

LEGEND

- SUBDIVISION BOUNDARY
- STREET CENTERLINE
- PROPERTY LINE
- - - LIMITS OF PRIVATE STREET
- - - EASEMENT LINE
- - - EXISTING SEWER LINE
- - - DESIGN SEWER LINE
- 9 LOT NUMBER
- ⊙ DESIGN SEWER LINE
- 5100 AS-BUILT POINT NUMBER
- P PRIVATE STREET AND PUBLIC UTILITY EASEMENT (P.U.E.)

HORIZONTAL DATUM
 HORIZONTAL DATUM SHOWN HEREON IS BASED UPON NORTH AMERICAN DATUM OF 1983 (NAD 83 (2011) EPOCH 2010.00 REALIZATION), NEVADA STATE PLANE COORDINATE SYSTEM EAST ZONE (2701).

BENCHMARK
 CITY OF LAS VEGAS BENCHMARK: 0LV00 4NWW6
 BEING A RIVET AND PLATE IN TOP OF CURB AT THE NORTHEAST CORNER OF DURANGO DRIVE AND RED COACH AVENUE NEAR THE PT OF DURANGO DRIVE
 ELEVATION: 2399.15 (U.S. SURVEY FEET)
 731.261 (METERS)

BASED UPON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88), CITY OF LAS VEGAS 2008 ADJUSTMENT

NOTE
 THE PURPOSE OF THIS SURVEY IS TO PROVIDE AS-BUILT INFORMATION FOR THE SANITARY SEWER FACILITIES IN ROSEWOOD, BOOK 146, PAGE 70 OF PLATS, SITUATE IN THE NORTHWEST QUARTER (NW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 4, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AND THE SURVEY WAS COMPLETED ON JUNE 12, 2014.

THE POSITIONAL CERTAINTY OF THE AS-BUILT INFORMATION SHOWN HEREON IS WITHIN +/- 0.3' HORIZONTALLY AND VERTICALLY.

TRI-CORE SURVEYING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FOR THE CONVENIENCE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY BOTH THE HORIZONTAL AND VERTICAL LOCATION OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY TRI-CORE SURVEYING IN WRITING IMMEDIATELY.

POINT TABLE

| POINT # | GRID NORTH | GRID EAST | ELEVATION | DESCRIPTION |
|---------|---------------|-------------|-----------|----------------------------|
| 1000 | 26791457.1219 | 747060.4175 | 2377.76 | Top 8" PVC @ SSMH |
| 1002 | 26791457.5273 | 747233.2265 | 2377.10 | Top 8" PVC @ SSMH |
| 1003 | 26791460.1233 | 747235.8455 | 2376.88 | Top 8" PVC @ SSMH |
| 1004 | 26791454.8463 | 747235.8305 | 2376.89 | Top 8" PVC @ SSMH |
| 1005 | 26791457.4923 | 747235.6585 | 2376.34 | CL SSMH Barrel |
| 1006 | 26791837.1993 | 747235.5587 | 2374.95 | CL SSMH Barrel |
| 1007 | 26791835.3913 | 747235.8418 | 2375.74 | Top 8" PVC @ SSMH |
| 1008 | 26791838.2043 | 747235.5347 | 2375.57 | Top 8" PVC @ SSMH |
| 1009 | 26792094.8361 | 747241.4536 | 2374.00 | Top 8" PVC @ SSMH |
| 6000 | 26791959.7109 | 747057.5215 | 2390.11 | CL 40" Diameter SSMH Cover |
| 6001 | 26791691.1329 | 747057.9330 | 2388.68 | CL 40" Diameter SSMH Cover |
| 6002 | 26791457.0649 | 747057.3335 | 2387.53 | CL 40" Diameter SSMH Cover |
| 6003 | 26791006.4779 | 747059.0894 | 2385.28 | CL 40" Diameter SSMH Cover |
| 6004 | 26790930.3619 | 747058.7805 | 2384.90 | CL 40" Diameter SSMH Cover |
| 9000 | 26791289.0683 | 747235.5598 | 2383.18 | CL 40" Diameter SSMH Cover |
| 9001 | 26791456.9223 | 747235.7455 | 2384.26 | CL 40" Diameter SSMH Cover |
| 9002 | 26791836.7793 | 747235.6847 | 2386.94 | CL 40" Diameter SSMH Cover |
| 9003 | 26792097.2073 | 747241.5132 | 2390.35 | CL 40" Diameter SSMH Cover |
| 10000 | 26791506.5489 | 747057.8824 | 2378.50 | Top 8" PVC Sewer |
| 10001 | 26791507.1249 | 747057.2304 | 2378.72 | Top 4" PVC Lateral |
| 10002 | 26791505.9459 | 747029.1914 | 2381.69 | Top 4" PVC Lateral |
| 10005 | 26791522.5360 | 747075.6984 | 2379.57 | Top 4" PVC Lateral |
| 10006 | 26791523.1329 | 747058.6294 | 2378.92 | Top 4" PVC Lateral |
| 10007 | 26791522.5989 | 747057.9504 | 2378.79 | Top 8" PVC Sewer |
| 10008 | 26791627.7349 | 747057.9492 | 2380.16 | Top 8" PVC Sewer |
| 10009 | 26791628.2759 | 747057.2692 | 2380.24 | Top 4" PVC Lateral |
| 10010 | 26791629.5539 | 747029.8512 | 2381.57 | Top 4" PVC Lateral |
| 10013 | 26791641.5590 | 747076.7711 | 2381.31 | Top 4" PVC Lateral |
| 10014 | 26791641.8129 | 747058.7771 | 2380.42 | Top 4" PVC Lateral |
| 10015 | 26791641.3239 | 747058.0951 | 2380.32 | Top 8" PVC Sewer |
| 10016 | 26791688.0009 | 747057.8300 | 2380.90 | Top 8" PVC @ SSMH |
| 10017 | 26791690.6399 | 747057.8440 | 2380.28 | CL SSMH Barrel |
| 10018 | 26791693.2259 | 747057.7630 | 2381.07 | Top 8" PVC @ SSMH |
| 10019 | 26791751.3509 | 747057.6129 | 2381.70 | Top 8" PVC Sewer |
| 10020 | 26791751.9009 | 747058.3199 | 2381.78 | Top 4" PVC Lateral |
| 10021 | 26791751.9870 | 747076.3099 | 2381.96 | Top 4" PVC Lateral |
| 10024 | 26791756.6329 | 747028.7029 | 2384.28 | Top 4" PVC Lateral |
| 10025 | 26791755.6209 | 747056.9739 | 2381.70 | Top 4" PVC Lateral |
| 10026 | 26791755.0869 | 747057.6139 | 2381.63 | Top 8" PVC Sewer |
| 10027 | 26791876.9789 | 747057.3547 | 2382.90 | Top 8" PVC Sewer |
| 10028 | 26791877.4329 | 747056.7317 | 2382.98 | Top 4" PVC Lateral |

POINT TABLE

| POINT # | GRID NORTH | GRID EAST | ELEVATION | DESCRIPTION |
|---------|---------------|-------------|-----------|--|
| 10029 | 26791877.0489 | 747028.1097 | 2384.34 | Top 4" PVC Lateral |
| 10032 | 26791881.6300 | 747077.2757 | 2383.88 | Top 4" PVC Lateral |
| 10033 | 26791881.9779 | 747058.0287 | 2383.02 | Top 4" PVC Lateral |
| 10034 | 26791881.3859 | 747057.2627 | 2383.00 | Top 8" PVC Sewer |
| 10035 | 26791930.8359 | 747057.3336 | 2383.45 | Top 8" PVC Sewer @ Lateral Conne |
| 10036 | 26791937.7129 | 747057.2966 | 2383.49 | Top 8" PVC Sewer |
| 10037 | 26791938.0609 | 747057.7716 | 2383.47 | Top 4" PVC Lateral |
| 10038 | 26791967.3680 | 747084.6715 | 2384.76 | Top 4" PVC Lateral |
| 10040 | 26791956.7019 | 747057.3885 | 2383.77 | Top 8" PVC Sewer @ SSMH |
| 10041 | 26791959.1729 | 747057.3785 | 2383.24 | CL SSMH Barrel |
| 10043 | 26791968.0129 | 747020.2775 | 2386.34 | Top 4" PVC Lateral |
| 10044 | 26791457.2609 | 747057.6835 | 2378.30 | CL SSMH Barrel |
| 10045 | 26791454.5499 | 747057.8125 | 2378.03 | Top 8" PVC @ SSMH |
| 10046 | 26791381.1849 | 747057.9466 | 2378.20 | Top 8" PVC @ Lateral Connection |
| 10047 | 26791349.3179 | 747058.1147 | 2378.31 | Top 8" PVC @ Lateral Connection |
| 10048 | 26791257.2099 | 747058.1729 | 2378.70 | Top 8" PVC @ Lateral Connection |
| 10049 | 26791249.0279 | 747058.2039 | 2378.78 | Top 8" PVC @ Lateral Connection |
| 10050 | 26791132.9949 | 747058.3001 | 2379.40 | Top 8" PVC @ Lateral Connection |
| 10051 | 26791128.6239 | 747058.3801 | 2379.38 | Top 8" PVC @ Lateral Connection |
| 10052 | 26791021.4619 | 747058.8033 | 2379.73 | Top 8" PVC @ Lateral Connection |
| 10053 | 26791009.5429 | 747059.0284 | 2380.03 | Top 8" PVC @ SSMH |
| 10054 | 26791007.0549 | 747059.0654 | 2379.23 | CL SSMH Barrel |
| 10055 | 26791004.5269 | 747059.0614 | 2380.07 | Top 8" PVC @ SSMH |
| 10056 | 26791380.2749 | 747030.5656 | 2379.97 | Top 4" PVC Lateral |
| 10057 | 26791348.1980 | 747076.7717 | 2379.47 | Top 4" PVC Lateral |
| 10058 | 26791256.8019 | 747029.7329 | 2380.23 | Top 4" PVC Lateral |
| 10059 | 26791248.3930 | 747076.9839 | 2379.88 | Top 4" PVC Lateral |
| 10060 | 26791132.6179 | 747029.9741 | 2380.29 | Top 4" PVC Lateral |
| 10061 | 26791127.9330 | 747077.3941 | 2380.70 | Top 4" PVC Lateral |
| 10062 | 26791021.4179 | 747029.9993 | 2380.68 | Top 4" PVC Lateral |
| 10063 | 26790998.0890 | 747078.8194 | 2380.76 | Top 4" PVC Lateral |
| 10064 | 26790998.4499 | 747059.0444 | 2380.09 | Top 8" PVC @ Lateral Connection |
| 10065 | 26790937.7279 | 747058.5015 | 2380.56 | Top 8" PVC @ Lateral Connection (Lot 20) |
| 10066 | 26790935.4819 | 747058.5115 | 2380.57 | Top 8" PVC @ Lateral Connection (Lot 1) |
| 10067 | 26790933.4049 | 747058.4795 | 2380.62 | Top 8" PVC @ SSMH |
| 10068 | 26790930.9669 | 747058.5235 | 2379.96 | CL SSMH Barrel |
| 10069 | 26790906.5910 | 747088.7056 | 2381.26 | Top 4" PVC Lateral |
| 10070 | 26790901.6049 | 747022.6126 | 2381.14 | Top 4" PVC Lateral |
| 10071 | 26791292.0687 | 747235.7286 | 2377.57 | Top 8" PVC @ SSMH |
| 10072 | 26791289.3157 | 747235.4948 | 2377.88 | CL SSMH Barrel |
| 10073 | 26791289.3588 | 747238.3091 | 2377.88 | Top 8" PVC @ SSMH |
| 10074 | 26791289.1667 | 747241.3921 | 2377.87 | Top 8" PVC @ Plug |

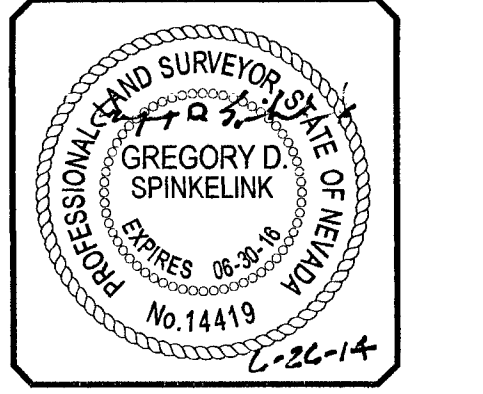
| | | | |
|--------------------|------------|--------------|--------|
| DATE: | 6/26/2014 | GS | OS |
| DRAWN BY: | GS | DESIGNED BY: | GS |
| CHECKED BY: | GS | ADA CHECKED: | GS |
| JOB NO.: | 15013.0003 | SCALE: | 1"=50' |
| Copyright Reserved | | | |

TRI-CORE SURVEYING, LLC

LAND SURVEYING - CONSTRUCTION STAKING
 MAPPING & LAND DEVELOPMENT SERVICES
 BOUNDARY & TOPOGRAPHIC SURVEYS

6761 WEST CHARLESTON BLVD.
 LAS VEGAS, NEVADA 89146
 TEL (702) 821-1554 FAX (702) 870-4378

PULTE HOMES
 ROSEWOOD
 SANITARY SEWER FINAL LOCATION MAP



P:\15013.0003 - Rosewood\Construction\Submittal\Sewer As-Built.dwg gspinkelink Thu, 26 Jun 2014 9:24am

Memorandum

Department of Public Works
City Engineer Division
Survey Section
333 North Rancho Dr., 8th Floor
Las Vegas, Nevada 89106
Phone (702) 229-6217
Fax (702) 804-8582

To: Chris Knight, Director
Building and Safety Department

From: Alan R. Riecki, PLS
City Surveyor

C: Gregory D. Spinkelink, PLS
Tri-Core Surveying

Tim Parks, P.E., Engineering Project Manager
Sanitary Sewers Section, Engineering Planning

Date: July 8, 2014

Re: Sanitary Sewer Final Location Map
Sewer-Rosewood
(Drawing No. 307V1077, L-Civil No. 51695)

The Survey Section has reviewed the Final Location Map and as far as our jurisdiction of this project is concerned, we find that the map is:

Acceptable: _____ 7/8/2014 _____



Signature

City Surveyor

Title

Public Works/Survey

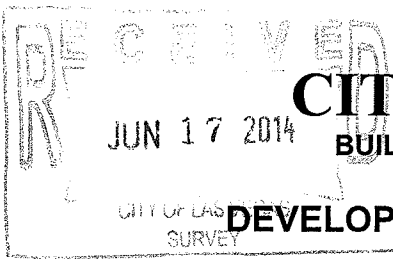
Department/Division

ARR/OS:sk

OFFSITE INSPECTION & TESTING
333 NORTH RANCHO DRIVE
LAS VEGAS, NV 89106
PHONE: (702) 229-6337
FAX: (702) 363-1051

CITY OF LAS VEGAS

BUILDING AND SAFETY DEPARTMENT



DEVELOPER'S SUBMITTAL OF GPS COORDINATES

RECEIVED

JUN 12 2014

Rlm

City of Las Vegas
Land Development

- Sewer
- Storm Drain
- Electronic Comma Delineated File
- Final Location Map (2)

NOTE: THE TOP PART OF THIS FORM MUST BE FILLED OUT IN ITS ENTIRETY

PROJECT NAME: ROSEWOOD UNIT: _____ PHASE: _____
 PROJECT LOCATION: LONE WTR / AL CARISAL, CLARK COUNTY, NEVADA
 CLV PLAN #: 307V1077 CLV PROJECT # H# 51695 SHEET NO. (S): U1 & U2 (12 & 13 of 15)
 # OF MANHOLES 8 PUB. SEWER/STORM DRAIN LIN. FT. 1,950 # OF PRIVATE LATERALS 20

DEVELOPER: PULTE HOMES PHONE: 702-914-4800 FAX: 702-914-4701
 SURVEY CO.: TRI-CORE SURVEYING PHONE: 702-821-1554 FAX: 702-870-4378
 CONTRACTOR: KNL PIPELINE PHONE: 702-726-0101 FAX: 702-253-1768
 CONTRACTOR'S SUPERVISOR NAME: GREG WALKER MOBILE: 702-726-0101
 DATE OF REQUEST: _____

THIS SEWER HAS BEEN SURVEYED BY NEVADA LICENSED LAND SURVEYOR:

Company Name TRI-CORE SURVEYING Surveyor Name GREG SPINKELINK
 License # 14419 License exp. Date: 6-30-14

RECEIVED

JUN 17 2014

CITY USE ONLY

DATE SR. INSPECTOR RECEIVED: 6/17/14 SR. INSPECTOR INITIALS: M.C.

OFFSITE INSPECTION & TESTING

DATE RECEIVED FROM SR. INSPECTOR AND SENT TO CITY SURVEYOR: _____

ACCEPTABLE BY CITY SURVEYOR DATE: 7/8/14 NOT ACCEPTABLE BY CITY SURVEYOR DATE 6/25/14

CLV SURVEYOR'S SIGNATURE: Alan R. Rilla DATE: 7-8-14

THE CITY OF LAS VEGAS RECOMMENDS THAT ALL DEFICIENCIES NOTED ON THE ATTACHED SURVEY REPORT BE CORRECTED PRIOR TO THE FINAL ACCEPTANCE.

For Sanitary Sewer To Complete and Return to Offsite Inspection & Testing:

RECEIVED BY: Joe Pena
(PLEASE PRINT)

SIGNATURE: Joe Pena DATE: 7/15/2014

For Flood Control To Complete and Return to Offsite Inspection & Testing:

RECEIVED BY: _____
(PLEASE PRINT)

SIGNATURE: _____ DATE: _____



City of Las Vegas
Department of Public Works
Survey Section

REVIEW CHECKLIST
SANITARY SEWER
FINAL LOCATION MAP

JOB NUMBER H51695-SS2
PROJECT NAME SEWER, ROSEWOOD
WORK AUTH. NO. P28000
SURVEY FIRM TRI-CORE SURVEYING
PROJECT TYPE CIP Land Dev Street Rehab
DATE 7/8/14
REVIEWED BY D. SANTANA

REVIEW DETERMINATION

- Approved
- Not Acceptable

TO BE RE-SUBMITTED

- Two bond copies (no mylar)
- Electronic media with comma-separated coordinate file

| REVIEW ITEM | OK | SEE R/L | N/A | COMMENTS |
|--|-------------------------------------|--------------------------|--------------------------|----------|
| Submittal Contents | | | | |
| Two bond copies (no mylar) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Electronic media containing comma-separated coordinate file | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| General Map Contents | | | | |
| Sheet size 24" x 36" | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Sheet number and number of sheets | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| North arrow (pointing up, left or right) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Scale (written & graphic, correctly shown, appropriate scale used) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Lettering legibility (minimum text size 0.08") | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Map title shown ("Sanitary Sewer Final Location Map") | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| CLV project name shown | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| CLV Hansen No. shown | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| CLV Drawing No. shown | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Survey firm's company name and contact information shown | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Legend (all linetypes and symbols defined) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Non-standard abbreviations defined | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Distances, coordinates and elevations labeled using decimal feet | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Approximate limits of streets shown (improvements or right-of-way) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Street names labeled (identified as public or private) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

REVIEW CHECKLIST – SANITARY SEWER FINAL LOCATION MAP

| REVIEW ITEM | OK | SEE R/L | N/A | COMMENTS |
|---|-------------------------------------|--------------------------|-------------------------------------|----------|
| Sanitary Sewer Improvements Data | | | | |
| Manhole Lids: (measured horizontally at centerline of lid, vertically at rim; specify diameter of lid) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| *NOTE In the case of a two-piece lid system locate outer lid only (specify diameter of outer lid). | | | | |
| Manhole Barrel: (measured horizontally at centerline of structure barrel, vertical location does not apply) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Vaults and Junction Structures: (measured horizontally at all outer extents of structure, vertically at top of structure) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Lateral/Main/Interceptor Pipes: locate at all connections to other pipes and structures, all horizontal and vertical deflections, points of termination (stubs), point at which pipe exits the public right-of-way or easement (measured horizontally at centerline of pipe, vertically at top of pipe) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| *NOTE All pipe connections to manholes and other structures should be located at outside face of structure before backfilling due to accuracy limitations of pipe measurements from the structure's surface access point. | | | | |
| Survey Information | | | | |
| Survey completion date indicated | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Statement of positional certainty (0.3' horizontally, 0.3' vertically) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Surveyor's seal (validated and current) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Basis of bearings and coordinate system indicated (only CLV approved coordinate systems are to be used, basis of bearings must agree with coordinate system used) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Horizontal datum, datum adjustment, and epoch date indicated (only CLV approved datums are to be used) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Benchmark ID, description, elevation and CLV adjustment indicated | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| *NOTE Only benchmarks and benchmark elevations included in the most recent CLV Vertical Control Network adjustment are to be used, this may require using a different benchmark or benchmark elevation than shown on the improvement plans. | | | | |
| Survey accuracy QA/QC (when available) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

| |
|----------------------------|
| ADDITIONAL COMMENTS |
| |
| |
| |
| |