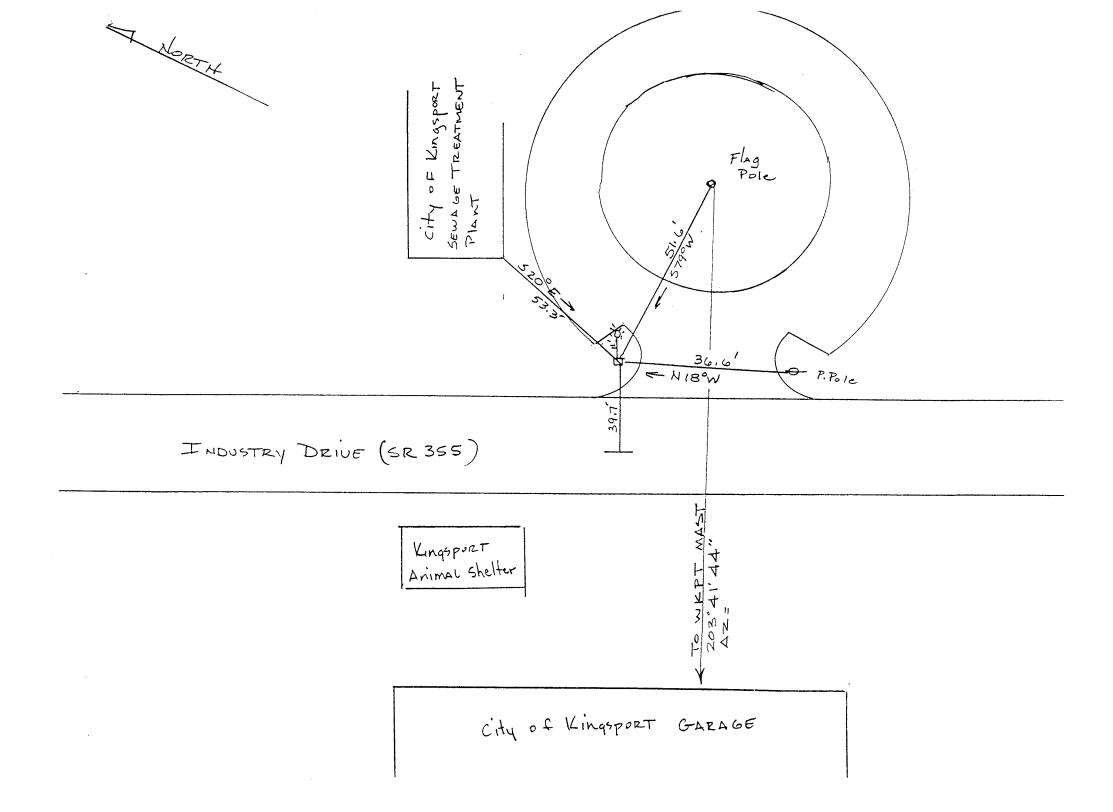
TO REACH DESCRIPTION:

815981.793

NORTHING:

STATION IS LOCATED APPROXIMATELY 0.9 MILES WEST OF KINGSPORT ON INDUSTRY DR. (SR355) IN FRONT OF THE CITY OF KINGSPORT SEWAGE TREATMENT PLANT AND DIRECTLY ACROSS FROM THE CITY OF KINGSPORT'S GARAGE. TO REACH STATION, START AT THE INTER-SECTION OF N. WILCOX DR. AND FORT HENRY DR.(SR 36). GO SOUTH ON N. WILCOX DR. FOR 0.85 MILES TO INDUSTRY DR. FOR 1.65 MILES TO THE STATION ON THE RIGHT. STATION IS 1.9' SOUTH OF THE WITNESS POST.

RECOVERY NOTES:		
	<b>5</b>	



#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0031	STATION NAME CLOUD PARK
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 825495.336
LATITUDE: 36°33'9.31590"	EASTING: 2975719.012
LONGITUDE: 82°34'13.36728"	ELEVATION: 1194.536
HORIZONTAL DATUM: 1983 NAD VERTICA	AL DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000026932	CONVERGENCE: 2'00'28.209"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 205°21'41"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:
TO DEADLE DECORPTION	

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 0.7 MILES N.W. OF KINGSPORT ON W. CENTER STREET (SR 355) OPPOSITE LYNN GARDEN DR. (SR 36) IN A GRASS STRIP IN FRONT OF THE FRANK L. CLOUD PARK, OWNED BY THE CITY OF KINGSPORT. STATION IS 0.6 MILES N.W. OF CITY HALL. STATION IS 1.8' N. OF THE WITNESS POST.

COVERY NOTES:	

LYNN GARDEN DRIVE
(SR 36)

W. CENTER STREET (SR 355)

PAINTED MEDIÁN W. CENTER TSTREET SR 355 ₹.*h*. GUARDRA GRASS PARKING BALL FIELD

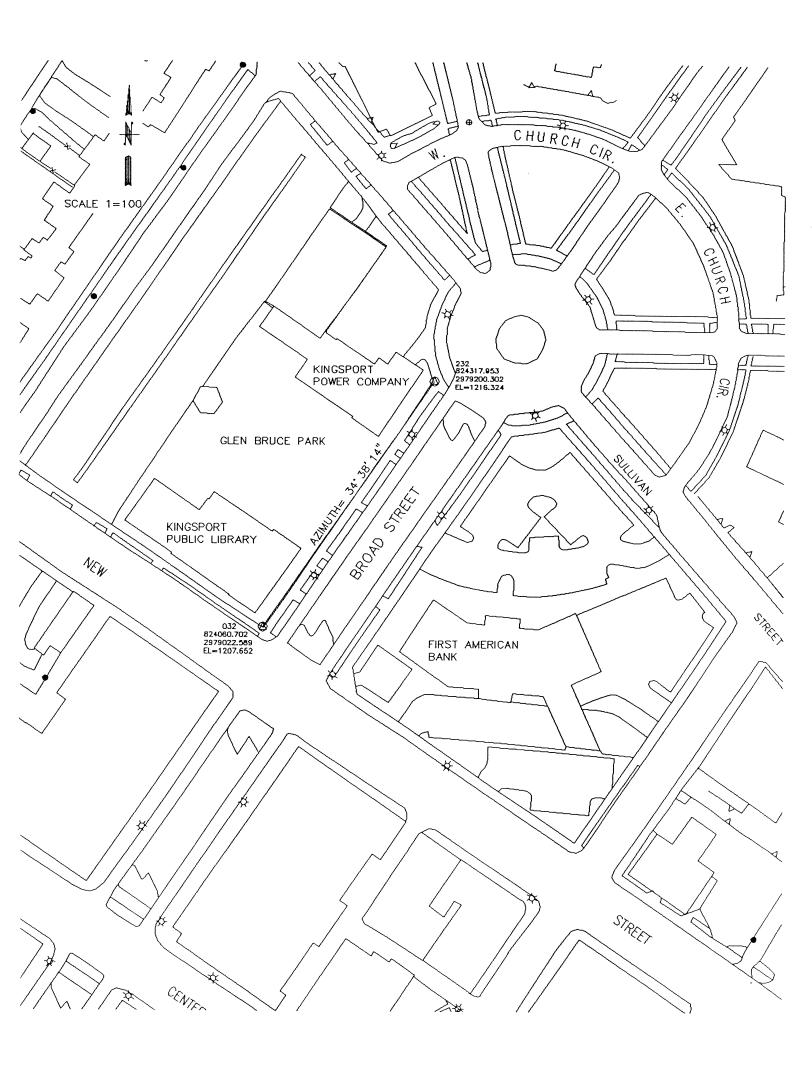
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

	·			
STATION NO. 0032	STATION NAME NGS W-57			
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES			
GEODETIC POSITION	NORTHING: 824060.702			
LATITUDE: 36°32'53.99280"	EASTING: 2979022.589			
LONGITUDE: 82°33'33.52287"	ELEVATION: 1207.652			
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)			
SCALE FACTOR: 1.000026003	CONVERGENCE: 2*00'51.536"			
BACKSIGHT STATION NO: 0232	REFERENCE AZIMUTH: 34°38'14"			
NORTHING: 824317.953 EASTING:	2979200.302 GPS HEIGHT: 1216.324			

TO REACH DESCRIPTION:

STATION IS LOCATED AT THE INTERSECTION OF BROAD STREET AND W. NEW STREET IN DOWNTOWN KINGSPORT IN FRONT OF THE KINGSPORT PUBLIC LIBRARY, NEAR THE SIDEWALK CORNER. STATION IS A NGS MONUMENT STAMPED W-57.

**RECOVERY NOTES:** 



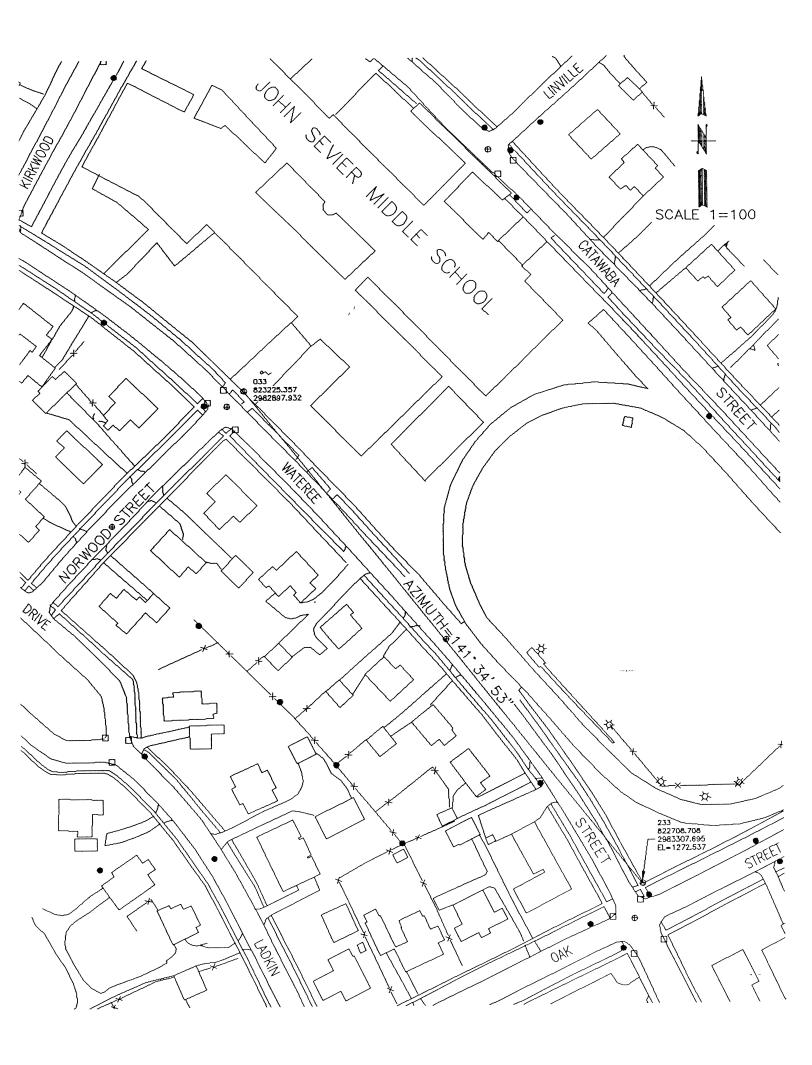
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0033	STATION NAME NGS Z57				
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES				
GEODETIC POSITION	NORTHING: 823225.357				
LATITUDE: 36°32'44.38865"	EASTING: 2982897.932				
LONGITUDE: 82°32'46.42142"	ELEVATION: 1273.908				
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)				
SCALE FACTOR: 1.000025423	CONVERGENCE: 2*01'19.111"				
BACKSIGHT STATION NO: 0233	REFERENCE AZIMUTH: 141°34'53"				
NORTHING: 822708.708 EASTING:	2983307.695 GPS HEIGHT: 1272.537				

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 0.7 MILES S.E. OF KINGSPORT ON WATEREE STREET IN FRONT OF THE JOHN SEVIER MIDDLE SCHOOL. STATION IS AN NGS CAP SET IN THE SIDEWALK, STAMPED Z57. TO REACH STATION START AT CHURCH CIRCLE IN DOWNTOWN KINGSPORT. GO EAST ON WATAUGA STREET FOR 0.6 MILES TO PIEDMONT STREET. GO SOUTH ON PIEDMONT STREET FOR 0.15 MILES TO WATEREE ST. GO EAST ON WATEREE STREET FOR 0.1 MILES TO THE STATION ON THE LEFT.

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#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK STATION REPORT

STATION NO.:

STATION NAME:

PINEBROOK

USGS QUAD SHEET: KINGSPORT

TN. STATE PLANE COORDINATES

**GEODETIC POSITION** 

**LATITUDE:** 36° 33'02.98464"

LONGITUDE: 82° 31'33.89985"

825314.260 NORTHING:

**EASTING**: 2988745.410

ELEVATION:

1226.153

BACKSIGHT STATION NO: 234

REFERENCE AZIMUTH: 119° 57'36"

NORTHING: 824688.550

EASTING:

2989830.926

ELEVATION: 1234.362

**HORIZONTAL DATUM: 1983 NAD** 

VERTICAL DATUM: 1929 NGVD

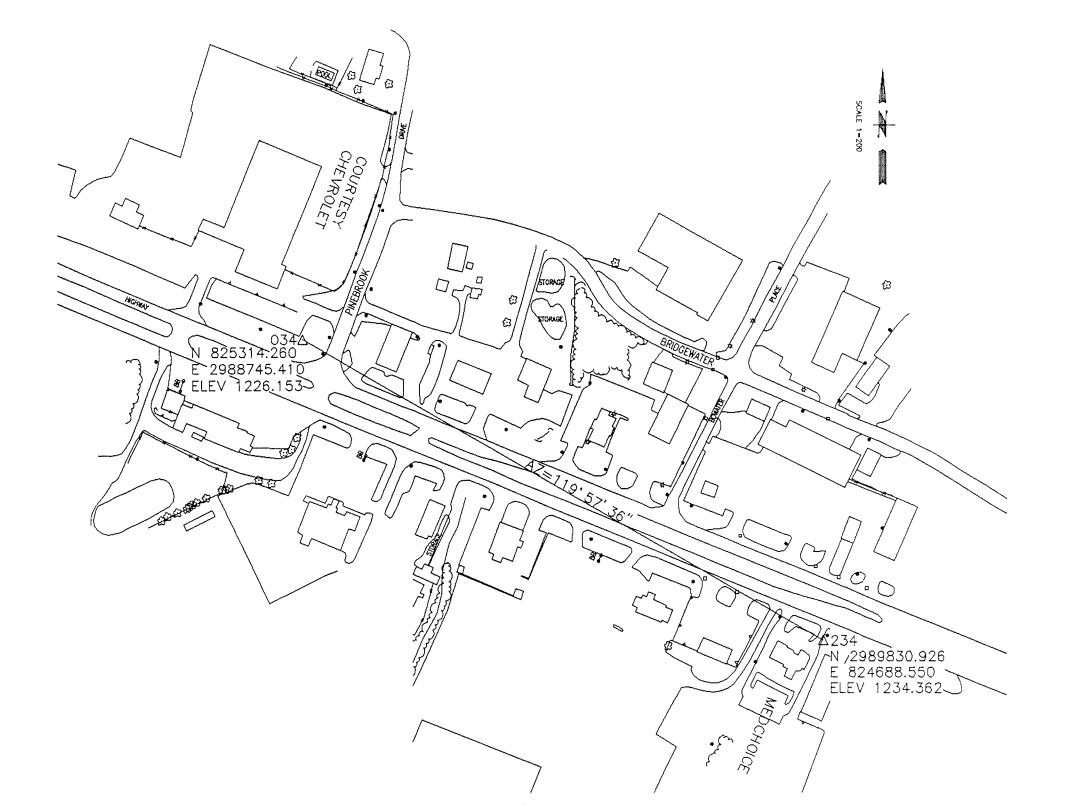
ZONE:4100 (TN)

**SCALE FACTOR:** 1.000026547

CONVERGENCE: 02° 02'01.568"

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 1.8 MILES EAST OF KINGSPORT AT THE INTERSECTION OF EAST STONE DRIVE AND PINEBROOK DRIVE IN FRONT OF COURTESY CHEVROLET DEALERSHIP. TO REACH STATION, START AT THE INTERSECTION OF E. STONE DRIVE AND JOHN B. DENNIS HWY. AND GO WEST ON STONE DRIVE FOR 1.0 MILES TO THE STATION ON THE RIGHT. STATION LIES ON THE WEST SIDE OF PINEBROOK DRIVE IN A GRASS AREA ON A SMALL RISE. STATION IS 2.0 FEET SOUTH OF THE WITNESS POST.



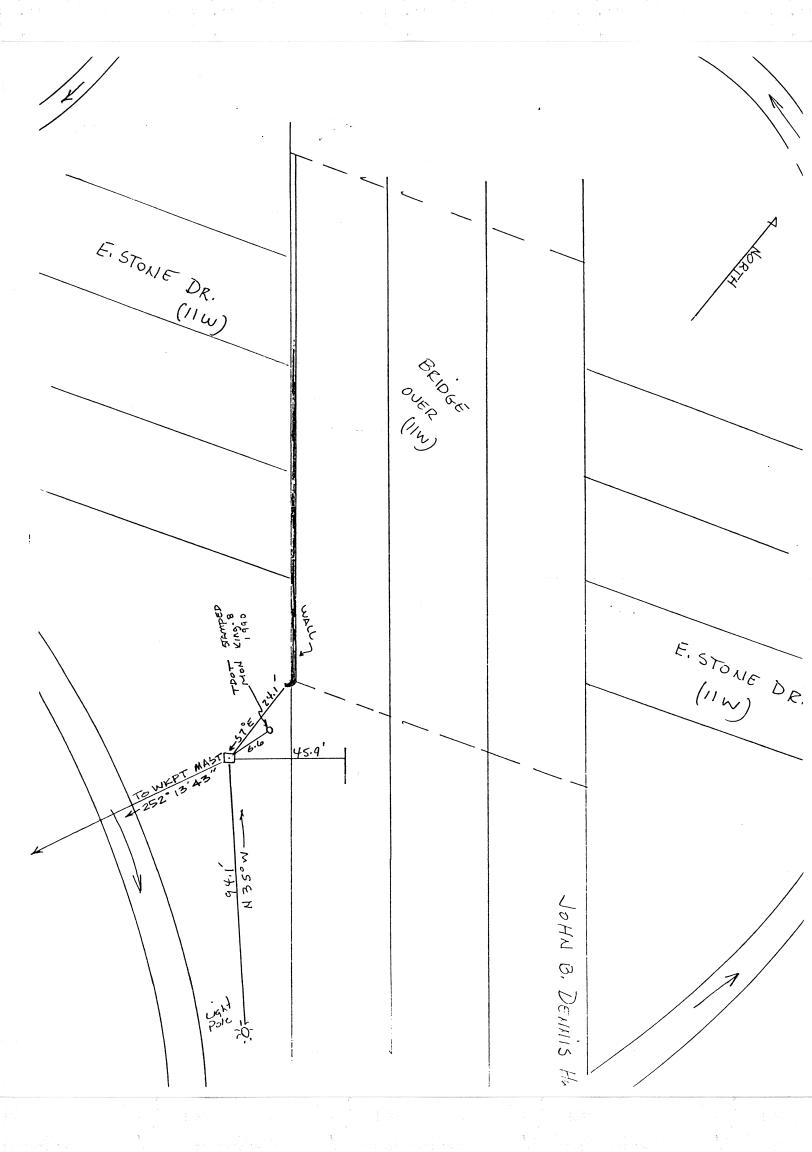
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0035	STATION NAME RAMADA					
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES					
GEODETIC POSITION	NORTHING: 823222.701					
LATITUDE: 36°32'40.53816"	EASTING: 2993801.106					
LONGITUDE: 82°30'32.89399"	ELEVATION: 1271.581					
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)						
SCALE FACTOR: 1.000025192	CONVERGENCE: 2°02'37.283"					
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 252"3'43"					
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:					

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 2.8 MILES EAST OF KINGSPORT. STATION LIES IN THE SOUTHWEST QUADRANT OF THE INTERSECTION OF E. STONE DR. AND JOHN B. DENNIS HWY. STATION IS ON A HILL APPROXIMATELY 15' WEST OF THE EDGE OF PAVEMENT ON JOHN B. DENNIS HWY. STATION IS 2.1' EAST OF THE WITNESS POST.

RECOVERY NOTES:			



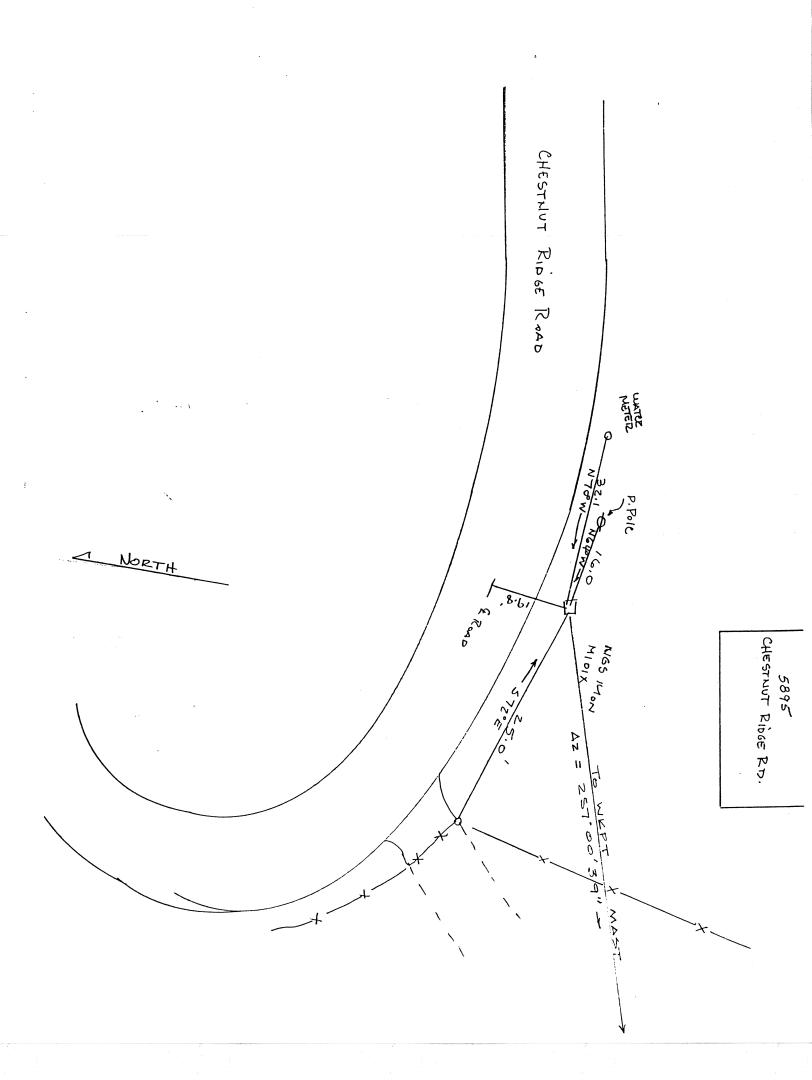
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0036	STATION NAME NGS M101X					
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES					
GEODETIC POSITION	NORTHING: 823508.525					
LATITUDE: 36°32'39.80547"	EASTING: 3003839.620					
LONGITUDE: 82°28'29.83176"	GPS ELEVATION: 1651.774					
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)						
SCALE FACTOR: 1.000025148	CONVERGENCE: 2°03'49.329"					
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 257°00'39"					
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:					
TO BEACH DECORPTION						

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4.7 MILES EAST OF KINGSPORT ON CHESTNUT RIDGE ROAD. TO REACH STATION START AT THE INT—ERSECTION OF MEMORIAL BLVD. (SR126) AND OREBANK ROAD. GO EAST ON OREBANK ROAD FOR 1.8 MILES TO CHESTNUT RIDGE ROAD. GO SOUTHEAST ON CHESTNUT RIDGE ROAD FOR 0.7 MILES TO THE STATION ON THE RIGHT. STATION IS IN FRONT OF THE HOUSE AT 5895 CHESTNUT RIDGE ROAD, AND IS A NGS MONUMENT STAMPED M101X.

RECOVERY NOTES:		



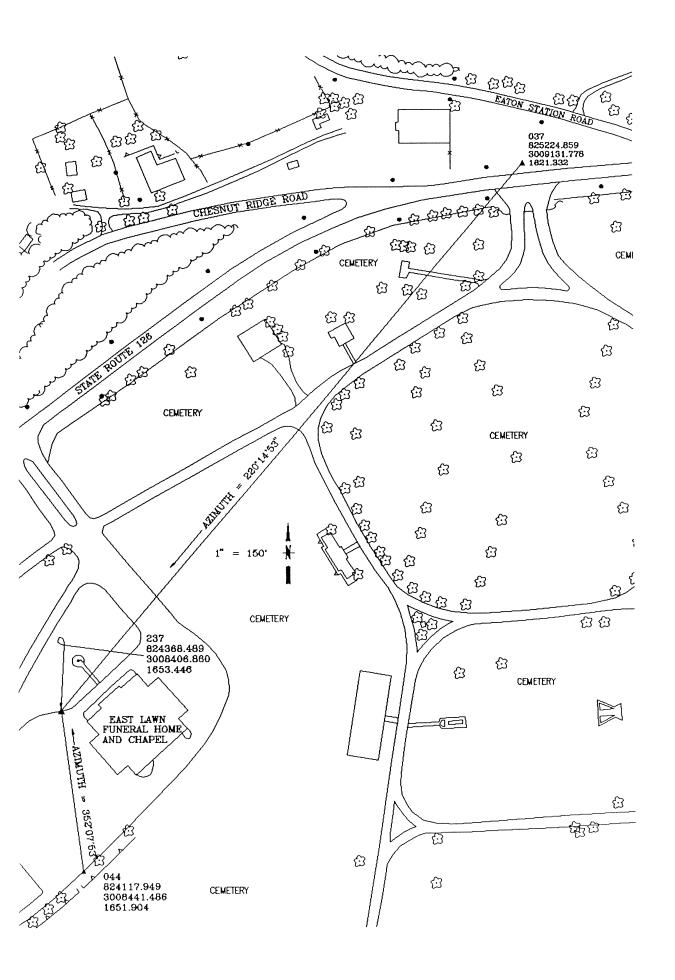
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0037	STATION NAME EAST LAWN 2	
USGS QUAD SHEET	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 825224.859	
LATITUDE: 36°32'54.87612"	EASTING: 3009131.778	
LONGITUDE: 82°27'24.26094"	GPS ELEVATION: 1621.332	
HORIZONTAL DATUM: 1983 NAD VERTICAL	_ DATUM: 1929 NGVD ZONE: 4100(TN)	
SCALE FACTOR: 1.000026056	CONVERGENCE: 2*04'27.716"	
BACKSIGHT STATION NO: 0237	REFERENCE AZIMUTH: 220°14'53"	
NORTHING: 824368.489 EASTING:	3008406.860 GPS HEIGHT: 1653.446	
TO REACH DESCRIPTION:		

#### TO REACH DESCRIPTION:

STATION IS LOCATED 5.7 MILES EAST OF KINGSPORT ON HWY. 126. TO REACH STATION, START AT THE INTERSECTION OF HWY. 126 (MEMORIAL BLVD.) AND HWY. 93 (JOHN B. DENNIS BYPASS) GO EAST ON HWY. 126 FOR 3.1 MILES TO THE STATION ON THE LEFT. STATION IS ON TOP OF A BANK, 16.5' NORTH OF THE EDGE OF PAVEMENT OF HWY. 126 AND 119.5' SOUTHEAST OF THE SOUTHEAST CORNER OF A LARGE BARN AND 209' WEST OF THE CENTERLINE OF THE INTERSECTION OF EATONS STATION ROAD AND HWY. 126.

RECOVERY NOTES:			



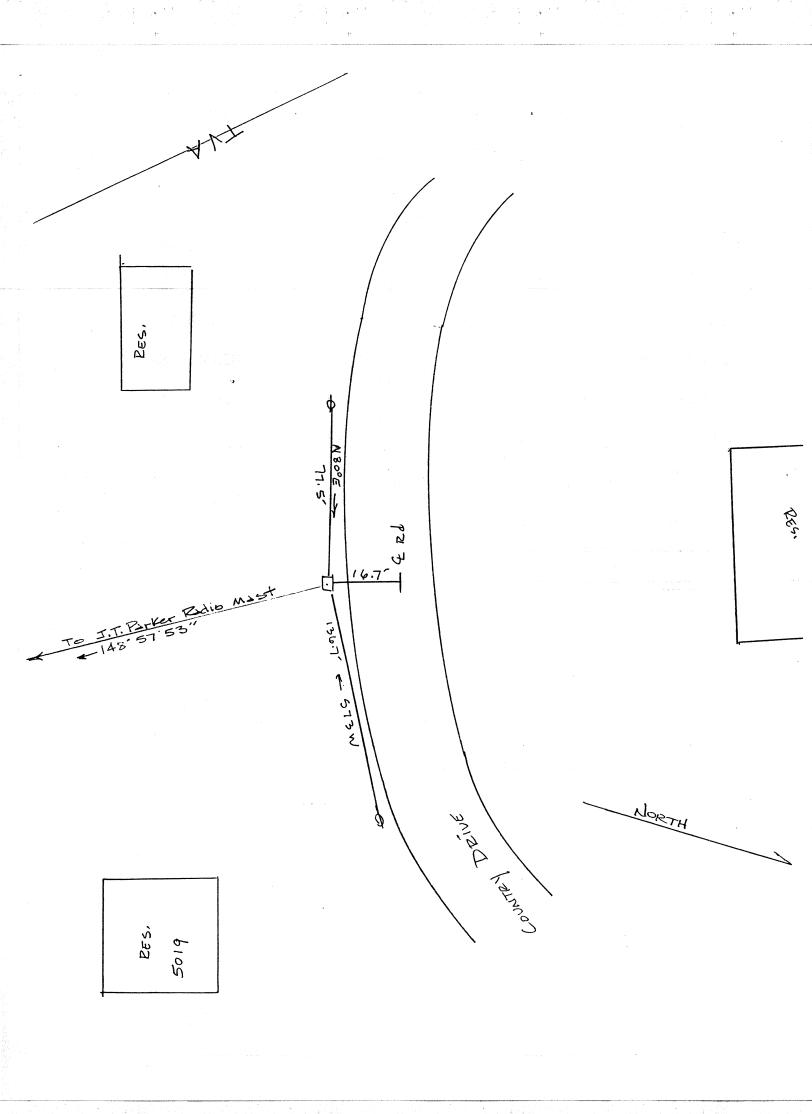
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0038	STATION NAME COUNTRY DRIVE
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 823527.885
LATITUDE: 36°32'36.11292"	EASTING: 3014690.361
LONGITUDE: 82°26′16.94230″	ELEVATION: 1600.869
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000024926	CONVERGENCE: 2*05'7.127"
BACKSIGHT STATION NO: 427	REFERENCE AZIMUTH: 148°57'53"
NORTHING: 816077.755 EASTING:	3019173.100 GPS HEIGHT:
TO DEACH DESCRIPTION.	

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 6.8 MILES EAST OF KINGSPORT ATOP A HIGH HILL ON COUNTRY DR. TO REACH STATION BEGIN AT THE INTERSECTION OF JOHN B. DENNIS HWY. AND MEMORIAL BLVD. (SR 126). GO EAST ON MEMORIAL BLVD. FOR 4.1 MILES TO COUNTRY DR. GO SOUTH ON COUNTRY DR. FOR 0.3 MILES TO THE STATION ON THE LEFT. STATION IS LYING IN A VACANT LOT BETWEEN TWO HOUSES. STATION IS 1.7' NORTH OF WITNESS POST.

DECOMEDY NOTES	 ······································	
RECOVERY NOTES:		



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

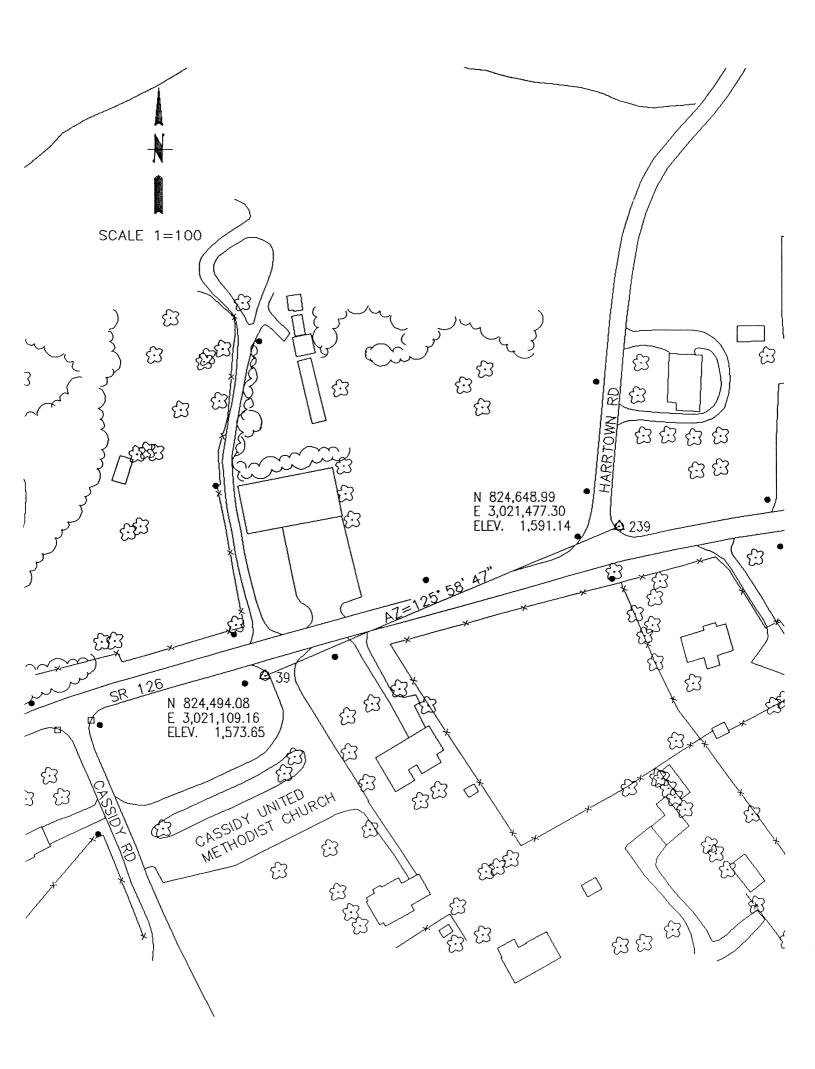
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STATION NO. 0039	STATION NAME CASSIDY CHURCH
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 824494.085
LATITUDE: 36'32'43.34369"	EASTING: 3021109.163
LONGITUDE: 82°24'57.90425"	ELEVATION: 1573.653
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000025360	CONVERGENCE: 2°05′53.399″
BACKSIGHT STATION NO: 0239	REFERENCE AZIMUTH: 67"10'46"
NORTHING: 824648.991 EASTING:	3021477.299 GPS HEIGHT: 1591.135
TO PEACL DESCRIPTION.	

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.0 MILES EAST OF KINGSPORT ON MEMORIAL BLVD. (SR 126). IT IS IN THE FRONT OF CASSIDY UNITED METHODIST CHURCH. TO REACH STATION START AT THE INTERSECTION OF SR 126 AN I-81. GO NORTHWEST ON MEMORIAL BLVD. FOR 2.05 MILES TO THE STATION ON THE LEFT. STATION IS IN FRONT OF THE CASSIDY UNITED METHODIST CHURCH. STATION IS 2.2' NORTH OF THE WITNESS POST.

RECOVERY NOTES:		



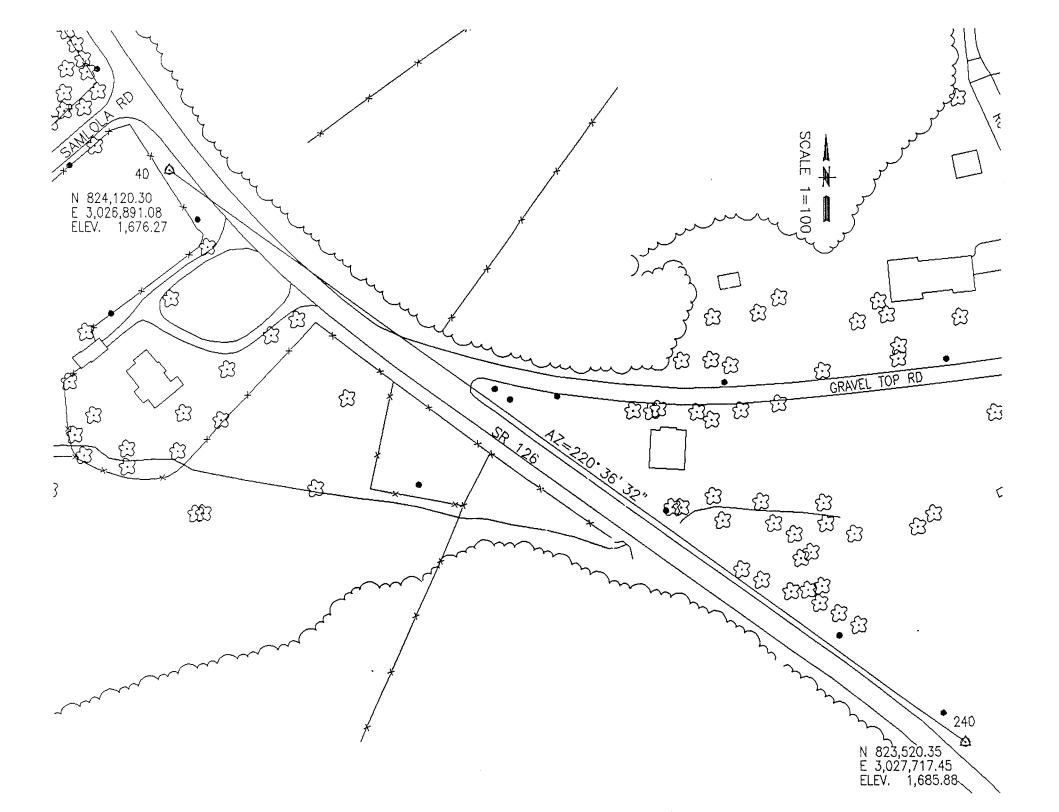
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0040	STATION NAME SAMLOLA	
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 824120.296	
LATITUDE: 36°32'37.55131"	EASTING: 3026891.083	
LONGITUDE: 82°23'47.26629"	ELEVATION: 1676.269	
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)	
SCALE FACTOR: 1.000025012	CONVERGENCE: 2°06'34.754"	
BACKSIGHT STATION NO: 0240	REFERENCE AZIMUTH: 125°58'47"	
NORTHING: 823520.348 EASTING:	3027717.454 GPS HEIGHT: 1685.883	

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 9.1 MILES EAST OF KINGSPORT ON MEMORIAL BLVD. (126). TO REACH STATION START AT THE INTER—SECTION OF MEMORIAL BLVD. (SR 126) AND I—81. GO NORTHWEST ON MEMORIAL BLVD. FOR 0.9 MILES TO THE STATION ON THE LEFT. STATION LIES BETWEEN THE EDGE OF PAVEMENT AND A RAIL FENCE. STATION IS 1.7' WEST OF THE WITNESS POST.

RECOVERY NOTES:		



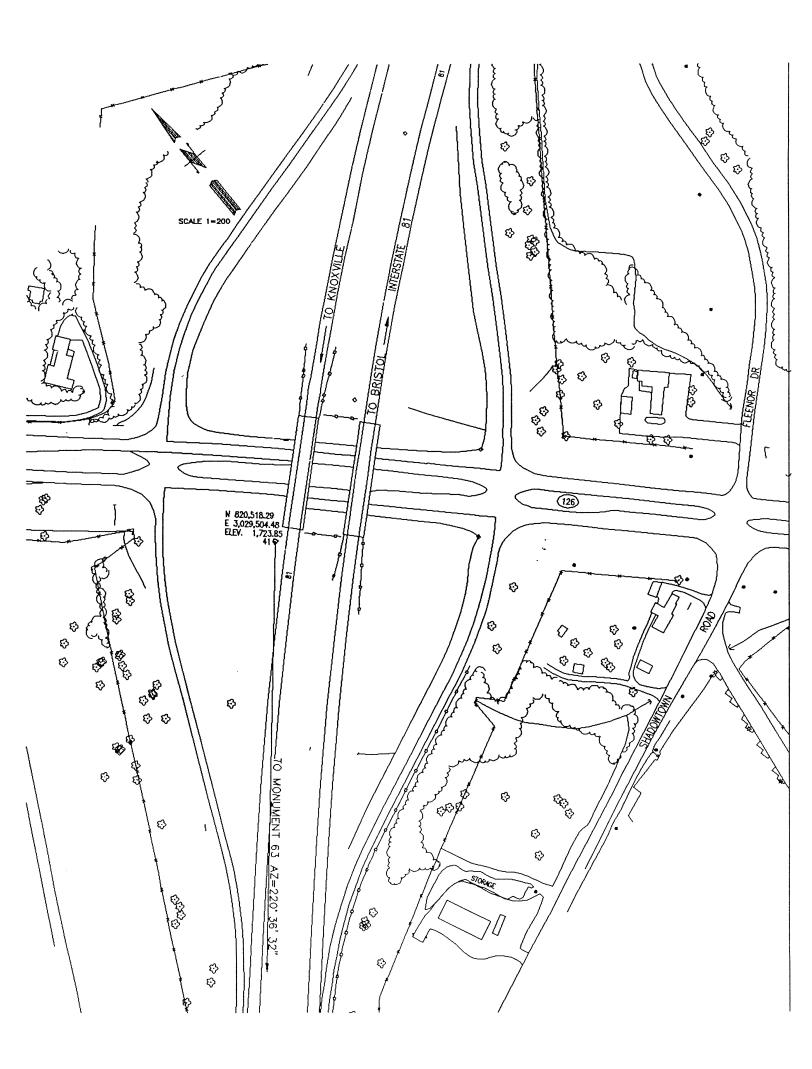
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0041	STATION NAME CENTRAL HIGH SCHOOL		
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 820518.288		
LATITUDE: 36°32'1.00666"	EASTING: 3029504.477		
LONGITUDE: 82°23'16.89157"	ELEVATION: 1723.848		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000022833	CONVERGENCE: 2°06'52.536"		
BACKSICHT STATION NO: 63	REFERENCE AZIMUTH: 220°36'32"		
NORTHING: 815598.740 EASTING:	3025286.599 GPS HEIGHT:		
TO REACH DESCRIPTIONS			

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 9.6 MILES EAST OF KINGSPORT ON I-81 AT THE INTERSECTION OF MEMORIAL BLVD. (SR 126). STATION IS ON THE NORTHWEST SIDE OF I-81 AND THE SOUTHEAST SIDE OF MEMORIAL BLVD. (SR 126). STATION IS 1.7' SOUTHEAST OF WITNESS POST.

RECOVERY NOTES:		



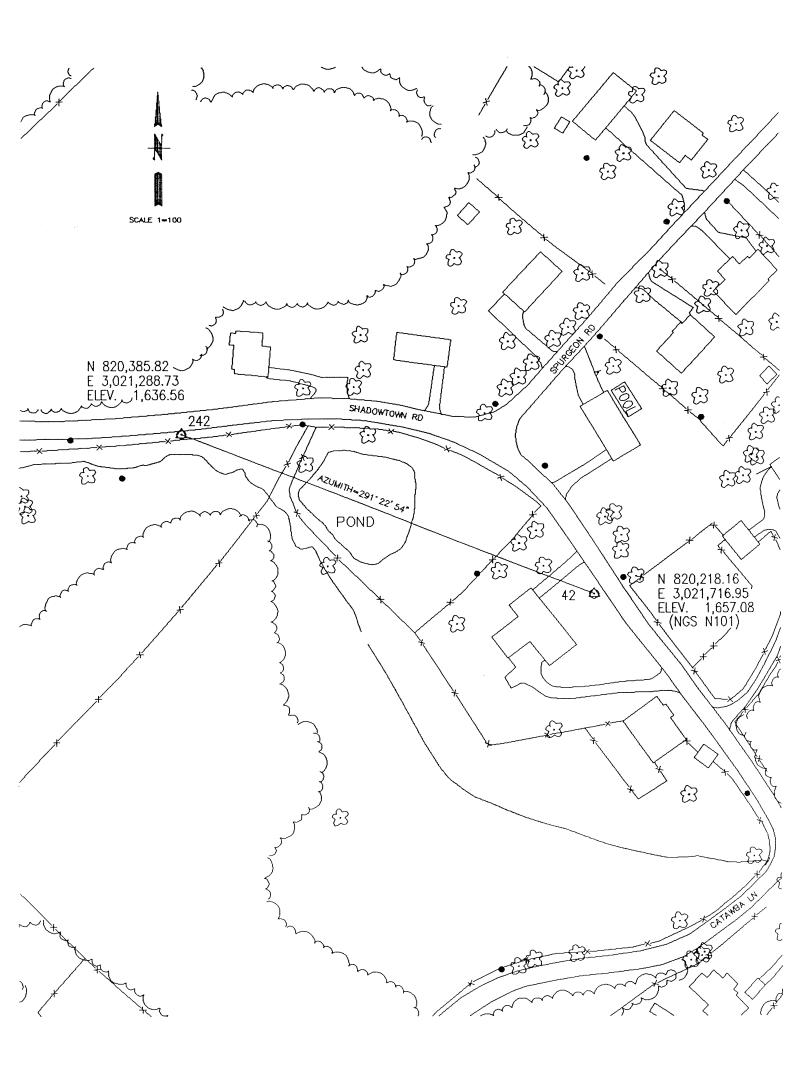
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0042	STATION NAME NGS N101	
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 820218.159	
LATITUDE: 36°32'00.87185"	EASTING: 3021716.955	
LONGITUDE: 82°24'52.38031"	ELEVATION: 1657.079	
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)	
SCALE FACTOR: 1.000022825	CONVERGENCE: 2°05'56.633"	
BACKSIGHT STATION NO: 0242	REFERENCE AZIMUTH: 291°22'51"	
NORTHING: 820385.816 EASTING:	3021288.726 GPS HEIGHT: 1636.559	
TO DELOUI DECODIDATION		

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.2 MILES EAST OF KINGSPORT ON HILL ROAD. TO REACH STATION START AT THE INTERSECTION OF I-81 AND BROWDER ROAD. GO NORTH ON BROWDER RD. FOR 0.6 MILES TO LYNN ROAD. CONTINUE NORTH ON LYNN ROAD FOR 0.9 MILES TO FIELDCREST ROAD. GO NORTHEAST ON FIELDCREST ROAD FOR 1.3 MILES TO HILL ROAD. GO EAST ON HILL RD. FOR 0.2 MILES TO THE STATION ON THE RIGHT. STATION IS IN FRONT OF RESIDENCE 1017 HILL RD. STATION IS A NGS MONUMENT STAMPED N101.

RECOVERY NOTES:		



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

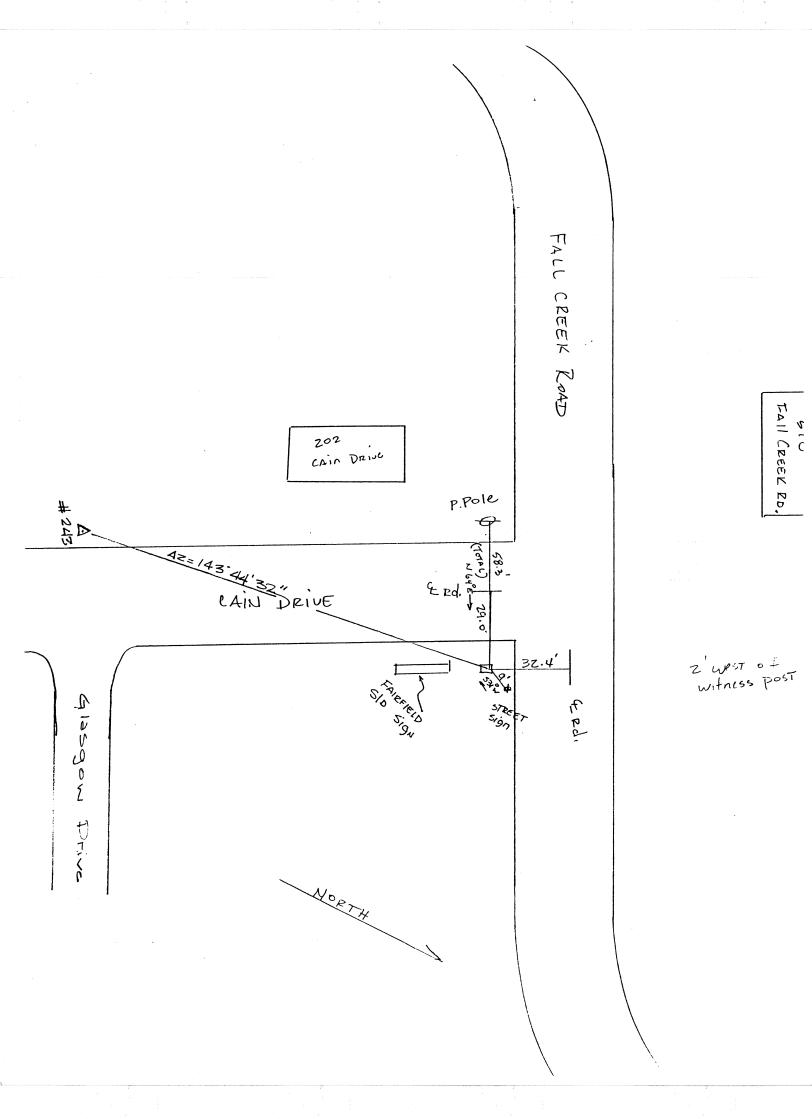
41

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STATION NO. 0043	STATION NAME CAIN DR.
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 820265.239
LATITUDE: 36°32'4.38541"	EASTING: 3013266.212
LONGITUDE: 82°26'35.83525"	ELEVATION: 1460.877
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000023033	CONVERGENCE: 2°04'56.067"
BACKSIGHT STATION NO: 0243	REFERENCE AZIMUTH: 143'44'32"
NORTHING: 819605.158 EASTING:	3013750.342 GPS HEIGHT: 1543.977
TO DEACH DESCRIPTION:	

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 7.1 MILES SOUTHEAST OF KINGSPORT AT THE INTERSECTION OF FALL CREEK ROAD AND CAIN DR. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DR. (SR 36) AND HEMLOCK RD. GO NORTHEAST ON HEMLOCK RD. FOR 1.6 MILES TO FALL CREEK RD. GO NORTHEAST ON FALL CREEK RD. FOR 3.7 MILES TO CAIN DR. AND THE STATION ON THE RIGHT. STATION IS 2' WEST OF THE WITNESS POST.

RECOVERY NOTES:		



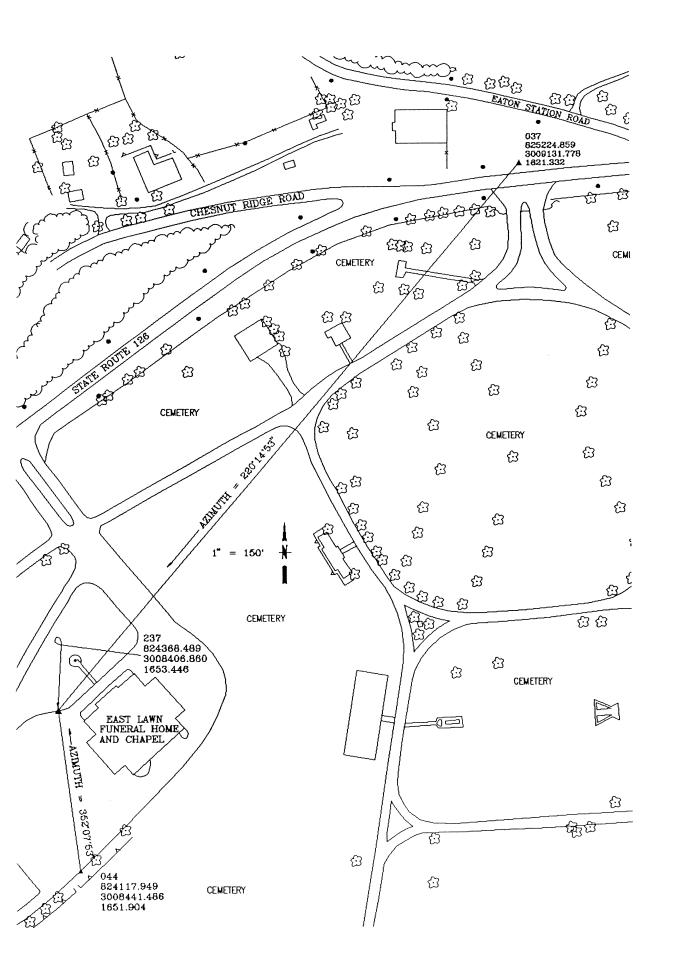
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0044	STATION NAME EAST LAWN		
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 824117.949		
LATITUDE: 36°32'44.18524"	EASTING: 3008441.486		
LONGITUDE: 82°27'33.20561"	ELEVATION: 1651.904		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000025411	CONVERGENCE: 2°04'22.480"		
BACKSIGHT STATION NO: 237	REFERENCE AZIMUTH: 352°07'53"		
NORTHING: 824368.489 EASTING:	3008406.860 GPS HEIGHT: 1653.446		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.6 MILES EAST OF KINGSPORT AT THE INTERSECTION OF JOHN B. DENNIS HWY. AND MEMORIAL BLVD. (SR 126). GO EAST ON MEMORIAL BLVD. FOR 2.9 MILES TO THE ENTRANCE TO EAST LAWN FUNERAL HOME. GO SOUTH TO THE TOP OF THE HILL AND FUNERAL HOME. STATION LIES TO THE SOUTHEAST OF THE FUNERAL HOME BETWEEN THE EDGE OF PAVEMENT AND A BRICK WALL.

RECOVERY NOTES:			



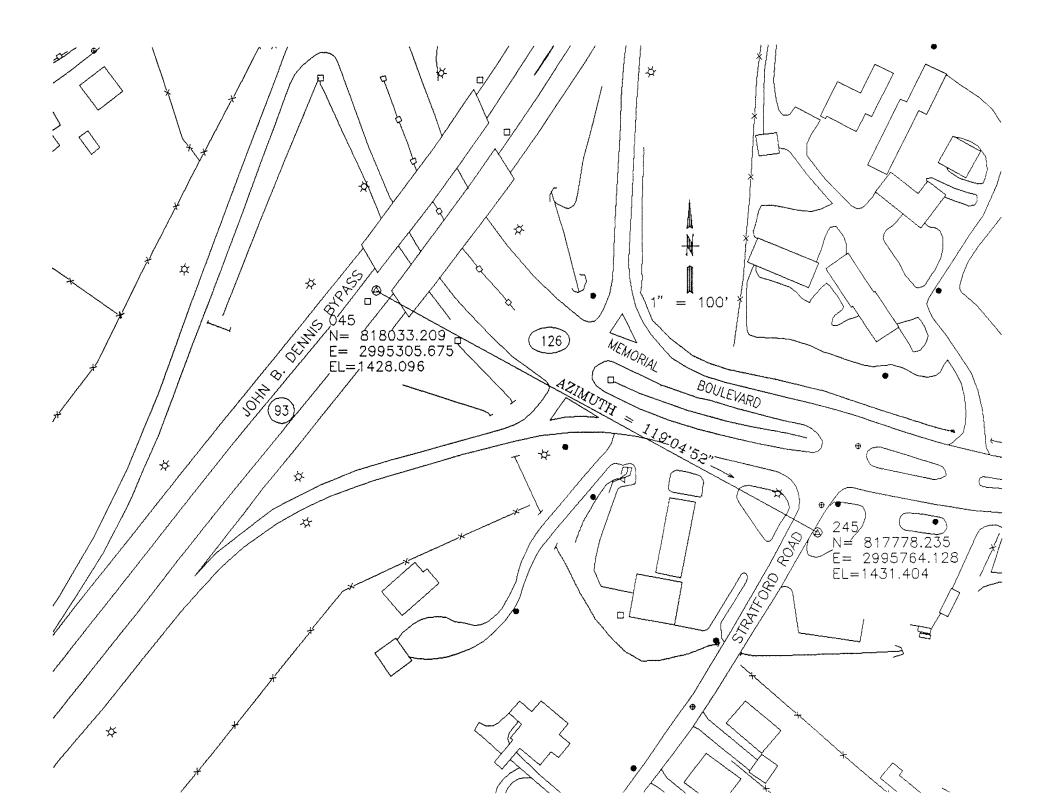
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0045	STATION NAME HILLCREST
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 818033.209
LAΠTUDE: 36'31'48.72651"	EASTING: 2995305.675
LONGITUDE: 82°30'16.73894"	ELEVATION: 1428.096
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000022107	CONVERGENCE: 2°02'46.741"
BACKSIGHT STATION NO: 0245	REFERENCE AZIMUTH: 119'04'52"
NORTHING: 817778.235 EASTING:	2995764.128 GPS HEIGHT: 1431.404

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 3.3 MILES S.E. OF KINGSPORT IN THE MEDIAN OF JOHN B. DENNIS HWY. JUST WEST OF THE BRIDGE OVER MEMORIAL BLVD. (SR 126). STATION IS 2' S.W. OF THE WITNESS POST.

RECOVERY	NOTES:			



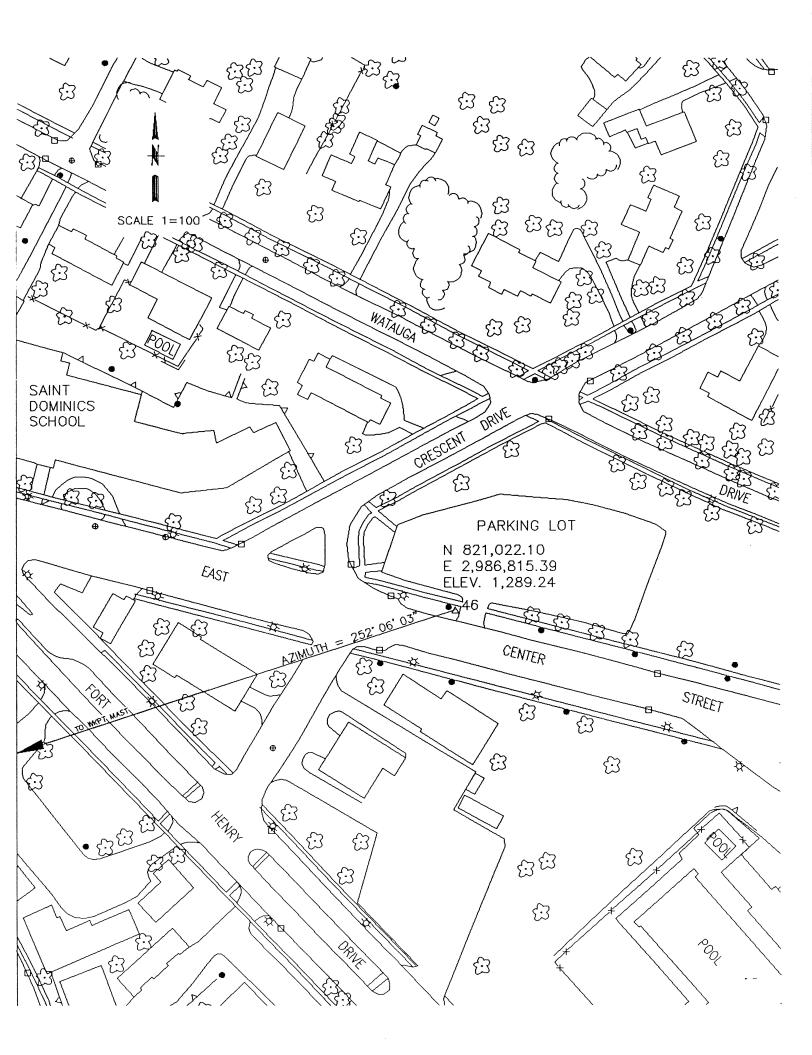
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0046	STATION NAME ST. DOMINICS
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 821022.100
LATITUDE: 36°32'21.24733"	EASTING: 2986815.394
LONGITUDE: 82°31'59.40100"	ELEVATION: 1289.236
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000024036	CONVERGENCE: 2°01'46.638"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 252'06'03"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 1.6 MILES S.E. OF KINGSPORT ON E. CENTER ST. TO REACH THE STATION START AT THE INTERSECTION OF E. CENTER STREET AND N. EASTMAN ROAD. GO N.W. ON E. CENTER STREET FOR 0.45 MILES TO THE STATION ON THE RIGHT. STATION IS 1.7' S.W. OF THE WITNESS POST.

RECOVERY	NOTES:			



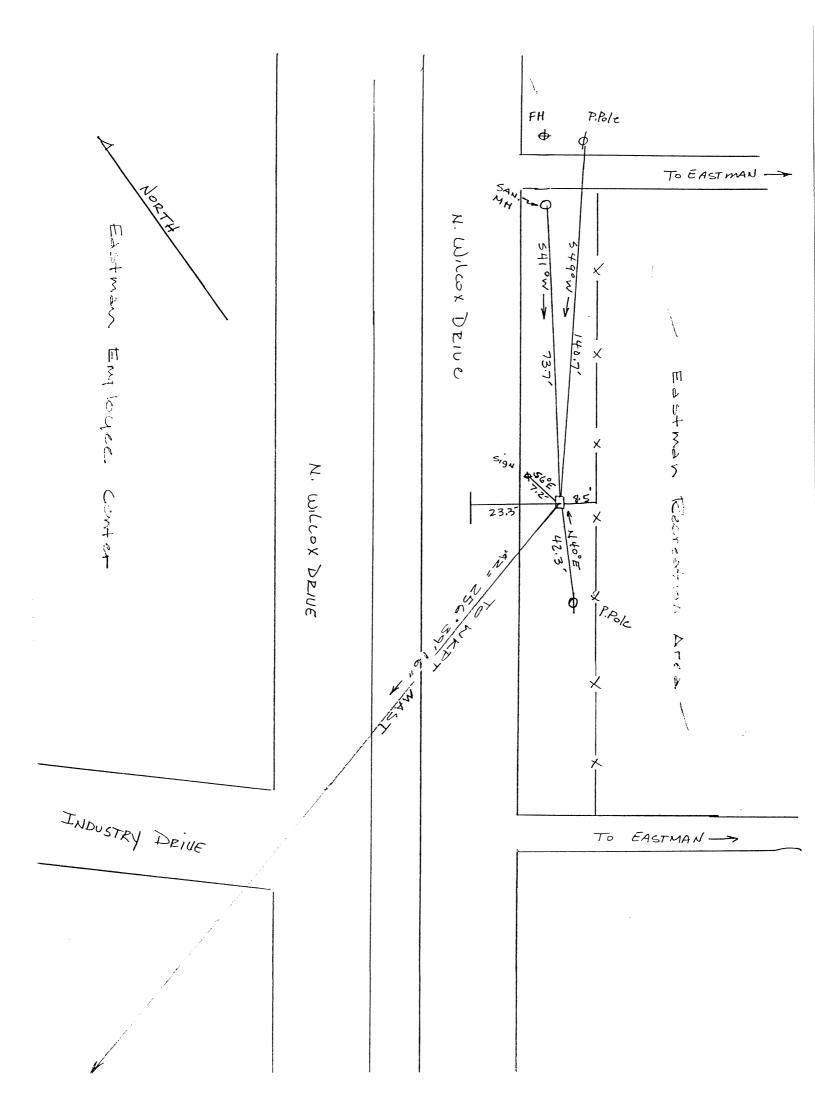
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0047	STATION NAME WILCOX
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 818388.153
LATITUDE: 36°31'57.12684"	EASTING: 2981353.188
LONGITUDE: 82°33'7.42778"	ELEVATION: 1215.348
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000022603	CONVERGENCE: 2°01'6.813"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 256°39'16"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 1.2 MILES S.E. OF KINGSPORT ON N. WILCOX DR. TO REACH STATION START AT THE INTERSECTION OF N. WILCOX DR. AND FT. HENRY DR. (SR 36). GO SOUTH ON N. WILCOX DR. FOR 0.8 MILES TO THE STATION ON THE LEFT. STATION IS 2' N.W. OF THE WITNESS POST.

DECCUEDY NOTES		
RECOVERY NOTES:		



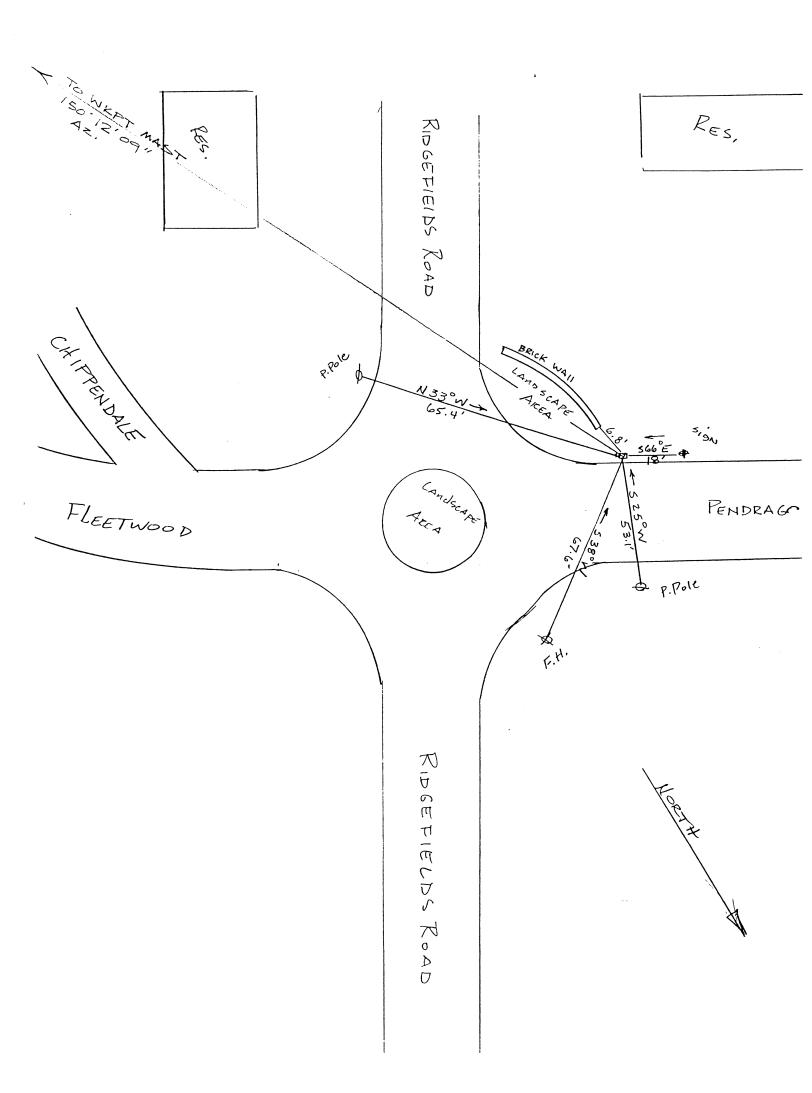
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0048 STATION NAME RIDGEFIELDS TN. STATE PLANE COORDINATES USGS QUAD SHEET KINGSPORT NORTHING: GEODETIC POSITION 821543.225 LATITUDE: 36°32'32.87541" EASTING: 2968145.102 LONGITUDE: 82**°**35**′**47.81824**″** ELEVATION: 1306.770 VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) HORIZONTAL DATUM: 1983 NAD CONVERGENCE: 1°59'32.914" SCALE FACTOR: 1.000024731 REFERENCE AZIMUTH: 151°08'41" BACKSIGHT STATION NO: 426 2971209.503 GPS HEIGHT: EASTING: NORTHING: 815981.793

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 2.2 MILES WEST OF KINGSPORT ON RIDGEFIELDS RD. AT THE INTERSECTION OF PENDRAGON, AT THE FIVEWAY INTERSECTION. TO REACH STATION START AT THE SOUTH END OF THE BRIDGE OVER THE HOLSTON RIVER ON RIDGEFIELDS RD. GO SOUTH ON RIDGEFIELDS RD. FOR 0.5 MILES TO THE STATION ON THE RIGHT. STATION IS 1.8' N. OF THE WITNESS POST.

RECOVERY NOTES:		
RESOVERT NOTES.		



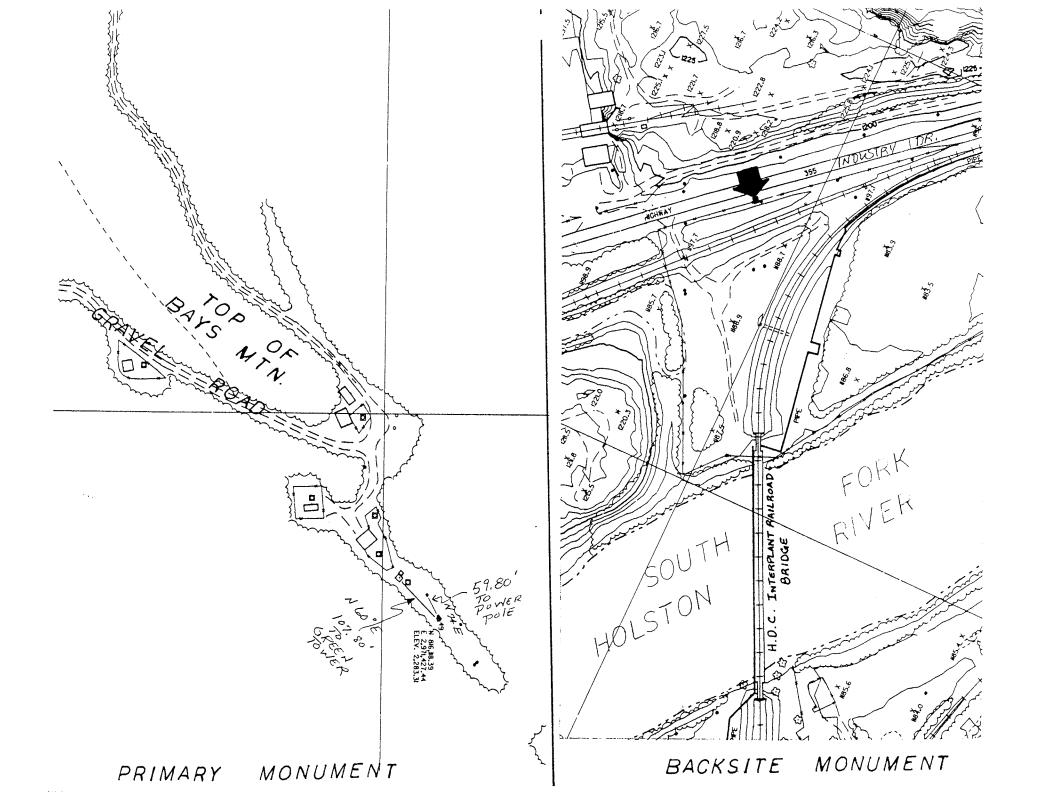
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0049	STATION NAME BAYS MTN
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 816118.391
LATITUDE: 36°31'38.13721"	EASTING: 2971427.441
LONGITUDE: 82°35'09.93912"	GPS ELEVATION: 2283.313
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000024893	CONVERGENCE: 2*00'33.59"
BACKSIGHT STATION NO: 0249	REFERENCE AZIMUTH: 40°44'15"
NORTHING: 822110.758 EASTING:	2976588.500 GPS HEIGHT: 1191.710
TO DEADL DECONDED	

TO REACH DESCRIPTION:

STATION IS LOCATED ON TOP OF BAYS MTN. ON THE EAST END OF THE MOUNTAIN UNDER A POWER LINE OVER-LOOKING I-181. TO REACH STATION START ON A GRAVEL ROAD AT THE OBSERVATORY AND GO EAST ON GRAVEL ROAD, PASSING THROUGH A LOCKED GATE FOR 2.1 MILES TO A BLOCK BLDG. AND A TALL TOWER BELONGING TO WKPT RADIO. GO EAST ON FOOT FOR APPROXIMATELY 250' TO THE STATION. STATION IS 1.9' N.E. OF THE WITNESS POST.

RECOVERY NOTES:	
RECOVERT NOTES:	



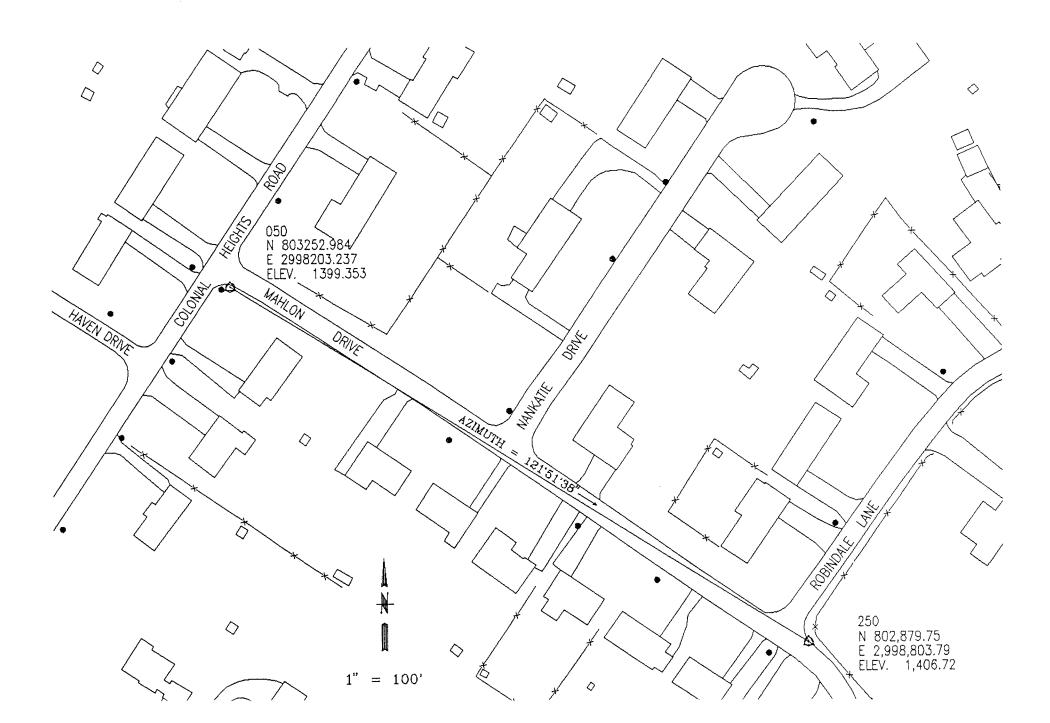
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0050	STATION NAME COLONIAL HEIGHTS ROAD	
USGS QUAD SHEET	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 803252.984	
LATITUDE: 36°29'21.64798"	EASTING: 2998203.237	
LONGITUDE: 82°29'47.74143"	GPS ELEVATION: 1399.353	
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)	
SCALE FACTOR: 1.000013698	CONVERGENCE: 2'03'3.717"	
BACKSIGHT STATION NO: 0250	REFERENCE AZIMUTH: 121°51'38"	
NORTHING: 802879.746 EASTING:	2998803.787 GPS HEIGHT: 1406.715	

TO REACH DESCRIPTION:

STATION IS LOCATED 5.3 MILES SOUTHEAST OF KINGSPORT ON COLONIAL HEIGHTS ROAD. TO REACH STATION BEGIN AT THE INTERSECTION OF MORELAND DRIVE AND HWY. 36 (FT. HENRY DRIVE) AND GO 0.40 MILE SOUTHEAST ON HWY. 36 TO INTERSECTION WITH COLONIAL HEIGHTS ROAD. GO LEFT ON COLONIAL HEIGHTS ROAD FOR 0.50 MILES TO THE STATION ON THE RIGHT AT THE INTERSECTION OF MAHLON DRIVE. STATION IS IN THE SOUTHEAST CORNER OF THE INTERSECTION, 14' FROM THE EDGE OF PAVEMENT OF COLONIAL HEIGHTS ROAD AND 1.65' FROM THE EDGE OF PAVEMENT OF MAHLON DRIVE, AND 75.4' FROM THE NORTHEAST CORNER OF A RESIDENCE AT 413 COLONIAL HEIGHTS ROAD.

**RECOVERY NOTES:** 



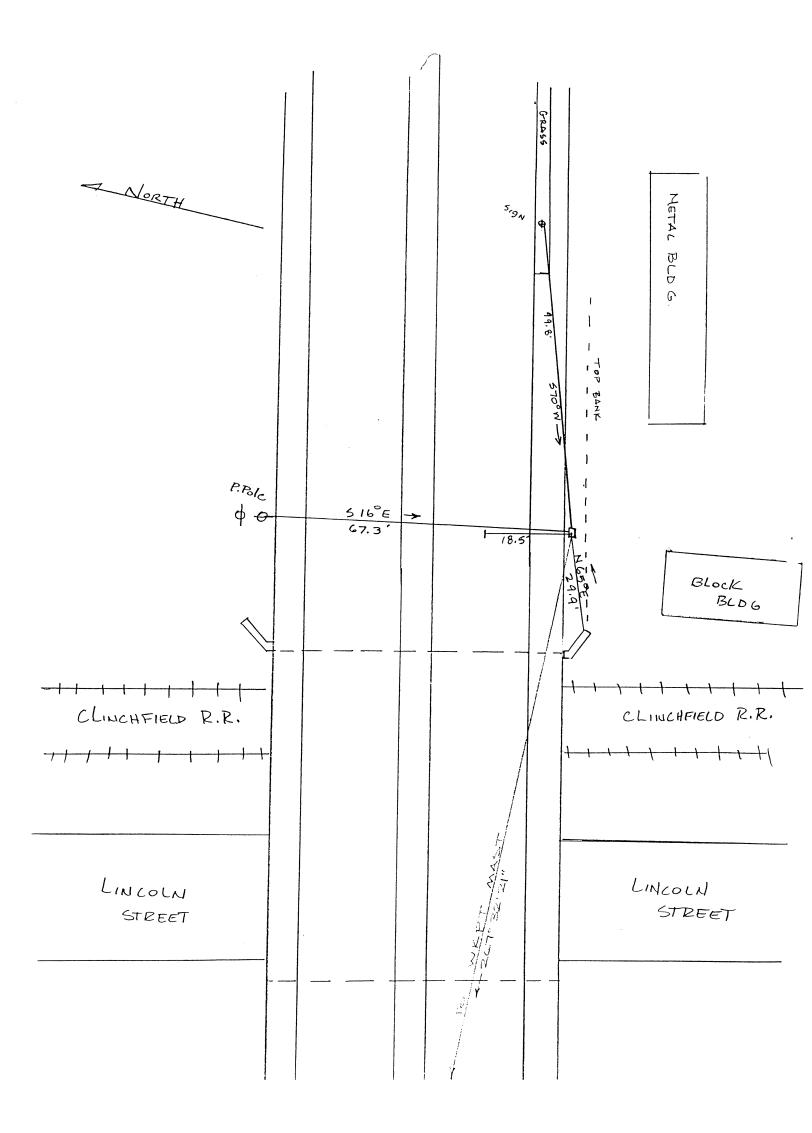
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NAME EASTMAN RD. 0051 STATION NO. TN. STATE PLANE COORDINATES USGS QUAD SHEET KINGSPORT GEODETIC POSITION NORTHING: 816600.123 LATITUDE: 36'31'37.97668" EASTING: 2985597.147 LONGITUDE: 82°32'16.23597" ELEVATION: 1277.168 VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) HORIZONTAL DATUM: 1983 NAD CONVERGENCE: 2°01'36.783" SCALE FACTOR: 1.000021476 REFERENCE AZIMUTH: BACKSIGHT STATION NO: 426 267'32'21" **GPS HEIGHT:** NORTHING: 815981.793 EASTING: 2971209.503

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 1.9 MILES S.E. OF KINGSPORT ON N. EASTMAN RD. JUST EAST OF THE BRIDGE OVER LINCOLN ST. TO REACH STATION START AT THE INTERSECTION OF N. EASTMAN RD. AND FT. HENRY DRIVE (SR 36). GO S.W. ON N. EASTMAN RD. FOR .5 MILES TO THE STATION ON THE LEFT. STATION IS 1.8' NORTH OF THE WITNESS POST.

RECOVERY NOTES:		
NECOVERT NOTES.		



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

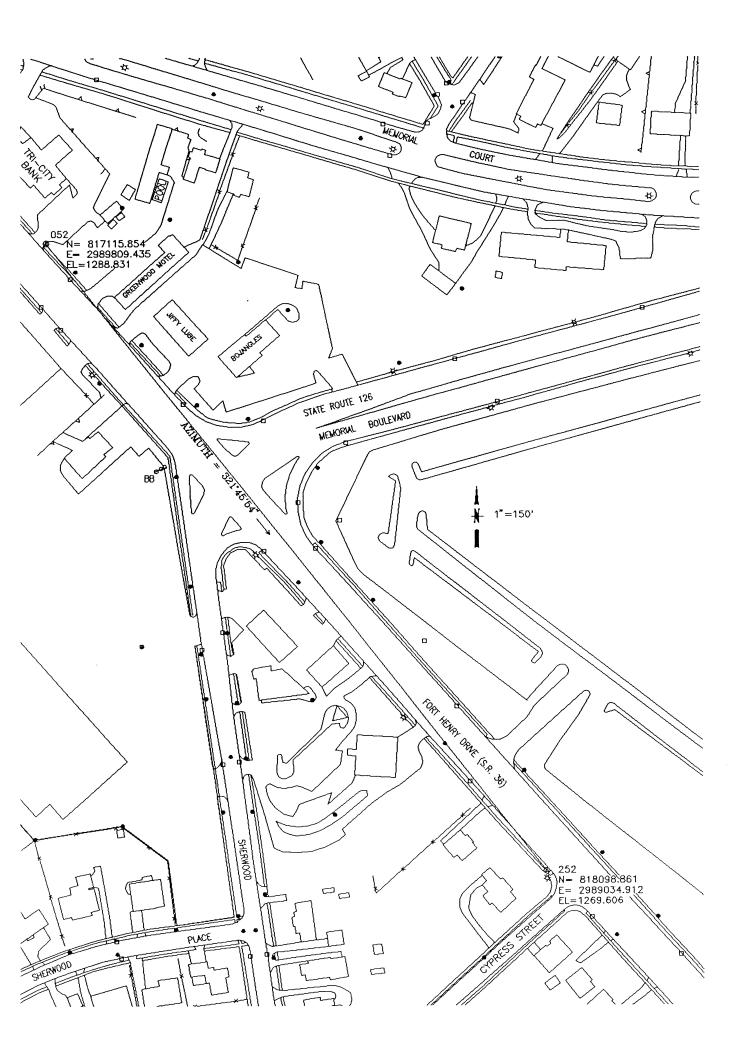
TT

STATION NO. 0052	STATION NAME FORT HENRY MALL
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 817115.854
LATITUDE: 36°31'41.59683"	EASTING: 2989809.435
LONGITUDE: 82°31°24.43644"	ELEVATION: 1288.831
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000021688	CONVERGENCE: 2°02'7.108"
BACKSIGHT STATION NO: 0252	REFERENCE AZIMUTH: 321°45'54"
NORTHING: 818098.861 EASTING:	2989034.912 GPS HEIGHT: 1269.606

TO REACH DESCRIPTION:

STATION IS APPROXIMATELY 2.4 MILES S.E. OF KINGSPORT ON FT. HENRY DR. (SR 36) JUST NORTH OF CYPRESS ST. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DR. AND JOHN B. DENNIS HWY. GO NORTH ON FT. HENRY DR. FOR 0.8 MILES TO THE STATION ON THE LEFT. STATION IS OPPOSITE THE FT. HENRY MALL. STATION IS 1.9' N.W. OF WITNESS POST.

RECOVERY NOTES:	



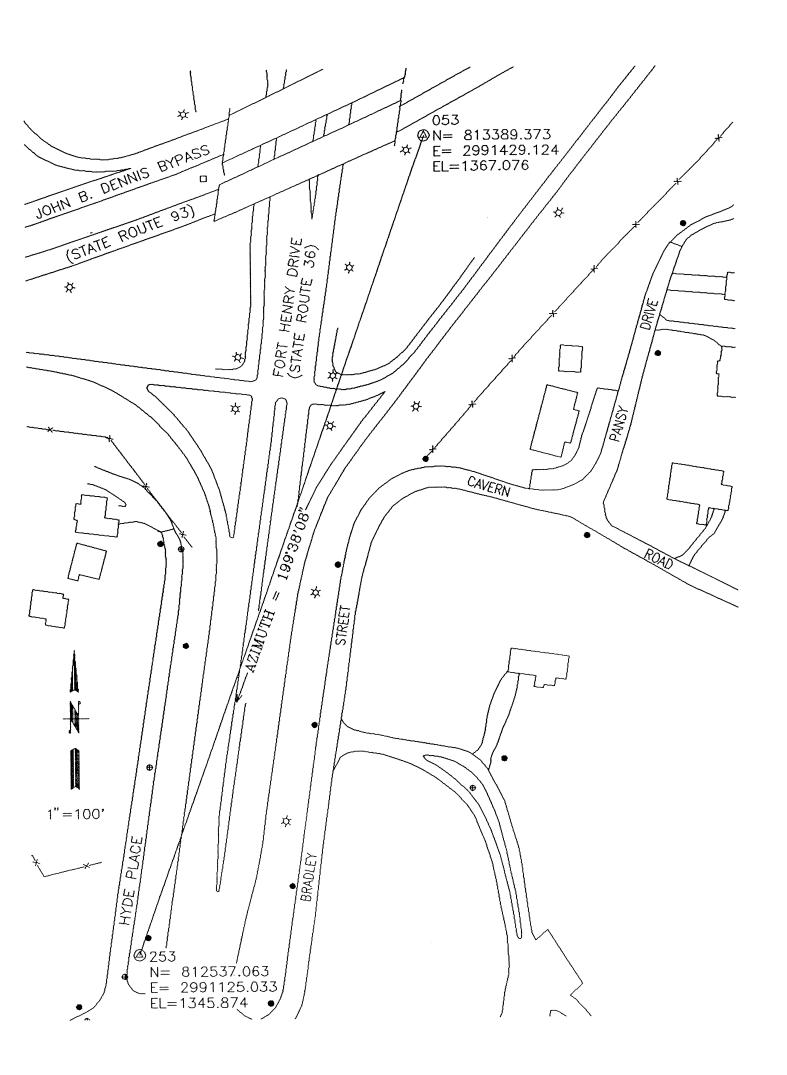
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0053	STATION NAME FORT HENRY - JBD
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION .	NORTHING: 813389.373
LATITUDE: 36° 31'4.20343"	EASTING: 2991429.124
LONGITUDE: 82°31'6.22867"	ELEVATION: 1367.076
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000019508	CONVERGENCE: 2°02'17.768"
BACKSIGHT STATION NO: 0253	REFERENCE AZIMUTH: 199°38'08"
NORTHING: 812537.063 EASTING:	2991125.033 GPS HEIGHT: 1345.874

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 3.1 MILES S.E. OF KINGSPORT ON JOHN B. DENNIS HWY. JUST EAST OF THE BRIDGE OVER FT. HENRY DR. (SR 36) STATION IS ON THE SOUTH SIDE OF JOHN B. DENNIS HWY. STATION IS 2.1' N.W. OF WITNESS POST.

RECOVERY	NOTES:		



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

TT

STATION NO. 0054	STATION NAME TVA FHSR 27-1952
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 812556.779
LATITUDE: 36°30'53.18773"	EASTING: 2999326.930
LONGITUDE: 82°29'29.90636"	ELEVATION: 1277.182
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000018872	CONVERGENCE: 2°03'14.159"
BACKSIGHT STATION NO: 0254	REFERENCE AZIMUTH: 231°35'08"
NORTHING: 812455.899 EASTING:	2999199.717 GPS HEIGHT: 1264.994

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATLEY 4.5 MILES S.E. OF KINGSPORT AT THE LIFT STATION OFF COOKS VALLEY RD. TO REACH STATION START AT THE INTERSECTION OF MEMORIAL BLVD. (SR 126) AND JOHN B. DENNIS HWY. GO EAST ON MEMORIAL BLVD. FOR 0.75 MILES TO HARBOR CHAPEL RD. GO SOUTH ON HARBOR CHAPEL RD. FOR 0.6 MILES TO COOKS VALLEY RD. GO SOUTHWEST ON COOKS VALLEY RD. FOR 1.15 MILES TO A GRAVEL ROAD ON THE LEFT. GO NORTH ON GRAVEL RD. FOR 0.25 MILES TO THE STATION ON THE RIGHT. STATION IS A BRASS CAP SET IN A ROCK OUT—CROP.

RECOVERY NOTES:	

LIFT STATION city of Kingsport French Front P.K. Nail Ushiner P Dinted TABGET CEDAR 85.6 H#54 |5.

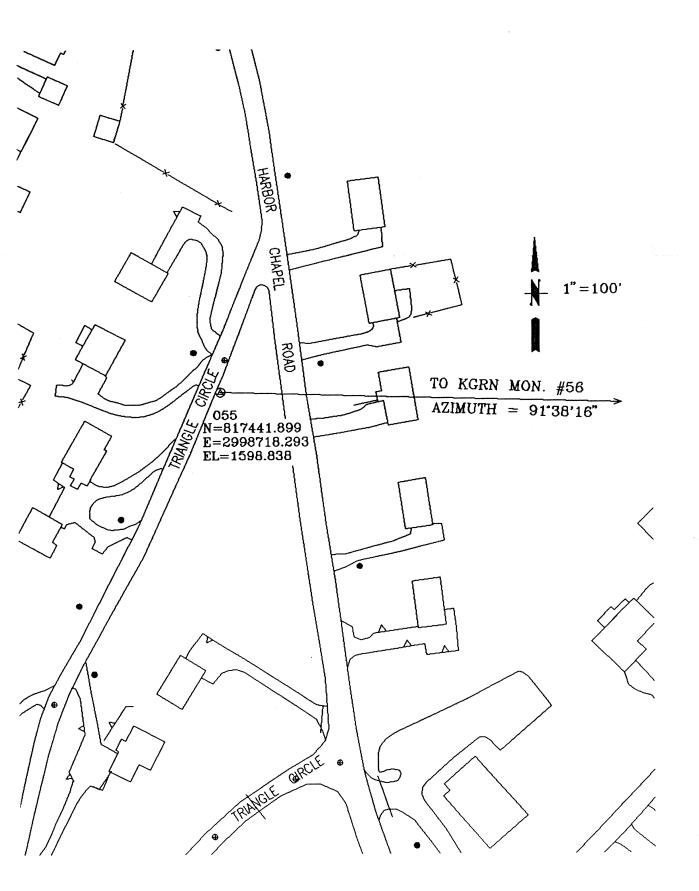
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0055	STATION NAME TRIANGLE CR.		
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 817441.899		
LATITUDE: 36°31°41.67650	EASTING: 2998718.293		
LONGITUDE: 82°29'35.21340"	ELEVATION: 1598.838		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000021693	CONVERGENCE: 2°03'11.052"		
BACKSIGHT STATION NO: 56	REFERENCE AZIMUTH: 91°38'16"		
NORTHING: 817308.645 EASTING:	3003378.573 GPS HEIGHT: 1419.716		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 3.9 MILES S.E. OF KINGSPORT ON TRIANGLE CR. NEAR HARBOR CHAPEL RD. TO REACH STATION START AT THE INTERSECTION OF MEMORIAL BLVD. (SR 126) AND JOHN B. DENNIS HWY. GO S.E. ON MEMORIAL BLVD. FOR 0.75 MILES TO HARBOR CHAPEL RD. GO SOUTH ON HARBOR CHAPEL RD. FOR 0.25 MILES TO TRIANGLE CR. GO WEST ON TRIANGLE CR. FOR APPROXIMATELY 100' TO THE STATION ON THE LEFT. STATION IS 1.1' N.W. OF WITNESS POST.

RECOVERY NOTES:	



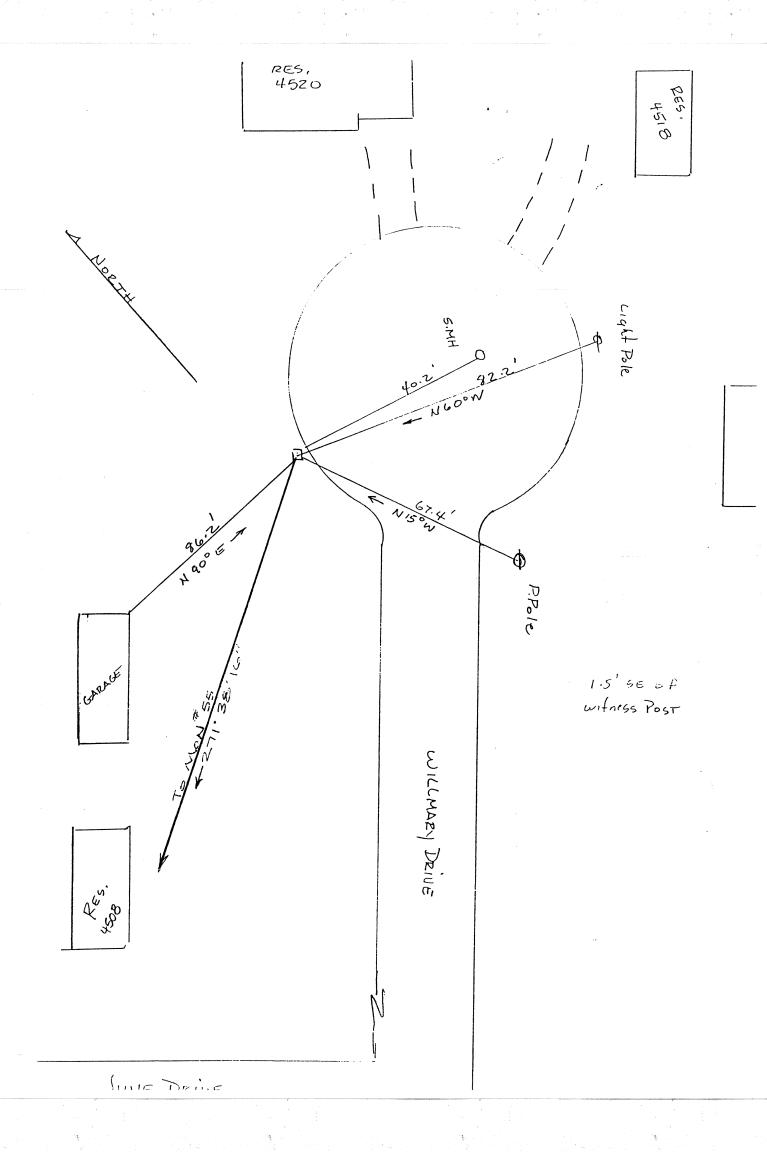
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0056	STATION NAME WILLMARY
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 817308.645
LATITUDE: 36°31'38.70515"	EASTING: 3003378.573
LONGITUDE: 82°28'38.21206"	ELEVATION: 1419.716
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000021518	CONVERGENCE: 2°03'44.422"
BACKSIGHT STATION NO: 55	REFERENCE AZIMUTH: 271'38'16"
NORTHING: 817441.899 EASTING:	2998718.293 GPS HEIGHT: 1598.838

#### TO REACH DESCRIPTION:

STATION IS APPROXIMATELY 4.8 MILES S.E. OF KINGSPORT ON WILLMARY DR. TO REACH STATION START AT THE INTERSECTION OF MEMORIAL BLVD. (SR 126) AND JOHN B. DENNIS HWY. GO EAST ON MEMORIAL BLVD. FOR 0.75 MILES TO HARBOR CHAPEL RD. GO SOUTH ON HARBOR CHAPEL RD. FOR 0.6 MILES TO COOKS VALLEY RD. GO SOUTHEAST ON COOKS VALLEY RD. FOR 1.4 MILES TO JUNE DR. GO SOUTHEAST ON JUNE DR. FOR 0.05 MILES TO WILLMARY DR. GO NORTH ON WILLMARY DR. FOR 0.1 MILES TO THE STATION ON THE LEFT. STATION IS 1.5' S.E. OF WITNESS POST.

RECOVERY NOTES:		



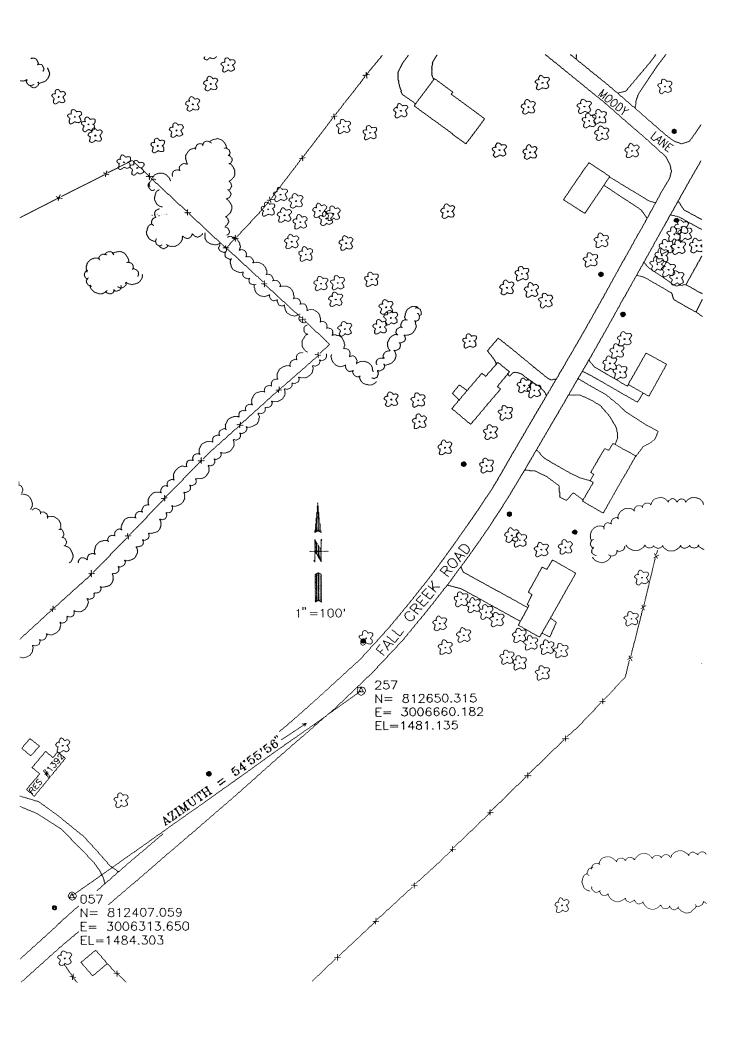
# ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0057 STATION NAME RED DOT USGS QUAD SHEET INDIAN SPRINGS TN. STATE PLANE COORDINATES GEODETIC POSITION NORTHING: 812407.059 LATITUDE: 36°30'49.22386" EASTING: 3006313,650 LONGITUDE: 82°28'4.44258" ELEVATION: 1484.303 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: 1.000018644 CONVERGENCE: 2'04'4.192" BACKSIGHT STATION NO: 0257 REFERENCE AZIMUTH: 54\*55'56" EASTING: GPS HEIGHT: 1481.135 NORTHING: 812650.315 3006660.182

TO REACH DESCRIPTION:

STATION IS APPROXIMATELY 5.6 MILES SOUTHEAST OF KINGSPORT ON FALL CREEK RD. TO REACH STATION, START AT THE INTERSECTION OF FT. HENRY DR. (SR 36) AND HEMLOCK RD. GO NORTHEAST ON HEMLOCK RD. FOR 1.6 MILES TO FALL CREEK RD. GO NORTHEAST ON FALL CREEK RD. FOR 1.5 MILES TO THE STATION ON THE LEFT. STATION LIES BETWEEN THE RESIDENCES OF 1392 AND 1400 FALL CREEK RD. STATION 2' NORTH OF THE WITNESS POST.

RECOVERY	NOTES:			



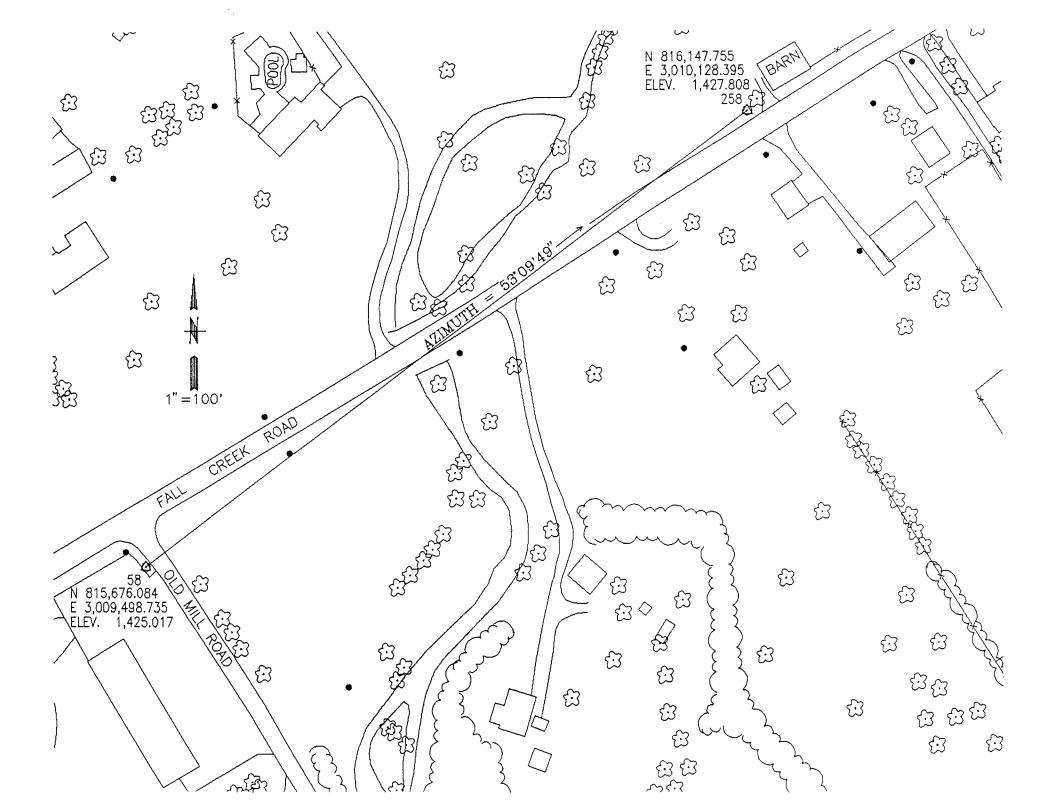
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

****	
STATION NO. 0058	STATION NAME OLD MILL RD.
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 815676.084
	7,0070.004
LATITUDE: 36°31'20.38874"	EASTING: 3009498.735
LONGITUDE: 82°27°24.00266°	ELEVATION: 1425.017
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000020448	CONVERGENCE: 2°04'27.868"
BACKSIGHT STATION NO: 0258	REFERENCE AZIMUTH: 53°09'49"
NORTHING: 816147.755 EASTING:	3010128.395 GPS HEIGHT: 1427.808

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 6.0 MILES SOUTHEAST OF KINGSPORT AT THE INTERSECTION OF FALL CREEK RD. AND OLD MILL RD. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DR. (SR 36) AND HEMLOCK RD. GO NORTHEAST ON HEMLOCK RD. FOR 1.6 MILES TO FALL CREEK RD. GO NORTHEAST ON FALL CREEK RD. FOR 2.4 MILES TO OLD MILL RD. AND STATION ON THE RIGHT. STATION IS 2.4' EAST OF THE WITNESS POST.

RECOVERY NOTES:		



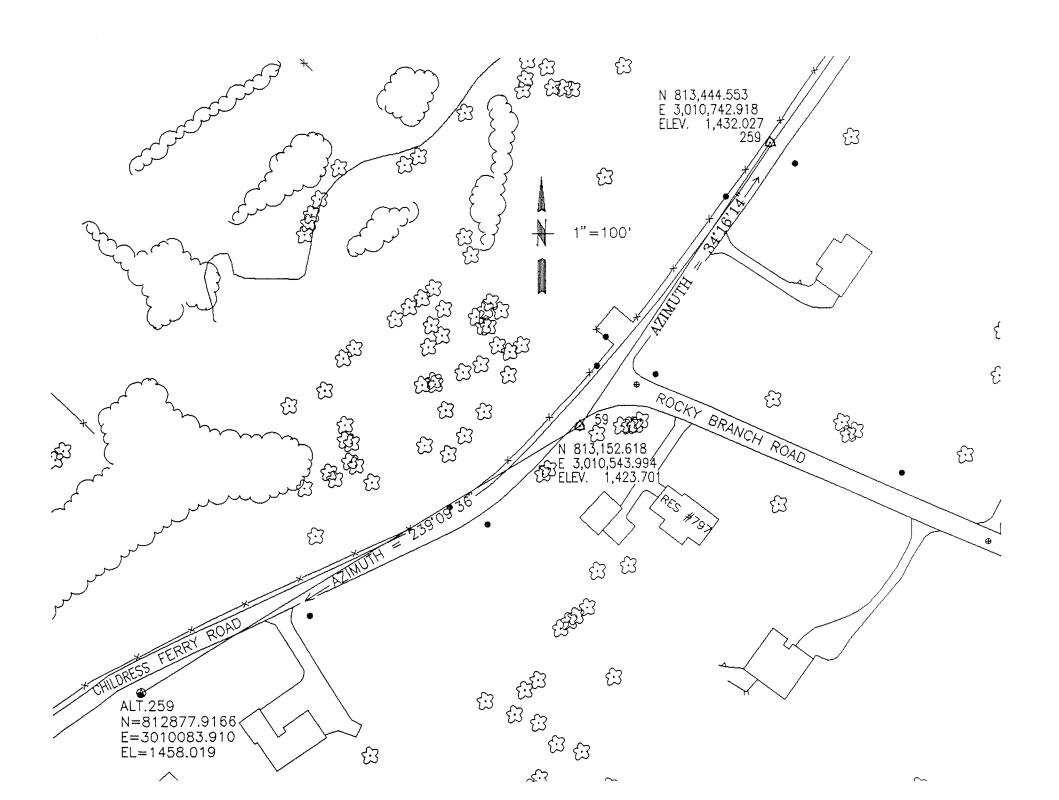
# ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0059 STATION NAME ROCKY BRANCH USGS QUAD SHEET INDIAN SPRINGS TN. STATE PLANE COORDINATES GEODETIC POSITION NORTHING: 813152.618 LATITUDE: 36'30'55.07874" EASTING: 3010543.994 LONGITUDE: 82\*27\*12.32571\* ELEVATION: 1423.701 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: 1.000018981 CONVERGENCE: 2'04'34.704" BACKSIGHT STATION NO: 0259 REFERENCE AZIMUTH: 34"16'14" NORTHING: 813444.553 EASTING: GPS HEIGHT: 1432.027 3010742.918

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATLEY 6.3 MILES SOUTHEAST OF KINGSPORT AT THE INTERSECTION OF CHILDRESS FERRY ROAD AND ROCKY BRANCH ROAD. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DR. (SR 36) AND HEMLOCK ROAD. GO N.E. ON HEMLOCK ROAD FOR 1.6 MILES TO FALL CREEK ROAD. FGO N.E. ON FALL CREEK ROAD FOR 2.4 MILES OT OLD MILL ROAD. GO SOUTH ON OLD MILL ROAD FOR 0.75 MILES TO CHILDRESS FERRY ROAD. GO N.E. ON CHILDRESS FERRY ROAD FOR 0.2 MILES TO ROCKY BRANCH ROAD AND THE STATION IS ON THE RIGHT. STATION IS 1.5' NORTH OF THE WITNESS POST.

RECOVE	RY N	IOTE	S:



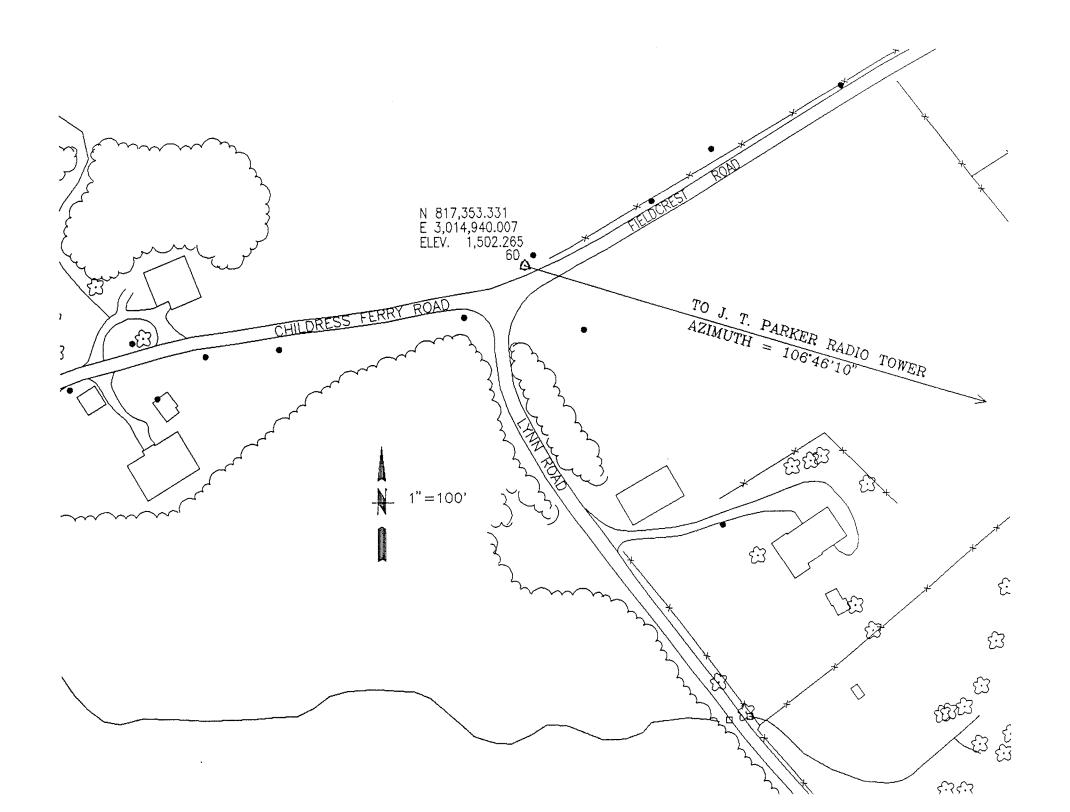
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0060	STATION NAME FIELDCREST RD.
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 817353.331
LATITUDE: 36°31°35.00976"	EASTING: 3014940.007
LONGITUDE: 82°26'16.63841"	ELEVATION: 1502.265
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.00002ï302	CONVERGENCE: 2°05'7.305"
BACKSIGHT STATION NO: 427	REFERENCE AZIMUTH: 106°46'16"
NORTHING: 816077.755 EASTING:	3019173.100 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATLEY 7.0 MILES S.E. OF KINGSPORT AT THE INTERSECTION OF LYNN ROAD AND CHILDRESS FERRY ROAD — FIELDCREST ROAD. TO REACH STATION START AT THE INTERSECTION OF I—81 AND BROWDER ROAD. GO NORTH ON BROWDER ROAD FOR 0.6 MILES TO LYNN ROAD. CONTINUE NORTH ON LYNN ROAD FOR 0.9 MILES TO THE INTERSECTION OF CHILDRESS FERRY ROAD — FIELDCREST ROAD AND THE STATION AHEAD. STATION IS 1.1' SOUTH OF THE WITNESS POST.

RECOVERY NOTES:			



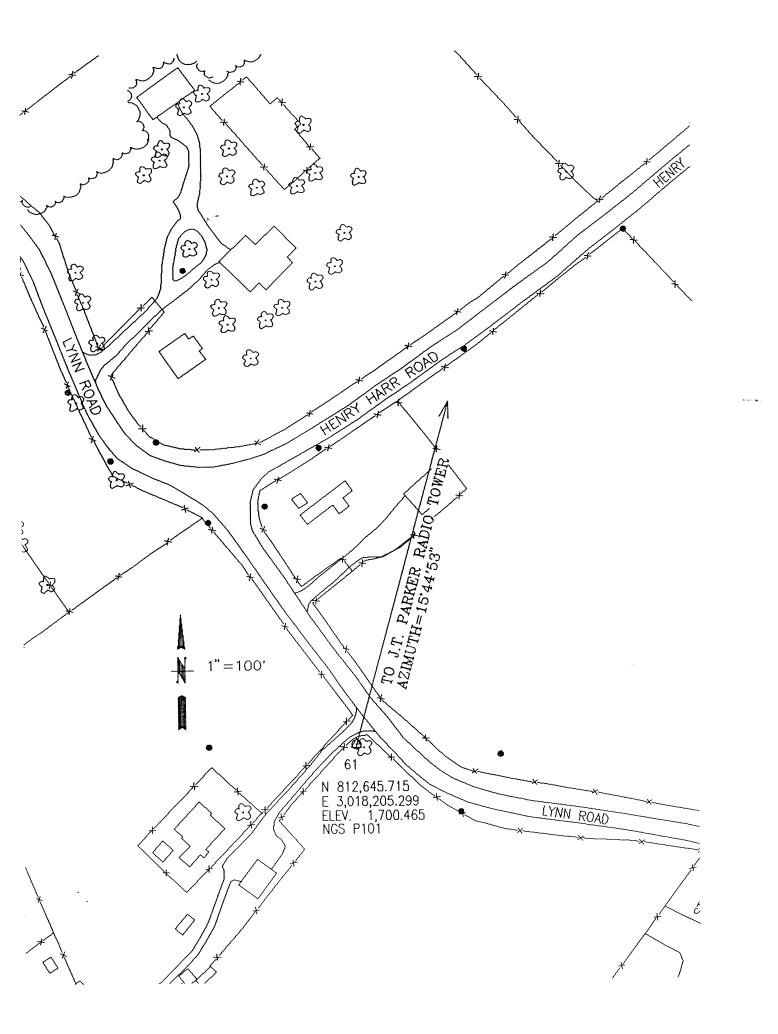
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0061	STATION NAME NGS P101		
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 812645.715		
LATITUDE: 36°30'47.31507"	EASTING: 3018205.299		
LONGITUDE: 82°25'38.76503"	ELEVATION: 1700.465		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000018534	CONVERGENCE: 2°05'29.478"		
BACKSIGHT STATION NO: 427	REFERENCE AZIMUTH: 15'44'53"		
NORTHING: 816077.755 EASTING:	3019173.100 GPS HEIGHT:		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 7.7 MILES SOUTHEAST OF KINGSPORT ON LYNN ROAD. TO REACH STATION START AT THE INTERSECTION OF I-81 AND BROWDER ROAD. GO NORTH ON BROWDER ROAD FOR 0.6 MILES TO LYNN ROAD. GO SOUTHEAST ON LYNN ROAD FOR 0.25 MILES TO THE STATION ON THE RIGHT. STATION IS IN A PASTURE NEAR A 12" MAPLE. STATION IS A N65 MONUMENT STAMPED P101. STATION IS 7.6' SOUTH OF THE WITNESS POST.

RECOVERY	NOTES:				



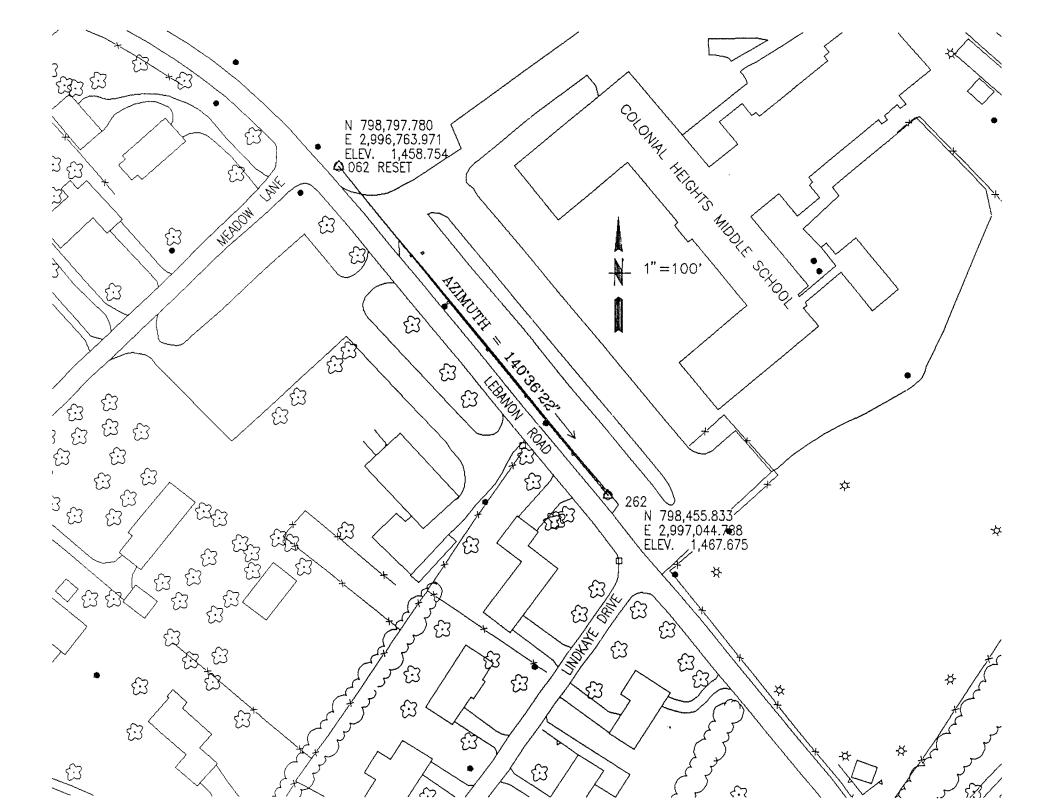
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO.	062 RESET		STATION NAME	COL. HG	STS. MIDDLE	SCHOOL
USGS QUAD SHEET	SULLIVAN GARDENS		TN. STATE PLANE COORDINATES			
GEODETIC POSITION			NORTHING:	7987	97.780	
LATITUDE:	36° 28′ 38.13137″		   EASTING:	2996	763.971	
LONGITUDE:	82° 30° 07.30475"		ELEVATION:	1458.	754	
HORIZONTAL DATUM:	1983 NAD V	ERTICAL	DATUM: 1929 NO	GVD	ZONE: 410	0(TN)
SCALE FACTOR:	1.000011308		CONVERGENCE:		2* 02* 52.26	) 
BACKSIGHT STATION	NO: 262		REFERENCE AZIM		140° 36'	22"
NORTHING: 7984	55.833 EAS]	TING:	2997044.788	GPS I	HEIGHT: 146	7.675

#### TO REACH DESCRIPTION:

STATION IS LOCATED 5.8 MILES SE OF KINGSPORT ON LEBANON ROAD. TO REACH STATION, START AT THE INTERSECTION OF MORELAND DR. AND HWY.36 (FORT HENRY DR.), AND GO 0.4 MILES SE ON HWY.36 TO THE INTERSECTION OF LEBANON ROAD, THEN GO RIGHT ON LEBANON RD. FOR 0.7 MILES TO THE STATION ON THE LEFT.

RECOVERY NOTES:	



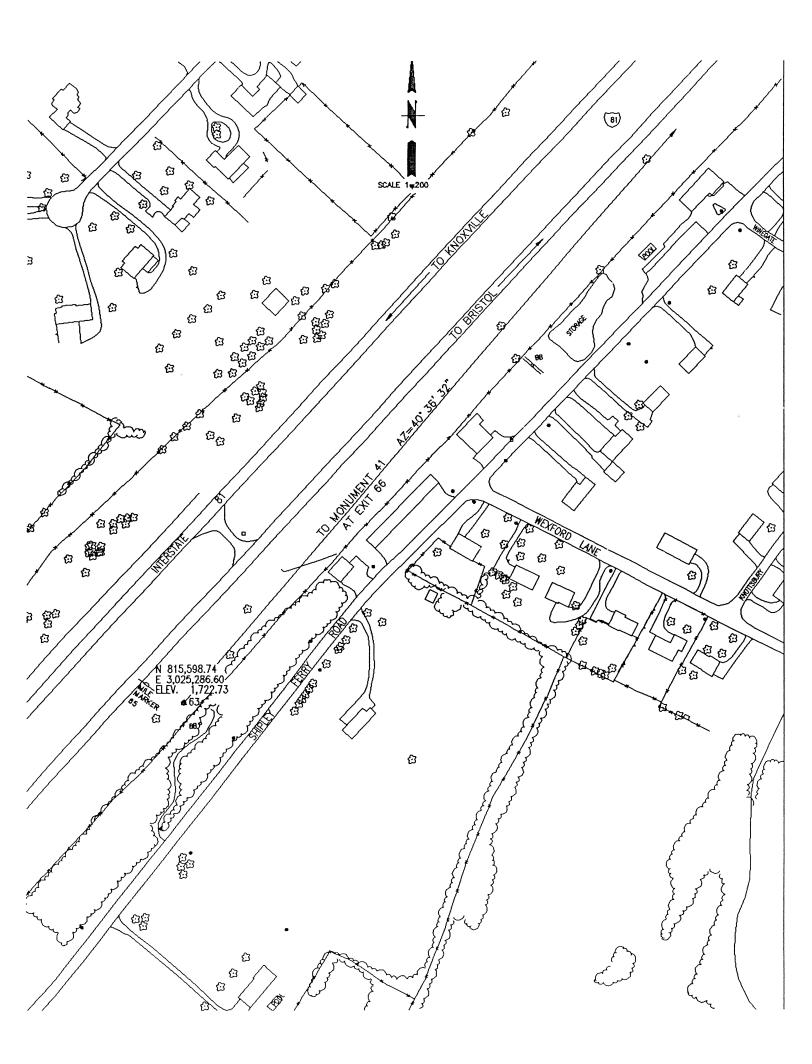
# ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 006	3	STATION NAME 65 MILE MARKER		
USGS QUAD SHEET INDIAN	I SPRINGS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION		NORTHING: 815598.740		
LATITUDE: 36°31'13.930	90"	EASTING: 3025286.599		
LONGITUDE: 82°24'10.751	94"	GPS ELEVATION: 1722.726		
HORIZONTAL DATUM: 1983 N	AD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.0000	)20072	CONVERGENCE: 2°06'21.004"		
BACKSIGHT STATION NO:	41	REFERENCE AZIMUTH: 40'36'32"		
NORTHING: 820518.288	EASTING:	<b>3029504.477</b> GPS HEIGHT: 1723.848		
TO REACH DESCRIPTION:				

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.9 MILES EAST OF KINGSPORT ON THE EAST SIDE OF I-81 AT MILE MARKER 65. TO REACH STATION START AT THE INTERSECTION OF AIRPORT PARKWAY AND I-81. GO NORTHEAST ON I-81 FOR 1.9 MILES TO THE STATION ON THE RIGHT. STATION IS ON A SMALL HILL AND DIRECTLY IN LINE WITH THE 65 MILE MARKER. STATION IS 1.9' NORTHWEST OF THE WITNESS POST.

RECOVERY NOTES:			
MEGOVERT HOTES.			



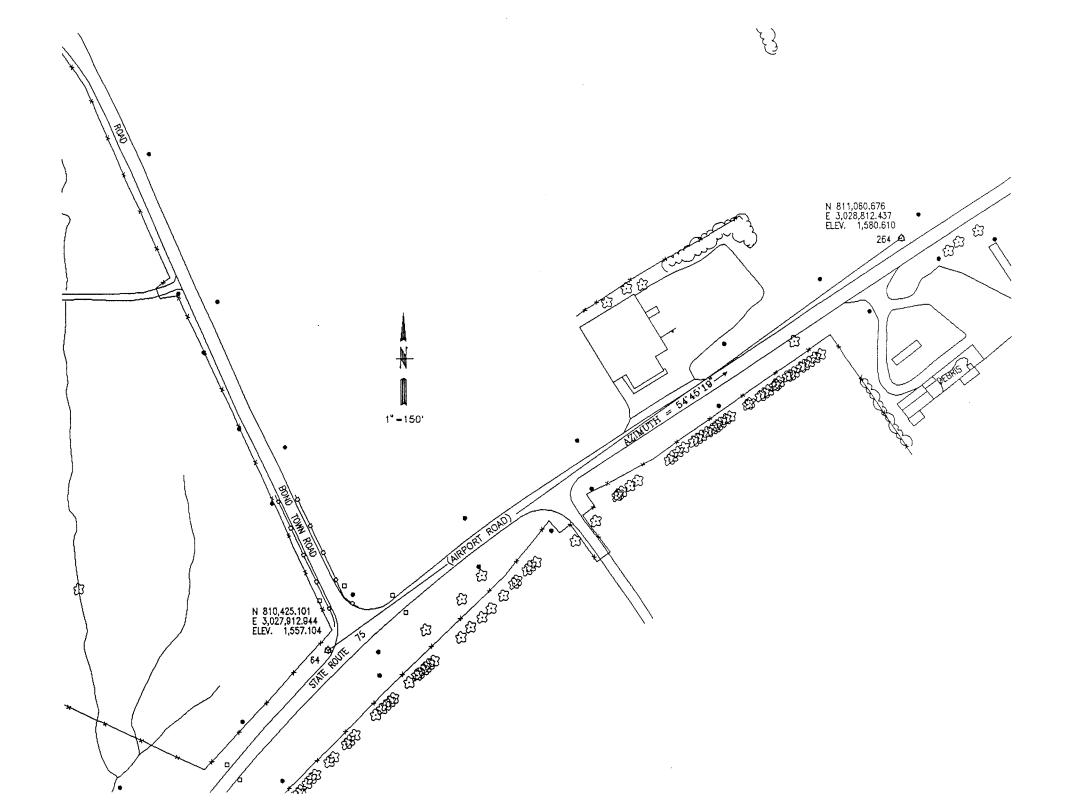
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0064	STATION NAME BOND TOWN RD.
·	
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 810425.101
LATITUDE: 36°30'21.85300"	EASTING: 3027912.944
LONGITUDE: 82°23'40.93362"	GPS ELEVATION: 1557.104
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000017079	CONVERGENCE: 2°06'38.461"
BACKSIGHT STATION NO: 0264	REFERENCE AZIMUTH: 54°45'19"
NORTHING: 811060.676 EASTING:	3028812.437 GPS HEIGHT: 1580.610

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 9.7 MILES S.E. OF KINGSPORT AT THE INTERSECTION OF HWY 75 AND BOND TOWN RD. TO REACH STATION START AT THE INTERSECTION OF AIRPORT PARKWAY (SR 357) AND I-81. GO SOUTHEAST ON AIRPORT PARKWAY FOR 2.4 MILES TO SR 75. GO NORTH ON SR 75 FOR 2.05 MILES TO BOND TOWN RD. AND THE STATION ON THE LEFT. STATION IS ON THE NORTH SIDE OF SR 75 AND THE WEST SIDE OF BOND TOWN RD. STATION IS 2' SOUTHEAST OF WITNESS POST.

**RECOVERY NOTES:** 



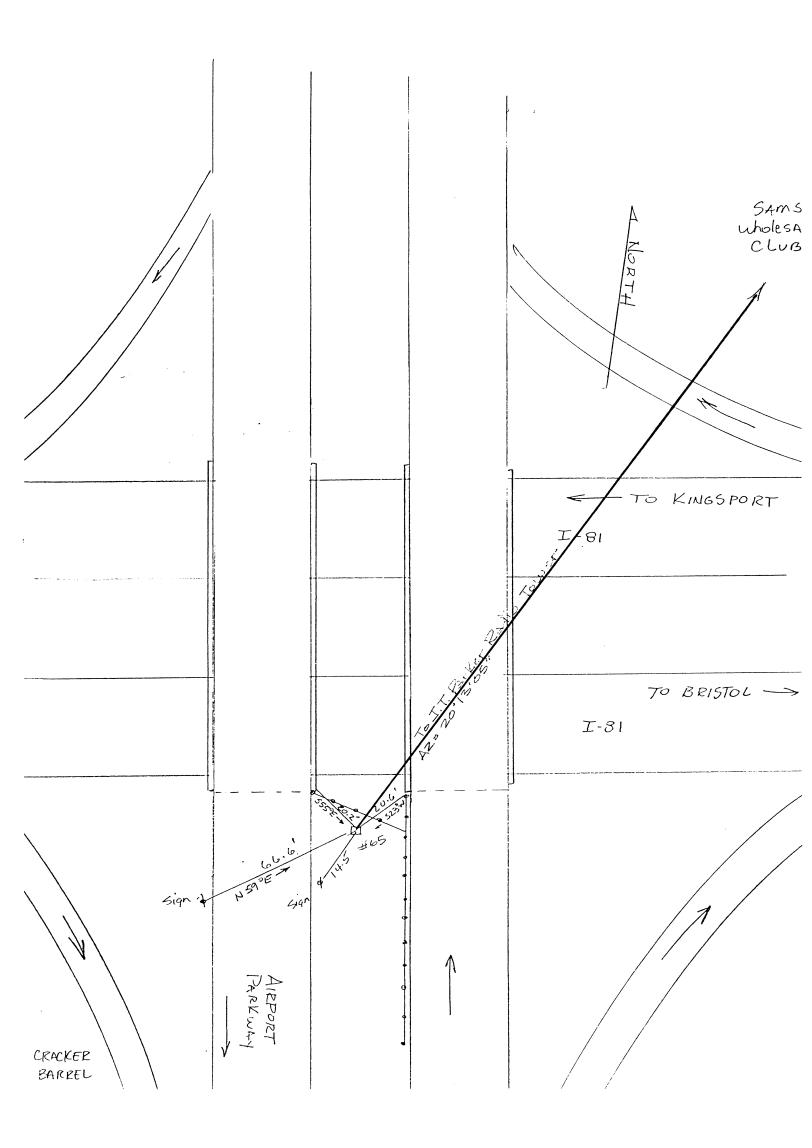
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0065	STATION NAME EXIT 63
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 810327.823
LATITUDE: 36°30'24.82557"	EASTING: 3017055.467
LONGITUDE: 82°25'53.87557"	ELEVATION: 1680.963
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000017248	CONVERGENCE: 2°05'20.632"
BACKSIGHT STATION NO: 427	REFERENCE AZIMUTH: 20°13'05"
NORTHING: 816077.755 EASTING:	3019173.100 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 7.7 MILES EAST OF KINGSPORT ON AIRPORT PARKWAY AT THE INTERSECTION OF I81. STATION IS IN THE MEDIAN OF AIRPORT PARKWAY AND ON THE SOUTH SIDE OF I-81 NEAR THE END OF BRIDGE. STATION IS 2.0' SOUTH OF WITNESS POST.

RECOVERY NOTES:		



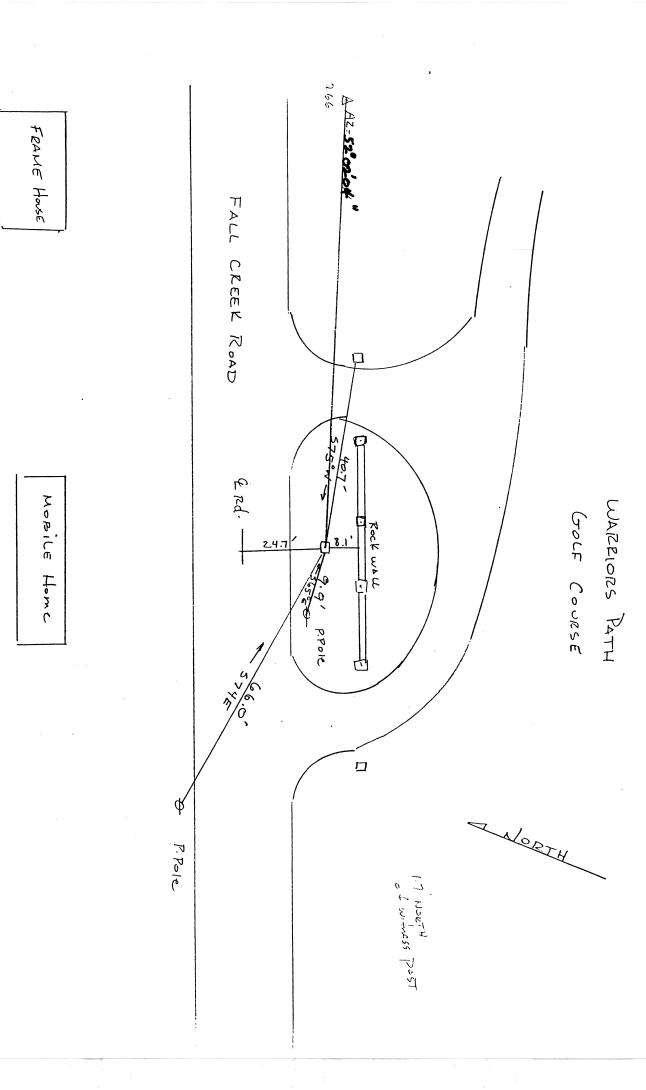
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0066	STATION NAME WARRIORS GOLF COURSE
USGS QUAD SHEET INDIAN SPRINGS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 809875.096
LATITUDE: 36°30'25.11525"	EASTING: 3003756.132
LONGITUDE: 82°28'36.86711"	ELEVATION: 1378.324
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000017264	CONVERGENCE: 2°03'45.210"
BACKSIGHT STATION NO: 0266	REFERENCE AZIMUTH: 52°02'04"
NORTHING: 810243.554 EASTING:	3004228.321 GPS HEIGHT: 1400.349

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.4 MILES SOUTHEAST OF KINGSPORT ON FALL CREEK ROAD, AT ENTRANCE TO WARRIORS PATH GOLF COURSE. TO REACH STATION, START AT THE INTERSECTION OF FT. HENRY DR. (SR 36) AND HEMLOCK RD. GO NORTHEAST ON HEMLOCK RD. FOR 1.6 MILES TO FALL CREEK RD. GO NORTHEAST ON FALL CREEK RD. FOR 0.8 MILES TO THE ENTRANCE OF WARRIORS PATH GOLF COURSE AND THE STATION ON THE RIGHT. STATION IS 1.7' NORTH OF THE WITNESS POST.

RECOVERY NOTES:		
1120012111 1101201		



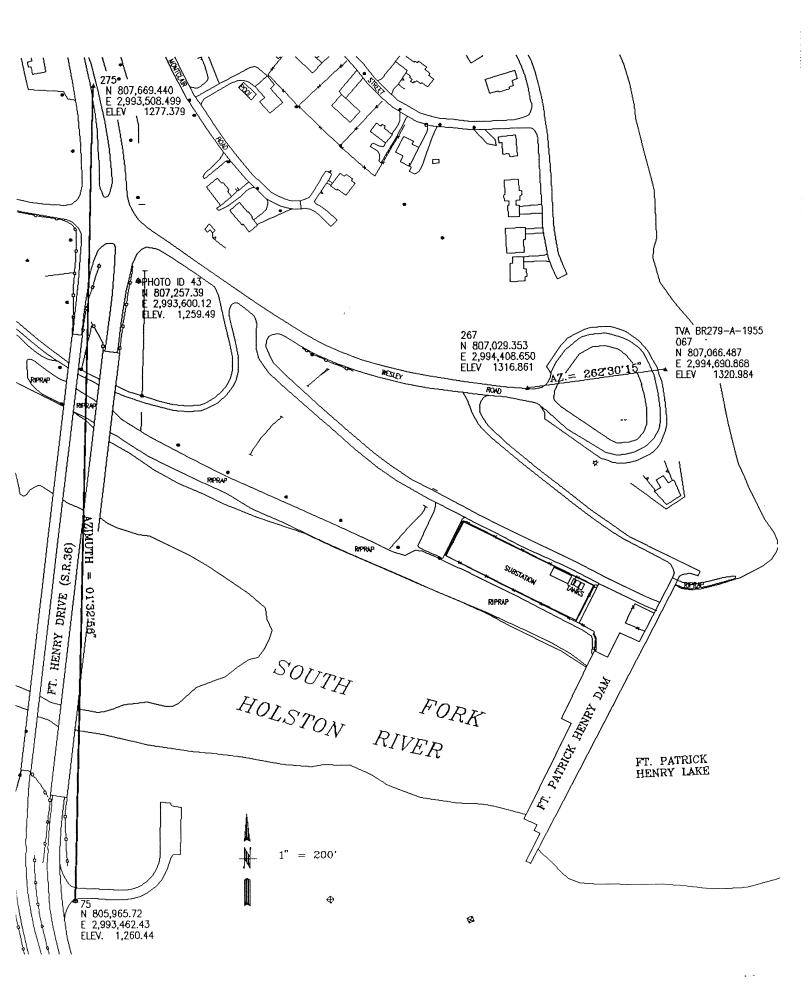
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0067	STATION NAME TVA BR279-A-1955
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 807066.487
LATITUDE: 36°30'00.57321"	EASTING: 2994690.868
LONGITUDE: 82°30′29.06003″	ELEVATION: 1320.984
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000015874	CONVERGENCE: 2'02'39.528"
BACKSIGHT STATION NO: 0267	REFERENCE AZIMUTH: 262°30'15"
NORTHING: 807029.353 EASTING:	2994408.650 GPS HEIGHT: 1316.861

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4.4 MILES SOUTHEAST OF KINGSPORT AT THE OVERLOOK AT PATRICK HENRY DAM. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DRIVE (SR 36) AND JOHN B. DENNIS. GO SOUTH ON FT. HENRY DRIVE FOR 1.25 MILES TO THE ENTRANCE ROAD TO PATRICK HENRY DAM. GO EAST ON THE ENTRANCE ROAD FOR 0.25 MILES TO THE STATION ON THE RIGHT. STATION IS A TVA MONUMENT STAMPED BR279-A-1955. STATION IS ON A HIGH HILL OVERLOOKING PATRICK HENRY DAM.

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### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

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STATION NO. 0068	STATION NAME JARED DR.
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 809874.440
LATITUDE: 36°30'32.18703"	EASTING: 2983671.998
LONGITUDE: 82°32'42.71582"	ELEVATION: 1259.983
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000017667	CONVERGENCE: 2°01'21.280"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 296°06'27"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 2.9 MILES SOUTH OF KINGSPORT ON JOHN B. DENNIS HWY., JUST EAST OF MORELAND DRIVE. STATION IS IN THE NORTHEAST QUADRANT OF THE INTERSECTION. STATION IS 1.8' SOUTHWEST OF THE WITNESS POST.

RECOVERY NOTES:

### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0069	STATION NAME JBD-181		
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 806568.962		
LATITUDE: 36°30'1.35039"	EASTING: 2978420.281		
LONGITUDE: 82°33'48.42514"	ELEVATION: 1242.915		
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)			
SCALE FACTOR: 1.000015918	CONVERGENCE: 2'00'42.811"		
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 322'32'45"		
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 3.4 MILES SOUTH OF KINGSPORT IN THE MEDIAN OF I-181 ON THE SOUTH SIDE OF THE BRIDGE OVER ON RAMP TO I-181 SOUTH. STATION IS 2' EAST OF THE WITNESS POST.

RECOVERY NOTES:		

WILCOX DRIVE (SR 93)			Wilcox Drive SR93
WORK HANDERS ASS.	H-181 To Johnson City		RAMPO
		150°C N 20°W 91.7'	2 EAST of The witness post

#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0070	STATION NAME MOOSE
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 809426.690
LATITUDE: 36°30'30.27666"	EASTING: 2976441.639
LONGITUDE: 82°34'11.41728"	ELEVATION: 1217.544
HORIZONTAL DATUM: 1983 NAD VERTICAL	L DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000017558	CONVERGENCE: 2°00'29.351'
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 321°24'14"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 2.9 MILES SOUTH OF KINGSPORT ON RESERVOIR ROAD JUST. EAST OF I-181 IN FRONT OF THE MOOSE LODGE. TO REACH STATION BEGIN AT THE INTERSECTION OF WILCOX DR. AND RESERVOIR RD. GO WEST ON RESERVOIR ROAD FOR 0.5 MILES TO THE STATION ON THE RIGHT. STATION IS 2' S.E. OF WITNESS POST.

DECOVEDY NOTES.	
RECOVERY NOTES:	

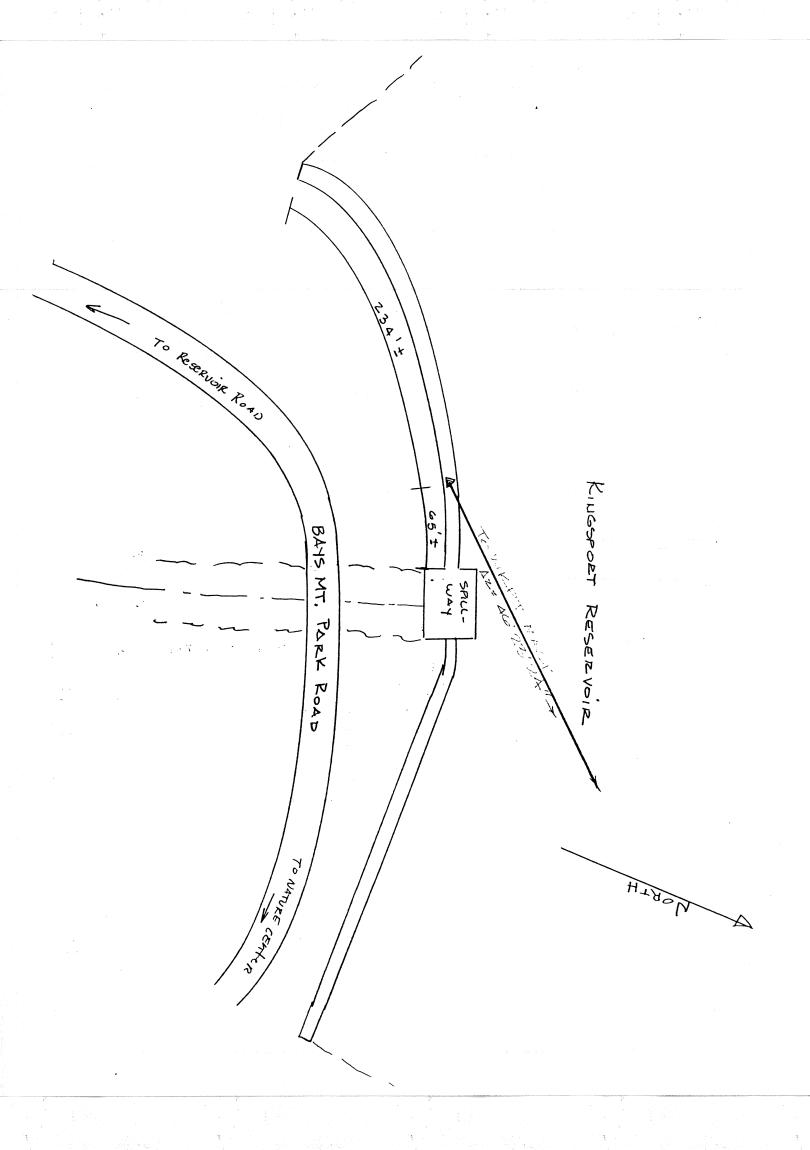
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0071	STATION NAME BAYS MTN. DAM		
USGS QUAD SHEET KINGSPORT	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 809082.689		
LATITUDE: 36°30'31.17279"	EASTING: 2963967.263		
LONGITUDE: 82°36'44.26746"	GPS ELEVATION: 1835.715		
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)			
SCALE FACTOR: 1.000017610	CONVERGENCE: 1°58'59.866"		
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 46°23'24"		
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:		

#### TO REACH DESCRIPTION:

STATION IS LOCATED ON THE DAM AT THE KINGSPORT RESERVOIR AT BAYS MOUNTAIN PARK. TO REACH STATION START AT THE S.W. END OF THE DAM AND GO 234' ALONG TOP OF THE DAM TO THE STATION IN THE CENTER OF THE WALKWAY. STATION IS STAMPED CITY OF KINGSPORT BENCHMARK 1990 SURVEY. STATION IS A ALUMINUM CAP SET FLUSH IN THE TOP OF THE DAM.

ECOVERY NOTES:	

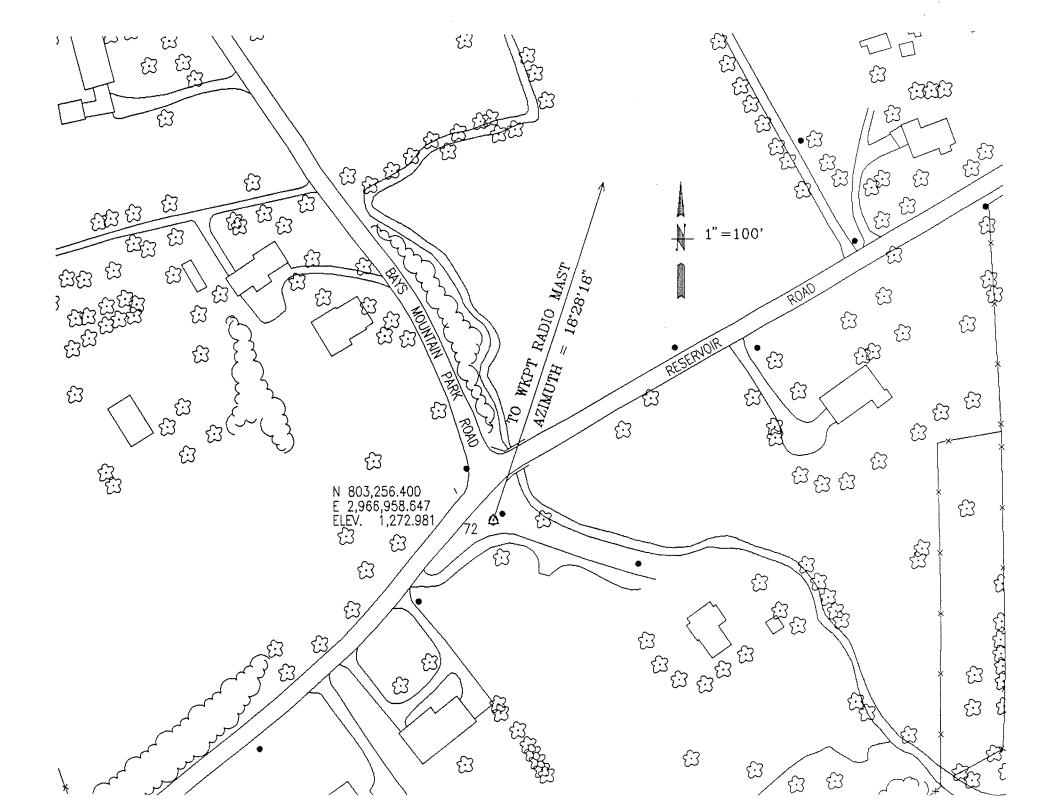


#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0072	STATION NAME RESERVIOR ROAD
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 803256.400
LATITUDE: 36°29'32.57141"	EASTING: 2966958.647
LONGITUDE: 82°36'10.12533"	ELEVATION: 1272.981
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000014305	CONVERGENCE: 1°59'19.854"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 18°28'18"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4.7 MILES S.W. OF KINGSPORT ON RESERVOIR ROAD OPPOSITE BAYS MTN. PARK ROAD. TO REACH STATION START AT THE INTERSECTION OF WILCOX DR. AND RESERVOIR RD. GO WEST ON RESERVOIR ROAD 2.75 MILES TO THE STATION ON THE LEFT.



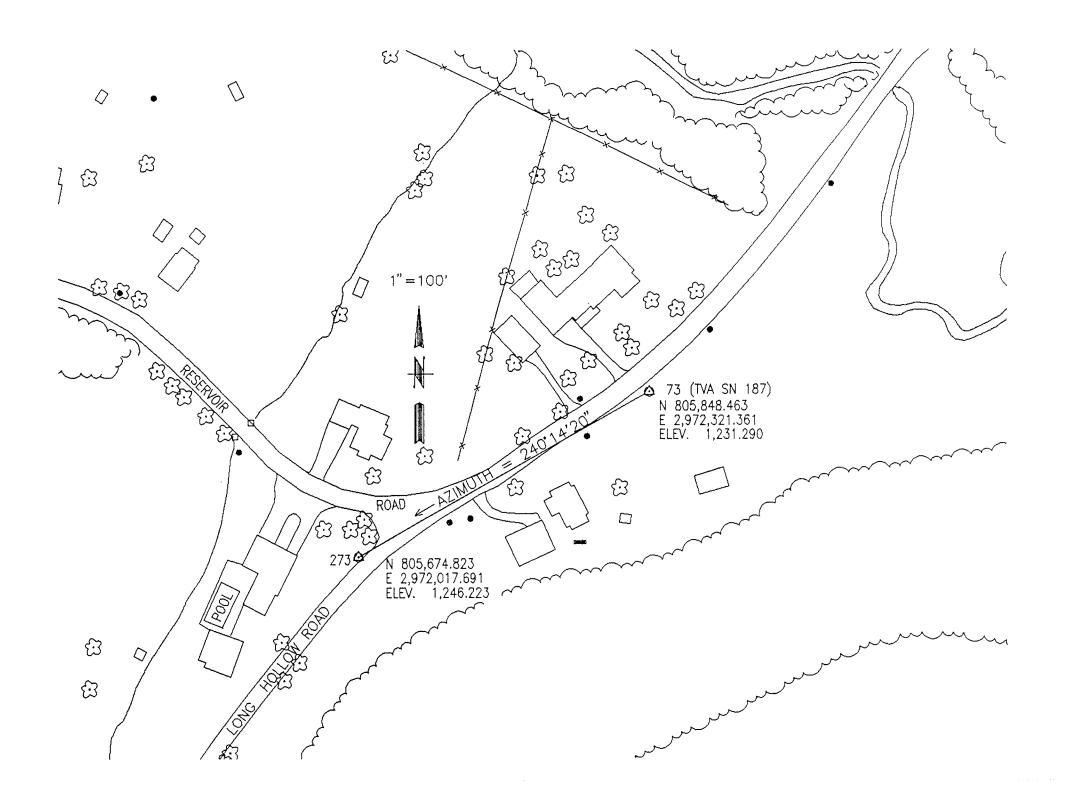
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0073	STATION NAME TVA SN 187
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 805848.463
LATITUDE: 36°29'56.34117"	EASTING: 2972321.361
LONGITUDE: 82'35'3.38430"	ELEVATION: 1231.290
HORIZONTAL DATUM: 1983 NAD VERTICA	AL DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000015636	CONVERGENCE: 1°59'58.927"
BACKSIGHT STATION NO: 0273	REFERENCE AZIMUTH: 240°14'20"
NORTHING: 805674.823 EASTING:	2972017.691 GPS HEIGHT: 1246.223

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 3.8 MILES SOUTH OF KINGSPORT ON RESERVOIR ROAD. TO REACH STATION START AT THE INTERSECTION OF WILCOX DRIVE AND RESERVOIR ROAD. GO WEST ON RESERVOIR ROAD FOR 1.55 MILES TO THE STATION ON THE LEFT. STATION IS A TVA MONUMENT STAMPED SN-187.

RECOVERY NOTES:	
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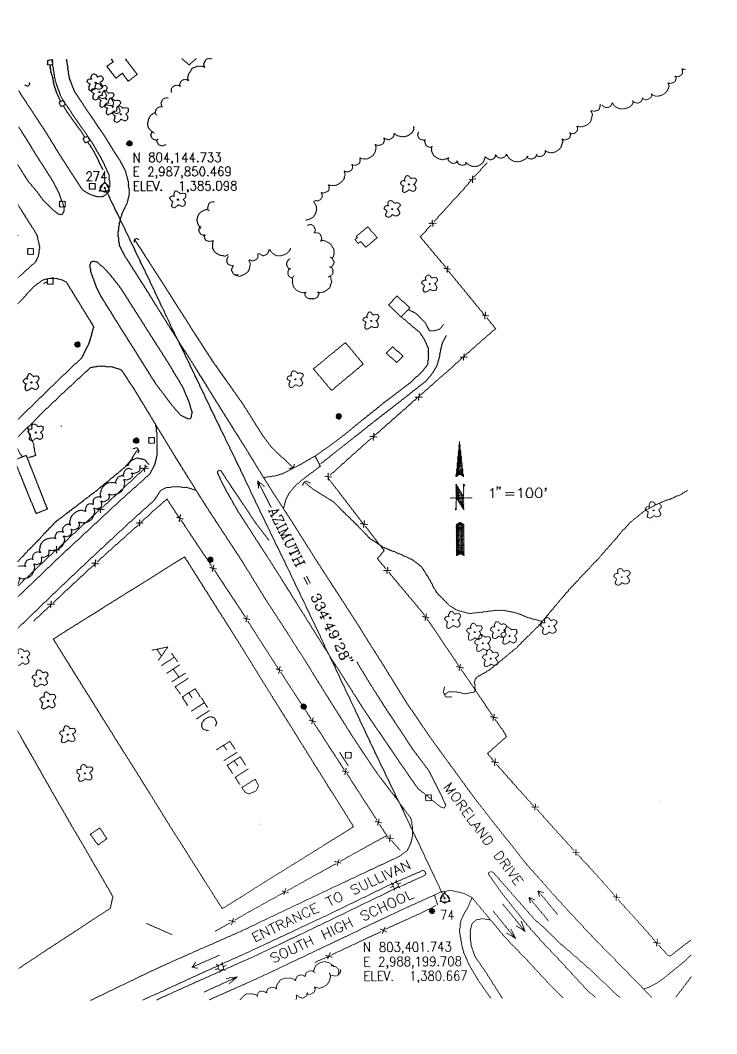
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0074	STATION NAME SOUTH HIGH SCHOOL		
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 803401.743		
LAΠTUDE: . 36°29'26.64100"	EASTING: 2988199.708		
LONGITUDE: 82°31'50.10136"	ELEVATION: 1380.667		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000013975	CONVERGENCE: 2°01'52.083"		
BACKSIGHT STATION NO: 0274	REFERENCE AZIMUTH: 334°49'28"		
NORTHING: 804144.733 EASTING:	2987850.469 GPS HEIGHT: 1385.098		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4.3 MILES SOUTH OF KINGSPORT ON MORELAND DRIVE NEAR SULLIVAN SOUTH HIGH SCHOOL. TO REACH STATION START AT THE INTERSECTION OF JOHN B. DENNIS HWY AND MORELAND DRIVE. GO SOUTHEAST ON MORELAND DRIVE FOR 1.5 MILES TO THE ENTRANCE TO SULLIVAN SOUTH HIGH SCHOOL AND THE STATION ON THE RIGHT. STATION IS 2' EAST OF THE WITNESS POST.

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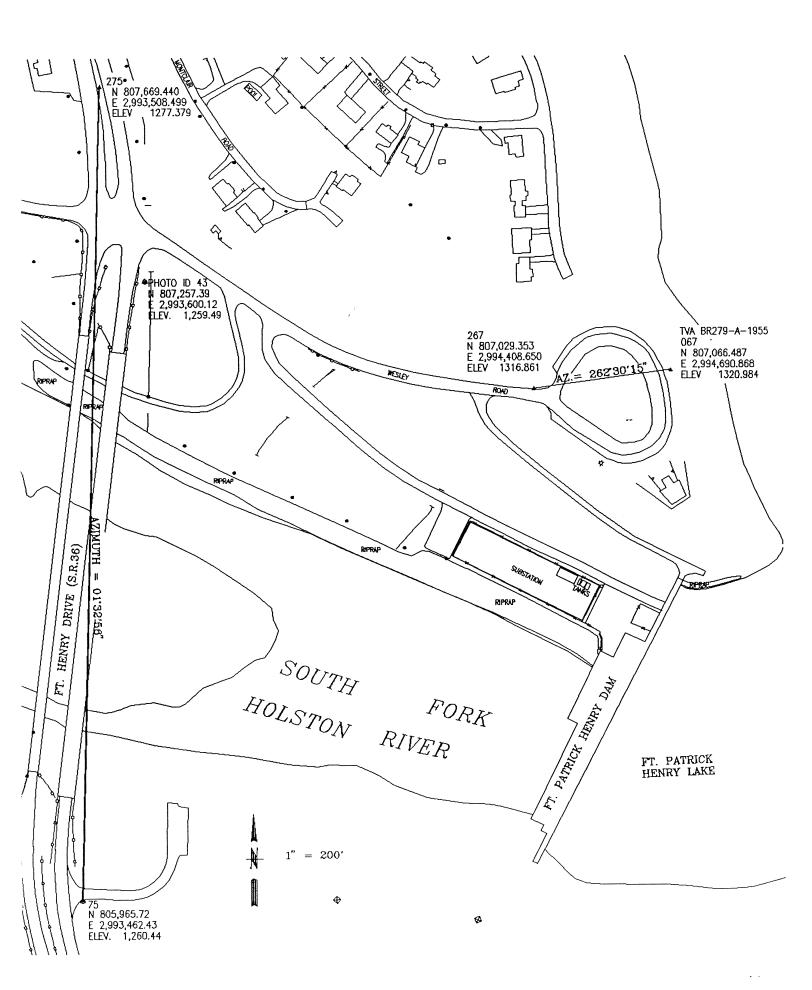


#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0075	STATION NAME PATRICK HENRY OVERLOOK			
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES			
GEODETIC POSITION	NORTHING: 805965.725			
LATITUDE: 36°29'50.12873"	EASTING: 2993462.427			
LONGITUDE: 82'30'44.57613"	ELEVATION: 1260.438			
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)			
SCALE FACTOR: 1.000015287	CONVERGENCE: 2°02'30.444"			
BACKSIGHT STATION NO: 0275	REFERENCE AZIMUTH: 1°32'56"			
NORTHING: 807669.440 EASTING:	2993508.499 GPS HEIGHT: 1277.379			

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4.4 MILES SOUTHEAST OF KINGSPORT ON FT. HENRY DRIVE (SR 36) AT THE ENTRANCE TO A OVERLOOK AT PATRICK HENRY DAM. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DRIVE (SR 36) AND JOHN B. DENNIS HWY. GO SOUTH ON FT. HENRY DRIVE FOR 1.5 MILES TO THE STATION ON THE LEFT. STATION IS 1.2' WEST OF THE WITNESS POST.



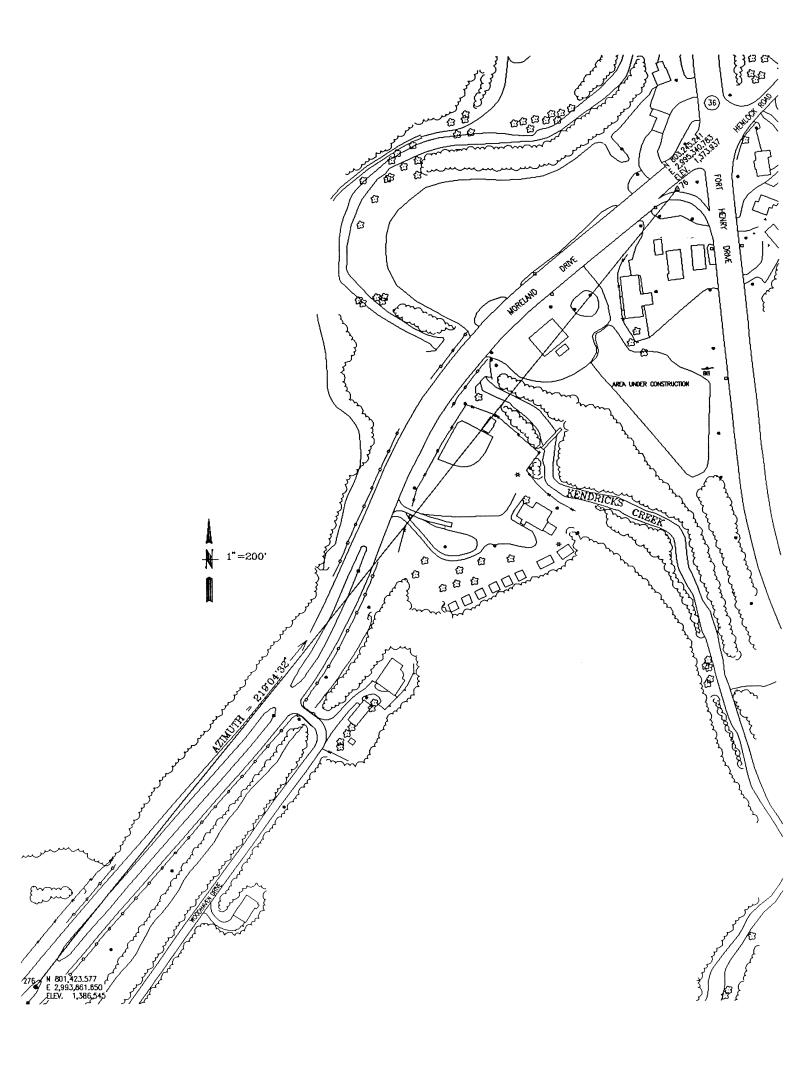
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0076	STATION NAME HEMLOCK - HWY 36			
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES			
GEODETIC POSITION	NORTHING: 803245.241			
LATITUDE: 36°29'22.58306"	EASTING: 2995340.783			
LONGITUDE: 82°30'22.77559"	ELEVATION: 1373.937			
HORIZONTAL DATUM: 1983 NAD VERTICAL	_ DATUM: 1929 NGVD ZONE: 4100(TN)			
SCALE FACTOR: 1.000013750	CONVERGENCE: 2°02'43.207			
BACKSIGHT STATION NO: 0276	REFERENCE AZIMUTH: 219'04'32"			
NORTHING: 801423.577 EASTING:	2993861.650 GPS HEIGHT: 1386.545			

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.0 MILES SOUTHEAST OF KINGSPORT AT THE INTERSECTION OF FT. HENRY DRIVE (SR 36) AND MORELAND DRIVE IN THE MEDIAN. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DRIVE (SR 36) AND JOHN B. DENNIS HWY. GO SOUTH ON FT. HENRY DRIVE FOR 2.2 MILES TO MORELAND DRIVE AND THE STATION ON THE RIGHT. STATION IS 1.6' WEST OF THE WITNESS POST.

RECOVERY NOTES:		



## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

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STATION NO.	0077		STATION NAME	BUTTERMILK ROAD		
USGS QUAD SH	HEET		TN. STATE PLANE COORDINATES			
GEODETIC POSITION			NORTHING:	806503.002		
LATITUDE:	36°29'49.69	975"	EASTING:	3009622.996		
LONGITUDE:	82°27'26.54	1834"	ELEVATION:	1589.987		
HORIZONTAL DA	ATUM: 1983 NAD	VERTICAL	DATUM: 1929 NG	VD ZONE: 4100(TN)		
SCALE FACTOR:	: 1.00001	5263	CONVERGENCE:	2°04'26.377"		
BACKSIGHT STA	ATION NO:	0277	REFERENCE AZIM	IUTH: 229°45'08"		
NORTHING:	806153.125	EASTING:	3009209.672	GPS HEIGHT: 1581.883		
TO DEAGLE DEG	COUDTION:					

#### TO REACH DESCRIPTION:

STATION IS LOCATED 5.8 MILES SOUTHEAST OF KINGSPORT ON I-81. TO REACH STATION, START AT THE INTERSECTION OF I-81 AND HWY 36 (FORT HENRY DR.) (EXIT 59) AND GO NORTH ON I-81 FOR 2.5 MILES TO THE STATION ON THE LEFT IN THE CENTERLINE OF THE MEDIAN. STATION IS AT THE TOP OF A HIGH BANK ON THE EAST SIDE OF BUTTERMILK ROAD AND 4.4' EAST OF GUARD RAIL AND 42.1' SOUTH OF THE S.E. CORNER OF THE BRIDGE ON THE SOUTH BOUND LANE OF I-81 OVER BUTTERMILK ROAD AND 62.8' NORTH OF THE N.E. CORNER OF THE BRIDGE ON THE NORTHBOUND LANE OF I-81 OVER BUTTERMILK ROAD.

RECOVERY NOTES:		

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7-81 7-81 1-81	John Buttermilk R	
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## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

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STATION NO. 0078	STATION NAME WAHOO — HILTON HILL
USGS QUAD SHEET BOONE DAM	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 802500.548
LATITUDE: 36°29'08.70483"	EASTING: 3013651.178
LONGITUDE: 82*26'39.02821"	ELEVATION: 1552.066
HORIZONTAL DATUM: 1983 NAD VERTICAL	_ DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000012982	CONVERGENCE: 2°04'54.197"
BACKSIGHT STATION NO: 0278	REFERENCE AZIMUTH: 216°52'40"
NORTHING: 802127.522 EASTING:	3013371.329 GPS HEIGHT: 1543.003

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 7.7 MILES SOUTHEAST OF KINGSPORT AT THE INTERSECTION OF HILTON HILL ROAD AND WAHOO VALLEY ROAD. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DRIVE (SR 36) AND I-81. GO SOUTHEAST ON FT. HENRY DRIVE FOR 2.1 MILES TO BEULAH CHURCH ROAD. GO NORTH ON BEULAH CHURCH ROAD FOR 0.75 MILES TO DUNLAP RD. CONTINUE NORTH ON DUNLAP RD. FOR 1.1 MILES TO A "Y" INTERSECTION WITH CENTENARY RD. GO NORTH ON CENTENARY RD. 1.1 MILE TO HILTON HILL RD. GO WEST ON HILTON HILL RD. FOR 0.5 MILES OT WAHOO VALLEY RD. AND THE STATION ON THE LEFT.

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#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0079 STATION NAME CENTENARY RD. USGS QUAD SHEET BOONE DAM TN. STATE PLANE COORDINATES GEODETIC POSITION NORTHING: 805697.515 LATITUDE: 36°29'38.74907" EASTING: 3017948.621 LONGITUDE: 82°25'45.01186" ELEVATION: 1552.239 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: 1.000014650 CONVERGENCE: 2\*05'25.821" BACKSIGHT STATION NO: 0279 REFERENCE AZIMUTH: 151'55'39" NORTHING: 804522.123 EASTING: GPS HEIGHT: 1568.541 3018575.497

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.1 MILES S.E. OF KINGSPORT ON AIRPORT PKWY. SR 357 IN THE MEDIAN JUST NORTH OF THE BRIDGE OVER CENTENARY RD. TO REACH STATION START AT THE INTERSECTION OF AIRPORT PARKWAY AND I—81. GO SOUTHEAST ON AIRPORT PKWY. FOR 1.0 MILES TO CENTENARY RD. AND THE STATION ON THE LEFT AND IN THE MEDIAN. STATION IS ON THE NORTHWEST SIDE OF CENTENARY ROAD. STATION IS 1.9' WEST OF THE WITNESS POST.

RECOVERY NOTES:	

Ransportation C.	AIRPORT PARKWAY SR 357	PANED THCH CB->目 36.3	TO I-81	Trick Carl
CENTENARY ROAD	Over or Carpenant Day	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 Bensee Centerant ad.	
	To TRI-CITIES  AIRPORT		AIRPORT PARKWAY SR 357	

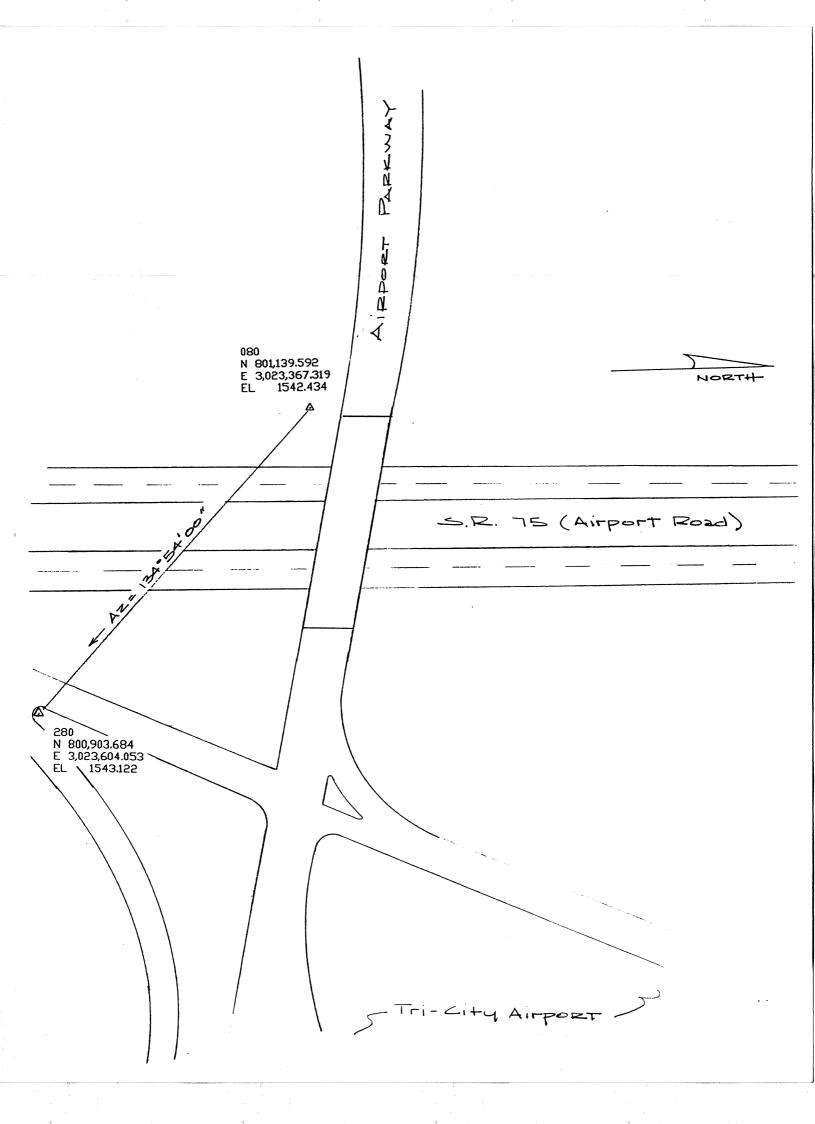
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0080	STATION NAME TCRA
USGS QUAD SHEET BOONE DAM	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 801139.592
LATITUDE: 36°28'51.75043"	EASTING: 3023367.319
LONGITUDE: 82°24'40.74239"	ELEVATION: 1542.434
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000012051	CONVERGENCE: 2°06'3.447"
BACKSIGHT STATION NO: 0280	REFERENCE AZIMUTH: 134°54'00"
NORTHING: 800903.684 EASTING:	3023604.053 GPS HEIGHT: 1543.122
TO DEADLE DECORPTION	

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 9.4 MILES S.E OF KINGSPORT ON AIRPORT PARKWAY (SR 357) AT THE INTERSECTION OF SR 75. STATION IS LOCATED IN THE S.W. QUADRANT OF INTERSECTION. STATION IS 1.6' N. OF THE WITNESS POST.

RECOVERY NOTES:		



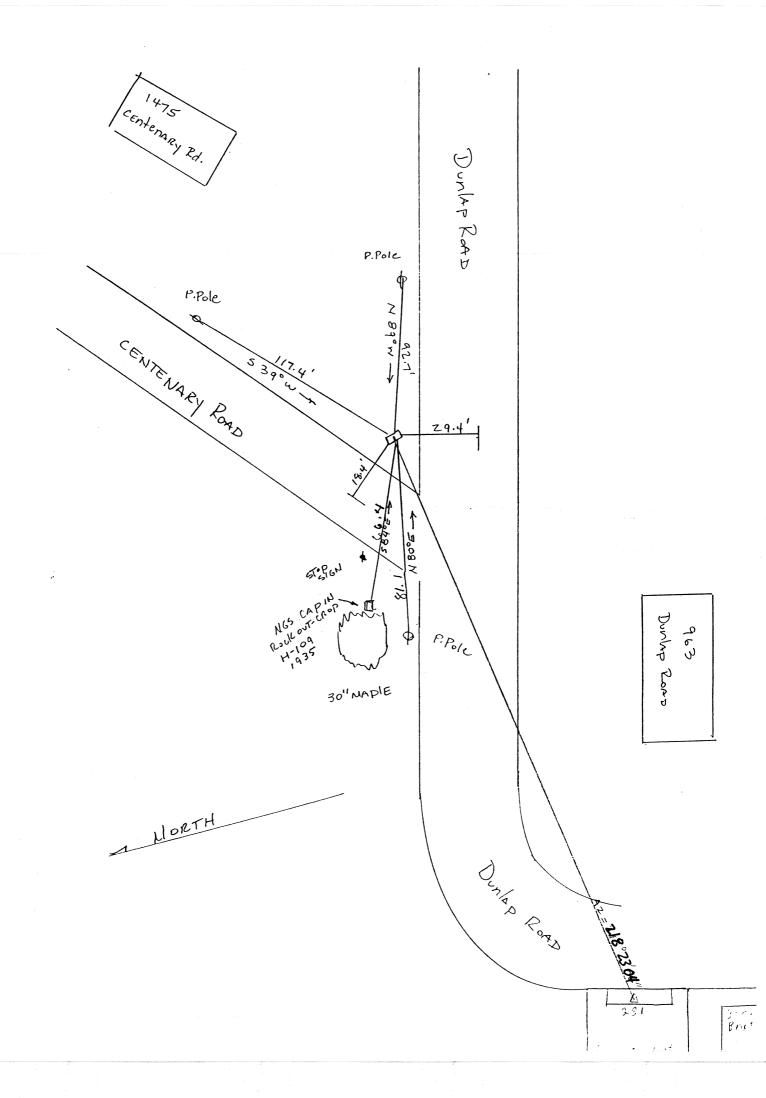
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0081	STATION NAME DUNLAP RD.
USGS QUAD SHEET BOONE DAM	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 798027.701
LATITUDE: 36°28'24.52542"	EASTING: 3013596.432
LONGITUDE: 82°26'41.68728"	ELEVATION: 1402.978
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000010570	CONVERGENCE: 2°04'52.641"
BACKSIGHT STATION NO: 0281	REFERENCE AZIMUTH: 218°23'04"
NORTHING: 797402.769 EASTING:	3013101.395 GPS HEIGHT: 1423.796

TO REACH DESCRIPTION:

STATION IS LOCATE APPROXIMATELY 8.2 MILES S.E. OF KINGSPORT AT THE INTERSECTION OF DUNLAP RD. AND CENTENARY RD. TO REACH THE STATION, START AT THE INTERSECTION OF FT. HENRY DR. (SR 36) AND I-81. GO SOUTHEAST ON FT. HENRY DR. FOR 2.1 MILES TO BEULAH CHURCH RD. GO NORTH ON BEULAH CHURCH RD. FOR 0.75 MILES TO DUNLAP ROAD. CONTINUE NORTH ON DUNLAP ROAD FOR 1.1 MILES TO A "Y" INTERSECTION WITH CENTENARY ROAD AND THE STATION AHEAD.

RECOVERY NOTES:		

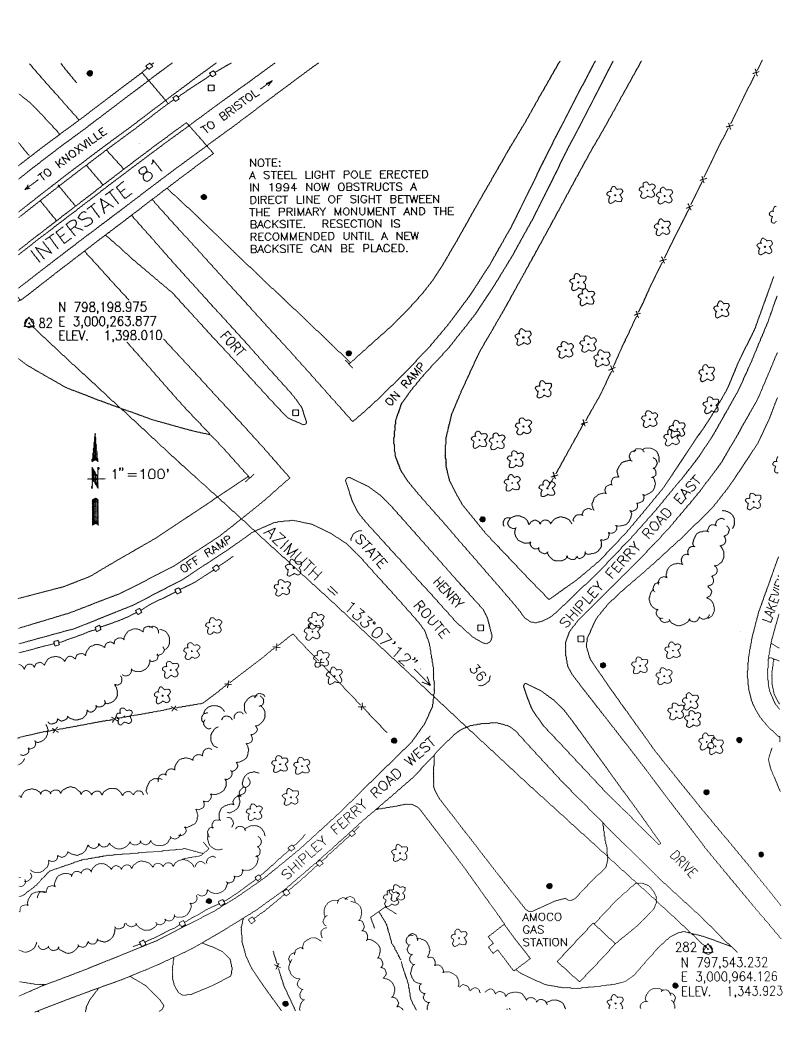


#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0082 STATION NAME , EXIT 59 USGS QUAD SHEET BOONE DAM TN. STATE PLANE COORDINATES GEODETIC POSITION NORTHING: 798198.975 3000263.877 LATITUDE: 36°28'30.97531" **EASTING:** LONGITUDE: 82°29'24.74250" ELEVATION: 1398.010 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: 1.000010919 CONVERGENCE: 2°03'17.182" BACKSIGHT STATION NO: 0282 REFERENCE AZIMUTH: 133'07'12" NORTHING: 797543.232 EASTING: 3000964.126 GPS HEIGHT: 1343,923

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 6.3 MILES S.E. OF KINGSPORT ON I-81 AT THE INTERSECTION OF FT. HENRY DR. (SR 36). STATION LIES IN THE SOUTHWEST QUADRANT OF THE INTERSECTION ON TOP OF A HILL. STATION IS 2.1' N.E. OF THE WITNESS POST.



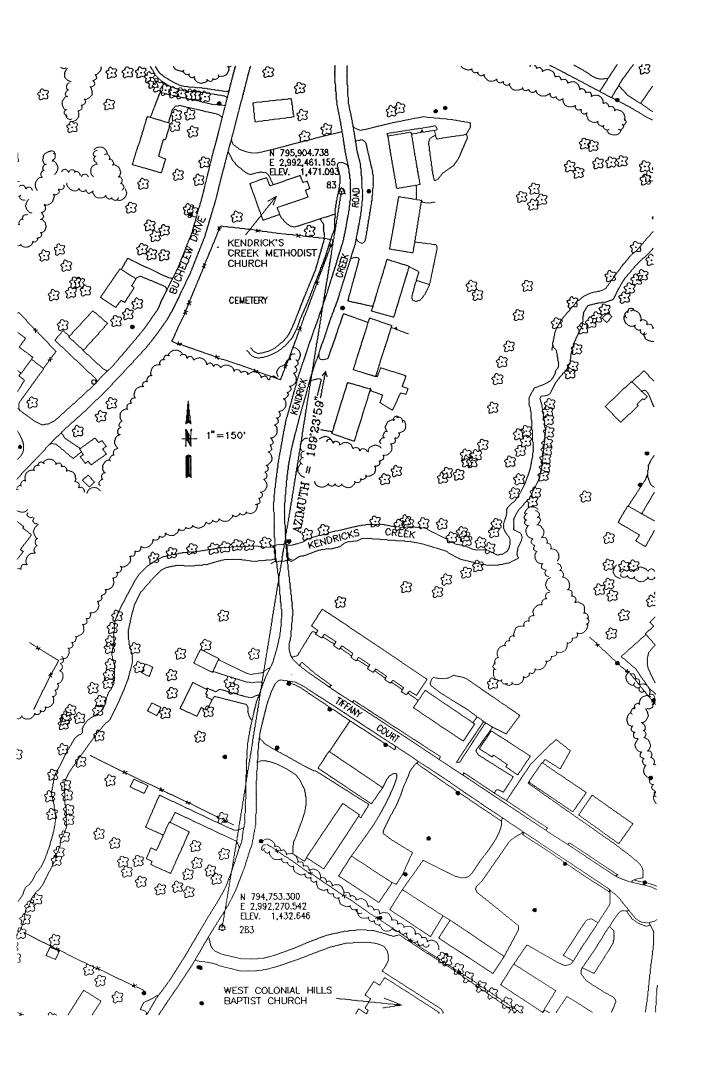
#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NAME KENDRICK'S CHURCH STATION NO. 0083 TN. STATE PLANE COORDINATES USGS QUAD SHEET SULLIVAN GARDENS GEODETIC POSITION NORTHING: 795904.738 LATITUDE: 36°28'11.05974" EASTING: 2992461.155 LONGITUDE: 82°31'1.21522" ELEVATION: 1471.093 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: 1.000009843 CONVERGENCE: 2'02'20.703" REFERENCE AZIMUTH: 189°23′59" BACKSIGHT STATION NO: 0283 EASTING: GPS HEIGHT: 1432,646 NORTHING: 794753.300 2992270.542

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.9 MILES S.E. OF KINGSPORT ON KENDRICKS CREEK RD. IN FRONT OF THE KENDRICKS CREEK UNITED METHODIST CHURCH. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DR. (SR 36) AND JOHN B. DENNIS HWY. GO SOUTH ON FORT HENRY DR. FOR 2.55 MILES TO LEBANON ROAD. GO SOUTH ON LEBANON RD. FOR 0.5 MILES TO KENDRICKS CREEK RD. GO S.W. ON KENDRICKS CREEK RD. FOR 0.95 MILES TO THE STATION ON THE RIGHT. STATION IS 1.4' EAST OF THE WITNESS POST.

RECOVERY NOTES:		
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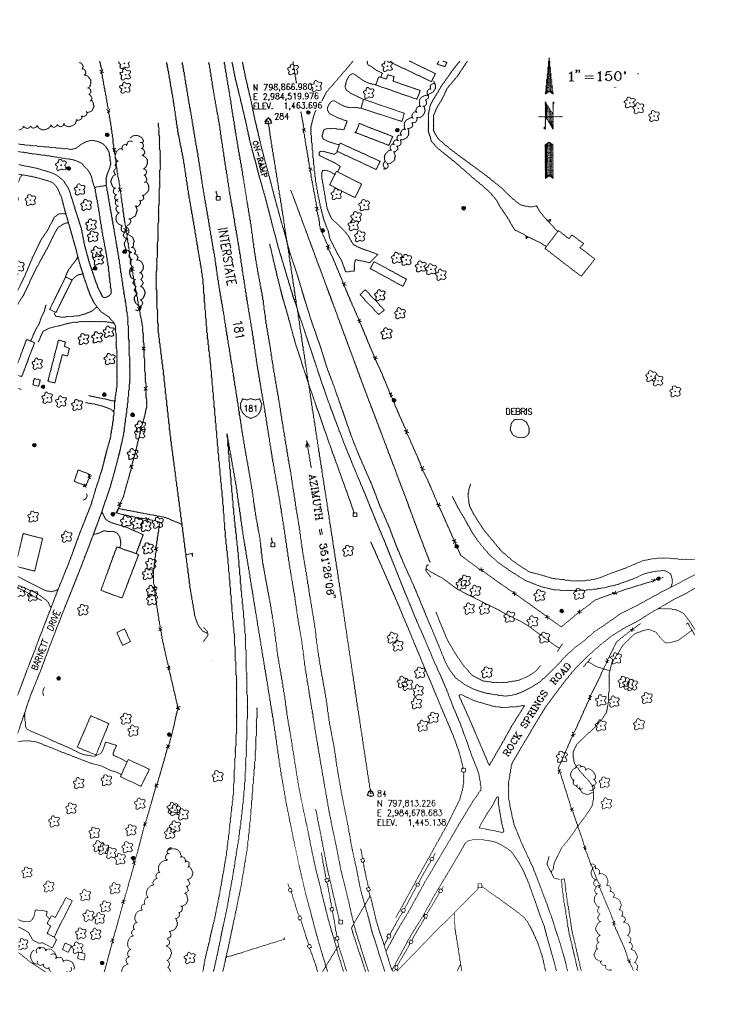
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0084	STATION NAME ROCK SPRINGS EXIT
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 797813.226
LATITUDE: 36°28'32.64722"	EASTING: 2984678.683
LONGITUDE: 82°32'35.60984"	ELEVATION: 1445.138
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000011010	CONVERGENCE: 2*01*25.440*
BACKSIGHT STATION NO: 0284	REFERENCE AZIMUTH: 351°26'06"
NORTHING: 798866.980 EASTING:	2984519.976
TO REACH DESCRIPTION.	

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.1 MILES SOUTH OF KINGSPORT ON I-181 ON THE NORTH SIDE OF ROCK SPRINGS ROAD. STATION IS ON A HILL IN THE NORTHEAST QUADRANT OF THE INTERSECTION. STATION IS 1.7' WEST OF THE WITNESS POST.

RECOVERY	NOTES:	nga ang ang ang ang ang ang ang ang ang			



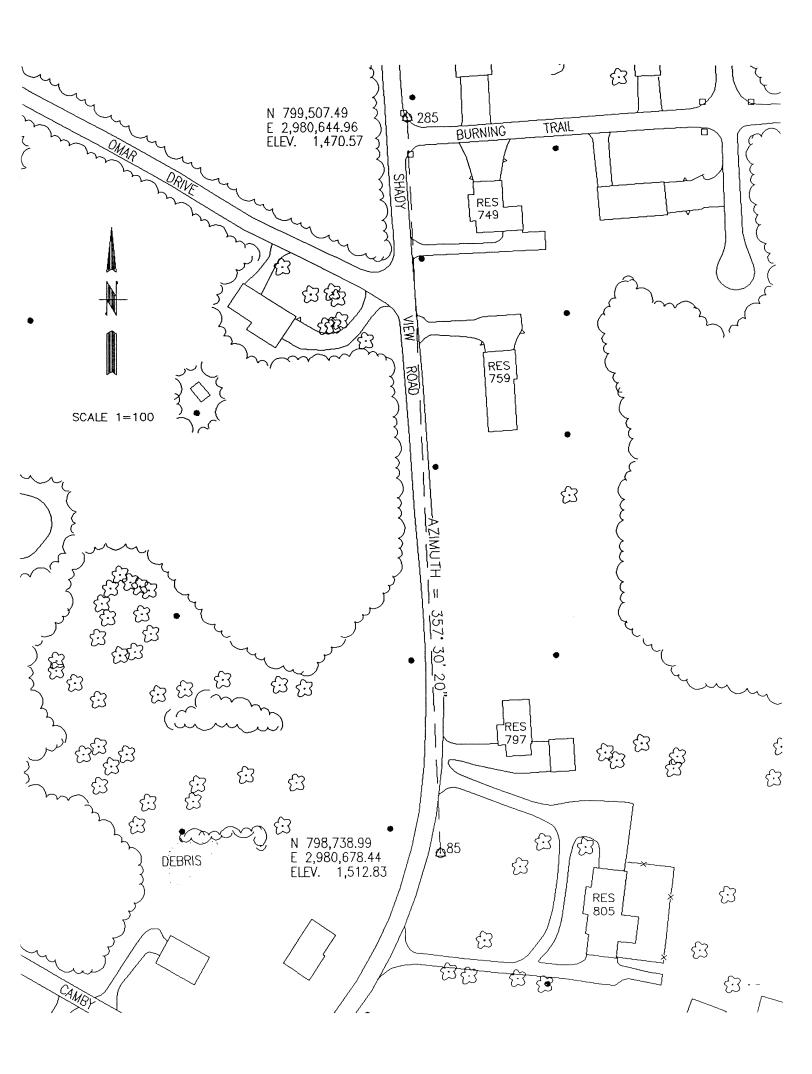
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0085	STATION NAME SHADYVIEW		
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 798738.989		
LATITUDE: 36°28'43.18974"	EASTING: 2980678.440		
LONGITUDE: 82°33'24.15865"	ELEVATION: 1512.825		
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000011583	CONVERGENCE: 2'00'57.018"		
BACKSIGHT STATION NO: 0285	REFERENCE AZIMUTH: 357°30°20"		
NORTHING: 799507.490 EASTING:	2980644.961 GPS HEIGHT: 1470.566		

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 4.9 MILES SOUTH OF KINGSPORT ON SHADY VIEW ROAD. TO REACH STATION START AT THE INTERSECTION OF SOUTH WILCOX DR. AND I-181. GO SOUTHWEST ON SOUTH WILCOX FOR 0.45 MILES TO ALASKA AVE. GO EAST ON ALASKA AVE. FOR 1.65 MILES TO THE STATION ON THE LEFT.

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## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0086	STATION NAME SULLIVAN GARDENS
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 797151.865
LATITUDE: 36°28'30.72076"	EASTING: 2971392.007
LONGITUDE: 82°35'18.47151"	ELEVATION: 1257.594
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000010905	CONVERGENCE: 1°59'50.095"
BACKSIGHT STATION NO: 426	REFERENCE AZIMUTH: 359*26'41"
NORTHING: 815981.793 EASTING:	2971209.503 GPS HEIGHT:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.4 MILES SOUTHWEST OF KINGSPORT ON ROCK SPRINGS RD. TO REACH STATION START AT THE INTERSECTION OF SOUTH WILCOX DR. (SR 93) AND I-181. GO SOUTHWEST ON SOUTH WILCOX DR. FOR 2.4 MILES TO ROCK SPRINGS DR. GO SOUTHEAST ON ROCK SPRINGS DR. FOR 0.35 MILES TO THE STATION ON THE LEFT. STATION IS 1.8' WEST OF THE WITNESS POST.

RECOVERY NOTES:		
1,200,211		

SHED ROCK SPRINGS DRIVE ( Sel Drive BRIDGE CREEK

## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 2000 STATION REPORT

STATION NO. 087 RESET

STATION NAME MILL CREEK/LONE STAR RESET

USGS QUAD SHEET SULLIVAN GARDENS

GEODETIC POSITION

LATITUDE: 36' 28' 15.699679" N

LONGITUDE: 82° 35′ 54.015228″ W

TN. STATE PLANE COORDINATES

NORTHING: 795532.6608

EASTING: 2968543.5179

GPS ELEVATION: 1233.6789

ZONE:4100(TN) VERTICAL DATUM:1929 NGVD HORIZONTAL DATUM:1983 NAD

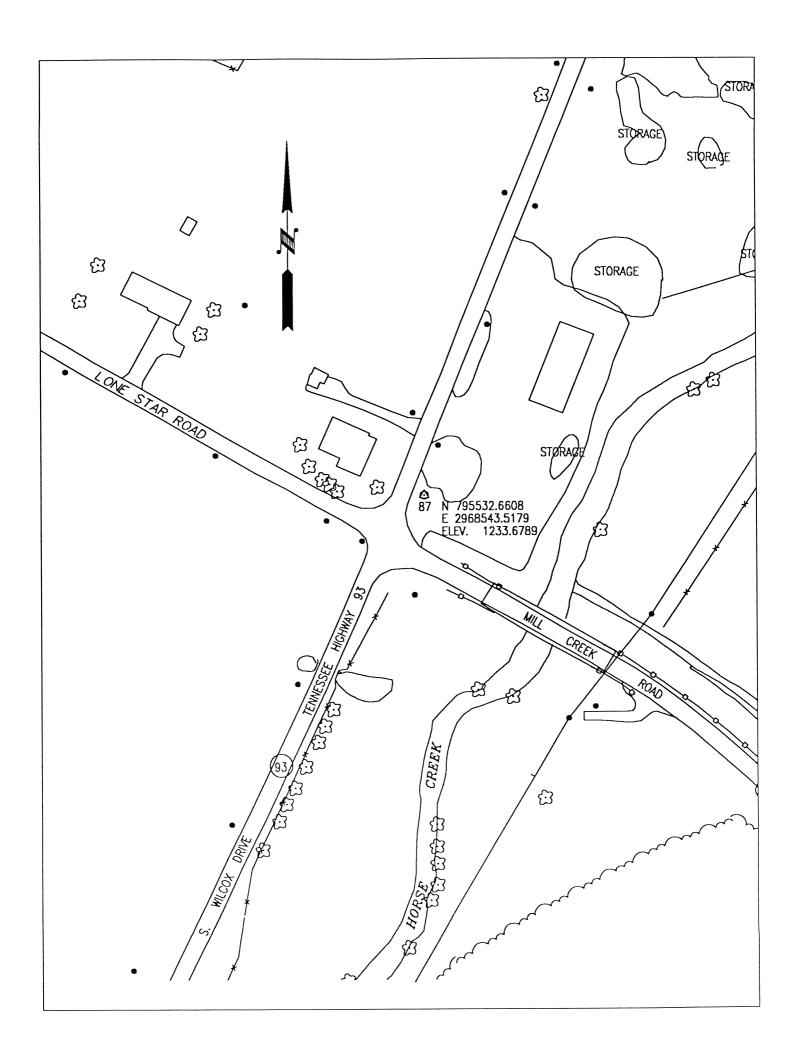
CONVERGENCE: 1' 59' 29.28598" SCALE FACTOR: 1.000010093

REFERENCE AZIMUTH: 7° 25' 40" BACKSIGHT STATION NO: WKPT MAST

2971209.503 GPS HEIGHT: 815981.793 EASTING: NORTHING:

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 5.9 MILES SOUTHWEST OF KINGSPORT ON SOUTH WILCOX DRIVE (SR93) AND JUST NORTH OF MILL CREEK ROAD (SR347). TO REACH STATION, START AT THE INTERSECTION OF SOUTH WILCOX DRIVE AND I—181; THEN GO SOUTH ON SOUTH WILCOX DRIVE FOR 3.0 MILES TO THE STATION ON THE LEFT. THE STATION IS JUST BEHIND THE TOP OF A DITCH AND MARKED WITH AN ORANGE CARSONITE WITNESS POST.



#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

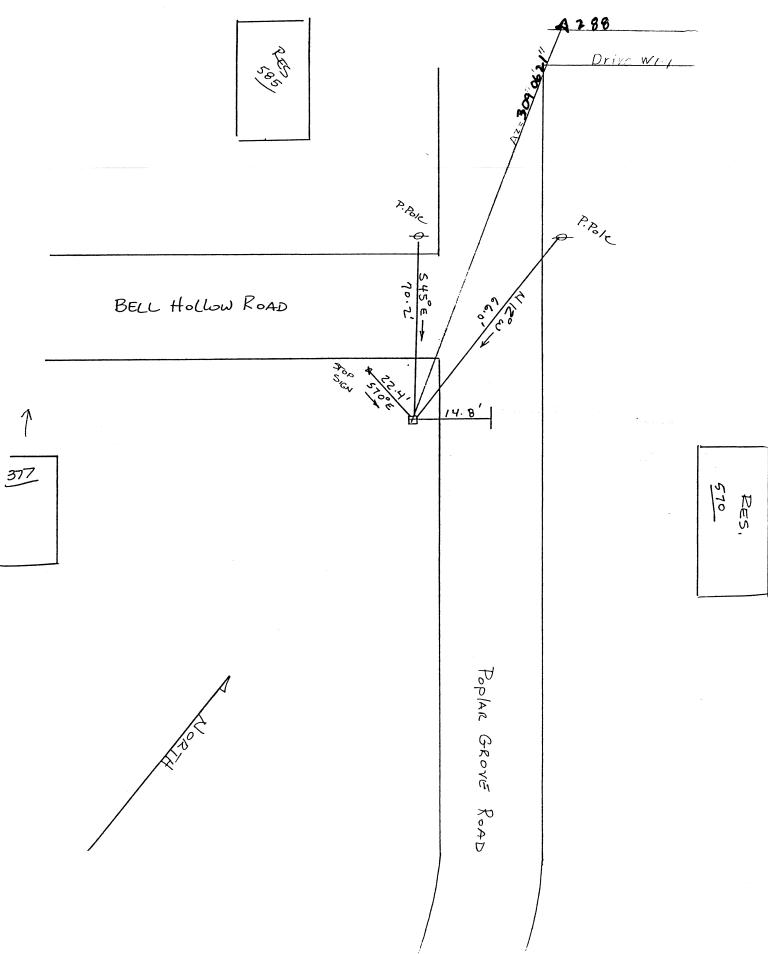
П

STATION NO. 0088	STATION NAME POPLAR GROVE RD.			
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES			
GEODETIC POSITION	NORTHING: 792004.949			
LATITUDE: 36°27'38.54521"	EASTING: 2975194.558			
LONGITUDE: 82°34'34.14712"	GPS ELEVATION: 1510.666			
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)				
SCALE FACTOR: 1.000008107	CONVERGENCE: 2°00'16.044"			
BACKSIGHT STATION NO: 0288	REFERENCE AZIMUTH: 309°06'21"			
NORTHING: 792291.554 EASTING:	2974841.964 GPS HEIGHT: 1475.166			
TO REACH DESCRIPTION:				

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 6.2 MILES SOUTHWEST OF KINGSPORT ON POPLAR GROVE RD. NEAR BELL HOLLOW RD. TO REACH STATION START AT THE INTERSECTION OF ROCK SPRINGS RD. AND I—181. GO SOUTH ON ROCK SPRINGS RD. FOR 1.9 MILES TO ROCK SPRINGS VALLEY DR. GO NORTH ON ROCK SPRINGS VALLEY DR. FOR 0.5 MILES TO POPLAR GROVE RD. GO WEST ON POPLAR GROVE RD. FOR 0.5 MILES TO BELL HOLLOW RD. AND THE STATION ON THE LEFT. STATION IS 1.5' NORTHEAST OF THE WITNESS POST.

RECOVERY NOTES:		

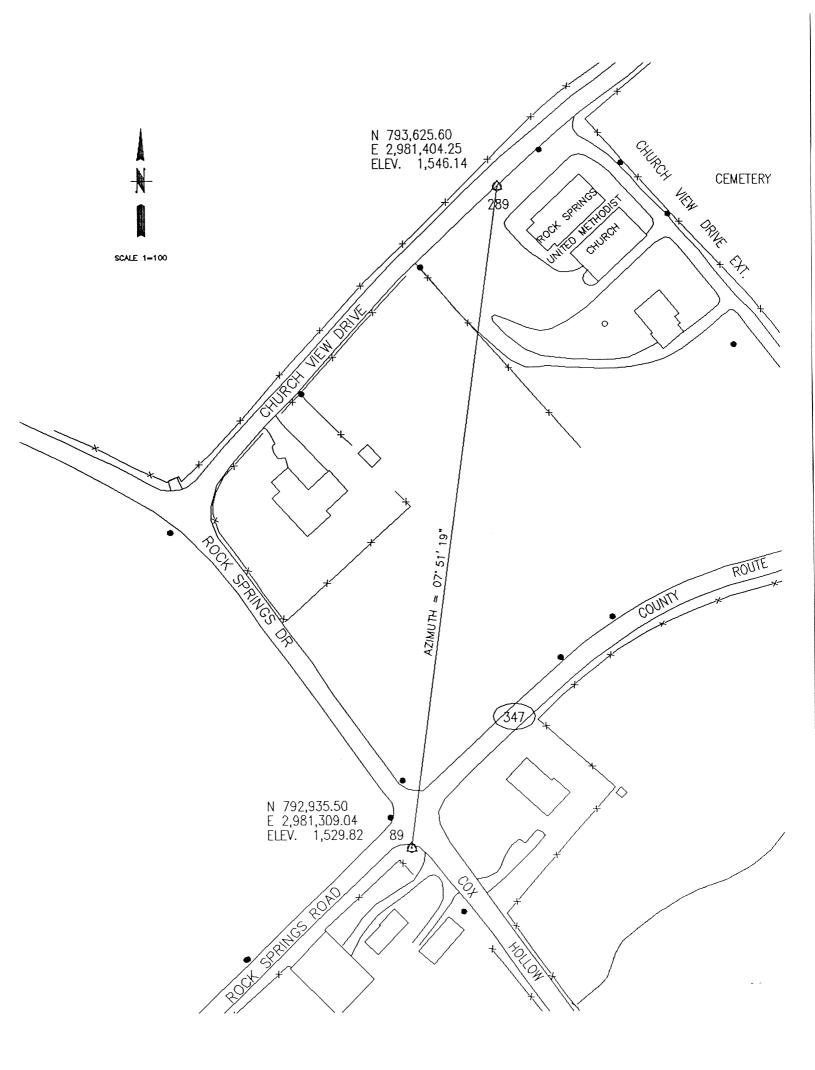


# ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. STATION NAME COX HOLLOW RD. 0089 USGS QUAD SHEET SULLIVAN GARDENS TN. STATE PLANE COORDINATES GEODETIC POSITION NORTHING: 792935.496 LATITUDE: 36°27'45.61979" EASTING: 2981309.041 LONGITUDE: 82'33'18.94286" ELEVATION: 1529.816 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: 1.000008483 CONVERGENCE: 2'01'0.072" BACKSIGHT STATION NO: 0289 REFERENCE AZIMUTH: 7°51'19" GPS HEIGHT: 1546.142 NORTHING: EASTING: 793625,601 2981404.253

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 6.0 MILES SOUTH OF KINGSPORT AT THE INTERSECTION OF ROCK SPRINGS RD. AND COX HOLLOW ROAD. TO REACH STATION START AT THE INTERSECTION OF ROCK SPRINGS RD. AND I-181. GO SOUTH ON ROCK SPRINGS RD. FOR 1.1 MILES TO COX HOLLOW RD. AND THE STATION ON THE LEFT. STATION IS 1.8' NORTHEAST OF THE WITNESS POST.



#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

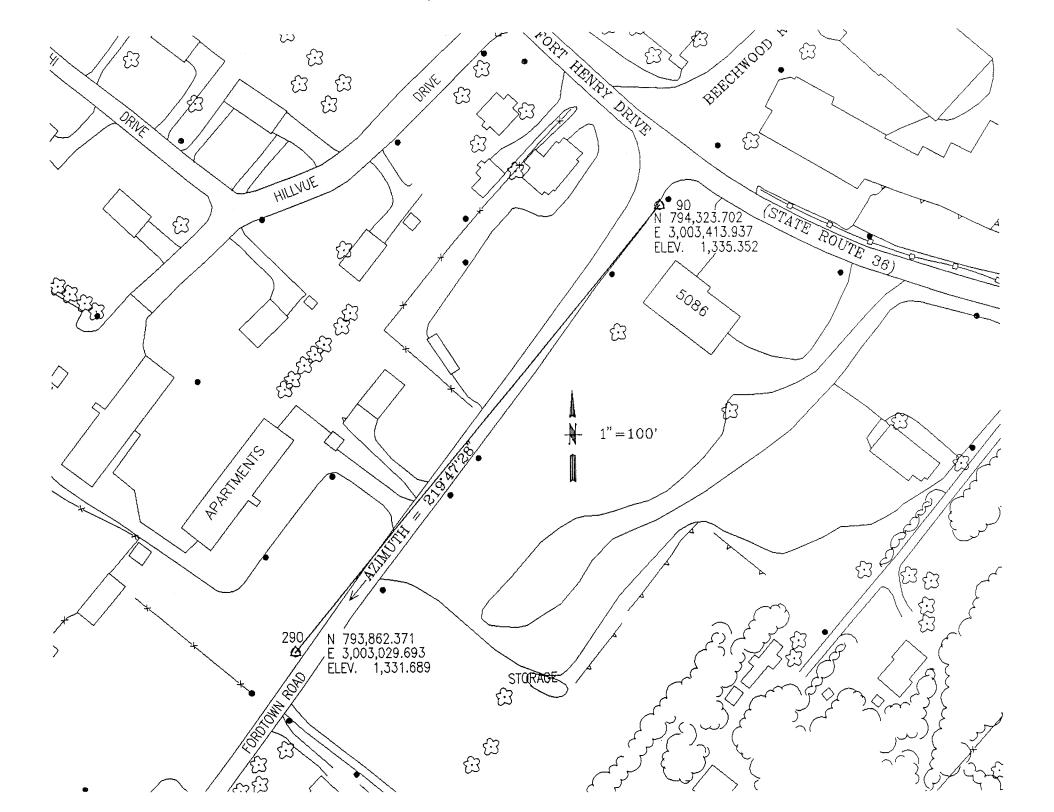
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STATION NO. 0090	STATION NAME FORDTOWN — SR 36			
USGS QUAD SHEET BOONE DAM	TN. STATE PLANE COORDINATES			
GEODETIC POSITION	NORTHING: 794323.702			
LATITUDE: 36°27'51.56209"	EASTING: 3003413.937			
LONGITUDE: 82°28'47.90540"	ELEVATION: 1335.352			
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)				
SCALE FACTOR: 1.000008799	CONVERGENCE: 2*03'38.748"			
BACKSIGHT STATION NO: 0290	REFERENCE AZIMUTH: 219'47'28"			
NORTHING: 793862.371 EASTING:	3003029.693 GPS HEIGHT: 1331.689			

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 7.3 MILES SOUTHEAST OF KINGSPORT AT THE INTERSECTION OF FT. HENRY DRIVE AND FORDTOWN ROAD. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DRIVE (SR 36) AND I-181. GO SOUTHEAST ON FT. HENRY DRIVE FOR 0.95 MILES TO FORDTOWN ROAD AND THE STATION ON THE RIGHT. STATION IS 2' SOUTH OF THE WITNESS POST.

RECOVERY NOTES:			***************************************
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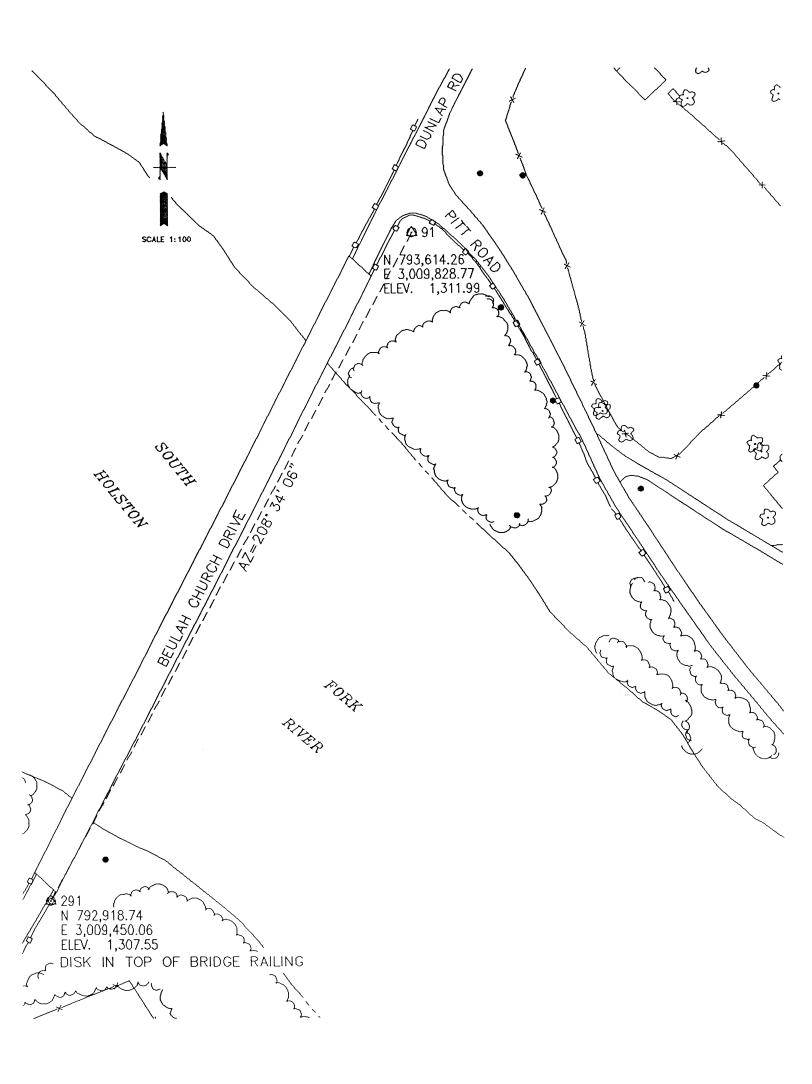
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0091	STATION NAME SMITH SHOALS
USGS QUAD SHEET BOONE DAM	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 793614.257
LATITUDE: 36°27'42.26352"	EASTING: 3009828.767
LONGITUDE: 82°27'29.74104"	ELEVATION: 1311.993
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000008305	CONVERGENCE: 2*04*24.508**
BACKSIGHT STATION NO: 0291	REFERENCE AZIMUTH: 208'34'06"
NORTHING: 792918.740 EASTING:	3009450.057 GPS HEIGHT: 1307.548

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.3 MILES S.E. OF KINGSPORT AT THE INTERSECTION OF DUNLAP ROAD AND PITT RD. BEHIND A GUARDRAIL. TO REACH STATION START AT THE INTERSECTION OF I-81 AND FT. HENRY DR. (SR 36). GO S.E. ON FT. HENRY DR. FOR 2.1 MILES TO BEULAH CHURCH RD. GO NORTH ON BEULAH CHURCH RD FOR 0.75 MILES TO THE STATION ON THE RIGHT. STATION IS 2.2' NORTH OF THE WITNESS POST.

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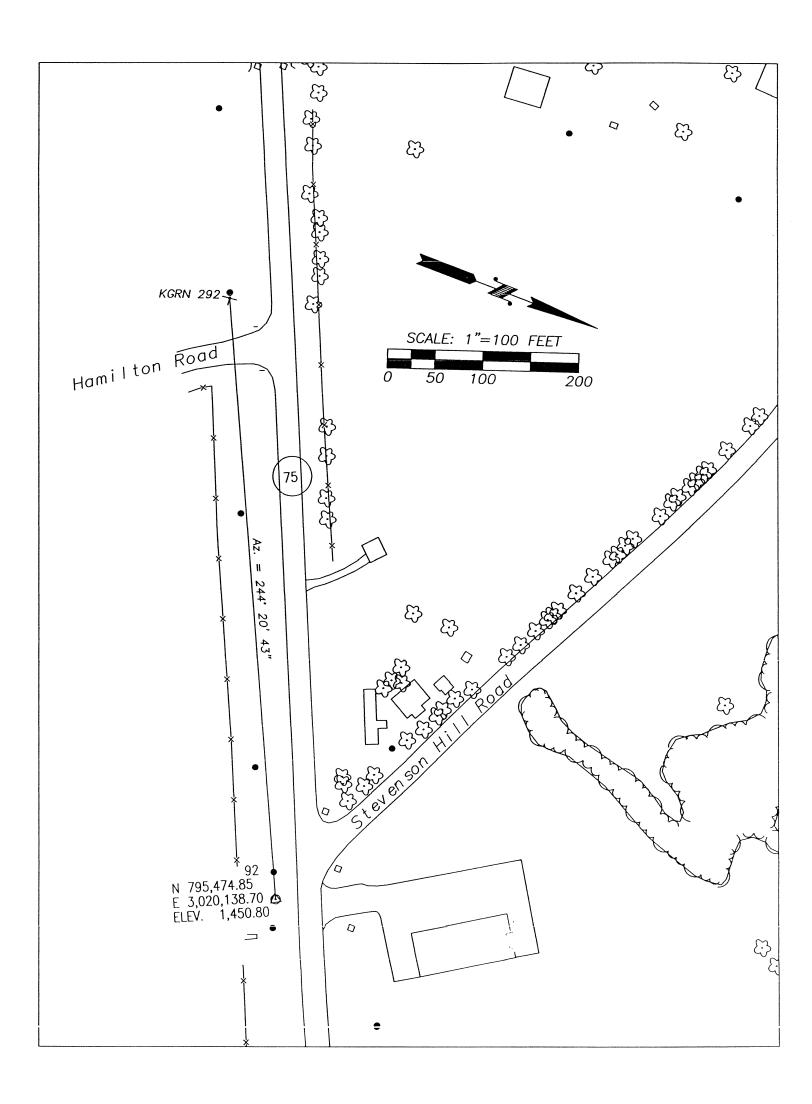


### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. STATION NAME 092 HAMILTON ROAD TN. STATE PLANE COORDINATES USGS QUAD SHEET BOONE DAM GEODETIC POSITION NORTHING: 795474.854 LATITUDE: 36° 27′ 56.94245″ EASTING: 3020138.699 LONGITUDE: 82\* 25' 22.78351" ELEVATION: 1450.801 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: 1.000009087 CONVERGENCE: 2' 05' 38.834" BACKSIGHT STATION NO: 244 20 43" 292 RESET REFERENCE AZIMUTH: NORTHING: EASTING: 3019572.0526 **ELEVATION: 1475.96** 795202.698

#### TO REACH DESCRIPTION:

Station is located approximately 9.5 miles Southeast of Kingsport on SR 75. To reach station, start at the intersection of I-81 and Ft. Henry Dr., then proceed Southeast on Ft. Henry Dr. for 3.5 miles to SR 75, turn left on SR 75 and proceed north for 2.6 miles to the station on the right. Station is opposite the Tri-City Trading post and is 2.1 feet N. of the witness post.

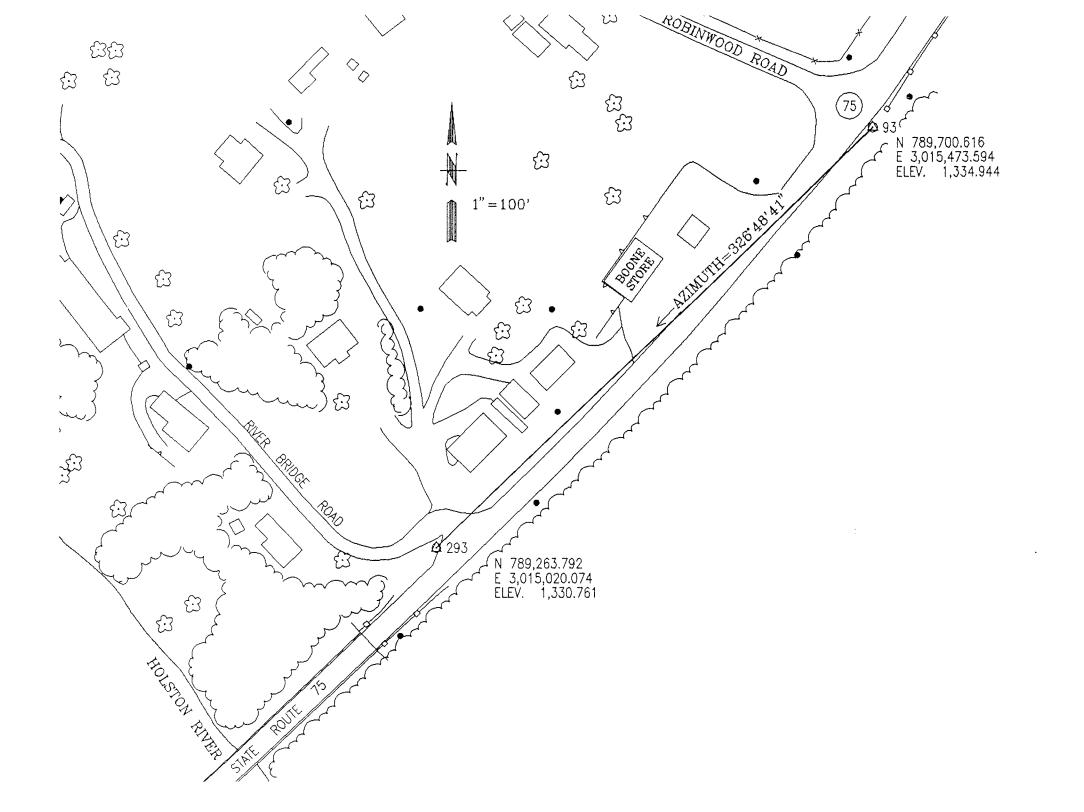


### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0093	STATION NAME BOONE DAM
USGS QUAD SHEET BOONE DAM	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 789700.616
LAΠTUDE: 36°27'01.56506"	EASTING: 3015473.594
LONGITUDE: 82°26'22.42789"	ELEVATION: 1334.944
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000006163	CONVERGENCE: 2*05*03.916*
BACKSIGHT STATION NO: 0293	REFERENCE AZIMUTH: 226°04'27"
NORTHING: 789263.792 EASTING:	<b>3</b> 015020.074 GPS HEIGHT: 1330.761
TO REACH DESCRIPTION:	

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 9.5 MILES S.E. OF KINGSPORT ON SR 75 OPPOSITE ROBINWOOD RD. TO REACH STATION START AT THE INTERSECTION OF I—81 AND FT. HENRY DR. (SR 36). GO S.E. ON FT. HENRY DR. FOR 3.5 MILES TO HWY. 75. GO NORTH ON HWY 75 FOR 1.1 MILES TO THE STATION ON THE RIGHT. STATION IS 1.6' NORTH OF THE WITNESS POST.



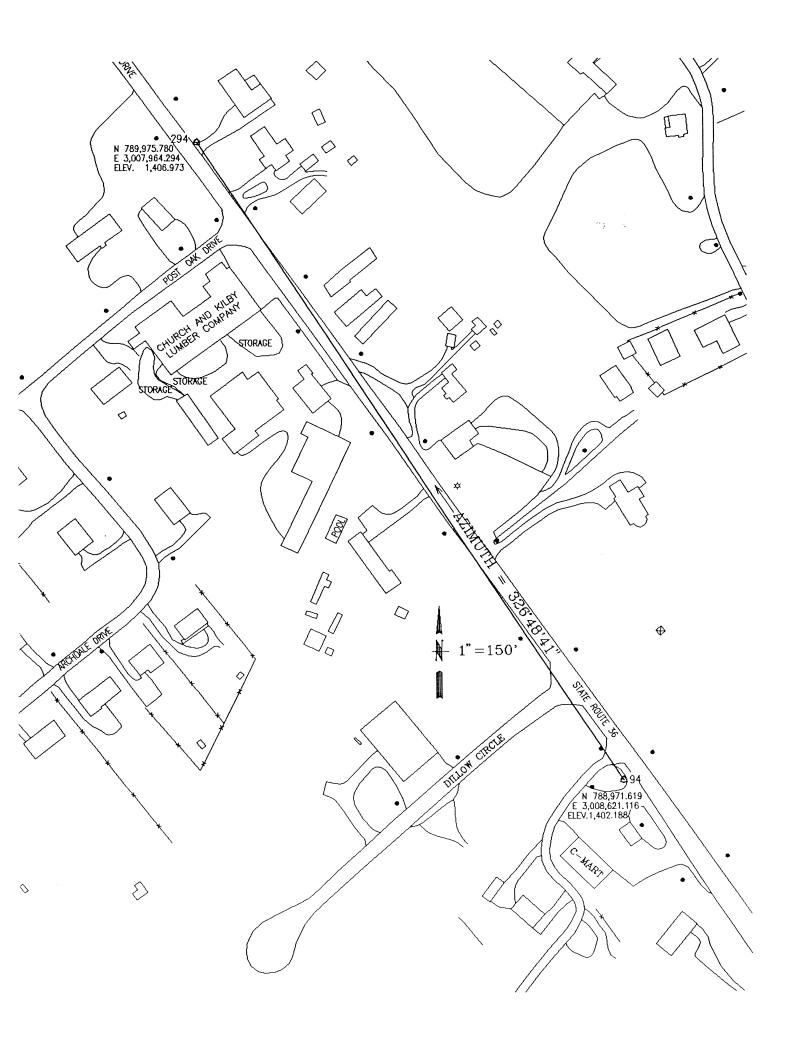
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0094	STATION NAME C-MART
USGS QUAD SHEET BOONE DAM	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 788971.619
LATITUDE: 36°26'56.81773"	EASTING: 3008621.116
LONGITUDE: 82°27'46.56848"	ELEVATION: 1402.188
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000005916	CONVERGENCE: 2°04'14.657"
BACKSIGHT STATION NO: 0294	REFERENCE AZIMUTH: 326°48'41"
NORTHING: 789975.780 EASTING:	3007964.294 GPS HEIGHT: 1406.973

### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.7 MILES S.E. OF KINGSPORT ON FT. HENRY DR. AT THE INTERSECTION OF FT. HENRY DR. AND DILLOW CIRCLE. STATION IS IN FRONT OF C-MART AT 5670 FT. HENRY DR. TO REACH STATION START AT THE INTERSECTION OF I-81 AND FT. HENRY DR. GO S.E. ON FT. HENRY FOR 2.4 MILES TO DILLOW DR. AND THE STATION ON THE RIGHT. STATION IS 1.9' EAST OF THE WITNESS POST.

RECOVERY NOTES:	



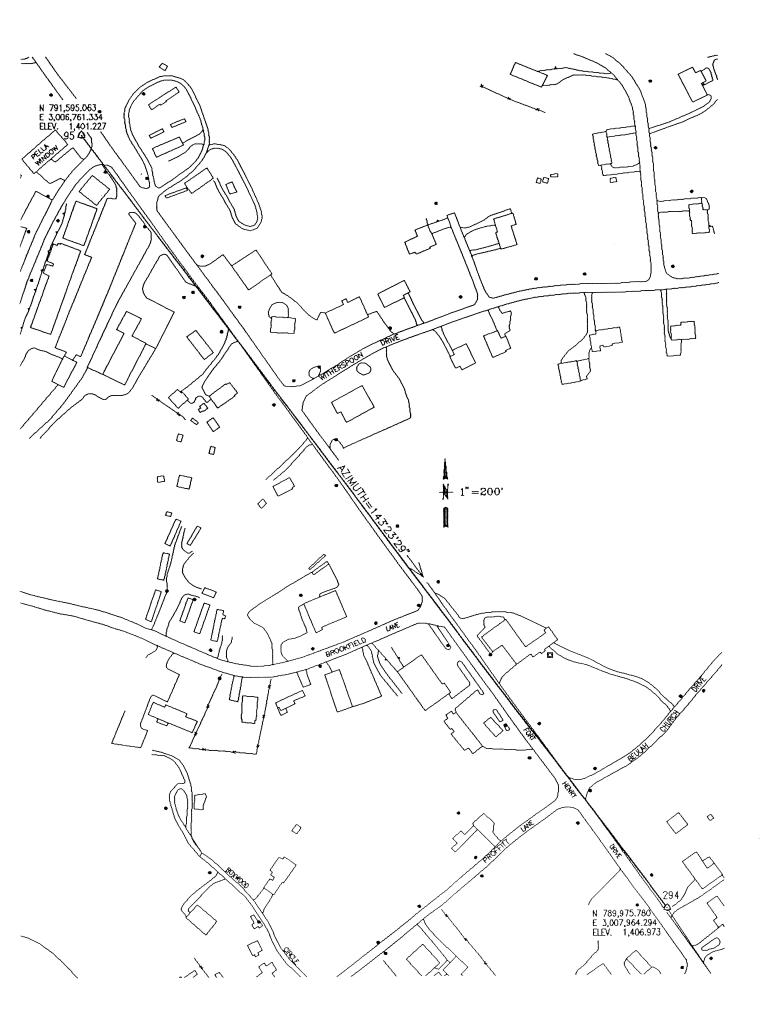
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0095	STATION NAME PELLA
USGS QUAD SHEET BOONE DAM	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 791595.063
LATITUDE: 36°27'23.40605"	EASTING: 3006761.336
LONGITUDE: 82°28'08.15834"	ELEVATION: 1401.227
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000007308	CONVERGENCE: 2°04'02.017"
BACKSIGHT STATION NO: 294	REFERENCE AZIMUTH: 143°23'29"
NORTHING: 789975.780 EASTING:	3007964.294 GPS HEIGHT: 1406.973

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.1 MILES S.E. OF KINGSPORT ON FT. HENRY DR. (SR 36) AT THE INTERSECTION OF BROOKFIELD DR. IN FRONT OF PELLA WINDOW AND DOOR CO. TO REACH STATION AT THE INTERSECTION OF I-81 AND FT. HENRY DR. GO S.E. ON FT. HENRY DR. FOR 1.8 MILES TO BROOKFIELD DR. AND THE STATION ON THE RIGHT. STATION IS 1.7' EAST OF THE WITNESS POST.

RECOVERY	NOTES:	



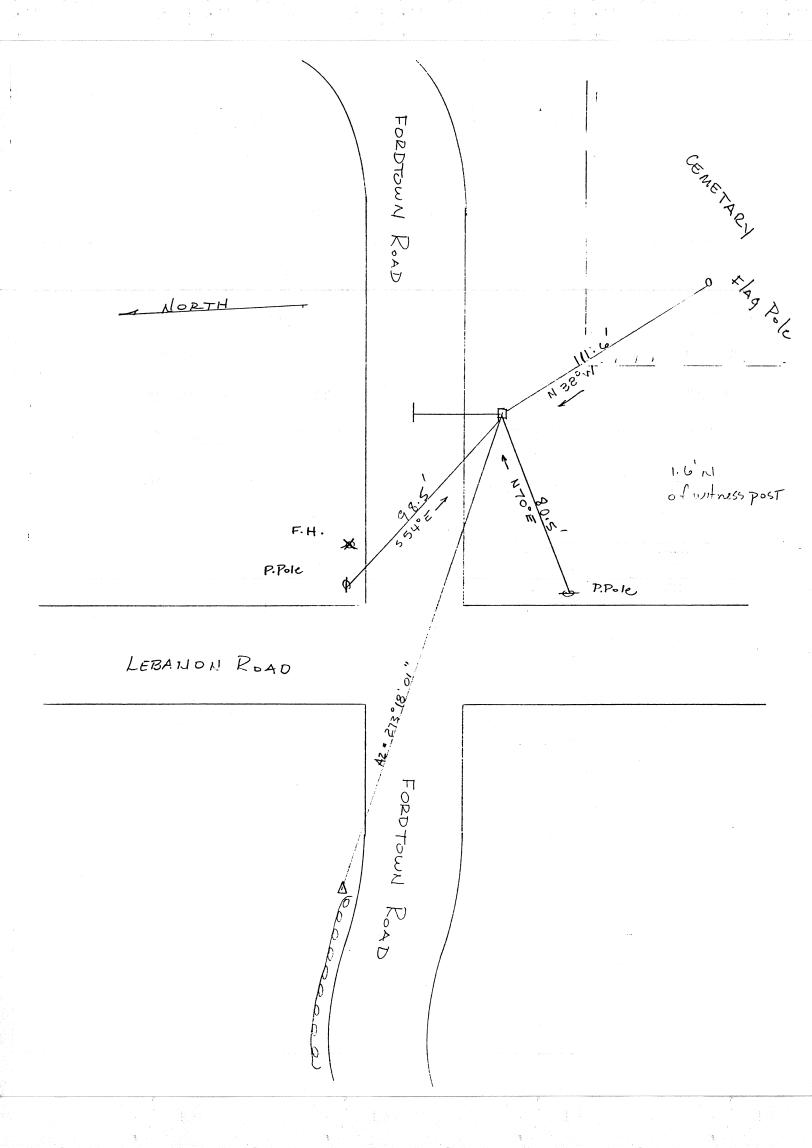
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0096	STATION NAME MILLER PERRY
USGS QUAD SHEET SULLIVAN GARDEN	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 789921.375
LATITUDE: 36°27'10.41704"	EASTING: 2996759.832
LONGITUDE: 82°30'11.23784"	ELEVATION: 1468.169
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000006626	CONVERGENCE: 2°02'49.961*
BACKSIGHT STATION NO: 0296	REFERENCE AZIMUTH: 273"8'01"
NORTHING: 789953.475 EASTING:	2996203.181 GPS HEIGHT: 1491.060

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 7.3 MILES S.E. OF KINGSPORT ON FORDTOWN RD. JUST EAST OF LEBANON ROAD NEAR A CEMETARY. TO REACH STATION START AT THE INTERSECTION OF JOHN B. DENNIS HWY. AND FT. HENRY DR. (SR 36). GO SOUTH ON FT. HENRY DR. FOR 2.55 MILES TO LEBANON RD. GO SOUTHWEST ON LEBANON RD. FOR 2.5 MILES TO FORDTOWN ROAD. GO EAST ON FORDTOWN RD. FOR ABOUT 100' TO THE STATION ON THE RIGHT. STATION IS 1.6' NORTH OF THE WITNESS POST.

RECOVERY NOTES:		
RECOVERT NOTES.		



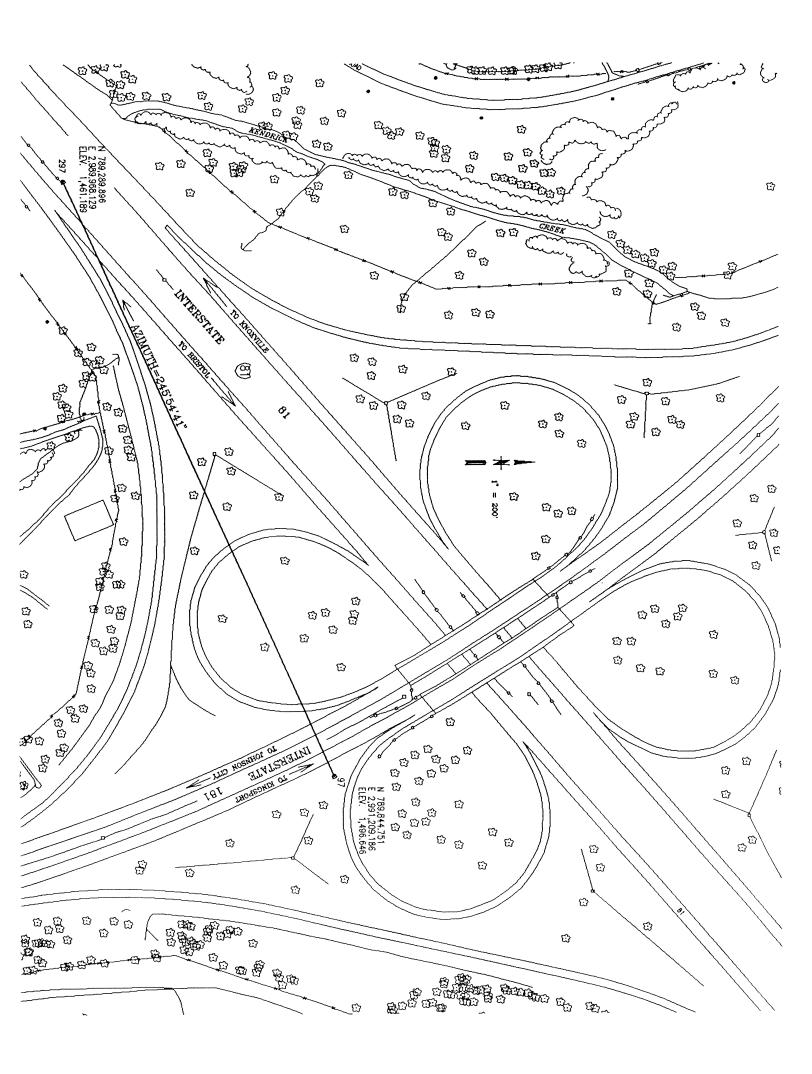
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0097	STATION NAME EXIT 59
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 789844.751
LATITUDE: 36°27'11.61525"	EASTING: 2991209.186
LONGITUDE: 82°31'19.16917"	ELEVATION: 1496.646
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000006689	CONVERGENCE: 2°02'10.192"
BACKSIGHT STATION NO: 0297	REFERENCE AZIMUTH: 245°54'41"
NORTHING: 789289.896 EASTING:	2989968.129 GPS HEIGHT: 1461.189

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 6.9 MILES SOUTH OF KINGSPORT AT THE INTERSECTION OF I-81 AND I-181. STATION IS LOCATED IN THE SOUTHEAST QUADRANT OF THE INTERSECTION. STATION IS 1.9' WEST OF THE WITNESS POST.

RECOVERY NOTES:			



## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0098	STATION NAME 56 MILE MARKER
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 787121.838
LATITUDE: 36°26'46.07349"	EASTING: 2987312.935
LONGITUDE: 82°32'08.00988"	ELEVATION: 1521.676
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000005359	CONVERGENCE: 2°01'41.598"
BACKSIGHT STATION NO: 297	REFERENCE AZIMUTH: 50°46'02"
NORTHING: 789289.896 EASTING:	2989968.129 GPS HEIGHT: 1461.189

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATLEY 7.2 MILES SOUTH OF KINGSPORT IN THE MEDIAN OF I-81, JUST EAST OF THE BRIDGE OVER KENDRICK CREEK ROAD. TO REACH STATION START AT THE INTERSECTION OF I-81 AND I-181. GO SOUTHWEST ON I-81 FOR 0.9 MILES TO THE STATION ON THE LEFT. STATION IS 1.6' EAST OF THE WITNESS POST.

RECOVERY NOTES:	

				NORTH
FORD TOWN ROAD	I-81 TO BRISTOL	0 100 th 100 man 2	H-81	KENDRICK CRK. ROAD

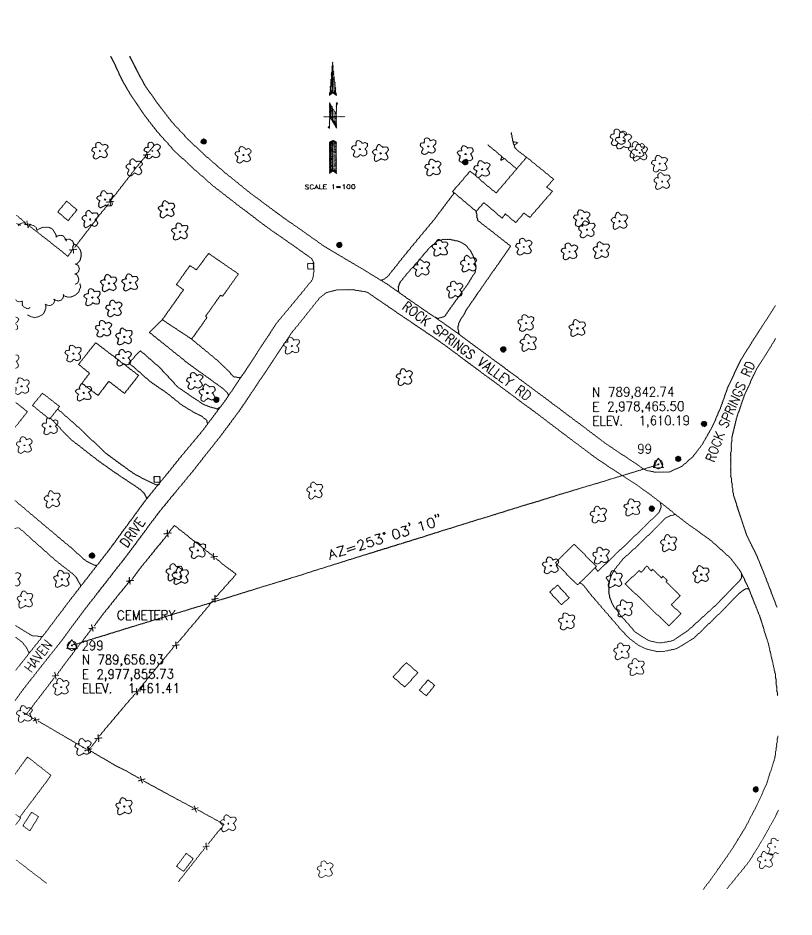
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0099	STATION NAME ROCK SPRINGS VALLEY
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 789842.744
LATITUDE: 36°27'16.04483"	EASTING: 2978465.503
LONGITUDE: 82°33'55.05959"	ELEVATION: 1610.189
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000006921	CONVERGENCE: 2°00'38.927"
BACKSIGHT STATION NO: 0299	REFERENCE AZIMUTH: 253°03'10"
NORTHING: 789656.931 EASTING:	2977855.730 GPS HEIGHT: 1641.411

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 6.5 MILES SOUTH OF KINGSPORT AT THE INTERSECTION OF ROCK SPRINGS ROAD AND ROCK SPRINGS VALLEY DRIVE. TO REACH STATION START AT THE INTERSECTION OF ROCK SPRINGS ROAD AND I-181. GO SOUTH ON ROCK SPRINGS ROAD 1.9 MILES TO ROCK SPRINGS VALLEY DRIVE AND THE STATION ON THE RIGHT. STATION IS 1.6' SOUTH OF THE WITNESS POST.

RECOVERY NOTES:	



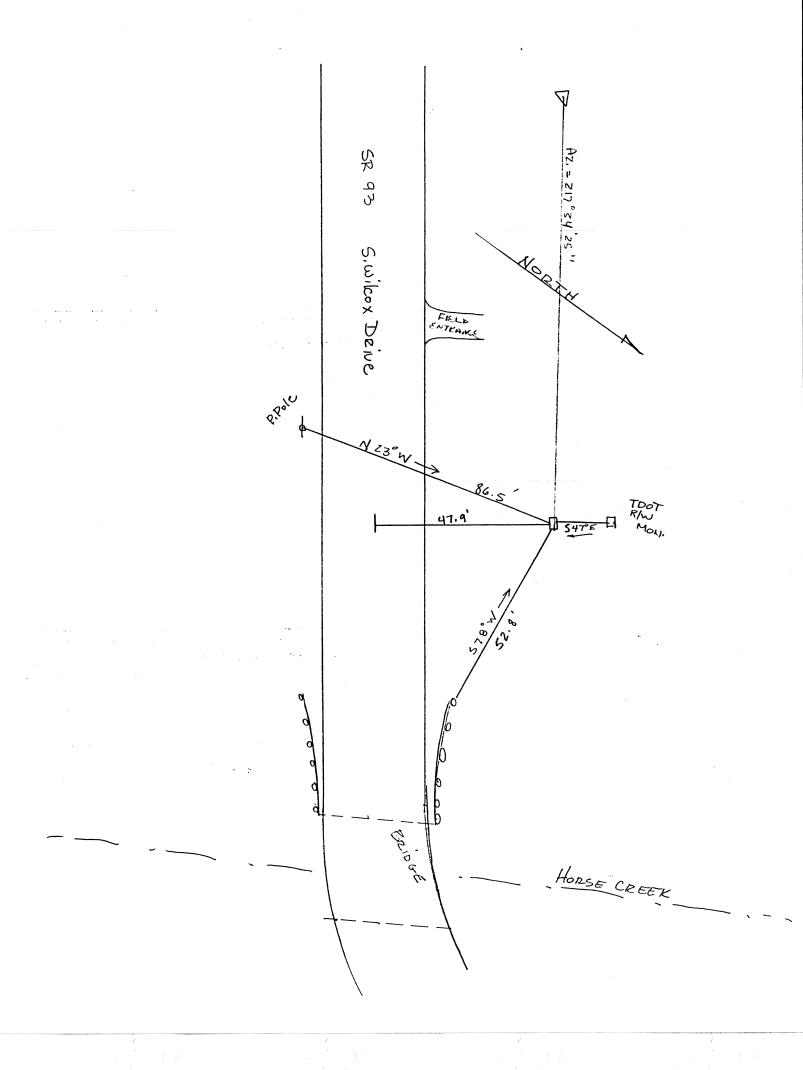
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0100	STATION NAME HWY. 93 DELI
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 787206.513
LATITUDE: 36°26'54.80625"	EASTING: 2964495.480
LONGITUDE: 82°36'47.07266"	ELEVATION: 1244.717
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000005812	CONVERGENCE: 1°58'58.224"
BACKSIGHT STATION NO: 0300	REFERENCE AZIMUTH: 217°34'25"
NORTHING: 786938.810 EASTING:	2964289.518 GPS HEIGHT: 1246.197
TO DEACH DESCRIPTION.	

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 7.6 MILES SOUTHWEST OF KINGSPORT ON SOUTH WILCOX DRIVE (SR 93). TO REACH STATION START AT THE INTERSECTION OF SOUTH WILCOX DRIVE AND I—181. GO SOUTH ON SOUTH WILCOX DRIVE FOR 4.8 MILES TO THE STATION ON THE RIGHT. STATION IS JUST WEST OF THE BRIDGE OVER HORSE CREEK. STATION IS 2.1' SOUTH OF THE WITNESS POST.

DECOMEDY NOTES		
RECOVERY NOTES:		



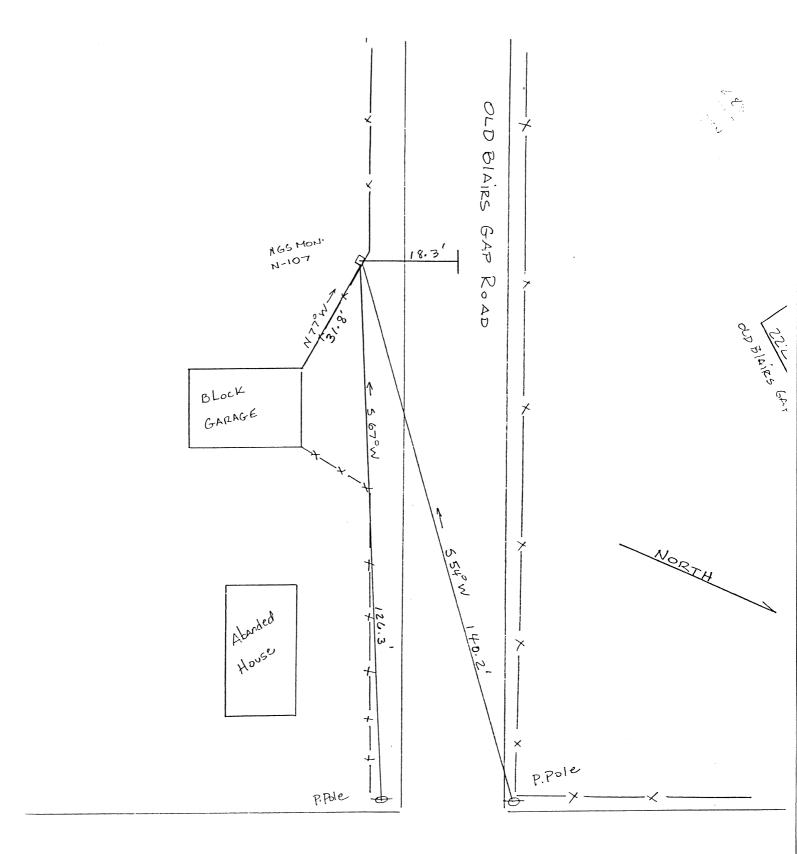
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO.	0101		STATION NAME	NGS N107	
USGS QUAD SHEET LOVELACE			TN. STATE PLANE COORDINATES		
GEODETIC POSI	TION		NORTHING:	787723.974	
LATITUDE:	36°27°01.72	027*	EASTING:	2959219.712	
LONGITUDE:	82°37°51. <b>3</b> 8	922*	ELEVATION:	1275.343	
HORIZONTAL DA	ATUM: 1983 NAD	VERTICAL	DATUM: 1929 NGV	D ZONE: 4100(TN)	
SCALE FACTOR:	: 1.0000	06171	CONVERGENCE:	1*58'20.571"	
BACKSIGHT STA	ATION NO:	0301	REFERENCE AZIM	UTH: 44"15'00"	
NORTHING:	787834.554	EASTING:	2959327.434	GPS HEIGHT: 1271.614	

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.0 MILES SOUTHWEST OF KINGSPORT ON OLD BLAIRS GAP ROAD, NEAR MURRELL ROAD. TO REACH STATION START AT SOUTH WILCOX DRIVE (SR 93) AND I-181. GO SOUTHWEST ON SOUTH WILCOX DRIVE FOR 5.3 MILES TO MURRELL ROAD. GO NORTHWEST ON MURRELL ROAD FOR 0.6 MILES TO OLD BLAIRS GAP ROAD. GO SOUTHWEST ON OLD BLAIRS GAP ROAD FOR APPROXIMATELY 100.00' TO THE STATION ON THE LEFT. STATION IS 3.3' SOUTHEAST OF THE WITNESS POST.

RECOVERY NOTES:		



MURRELL ROAD

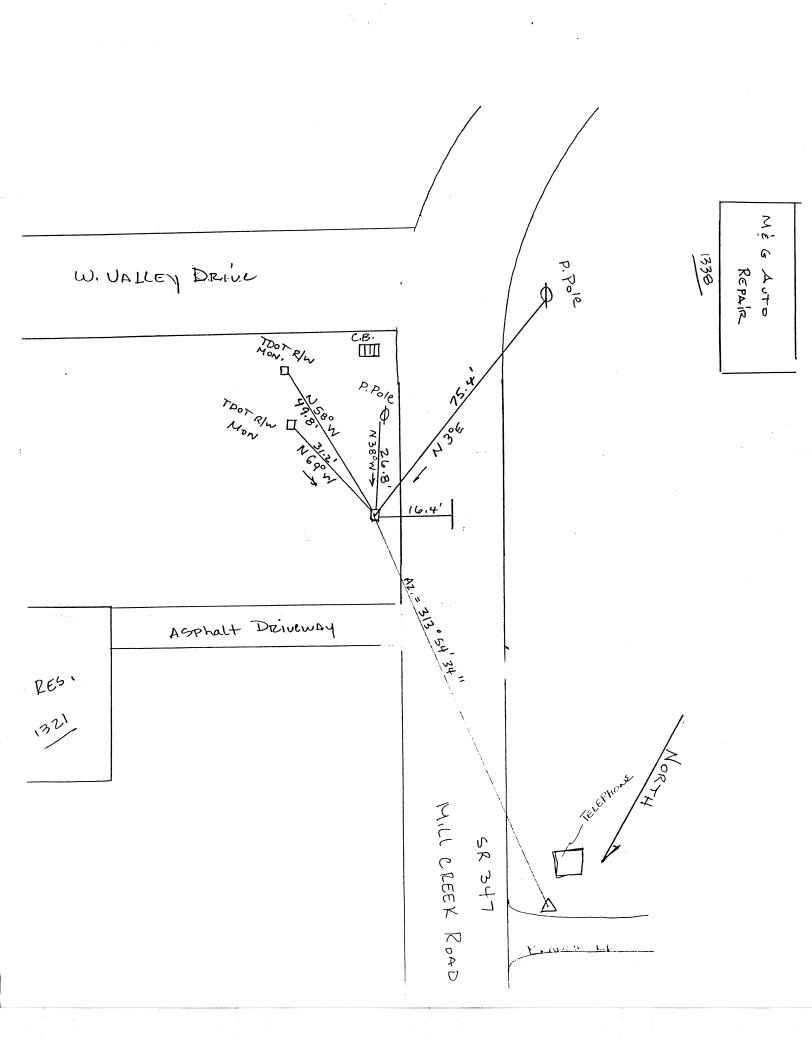
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

0102 STATION NAME VALLEY DR. / MILL CREEK STATION NO. TN. STATE PLANE COORDINATES USGS QUAD SHEET SULLIVAN GARDENS GEODETIC POSITION NORTHING: 783604.899 LATITUDE: 36°26'16.30250" EASTING: 2972969.562 LONGITUDE: 82°35'04.95524" ELEVATION: 1596.100 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) CONVERGENCE: 1\*59'58.008" SCALE FACTOR: 1.000003828 BACKSIGHT STATION NO: 0302 REFERENCE AZIMUTH: 313°54'34" **EASTING:** 2972142.309 GPS HEIGHT: 1514.271 NORTHING: 784401.246

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 7.8 MILES SOUTH OF KINGSPORT ON MILL CREEK ROAD (SR 347) NEAR W. VALLEY DRIVE. TO REACH STATION START AT THE INTERSECTION OF SOUTH WILCOX DRIVE (SR 93) AND I-181. GO SOUTHWEST ON SOUTH WILCOX DRIVE FOR 3.0 MILES TO MILL CREEK ROAD (SR 347). GO EAST ON MILL CREEK ROAD FOR 2.9 MILES TO THE STATION ON THE LEFT AND JUST NORTH OF W. VALLEY DRIVE.

RECOVERY NOTES:		

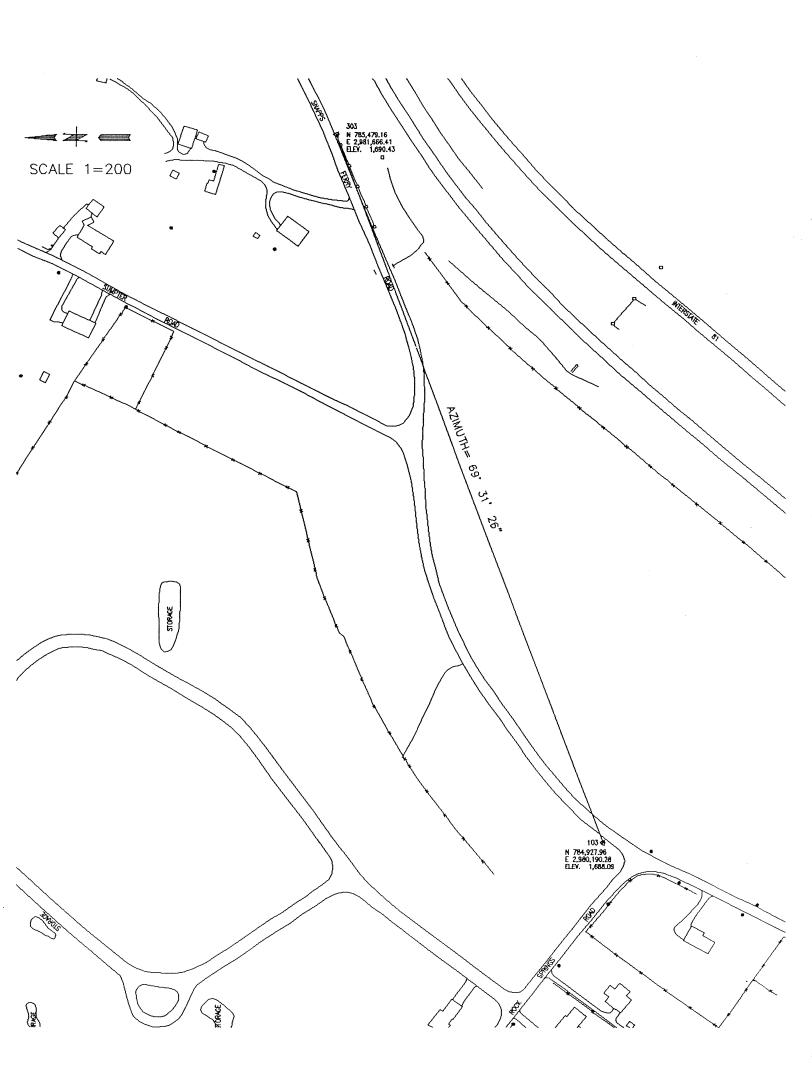


## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0103	STATION NAME SNAPPS FERRY
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES
GEODETIC POSITION	NORTHING: 784927.962
LATITUDE: 36°26'26.87717"	EASTING: 2980190.284
LONGITUDE: 82°33'36.07469"	ELEVATION: 1688.085
HORIZONTAL DATUM: 1983 NAD VERTICAL	DATUM: 1929 NGVD ZONE: 4100(TN)
SCALE FACTOR: 1.000004369	CONVERGENCE: 2°00'50.042"
BACKSIGHT STATION NO: 0303	REFERENCE AZIMUTH: 69°31'26"
NORTHING: 785479.158 EASTING:	2981666.409 GPS HEIGHT: 1690.432

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 7.5 MILES S. OF KINGSPORT ON SNAPPS FERRY ROAD NEAR ROCK SPRINGS ROAD. TO REACH STATION START AT THE INTERSECTION OF ROCK SPRINGS RD. AND I—181. GO SOUTH ON ROCK SPRINGS RD. FOR 3.0 MILES TO SNAPPS FERRY RD. AND THE STATION ON THE LEFT. STATION IS 1.6' SOUTH OF THE WITNESS POST.



## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 2000 STATION REPORT

STATION NO. 104 RESET

EASTERN STAR STATION NAME

TN. STATE PLANE COORDINATES

USGS QUAD SHEET SULLIVAN GARDENS

GEODETIC POSITION

LATITUDE: 36' 26' 03.710501"

LONGITUDE:

82° 31′ 19.587562″ W

NORTHING: 782980.6868

2991419.0106 EASTING:

GPS ELEVATION: 1685.4427

HORIZONTAL DATUM:1983 NAD

VERTICAL DATUM:1929 NGVD

ZONE:4100(TN)

SCALE FACTOR:

1.000003187

CONVERGENCE: 2' 02' 09.94683"

BACKSIGHT STATION NO:

304

REFERENCE AZIMUTH: 24° 23' 25"

NORTHING: 783962.04180

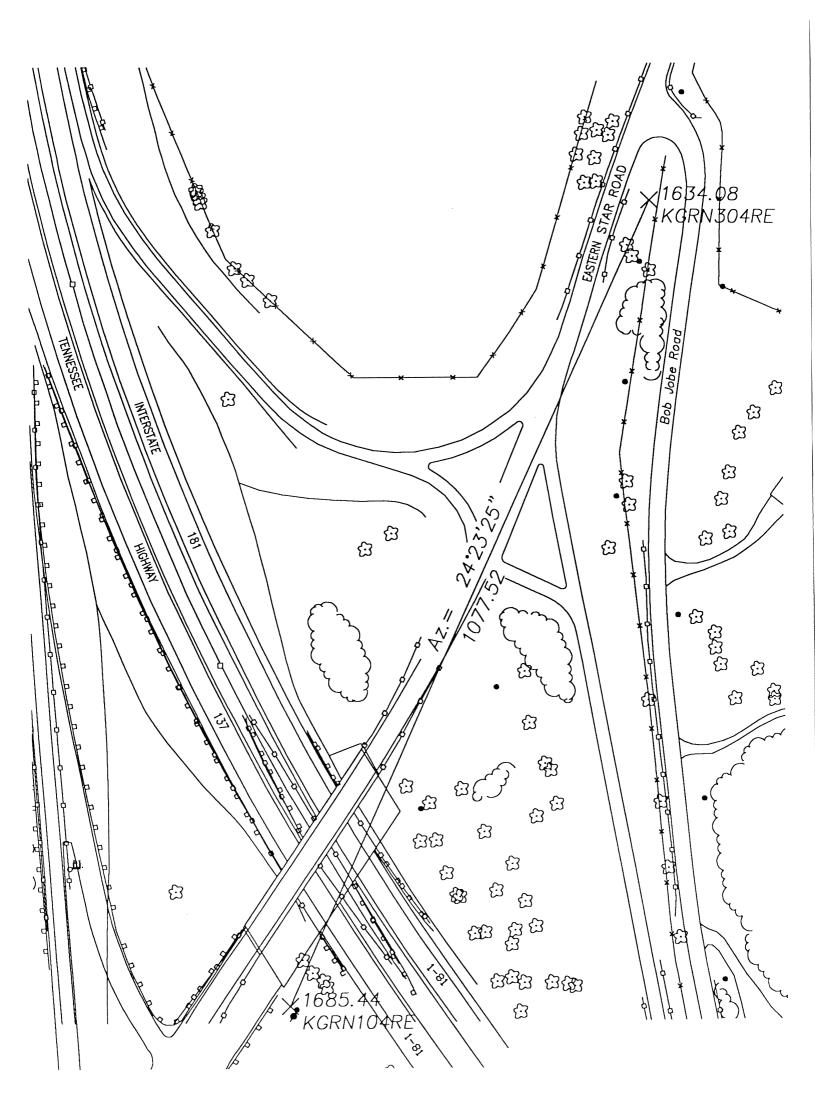
EASTING:

2991863.9701

GPS HEIGHT: 1634.0764

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.1 MILES SOUTH OF KINGSPORT IN THE INTERSECTION OF I-181 AND EASTERN STAR ROAD, NEAR THE SULLIVAN/WASH-INGTON COUNTY LINE. STATION IS LOCATED IN THE SOUTHWEST QUADRANT OF THE INTERCHANGE AT THE TOP OF A BANK COMING UP FROM THE SOUTHBOUND LANES OF I-181. STATION IS MARKED WITH AN ORANGE CARSONITE WITNESS POST.



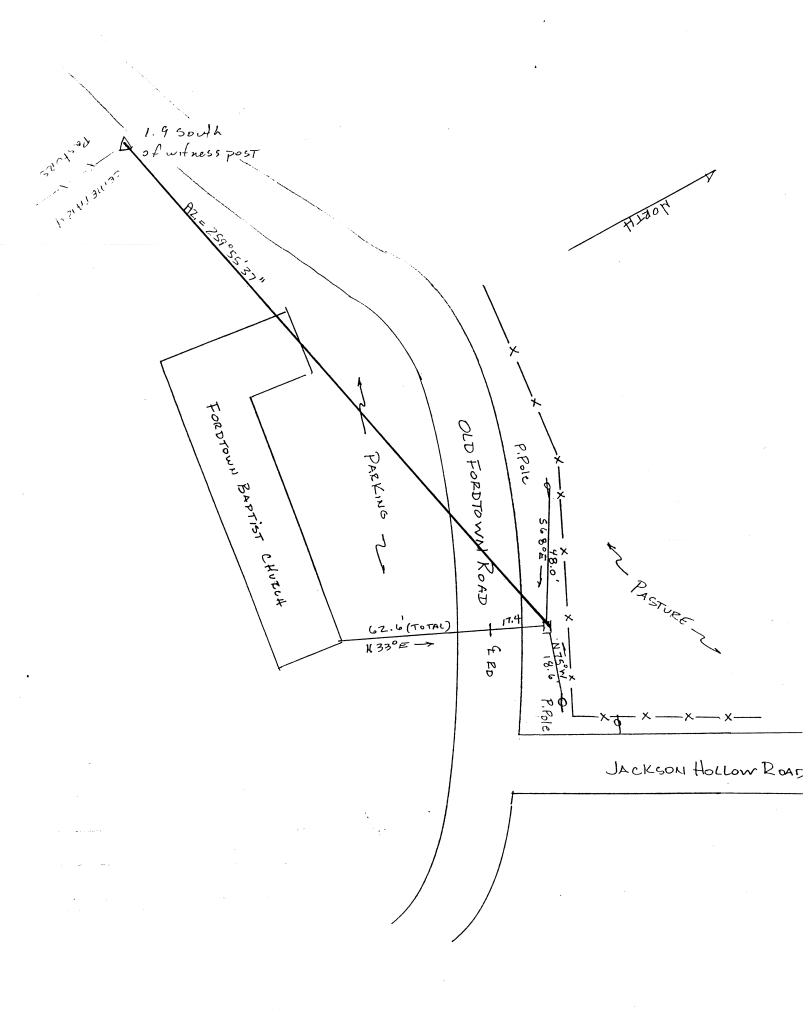
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO.	0105	STATION NAME	JACKSON HOLLOW
USGS QUAD SHEET	BOONE DAM	TN. STATE PLANE	E COORDINATES
GEODETIC POSITION		NORTHING:	786381.156
LATITUDE: 36°26'	33.99432"	EASTING:	3000824.283
LONGITUDE: 82°29'	23.07414"	ELEVATION:	1465.412
HORIZONTAL DATUM: 198	3 NAD VERTICAL	DATUM: 1929 NGV	/D ZONE: 4100(TN)
SCALE FACTOR:	1.000004735	CONVERGENCE:	2°03'18.158"
BACKSIGHT STATION NO:	0305	REFERENCE AZIM	UTH: 259 <b>°</b> 55'37 <b>"</b>
NORTHING: 786292.3	EASTING:	3000324.339	GPS HEIGHT: 1468.433
TO DEACH DECODIDION.			

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.2 MILES S.E. OF KINGSPORT AT THE INTERSECTION OF JACKSON HOLLOW RD. AND OLD FORDTOWN ROAD AND ACROSS FROM FORDTOWN BAPTIST CHURCH. TO REACH STATION START AT THE INTERSECTION OF I-81 AND FT. HENRY DR (SR 36). GO SOUTHEAST ON FT. HENRY DR. FOR 1.5 MILES TO JACKSON HOLLOW ROAD. GO SOUTHWEST ON JACKSON HOLLOW RD. FOR 1.5 MILES TO OLD FORDTOWN RD. AND THE STATION ON THE RIGHT. STATION IS 1.9' SOUTH OF THE WITNESS POST.

RECOVERY NOTES:		



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0106	STATION NAME CEDAR CREEK			
USGS QUAD SHEET BOONE DAM TN. STATE PLANE COORDINATES				
GEODETIC POSITION	NORTHING: 784869.429			
LATITUDE: 36°26'14.80107"	EASTING: 3012754.252			
LONGITUDE: 82°26'57.83502"	ELEVATION: 1391.591			
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)				
SCALE FACTOR: 1.000003751 CONVERGENCE: 2°04'43.187"				
BACKSIGHT STATION NO: 0306	REFERENCE AZIMUTH: 305°28'42"			
NORTHING: 785306.722 EASTING:	3012140.698 GPS HEIGHT: 1424.937			

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 10 MILES S.E. OF KINGSPORT AT THE INTERSECTION OF FT. HENRY DR. (SR 36) AND CEDAR CREEK DR. OPPOSITE SR 75. TO REACH STATION START AT THE INTERSECTION OF I-81 AND FT. HENRY DR. GO S.E. ON FT. HENRY DR. FOR 3.5 MILES TO CEDAR CREEK DR. AND THE STATION ON THE RIGHT. STATION IS IN FRONT OF AMERICAN AUTO SALES. STATION 1.7' EAST OF THE WITNESS POST. STATION IS LOCATED IN WASHINGTON COUNTY.

RECOVERY NOTES:		

#306 (T-DOT SPUR-1) Mini-WAREHOUSES STOWA WAY To Kingspor SR75 TO TRI-CITIES AIRPORT CEDAR CREEK DRIVE SOISE W.24N E Poss 43.9' T GRASS 1.7' EAST Anto SAICS  $\mathcal{A}$ 

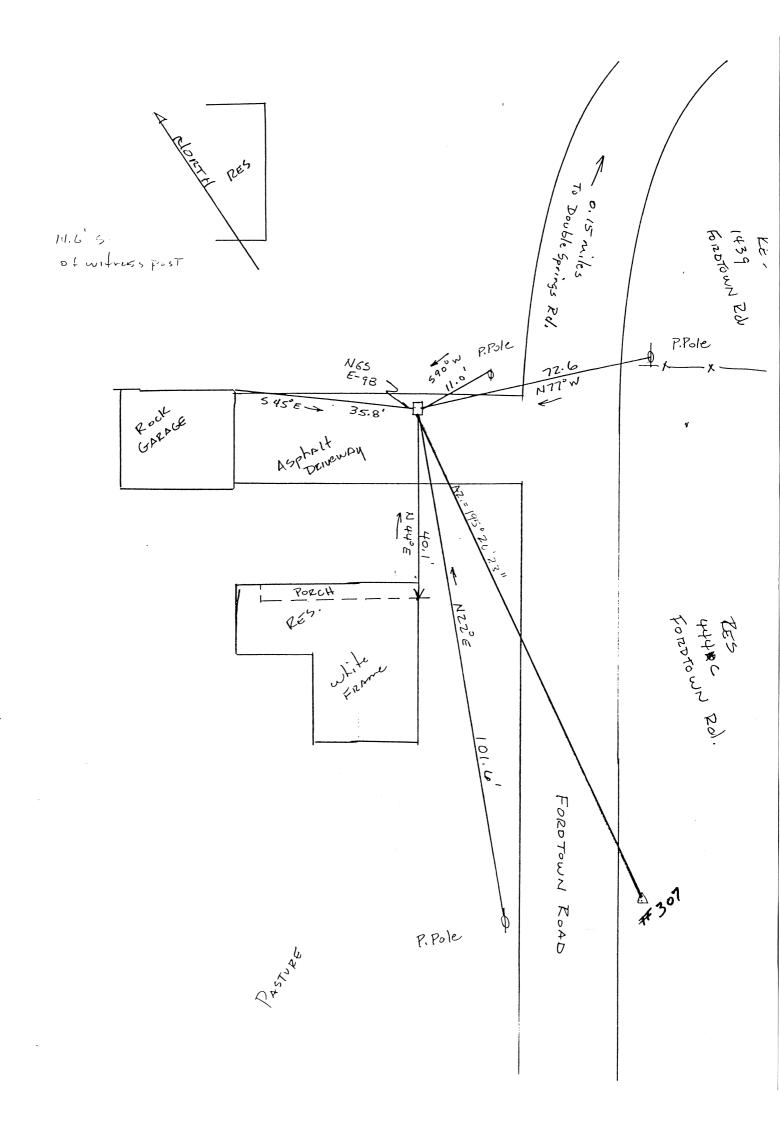
### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0107 STATION NAME NGS BM E98 TN. STATE PLANE COORDINATES USGS QUAD SHEET SULLIVAN GARDENS GEODETIC POSITION NORTHING: 780864.516 LATITUDE: 36°25'46.07137" EASTING: 2982059.201 LONGITUDE: 82'33'14.96707" ELEVATION: 1594.495 ZONE: 4100(TN) HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD SCALE FACTOR: 1.000002295 CONVERGENCE: 2'01'02.399" BACKSIGHT STATION NO: 0307 REFERENCE AZIMUTH: 195°20'23" EASTING: 2981976.449 GPS HEIGHT: 1588.046 NORTHING: 780562.846

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.3 MILES SOUTHWEST OF KINGSPORT ON FORDTOWN ROAD, JUST INSIDE WASHINGTON COUNTY. TO REACH STATION START AT THE INTERSECTION OF FT. HENRY DRIVE (SR 36) AND I-81. GO SOUTHEAST ON FT. HENRY DRIVE FOR 0.95 MILES TO FORDTOWN ROAD. GO SOUTHWEST ON FORDTOWN ROAD FOR 5.15 MILES TO THE STATION ON THE RIGHT. STATION IS A NGS MONUMENT, STAMPED E-98 AND IN A ASPHALT DRIVEWAY. STATION IS 14.6' SOUTH OF WITNESS POST.

RECOVERY NOTES:		



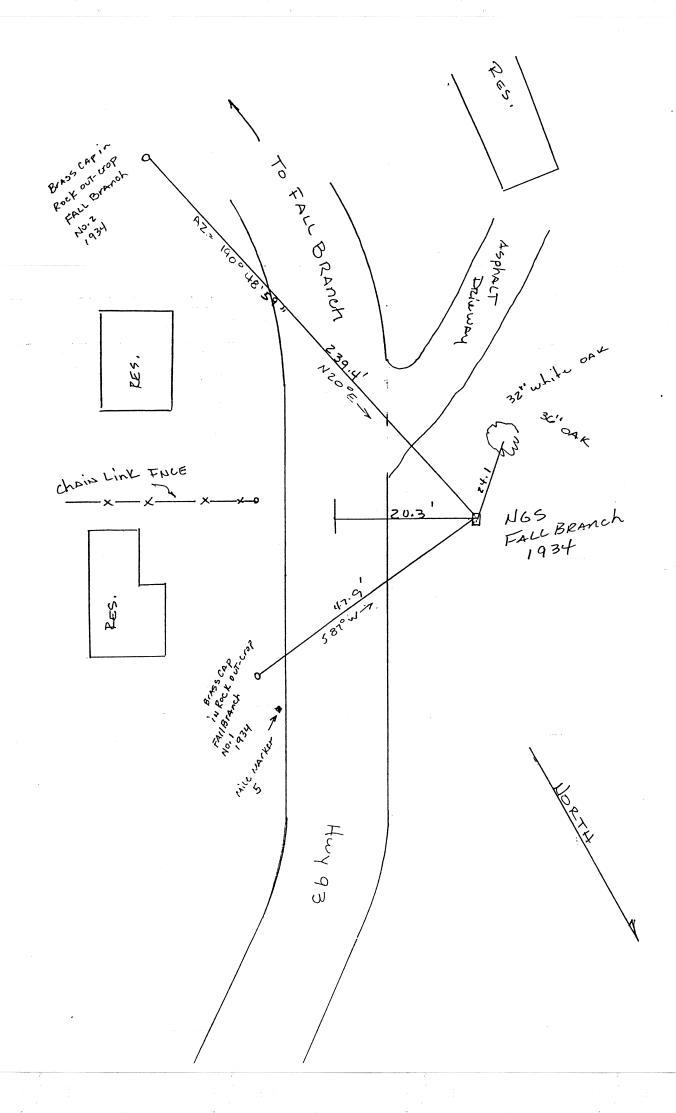
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

			I			
STATION NO.	0108		STATION N	NAME	NGS FALL BR	ANCH
USGS QUAD SHEET	LOVELACE		TN. STATE PLANE COORDINATES			
GEODETIC POSITION			NORTHING:	:	780507.071	
LATITUDE: 3	36°25'50.16826"		EASTING:	:	2959899.409	
LONGITUDE: 8	82°37'46.11635"		ELEVATION	l:	1398.899	
HORIZONTAL DATUM:	1983 NAD \	VERTICAL	DATUM: 19	29 NGVD	ZONE: 4	100(TN)
SCALE FACTOR: 1.000002501 CONVERGENCE: 1*58'23.658"				8"		
BACKSIGHT STATION NO: 0308			REFERENCE AZIMUTH: 190°48′59″			
NORTHING: 7802	271.922 EAS	STING:	2959854	.482	GPS HEIGHT:	1403.940
TO DE A OLL DECODIDE	1011					

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 9.1 MILES SOUTHWEST OF KINGSPORT ON SR 93 IN FALL BRANCH, TN. TO REACH STATION START AT THE INTERSECTION OF SOUTH WILCOX DRIVE AND I-181. GO SOUTHWEST ON SOUTH WILCOX DRIVE (SR 93) FOR 6.3 MILES TO THE STATION ON THE RIGHT. STATION IS A NGS MONUMENT, STAMPED FALL BRANCH. STATION IS IN WASHINGTON COUNTY.

RECOVERY NOTES:		



#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0109 STATION NAME NGS HALE AZ.MARK 1961 USGS QUAD SHEET SULLIVAN GARDENS TN. STATE PLANE COORDINATES GEODETIC POSITION NORTHING: 777226.780 LATITUDE: 36'25'12.94397" EASTING: 2973919.660 LONGITUDE: 82°34'56.06044" ELEVATION: 1749.134 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: 1.000000640 **CONVERGENCE:** 2'00'03.215" BACKSIGHT STATION NO: REFERENCE AZIMUTH: 0309 218'37'39" NORTHING: **EASTING:** 776437.131 2973288.669 GPS HEIGHT: 1736.406

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 9.0 MILES SOUTH OF KINGSPORT ON ROCK SPRINGS ROAD. STATION IS IN WASHINGTON COUNTY. TO REACH STATION START AT THE INTERSECTION OF ROCK SPRINGS ROAD AND I-181. GO SOUTH ON ROCK SPRINGS ROAD, BECOMING DOUBLE SPRINGS ROAD IN WASHINGTON COUNTY, FOR 5.0 MILES TO THE STATION ON THE RIGHT. STATION IS A NGS MONUMENT, STAMPED HALE AZ.1961. STATION IS IN WASHINGTON COUNTY. STATION IS 2.1' EAST OF THE WITNESS POST.

RECOVERY NOTES:	

#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 0110	STATION NAME NGS-GPS-2 1987			
USGS QUAD SHEET LOVELACE	TN. STATE PLANE COORDINATES			
GEODETIC POSITION	NORTHING: 770118.319			
LATITUDE: 36*24'05.69186"	EASTING: 2965200.943			
·				
LONGITUDE: 82°36'45.68080"	ELEVATION: 1748.850			
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)				
SCALE FACTOR: 0.999997359 CONVERGENCE: 1*58'59.039"				
BACKSIGHT STATION NO: 0310	REFERENCE AZIMUTH: 42°22'28"			
NORTHING: 770946.959 EASTING:	2965956.918 GPS HEIGHT: 1720.830			

TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 10.6 MILES SOUTHWEST OF KINGSPORT AT THE INTERSECTION OF I-81 (EXIT 50) AND SR 93, ON A HILL. TO REACH STATION START AT THE INTERSECTION OF I-81 AND SR 93. GO EAST ON SR 93 FOR 0.2 MILES TO THE NORTH BOUND ON-RAMP OF I-81. GO NORTH ON RAMP FOR 0.15 MILES TO THE STATION ON THE LEFT. STATION IS A NGS CAP SET IN A ROCK OUT-CROP, STAMPED GPS-2 1987. STATION IS 1.6' NORTHEAST OF THE WITNESS POST.

DECOVEDY NOTES.		
RECOVERY NOTES:		

	1		/
TO JONESBORD	Hwy 93	TO FALL BRANCH	
To BRISTOL	Low Hill		
1987 J	Thin woods  33.2  MAC-Z	70 821570	A PAINE
	1684		H S H S A S A S A S A S A S A S A S A S

STATION NAME WHITE'S GROCERY

**KINGSPORT** USGS QUAD SHEET

111

TN. STATE PLANE COORDINATES

GEODETIC POSITION

NORTHING:

808667.180

LATITUDE:

STATION NO.

36°30'21.19130" N

EASTING: 2980991.151

LONGITUDE:

82°33'16.05330" W

**ELEVATION:** 

1295.004

HORIZONTAL DATUM: 1983 NAD

VERTICAL DATUM: 1929 NGVD

ZONE: 4100(TN)

SCALE FACTOR:

1.000017041

CONVERGENCE:

2°01'01.763"

BACKSIGHT STATION NO:

311

REFERENCE AZIMUTH: 68°25'09"

NORTHING:

808870.869

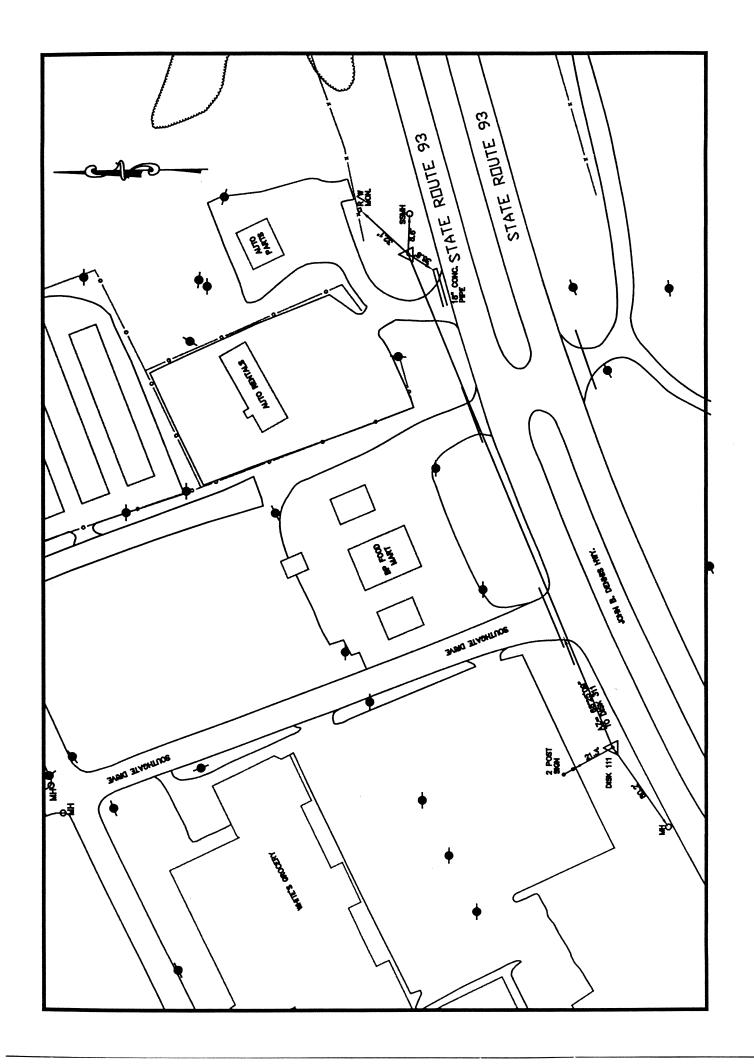
**EASTING:** 

2981506.116

GPS HEIGHT: 1300.721

TO REACH DESCRIPTION:

TO REACH STATION FROM INTERSECTION OF I-181 AND SR 93, TRAVEL 0.65 MILES NORTHEAST ON J.B. DENNIS HWY. (SR 93) TO STATION ON LEFT. STATION IS LOCATED IN GRASS ISLAND OFF SHOULDER OF SR 93 IN FRONT OF WHITE'S GROCERY STORE.



STATION NO. 112

STATION NAME MEADOWVIEW LANE

TN. STATE PLANE COORDINATES

NORTHING: 813054,710

USGS QUAD SHEET KINGSPORT

GEODETIC POSITION

LATITUDE: 36°31'05.41300" N

LONGITUDE: 82°33'44.60275" W

EASTING: 2978504.663

ELEVATION:

1225.992

HORIZONTAL DATUM: 1983 NAD

VERTICAL DATUM: 1929 NGVD

ZONE: 4100(TN)

SCALE FACTOR: 1.000019578

CONVERGENCE: 2°00'45.050"

BACKSIGHT STATION NO:

312

REFERENCE AZIMUTH: 181°32'23"

NORTHING:

811884.931

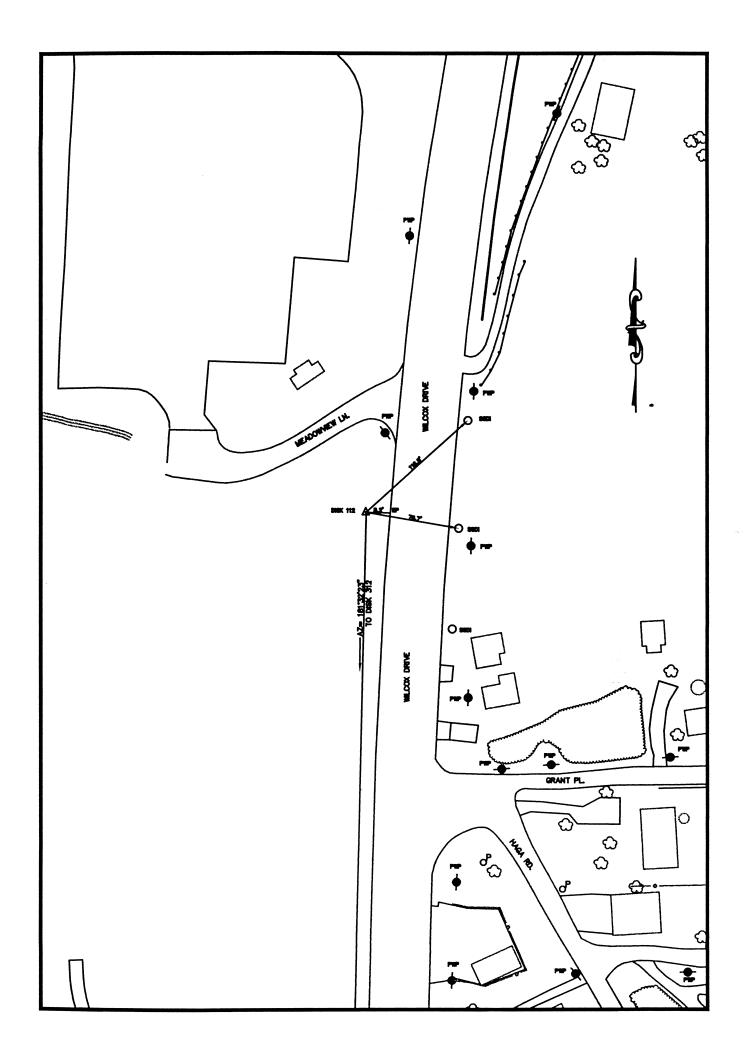
**EASTING:** 

2978473.220

GPS HEIGHT: 1239.589

#### TO REACH DESCRIPTION:

TO REACH STATION FROM EAST END OF SR 126 WILCOX DRIVE WEST BOUND LANE BRIDGE OVER HOLSTON RIVER, TRAVEL SOUTH 1 MILE ON SR 126 TO STATION ON RIGHT. STATION IS LOCATED SOUTH OF INTERSECTION OF S.R. 126 AND MEADOWVIEW LANE ON SHOULDER.



STATION NO.

113

STATION NAME MEADOWVIEW CENTER

USGS QUAD SHEET KINGSPORT

GEODETIC POSITION

LATITUDE: 36°30'20.26392" N

LONGITUDE: 82°34'09.62320" W

TN. STATE PLANE COORDINATES

NORTHING: 808419.836

EASTING: 2976623.507

**ELEVATION: 1310.057** 

HORIZONTAL DATUM: 1983 NAD

VERTICAL DATUM: 1929 NGVD

**ZONE: 4100(TN)** 

SCALE FACTOR:

1.000016988

CONVERGENCE: 2°00'30.401'

BACKSIGHT STATION NO:

313

REFERENCE AZIMUTH: 359°04'37"

NORTHING:

809244.784

**EASTING:** 

2976610.215

GPS HEIGHT: 1237.531

#### TO REACH DESCRIPTION:

TO REACH STATION FROM INTERSECTION OF RESERVOIR ROAD AND WILCOX DRIVE. TRAVEL WEST ON RESERVOIR RD. AT INTERSECTION OF I-181 AND RESERVOIR RD, GO 0.10 MILES TOWARD BAYS MOUNTAIN PARK. TURN TURN LEFT ONTO NEW MOORE ROAD AND GO 0.20 TO TOP OF HILL. TURN LEFT INTO CLEARED LOT. GO 0.10 MILES TOWARD HILL OVERLOOKING I-181. STATION IS APPROX. 20' FROM CONTROLLED ACCESS FENCE.

### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1997 STATION REPORT

USGS QUAD SHEET SULLIVAN GARDENS

GEODETIC POSITION

STATION NO.

LATITUDE: 36°29'49.56121" N

114

LONGITUDE: 82°35'40.38287" W

STATION NAME LOG CABIN GIFTS

TN. STATE PLANE COORDINATES

NORTHING: 805057.955

EASTING: 2969326.096

ELEVATION: 1258.093

ZONE: 4100(TN) VERTICAL DATUM: 1929 NGVD HORIZONTAL DATUM: 1983 NAD

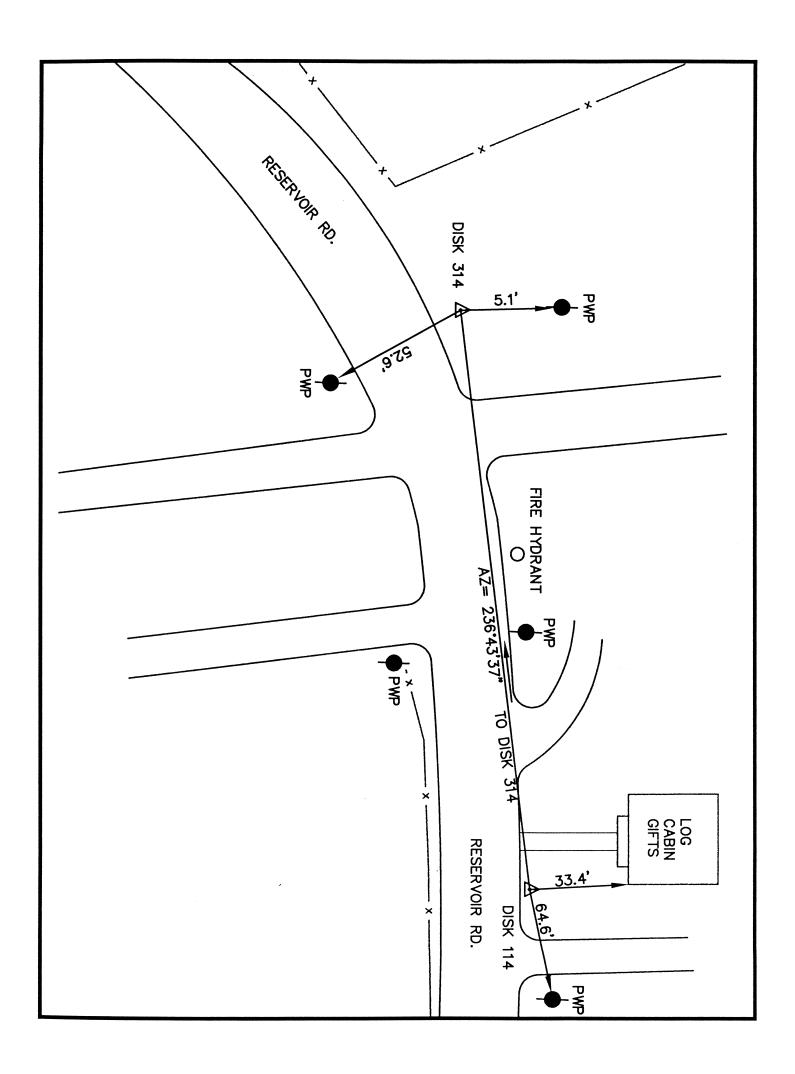
CONVERGENCE: 01°59'37.267" SCALE FACTOR: 1.000015255

REFERENCE AZIMUTH: 236\*43'37" BACKSIGHT STATION NO: 314

GPS HEIGHT: 1248.147 **EASTING:** 2968864.215 NORTHING: 804754.866

TO REACH DESCRIPTION:

TO REACH STATION FROM INTERSECTION OF I-181 AND RESERVOIR ROAD, TRAVEL WEST 1.65 MILES ON RESERVOIR ROAD. STATION IS IN GRASSY SHOULDER OF WESTBOUND LANE IN FRONT OF A LOG CABIN AND NEXT TO CONCRETE STEPS.



STATION NO.

115

STATION NAME

USGS QUAD SHEET SULLIVAN GARDENS

GEODETIC POSITION

LATITUDE: 36°29'21.74759" N

LONGITUDE: 82°34'17.69362" W

TN. STATE PLANE COORDINATES

NORTHING:

802482.530

EASTING:

2976172,279

ELEVATION:

1223.173

HORIZONTAL DATUM: 1983 NAD

VERTICAL DATUM: 1929 NGVD

**ZONE: 4100(TN)** 

SCALE FACTOR:

1.000013704

CONVERGENCE: 2°00'25.677"

**BACKSIGHT STATION NO:** 

315

REFERENCE AZIMUTH:

40°27'01"

**NORTHING:** 

803580.954

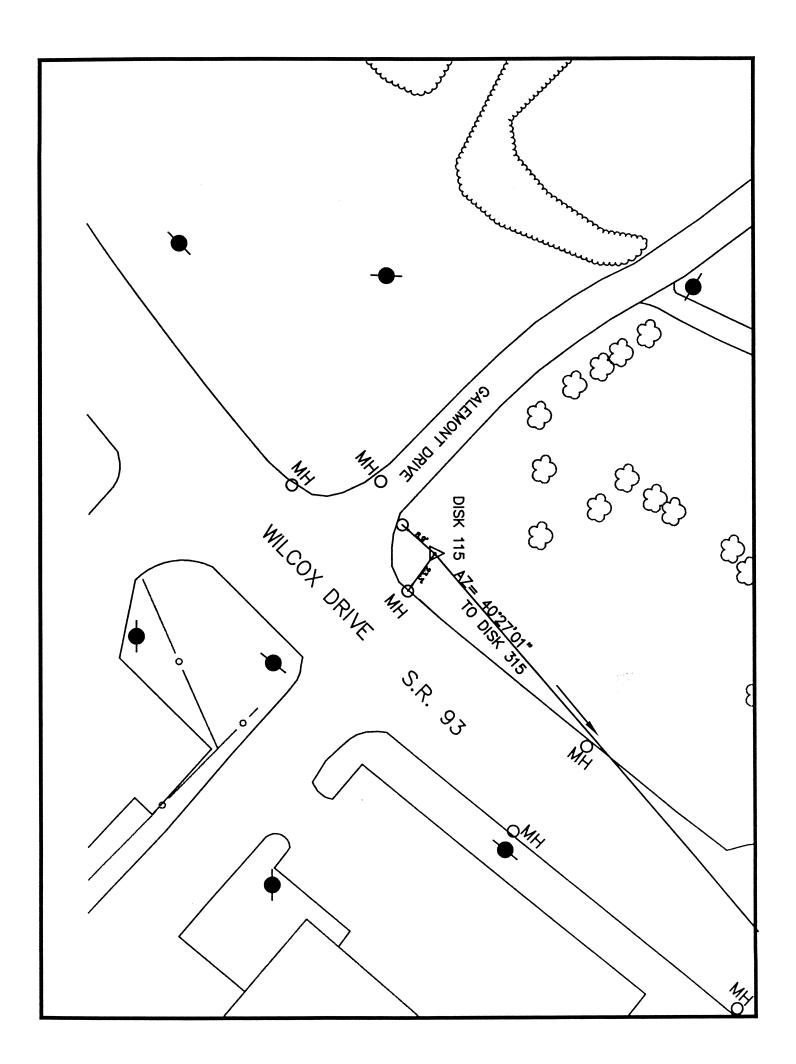
**EASTING:** 

2977108.772

GPS HEIGHT: 1242.611

#### TO REACH DESCRIPTION:

TO REACH STATION FROM INTERSECTION OF I-181 AND SR 93, TRAVEL SOUTH ON SR 93 1 MILE TO INTERSECTION OF WILCOX DRIVE AND GALEMONT DRIVE. STATION IS IN THE GRASS OF THE NORTHERN SHOULDER OF THE SOUTHBOUND LANE AT THE INTERSECTION.



STATION NO.

116

STATION NAME ROCK SPRINGS EXIT 49

USGS QUAD SHEET SULLIVAN GARDENS

GEODETIC POSITION

LATITUDE: 36°29'22.25317" N

LONGITUDE: 82°33'01.99631" W

TN. STATE PLANE COORDINATES

NORTHING:

802750.791

EASTING: 2982348.139

ELEVATION:

1387.190

HORIZONTAL DATUM: 1983 NAD

VERTICAL DATUM: 1929 NGVD

**ZONE: 4100(TN)** 

SCALE FACTOR:

1.000013732

CONVERGENCE:

201'09.993"

BACKSIGHT STATION NO:

316

REFERENCE AZIMUTH:

317'03'08"

**NORTHING:** 

803200.015

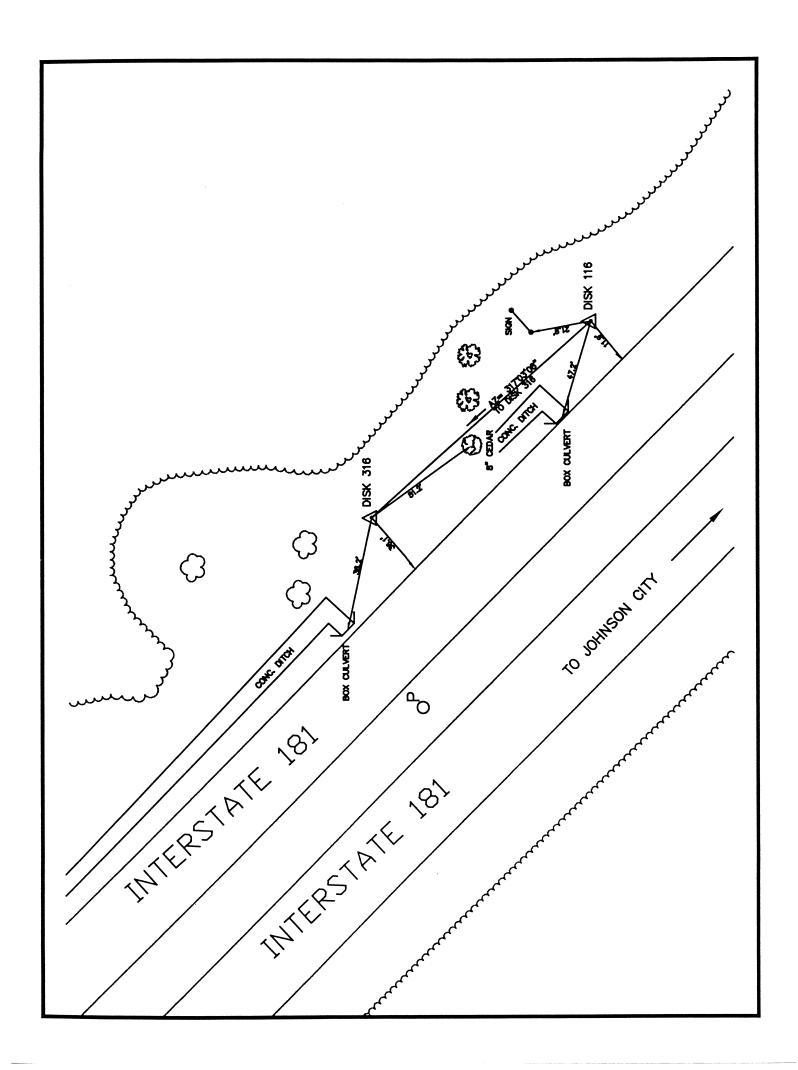
EASTING:

2981929.996

GPS HEIGHT: 1373.736

TO REACH DESCRIPTION:

TO REACH STATION FROM INTERSECTION OF I-181 AND ROCK SPRINGS ROAD (EXIT 49), TRAVEL NORTH 1.05 MILES ON I-181. STATION IS 11.9' FROM EDGE OF PAVEMENT IN GRASSY SHOULDER.



# ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 2000 STATION REPORT

STATION NO. 117 STATION NAME VICTORY LANE

USGS QUAD SHEET SULLIVAN GARDENS | TN. STATE PLANE COORDINATES

GEODETIC POSITION NORTHING: 795011.3566

LATITUDE: 36° 28' 04.625026" N | EASTING: 2985634.9457

LONGITUDE: 82° 32' 25.121401" W | GPS ELEVATION: 1548.6481

HORIZONTAL DATUM:1983 NAD VERTICAL DATUM:1929 NGVD ZONE:4100(TN)

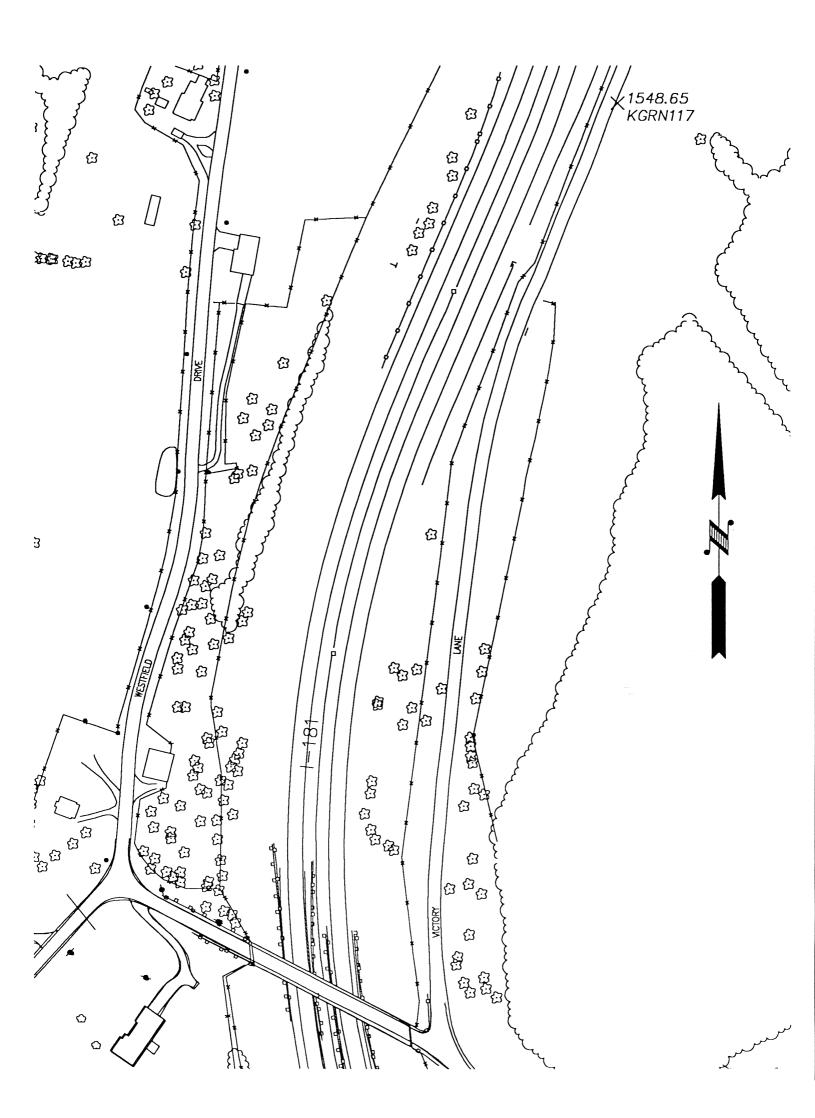
SCALE FACTOR: 1.000009498 | CONVERGENCE: 2° 01' 31.58072"

BACKSIGHT STATION NO: NO BACKSITE | REFERENCE AZIMUTH:

NORTHING: EASTING: GPS HEIGHT:

#### TO REACH DESCRIPTION:

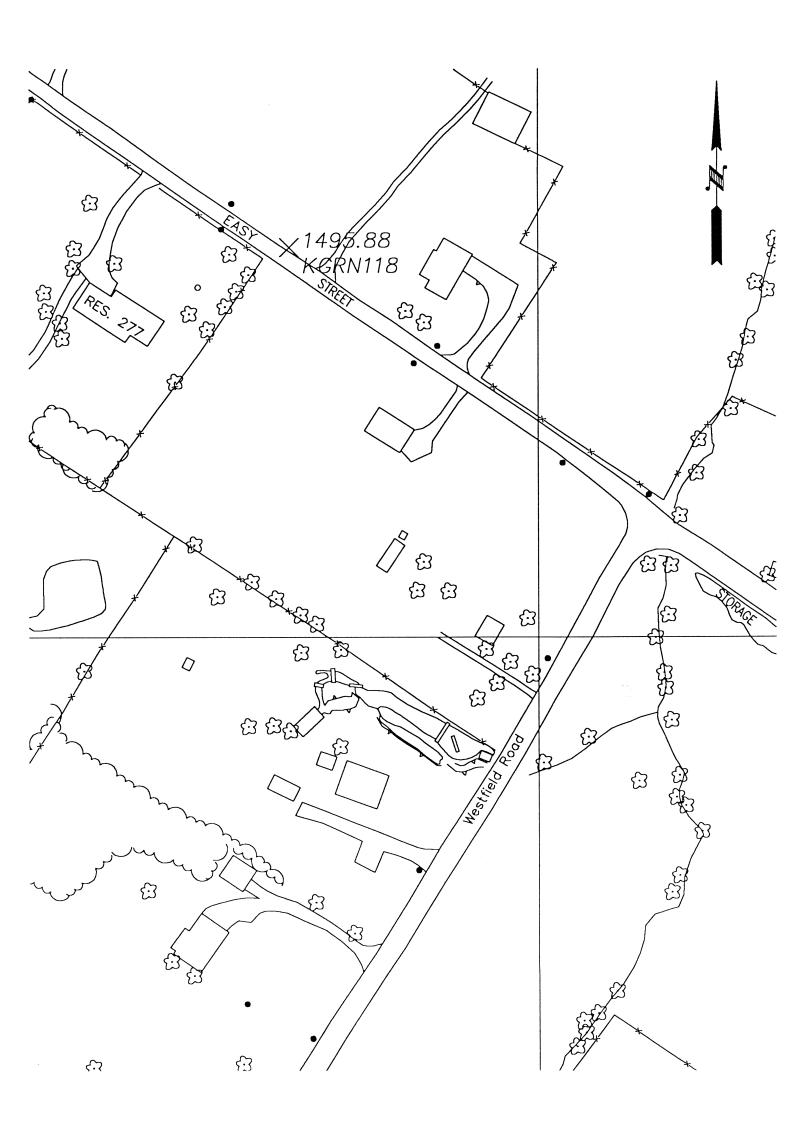
STATION IS LOCATED APPROXIMATELY 5.6 MILES SE OF DOWNTOWN KINGSPORT. TO REACH STATION, START AT THE INTERSECTION OF I-181 AND ROCK SPRINGS ROAD, GO 0.3 MILES SOUTHWEST ON ROCK SPRINGS ROAD TO WESTFIELD ROAD, THEN GO SOUTH ON WESTFIELD ROAD FOR 0.7 MILES TO VICTORY LANE, THEN GO NORTH ON VICTORY LANE FOR 0.3 MILE TO THE STATION ON THE RIGHT. STATION IS MARKED WITH AN ORANGE CARSONITE WITNESS POST.



# ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 2000 STATION REPORT

STATION ILL OILL			
STATION NO. 118	STATION NAME EASY STREET		
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 793422.3312		
LATITUDE: 36° 27' 48.188707" N	EASTING: 2987731.7469		
LONGITUDE: 82° 32' 00.156326" W	GPS ELEVATION: 1495.8802		
HORIZONTAL DATUM:1983 NAD VERTICAL DATUM:1929 NGVD ZONE:4100(TN)			
SCALE FACTOR: 1.000008620	CONVERGENCE: 2° 01' 46.19627"		
BACKSIGHT STATION NO: NO BACKSITE	REFERENCE AZIMUTH:		
NORTHING: EASTING:	GPS HEIGHT:		
TO REACH DESCRIPTION:			
STATION IS LOCATED APPROXIMATELY 6.0 MILES SOUTHEAST OF DOWNTOWN KINGSPORT. TO REACH STATION, START AT THE INTERSECTION OF I-181 AND ROCK SPRINGS ROAD, THEN GO SOUTHWEST ON ROCK SPRINGS ROAD			

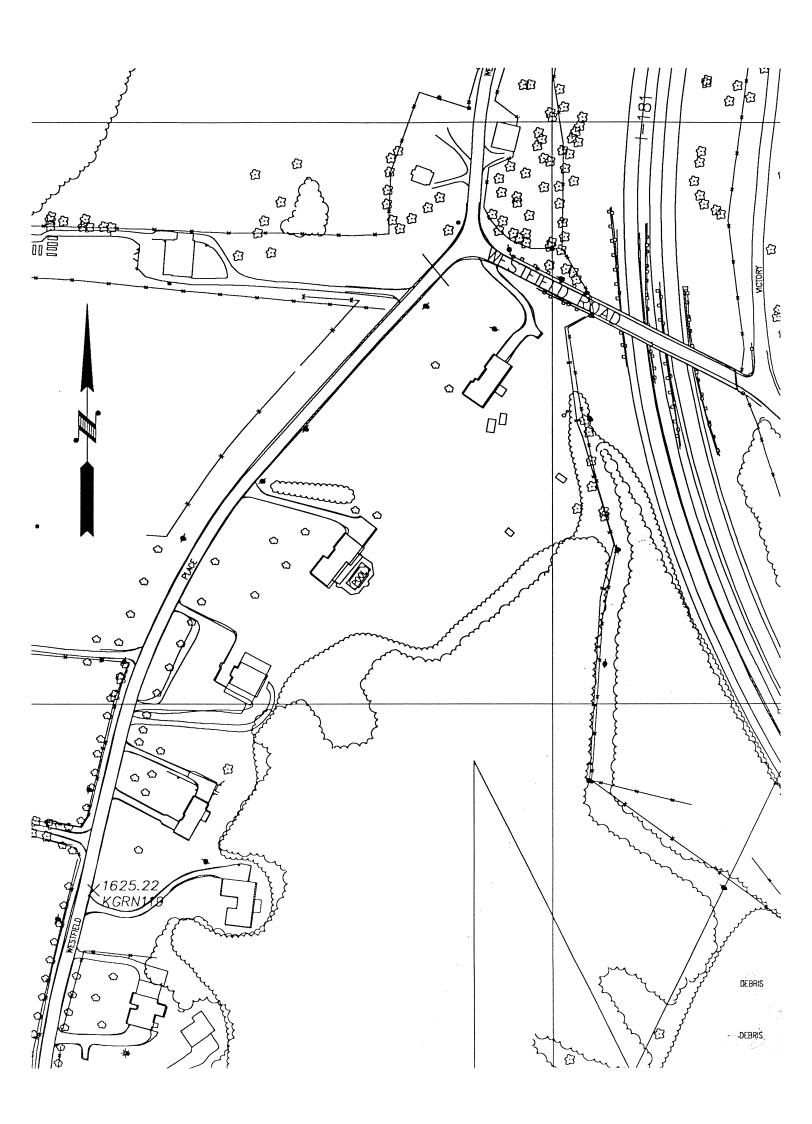
STATION IS LOCATED APPROXIMATELY 6.0 MILES SOUTHEAST OF DOWNTOWN KINGSPORT. TO REACH STATION, START AT THE INTERSECTION OF I-181 AND ROCK SPRINGS ROAD, THEN GO SOUTHWEST ON ROCK SPRINGS ROAD FOR 0.3 MILE TO WESTFIELD ROAD, THEN GO 1.4 MILES SOUTH ON WESTFIELD ROAD TO EASY STREET, THEN GO NORTHWEST ON EASY STREET FOR 0.1 MILE TO STATION ON THE RIGHT. STATION DOES NOT HAVE A CARSONITE WITNESS POST.



#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 2000 STATION REPORT

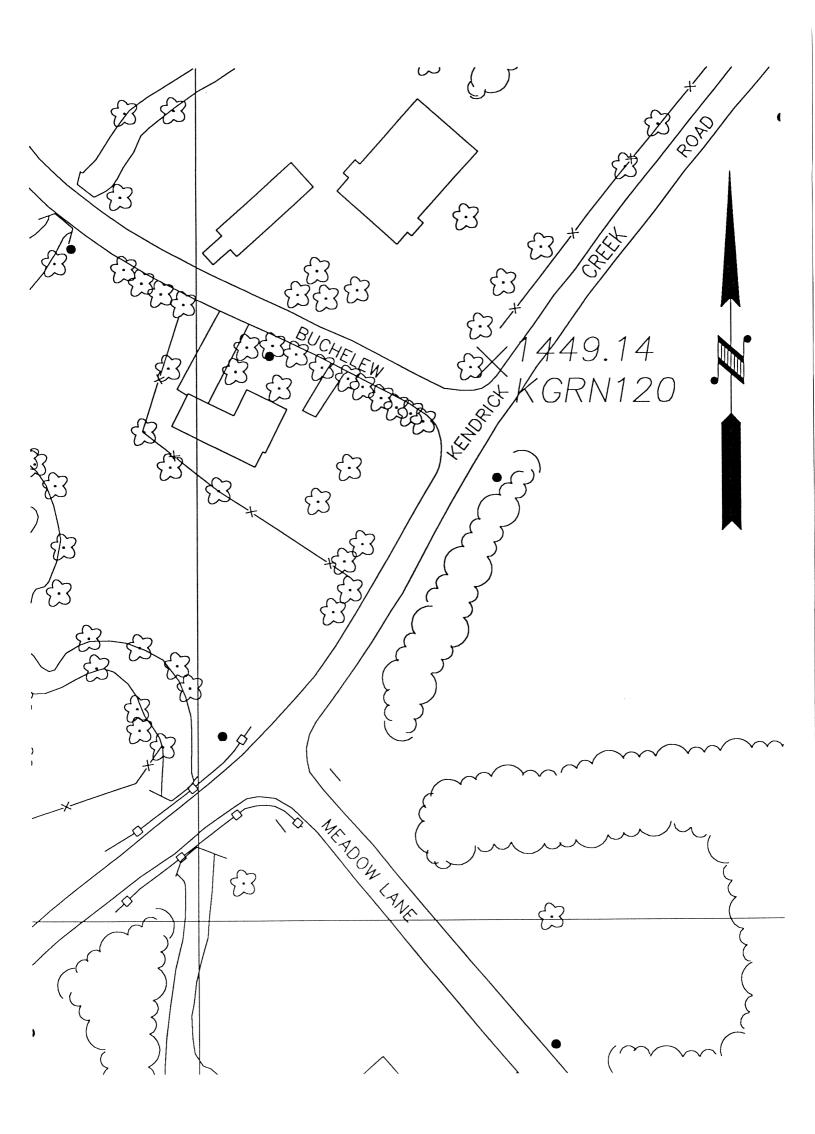
STATION NO. 119	STATION NAME WESTFIELD PLACE		
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 792682.6982		
LATITUDE: 36° 27′ 42.107602″ N	EASTING: 2984218.9578		
LONGITUDE: 82° 32′ 43.451952″ W	GPS ELEVATION: 1625.2167		
HORIZONTAL DATUM:1983 NAD VERTICAL DATUM:1929 NGVD ZONE:4100(TN)			
SCALE FACTOR: 1.000008296	CONVERGENCE: 2° 01' 20.84929"		
BACKSIGHT STATION NO: NO BACKSITE	REFERENCE AZIMUTH:		
NORTHING: EASTING:	GPS HEIGHT:		
TO REACH DESCRIPTION:			

STATION IS LOCATED APPROXIMATELY 6.0 MILES SE OF DOWNTOWN KINGSPORT. TO REACH STATION START AT THE INTERSECTION OF I-181 AND ROCK SPRINGS ROAD THEN GO 0.3 MILE SW ON ROCK SPRINGS ROAD TO WESTFIELD ROAD. GO SOUTH ON WESTFIELD ROAD FOR 0.6 MILE TO WESTFIELD PLACE. THEN GO SE ON WESTFIELD PLACE 0.25 MILE TO STATION ON LEFT. STATION IS MARKED WITH AN ORANGE CARSONITE WITNESS POST.



# ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 2000 STATION REPORT

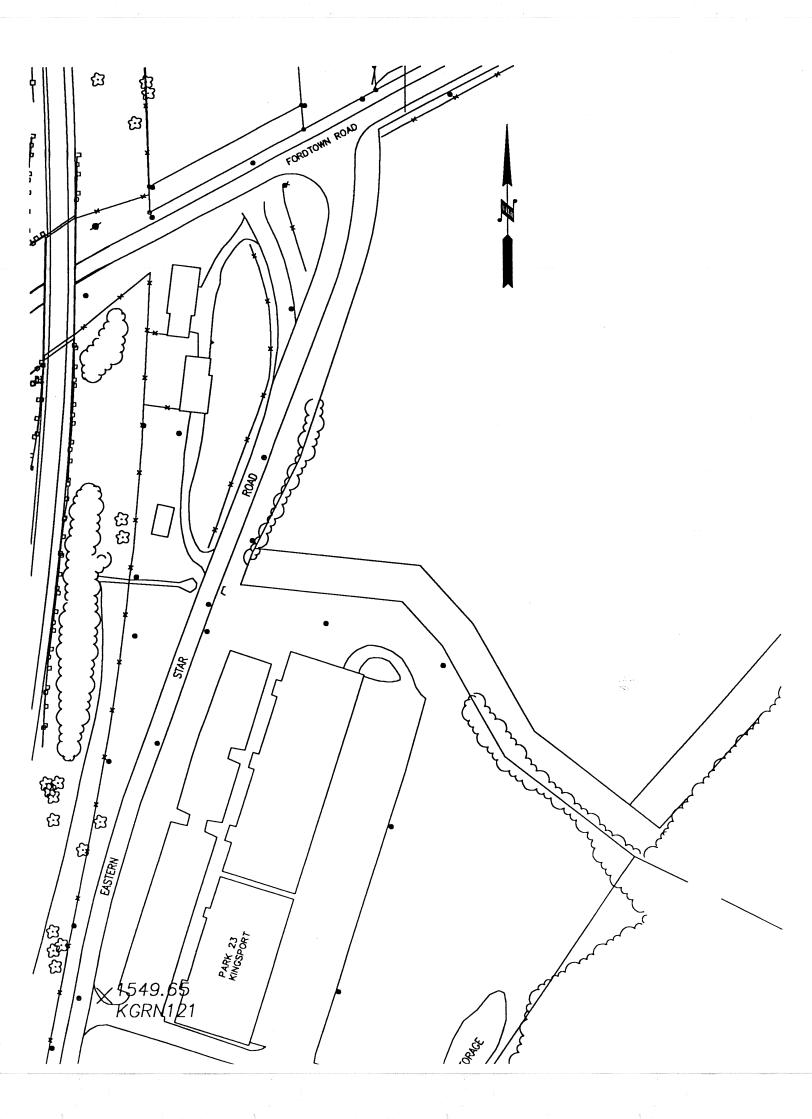
STATION REPORT			
STATION NO. 120	STATION NAME BUCHELEW DRIVE		
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 793370.9772		
LATITUDE: 36° 27' 46.465719" N	EASTING: 2991196.9423		
LONGITUDE: 82° 31' 17.785216" W	GPS ELEVATION: 1449.1377		
HORIZONTAL DATUM:1983 NAD VERTICAL DATUM:1929 NGVD ZONE:4100(TN)			
SCALE FACTOR: 1.000008528	CONVERGENCE: 2' 02' 11.00200"		
BACKSIGHT STATION NO: NO BACKSITE	REFERENCE AZIMUTH:		
NORTHING: EASTING:	GPS HEIGHT:		
TO REACH DESCRIPTION:			
REACH STATION START AT THE INTERS ROAD. THEN GO SOUTH ON LEBANO GO 1.5 MILES SW ON KENDRICK CRE STATION IS IN THE NE QUADRANT OF	6.3 MILES SE FROM DOWNTOWN KINGSPORT. TO SECTION OF FORT HENRY DRIVE AND LEBANON N ROAD 0.5 MILE TO KENDRICK CREEK ROAD. TEK ROAD TO THE STATION ON THE RIGHT.  THE INTERSECTION OF KENDRICK CREEK ROAD MARKED BY AN ORANGE CARSONITE WITNESS		



#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 2000 STATION REPORT

STATION NO. 121	STATION NAME EASTERN STAR NORTH		
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 786941.0969		
LATITUDE: 36° 26' 42.760074" N	EASTING: 2991667.8742		
LONGITUDE: 82° 31' 14.821499" W	GPS ELEVATION: 1549.6455		
HORIZONTAL DATUM:1983 NAD VERTICAL DATUM:1929 NGVD ZONE:4100(TN)			
SCALE FACTOR: 1.000005187	CONVERGENCE: 2' 02' 12.73708"		
BACKSIGHT STATION NO: NO BACKSITE	REFERENCE AZIMUTH:		
NORTHING: EASTING:	GPS HEIGHT:		
TO REACH DESCRIPTION:			
	7.4 MILES SE OF DOWNTOWN KINGSPORT.		

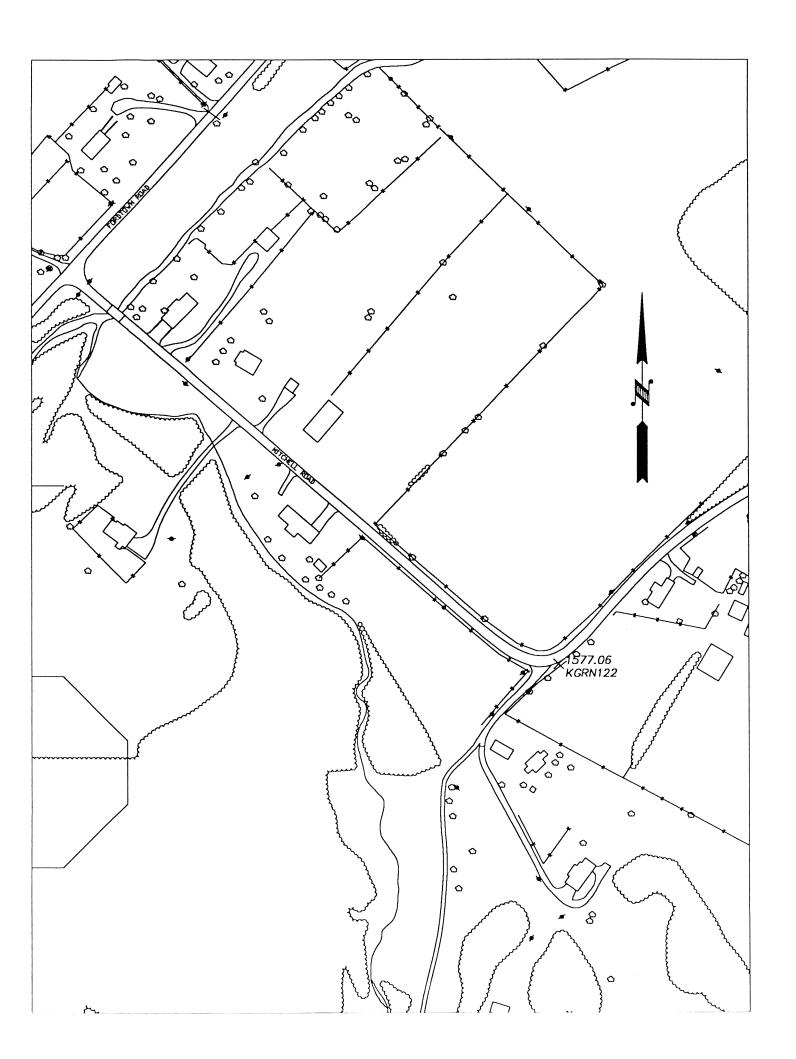
STATION IS LOCATED APPROXIMATELY 7.4 MILES SE OF DOWNTOWN KINGSPORT. TO REACH STATION START AT THE INTERSECTION OF I-181 AND EASTER STAR ROAD. THEN GO NORTH 0.8 MILE ON EASTERN STAR ROAD TO THE STATION ON THE RIGHT. STATION IS LOCATED IN THE NE QUADRANT OF THE INTERSECTION OF THE ENTRANCE TO PARK 23 KINGSPORT BUSINESS COMPLEX AND EASTERN STAR ROAD. STATION IS MARKED WITH AN ORANGE CARSONITE WITNESS POST.



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 2000 STATION REPORT

STATION NO. 122	STATION NAME MITCHELL ROAD		
USGS QUAD SHEET SULLIVAN GARDENS	TN. STATE PLANE COORDINATES		
GEODETIC POSITION	NORTHING: 784529.9724		
LATITUDE: 36' 26' 20.534621" N	EASTING: 2987100.8226		
LONGITUDE: 82° 32' 11.726687" W	GPS ELEVATION: 1577.0619		
HORIZONTAL DATUM:1983 NAD VERTICAL DATUM:1929 NGVD ZONE:4100(TN)			
SCALE FACTOR: 1.000004044	CONVERGENCE: 2° 01' 39.42252"		
BACKSIGHT STATION NO: NO BACKSITE	REFERENCE AZIMUTH:		
NORTHING: EASTING:	GPS HEIGHT:		
TO REACH DESCRIPTION:			
STATION IS LOCATED APPROXIMATELY 7.6 MILES SE OF DOWNTOWN KINGSPORT. TO REACH STATION START AT THE INTERSECTION OF I—181 AND EASTER STAR ROAD. THEN GO NORTH 0.3 MILE ON EASTERN STAR ROAD TO MITCHELL ROAD. THEN			

GO WEST 1.0 MILE ON MITCHELL ROAD TO THE STATION ON THE LEFT. STATION IS MARKED MY AN ORANGE CARSONITE WITNESS POST.



#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 2000 STATION REPORT

STATION NO. 123

STATION NAME PICKENS ROAD

USGS QUAD SHEET SULLIVAN GARDENS

GEODETIC POSITION

LATITUDE: 36' 26' 04.717334"

LONGITUDE: 82° 31' 59.888513" W

TN. STATE PLANE COORDINATES

NORTHING: 782965.624

EASTING:

2988124.1921

GPS ELEVATION: 1631.5295

HORIZONTAL DATUM:1983 NAD

VERTICAL DATUM:1929 NGVD

ZONE:4100(TN)

SCALE FACTOR:

1.000003238

CONVERGENCE: 2' 01' 46.35305"

BACKSIGHT STATION NO:

WKPT MAST

REFERENCE AZIMUTH: 332' 52' 24"

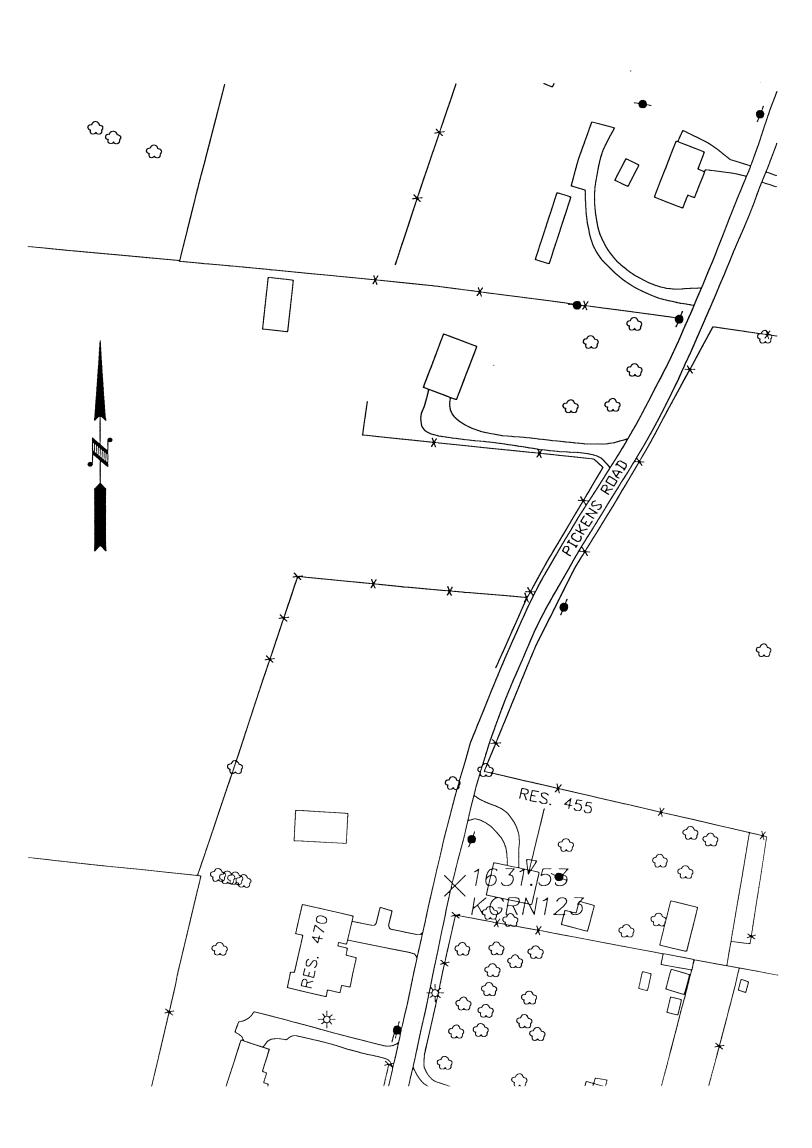
NORTHING: 815981.793

EASTING: 2971209.503

**GPS HEIGHT:** 

#### TO REACH DESCRIPTION:

STATION IS LOCATED APPROXIMATELY 8.0 MILES SE OF DOWNTOWN KINGSPORT. TO REACH STATION START AT THE INTERSECTION OF I-181 AND EASTERN STAR ROAD. THEN GO NORTH 0.3 MILE ON EASTERN STAR ROAD TO MITCHELL ROAD. GO WEST 0.6 MILE ON MITCHELL ROAD TO PICKENS ROAD. THEN GO SW 0.4 MILE ON PICKENS ROAD TO STATION ON THE LEFT. STATION IS LOCATED IN FRONT OF HOUSE # 455. STATION IS MARKED WITH AN ORANGE CARSONITE WITNESS POST.



#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. STATION NAME Horton Highway 124 TN. STATE PLANE COORDINATES USGS QUAD SHEET Lovelace GEODETIC POSITION NORTHING: 783270.2179 36° 26' 17.05351" N **EASTING:** 2961136.3048 LATITUDE: 82° 37' 29.82400" W LONGITUDE: ELEVATION: 1280.6966 VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) HORIZONTAL DATUM: NAD1983(90) SCALE FACTOR: **CONVERGENCE:** 1° 58' 33.19571" 1.000003866 BACKSIGHT STATION NO: REFERENCE AZIMUTH: None none GPS HEIGHT: none **EASTING:** NORTHING: none none

#### TO REACH DESCRIPTION:

Start at the intersection of State Route 93 (S. Wilcox Drive) and Interstate 181 and proceed Southwest on State Route 93 for 5.77 miles to the station on the right on the east side of a paved entrance to a garage & car lot. Monument is an aluminum disc poured in concrete and flush with the ground with a carsonite witness post.

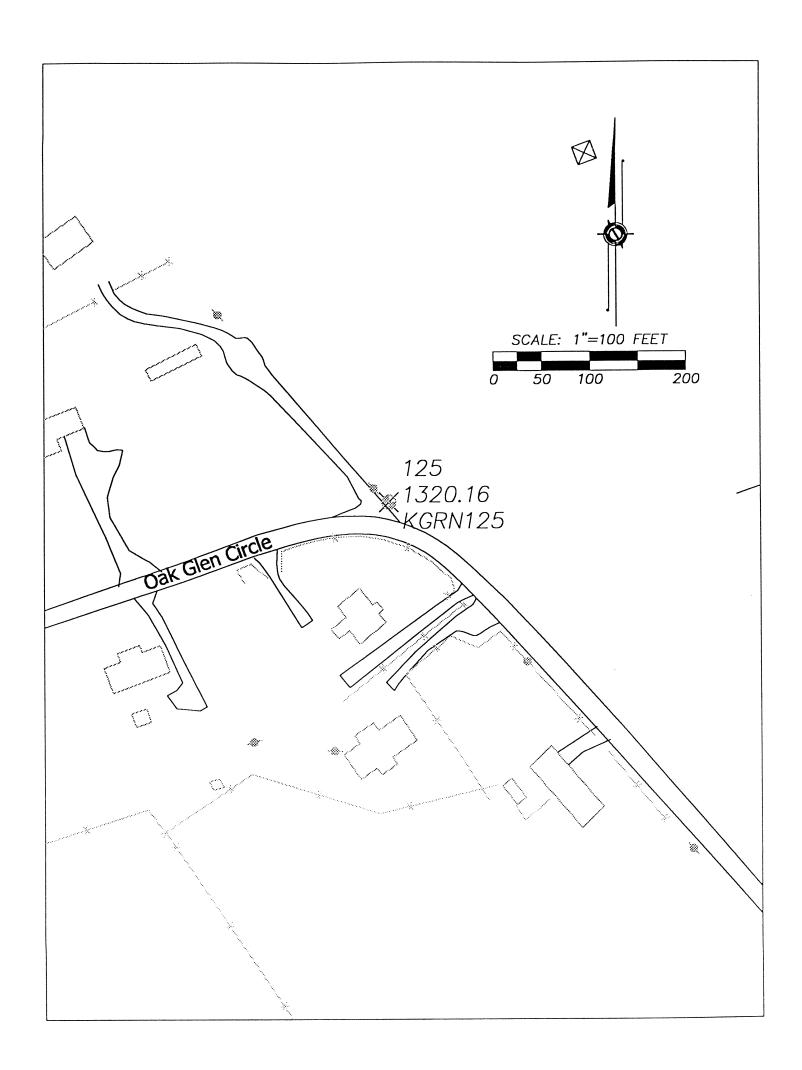
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# ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 125 STATION NAME Oak Glen East Lovelace TN. STATE PLANE COORDINATES USGS QUAD SHEET GEODETIC POSITION NORTHING: 781008,2454 LATITUDE: 36° 25' 56.35286" N EASTING: 2956275.1375 82° 38' 30.22907" W **ELEVATION:** LONGITUDE: 1320.1613 VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) HORIZONTAL DATUM: 1983 NAD SCALE FACTOR: CONVERGENCE: 01° 57' 57.83218" 1.000002814 REFERENCE AZIMUTH: BACKSIGHT STATION NO: None None NORTHING: **EASTING:** None GPS HEIGHT: None None

#### TO REACH DESCRIPTION:

Start at the intersection of Horton Highway (Baileyton Road) and Oak Glen Circle. Proceed Northwest on Oak Glen Circle for 0.50 miles to the station on the right. Monument is located in a curve of the road near a field entrance. It is a aluminum disc poured in concrete and flush with the ground with a carsonite guard post.

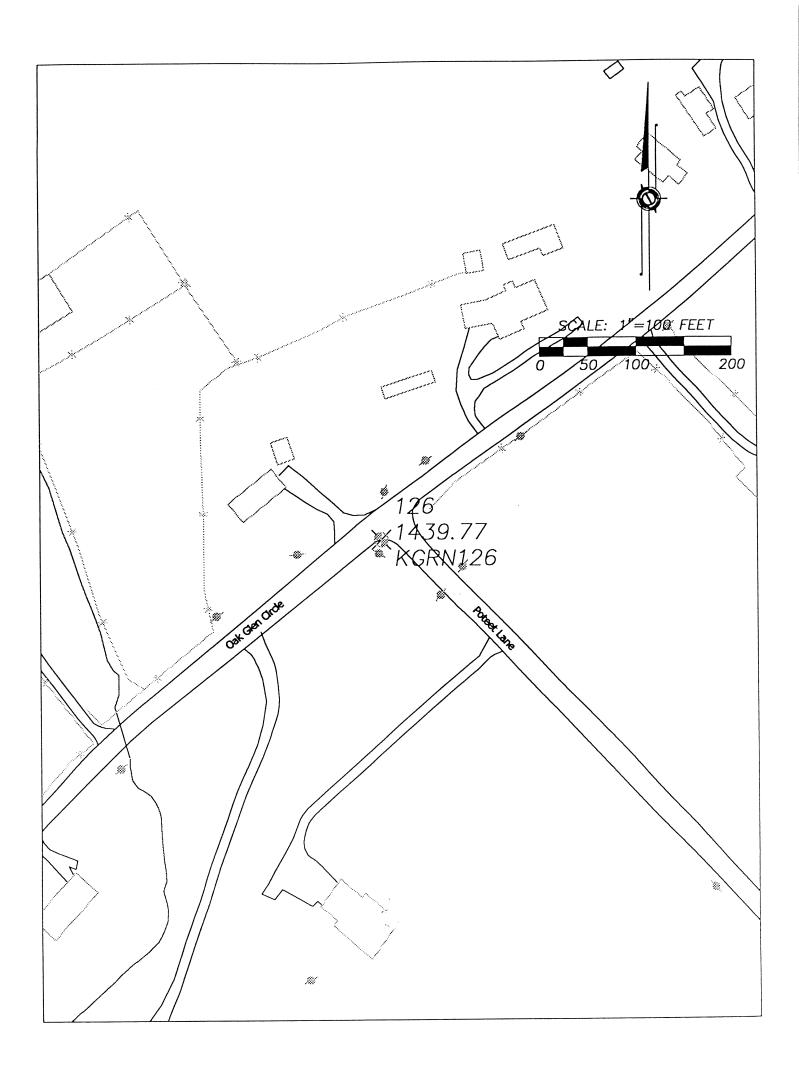


#### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NAME STATION NO. 126 Oak Glen West TN. STATE PLANE COORDINATES USGS QUAD SHEET Lovelace GEODETIC POSITION NORTHING: 775612.0241 36° 25' 05.66088" N EASTING: LATITUDE: 2948471.5943 82° 40' 07.91283" W LONGITUDE: ELEVATION: 1439.7664 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) CONVERGENCE: 1° 57' 00.64423" SCALE FACTOR: 1.000000279 BACKSIGHT STATION NO: REFERENCE AZIMUTH: None None **EASTING:** GPS HEIGHT: None NORTHING: None None

#### TO REACH DESCRIPTION:

Begin at the intersection of Horton Highway (Baileyton Road) and Oak Glen Circle, then proceed Northwest on Oak Glen Circle for 2.40 miles to the station on the left. Monument is an aluminum disc poured in concrete and flush with the road with a carsonite witness post and located in the Southwest quadrant of the intersection of Oak Glen Circle and Poteet Lane.



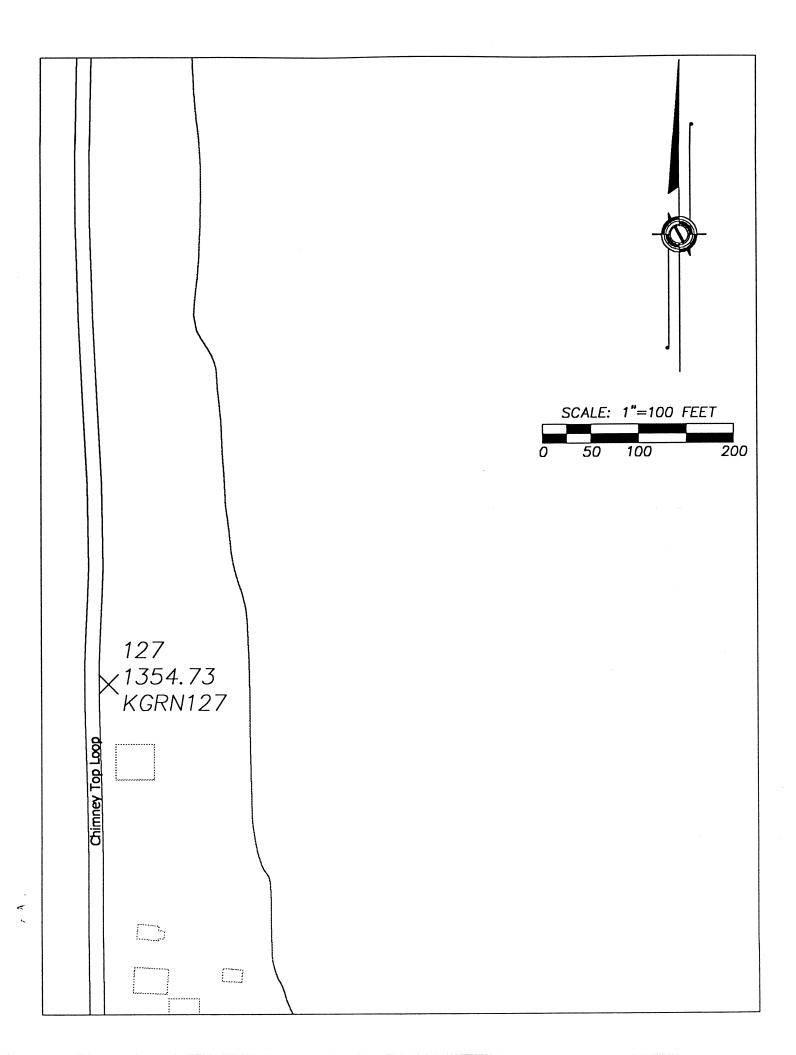
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 127	STATION NAME Chimney Top Loop	
USGS QUAD SHEET Lovelace	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 766403.30320	
LATITUDE: 36° 23' 36.37971" N	EASTING: 2943327.7590	
LONGITUDE: 82° 41' 14.62345" W	ELEVATION: 1354.7286	
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: .999995963	CONVERGENCE: 1° 56' 21.58918"	
BACKSIGHT STATION NO: None	REFERENCE AZIMUTH: None	
NORTHING: None EASTING:	None GPS HEIGHT: None	

#### TO REACH DESCRIPTION:

Start at the intersection of Horton Highway (Baileyton Road) and the westerly intersection of Chimney Top Loop. Proceed North on Chimney Top Loop for 0.50 mile to the station on the right, just north of a barn. Monument is an aluminum disc poured flush with the ground with a carsonite witness post.

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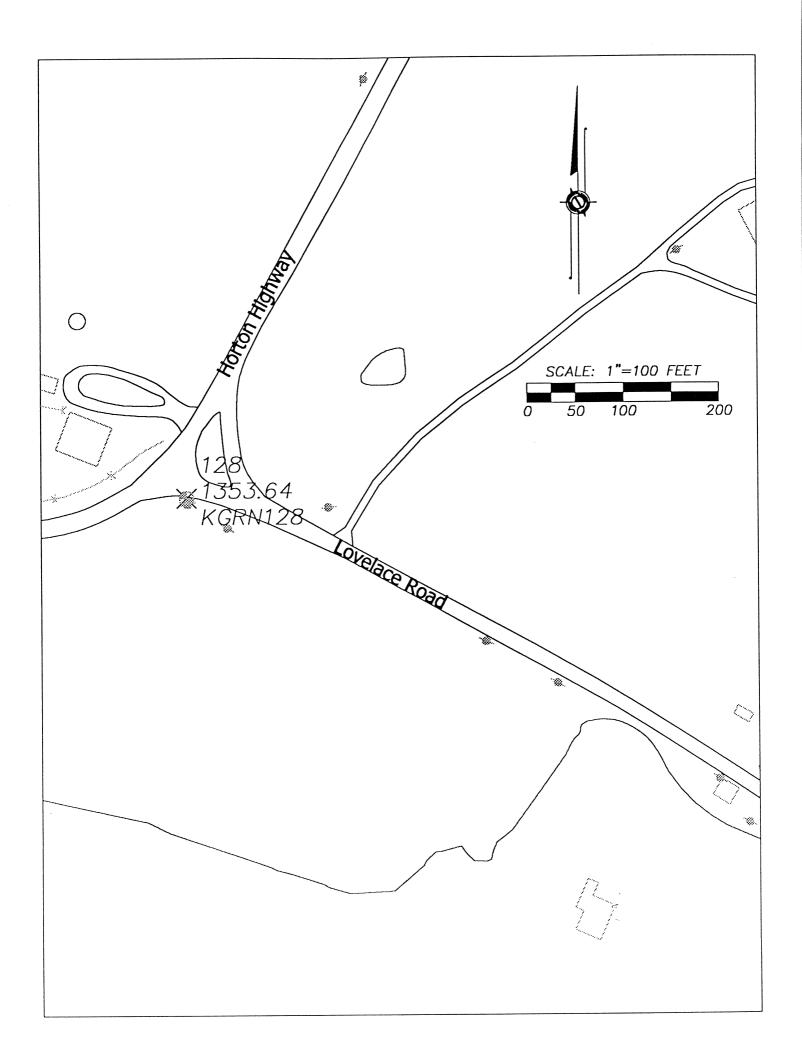
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 128	STATION NAME Lovelace	
USGS QUAD SHEET Lovelace	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 771866.8761	
LATITUDE: 36° 24' 27.38544" N	EASTING: 2952219.2531	
LONGITUDE: 82° 39' 23.65274" W	ELEVATION: 1353.6378	
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 0.999998406	CONVERGENCE: 1° 57′ 26.55585″	
BACKSIGHT STATION NO: None	REFERENCE AZIMUTH: None	
NORTHING: None EASTING:	None GPS HEIGHT: None	

#### TO REACH DESCRIPTION:

Start at the iintersection of Horton Highway (Baileyton Road) and SR 93, then proceed west on Horton Highway for 1.2 miles to the station on the left at the intersection of Horton Highway and Lovelace Road. Monument is an aluminum disc poured in concrete and flush with the ground with a carsonite witness post.

RECOVERY NOTE
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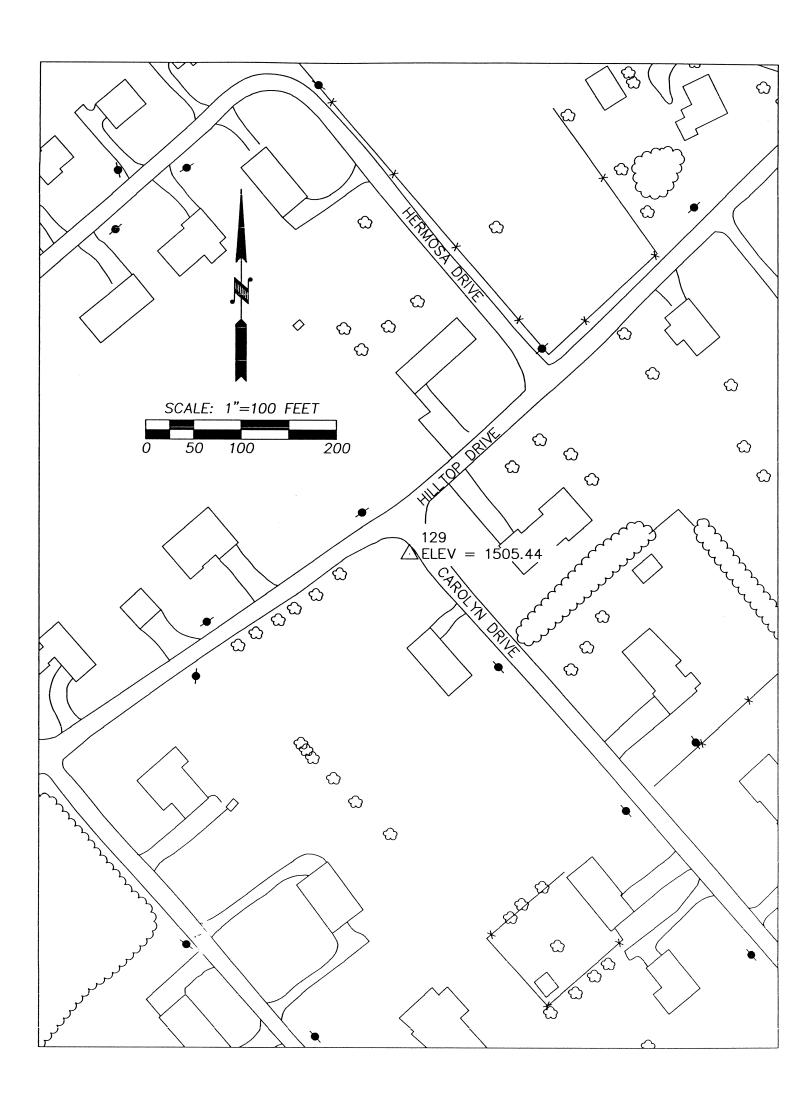
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. 129	STATION NAME Hilltop	
USGS QUAD SHEET Lovelace	TN. STATE PLANE COORDINATES	
GEODETIC POSITION	NORTHING: 777231.7633	
LATITUDE: 36° 25' 18.2109" N	EASTING: 2958691.8591	
LONGITUDE: 82° 38' 02.26227" W	ELEVATION: 1505.4458	
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)		
SCALE FACTOR: 1.000000901	CONVERGENCE: 1° 58′ 14.20506″	
BACKSIGHT STATION NO: None	REFERENCE AZIMUTH: None	
NORTHING: None EASTING:	None GPS HEIGHT: None	
I and the second		

#### TO REACH DESCRIPTION:

Start at the intersection of SR 93 (S. Wilcox) and I—181, then proceed Southwest on SR 93 for 6.70 miles to the intersection of SR 93 and Hilltop Road, then turn right on Hilltop Road and proceed 0.30 mile to the station on the right just past the intersection of Sunny Hill Court. The monument is an aluminum disc set in concrete and flush with the ground with a carsonite witness post.

RECOVERY NOTES:		
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### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO.

130

STATION NAME

TN. STATE PLANE COORDINATES

Geraldstown

USGS QUAD SHEET

GEODETIC POSITION

Lovelace

NORTHING:

769505.6622

LATITUDE:

36° 24' 00.97654" N

EASTING:

2961279.2157

LONGITUDE:

82° 37' 33.88211" W

ELEVATION:

1638.9472

HORIZONTAL DATUM: 1983 NAD

VERTICAL DATUM: 1929 NGVD

ZONE: 4100(TN)

SCALE FACTOR:

0.999997133

CONVERGENCE:

1° 58' 30.81993"

BACKSIGHT STATION NO:

None

REFERENCE AZIMUTH:

None

NORTHING:

None

**EASTING:** 

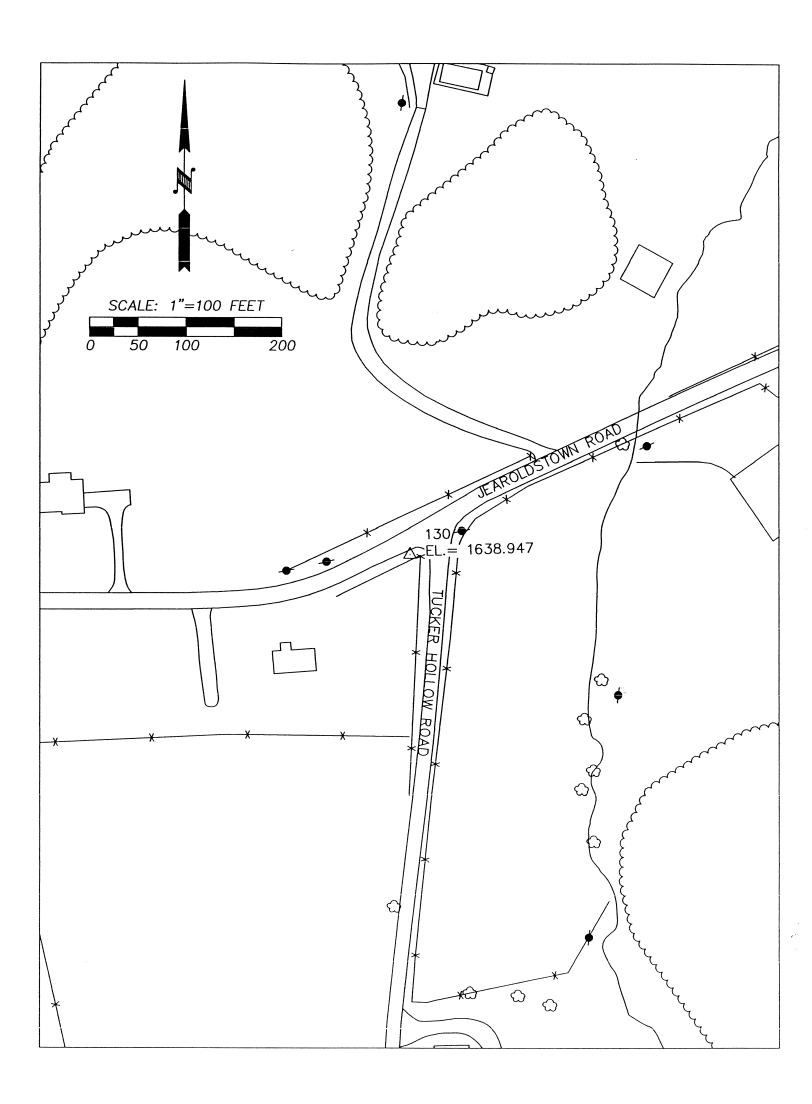
None

GPS HEIGHT: None

#### TO REACH DESCRIPTION:

Start at the intersection of SR 93 and Interstate 81, then proceed southeast on SR 93 for 0.20 miles to the intersection of SR 93 and Jearoldstown Road, then turn right on Jearoldstown Road and proceed West for 0.60 mile to the station on the left. Station is in the Southwest quadrant of the intersection of Jearoldstown Road and Tucker Hollow Road. Monument is an aluminum disc poured in concrete and flush with the ground with a carsonite witness post.

**RECOVERY NOTES:** 



### ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. STATION NAME 131 Logan Chapel USGS QUAD SHEET Sullivan Gardens TN. STATE PLANE COORDINATES GEODETIC POSITION NORTHING: 767196.6030 LATITUDE: 36° 23' 35.43626" N **EASTING:** 2969230.9959 LONGITUDE: 82' 35' 57.65558" W ELEVATION: 1879.883

HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)

SCALE FACTOR: 0.999995918 CONVERGENCE: 1° 59' 27.15477"

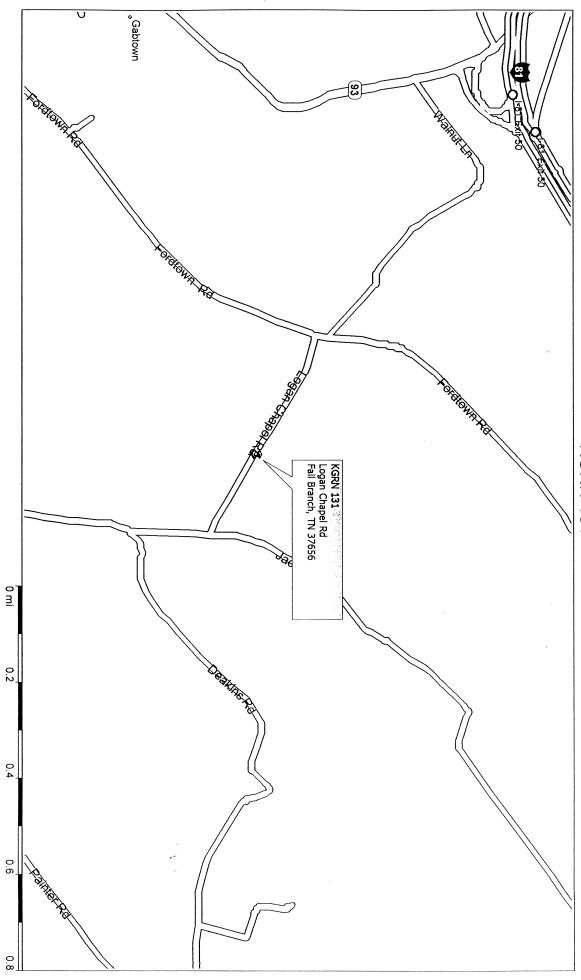
BACKSIGHT STATION NO: None | REFERENCE AZIMUTH: None

NORTHING: None EASTING: None GPS HEIGHT: None

#### TO REACH DESCRIPTION:

Begin at the intersection of SR 93 and Fordtown Road (Haws Crossroads), then proceed Northeast on Fordtown Road for 1.1 mile to the intersection of Fordtown Road and Logan Chapel Road, then turn right on Logan Chapel Road and proceed for 0.30 mile to the station on the right. Monument is an aluminum disc poured in concrete and flush with the ground with a carsonite witness post.

**RECOVERY NOTES:** 



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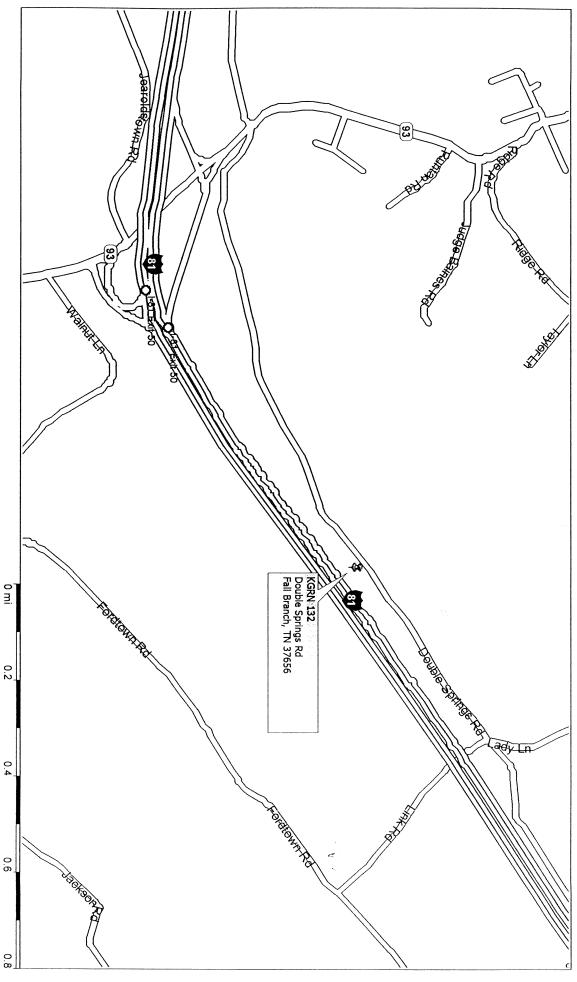
## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NAME Gibson 1961		
TN. STATE PLANE COORDINATES		
NORTHING: 773364.6626		
EASTING: 2968864.39820		
ELEVATION: 1836.8467		
HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN)		
CONVERGENCE: 1° 59' 26.06546"		
REFERENCE AZIMUTH: None		
None GPS HEIGHT: None		

#### TO REACH DESCRIPTION:

Begin at the intersection of SR 93 and Double Springs Road, then proceed Northeast on Double Springs Road for 1.1 miles to the station on the right. The monument is a NGS brass disc poured in concrete and labeled "Gibson 1961". It is located on a rise in a pasture feild.

RECOVERY 1	NOTES:
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## ENGINEERING DEPARTMENT GEODETIC REFERENCE NETWORK 1990 STATION REPORT

STATION NO. STATION NAME 133 Church Road South USGS QUAD SHEET Sullivan Gardens TN. STATE PLANE COORDINATES GEODETIC POSITION NORTHING: 779301.2233 LATITUDE: 36° 25' 35.15006" N EASTING: 2968967.2821 LONGITUDE: 82° 35' 55.73495" W **ELEVATION:** 1682.4751 HORIZONTAL DATUM: 1983 NAD VERTICAL DATUM: 1929 NGVD ZONE: 4100(TN) SCALE FACTOR: 1.000001746 CONVERGENCE: 1' 59' 28.27918" BACKSIGHT STATION NO: REFERENCE AZIMUTH: None None NORTHING: **EASTING:** None GPS HEIGHT: None None

#### TO REACH DESCRIPTION:

Begin at the intersection of SR 93 and W. Ridge Road, then proceed Northeast on W. Ridge Road for 1.5 miles to the station on the left at the intersection of W. Ridge Road and Church Road South. Monument is an aluminum disc poured in concrete and flush with the ground with a carsonite witness post.

RECOVERY	NOTES:	