

CITY OF NORTH LAS VEGAS GPS AND SECTIONAL CONTROL SYSTEM INFORMATION

The official coordinate system of the City of North Las Vegas Vertical Datum is the Nevada Coordinate System of 1983, and is based upon the North American Datum of 1983 as defined within NRS Chapter 327.

The GPS and Sectional Control System was developed to improve the ability to perpetuate corner positions within the Public Land Survey System. Currently these section corner standard position designations are placed upon maps prepared by the Survey Division.

The Survey Division has developed a User Defined Transverse Mercator projection for all land surveys and design and construction surveys performed within the City. This enables conventional survey equipment and GPS survey equipment to operate within a single environment. The parameters of the UDTM are as follows:

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTRAL MERIDIAN OF THE CITY OF NORTH LAS VEGAS USER DEFINED TRANSVERSE MERCATOR PROJECTION; SAID MERIDIAN BEING COINCIDENT WITH 115°05' 53.00" WEST OF THE GREENWICH MERIDIAN. ORIENTATION IS DEFINED BY THE HIGH ACCURACY REFERENCE NETWORK OF NEVADA, NATIONAL GEODETIC SURVEY. (EPOCH 1994)

CITY OF NORTH LAS VEGAS USER DEFINED TRANSVERSE MERCATOR PROJECTION PARAMETERS:

CENTRAL MERIDIAN = 115°05' 53.00" WEST
LATITUDE OF ORIGIN = 36°15' 00.00" NORTH
ORIGIN NORTHING = 75000.0000 U.S. FEET
ORIGIN EASTING = 75000.0000 U.S. FEET
SCALE ALONG CENTRAL MERIDIAN = 1.000093468437

REFERENCE ELLIPSOID = GRS-80
SEMI-MAJOR AXIS = 20,925,604.474 U.S. FEET
FLATTENING (1/f) = 298.25722154
X TRANSLATION = 0.0000
Y TRANSLATION = 0.0000
Z TRANSLATION = 0.0000

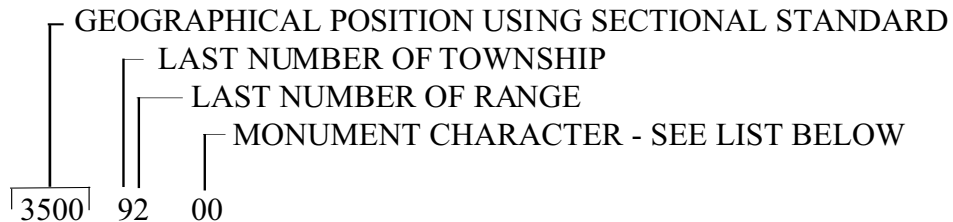
VERTICAL ADJUSTMENT PARAMETERS:

A VERTICAL ADJUSTMENT HAS BEEN APPLIED USING A PRIMARY RESIDUAL GEOID MODEL BASED UPON THE ORIGINAL PARAMETERS OF GEOID '96 AND FURTHER REFINED USING LOCAL ELEVATIONS. THE ORTHOMETRIC ELEVATIONS USED TO DEVELOP SAID PRIMARY RESIDUAL MODEL ARE IN REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 AND WERE TAKEN FROM THE CITY OF NORTH LAS VEGAS BENCHMARK BOOK, REVISED, AUGUST 1ST, 1997.

GPS BASE STATION INFORMATION

The City currently maintains a continuously operating “Universal Reference Station” GPS Base Station using a Trimble 4000 SSI GPS Receiver and Trimble software that broadcasts a “RTK” correction to GPS receivers and stores raw data for post-processing GPS surveys. The Base Station is located near the intersection of Interstate I-15 and Cheyenne Avenue. Please contact the City Surveyor’s office for frequency information and the availability of raw data. Additional information will be available as improvements are made to the availability of the information, or changes are made to the RTK broadcast position and information.

SECTION CORNER STANDARD POSITION KEY TO MONUMENT CHARACTER DESIGNATION



- 00: ORIGINAL GOVERNMENT CORNER
RECOVERED IN PLACE.
- 01: FIRST GENERATION PERPETUATION
OF ORIGINAL GOVERNMENT CORNER
OF ORIGINAL INSTALLATION OF
INTERNAL SECTIONAL CORNERS.
- 02: ACCEPTED AS PERPETUATION OF
ORIGINAL MONUMENT LOCATION PER
RECORDS.
- 03: ACCEPTED EXISTING MONUMENT
LOCATION FOR CORNER BASED
ON RECORD/PRORATION CALCULATIONS.
- 04: EXISTING MONUMENT, NOT OF RECORD,
POSITION CONSISTENT WITH PROPER
CORNER LOCATION.
- 05: EXISTING MONUMENT, NOT OF RECORD,
POSITION IS NOT CONSISTENT WITH PROPER
CORNER LOCATION. (RANDOM POINT
OR TRAVERSE POINT ONLY)

36 31 32 33 34 35 36 31

	<i>7700</i>	<i>7600</i>	<i>7500</i>	<i>7400</i>	<i>7300</i>	<i>7200</i>	<i>7100</i>
1	6	5	4	3	2	1	6
	<i>6700</i>	<i>6600</i>	<i>6500</i>	<i>6400</i>	<i>6300</i>	<i>6200</i>	<i>6100</i>
12	7	8	9	10	11	12	7
	<i>5700</i>	<i>5600</i>	<i>5500</i>	<i>5400</i>	<i>5300</i>	<i>5200</i>	<i>5100</i>
13	18	17	16	15	14	13	18
	<i>4700</i>	<i>4600</i>	<i>4500</i>	<i>4400</i>	<i>4300</i>	<i>4200</i>	<i>4100</i>
24	19	20	21	22	23	24	19
	<i>3700</i>	<i>3600</i>	<i>3500</i>	<i>3400</i>	<i>3300</i>	<i>3200</i>	<i>3100</i>
25	30	29	28	27	26	25	30
	<i>2700</i>	<i>2600</i>	<i>2500</i>	<i>2400</i>	<i>2300</i>	<i>2200</i>	<i>2100</i>
26	31	32	33	34	35	36	31
	<i>1700</i>	<i>1600</i>	<i>1500</i>	<i>1400</i>	<i>1300</i>	<i>1200</i>	<i>1100</i>
1	6	5	4	3	2	1	6

SECTION CORNER STANDARD POSITION DESIGNATION
KEY MAP - TYPICAL FOR ALL TOWNSHIPS

CORNER TIES TO STANDARD SECTION CORNER DESIGNATION SEE TOWNSHIP TYPICAL	4400	4307	4306	4305	4304	4303	4302	4301	CORNER TIES TO STANDARD SECTION CORNER DESIGNATION SEE TOWNSHIP TYPICAL
<i>SECTION LINE</i>									
<i>1/64th LINE</i>	3470	3377	3376	3375	3374	3373	3372	3371	3370
<i>1/16th LINE</i>	3460	3367	3366	3365	3364	3363	3362	3361	3360
<i>1/64th LINE</i>	3450	3357	3356	3355	3354	3353	3352	3351	3350
<i>QUARTER LINE</i>	3440	3347	3346	3345	3344	3343	3342	3341	3340
<i>1/64th LINE</i>	3430	3337	3336	3335	3334	3333	3332	3331	3330
<i>1/16th LINE</i>	3420	3327	3326	3325	3324	3323	3322	3321	3320
<i>1/64th LINE</i>	3410	3317	3316	3315	3314	3313	3312	3311	3310
	3400	3307	3306	3305	3304	3303	3302	3301	3300
CORNER TIES TO STANDARD SECTION CORNER DESIGNATION SEE TOWNSHIP TYPICAL									CORNER TIES TO STANDARD SECTION CORNER DESIGNATION SEE TOWNSHIP TYPICAL

**INTERIOR SECTIONAL CORNER
 STANDARD POSITION DESIGNATION
 KEY MAP - TYPICAL FOR ALL SECTIONS**