CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.
6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

	HORIZONTAL	VERTICAL	COMPACTION
A. PAVEMENT AREA SUBGRADE	0.1'±	+0.0' TO -0.1'	SEE SOILS REPORT
B. ENGINEERED FILL	0.5'±	+0.1' TO -0.1'	SEE SOILS REPORT

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE. COMPACTION SHALL COMPLY WITH THE REQUIREMENTS OF THE ENGINEER.

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT- OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, SUCH ITEM SHALL BE PROVIDED, AS DIRECTED BY THE CITY ENGINEER, AT NO EXPENSE TO THE CITY OF LAS VEGAS. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

REVISED 4/15/10

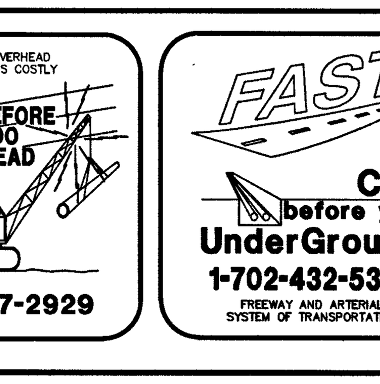
STORMWATER RUNOFF MANAGEMENT

1. THE OWNER, SITE DEVELOPER, CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE IN, THE PUBLIC RIGHTS OF WAYS OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CITY OF LAS VEGAS AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" 'S SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED 04/15/10



CITY OF LAS VEGAS FIRE AND RESCUE GENERAL NOTES FOR HYDRANTS AND ACCESS

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6631 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S - APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER <u>BEFORE</u> COMMENCEMENT OF WORK. [IFC SECTION 105.6.15]
4. ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED <u>BEFORE</u> COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC SECTION 3310, SECTION 3312]
5. TO IDENTIFY FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC SECTION 507.5.7.3]
6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED <u>BEFORE</u> COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC SECTION 106.3]
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A. APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC SECTION 507.2.1, NFPA 24]
8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC SECTION 507]
9. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED. [IFC SECTION 507.5.7.1]
10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC SECTION 507]
11. FIRE HYDRANTS SPACING SHALL BE AS FOLLOWS: [IFC SECTION C102]
RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
12. WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1,000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC SECTION C102.8]
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC SECTION C102.10]
15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC SECTION C102.4]
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC SECTION C102.7]
17. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC SECTION C102.6]
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. FOR SYSTEMS REQUIRED TO HAVE TWO (2) SOURCES OF WATER SUPPLY, SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS AND/OR SPRINKLER LEAD-INS CAN BE OUT OF SERVICE DUE TO A SERVICE INTERRUPTION. FOR SYSTEMS PERMITTED TO HAVE ONE SOURCE OF WATER SUPPLY, SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 3 FIRE HYDRANTS AND/OR FIRE SPRINKLER LEAD-INS CAN BE OF SERVICE DUE TO A SERVICE INTERRUPTION. [IFC SECTION C104]
19. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [IFC SECTION 503.2.3]
20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC SECTION 503.2.7, 503.2.8]
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS. [IFC 503.2.4]
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FT 6 IN. [IFC SECTION 503.2.1]
23. FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 33 FT WITH PARKING ON BOTH SIDES MEASURED TO FACE OF CURB. NOT LESS THAN 28 FT WIDE WITH PARKING RESTRICTED TO ONE SIDE MEASURED TO FACE OF CURB. NOT LESS THAN 24 FT WIDE WITH NO PARKING ON EITHER SIDE MEASURED TO FACE OF CURB. FIRE LANES THROUGH PARKING LOTS SHALL NOT BE LESS THAN 24 FT. [IFC SECTION 503.2.1.1]
24. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. [IFC SECTION 503.1.1]
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 200 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR SINGLE POINT OF ACCESS IN EXCESS of 600 FT. CLV REGULATION AND MOU.
26. ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT. CLV REGULATION
27. ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS OF 100 FT ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [IFC SECTION 503.3]
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. [IFC SECTION 503.6]
29. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS, OR HAVING FOUR OR MORE TRAVEL LANES AND A TRAFFIC COUNT OF MORE THAN 30,000 VEHICLES PER DAY, ALL HYDRANTS BEING UTILIZED TO DELIVER FIRE FLOW TO PROPOSED LOCATION SHALL BE LOCATED ON THE SAME SIDE OF THE STREET AS THE PROPOSED DEVELOPMENT. CLV REGULATION.

REVISED FEBRUARY 4, 2019

CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCED WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE VIP CLASS 6 REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREET NAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1160 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM; SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1150 ANIT-GRAFFITI PROTECTIVE OVERLAY FILM. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT-OF-WAY.
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO TO THE TRAVELING PUBLIC.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
15. CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

REVISED 4/15/10

CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS, ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE USS.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.
4. ALL EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. #8 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH USD NO. 320A WHEN POLE IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER..
7. SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICEPOINTS SHALL BE SHOWN ON THE PLANS.
8. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED. AT NO EXPENSE TO THE CITY OF LAS VEGAS.
9. THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

REVISED JUNE 28, 2016 (LD VERSION)

FLOOD ZONE NOTE

FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP, COMMUNITY PANEL 32003C2150E, MAP REVISED SEPTEMBER 27, 2002 INDICATED THAT THE SUBJECT PROPERTY LIES IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN)

DEVIATION FROM STANDARDS

1. NONE

LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES

LVVWD PROJECT # 136744

REVISED 08/01/17

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE
2. ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS
9. ALL WATER FACILITIES AND APPURTENANCES SHALL BE DISINFECTED, PRESSURE TESTED, AND HAVE AN ACCEPTABLE PASSING HEALTH WATER SAMPLE OBTAINED, PRIOR TO OPERATION AND USE.
10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE LISTED ON THE LVVWD APPROVED PRODUCTS' LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT 811 OR 1-800-227-2600
14. THE INSTALLATION OF LVVWD MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVVWD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.

ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.

15. <u>NO LEAD COMPLIANCE NOTE:</u>
TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS PRODUCTS PROPOSED TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

EXHIBIT 1
SOUTHWEST GAS CONSTRUCTION NOTES

ALL CIVIL IMPROVEMENT PLANS MUST INCLUDE SOUTHWEST GAS CORPORATION GENERAL NOTES ON THE NOTES SHEET AS INDICATED BELOW:

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION GENERAL NOTES

1. IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020
2. MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND UTILITIES AND/OR STRUCTURES, INCLUDING BU TNOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC SHALL BE AT LEAST 12-INCHES OR GREATER AS DICTATED BY LOCAL CODES AND STANDARDS
A) ANY DEVIATION FROM SPECIFIED MINIMUM CLEARANCES MUST BE APPROVED BY ALL AFFECTED UTILITIES AND/OR MUNICIPALITIES.
3. FOR VALVE ADJUSTMENT CONTACT 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION
4. IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099

ALL CIVIL IMPROVEMENT PLANS MUST INCLUDE SOUTHWEST GAS CORPORATION HIGH PRESSURE NOTES ON THE NOTES SHEET AND ALL SHEETS DEPICTING HIGH PRESSURE NATURAL GAS MAINS AS INDICATED BELOW:

CAUTION: HIGH PRESSURE GAS!!
CALL SOUTHWEST GAS AT 702-400-1789 FOR STANDBY WHEN EXCAVATION OVER OR NEAR HIGH PRESSURE GAS LINES 48 HOURS PRIOR TO CONSTRUCTION

BASIS OF BEARING:

NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. D368, US.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

APPROVED FOR CONSTRUCTION

[signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19

CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.
6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
8. AC PAVEMENT TO BE ONE-HALF INCH (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE NOVA GEOTECHNICAL & INSPECTION SERVICES, PROJECT NUMBER G-18-066, DATED MAY 17, 2018, APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

16. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
17. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
19. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC, THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO THE OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
21. ~~AFTER HAUNCHING AND PRIOR TO BACKFILL OPERATIONS WHICH WOULD COVER SANITARY SEWER AND STORM DRAIN FACITILIES, CONTRACTOR IS REQUIRED TO SCHEDULE CLV OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITIES TO BE LOCATED BY CLV SHALL INCLUDE AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.~~

OR

(MAY BE USED ONLY ON PROJECTS ASSOCIATED WITH A TENTATIVE MAP CONTAINING 5 LOTS OR MORE)

SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAPS MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTIES OF ± 0.09 METERS (± 0.3 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).

22. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION.
23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

UTILITY APPROVAL

[signature] 9-16-19
SOUTHWEST GAS CORPORATION DATE:

L# L19-01224 | CLV DWG# 10745117

STATE OF NEVADA — PROFESSIONAL ENGINEER — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — No. 19396
DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:33:32

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

f:\Projects\700\764-a149-001\DWG\production\764-A149-001cC.dwg
Nicholas DeRosa

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N
GENERAL NOTES

DRAWING
C2
2 OF 37 SHTS

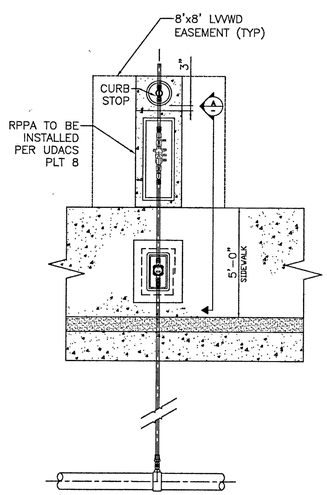
PROJ#:136744A QS:137-33-NE

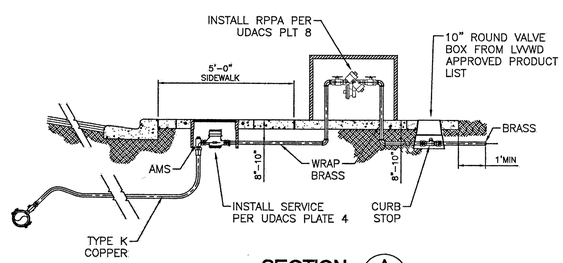
ABBREVIATIONS

A	AIR
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE, ACRE
ACP	ASBESTOS CEMENT PIPE
ADD'L	ADDITIONAL
A.E.	ACCESS EASEMENT
AP	ANGLE POINT
APN	ASSESSOR'S PARCEL NUMBER
APPROX	APPROXIMATELY
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVE	AVENUE
AVAR	AIR VALVE, AIR RELEASE ASSEMBLY
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BCR	BEGIN CURB RETURN
BLM	BUREAU OF LAND MANAGEMENT
BLVD	BOULEVARD
BM	BENCHMARK
BO	BLOW-OFF
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
BW	BACK OF SIDEWALK
BWV	BACK WATER VALVE
C, ℄	CENTERLINE
C&G	CURB AND GUTTER
CATV	UNDERGROUND CABLE TV
CCBM	CLARK COUNTY BENCH MARK
CCPW	CLARK COUNTY PUBLIC WORKS
CCTV	CLOSED-CIRCUIT TELEVISION
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT
C.E.	COMMON ELEMENT
CFS	CUBIC FEET PER SECOND
CIP	CAPITAL IMPROVEMENTS PROJECT, CORRUGATED IRON PIPE
CIPM	CURED-IN-PLACE MANHOLE
CIPP	CURED-IN-PLACE PIPE
CIR	CIRCLE
CLR	CLEAR OR CLEARANCE
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CLV	CITY OF LAS VEGAS
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNLV	CITY OF NORTH LAS VEGAS
CO	CLEANOUT
CONC	CONCRETE
COND	CONDUIT
CONST	CONSTRUCT OR CONSTRUCTION
COORD	COORDINATE
COR	CORNER
CPEP	CORRUGATED POLYETHELYNE PIPE
CT	COURT
CY	CUBIC YARD(S)
Δ	DELTA
DCS	DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEM (LATEST EDITION)
D.E.	DRAINAGE EASEMENT
DEFL	DEFLECTION
DG	DESIGNED GRADE
D.I.	DROP INLET
DIA, ø	DIAMETER
DIP	DUCTILE IRON PIPE
DR	DRIVE
DS	DOWNSPOUT
DTL	DETAIL
DW	DRIVEWAY
DWG	DRAWING
E	EAST
E.A.E.	EMERGENCY ACCESS EASEMENT
ECR	END CURB RETURN
ELE,ELEC	ELECTRICAL
ELEV	ELEVATION
EP, EOP	EDGE OF PAVEMENT
ESMT	EASEMENT
EVC	END VERTICAL CURVE
EXIST,EX	EXISTING
EXP	EXPANSION JOINT
FC	FACE OF CURB
FF, FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FO	FIBER OPTIC
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FINISH SURFACE
FT	FOOT/FEET
FTG	FOOTING
FUT	FUTURE
G	GAS
GA	GAGE, GUY ANCHOR
GB	GRADE BREAK
GND	GROUND
GRD	GRADE, GROUND
H, HGT	HEIGHT
HDWL	HEADWALL
HGL	HYDRAULIC GRADE LINE
HOA	HOME OWNERS ASSOCIATION
HORIZ	HORIZONTAL
HP	HIGH POINT, HIGH PRESSURE
HPS	HIGH PRESSURE SODIUM
IBC	INTERNATIONAL BUILDING CODE
INV	INVERT
INT	INTERIM
JT	JOINT
L	LENGTH
L, LT	LEFT
LF	LINEAR FEET
LIP	LIP OF GUTTER
LN	LANE
LP	LIGHT POLE
LSCP	LANDSCAPE
LVVWD	LAS VEGAS VALLEY WATER DISTRICT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MLCP	MORTAR LINED AND COATED PIPE
MOD	MODIFY/MODIFIED
MON	MONUMENT
MPH	MILES PER HOUR
N	NORTH
NDOT	NEVADA DEPARTMENT OF TRANSPORTATION
NO	NUMBER
NOSHA	STATE OF NEVADA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
NPC	NEVADA POWER COMPANY
NTS	NOT TO SCALE
OC	ON CENTER
OHC	OVERHEAD COX COMMUNICATION
OHP	OVERHEAD POWER LINE
P.A.E.	PEDESTRIAN ACCESS EASEMENT
PB	PULL BOX
PC	POINT OF CURVE, PRESSURE CLASS
PCC	POINT OF COMPOUND CURVE
P.D.E.	PUBLIC DRAINAGE EASEMENT
PE	PROJECT ENGINEER OR POLYETHYLENE
PED	PEDESTRIAN
PGL	PROFILE GRADE LINE
PH	POTHOLE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
P/L	PROPERTY LINE
PLCP	POLYURETHANE LINED AND COATED STEEL PIPE
PMF	PAVEMENT MARKING FILM
POB	POINT OF BEGINNING
POC	POINT ON CURVE
P.O.C.	POINT OF CONNECTION
POT	POINT ON TANGENT
PP	POWER POLE
PROP	PROPOSED
PRC	POINT OF REVERSE CURVE
P.S.E.	PUBLIC SEWER EASEMENT TO BE PRIVATELY MAINTAINED BY HOA
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
P.U.E.	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	PRIVATE
PZ	PRESSURE ZONE
R, RAD	RADIAL, RADIUS
R, RT	RIGHT
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REC	RECTANGULAR
REF	REFERENCE
REINF	REINFORCED
REQD	REQUIRED
RIM	TOP OF RIM ELEVATION
RND	ROUND
ROW,R/W	RIGHT OF WAY
RP	RADIUS POINT
RPM	RAISED PAVEMENT MARKERS
RPPA	REDUCED PRESSURE PRINCIPAL ASSEMBLY
RSGV	RESILIENT SEAT GATE VALVE
S	SEWER, SOUTH
SCH	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SECT	SECTION
SF	SQUARE FOOT/FEET
SHLDR	SHOULDER
SHT	SHEET
SL	STREET LIGHT
SP	SERVICE POINT
SQ	SQUARE
SR	SEWER RECLAIM MAIN
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STA	STATION
ST	STREET
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURE
SVZ	SIGHT VISIBILITY ZONE
SW	SIDEWALK
SWG	SOUTHWEST GAS
T	TELEPHONE OR TOP
TAN	TANGENT
TB	TOP OF BERM
TC	TOP OF CURB
TCE	TEMPORARY CONSTRUCTION ESMT
TEL,TELE	TELEPHONE
TEMP	TEMPORARY
TF	TOP OF FOOTING
TG	TOP OF GRATE
TMH	TOP OF MANHOLE
TOP	TOP OF PIPE
TP	TELEPHONE POLE
TRANS	TRANSITION
TS	TRAFFIC SIGNAL
TW	TOP OF RETAINING WALL
TYP,(TYP)	TYPICAL
UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (LATEST EDITION)
UG	UNDERGROUND
ULT	ULTIMATE
USDCCA	UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY AREA, NEVADA (LATEST EDITION)
UT	UNDERGROUND TELEPHONE
VAR	VARIABLE/VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VG	VALLEY GUTTER
VOL	VOLUME
W	WATER, WEST, WATT
W/	WITH
W.I.	WROUGHT IRON
WS	WATER SUPPLY
WT	WEIGHT
WTR	WATER
XING	CROSSING
YD	YARD, YARD DRAIN
Z	PRESSURE ZONE

LEGEND

1	LOT NUMBER
1	BLOCK NUMBER
F.F. = 00.0 / PAD= 00.0	PAD ELEVATION FINISH FLOOR ELEVATION
F.F. = (00.0) / PAD= (00.0)	EXISTING PAD ELEVATION EXIST. FINISH FLOOR ELEV.
	SCARP
4510	EXISTING CONTOUR (5' INTERVAL)
	EXISTING CONTOUR (1' INTERVAL)
	CONCRETE DRIVEWAY
TF	TOP OF FOOTING
TW	TOP OF RETAINING WALL
SDMH	STORM DRAIN MANHOLE
	SVZ – SIGHT VISIBILITY ZONE, NO STRUCTURES/ LANDSCAPING TALLER THAN 24"
[54.10]	FUTURE ELEVATION
59.33	GRADE BREAK ELEVATION
TC or FG 56.22	PROPOSED ELEVATION
TC or FG (56.21)	EXISTING ELEVATION
	RIGHT-OF-WAY
	PROPERTY LINE
	CENTER LINE
	RETAINING WALL
	KNEE WALL
	PERIMETER WALL
	STORM DRAIN LINE
	SIDEWALK
	DITCH OR SWALE
	CURB TRANSITION AT SIDEWALK RAMP (ROLL CURB TO "L" CURB)





SECTION A

QUANTITY ESTIMATE

NOTE: CONTRACTOR TO VERIFY QUANTITIES FOR BIDDING PURPOSES

SEWER

DESCRIPTION	UNIT	PUBLIC	PRIVATE
4" SEWER	LF	–	2,500
8" SEWER	LF	3,146	–
SEWER MANHOLE 6 TO 18 FEET	EA	26	–
BACKWATER VALVES	EA	–	41

WATER

DESCRIPTION	UNIT	PUBLIC	PRIVATE
6" WATER MAIN	LF	127	–
8" WATER MAIN	LF	2,780	–
12" WATER MAIN	LF	151	–
8" DIP WATER MAIN	LF	141	–
LANDSCAPE WATER SERVICE	EA	–	3
WATER LATERAL	LF	2,139	–
IRRIGATION SLEEVES	LF	–	198
WATER SERVICE TO LOTS 3/4" METER PER UDACS PLATE NO. 1	EA	87	–
WATER SERVICE TO LOTS 3/4" METER PER UDACS PLATE NO. 3	EA	5	–
FIRE HYDRANT	EA	7	–
3/4" IRRIGATION METER W/ 1" RPPA	EA	2	–

ROADWAY

DESCRIPTION	UNIT	PUBLIC	PRIVATE
CURB & GUTTER (TYPE "L" & "A")	LF	–	565
CURB & GUTTER (30" ROLL TYPE)	LF	–	5,820
CROSS GUTTER	SF	1,007	–
SIDEWALK 4"	SF	–	12,376
SIDEWALK RAMP	EA	–	5
TYPE II GRAVEL BASE	CY	–	1,333
2" ASPHALTIC CONCRETE PAVING	SY	–	11,992
PVMT BUTTON (REFLECTIVE)	EA	–	7
SURVEY MONUMENTS	EA	–	38

DRAINAGE

DESCRIPTION	UNIT	PUBLIC	PRIVATE
18" STORM DRAIN	LF	1,054	–
30" STORM DRAIN	LF	65	–
36" STORM DRAIN	LF	154	–
5' CM2 DROP INLET	EA	–	–
7.5' CM2 DROP INLET	EA	1	–
5.0' TYPE DM2 DI	EA	3	–
10.0' TYPE DM2 DI	EA	2	–
12.5' TYPE DM2 DI	EA	1	–
48" SD MANHOLE	EA	7	–
60" SD MANHOLE	EA	5	–

DRY UTILITIES AND OTHER IMPROVEMENTS

DESCRIPTION	UNIT	PUBLIC	PRIVATE
EXCAVATION & EMBANKMENT	CY	–	82,284
CABLE TO LOTS (RES SUBDIV ONLY)	EA	–	92
GAS TO LOTS (RES SUBDIV ONLY)	EA	–	92
PHONE TO LOTS (RES SUBDIV ONLY)	EA	–	92
POWER TO LOTS (RES SUBDIV ONLY)	EA	–	92

UTILITY APPROVAL

SOUTHWEST GAS CORPORATION — DATE: 9-16-19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM
SHEETS: C1–C3, DT3, MU, U1–U6, P1–P11, LAT

L# L19-01224 | CLV DWG# 107X5117

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-227-2600

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — No. 19596 — PROFESSIONAL ENGINEER
DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:33:37

GCW
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
ENGINEERS \ SURVEYORS gcwengineering.com

F:\Projects\700\764-a149-001\DWG\production\764-A149-001cc.dwg
Nicholas DeRosa

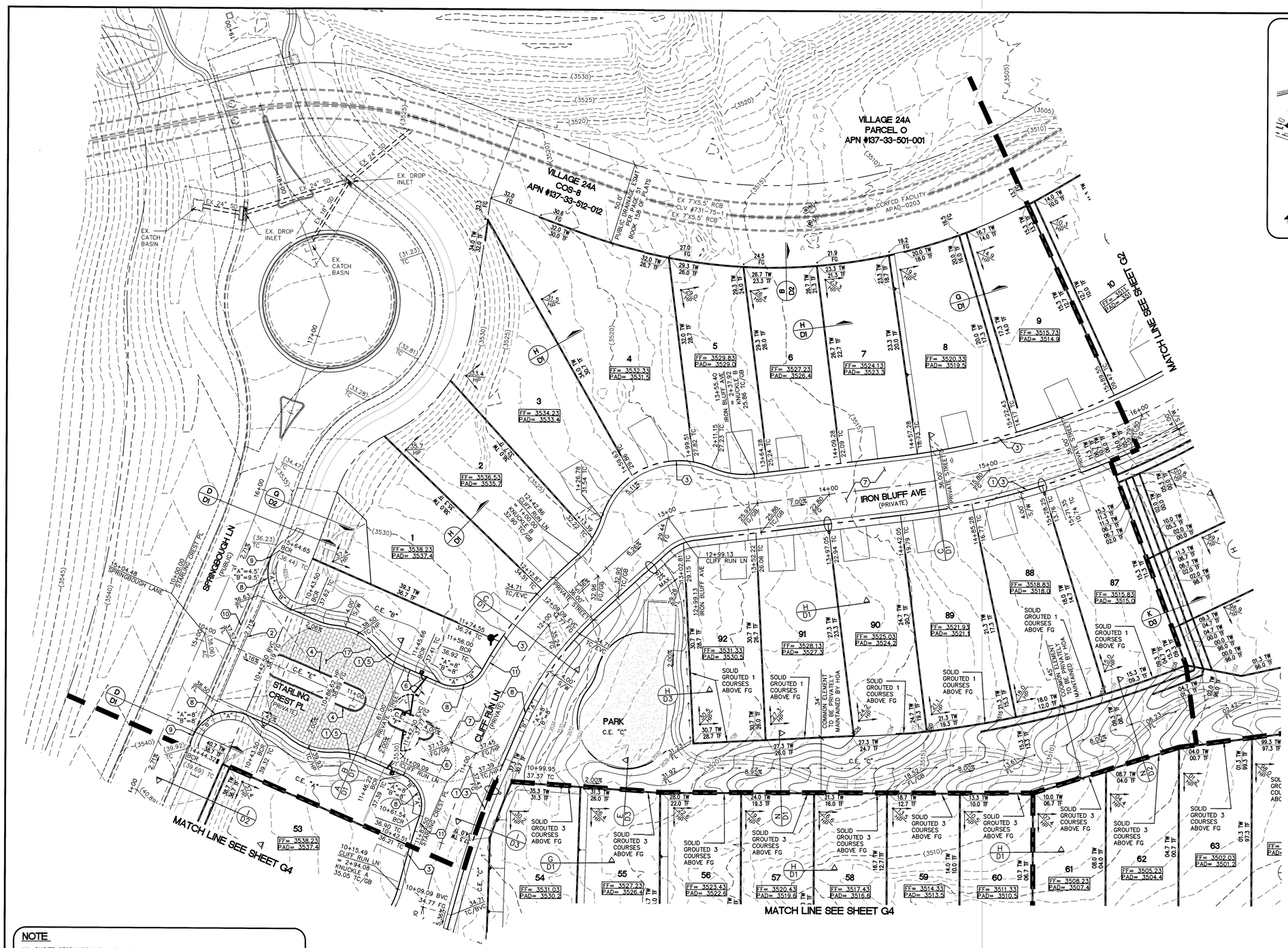
PULTE HOMES

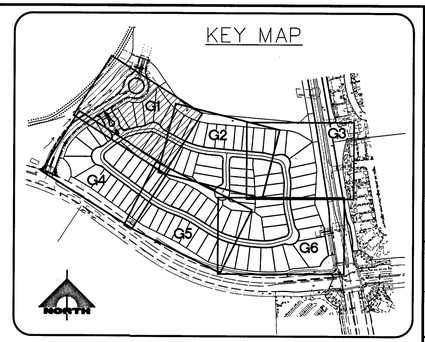
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

LEGEND, ABBREVIATIONS, AND QUANTITIES

DRAWING C3
3 OF 37 SHTS

PROJ#:136744A QS:137-33-NE





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SCALE: 1" = 30'

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CUT-RAW	FILL-RAW
76,041 CY	82,284 CY

BASIS OF BEARING:

NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

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ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

DRAINAGE STUDY COMPLIANCE

I CERTIFY THAT THIS GRADING PLAN ARE CONFORMANCE WITH THE APPROVED DRAINAGE STUDY DS5121C ON THE FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT

09-22-19

HAO A. NGUYEN, P.E. — DATE
NEVADA PE #19396

NOTE

ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

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FAST — Call before you UnderGround 1-702-432-5300 (FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION)

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AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY — CALL BEFORE YOU DO OVERHEAD — 1-702-227-2929

QUANTITY ESTIMATE

NOTE: CONTRACTOR TO VERIFY QUANTITIES FOR BIDDING PURPOSES

DRAINAGE - PUBLIC

DESCRIPTION	UNIT	TOTAL
18" C900	LF	1,061
30" C900	LF	60
36" C900	LF	153
48" TYPE I MANHOLE	EA	6
60" TYPE III MANHOLE	EA	6
5' TYPE "DM2" MODIFIED DROP INLET	EA	1
7.5' TYPE "CM2" MODIFIED DROP INLET	EA	1
10' TYPE "DM2" MODIFIED DROP INLET	EA	2
12.5' TYPE "CM2" MODIFIED DROP INLET	EA	1
12.5' TYPE "DM2" MODIFIED DROP INLET	EA	1

NOTE

1. THE GEOTECHNICAL EXPLORATION PROPOSED RESIDENTIAL DEVELOPMENT SUMMERLIN VILLAGE 24 WEST OF CLARK COUNTY 215 BETWEEN CHARLESTON BOULEVARD AND SUMMERLIN PKWY LAS VEGAS, NEVADA AS PREPARED BY ANGLE ENGINEERING, PROJECT NUMBER 77078-1, DATED JANUARY 24, 2019. ADDENDUM DATED JUNE 27, 2019.
2. CONSTRUCTION FOR BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE BUILDING SAFETY AND MAINTENANCE DEPARTMENT
3. WALLS CONSTRUCTED OTHER THAN THOSE AS DETAILED ON THIS SHEET ARE TO BE CONSTRUCTED BY WALL SUB-CONTRACTOR, DETAILS AND STRUCTURAL CALCS AS PREPARED BY OTHERS.
4. NO OBJECT OVER 24" OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES CAN BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE.
5. ALL PRIVATE STREETS ARE PUBLIC UTILITY EASEMENT, PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

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L# L19-01224 | CLV DWG# 10725117

PROFESSIONAL ENGINEER - STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — No. 19396 — DATE: 09-22-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GOV APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-22-19
PLOT TIME: 09:52:53

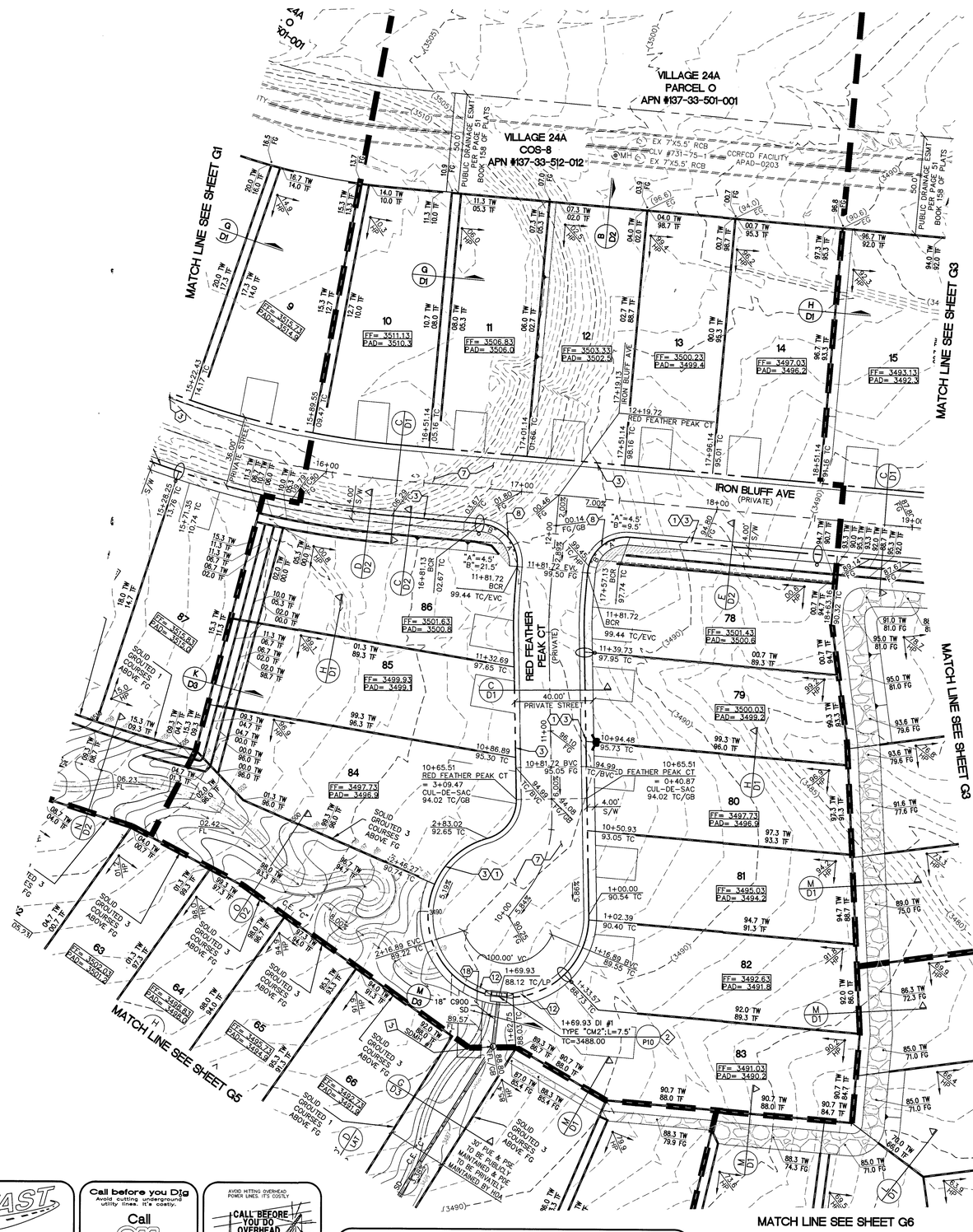
GCV — ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcvengineering.com

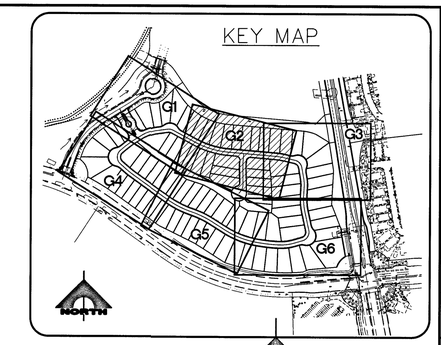
I:\Projects\700\764-a149-001\DWG\production\764-A149-001cG.dwg
Hoa Nguyen

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

GRADING PLAN 1

DRAWING
G1
4 OF 37 SHTS





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HAO A. NGUYEN, P.E. — DATE 09-22-19
NEVADA PE #19396

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1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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1-702-227-2929

L# L19-01224 | CLV DWG# 10725117

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-22-19
PLOT TIME: 09:53:00

GCW
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
ENGINEERS\SURVEYORS
gcwengineering.com

F:\Projects\700\764-a149-001\DWG\production\764-A149-001G.dwg
Hao Nguyen

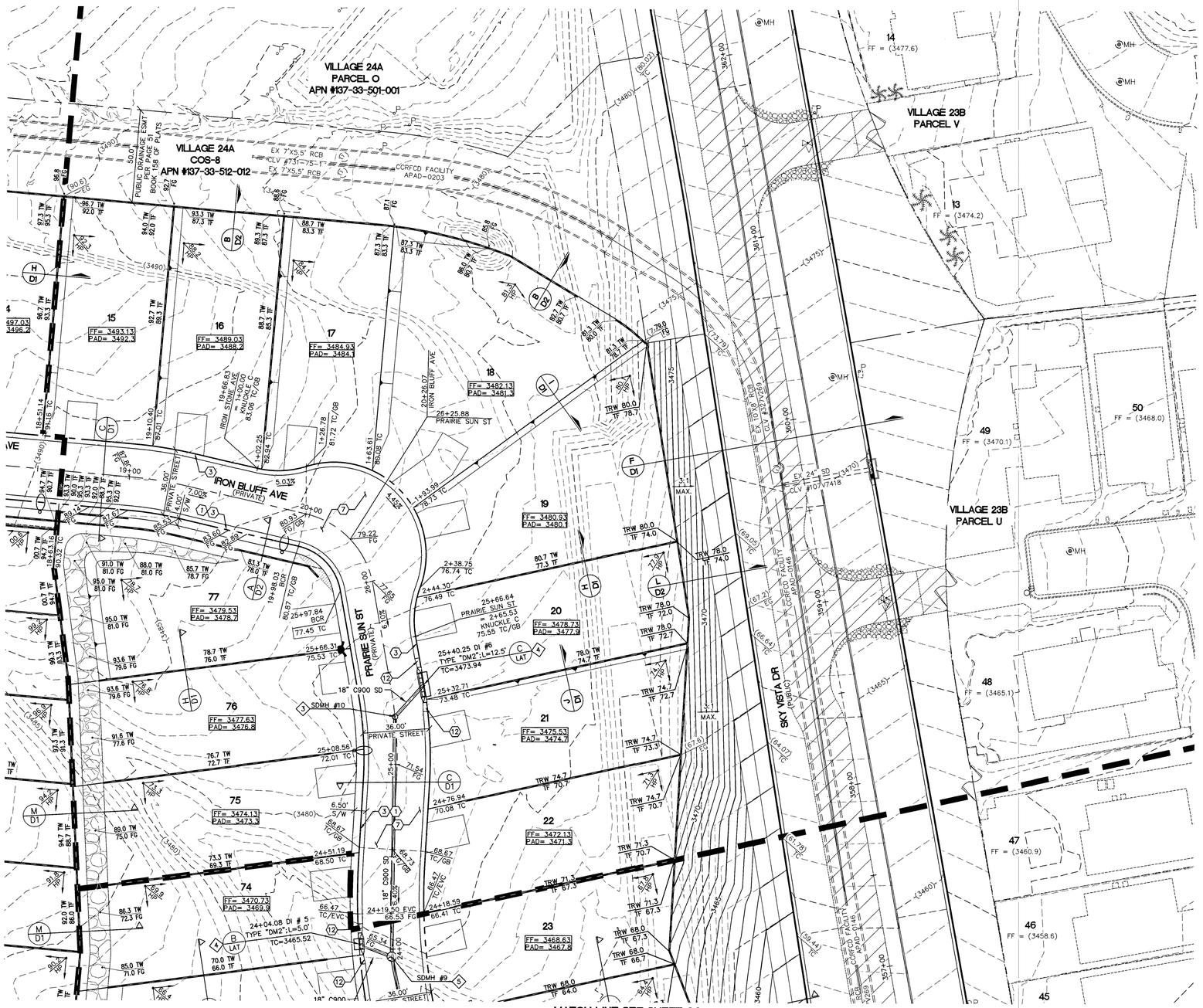
PULTE HOMES

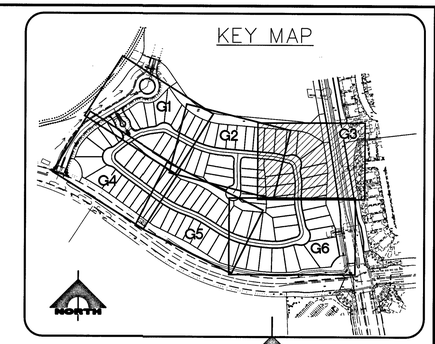
~~STARING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

GRADING PLAN 2

DRAWING
G2
5 OF 37 SHTS

HAO A. NGUYEN
No. 19396
PROFESSIONAL ENGINEER
CIVIL
STATE OF NEVADA
DATE: 09-22-19





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HAO A. NGUYEN, P.E. — DATE
NEVADA PE #19396

ENGINEER - STATE OF NEVADA
HAO A. NGUYEN
Exp. 12/31/2019
No. 19396
PROFESSIONAL ENGINEER
DATE: 09-22-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-22-19
PLOT TIME: 09:53:06

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
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f:\Projects\700\764-a149-001\DWG\production\764-A149-001cG.dwg
Hao Nguyen

PULTE HOMES

~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

GRADING PLAN 3

DRAWING
G3
6 OF 37 SHTS

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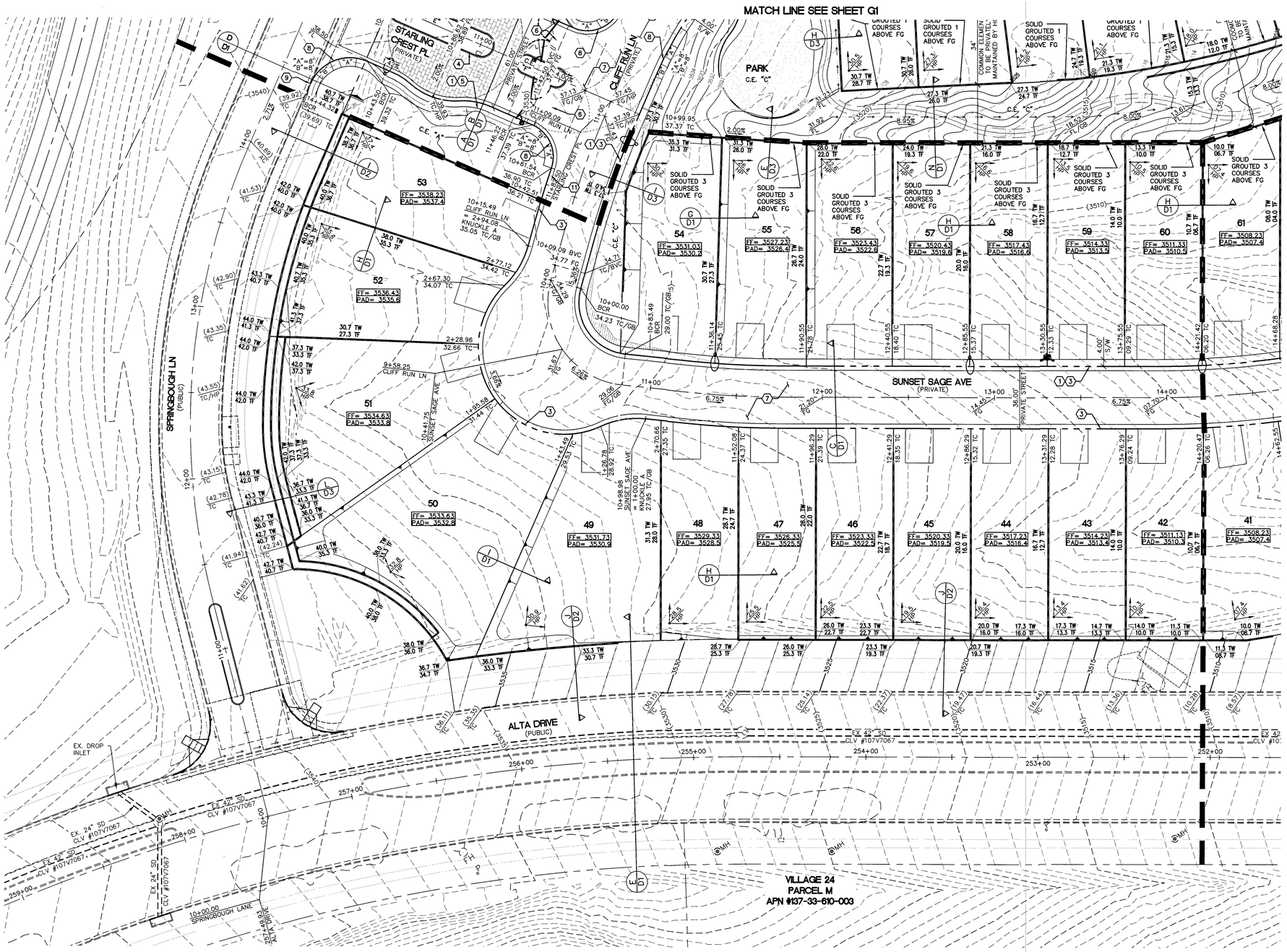

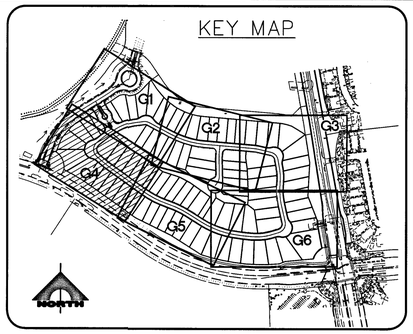

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BASIS OF BEARING:

NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

DRAINAGE STUDY COMPLIANCE

I CERTIFY THAT THIS GRADING PLAN ARE CONFORMANCE WITH THE APPROVED DRAINAGE STUDY DS5121C ON THE FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT

HAO A. NGUYEN, P.E.
NEVADA PE #19396

09-24-19
DATE

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

NOTE

ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

ALL PRIVATE STREETS ARE P.U.E., PUBLIC DRAINAGE EASEMENT AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

NOTES TO CONTRACTOR

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L# L19-01224 | CLV DWG# 107V5117

STATE OF NEVADA
HAO A. NGUYEN
No. 19396
PROFESSIONAL ENGINEER
CIVIL
Exp. 12/31/2019
DATE: 09-24-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-24-19
PLOT TIME: 09:42:15

GCW
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
ENGINEERS \ SURVEYORS

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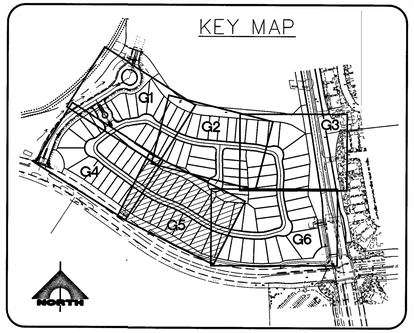
Hao Nguyen

PULTE HOMES

~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

GRADING PLAN 4

DRAWING
G4
7 OF 37 SHTS



NORTH

30' 0' 15' 30' 60'

SCALE: 1" = 30'

CONSTRUCTION NOTES

1. CONSTRUCT CONCRETE SIDEWALK PER SUMMERLIN STD DWG NO. S-72 & S-48.
2. CONSTRUCT 8' WIDE VALLEY GUTTER PER SUMMERLIN STD DWG NO. S-64.
3. CONSTRUCT ROLL CURB PER SUMMERLIN STD DWG NO. S-48.
4. CONSTRUCT MEDIAN "A" TYPE PER SUMMERLIN STD DWG NO. S-50.
5. CONSTRUCT "L" CURB PER SUMMERLIN STD DWG NO. S-47.
6. INSTALL GATE – SEE LANDSCAPE.
7. CONSTRUCT 2" AC OVER 4" TYPE II BASE.SEE SOIL REPORT PREPARED BY NOVA GEOTECHNICAL PROJ. #G-18-066 FOR MORE DETAIL.
8. CONSTRUCT HANDICAP RAMP PER USDCCA NO. 235 CASE 1. SEE PLAN FOR "A" & "B" DIMENSION.
9. SAWCUT & MATCH TO EXISTING CURB & SIDEWALK. CONTRACTOR SHALL VERIFY EX. LOCATION & PAVEMENT PRIOR TO CONSTRUCTION.
10. EXISTING CURB TO BE REMOVED
11. CONSTRUCT 10' TRANSITION FROM "L" CURB TO ROLL CURB PER DETAIL "B" SHEET DT3.
12. CONSTRUCT 5' TRANSITION FROM "L" CURB TO ROLL CURB PER DETAIL "C" SHEET DT3.
13. CONSTRUCT SIDEWALK UNDERDRAIN PER USDCCA NO. 236.
14. CONSTRUCT HANDICAP RAMP PER USDCCA NO. 235 CASE 2. SEE PLAN FOR "A" & "B" DIMENSION.
15. CONSTRUCT REMOVABLE WROUGHT IRON FENCE PER USDCCA NO. 425.S1
16. EX. SEWER MANHOLE ADJUST TO GRADE.
17. CONSTRUCT CONCRETE PAVER AND BAND PER DETAIL J ON SHEET D3.
18. CONSTRUCT 4" PCC OVER 4" TYPE II AB

STORM DRAIN CONSTRUCTION NOTES

1. CONNECT TO EXSITING STORM DRAIN.
2. CONSTRUCT MODIFIED TYPE "CM2" PER STD DWG 412.1 & 421. SEE PLAN PER SIZE.
3. CONSTRUCT 48" TYPE I STORM DRAIN MANHOLE PER STD. DWG 403.
4. CONSTRUCT MODIFIED TYPE "DM2" PER STD DWG 412.1 & 421. SEE PLAN PER SIZE.
5. CONSTRUCT 60" TYPE III STORM DRAIN MANHOLE PER STD. DWG 406.1.

EARTHWORKS

CUT-RAW	FILL-RAW
76,041 CY	82,284 CY

BASIS OF BEARING:

NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

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09-22-19

HAO A. NGUYEN, P.E. DATE
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NOTE

ALL STORM DRAIN DROP INLETS PER NEWLY ADOPTED UCSCCA DRAWING NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL.)

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L# L19-01224 | CLV DWG# 107V5117

REGISTERED PROFESSIONAL ENGINEER STATE OF NEVADA
HAO A. NGUYEN
Exp. 12/31/2019
CIVIL
No. 19396
DATE: 09-22-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-22-19
PLOT TIME: 09:53:20

GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

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Hao Nguyen

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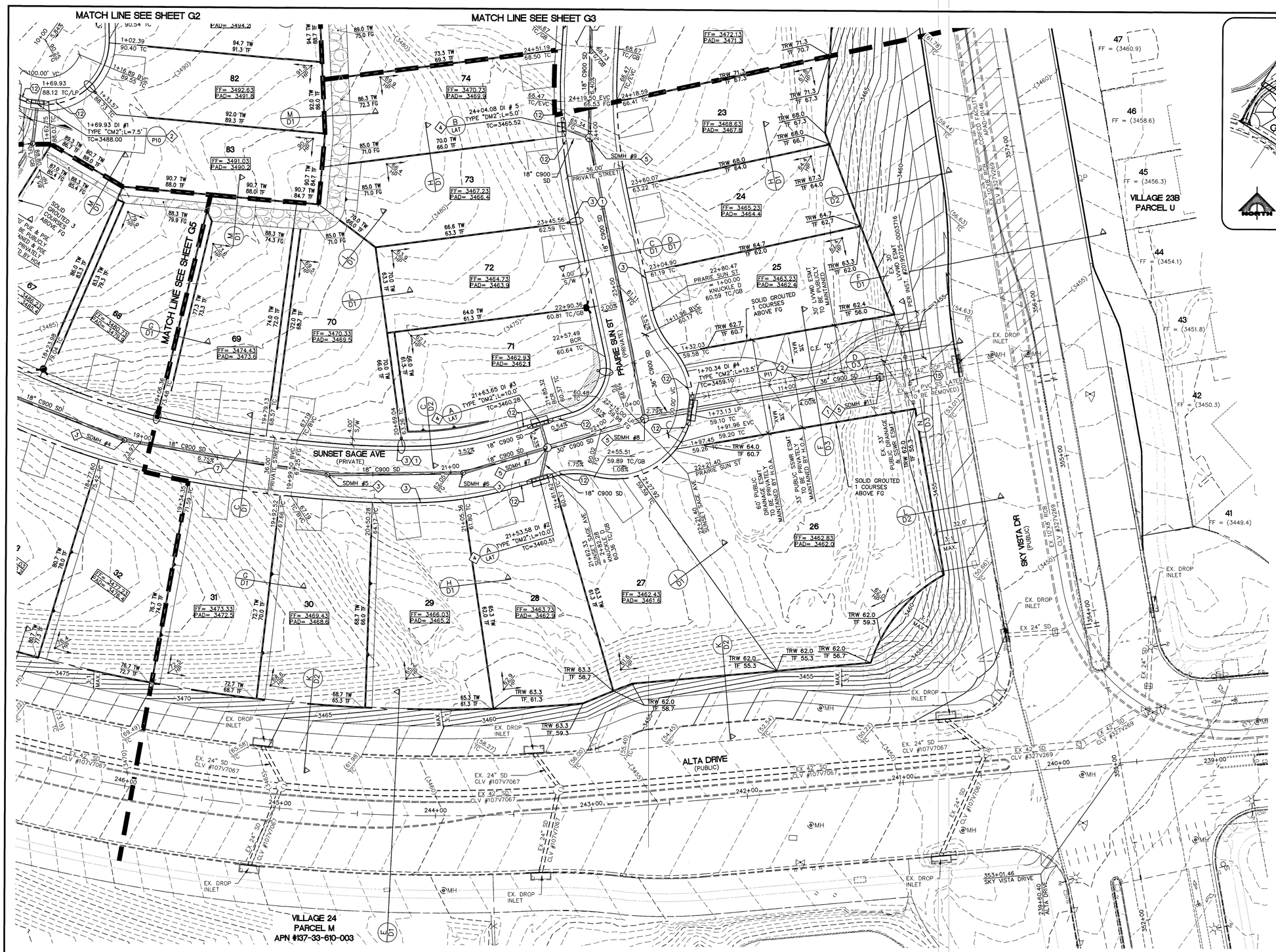
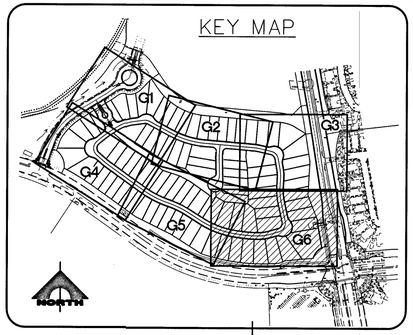
SUMMERLIN VILLAGE 24A PARCEL N

GRADING PLAN 5

DRAWING
G5
8 OF 37 SHTS





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L# L19-01224 | CLV DWG# 107V5117

ENGINEER: STATE OF NEVADA — HAO A. NGUYEN — No. 19396 — PROFESSIONAL ENGINEER — DATE: 09-22-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CGW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-22-19
PLOT TIME: 09:53:27

GCW ENGINEERS\SURVEYORS
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LAS VEGAS, NV 89146
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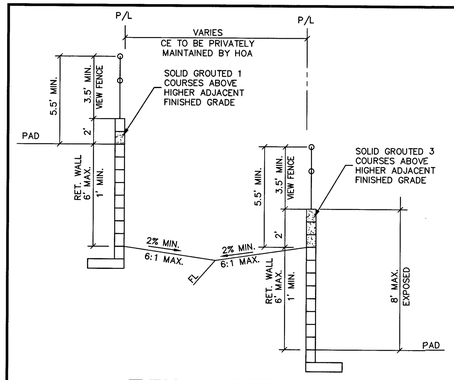
Hao Nguyen

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

GRADING PLAN 6

DRAWING G6
9 OF 37 SHTS



TYPICAL SECTION (N)

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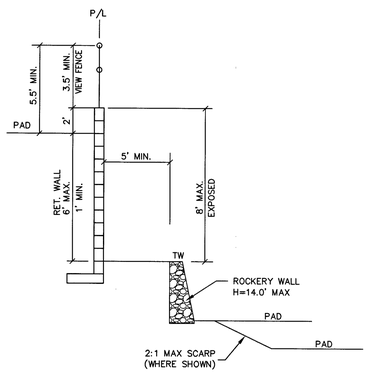
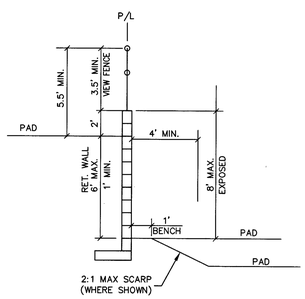


TYPICAL SECTION (M)

SCALE: NTS (SHEETS G2-G3, G5)



TYPICAL SECTION (L)

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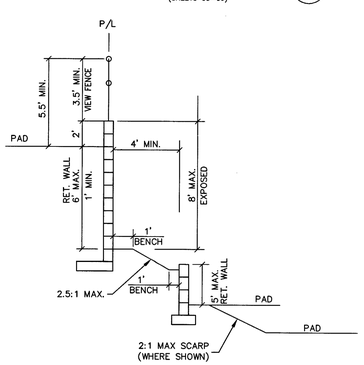

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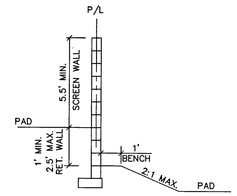

TYPICAL SECTION (SIDE YARD) (J)

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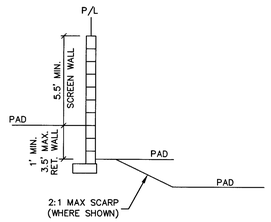

TYPICAL SECTION (SIDE YARD) (H)

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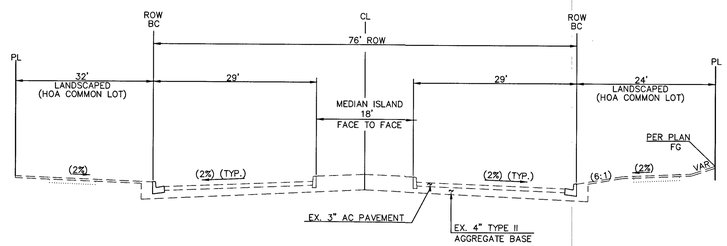
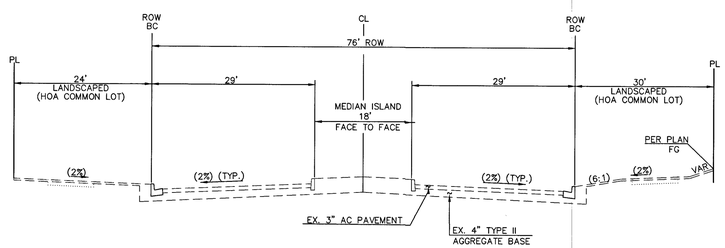
PER STONEBRIDGE RESIDENTIAL DESIGN CRITERIA RESIDED APRIL 28, 2017, EXHIBIT 7-I.2



SKY VISTA DRIVE (PUBLIC) (F)

SCALE: NTS (SHEETS G3, G6)



ALTA DRIVE (PUBLIC) (E)

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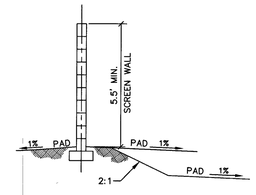

TYPICAL SECTION (I)

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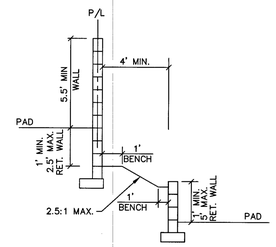
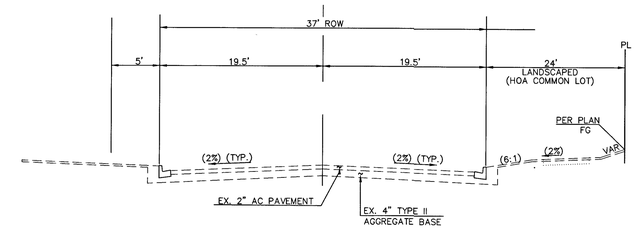


TYPICAL SECTION (SIDE YARD) (G)

SCALE: NTS (SHEETS G1 THRU G6)



SPRINGBOUGH LANE (PUBLIC) (D)

SCALE: NTS (SHEETS G1, G4)

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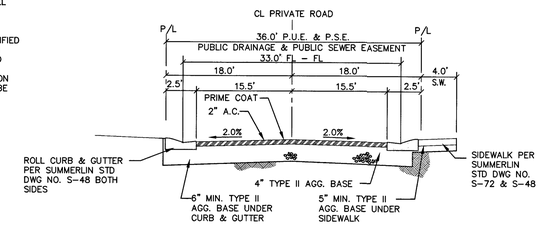

36' PRIVATE STREET SECTION (C)

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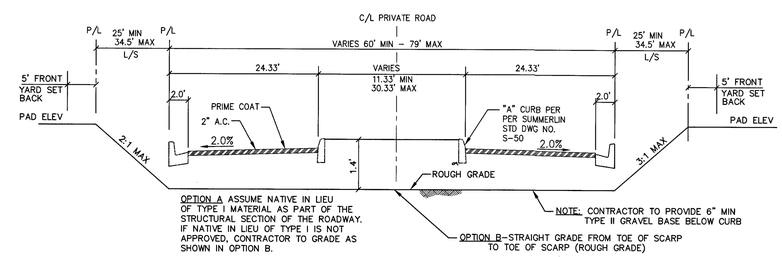

TYPICAL ROUGH GRADING SECTION (B)

SCALE: NTS (SHEETS G1)

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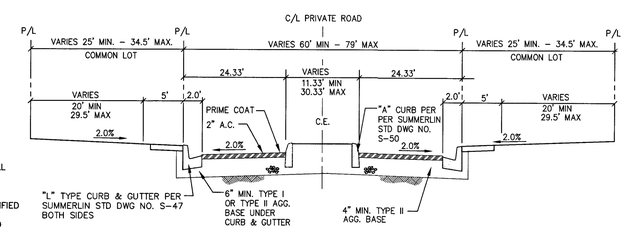
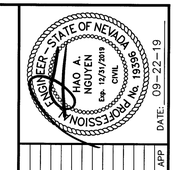


60' PRIVATE ENTRY (A)

SCALE: NTS (SHEETS G1)

L# L19-01224 | CLV DWG# 10725117



DATE: 09-22-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001

DESIGN:
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GCV
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Hao Nguyen

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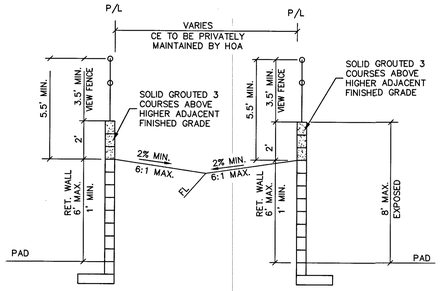
~~STARING FOXTAIL~~
SUMMERLIN VILLAGE 24A PARCEL N

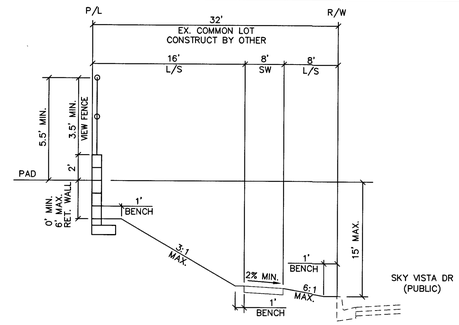
GRADING SECTIONS AND DETAILS 1

DRAWING
D1
10 OF 37 SHTS



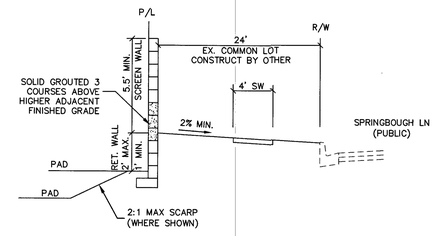
TYPICAL SECTION O

SCALE: NTS (SHEETS G1, G5)



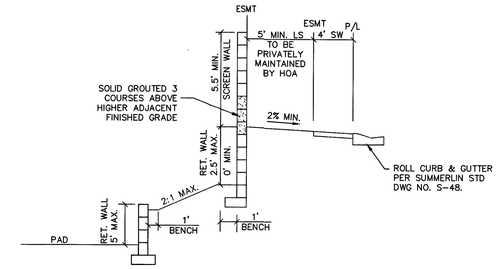
TYPICAL SECTION L

SCALE: NTS (SHEETS G6)



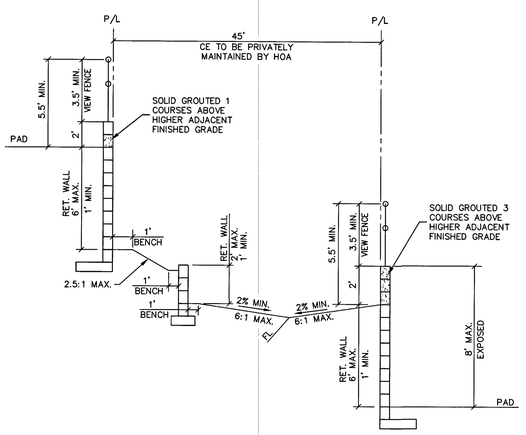
TYPICAL SECTION H

SCALE: NTS (SHEETS G1)



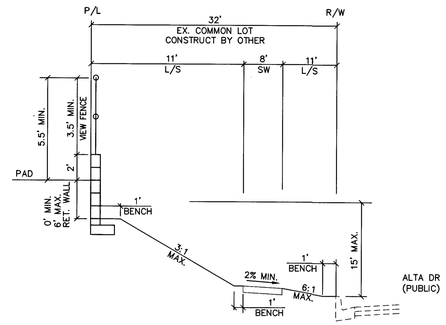
TYPICAL SECTION D

SCALE: NTS (SHEETS G4)



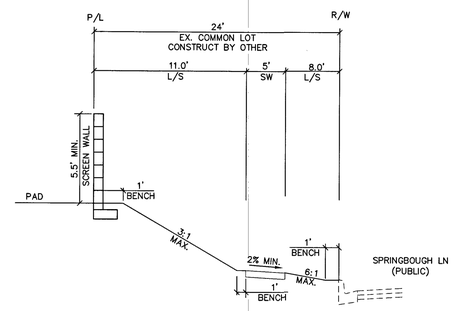
TYPICAL SECTION N

SCALE: NTS (SHEETS G1, G5)



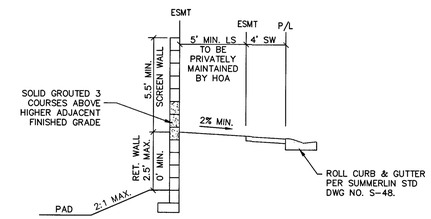
TYPICAL SECTION K

SCALE: NTS (SHEETS G4 THRU G6)



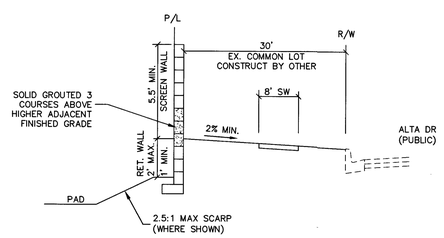
TYPICAL SECTION G

SCALE: NTS (SHEETS G4)



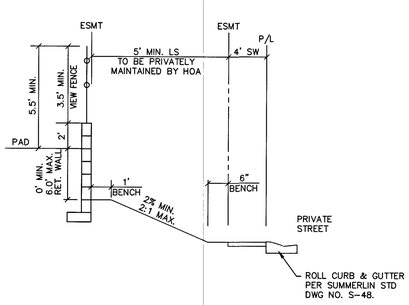
TYPICAL SECTION C

SCALE: NTS (SHEETS G2, G3-G4)



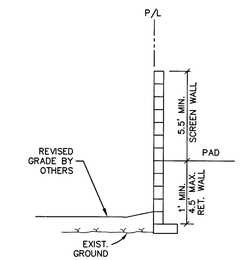
TYPICAL SECTION J

SCALE: NTS (SHEETS G4)



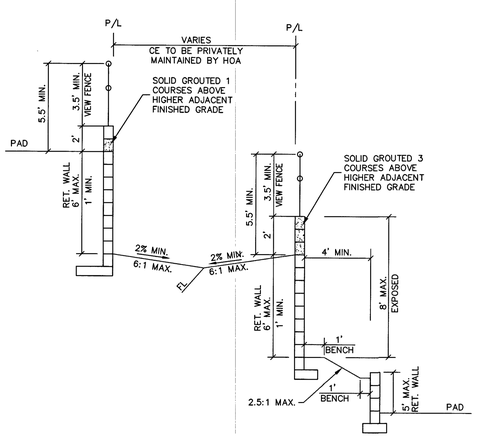
TYPICAL SECTION F

SCALE: NTS (SHEETS G1 THRU G3)



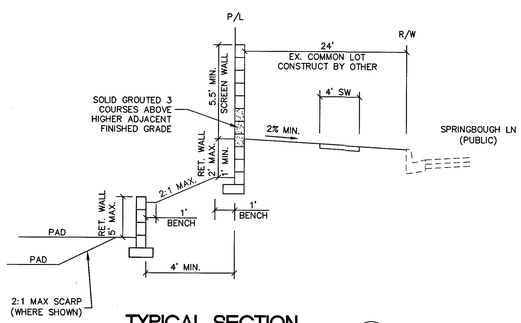
TYPICAL SECTION B

SCALE: NTS (SHEETS G1 THRU G3)



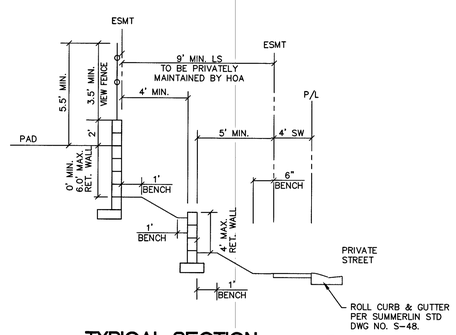
TYPICAL SECTION M

SCALE: NTS (SHEETS G1, G4)



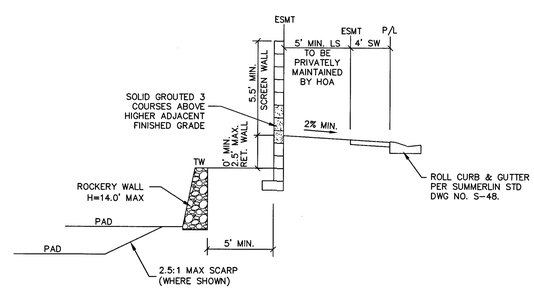
TYPICAL SECTION I

SCALE: NTS (SHEETS G4)



TYPICAL SECTION E

SCALE: NTS (SHEETS G2-G3)



TYPICAL SECTION A

SCALE: NTS (SHEETS G2-G3)

L# L19-01224 | CLV DWG# 10745117

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

DATE: 09-22-19

PROJECT NO. 764-A149-001

DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-22-19
PLOT TIME: 09:53:38

GCW
ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

f:\Projects\700\764-a149-001\DWG\production\764-A149-001cD.dwg
Hao Nguyen

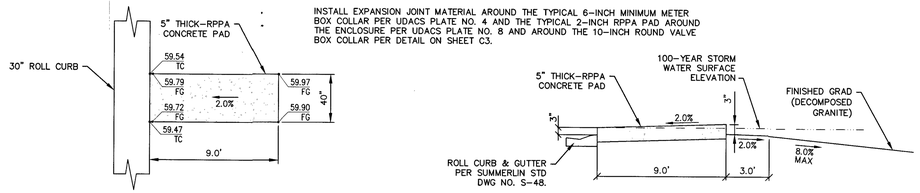
PULTE HOMES

~~STARING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

GRADING SECTIONS AND DETAILS 2

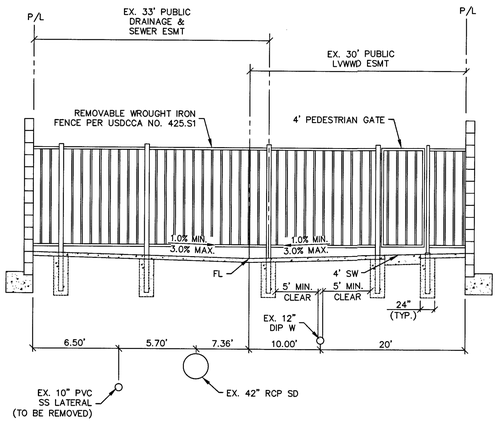
DRAWING
D2
11 OF 37 SHTS

INSTALL EXPANSION JOINT MATERIAL AROUND THE TYPICAL 6-INCH MINIMUM METER BOX COLLAR PER UDACS PLATE NO. 4 AND THE TYPICAL 2-INCH RPPA PAD AROUND THE ENCLOSURE PER UDACS PLATE NO. 8 AND AROUND THE 10-INCH ROUND VALVE BOX COLLAR PER DETAIL ON SHEET C3.



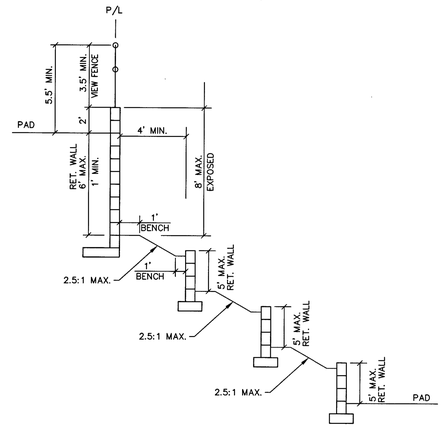
RPPA CONCRETE PAD SECTION AND DETAIL

SCALE: NTS (SHEETS G6 & U6) — O



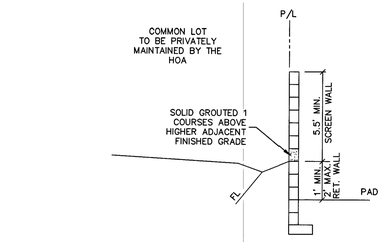
REMOVABLE WROUGHT IRON FENCE

SCALE: NTS (SHEETS G6 & U6) — N



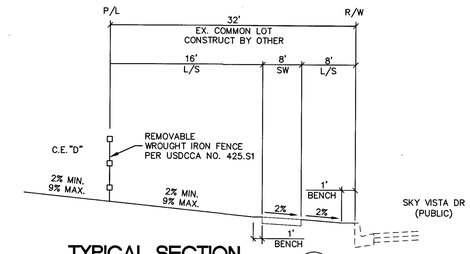
TYPICAL SECTION

SCALE: NTS (SHEETS G2) — K



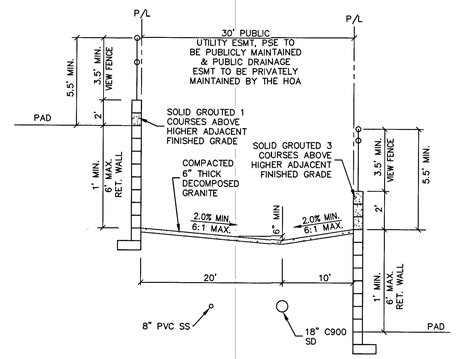
TYPICAL SECTION

SCALE: NTS (SHEETS G1) — H



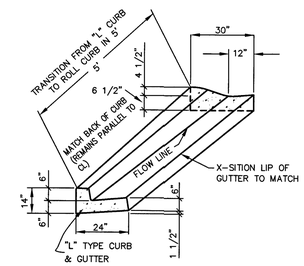
TYPICAL SECTION

SCALE: NTS (SHEETS G6 & U6) — D



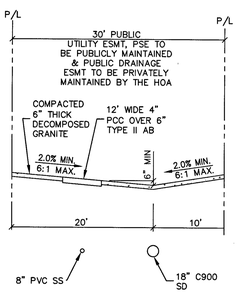
30' DRAINAGE ESMT.

SCALE: NTS (SHEETS G5) — G



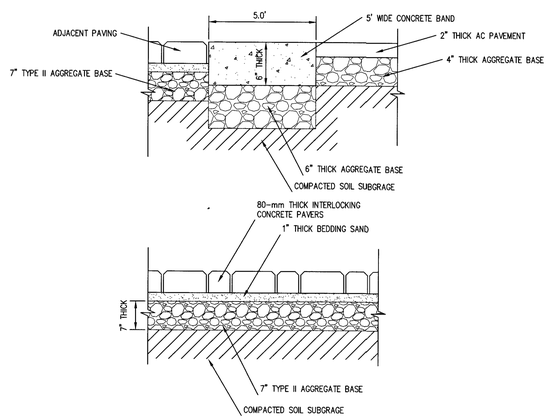
5' TRANSITION FROM "L" CURB TO ROLL CURB

SCALE: NTS — C



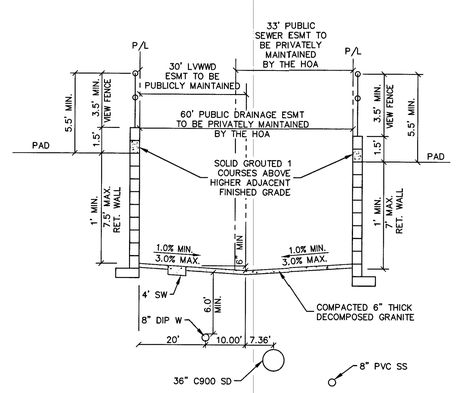
TYPICAL SECTION

SCALE: NTS (SHEETS G2) — M



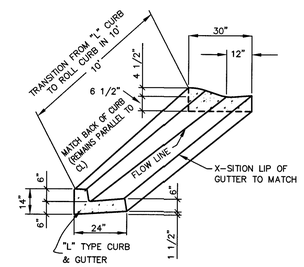
CONCRETE PAVER AND BAND

SCALE: NTS — J



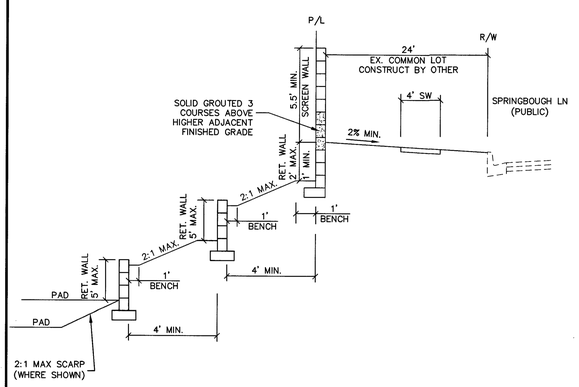
C.E. "D"

SCALE: NTS (SHEETS G6 & U6) — F



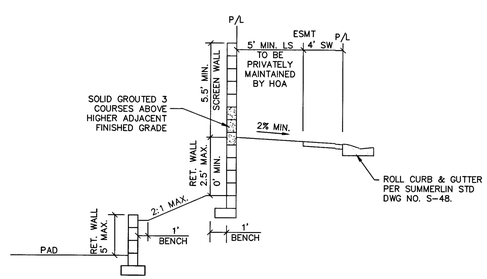
10' TRANSITION FROM "L" CURB TO ROLL CURB

SCALE: NTS — B



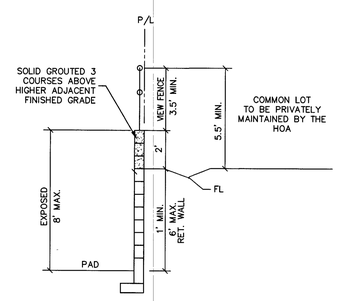
TYPICAL SECTION

SCALE: NTS (SHEETS G4) — L



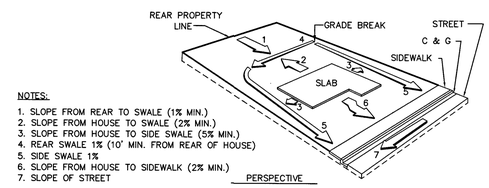
TYPICAL SECTION

SCALE: NTS — I



TYPICAL SECTION

SCALE: NTS (SHEETS G1 & G4) — E



NOTES:

1. SLOPE FROM REAR TO SWALE (1% MIN.)
2. SLOPE FROM HOUSE TO SWALE (2% MIN.)
3. SLOPE FROM HOUSE TO SIDE SWALE (5% MIN.)
4. REAR SWALE 1% (10' MIN. FROM REAR OF HOUSE)
5. SIDE SWALE 1%
6. SLOPE FROM HOUSE TO SIDEWALK (2% MIN.)
7. SLOPE OF STREET

PERSPECTIVE

F.H.A. TYPE "A" DRAINAGE

TYPICAL TYPE "A" DRAINAGE DETAIL

SCALE: NTS — A

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19

L# L19-01224 | CLV DWG# 6 1075487

SIGNATURE — STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER — No. 19396

DATE: 09-22-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001

DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-22-19
PLOT TIME: 09:53:40

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
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gcwengineering.com

f:\Projects\700\764-a149-001\DWG\production\764-A149-001cD.dwg
Hoo Nguyen

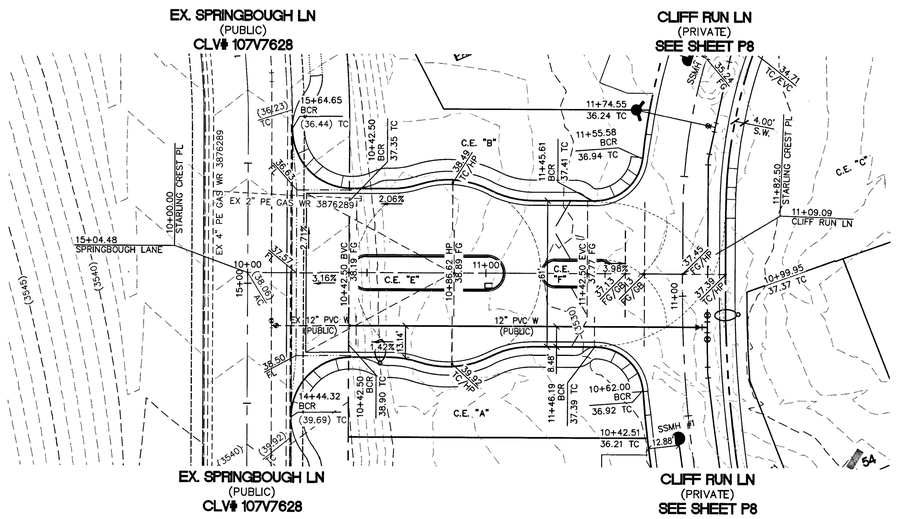
PULTE HOMES

~~STARING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

GRADING SECTIONS AND DETAILS 3

DRAWING
D3
12 OF 37 SHTS

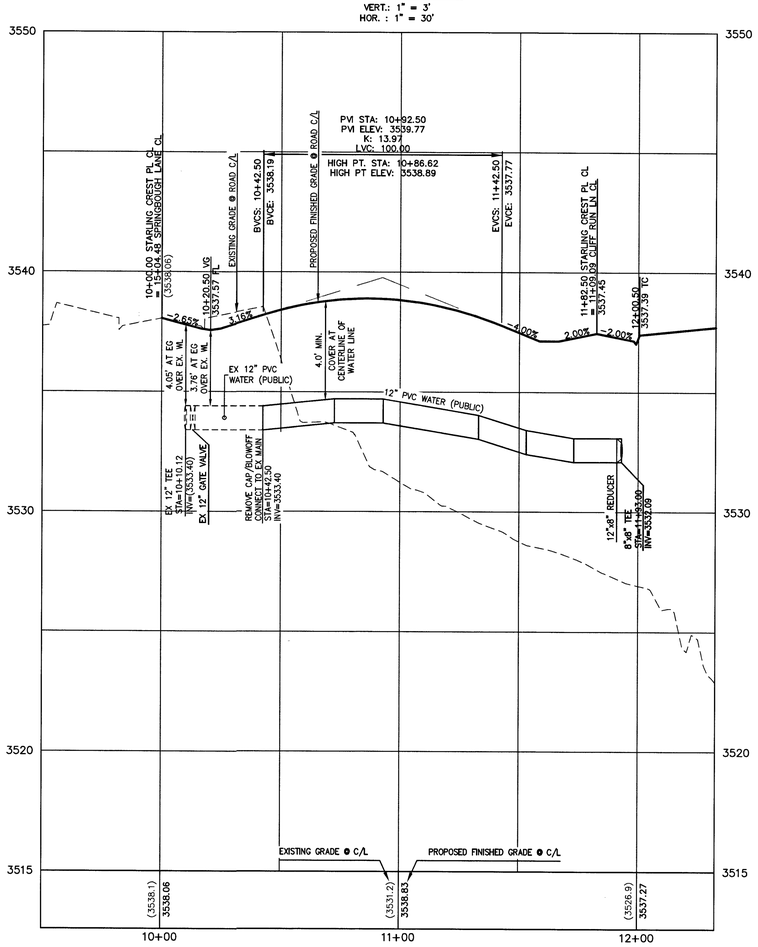
PROJ#:136744A QS:137-33-NE

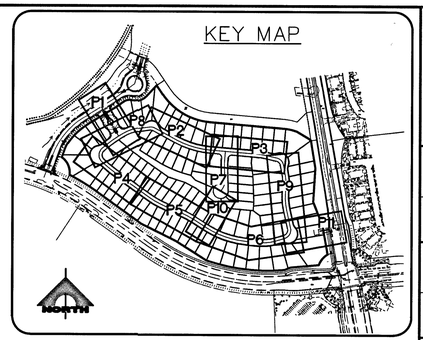


STARLING CREST PL
(PRIVATE)

PLAN AND PROFILE

VERT.: 1" = 3'
HOR. : 1" = 30'





CONSTRUCTION NOTES

1. CONNECT TO EXISTING STORM DRAIN.
2. CONSTRUCT MODIFIED TYPE "CM2" PER STD DWG 412.1 & 421. SEE PLAN PER SIZE.
3. CONSTRUCT 48" TYPE I STORM DRAIN MANHOLE PER STD. DWG 403.
4. CONSTRUCT MODIFIED TYPE "DM2" PER STD DWG 412.1 & 421. SEE PLAN PER SIZE.
5. CONSTRUCT 60" TYPE III STORM DRAIN MANHOLE PER STD. DWG 406.1.
6. CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)
7. CONSTRUCT FULL STRENGTH GROUT PER DCSWCS 3.16.4, WATERTIGHT JOINTS USING AGENCY-APPROVED SEALS AT MANHOLE SECTIONS AND GRADE RINGS PER DCSWCS 3.16.2, AND RAVEN LINING SYSTEM OR WARREN ENVIRONMENTAL LINING SYSTEMS.

2 CONSTRUCT CONCRETE CAP PER DCSWCS SD-21.

NOTE:
WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

TO ENSURE LVVWD ACCESS WITHIN EASEMENT
ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO LANDSCAPE BOULDERS, FENCE/ WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT.

NOTE
ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

ALL PRIVATE STREETS ARE P.U.E., PUBLIC DRAINAGE EASEMENT AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

NOTE TO CONTRACTOR
EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

BASIS OF BEARING:
NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

BENCHMARK:
CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

SEWER CONNECTION NOTE
ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

UTILITY APPROVAL
SOUTHWEST GAS CORPORATION — DATE: 8-16-19

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01224 | CLV DWG# 107X5117

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-227-2600

FAST
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

DROP INLET NOTE
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:
CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

DEPTH OF COVER DURING CONSTRUCTION
MAINTAIN MINUMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER No. 19396 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CGW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 11:25:14

GCV
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
ENGINEERS\SURVEYORS

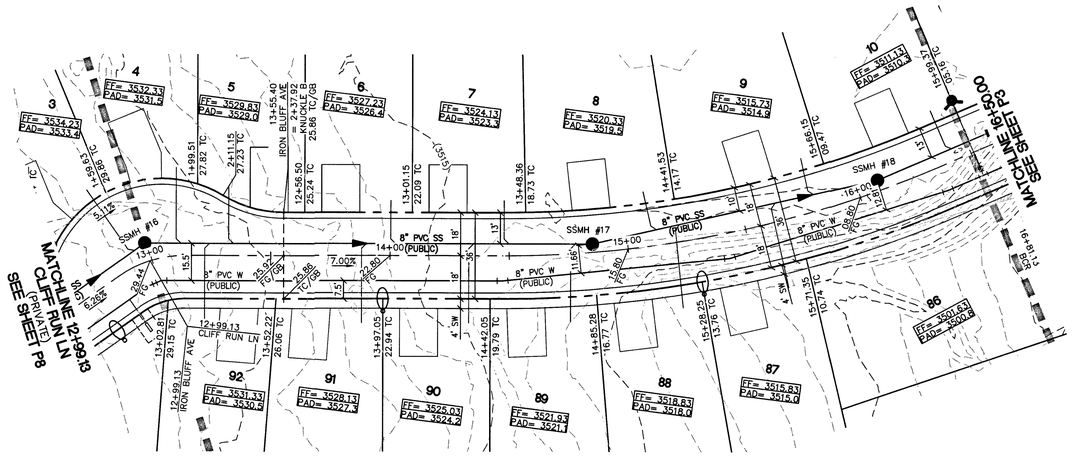
F:\Projects\700\764-a149-001\DWG\production\764-A149-001cP1-6.dwg
Nicholas DeRosa

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

STARLING CREST PL
STA. 10+00.00 TO STA. 11+92.50
PLAN AND PROFILE

DRAWING
P1
13 OF 37 SHTS

PROJ#:136744A QS:137-33-NE



IRON BLUFF AVE
(PRIVATE)

PLAN AND PROFILE

VERT.: 1" = 3'
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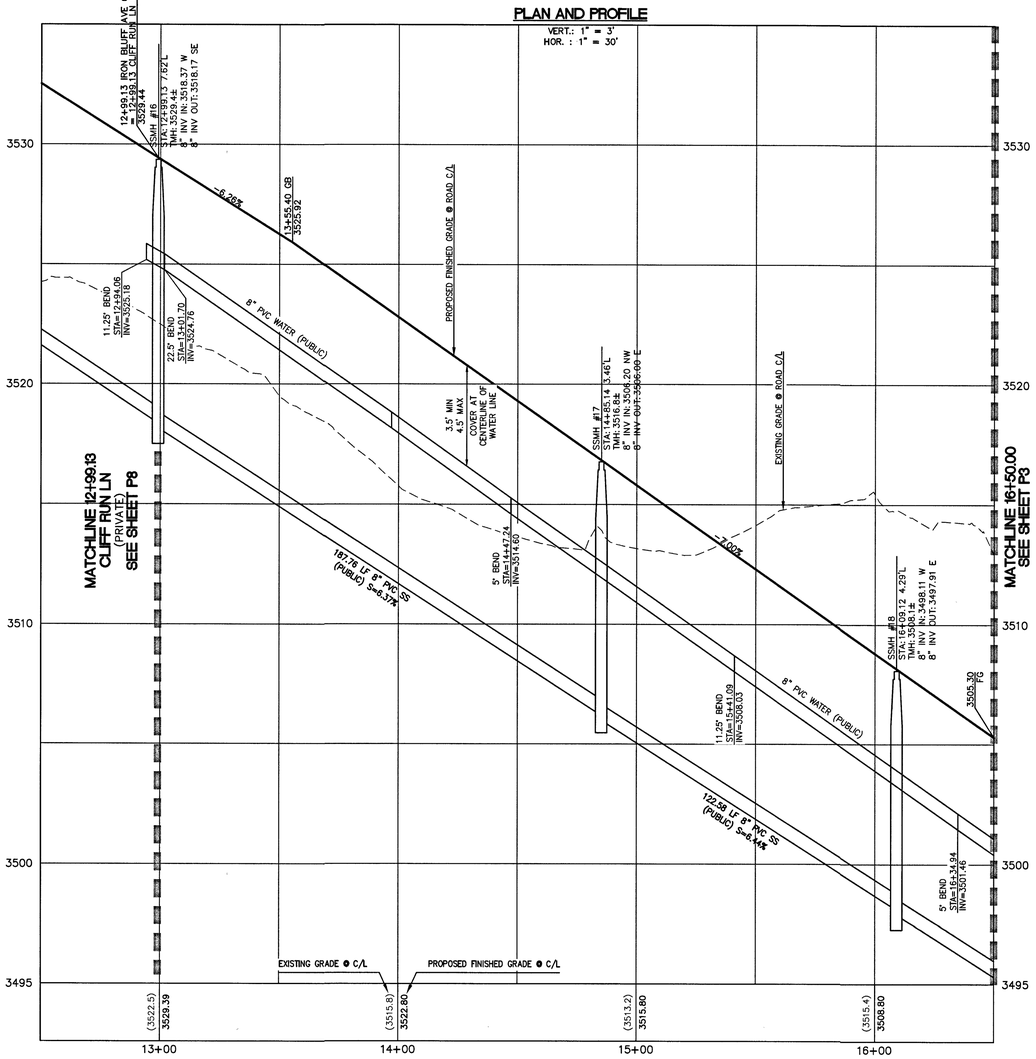

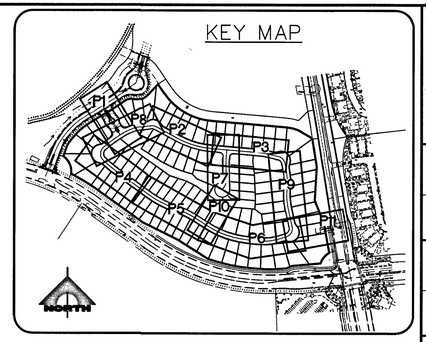

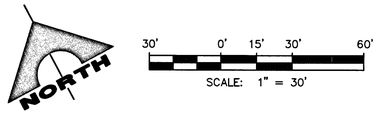

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CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

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UTILITY APPROVAL
SOUTHWEST GAS CORPORATION — DATE: 9-16-19

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
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Call before you Dig
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L# L19-01224 | CLV DWG# 10745117

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER — No. 19356 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:35:42

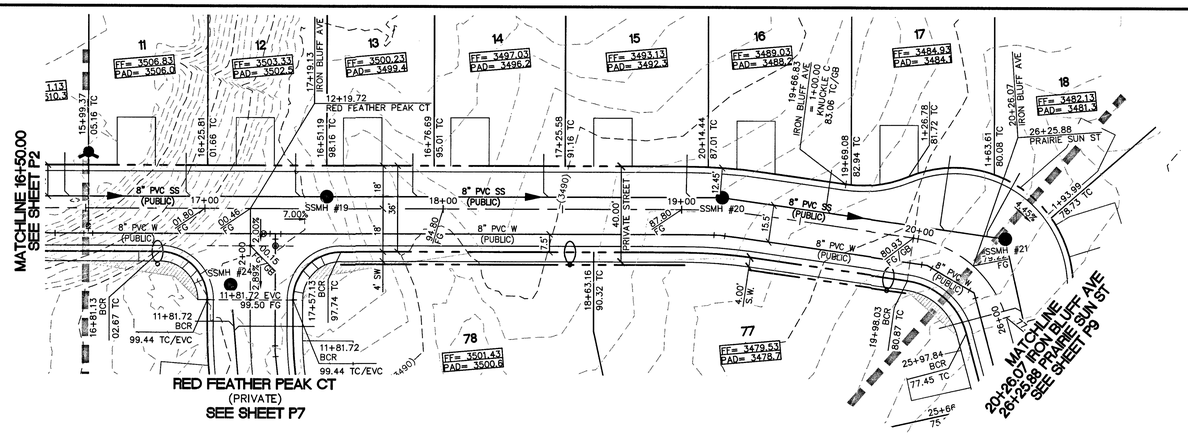
GCW
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
ENGINEERS \ SURVEYORS
gcwengineering.com

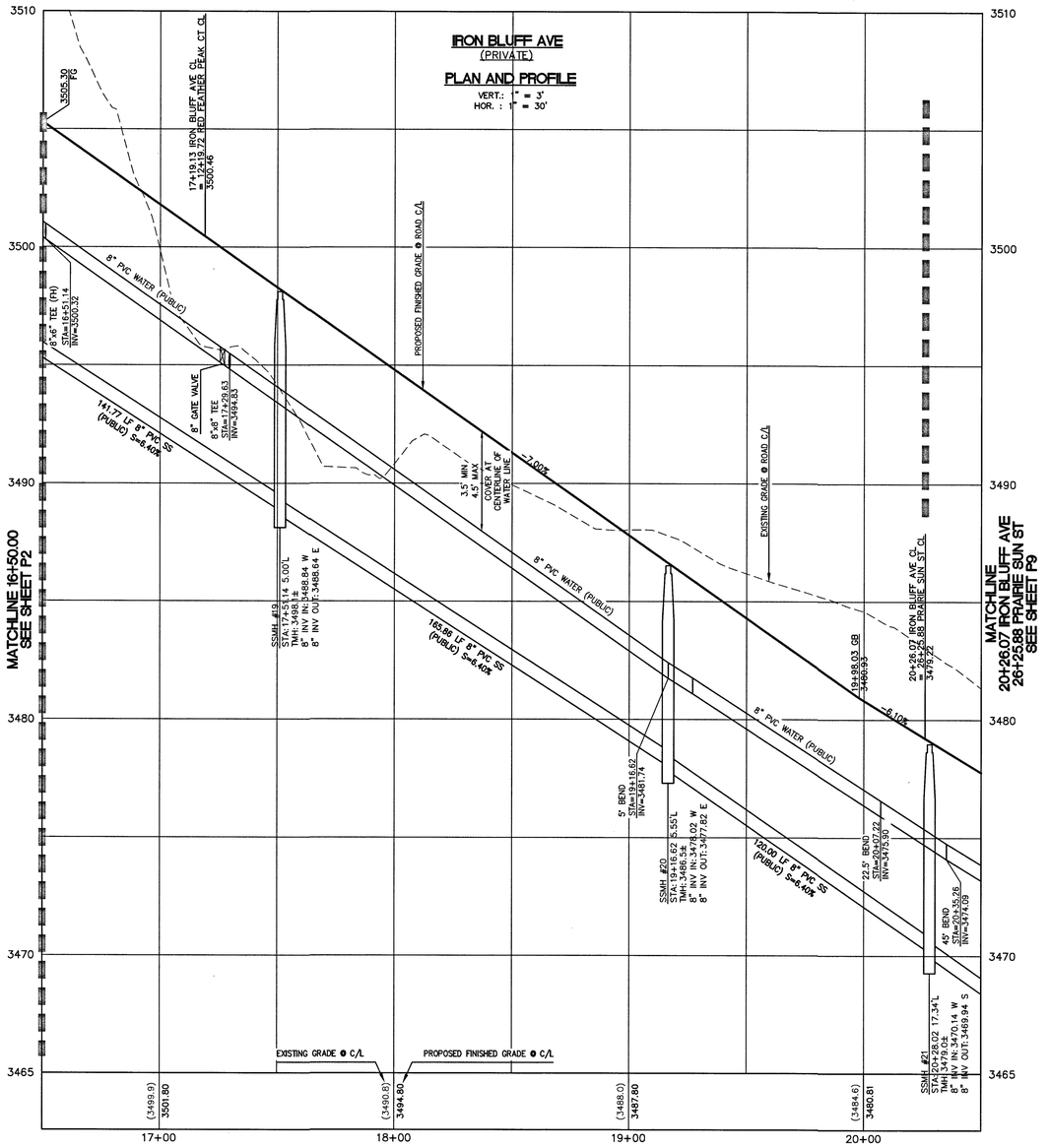
f:\Projects\700\764-a149-001\DWG\production\764-A149-001-P1-6.dwg
Nicholas DeRosa

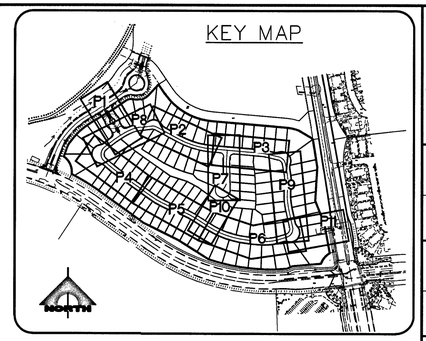
PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N
IRON BLUFF AVE
STA. 12+99.13 TO STA. 16+50.00
PLAN AND PROFILE

DRAWING
P2
14 OF 37 SHTS

PROJ#:136744A GS:137-33-NE







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SOUTHWEST GAS CORPORATION — DATE: 9-16-19

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STATE OF NEVADA — HAO A. NGUYEN — CIVIL — Exp. 12/31/2019 — No. 19356 — PROFESSIONAL ENGINEER — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
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PLOT TIME: 10:35:53

GCW
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
ENGINEERS\SURVEYORS

f:\Projects\700\764-a149-001\DWG\production\764-A149-001CP1-6.dwg
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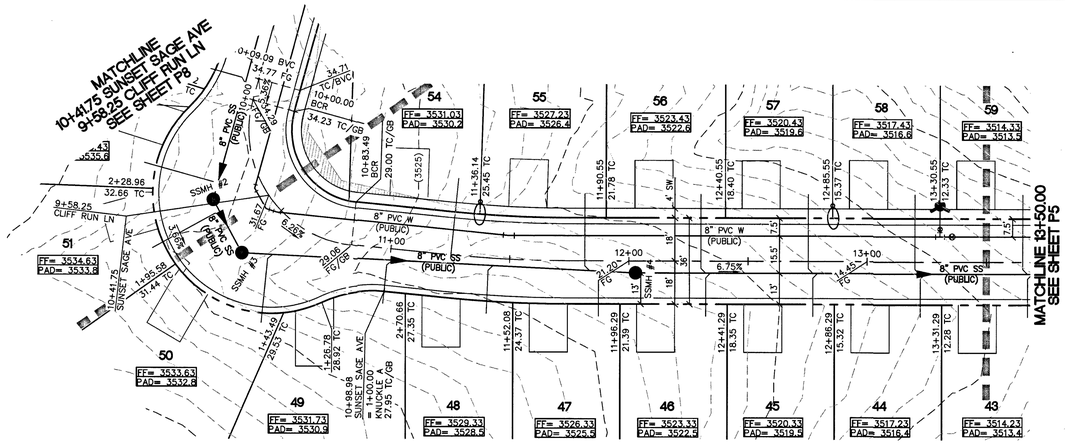
PLAN AND PROFILE

DRAWING
P3
15 OF 37 SHTS

PROJ#:136744A QS:137-33-NE



SUNSET SAGE AVE
(PRIVATE)

PLAN AND PROFILE
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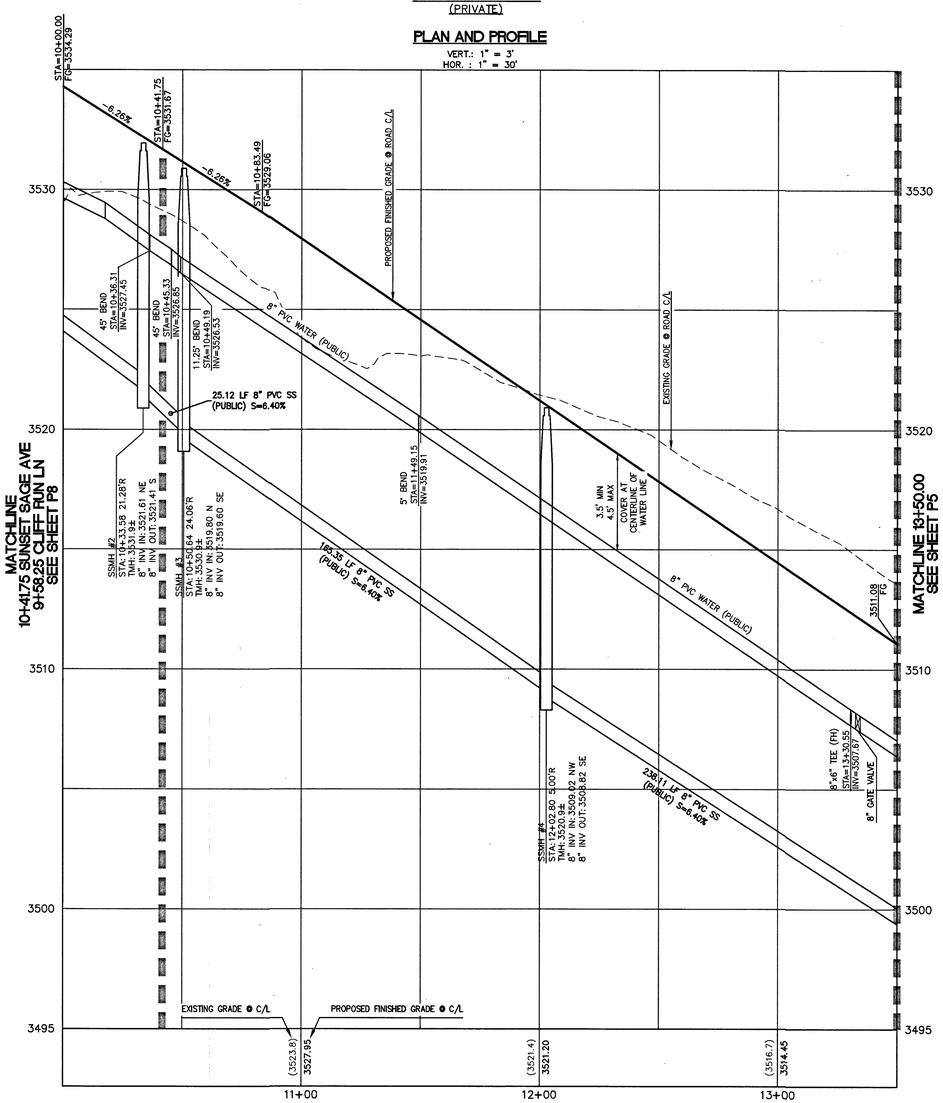

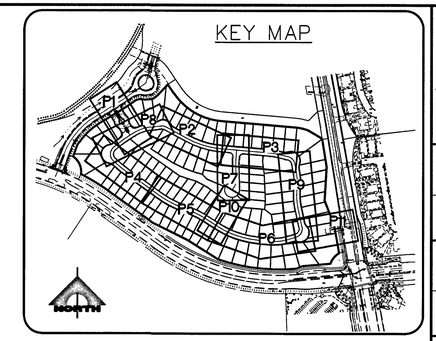

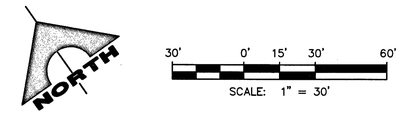

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PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:36:03

GCW
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T: 702.804.2000
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f:\Projects\700\764-a149-001\DWG\production\764-A149-001cP1-6.dwg
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DRAWING
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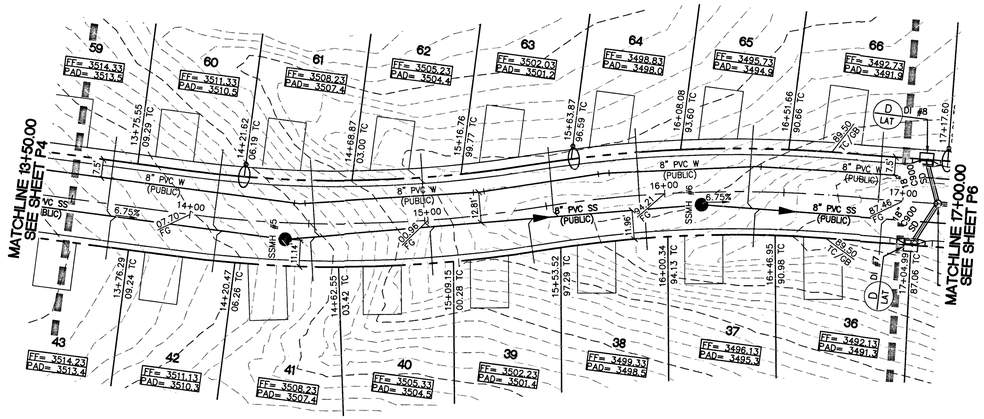
16 OF 37 SHTS

PROJ.#:136744A QS:137.33-NE



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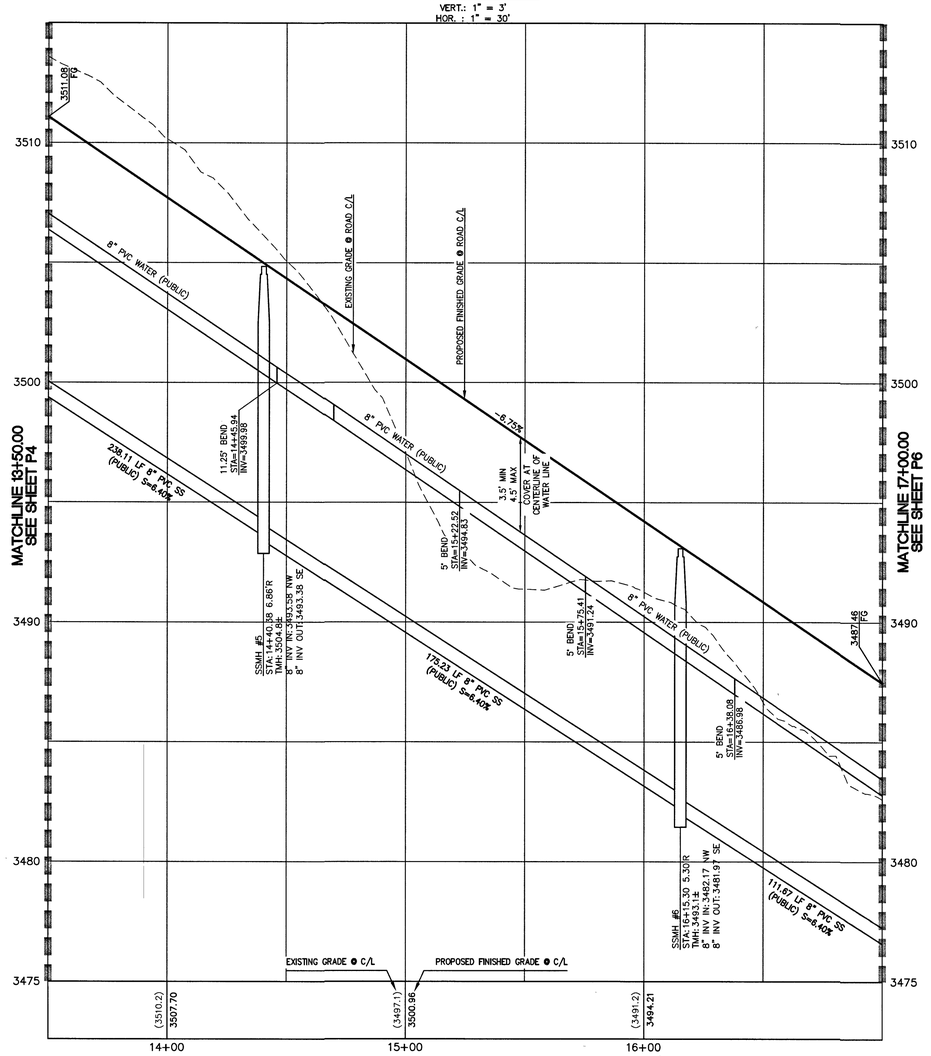
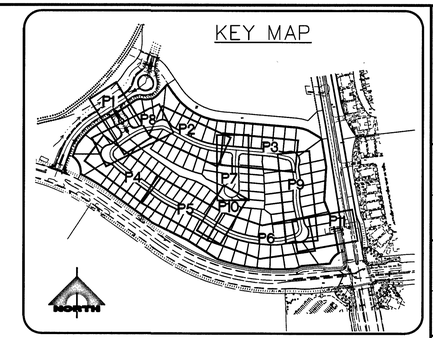


KEY MAP



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NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

BENCHMARK:
CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

SEWER CONNECTION NOTE
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Call before you Dig
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Call 811
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1-800-227-2600

FAST
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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UTILITY APPROVAL
SOUTHWEST GAS CORP. DATE: 9-16-19

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APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01224 | CLV DWG# 10785117

STATE OF NEVADA PROFESSIONAL ENGINEER HAO A. NGUYEN Exp. 12/31/2019 CIVIL No. 19396
DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:36:13

GCW
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
ENGINEERS \ SURVEYORS

f:\Projects\700\764-a149-001\DWG\production\764-A149-001cP1-6.dwg
Nicholas DeRosa

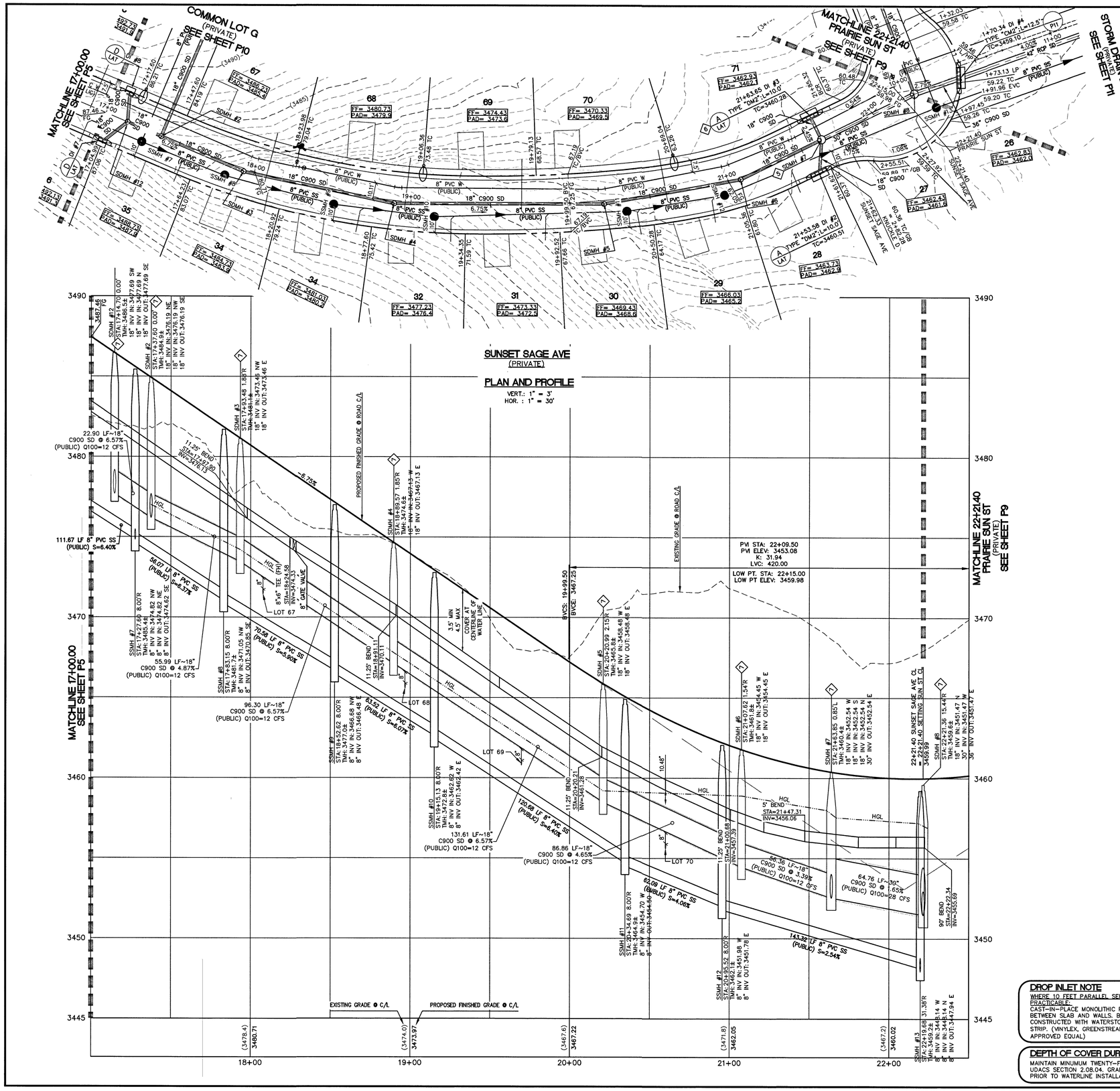
PULTE HOMES

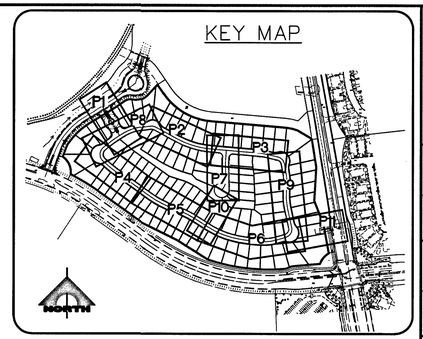
~~STARTING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

SUNSET SAGE AVE
STA. 13+50.00 TO STA. 17+00.00
PLAN AND PROFILE

DRAWING
P5
17 OF 37 SHTS

PROJ#:136744A GS:137-33-NE





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30' 0' 15' 30' 60'

SCALE: 1" = 30'

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UTILITY APPROVAL
SOUTHWEST GAS CORPORATION — DATE: 8-16-19

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01224 | CLV DWG# 10745117

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REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GOV APP

DATE: 09-16-19

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:36:24

GCV
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
ENGINEERS\SURVEYORS gcwengineering.com

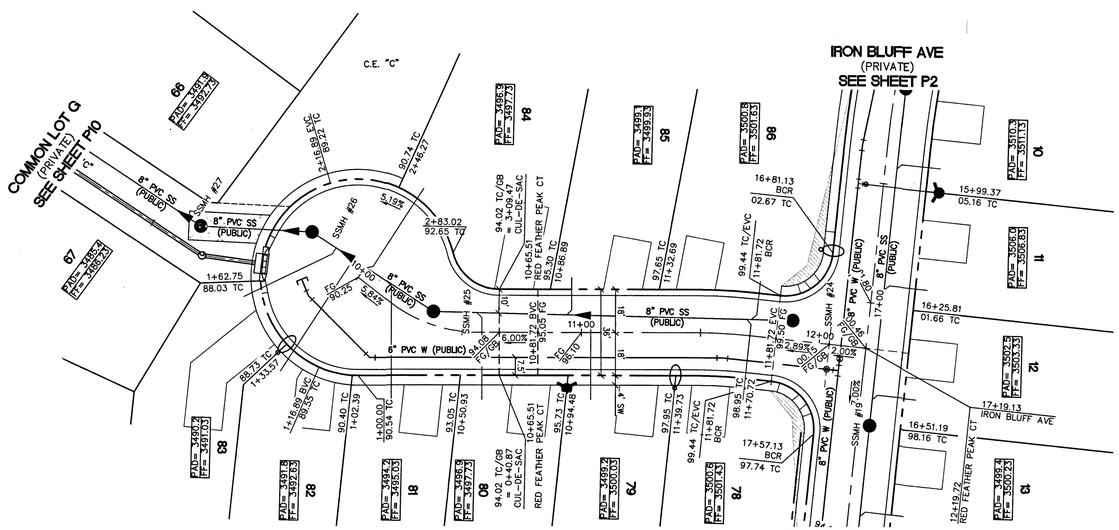
f:\Projects\700\764-a149-001\DWG\production\764-A149-001cP1-6.dwg
Nicholas DeRosa

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

SUNSET SAGE AVE
STA. 17+00.00 TO STA. 22+21.40
PLAN AND PROFILE

DRAWING
P6
18 OF 37 SHTS

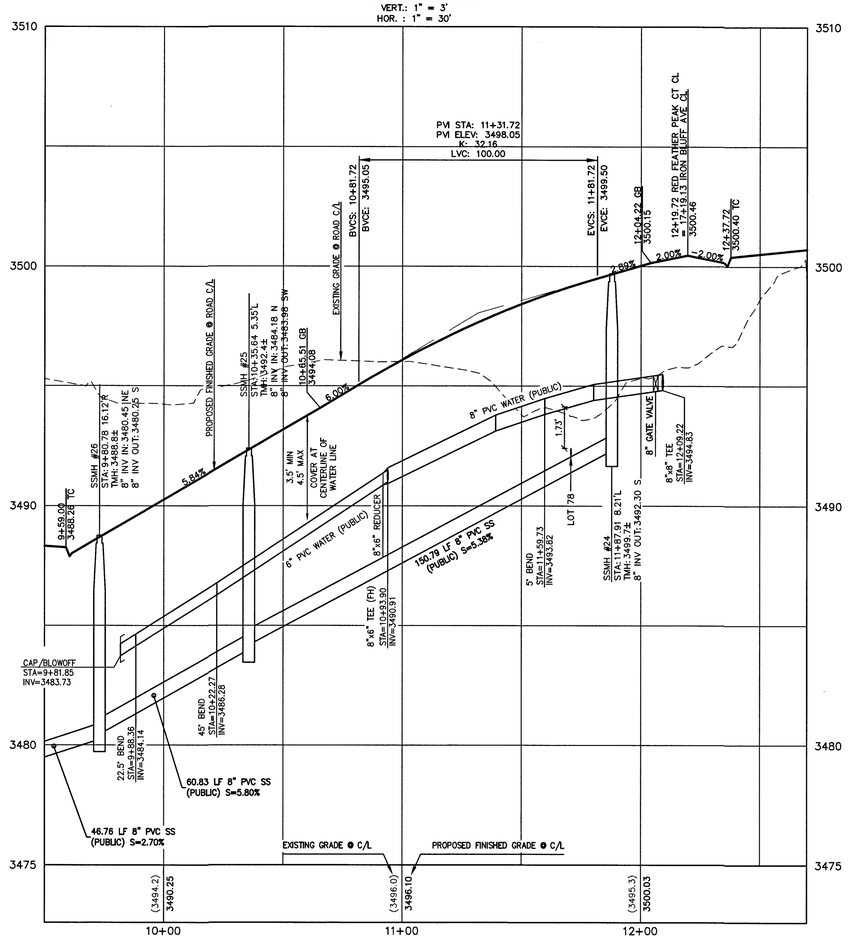
PROJ#:136744A QS:137-33-NE



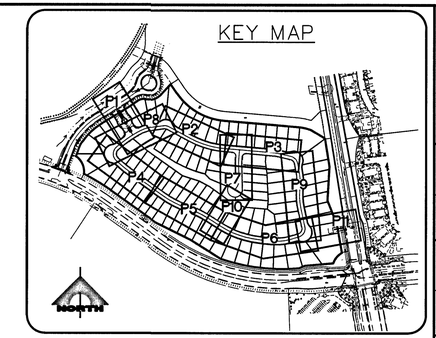
RED FEATHER PEAK CT
(PRIVATE)

PLAN AND PROFILE

VERT.: 1" = 3'
HOR. : 1" = 30'



KEY MAP



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UTILITY APPROVAL
SOUTHWEST GAS CORPORATION — DATE: 9-16-19

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APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01224 | CLV DWG# 10715117

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER No. 18396 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CGW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:37:16

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

f:\Projects\700\764-a149-001\DWG\production\764-A149-001cP7-9.dwg
Nicholas DeRosa

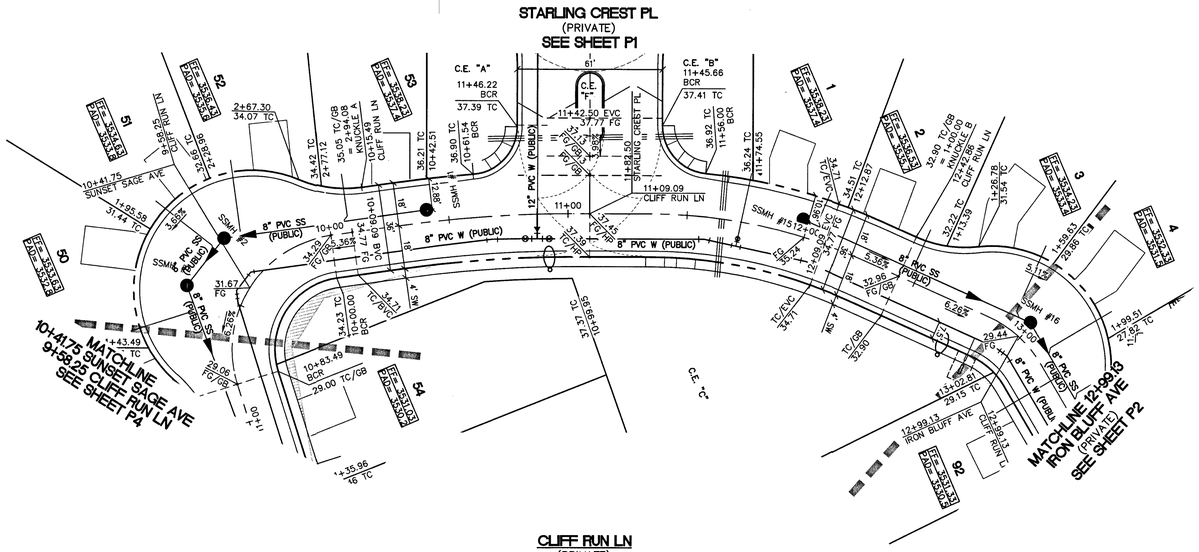
PULTE HOMES

~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

RED FEATHER PEAK CT
STA. 9+59.00 TO STA. 12+19.72
PLAN AND PROFILE

PROJ#:136744A QS:137-33-NE

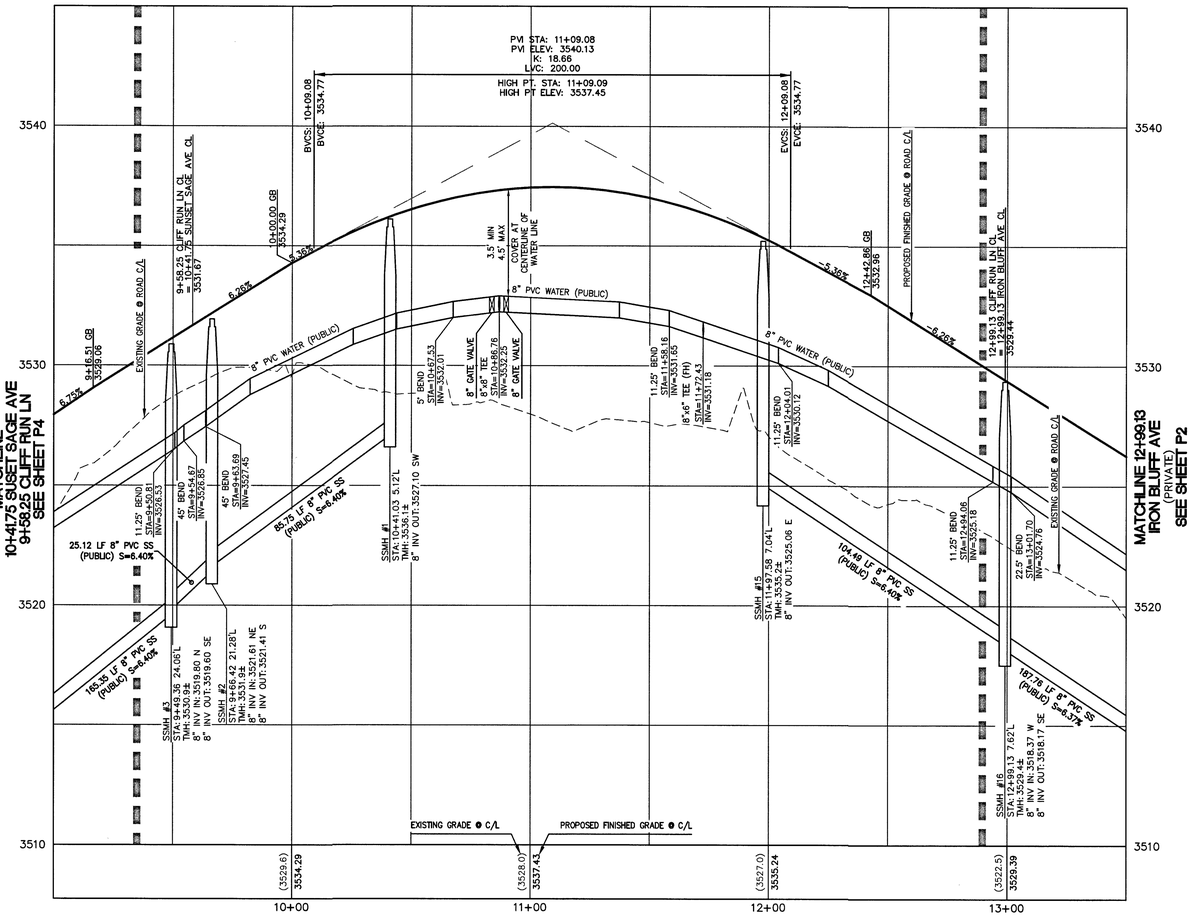
DRAWING
P7
19 OF 37 SHTS

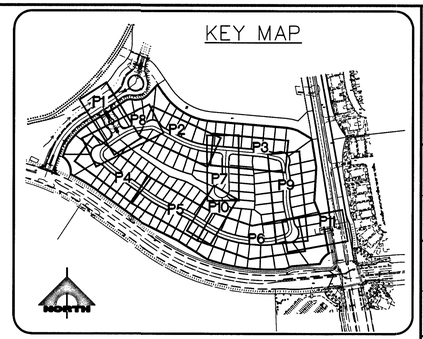


CLIFF RUN LN
(PRIVATE)

PLAN AND PROFILE

VERT.: 1" = 3'
HOR. : 1" = 30'





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UTILITY APPROVAL
SOUTHWEST GAS CORPORATION — DATE: 9-16-19

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
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L# 19-01224 | CLV DWG# 10745

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STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER — No. 19356 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:37:26

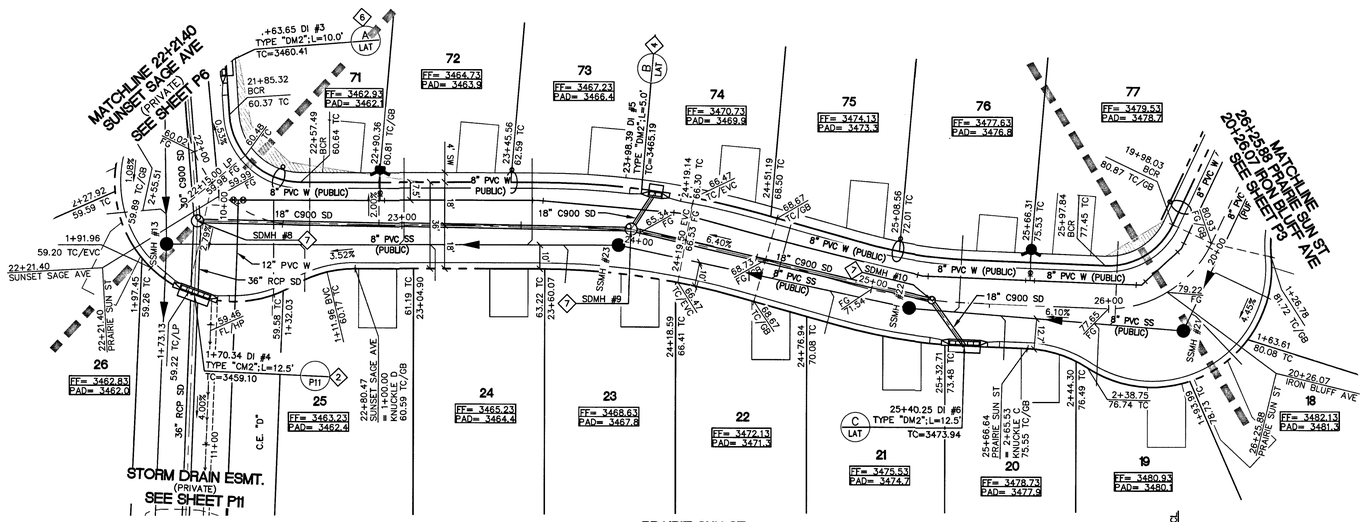
GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

f:\Projects\700\764-a149-001\DWG\production\764-A149-001cP7-9.dwg
Nicholas DeRosa

PULTE HOMES
~~STARLING FOXTAIL~~
SUMMERLIN VILLAGE 24A PARCEL N
CLIFF RUN LN
STA. 9+58.25 TO STA. 12+99.13
PLAN AND PROFILE

DRAWING
P8
20 OF 37 SHTS

PROJ.#:136744A QS:137.33-NE



PRAIRIE SUN ST
(PRIVATE)
PLAN AND PROFILE
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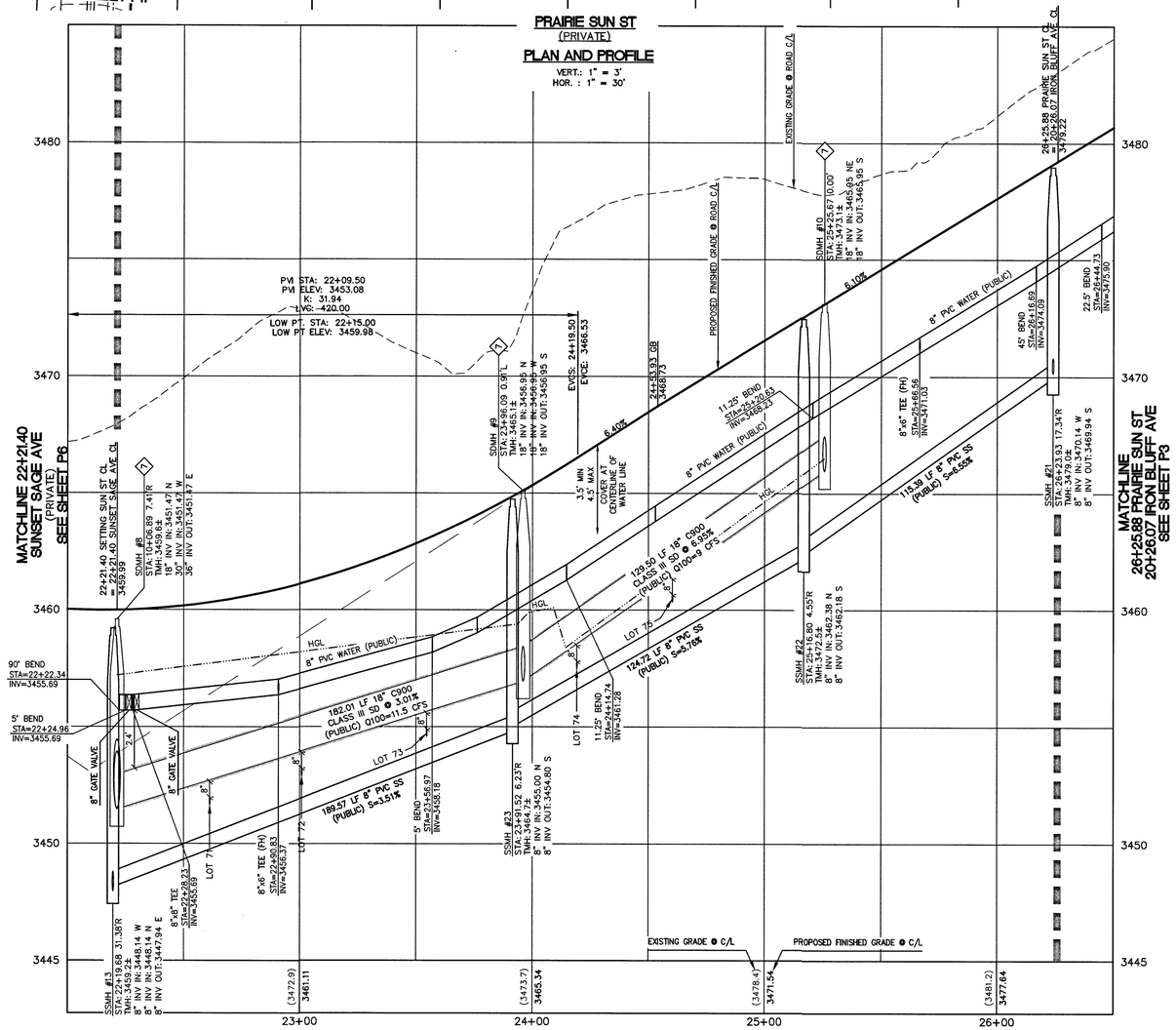
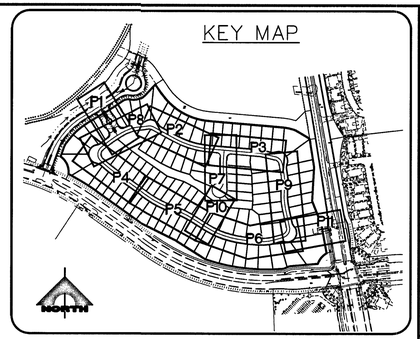
HOR. : 1" = 30'



KEY MAP



NORTH

30' 0' 15' 30' 60'

SCALE: 1" = 30'

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BENCHMARK:
CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

SEWER CONNECTION NOTE
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UTILITY APPROVAL
SOUTHWEST GAS CORPORATION — DATE: 9-16-19

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01224 | CLV DWG# 107X5117

Call before you Dig
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FAST
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1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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GCW
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
ENGINEERS\SURVEYORS

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

HAO A. NGUYEN
Exp. 12/31/2019
CIVIL
No. 19356
STATE OF NEVADA
PROFESSIONAL ENGINEER
DATE: 09-16-19

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:37:36
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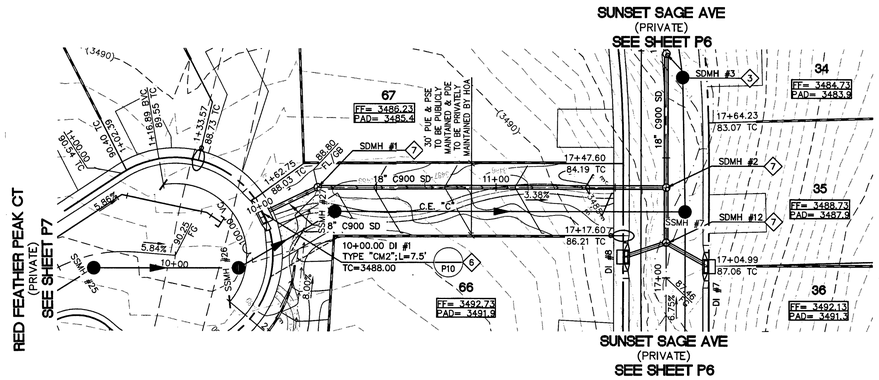
Nicholas DeRosa

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N
PRAIRIE SUN ST
STA. 22+21.40 TO STA. 26+25.88
PLAN AND PROFILE

DRAWING
P9
21 OF 37 SHTS

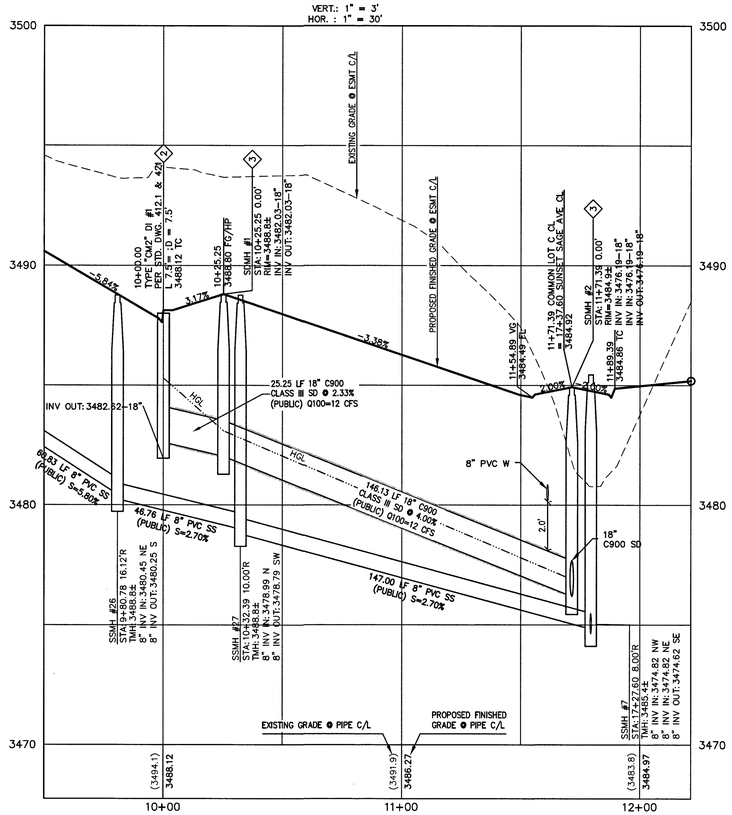
PROJ#:136744A QS:137-33-NE

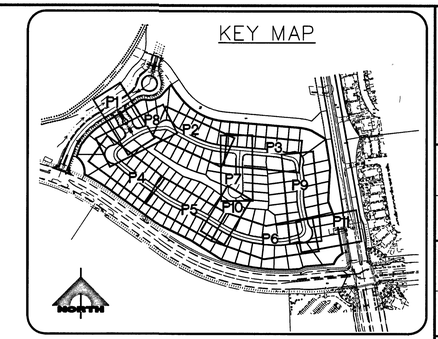


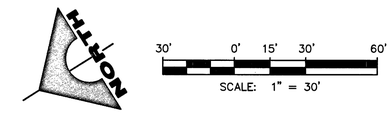
COMMON LOT C
(PRIVATE)

PLAN AND PROFILE

VERT.: 1" = 3'
HOR. : 1" = 30'







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UTILITY APPROVAL
SOUTHWEST GAS CORP. — DATE: 9-16-19

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APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# 119-01224 | CLV DWG# 107457

NADIR A. NGUYEN
STATE OF NEVADA
Exp. 12/31/2019
No. 19356
CIVIL
PROFESSIONAL ENGINEER
DATE: 09-16-19

REV	DATE	DESCRIPTION	GEN APP	DATE	ENGR APP	DATE	CON APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:38:13

GCV
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
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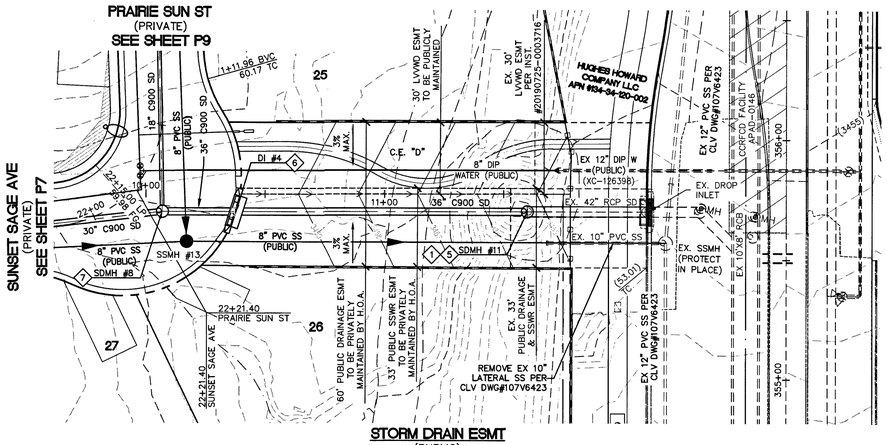
gcvengineering.com
ENGINEERS \ SURVEYORS

E:\Projects\700\764-a149-001\DWG\production\764-A149-001P10-11.dwg
Nicholas Bellosa

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N
COMMON LOT C
STA. 10+00.00 TO STA. 11+71.39
PLAN AND PROFILE

DRAWING
P10
22 OF 37 SHTS

PROJ#:136744A QS:137-33-NE



PLAN AND PROFILE

VERT.: 1" = 3'
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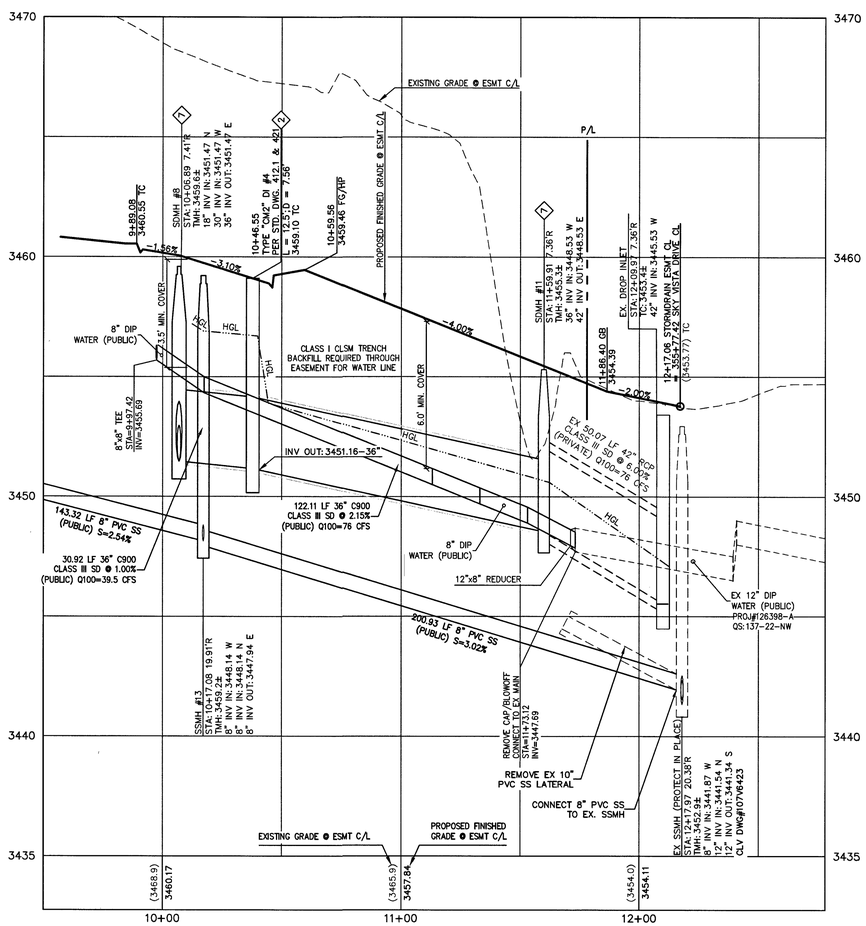

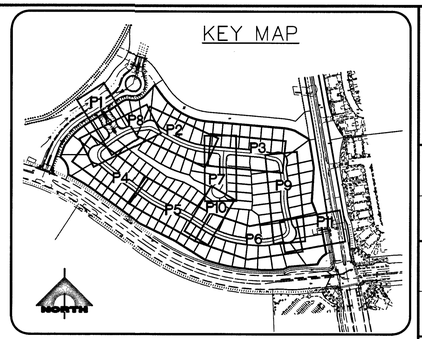

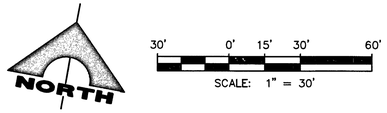

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UTILITY APPROVAL

SOUTHWEST GAS CORPORATION — DATE: 9-16-19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
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L# L19-01224 | CLV DWG# 107V5427

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STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — No. 15596 — PROFESSIONAL ENGINEER — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:38:23

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
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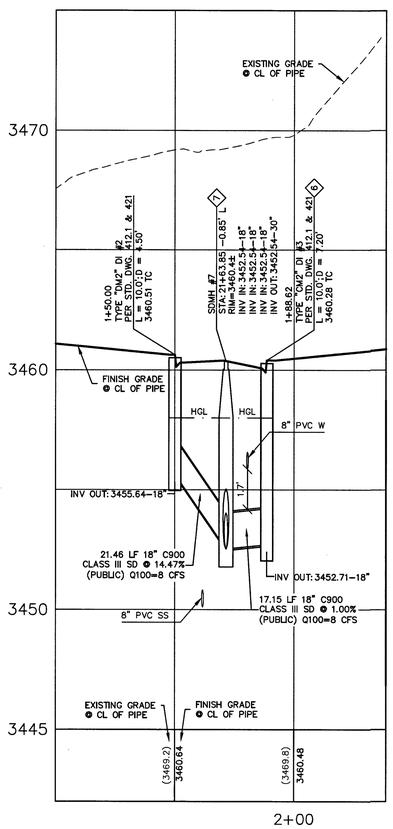
f:\Projects\700\764-A149-001\DWG\production\764-A149-001cP10-11.dwg
Nicholas DeRosa

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

STORM DRAIN ESMT
STA. 10+00.00 TO STA. 11+59.91
PLAN AND PROFILE

DRAWING
P11
23 OF 37 SHTS

PROJ#:136744A QS:137-33-NE



LATERAL A (A)

VERT.: 1" = 3'
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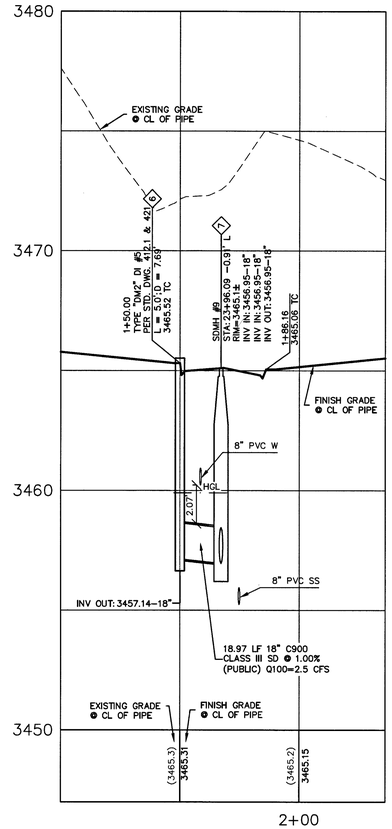

LATERAL B (B)

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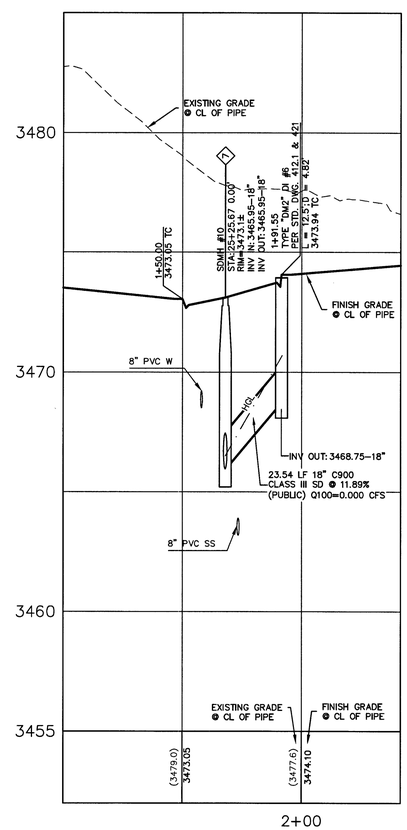
HOR. : 1" = 30'



LATERAL C (C)

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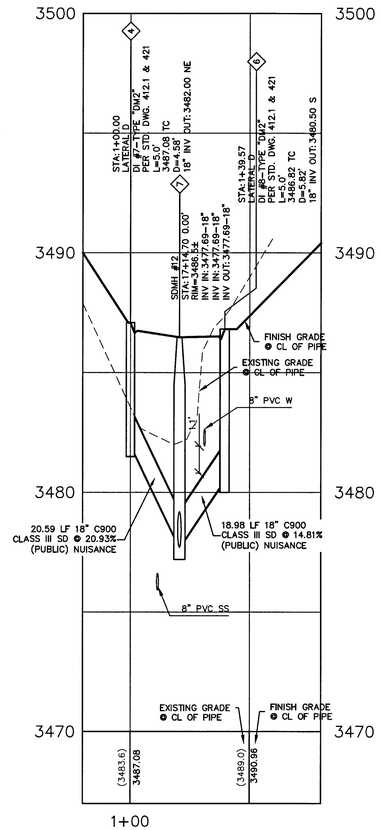

LATERAL D (D)

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DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

CAST IN PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS. CENTER BULB, OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL.)

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

CONTROLLED LOW STRENGTH MATERIAL (CLSM)

PROTECT WATERLINES IN PLACE. WHEREVER A WATERLINE IS ABOVE A STORM DRAIN OR SEWER WHERE COMPACTION REQUIREMENTS UNDER A WATERLINE CANNOT BE MET, BACKFILL TRENCH WITH CLASS II CONTROLLED LOW STRENGTH MATERIAL (CLSM) TO THE SPRINGLINE OF THE WATERLINE. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY. ADDITIONAL HEALTH REGULATIONS MAY APPLY PER UDACS 2.22.

NOTES TO CONTRACTOR

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

BASIS OF BEARING:

NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

FAST Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig. Avoid cutting underground utility lines. It's costly. Call 811 or 1-800-227-2600

AVOID METING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19

L# L19-01224 | CLV DWG# 1075117

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CCW APP	DATE

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER — No. 19396 — DATE: 09-16-19

PROJECT NO. 764-A149-001

DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:39:14

GCV ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcvengineering.com

f:\Projects\700\764-a149-001\DWG\production\764-A149-001LAT.dwg
Nicholas DeRosa

PULTE HOMES

~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

STORM DRAIN LATERALS

DRAWING
LAT
24 OF 37 SHTS

PROJ#:136744A QS:137-33-NE

BASIS OF BEARING:

NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

NOTE TO CONTRACTOR

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

NOTE:

ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED BUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

FOR ALL DRY UTILITY CROSSINGS

- MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING
- MAINTAIN MINIMUM 3' PARALLEL SEPARATION.
- ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED

APPROVED FOR CONSTRUCTION

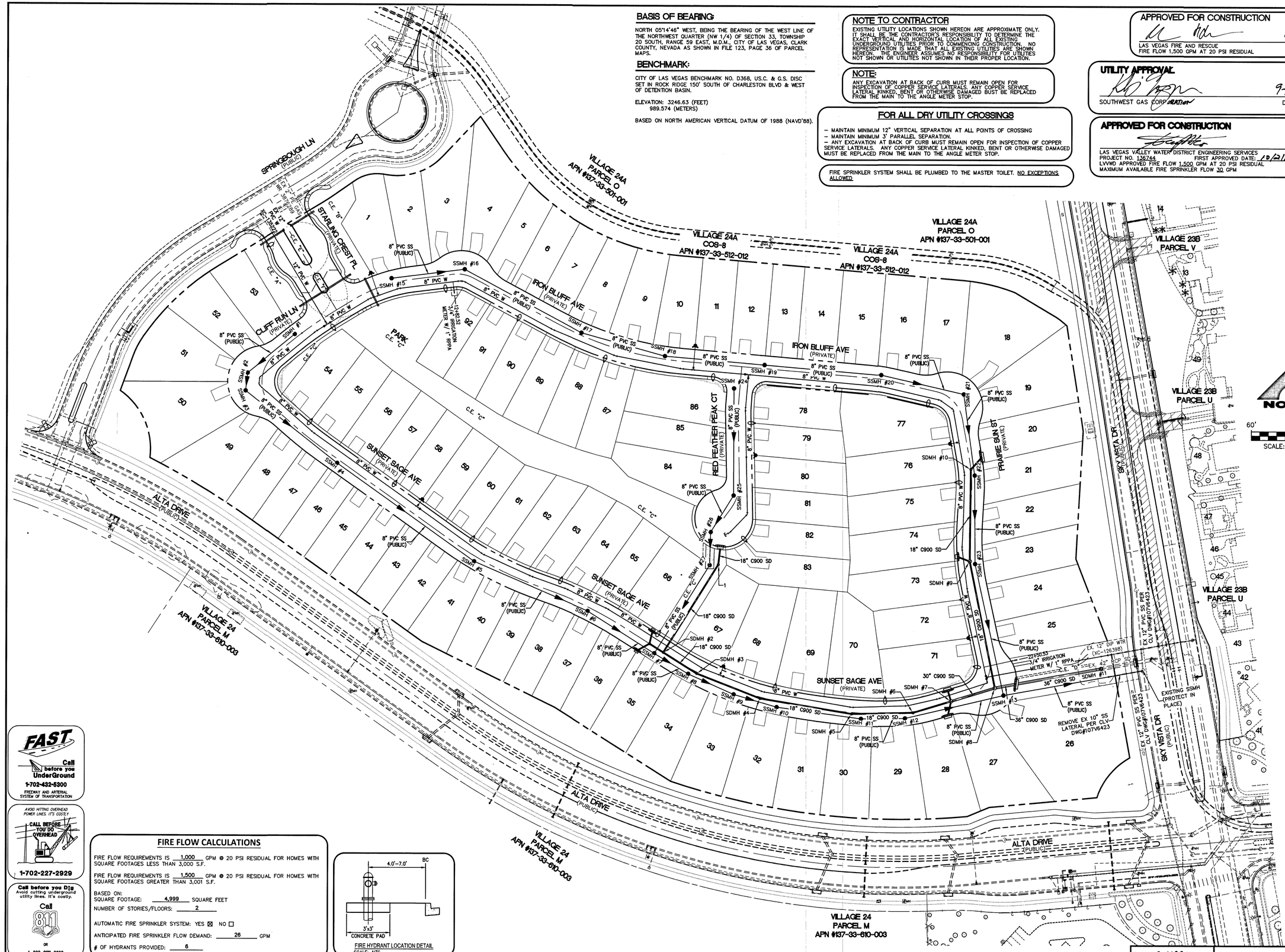
LAS VEGAS FIRE AND RESCUE — DATE 9-19-19
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

UTILITY APPROVAL

SOUTHWEST GAS CORPORATION — DATE: 9-16-19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM



FAST — Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD 1-702-227-2929

Call before you Dig. Avoid cutting underground utility lines. It's costly. Call 811 OR 1-800-227-2600

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 1,000 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES LESS THAN 3,000 S.F.

FIRE FLOW REQUIREMENTS IS 1,500 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES GREATER THAN 3,001 S.F.

BASED ON:
SQUARE FOOTAGE: 4,999 SQUARE FEET
NUMBER OF STORIES/FLOORS: 2

AUTOMATIC FIRE SPRINKLER SYSTEM: YES ☒ NO ☐

ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

OF HYDRANTS PROVIDED: 6

FIRE HYDRANT LOCATION DETAIL
SCALE: NTS

L# 219-01224 | CLV DWG# 10785H7

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CGW APP

NAD A. NICHOLAS DeROSA No. 19596 STATE OF NEVADA PROFESSIONAL ENGINEER CIVIL — DATE: 09-16-19

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 12:03:16

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

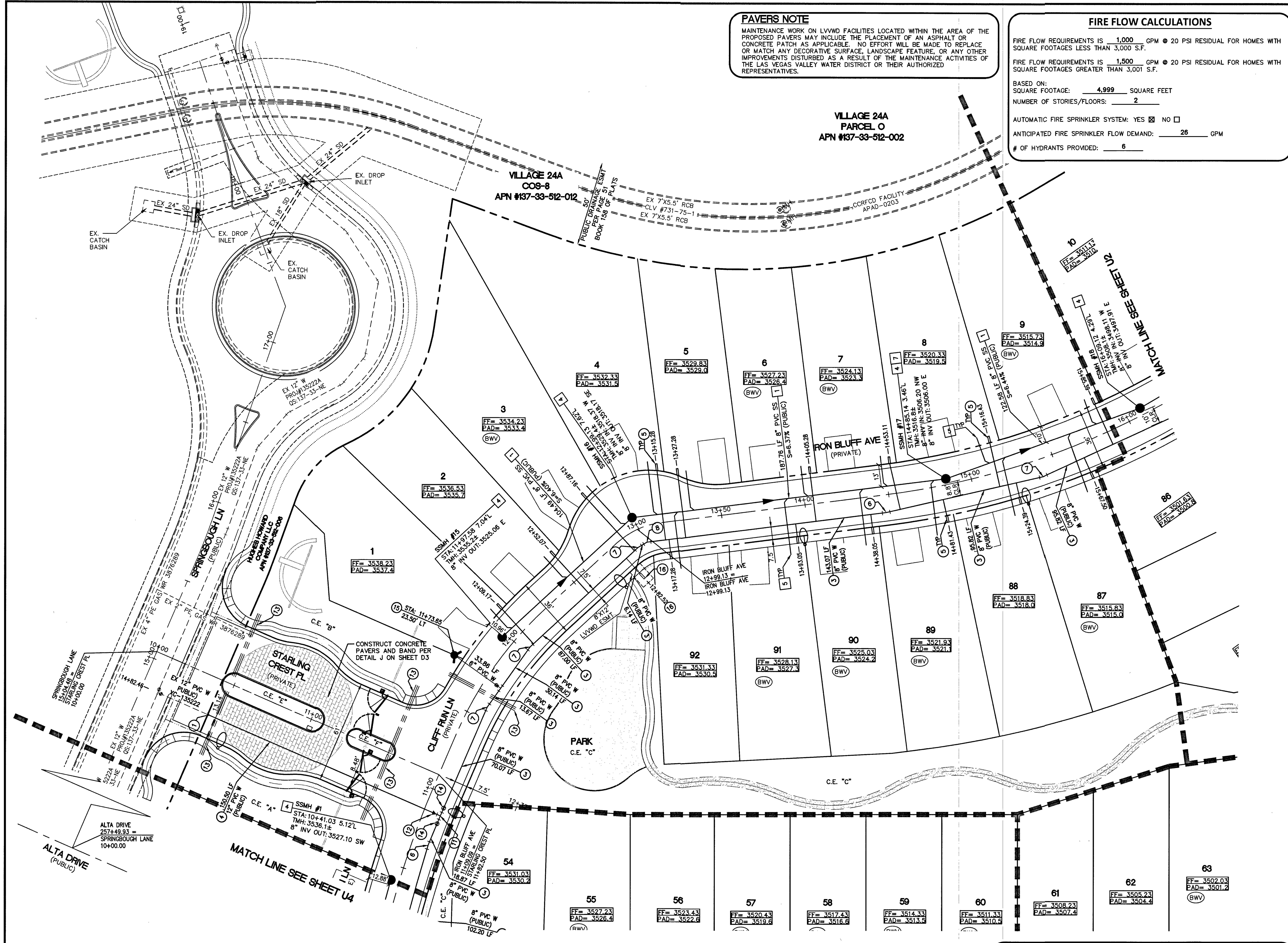
F:\Projects\700\764-a149-001\DWG\production\764-A149-001aMU.dwg
Nicholas DeRosa

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

MASTER UTILITY PLAN

DRAWING MU
25 OF 37 SHTS

PROJ.#:136744A QS:137-33-NE



PAVERS NOTE

MAINTENANCE WORK ON LVVWD FACILITIES LOCATED WITHIN THE AREA OF THE PROPOSED PAVERS MAY INCLUDE THE PLACEMENT OF AN ASPHALT OR CONCRETE PATCH AS APPLICABLE. NO EFFORT WILL BE MADE TO REPLACE OR MATCH ANY DECORATIVE SURFACE, LANDSCAPE FEATURE, OR ANY OTHER IMPROVEMENTS DISTURBED AS A RESULT OF THE MAINTENANCE ACTIVITIES OF THE LAS VEGAS VALLEY WATER DISTRICT OR THEIR AUTHORIZED REPRESENTATIVES.

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 1,000 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES LESS THAN 3,000 S.F.

FIRE FLOW REQUIREMENTS IS 1,500 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES GREATER THAN 3,001 S.F.

BASED ON:
SQUARE FOOTAGE: 4,999 SQUARE FEET

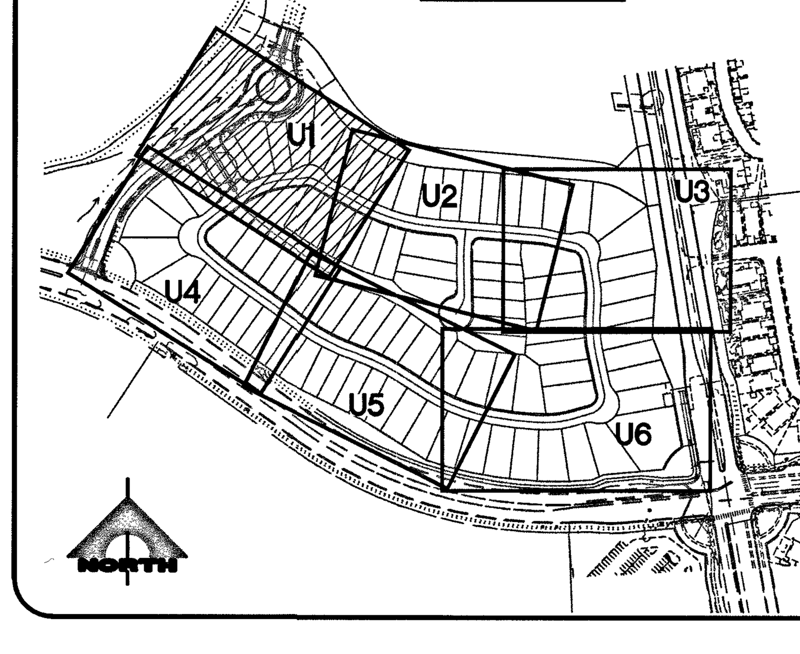
NUMBER OF STORIES/FLOORS: 2

AUTOMATIC FIRE SPRINKLER SYSTEM: YES ☒ NO ☐

ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

OF HYDRANTS PROVIDED: 6

KEY MAP



NORTH

30' 0' 15' 30'
SCALE: 1" = 30'

CONSTRUCTION NOTES

WATER

1. REMOVE CAP/BLOW-OFF PER UDACS PLATE NO. 36 AND CONNECT TO EXIST MAIN.
2. INSTALL 8" DIP WATER PIPE PER UDACS PLATE 17.
3. INSTALL 8" PVC WATER PIPE PER UDACS PLATE 17.
4. INSTALL 12" PVC WATER PIPE PER UDACS PLATE 17.
5. INSTALL 1" WATER SERVICE WITH 3/4" WATER METER PER UDACS PLATE NO. 1
6. INSTALL 5° BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
7. INSTALL 11.25° BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
8. INSTALL 22.5° BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
9. INSTALL 45° BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
10. INSTALL 90° BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
11. INSTALL 8" X 8" TEE PER UDACS PLATE NO. 31.
12. INSTALL 12" X 8" REDUCER PER UDACS PLATE NO. 30.
13. INSTALL IRRIGATION SLEEVES 1-6" AND 2-4" SCH. 40 PVC (VERIFIY ALL IRRIGATION CROSSING WITH LANDSCAPE PLANS.
14. INSTALL GATE VALVE SAME SIZE AS LINE, BOX, AND COVER PER UDACS PLATE NO. 30 & 39.
15. INSTALL FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 39 & 40.
16. INSTALL 3/4" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4 AND 8. MAINTAIN A SLOPE OF NO GREATER THAN 2%, FREE OF SHRUBBERY AND OBSTRUCTIONS, WITHIN AT LEAST THREE (3) FEET ADJACENT TO THE BACKFLOW ASSEMBLY PAD.
17. INSTALL 6" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 31.
18. INSTALL 8" X 6" REDUCER PER UDACS PLATE NO. 30.
19. INSTALL 1" WATER SERVICE WITH 3/4" WATER METER PER UDACS PLATE NO. 3
20. INSTALL 6" PVC WATER PIPE PER UDACS PLATE 17.
21. INSTALL 6" CAP PER UDACS PLATE NO. 31.

SEWER

1. INSTALL 8" PVC SANITARY SEWER PIPE.
2. CONSTRUCT CONCRETE CAP PER DCSWCS SD-19.
3. REMOVE CAP AND CONNECT TO EXISTING 8" SEWER STUB. CONTRACTOR TO VERIFY LOCATION AND ELEVATION.
4. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-3.
5. INSTALL 4" SEWER LATERAL PER DCSWCS SD-20. (TYP).
6. REMOVE EX 10" PVC SS LATERAL AND CONNECT TO SSMH
7. CONSTRUCT CORROSION PROTECTION PER 3.16.8 OF DCSWCS.

STORM DRAIN

6. CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)
7. CONSTRUCT FULL STRENGTH GROUT PER DCSWCS 3.16.4, WATERTIGHT JOINTS USING AGENCY-APPROVED SEALS AT MANHOLE SECTIONS AND GRADE RINGS PER DCSWCS 3.16.2, AND RAVEN LINING SYSTEM OR WARREN ENVIRONMENTAL LINING SYSTEMS.

NOTE TO CONTRACTOR

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

NOTE

ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

ALL PRIVATE STREETS ARE P.U.E., PUBLIC DRAINAGE EASEMENT AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

(BWV) SEWER BACKWATER VALVE (PRIVATE)

PRV WATER PRESSURE-REDUCING VALVE (PRIVATE)

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

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FAST
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN,

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

ESTIMATE WASTEWATER DEMAND

92 UNITS X 250 GPD/UNIT = 23,000 GPD

TOTAL AVERAGE CONTRIBUTION = 23,000 GPD = 0.023000 MGD

TOTAL PEAK FLOW = 0.023000 MGD X 3.76 (PEAK FACTOR) = 0.0864 MGD

SEWER CONNECTION NOTE

ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

FOR ALL DRY UTILITY CROSSINGS

- MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING
- MAINTAIN MINIMUM 3" PARALLEL SEPARATION
- ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

CONTRACTOR NOTE:

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02.
3. ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.
4. THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
5. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.
6. ALL NEW MANHOLES TO HAVE PRE-CAST BASES.
7. INSTALL PIPELINE MARKER BALLS, PER UDACTS PLATE NO. 15.

FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED

LOTS: 20-32, 69-77, & 3/4" IRRIGATION METER AT STA 22+50.53 PRAIRIE SUN ST. THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES (PRV) BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO LANDSCAPE BOULDERS, FENCE/ WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT.

GCW, INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM RECORD INFORMATION AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING IMMEDIATELY.

CONTRACTOR NOTE:

WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

UTILITY APPROVAL

[signature] 9-16-19
SOUTHWEST GAS CORPORATION DATE:

APPROVED FOR CONSTRUCTION

[signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

APPROVED FOR CONSTRUCTION

[signature] 9-19-19
LAS VEGAS FIRE AND RESCUE DATE
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

L# L19-01224 CLV DWG# 107%5h7

STATE OF NEVADA PROFESSIONAL ENGINEER — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — No. 19396
DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
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GCW ENGINEERS \ SURVEYORS
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f:\Projects\700\764-a149-001\DWG\production\764-A149-001cU.dwg
Nicholas DeRosa

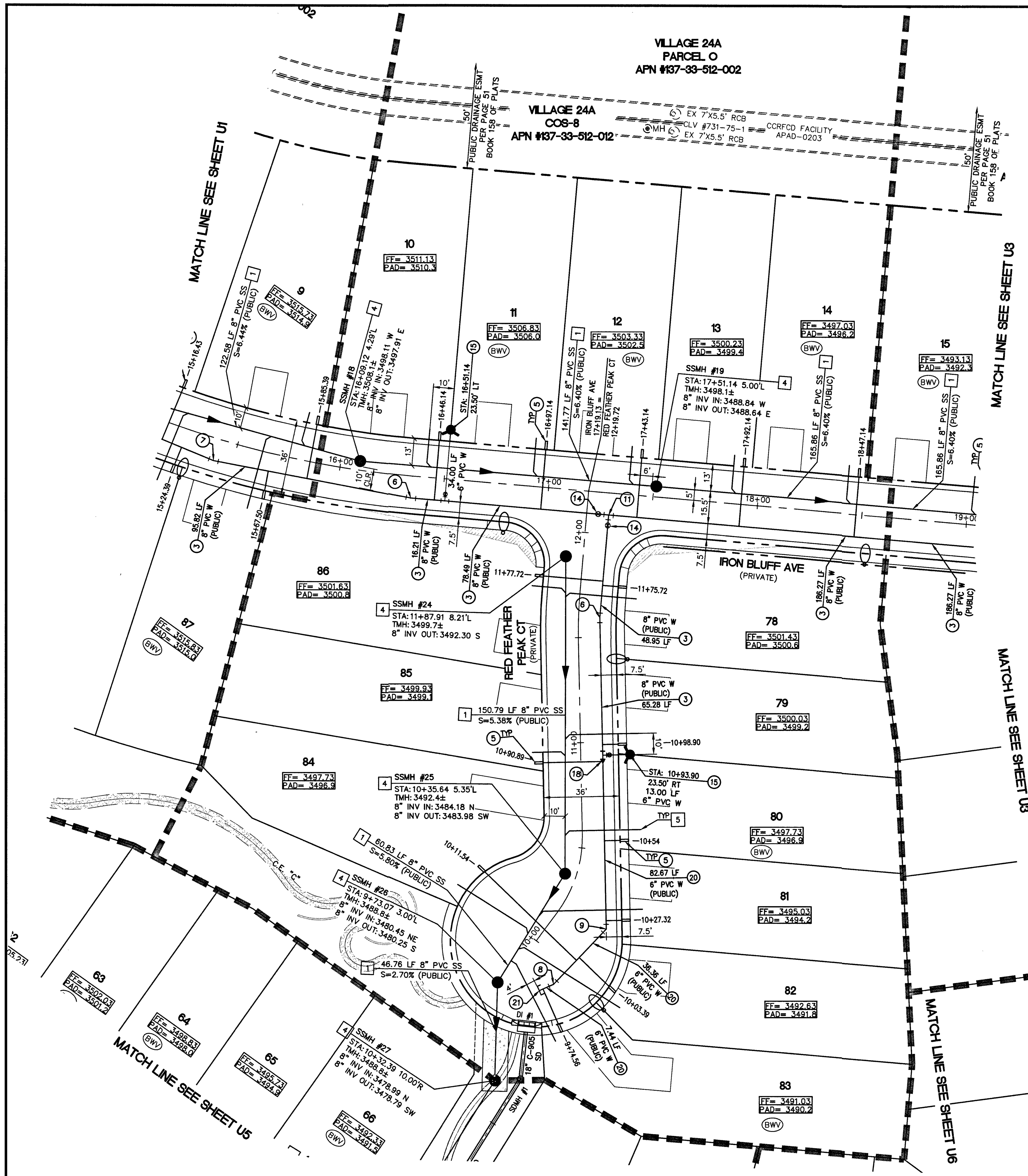
PULTE HOMES

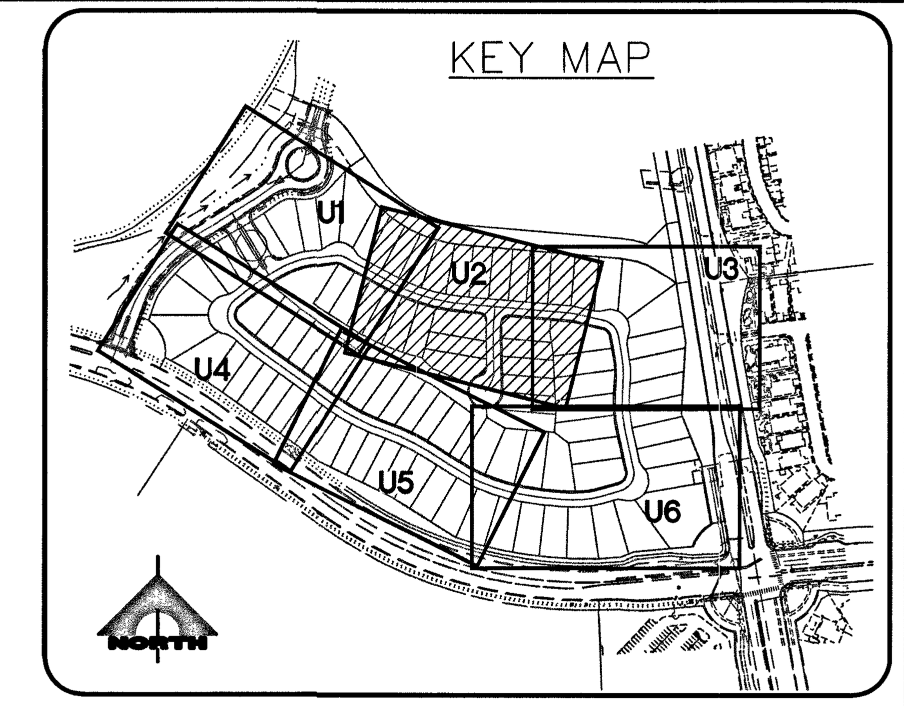
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

UTILITY PLAN 1

DRAWING
U1
26 OF 37 SHTS

PROJ#:136744A QS:137-33-NE





NORTH

SCALE: 1" = 30'

CONSTRUCTION NOTES

WATER

1. REMOVE CAP/BLOW-OFF PER UDACS PLATE NO. 36 AND CONNECT TO EXIST MAIN.
2. INSTALL 8" DIP WATER PIPE PER UDACS PLATE 17.
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SEWER

1. INSTALL 8" PVC SANITARY SEWER PIPE.
2. CONSTRUCT CONCRETE CAP PER DCSWCS SD-19.
3. REMOVE CAP AND CONNECT TO EXISTING 8" SEWER STUB. CONTRACTOR TO VERIFY LOCATION AND ELEVATION.
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6. REMOVE EX 10" PVC SS LATERAL AND CONNECT TO SSMH
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STORM DRAIN

6. CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)
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(BWV) SEWER BACKWATER VALVE (PRIVATE)

PRV WATER PRESSURE-REDUCING VALVE (PRIVATE)

DROP INLET NOTE

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CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

ESTIMATE WASTEWATER DEMAND

92 UNITS X 250 GPD/UNIT = 23,000 GPD

TOTAL AVERAGE CONTRIBUTION = 23,000 GPD = 0.023000 MGD

TOTAL PEAK FLOW = 0.023000 MGD X 3.76 (PEAK FACTOR) = 0.0864 MGD

SEWER CONNECTION NOTE

ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

FOR ALL DRY UTILITY CROSSINGS

- MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING
- MAINTAIN MINIMUM 3" PARALLEL SEPARATION
- ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

CONTRACTOR NOTE:

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FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 1,000 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES LESS THAN 3,000 S.F.

FIRE FLOW REQUIREMENTS IS 1,500 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES GREATER THAN 3,001 S.F.

BASED ON:
SQUARE FOOTAGE: 4,999 SQUARE FEET
NUMBER OF STORIES/FLOORS: 2

AUTOMATIC FIRE SPRINKLER SYSTEM: YES ☒ NO ☐

ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

OF HYDRANTS PROVIDED: 6

FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED

LOTS: 20-32, 69-77, & 3/4" IRRIGATION METER AT STA 22+50.53 PRAIRIE SUN ST. THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES (PRV) BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

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NOTE

ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

ALL PRIVATE STREETS ARE P.U.E., PUBLIC DRAINAGE EASEMENT AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

UTILITY APPROVAL

[signature] 9-16-19
SOUTHWEST GAS CORPORATION DATE:

APPROVED FOR CONSTRUCTION

[signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

APPROVED FOR CONSTRUCTION

[signature] 9-19-19
LAS VEGAS FIRE AND RESCUE DATE
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

L# L19-01224 CLV DWG# 10745117

STATE OF NEVADA PROFESSIONAL ENGINEER HAO A. NGUYEN Exp. 12/31/2019 CIVIL No. 19396
DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:41:11

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

f:\Projects\700\764-a149-001\DWG\production\764-A149-001cU.dwg
Nicholas DeRosa

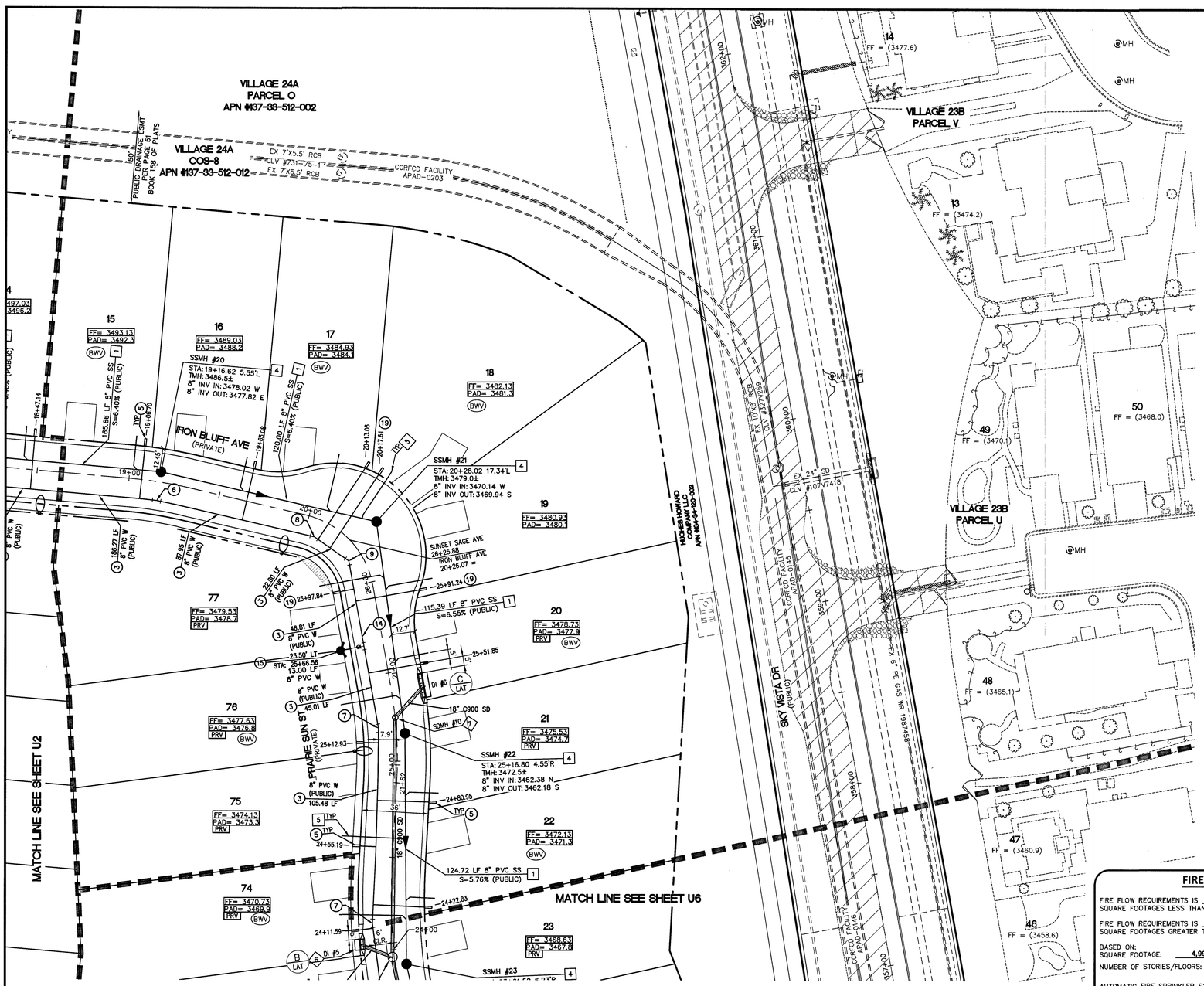
PULTE HOMES

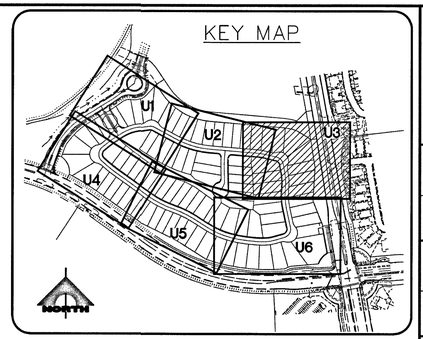
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

UTILITY PLAN 2

DRAWING
U2
27 OF 37 SHTS

PROJ#:136744A QS:137-33-NE





NORTH

30' 0' 15' 30'
SCALE: 1" = 30'

CONSTRUCTION NOTES

WATER

1. REMOVE CAP/BLOW-OFF PER UDACS PLATE NO. 36 AND CONNECT TO EXIST MAIN.
2. INSTALL 8" DIP WATER PIPE PER UDACS PLATE 17.
3. INSTALL 8" PVC WATER PIPE PER UDACS PLATE 17.
4. INSTALL 12" PVC WATER PIPE PER UDACS PLATE 17.
5. INSTALL 1" WATER SERVICE WITH 3/4" WATER METER PER UDACS PLATE NO. 1
6. INSTALL 5" BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
7. INSTALL 11.25° BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
8. INSTALL 22.5° BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
9. INSTALL 45° BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
10. INSTALL 90° BEND PER UDACS PLATE NO. 31, SIZE PER PLAN.
11. INSTALL 8" X 8" TEE PER UDACS PLATE NO. 31.
12. INSTALL 12" X 8" REDUCER PER UDACS PLATE NO. 30.
13. INSTALL IRRIGATION SLEEVES 1-6" AND 2-4" SCH. 40 PVC (VERIFIY ALL IRRIGATION CROSSING WITH LANDSCAPE PLANS.
14. INSTALL GATE VALVE SAME SIZE AS LINE, BOX, AND COVER PER UDACS PLATE NO. 30 & 39.
15. INSTALL FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 39 & 40.
16. INSTALL 3/4" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4 AND 8. MAINTAIN A SLOPE OF NO GREATER THAN 2% FREE OF SHRUBBERY AND OBSTRUCTIONS, WITHIN AT LEAST THREE (3) FEET ADJACENT TO THE BACKFLOW ASSEMBLY PAD.
17. INSTALL 6" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 31.
18. INSTALL 8" X 6" REDUCER PER UDACS PLATE NO. 30.
19. INSTALL 1" WATER SERVICE WITH 3/4" WATER METER PER UDACS PLATE NO. 3
20. INSTALL 6" PVC WATER PIPE PER UDACS PLATE 17.
21. INSTALL 6" CAP PER UDACS PLATE NO. 31.

SEWER

1. INSTALL 8" PVC SANITARY SEWER PIPE.
2. CONSTRUCT CONCRETE CAP PER DCSWCS SD-19.
3. REMOVE CAP AND CONNECT TO EXISTING 8" SEWER STUB. CONTRACTOR TO VERIFY LOCATION AND ELEVATION.
4. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-3.
5. INSTALL 4" SEWER LATERAL PER DCSWCS SD-20. (TYP).
6. REMOVE EX 10" PVC SS LATERAL AND CONNECT TO SSMH
7. CONSTRUCT CORROSION PROTECTION PER 3.16.8 OF DCSWCS.

STORM DRAIN

6. CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS, BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)
7. CONSTRUCT FULL STRENGTH GROUT PER DCSWCS 3.16.4, WATERTIGHT JOINTS USING AGENCY-APPROVED SEALS AT MANHOLE SECTIONS AND GRADE RINGS PER DCSWCS 3.16.2, AND RAVEN LINING SYSTEM OR WARREN ENVIRONMENTAL LINING SYSTEMS.

FIRE FLOW CALCULATIONS

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AUTOMATIC FIRE SPRINKLER SYSTEM: YES ☒ NO ☐

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UTILITY APPROVAL

SOUTHWEST GAS ~~CORPORATION~~ — DATE: 9-16-19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE: 9-19-19
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

L# L19-01224 | CLV DWG# 107875117

(BWV) SEWER BACKWATER VALVE (PRIVATE)
PRV WATER PRESSURE-REDUCING VALVE (PRIVATE)

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

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FAST
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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ESTIMATE WASTEWATER DEMAND

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TOTAL PEAK FLOW = 0.023000 MGD X 3.76 (PEAK FACTOR) = 0.0864 MGD

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WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

DATE: 09-16-19

HAO A. NGUYEN
Exp. 12/31/2019
CIVIL
No. 19398
STATE OF NEVADA
PROFESSIONAL ENGINEER

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:41:15

GCW
ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

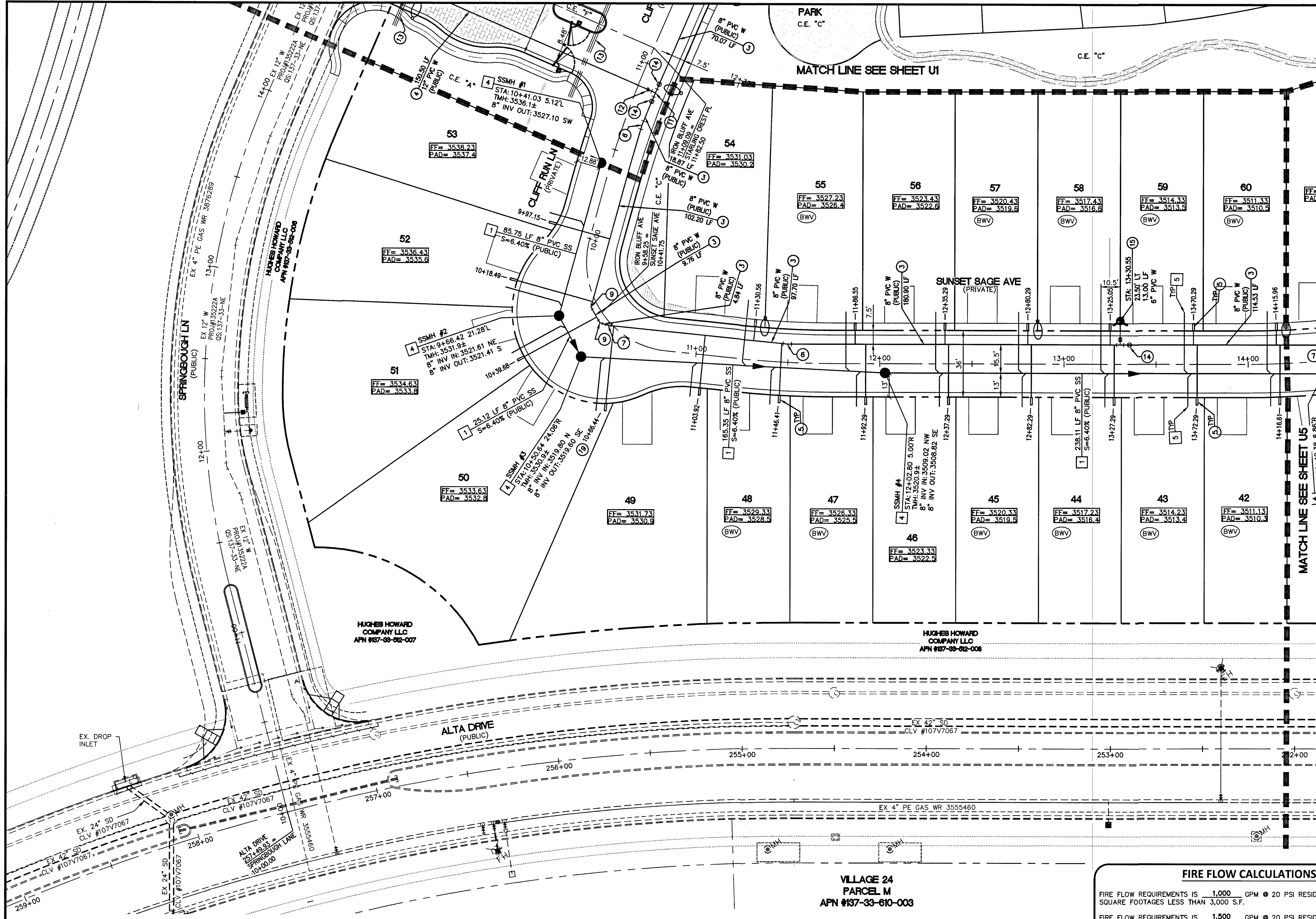
f:\Projects\700\764-a149-001\DWG\production\764-A149-001cU.dwg
Nicholas Defoco

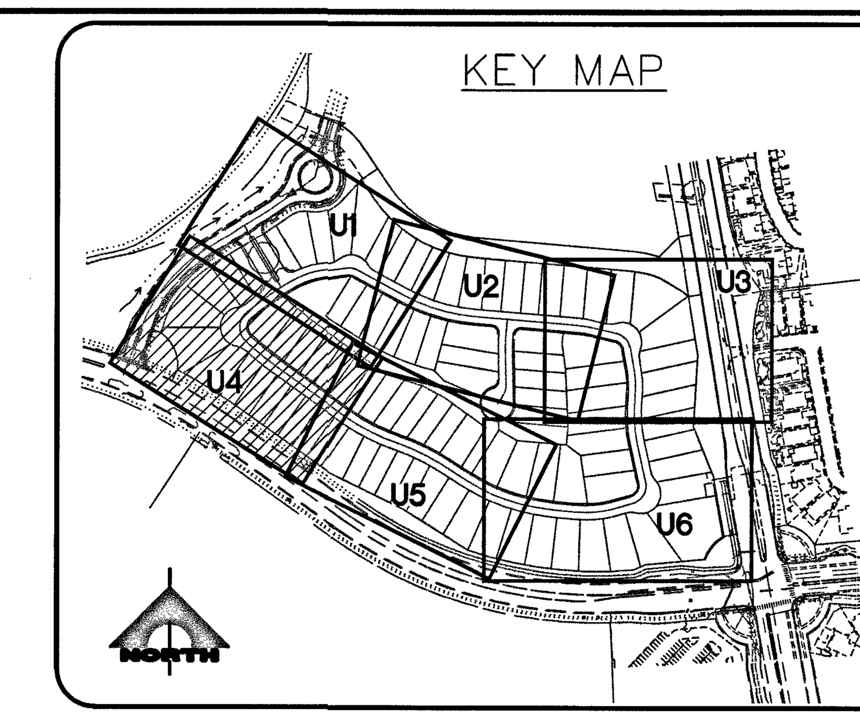
PULTE HOMES
~~STARING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

UTILITY PLAN 3

DRAWING
U3
28 OF 37 SHTS

PROJ#:136744A QS:137-33-NE





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OF HYDRANTS PROVIDED: 6

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CONSTRUCTION NOTES

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11. INSTALL 8" X 8" TEE PER UDACS PLATE NO. 31.
12. INSTALL 12" X 8" REDUCER PER UDACS PLATE NO. 30.
13. INSTALL IRRIGATION SLEEVES 1–6" AND 2–4" SCH. 40 PVC (VERIFIY ALL IRRIGATION CROSSING WITH LANDSCAPE PLANS.
14. INSTALL GATE VALVE SAME SIZE AS LINE, BOX, AND COVER PER UDACS PLATE NO. 30 & 39.
15. INSTALL FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 39 & 40.
16. INSTALL 3/4" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4 AND 8. MAINTAIN A SLOPE OF NO GREATER THAN 2%, FREE OF SHRUBBERY AND OBSTRUCTIONS, WITHIN AT LEAST THREE (3) FEET ADJACENT TO THE BACKFLOW ASSEMBLY PAD.
17. INSTALL 6" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 31.
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20. INSTALL 6" PVC WATER PIPE PER UDACS PLATE 17.
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SEWER

1. INSTALL 8" PVC SANITARY SEWER PIPE.
2. CONSTRUCT CONCRETE CAP PER DCSWCS SD-19.
3. REMOVE CAP AND CONNECT TO EXISTING 8" SEWER STUB. CONTRACTOR TO VERIFY LOCATION AND ELEVATION.
4. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-3.
5. INSTALL 4" SEWER LATERAL PER DCSWCS SD-20. (TYP).
6. REMOVE EX 10" PVC SS LATERAL AND CONNECT TO SSMH
7. CONSTRUCT CORROSION PROTECTION PER 3.16.8 OF DCSWCS.

STORM DRAIN

6. CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)
7. CONSTRUCT FULL STRENGTH GROUT PER DCSWCS 3.16.4, WATERTIGHT JOINTS USING AGENCY-APPROVED SEALS AT MANHOLE SECTIONS AND GRADE RINGS PER DCSWCS 3.16.2, AND RAVEN LINING SYSTEM OR WARREN ENVIRONMENTAL LINING SYSTEMS.

NOTE TO CONTRACTOR

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NOTE

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UTILITY APPROVAL

SOUTHWEST GAS CORPORATION — DATE: 9-16-19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 9-19-19
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

L# L19-01224 CLV DWG# 10785117

STATE OF NEVADA PROFESSIONAL ENGINEER HAO A. NGUYEN Exp. 12/31/2019 CIVIL No. 19396 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:41:21

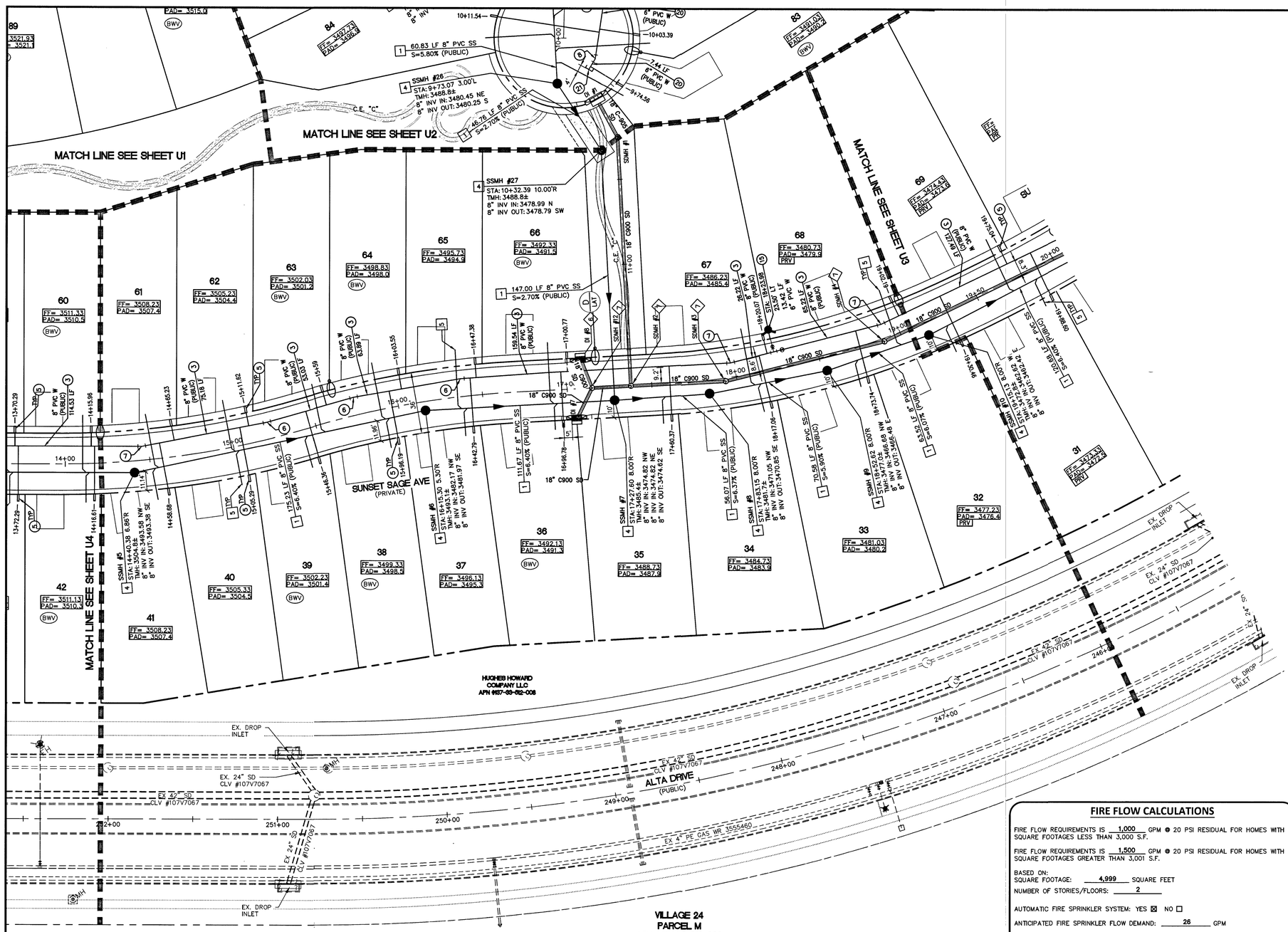
GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

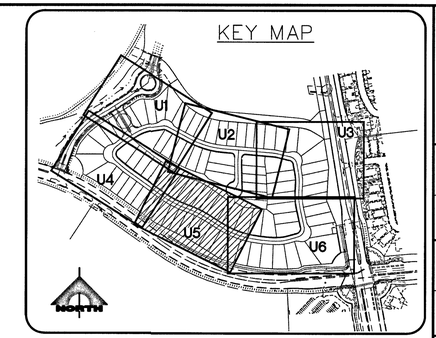
f:\Projects\700\764-a149-001\DWG\production\764-A149-001cU.dwg
Nicholas DeRosa

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N
UTILITY PLAN 4

DRAWING U4
29 OF 37 SHTS

PROJ#:136744A QS:137-33-NE





NORTH

30' 0' 15' 30'
SCALE: 1" = 30'

CONSTRUCTION NOTES

WATER

1. REMOVE CAP/BLOW-OFF PER UDACS PLATE NO. 36 AND CONNECT TO EXIST MAIN.
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UTILITY APPROVAL

SOUTHWEST GAS CORPORATION — DATE: 9-16-19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES 10/21/19
PROJECT NO. 136744 FIRST APPROVED DATE: _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE: 9-19-19
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

L# L19-01224 | CLV DWG# 107X5147

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 1,000 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES LESS THAN 3,000 S.F.

FIRE FLOW REQUIREMENTS IS 1,500 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES GREATER THAN 3,001 S.F.

BASED ON:
SQUARE FOOTAGE: 4,999 SQUARE FEET
NUMBER OF STORIES/FLOORS: 2

AUTOMATIC FIRE SPRINKLER SYSTEM: YES ☒ NO ☐

ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

OF HYDRANTS PROVIDED: 6

FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED

LOTS: 20-32, 69-77, & 3/4" IRRIGATION METER AT STA 22+50.53 PRAIRIE SUN ST. THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES (PRV) BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO LANDSCAPE BOULDERS, FENCE/ WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT.

GCW, INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM RECORD INFORMATION AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING IMMEDIATELY.

CONTRACTOR NOTE:

WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

(BWV) SEWER BACKWATER VALVE (PRIVATE)

(PRV) WATER PRESSURE-REDUCING VALVE (PRIVATE)

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS, BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN,

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

ESTIMATE WASTEWATER DEMAND

92 UNITS X 250 GPD/UNIT = 23,000 GPD

TOTAL AVERAGE CONTRIBUTION = 23,000 GPD = 0.023000 MGD

TOTAL PEAK FLOW = 0.023000 MGD X 3.76 (PEAK FACTOR) = 0.0864 MGD

SEWER CONNECTION NOTE

ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

FOR ALL DRY UTILITY CROSSINGS

- MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING
- MAINTAIN MINIMUM 3" PARALLEL SEPARATION
- ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

CONTRACTOR NOTE:

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02.
3. ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.
4. THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
5. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.
6. ALL NEW MANHOLES TO HAVE PRE-CAST BASES.
7. INSTALL PIPELINE MARKER BALLS, PER UDACTS PLATE NO. 15.

HAO A. NGUYEN
Exp. 12/31/2019
CIVIL
No. 19936
STATE OF NEVADA
PROFESSIONAL ENGINEER
DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:41:27

GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

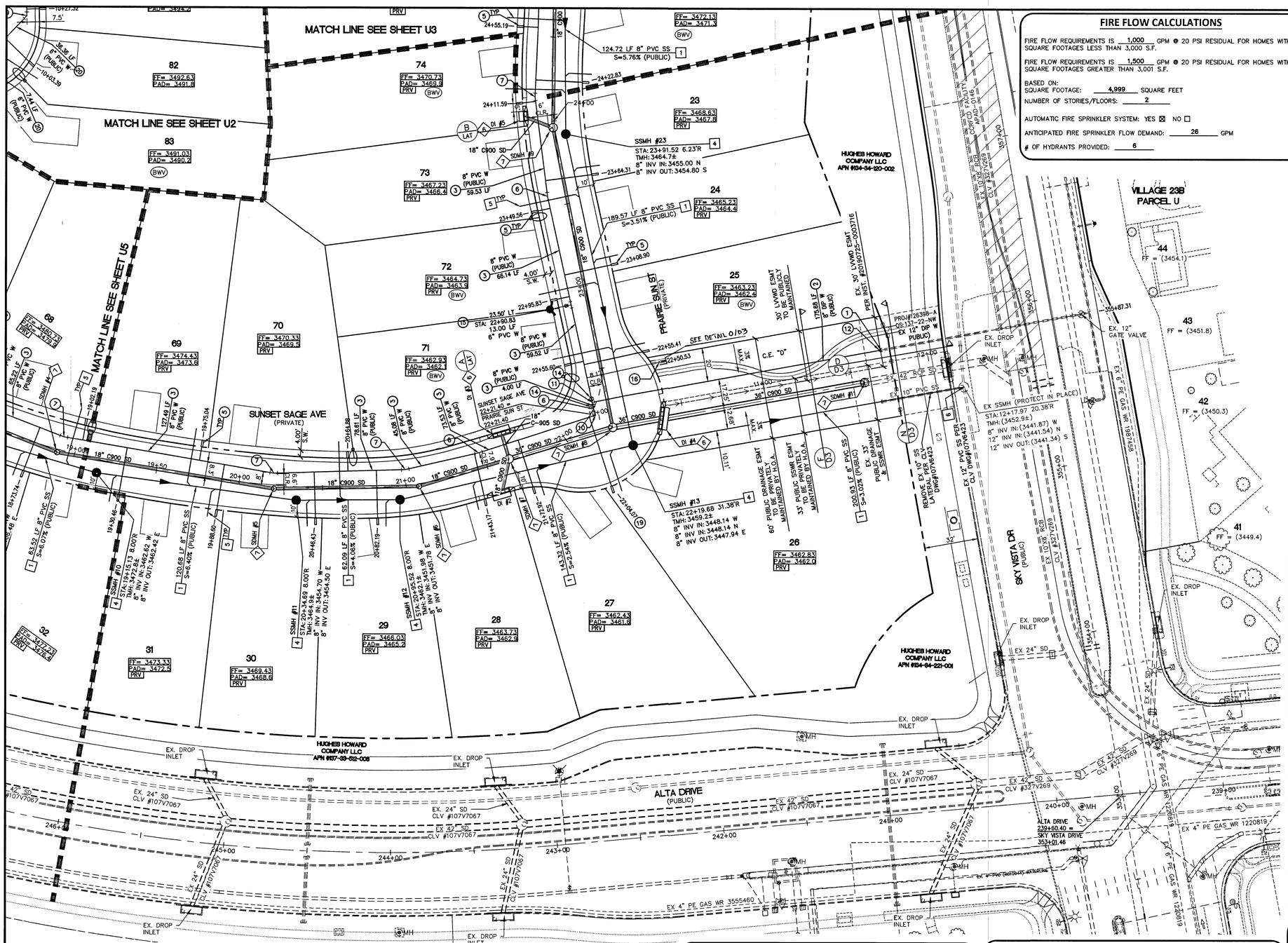
f:\Projects\700\764-a149-001\DWG\production\764-A149-001cd.dwg
Nicholas DeRosa

PULTE HOMES
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

UTILITY PLAN 5

DRAWING
U5
30 OF 37 SHTS

PROJ#:136744A QS:137-33-NE



FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENTS IS 1,000 GPM @ 20 PSI RESIDUAL FOR HOMES WITH SQUARE FOOTAGES LESS THAN 3,000 S.F.

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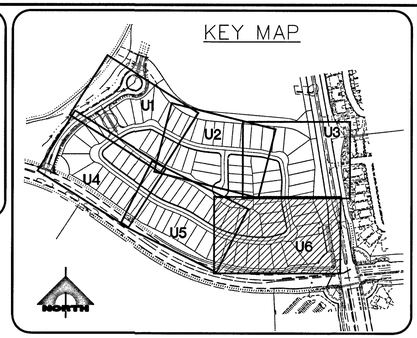
BASED ON:
SQUARE FOOTAGE: 4,999 SQUARE FEET
NUMBER OF STORIES/FLOORS: 2

AUTOMATIC FIRE SPRINKLER SYSTEM: YES ☒ NO ☐

ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

OF HYDRANTS PROVIDED: 6

KEY MAP



NORTH

30' 0' 15' 30'
SCALE: 1" = 30'

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WATER

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UTILITY APPROVAL

SOUTHWEST GAS CORPORATION — DATE: 8-16-19

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136744 FIRST APPROVED DATE: 10/21/19
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MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE: 9-19-19
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

L# 119-0224 | CLV DWG# 107V517

(BWV) SEWER BACKWATER VALVE (PRIVATE)
(PRV) WATER PRESSURE-REDUCING VALVE (PRIVATE)

DROP INLET NOTE

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Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-227-2600

FAST Call before you UnderGround 1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

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2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.G.01.02.
3. ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.
4. THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.
5. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.
6. ALL NEW MANHOLES TO HAVE PRE-CAST BASES.
7. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.

FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO THE MASTER TOILET. NO EXCEPTIONS ALLOWED

LOTS: 20-32, 69-77, & 3/4" IRRIGATION METER AT STA 22+50.53 PRAIRIE SUN ST. THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES (PRV) BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

TO ENSURE LVVWD ACCESS WITHIN EASEMENT

ALL ABOVE GROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO LANDSCAPE BOULDERS, FENCE/ WALLS, AND SIGNS ARE STRICTLY PROHIBITED WITHIN EASEMENT.

GCW, INC. ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN OR NOT SHOWN. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM RECORD INFORMATION AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL RELEVANT UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT OR DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING IMMEDIATELY.

CONTRACTOR NOTE:

WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — No. 9535 — PROFESSIONAL ENGINEER — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CGW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:41:36

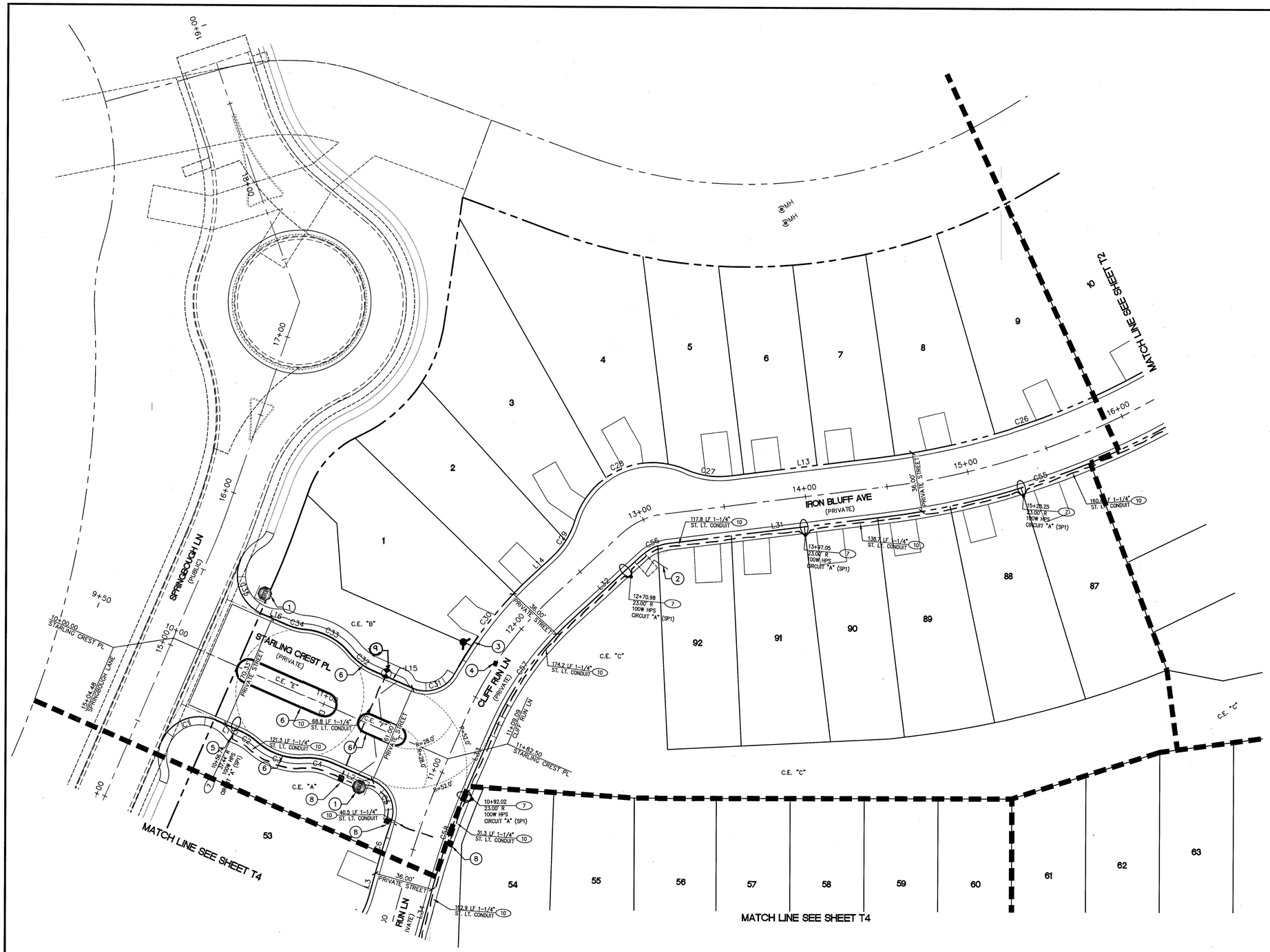
GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

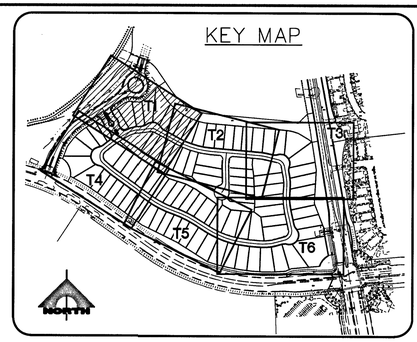
F:\Projects\700\764-a149-001\DWG\production\764-A149-001cl.dwg
Nicholas DiRosa

PULTE HOMES
~~STARING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N
UTILITY PLAN 6

DRAWING U6
31 OF 37 SHTS

PROJ.#:136744A QS:137-33-NE





NORTH

30' 0' 15' 30'
SCALE: 1" = 30'

CONSTRUCTION NOTES

1. INSTALL (2) STREET NAME SIGN (D3)-BROWN BACK WITH WHITE LETTERS, WITH 30" STOP SIGN (R1-1) WITH THE WORDS "PRIVATELY MAINTAINED".
2. INSTALL (2) STREET NAME SIGN (D3)-BROWN BACK WITH WHITE LETTERS TO BE PRIVATELY MAINTAINED.
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5. INSTALL "ON-STREET PARKING IN MARKED FIRE LANES PROHIBITED" SIGN (TYPE B SIGNAGE)
6. PAINT CURB RED (NO PARKING FIRE LANE) FOR EMERGENCY ACCESS. (TYPE C SIGNAGE)
7. INSTALL 100W HPS TYPE 3, STREETLIGHT AND FOUNDATION PER SUMMERLIN STD DWG NO. E-1, AND E-27
8. INSTALL 3 ½ PULL BOX
9. INSTALL 100 AMP SERVICE PEDESTAL PER USDCCA STD DWG NO. 330, 331, 332.1
10. INSTALL 1-1/4" STREETLIGHT CONDUIT WITH 2-#4 AND 1-#8 THW COPPER CONDUCTORS

LINE AND CURVE TABLE

SEE SHEET T2 FOR LINE AND CURVE TABLE

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BASIS OF BEARING:

NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 9-19-19

L# L19-01224 | CLV DWG# 10745117

FAST — Call before you UnderGround 1-702-432-5300 — FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig — Avoid cutting underground utility lines. It's costly. Call 811 OR 1-800-227-2600

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD — 1-702-227-2929

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER — No. 15396 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 11:31:34

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

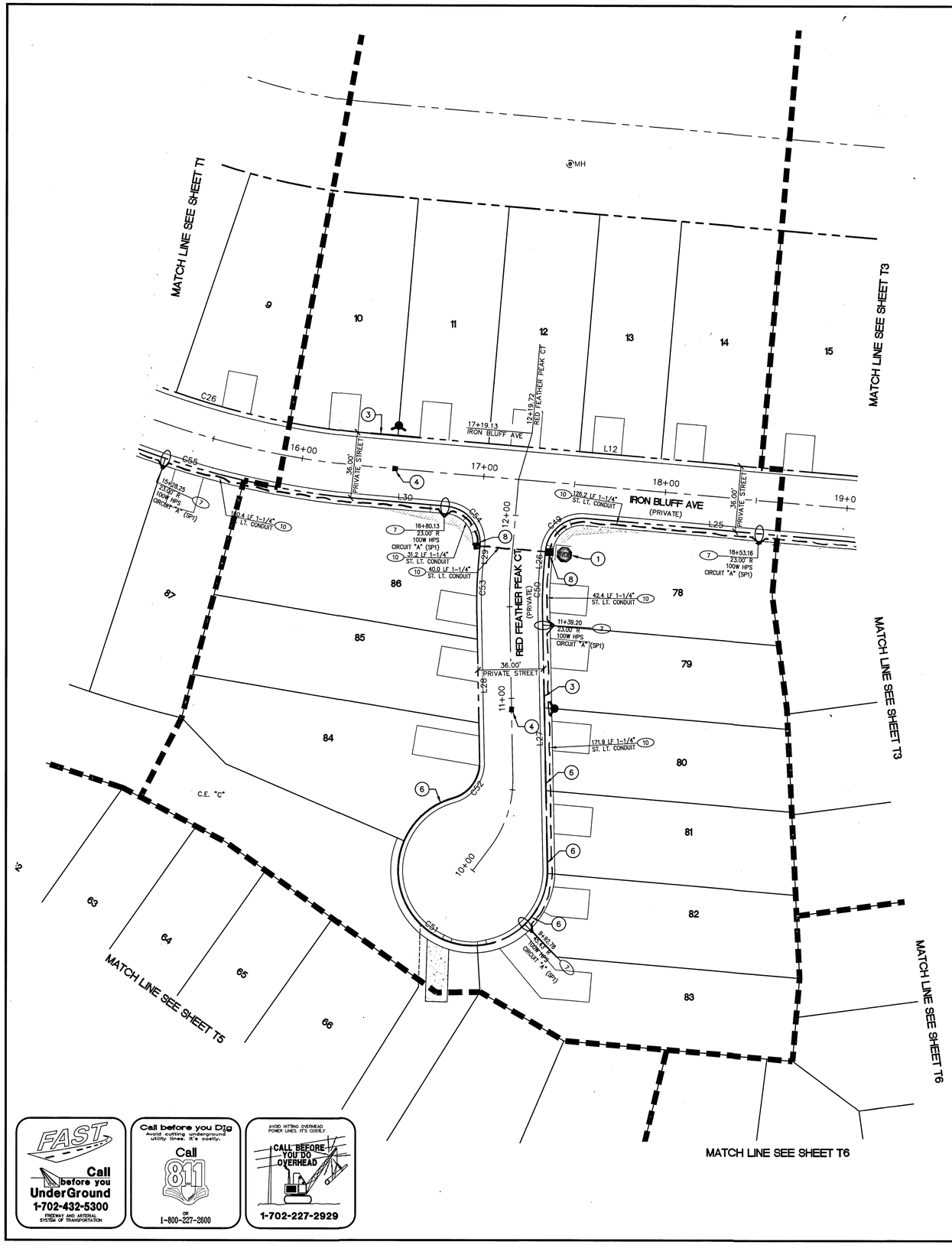
f:\Projects\700\764-a149-001\DWG\production\764-A149-001cT.dwg
Nicholas DeRosa

PULTE HOMES

~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

TRAFFIC PLAN 1

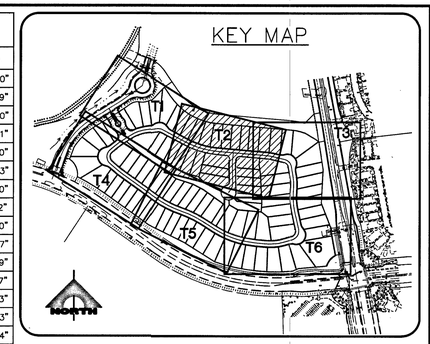
DRAWING
T1
32 OF 37 SHTS



LINE TABLE		
#	LENGTH	BEARING
L1	16.34'	N31° 17' 44.36"W
L2	26.82'	N31° 17' 44.36"W
L3	14.45'	N50° 41' 42.37"E
L4	24.33'	N48° 57' 58.85"W
L5	222.15'	N54° 40' 55.88"W
L6	82.48'	N57° 52' 47.98"W
L7	27.39'	S73° 44' 30.57"W
L8	76.50'	S12° 24' 19.29"E
L9	43.33'	S3° 10' 34.01"W
L10	25.59'	S10° 09' 41.49"E
L11	34.90'	S77° 06' 25.31"E
L12	266.38'	S85° 09' 17.56"E
L13	91.83'	S61° 52' 36.70"E
L14	15.92'	N82° 48' 28.13"E
L15	26.25'	S31° 17' 44.36"E
L16	16.34'	S31° 17' 44.36"E
L17	39.82'	N48° 57' 58.85"W
L18	222.15'	N54° 40' 55.88"W
L19	82.48'	N57° 52' 47.98"W
L20	50.37'	S73° 44' 30.57"W
L21	99.48'	S12° 24' 19.29"E
L22	43.33'	S3° 10' 34.01"W
L23	56.78'	S10° 09' 41.49"E
L24	66.09'	S77° 06' 25.31"E
L25	144.18'	S85° 09' 17.56"E
L26	11.45'	N4° 50' 42.44"E
L27	142.81'	N1° 11' 32.03"W
L28	83.68'	S1° 11' 32.03"E
L29	11.45'	S4° 50' 42.44"W
L30	46.20'	S85° 09' 17.56"E
L31	133.31'	S61° 52' 36.70"E
L32	57.40'	N82° 48' 28.13"E
L33	32.88'	N58° 42' 15.64"E
L34	29.94'	N50° 41' 42.37"E

CURVE TABLE			
#	RADIUS	LENGTH	DELTA
C1	25.00'	39.27'	090°00'00"
C2	39.00'	12.28'	018°02'29"
C3	39.00'	30.66'	045°02'20"
C4	39.00'	18.38'	026°59'51"
C5	20.00'	29.84'	085°29'10"
C6	536.00'	32.70'	003°29'43"
C7	50.00'	26.78'	030°41'00"
C8	50.00'	140.52'	161°01'42"
C9	50.00'	26.78'	030°41'00"
C10	536.00'	53.47'	005°42'57"
C11	528.00'	153.46'	016°39'09"
C12	508.00'	119.29'	013°27'17"
C13	492.00'	187.44'	021°49'43"
C14	902.00'	104.83'	006°39'33"
C15	492.00'	47.24'	005°30'04"
C16	236.00'	59.27'	014°23'22"
C17	50.00'	26.78'	030°41'00"
C18	50.00'	128.73'	147°30'50"
C19	50.00'	26.78'	030°41'00"
C20	313.00'	85.12'	015°34'53"
C21	236.00'	54.94'	013°20'15"
C22	50.00'	26.78'	030°41'00"
C23	50.00'	111.97'	128°18'44"
C24	50.00'	26.78'	030°41'00"
C25	236.00'	33.15'	008°02'52"
C26	444.00'	180.39'	023°16'41"
C27	50.00'	26.78'	030°41'00"
C28	50.00'	84.37'	096°40'56"
C29	50.00'	26.78'	030°41'00"
C30	236.00'	76.79'	018°38'37"
C31	20.00'	29.51'	084°32'25"
C32	39.00'	18.38'	026°59'51"
C33	39.00'	30.66'	045°02'20"
C34	39.00'	12.28'	018°02'29"
C35	25.00'	39.27'	090°00'00"
C36	30.00'	52.18'	099°39'41"
C37	500.00'	49.88'	005°42'57"
C38	492.00'	143.00'	016°39'09"
C39	544.00'	127.75'	013°27'17"
C40	456.00'	173.73'	021°49'43"
C41	866.00'	100.65'	006°39'33"
C42	456.00'	43.78'	005°30'04"
C43	200.00'	50.23'	014°23'22"
C44	30.00'	45.11'	086°08'50"
C45	349.00'	94.91'	015°34'53"
C46	200.00'	46.56'	013°20'15"
C47	30.00'	35.05'	066°56'44"
C48	200.00'	28.09'	008°02'52"
C49	20.00'	31.42'	090°00'00"
C50	182.00'	19.18'	006°02'15"
C51	41.00'	183.02'	255°45'54"
C52	20.00'	26.45'	075°45'54"
C53	218.00'	22.97'	006°02'15"
C54	20.00'	31.42'	090°00'00"
C55	480.00'	195.01'	023°16'41"
C56	30.00'	18.49'	035°18'55"
C57	200.00'	84.14'	024°06'12"
C58	500.00'	69.89'	008°00'33"

KEY MAP



NORTH

30' 0' 15' 30'
SCALE: 1" = 30'

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SEE SHEET T2 FOR LINE AND CURVE TABLE

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NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 7-19-19

L# L19-01224 | CLV DWG# 1078547

FAST Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig. Avoid cutting underground utility lines. It's costly. Call 811 OR 1-800-227-2600

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STATE OF NEVADA PROFESSIONAL ENGINEER HAO A. NGUYEN Exp. 12/31/2019 CIVIL No. 19596 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:41:55

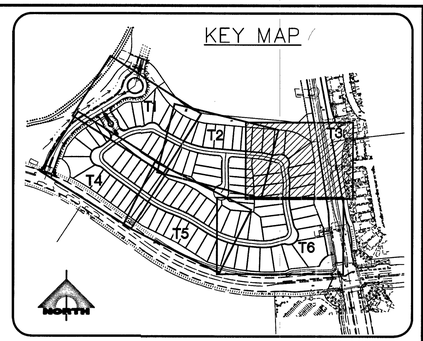
GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

f:\Projects\700\764-a149-001\DWG\production\764-A149-001cT.dwg
Nicholas DeRosa

PULTE HOMES
~~STARING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

TRAFFIC PLAN 2

DRAWING T2
33 OF 37 SHTS



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LAS VEGAS FIRE AND RESCUE — DATE 9-19-19

L# L19-01224 — CLV DWG# 10745117

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STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER No. 19396 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:41:58

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
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Nicholas DeRosa

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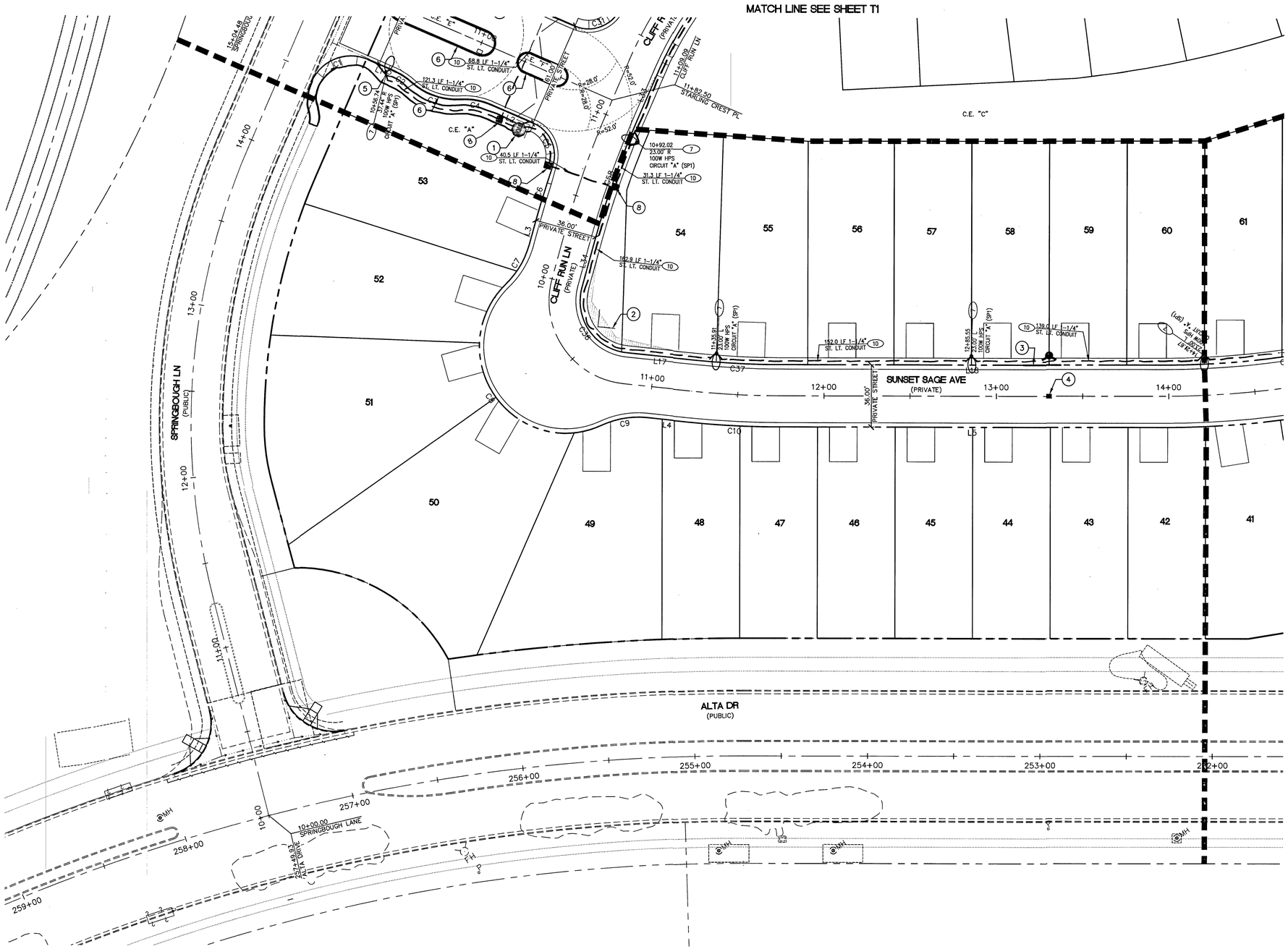
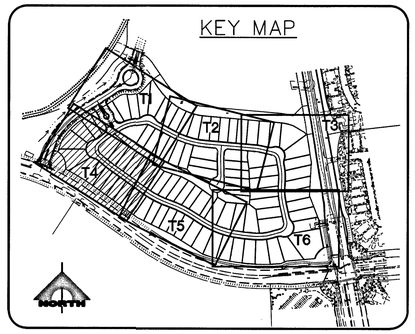
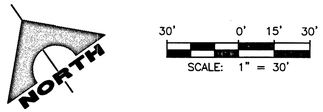
SUMMERLIN VILLAGE 24A PARCEL N

TRAFFIC PLAN 3

DRAWING
T3
34 OF 37 SHTS







CONSTRUCTION NOTES

1. INSTALL (2) STREET NAME SIGN (D3)-BROWN BACK WITH WHITE LETTERS, WITH 30" STOP SIGN (R1-1) WITH THE WORDS "PRIVATELY MAINTAINED".
2. INSTALL (2) STREET NAME SIGN (D3)-BROWN BACK WITH WHITE LETTERS TO BE PRIVATELY MAINTAINED.
3. PAINT CURB RED (NO PARKING) 30' WIDE CENTERED ON HYDRANT EXCEPT DRIVEWAY.
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7. INSTALL 100W HPS TYPE 3, STREETLIGHT AND FOUNDATION PER SUMMERLIN STD DWG NO. E-1, AND E-27
8. INSTALL 3 ∮ PULL BOX
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10. INSTALL 1-1/4" STREETLIGHT CONDUIT WITH 2-#4 AND 1-#8 THW COPPER CONDUCTORS

LINE AND CURVE TABLE

SEE SHEET T2 FOR LINE AND CURVE TABLE

GENERAL NOTES

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CITY OF LAS VEGAS'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CITY OF LAS VEGAS'S SATISFACTION. ALL MATERIAL USED SHALL MEET CITY OF LAS VEGAS'S SPECIFICATIONS OR WILL WILL BE AN APPROVED EQUIVALENT.
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3. ALL SEWER/ STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
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5. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.

BASIS OF BEARING:

NORTH 05°14'46" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 33, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN FILE 123, PAGE 36 OF PARCEL MAPS.

BENCHMARK:

CITY OF LAS VEGAS BENCHMARK NO. D368, U.S.C. & G.S. DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD & WEST OF DETENTION BASIN.

ELEVATION: 3246.63 (FEET)
989.574 (METERS)

BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 9-19-19

L# 219-01224 | CLV DWG# 10785117

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

Call before you Dig — Avoid cutting underground utility lines. It's costly. Call 811 OR 1-800-227-2600

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY — CALL BEFORE YOU DO OVERHEAD — 1-702-227-2929

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER No. 19396 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001

DESIGN:
DRAWN:
CHECK:
PLOT DATE 09-16-19
PLOT TIME 10:42:03

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

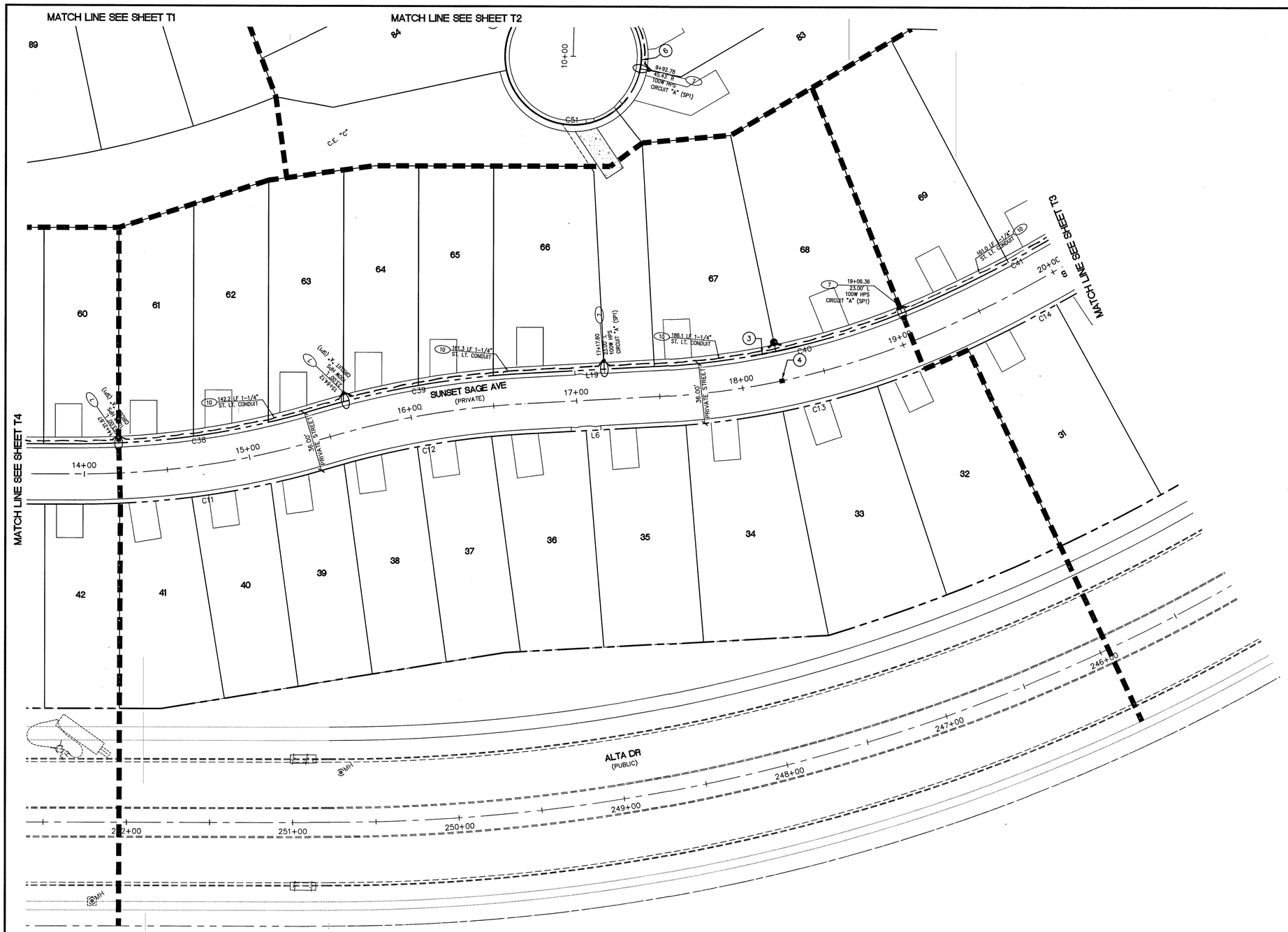
f:\Projects\700\764-a149-001\DWG\production\764-A149-001cT.dwg
Nicholas DeRosa

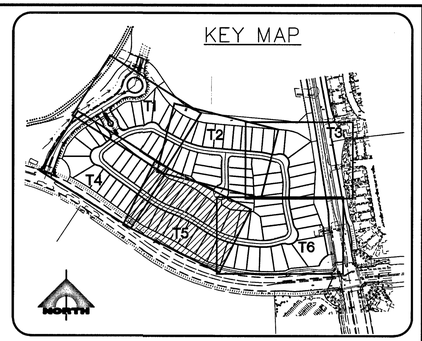
PULTE HOMES

STARLING FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

TRAFFIC PLAN 4

DRAWING T4
35 OF 37 SHTS





NORTH

30' 0' 15' 30'

SCALE: 1" = 30'

CONSTRUCTION NOTES

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989.574 (METERS)

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APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 6/24/19

L# L19-01224 | CLV DWG# 10785117

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

DATE: 09-16-19

PROJECT NO. 764-A149-001

DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 10:42:08

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

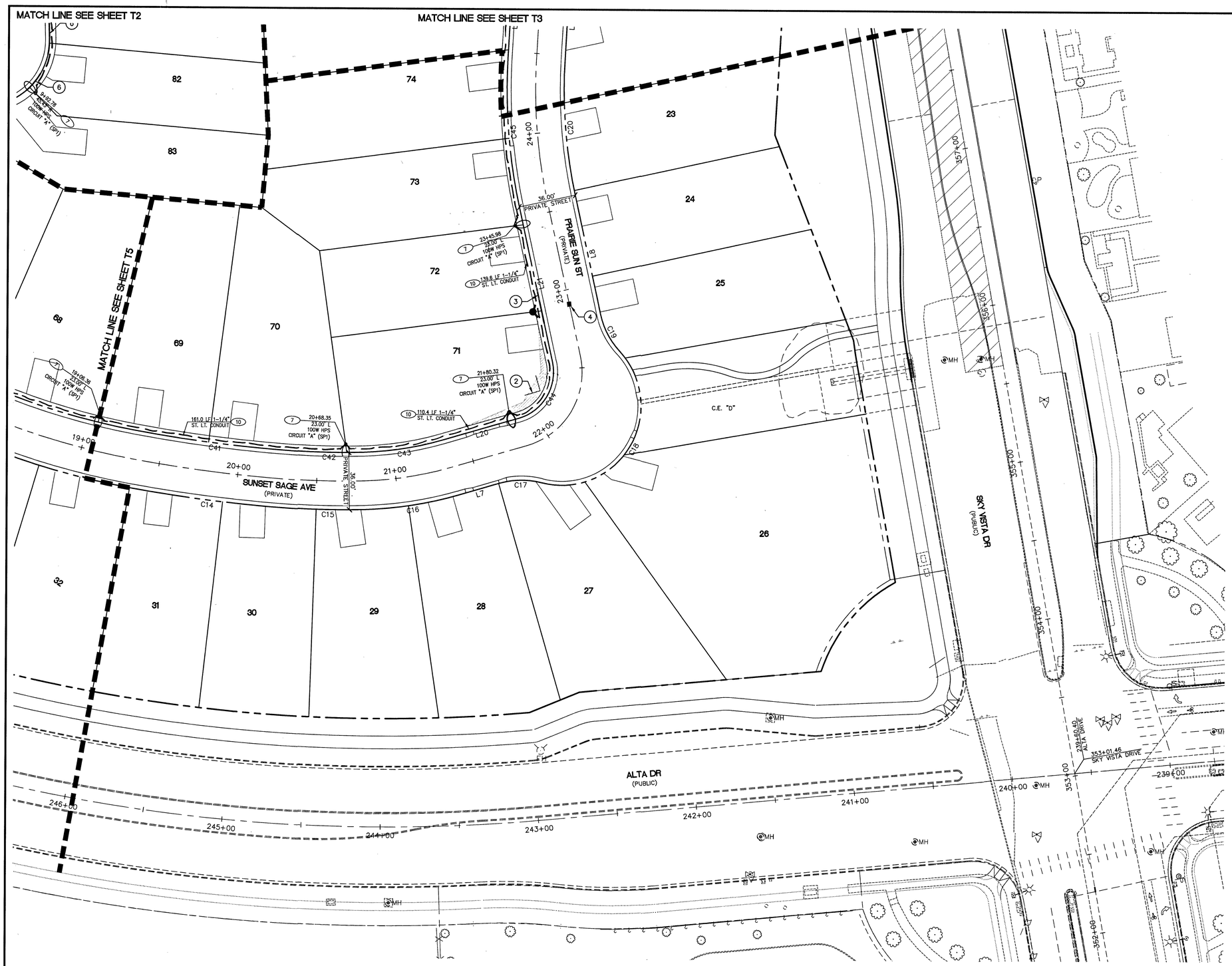
f:\Projects\700\764-a149-001\DWG\production\764-A149-001cT.dwg
Nicholas DeRosa

PULTE HOMES

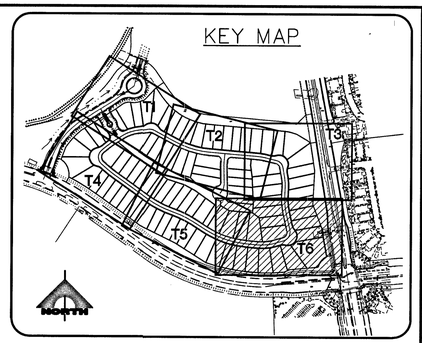
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

TRAFFIC PLAN 5

DRAWING
T5
36 OF 37 SHTS



KEY MAP



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989.574 (METERS)

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APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 9-19-19

L# L19-01224 | CLV DWG# 10745117

FAST — Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY — CALL BEFORE YOU DO OVERHEAD — 1-702-227-2929

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — PROFESSIONAL ENGINEER No. 19596 — DATE: 09-16-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 764-A149-001
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 09-16-19
PLOT TIME: 12:03:29

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

f:\Projects\700\764-a149-001\DWG\production\764-A149-001cT.dwg
Nicholas DeRoses

PULTE HOMES

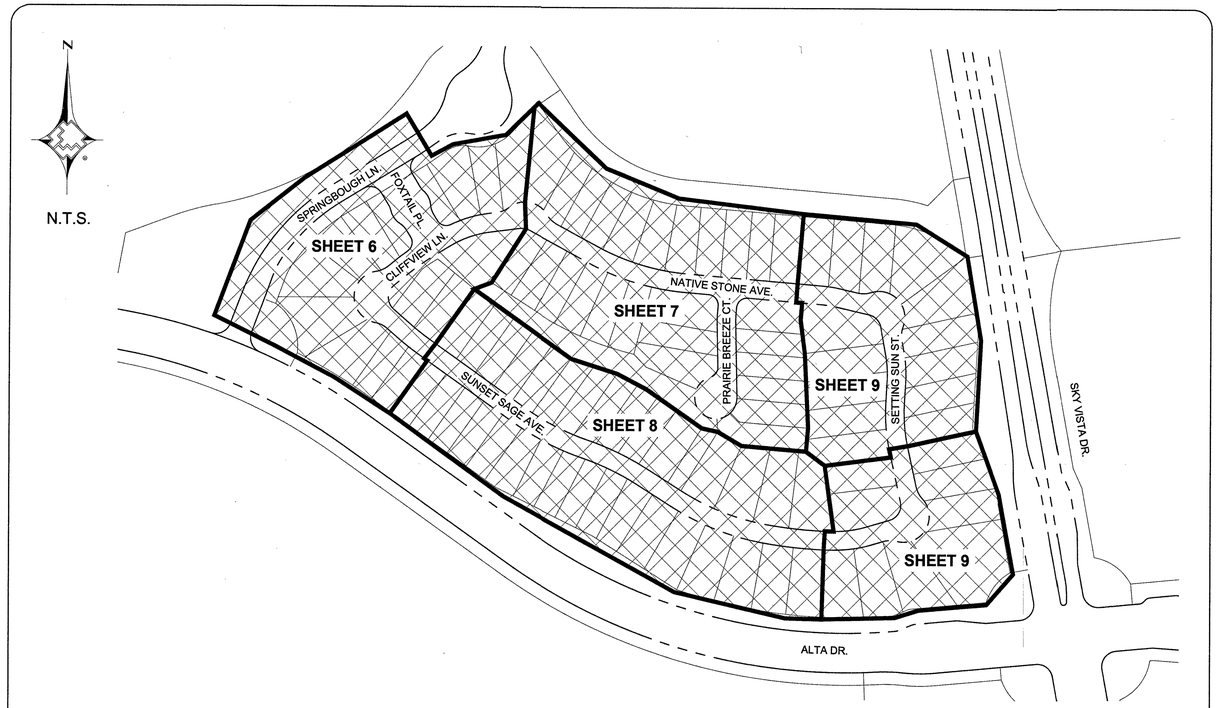
~~STARLING~~ FOXTAIL
SUMMERLIN VILLAGE 24A PARCEL N

TRAFFIC PLAN 6

DRAWING
T6
37 OF 37 SHTS

LEGEND

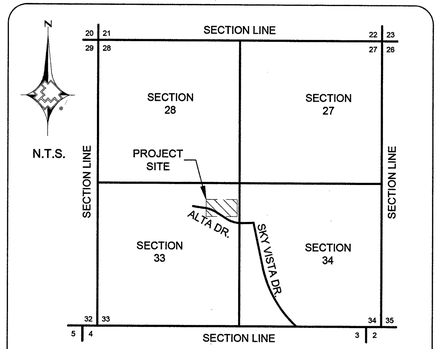
- EXISTING GAS MAIN
- EXISTING GAS SERVICE
- GAS LINE TO BE ABANDONED
- STEEL RISER
- ANODELESS RISER
- GASLIGHT
- GAS VALVE
- EXCESS FLOW VALVE
- RELIEF VALVE
- COUPLINGS
- BOND OVER
- TEST POINT
- INSULATOR
- REGULATOR STATION
- RECTIFIER
- ANODE
- SCADA
- METER SET ASSEMBLY
- PURGE POINT
- BRANCH,CVT,LINE STOPPER
- PROPOSED GAS MAIN
- PROPOSED GAS SERVICE
- EXISTING EASEMENT
- ROW LINE
- PROPERTY LINE
- STREET CENTERLINE
- EDGE OF PAVEMENT
- CABLE LINE - UNDERGROUND — CATV
- ELECTRIC - OVERHEAD — OHE
- ELECTRIC - UNDERGROUND — UGE
- FIBER OPTIC - UNDERGROUND — FO
- PHONE - OVERHEAD — OHT
- PHONE - UNDERGROUND — UGT
- RECLAIMED WATER — RW
- SEWER — S
- STORMWATER — SD
- WATER — W
- UTILITY PEDESTALS
- FIRE HYDRANT
- MANHOLE
- WATER VALVE
- SURVEY MONUMENT
- POWER POLE
- GAS FLOW ARROW — FLOW



SHEET INDEX MAP

SHEET INDEX

1	COVERSHEET
2	SIGNATURE SHEET
3-5	NOTES AND STANDARD DETAILS
6-9	PLAN SHEET



LOCATION MAP
T20S R59E S33

City of Las Vegas

Total footage located in Public ROW 0'

APPROVED FOR CONSTRUCTION
THIS APPROVAL IS FOR WORK IN CLV R/W OR CLV EASEMENTS ONLY. OBTAINING PERMISSION OR EASEMENTS FOR WORK SHOWN ON PRIVATE PROPERTY IS THE RESPONSIBILITY OF THE UTILITY.

Approval Date

CUSTOMERS 92

Know what's **below.** **Call** before you dig.

SOUTHWEST GAS CORPORATION

Southwest Gas Corporation Confidential and Proprietary Information

For Reference Only - Not Valid for Line Locating Purposes. No representation or warranty is made for the adequacy, accuracy or completeness of the information or depictions shown. **This information is protected from further disclosure under the federal Freedom of Information Act and the Protected Critical Infrastructure Information Act of 2002, and Nevada Revised Statutes § 239C.**

This document may not be copied, distributed, or shared to any other person or entity in any manner or form without prior written consent of Southwest Gas Corporation.

REVISIONS

NO.	DESCRIPTION	BY	DATE	APPVD.

PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE 02-0200	ISO_21_DIST_323	T20S R59E S33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	N/A
SYSTEM MOP:	N/A

JOB TYPE
- HP SERVICE ☐
- DISTRIBUTION ☒
- FEEDER ☐
- TRANS. BY DEF ☐
- TRANS > 20% ☐

WR NO.: 3875811

RELATED WR NO.S: N/A

ENGINEER/TECHNICIAN	JALANIA WRIGHT	PHONE: 702-365-2188
ACCOUNT REP.	ANDREW CARLSON	PHONE: 702-365-2060
PROJECT CONTACT	DAVE WAGNER	PHONE: 702-258-5011
SHEET NO. 1 OF 9	SCALE N.T.S.	DATE 09/03/2019
DWN. BY SEI	CHKD. BY JW	APPVD. BY BWJ

V24 PARCEL N

38

PRESSURE TEST PERFORMED BY AND VERIFIED BY SIGNATURES

I HAVE **PERFORMED** THE PRESSURE TESTS AS SHOWN ON THE AS-BUILT AND IN ACCORDANCE WITH THE OPERATIONS MANUAL.

I HAVE **VERIFIED** THE PRESSURE TESTS AS SHOWN ON THE AS-BUILT AND IN ACCORDANCE WITH THE OPERATIONS MANUAL.

PRESSURE TEST #____ PERFORMED BY_____ DATE _____

SWG VERIFIED BY_____ DATE _____

PURGE PLAN PERFORMED BY SIGNATURES

PURGE PLAN WAS COMPLETED IN ACCORDANCE WITH THE OPERATIONS MANUAL GUIDELINES:

PERFORMED BY_____ DATE _____ SHEET#_____

LOCATION _____

PIPE JOINER VISUAL INSPECTION CERTIFICATION

I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, SOLVENT, CEMENT, MECHANICAL JOINTS, AND WELDS THAT I HAVE PERFORMED

NAME _____ PJQ# _____

2ND VISUAL INSPECTION CERTIFICATION

I HAVE VISUALLY INSPECTED ALL HEATED FUSIONS, SOLVENT, CEMENT AND MECHANICAL JOINTS THAT HAVE BEEN PERFORMED (INSPECTION OF FINAL JOINT ON PLASTIC PIPE ONLY)

NAME _____ PJQ# _____

CONSTRUCTION

INSPECTOR _____ PJQ#_____

FOREMAN _____ PJQ#_____

REVIEWED BY _____ PJQ#_____

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SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	N/A
SYSTEM MOP:	N/A

JOB TYPE
- HP SERVICE ☐
- DISTRIBUTION ☒
- FEEDER ☐
- TRANS. BY DEF ☐
- TRANS > 20% ☐

WR NO.: 3875811

RELATED WR NO.S: N/A

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ACCOUNT REP.	ANDREW CARLSON	PHONE: 702-365-2060
PROJECT CONTACT	DAVE WAGNER	PHONE: 702-258-5011
SHEET NO. 2 OF 9	SCALE N.T.S.	DATE 09/03/2019
DWN. BY SEI	CHKD. BY JW	APPVD. BY BWJ

V24 PARCEL N

GENERAL NOTES:

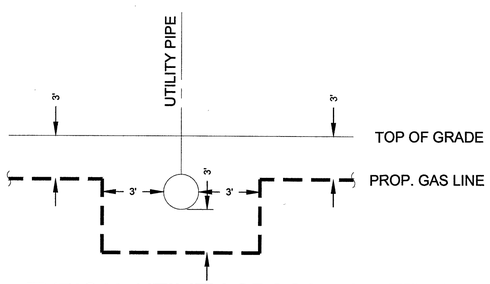
1. SUGGESTED GAS LOCATIONS ARE TO CLEAR SUBSTRUCTURES. LOCATE IN FIELD.
2. ALL PIPELINE CONSTRUCTION SHALL CONFORM TO APPLICABLE JURISDICTION SPECIFICATIONS..
3. DO NOT SCALE THIS DRAWING.
4. CHANGE IN PROPOSED MAIN LOCATION MUST BE AUTHORIZED BY SWG ENGINEER PRIOR TO INSTALLATION.
5. GAS MAINS SHALL BE PURGED PER OPERATIONS MANUAL.
6. ALL EXISTING UTILITY LOCATIONS TO BE VERIFIED PRIOR TO START OF CONSTRUCTION.
7. TRENCH IS TO BE EXCAVATED TO THE DEPTH AND WIDTH AS INDICATED ON THE TRENCH DETAIL(S).
8. CONTACT ENGINEERING FOR BYPASS INFORMATION.
9. ALL MAIN TIE-INS REQUIRING TEES ARE TO BE FULL-FLOW TEES UNLESS OTHERWISE STATED..
10. ALL SHORING REQUIREMENTS SHALL CONFORM TO APPLICABLE PORTIONS OF THE OPERATIONS MANUAL.
11. REQUEST FOR SURVEYING AND/OR STAKING WILL BE SUBMITTED TO ENGINEERING 72 HOURS IN ADVANCE, MINIMUM.
12. TRENCHING AND PAVEMENT REPLACEMENT SHALL CONFORM WITH RTC STANDARD 503 AND UNIFORM STANDARD SPEC SECTION 208.
13. MINIMUM TEST DURATION REQUIREMENTS AND GUIDELINES FOR MAIN INSTALLATION IN SYSTEMS <60PSIG ARE:

A. MINIMUM TEST DURATION IS 8 HOURS FOR PIPES 1-1/4-INCHES OR GREATER, WITH FOOTAGES BETWEEN 3,001 FEET AND 10,000 FEET.

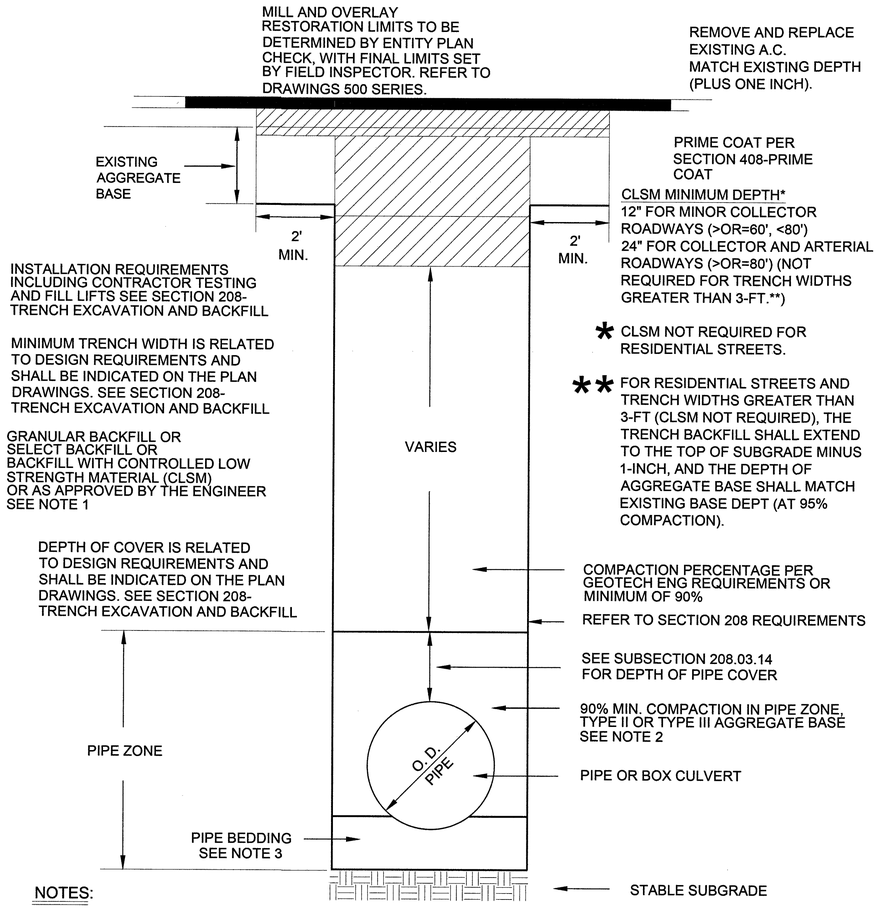
B. ALL FOOTAGES GREATER THAN 3,000 FEET REQUIRE A CHART.

C. CONSTRUCTION SHALL CONTACT ENGINEERING FOR MINIMUM TEST DURATIONS IF THE FOOTAGE TO BE TESTED EXCEEDS 10,000 FEET.

DESIGN PIPE SUMMARY	
DESIGN QTY.	DESCRIPTION
124'	4" PE MAIN
3,193'	2" PE MAIN
1,622'	1" PE SERVICE



TYPICAL UTILITY CROSSING DETAIL
NOT TO SCALE



NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.

RTC STD DWG 503

ABBREVIATIONS:

AA	ALDYL-A PIPE
ABND	ABANDONED
AC	ASPHALTIC CONCRETE
AC#	ACCELERATED CONSTRUCTION
ACP	ASBESTOS CEMENT PIPE
APN	ASSESSOR PARCEL NUMBER
BLVD	BOULEVARD
BM	BENCHMARK
BO	BLOW OFF
BTU	BRITISH THERMAL UNIT
CIP	CAST IRON PIPE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CP	CATHODIC PROTECTION
D	INSIDE DIAMETER
DDCA	DESIGN DATA COLLECTION APPLICATION
DET	DETAIL
DIP	DUCTICLE IRON PIPE
DIA	DIAMETER
DIMP	DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM
DP	DESIGN PRESSURE
DWG	DRAWING
EFV	EXCESS FLOW VALVE
EG	EXISTING GRADE
ELEC	ELECTRICAL
ELEV	ELEVATION
EMS	ELECTRONIC MARKING SYSTEM
E.P	END POINT
EPR	ELECTRONIC PRESSURE RECORDERS
ESMT	EASEMENT
EX	EXISTING
FERC	FEDERAL ENERGY REGULATORY COMMISSION
FH	FIRE HYDRANT
GIR	GAS INFRASTRUCTURE REPLACEMENT
GPR	GAS PRESSURE REGULATOR
HCA	HIGH CONSEQUENCE AREA
HDD	HEATING DEGREE DAY
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH PRESSURE
HOP	HISTORIC OPERATING PRESSURE
HVTT	HIGH VOLUME TAPPING TEE
IN	INCH(ES)
IPS	IRON PIPE SIZE
JT	JOINT TRENCH
MAOP	MAXIMUM ALLOWABLE OPERATING PRESSURE
M&C	MEASUREMENTS & CONTROL
MCFH	THOUSAND CUBIC FEET PER HOUR
MH	MANHOLE
MOP	MAXIMUM OPERATING PRESSURE
MP	MANUFACTURER'S PRESSURE RATING
MSA	METER SET ASSEMBLY
MVP	MAPPING VERIFICATION PROCEDURE
NAP	NOT A PART
NTSB	NATIONAL TRANSPORTATION SAFETY BOARD
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OHE	OVERHEAD ELECTRIC
P	POWER
PAOP	POTENTIONAL ALLOWABLE OPERATING PRESSURE
PCC	PORTLAND CEMENT CONCRETE
PE	POLYETHYLENE PIPE
PH	POT HOLE
PHMSA	PIPELINE & HAZARDOUS MATERIALS SAFETY ADMINISTRATION
PL	PROPERTY LINE
PIC	POTENTIAL IMPACT CIRCLE
PLS	PRESSURE LIMITING STATION
P.O.B	POINT OF BEGINNING
PP	POWER POLE
PROP	PROPOSED
PQF	PREQUALIFIED FITTING
PSIG	POUNDS PER SQUARE INCH (GAUGE)
PVC	POLYVINYL CHLORIDE
PUE	PUBLIC UTILITY EASEMENT
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FOOT
SHT	SHEET
SLSV	SERVICE LINE SHUT-OFF VALVE
SMYS	SPECIFIED MAXIMUM YIELD STRENGTH
SS	SANITARY SEWER
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STL	STEEL
SWG	SOUTHWEST GAS
TDS	TEST DATA SHEET
TEL	TELEPHONE
TB	THRUST BLOCK
TOP	TOP OF PIPE
TP	TEST POINT
TS	TECHNICAL SERVICE NOTE
TRIMP	TRANSMISSION INTEGRITY MANAGAMENT PROGRAM
TYP	TYPICAL
U.E.	UTILITY EASEMENT
UGE	UNDERGROUND ELECTRIC
UOC	UNUSUAL OPERATING CONDITION
USD	UNIFORM STANDARD DRAWING
UGT	UNDERGROUND TELEPHONE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VG	VALLEY GUTTER
VSP	VINTAGE STEEL PIPE
W	WATER
WMS	WORK MANAGEMENT SYSTEM
WR	WORK REQUEST
WT	WALL THICKNESS
WV	WATER VALVE
YD	YARD(S)

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SOUTHWEST GAS CORPORATION

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REVISIONS

NO.	DESCRIPTION	BY	DATE	APPVD.

PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE 02-0200	ISO_21_DIST_323	T20S R59E S33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	N/A
SYSTEM MOP:	N/A

JOB TYPE
HP SERVICE ☐
DISTRIBUTION ☒
FEEDER ☐
TRANS. BY DEF ☐
TRANS > 20% ☐

WR NO.: 3875811

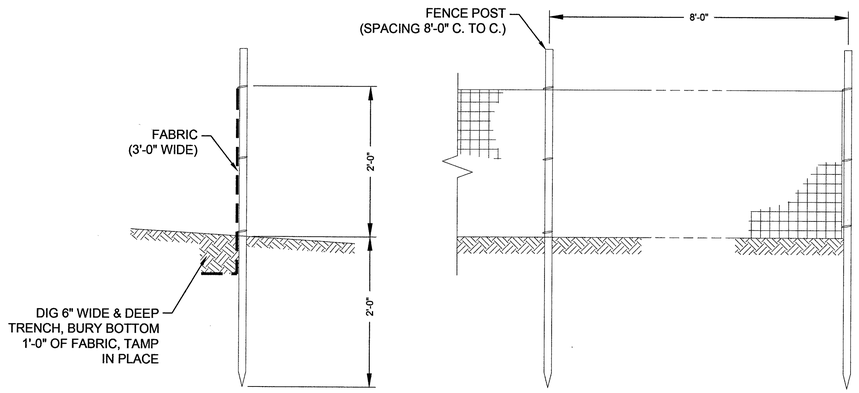
RELATED WR NO.S: N/A

ENGINEER/TECHNICIAN	JALANIA WRIGHT		PHONE: 702-365-2188
ACCOUNT REP.	ANDREW CARLSON		PHONE: 702-365-2060
PROJECT CONTACT	DAVE WAGNER		PHONE: 702-258-5011
SHEET NO. 3 OF 9		SCALE N.T.S.	DATE 09/03/2019
DWN. BY SEI		CHKD. BY JW	APPVD. BY BWJ

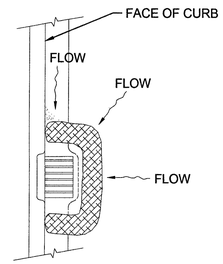
V24 PARCEL N

40

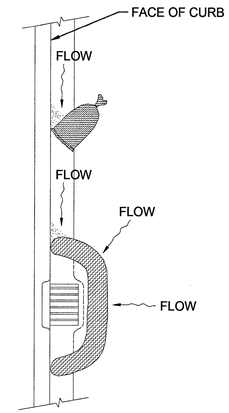
TYPICAL SWPPP BMP DETAILS



1 / - SILT FENCE
N.T.S.



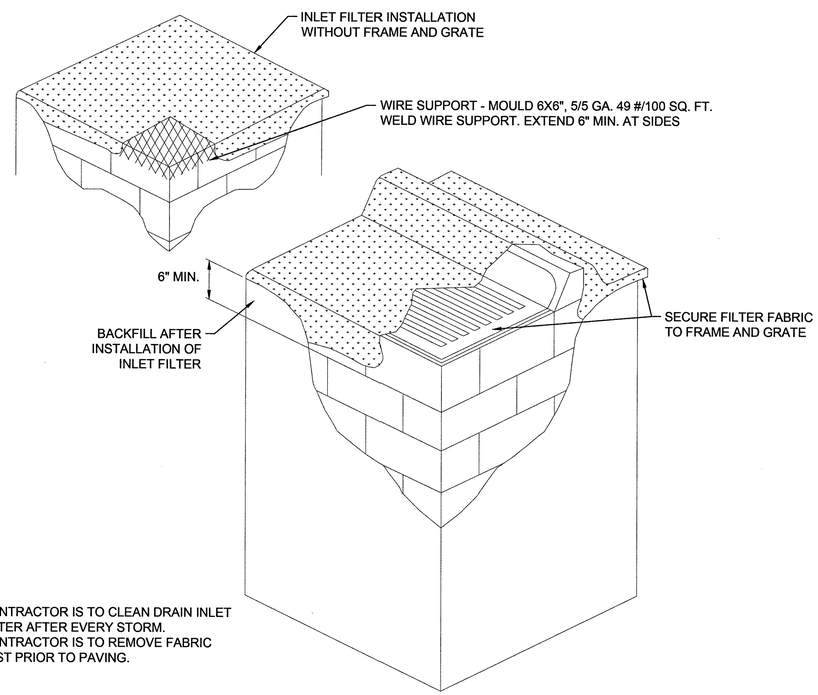
2 / - FIBER ROLL
N.T.S.



3 / - SAND BAG/ ROLL
N.T.S.

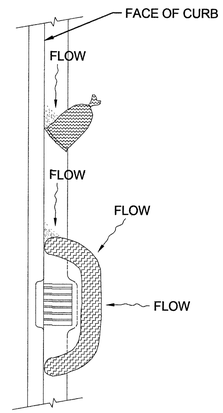
SWPPP NOTES

1. SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL INSTALL ONE OF THE APPROPRIATE BMPS FOR THE PROTECTION OF EXISTING STORM DRAIN INLETS, WITHIN OR SIGNIFICANTLY NEAR ANY IMPROVED RIGHT-OF-WAY, FROM DEBRIS AND SEDIMENT RESULTING FROM CONSTRUCTION OF NATURAL GAS FACILITIES.
2. SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM, USING BEST MANAGEMENT PRACTICES DETAILED ON THIS SHEET.
3. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF SOUTHWEST GAS CORPORATION, IT'S CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE LISTED BMPS ON THIS SHEET DOT NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CLARK COUNTY CODE - CHAPTER 24.40/STORM SEWER SYSTEM DISCHARGE AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
4. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

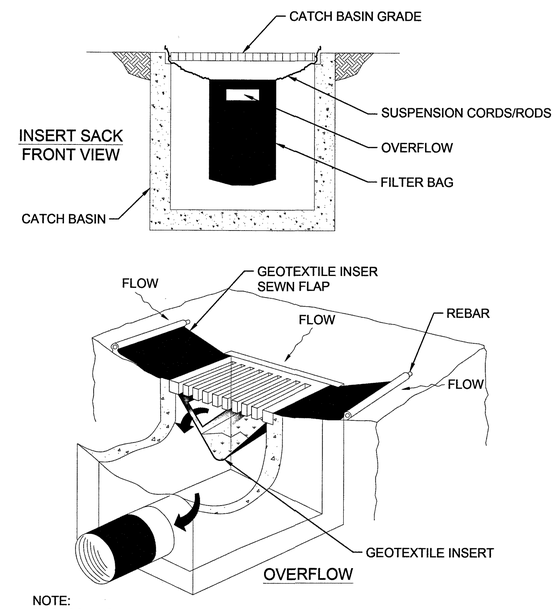


NOTE:
1. CONTRACTOR IS TO CLEAN DRAIN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR IS TO REMOVE FABRIC JUST PRIOR TO PAVING.

4 / - DRAIN INLET FILTER
N.T.S.



5 / - GRAVEL BAG/ ROLL
N.T.S.



NOTE:
RECESSED CURB INLET MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS.
SIZE OF FILTER FABRIC INLET SACK TO BE DETERMINED BY MANUFACTURER.

6 / - SEDIMENT FILTER BAG
N.T.S.

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REVISIONS				
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PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE 02-0200	ISO_21_DIST_323	T20S R59E S33 M.D.M.	x561y516

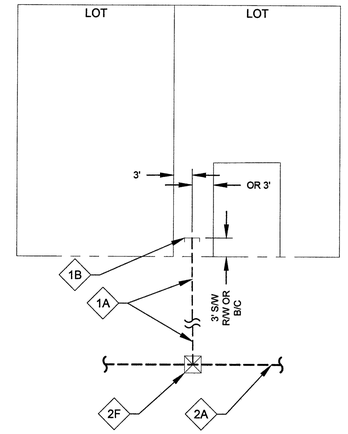
D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	N/A
SYSTEM MOP:	N/A

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

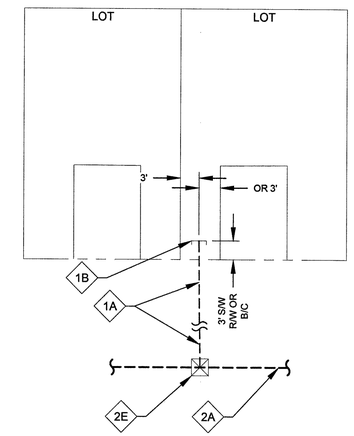
WR NO.
3875811
RELATED WR NO.S
N/A

ENGINEER/TECHNICIAN	JALANIA WRIGHT	PHONE: 702-365-2188
ACCOUNT REP.	ANDREW CARLSON	PHONE: 702-365-2060
PROJECT CONTACT	DAVE WAGNER	PHONE: 702-258-5011
SHEET NO. 4 OF 9	SCALE N.T.S.	DATE 09/03/2019
DWN. BY SEI	CHKD. BY JW	APPVD. BY BWJ

V24 PARCEL N



TYPICAL RESIDENTIAL
SINGLE SERVICE
LATERAL DETAIL
5A / 5
N.T.S.



TYPICAL RESIDENTIAL
BRANCH SERVICE
LATERAL DETAIL
5B / 5
N.T.S.

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	0'	0'	100-5101	2" PE MAIN	N/A	N/A
2E	7	0	160-8394	2" X 1" PE TAPPING TEE W/1800 EFV	N/A	N/A
2F	78	0	160-8577	2" X 1" PE TAPPING TEE W/1200 EFV	N/A	N/A

1 1/4" AND BELOW, DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
1A	1,622'	0'	101-8526	1" PE SERVICE	N/A	N/A
1B	85	0	850-8773	1" PE CAP	N/A	N/A

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CITY OF LAS VEGAS TAX CODE 02-0200	ISO_21_DIST_323	T20S R59E S33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	N/A
SYSTEM MOP:	N/A

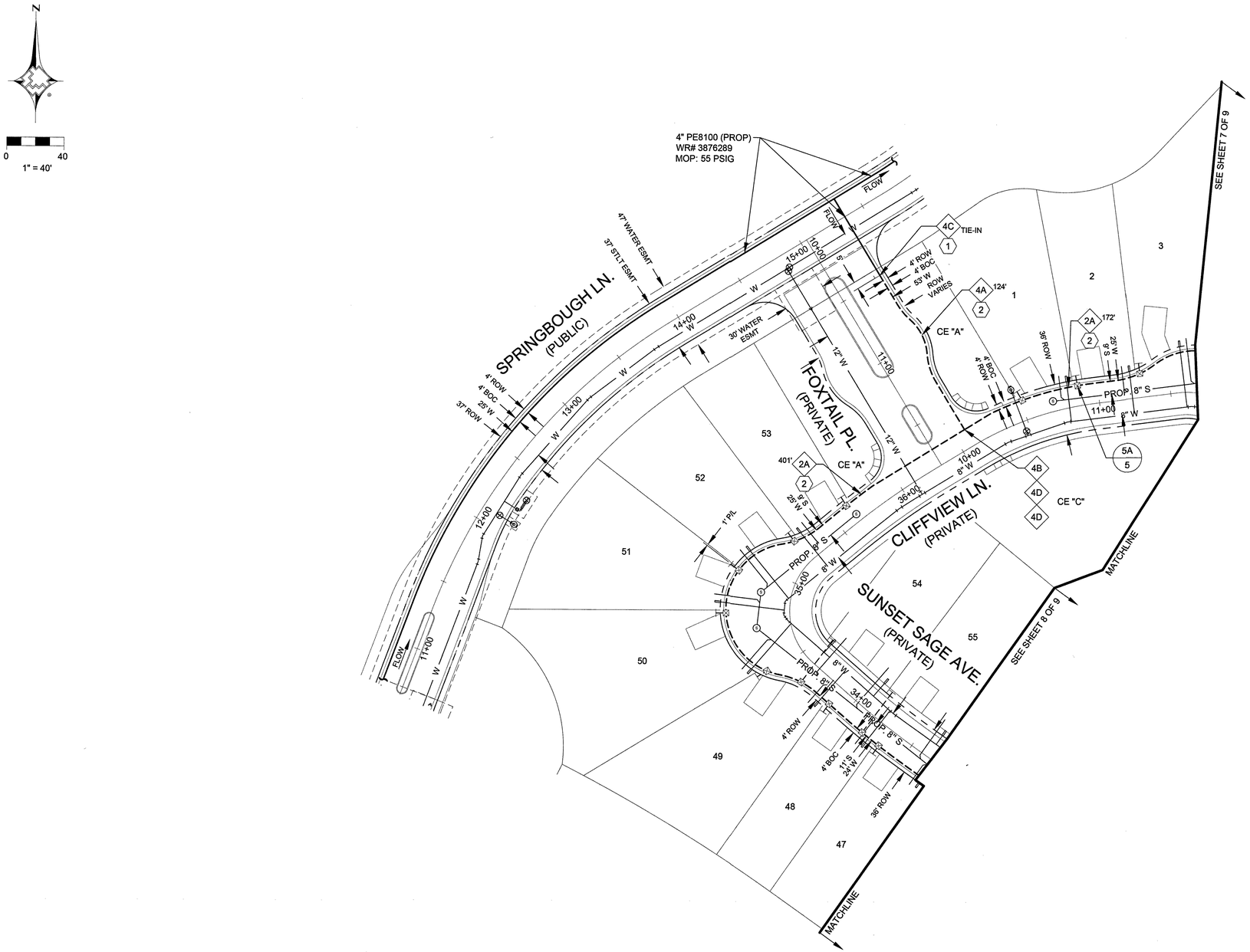
JOB TYPE
- HP SERVICE ☐
- DISTRIBUTION ☒
- FEEDER ☐
- TRANS. BY DEF ☐
- TRANS > 20% ☐

WR NO.: 3875811

RELATED WR NO.S: N/A

ENGINEER/TECHNICIAN	JALANIA WRIGHT		PHONE: 702-365-2188
ACCOUNT REP.	ANDREW CARLSON		PHONE: 702-365-2060
PROJECT CONTACT	DAVE WAGNER		PHONE: 702-258-5011
SHEET NO. 5 OF 9		SCALE N.T.S.	DATE 09/03/2019
DWN. BY SEI		CHKD. BY JW	APPVD. BY BWJ

V24 PARCEL N



4" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
4A	124'	0'	100-5201	4" PE MAIN	N/A	N/A
4B	1	0	140-3076	4" PE FULL FLOW TEE	N/A	N/A
4C	1	0	140-3530	4" PE COUPLING	N/A	N/A
4D	2	0	140-5118	4"X2" PE REDUCER	N/A	N/A

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	573'	0'	100-5101	2" PE MAIN	N/A	N/A

CONSTRUCTION NOTES	
1	TIE NEW 4" PE8100 TO EXISTING 4" PE8100 (PROP)
2	RTC 503

811
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CITY OF LAS VEGAS TAX CODE 02-0200	ISO_21_DIST_323	T20S R59E S33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	N/A
SYSTEM MOP:	N/A

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.
3875811
RELATED WR NO.S
N/A

ENGINEER/TECHNICIAN	JALANIA WRIGHT	PHONE: 702-365-2188
ACCOUNT REP.	ANDREW CARLSON	PHONE: 702-365-2060
PROJECT CONTACT	DAVE WAGNER	PHONE: 702-258-5011
SHEET NO. 6 OF 9	SCALE 1" = 40'	DATE 09/03/2019
DWN. BY SEI	CHKD. BY JW	APPVD. BY BWJ

V24 PARCEL N

CONSTRUCTION NOTES	
2	RTC 503

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	828'	0'	100-5101	2" PE MAIN	N/A	N/A
2B	1	0	140-3060	2" PE CAP	N/A	N/A
2D	1	0	140-3074	2" PE FULL FLOW TEE	N/A	N/A

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CITY OF LAS VEGAS TAX CODE 02-0200	ISO_21_DIST_323	T20S R59E S33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	N/A
SYSTEM MOP:	N/A

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.
3875811
RELATED WR NO.S
N/A

ENGINEER/TECHNICIAN	JALANIA WRIGHT	PHONE:	702-365-2188
ACCOUNT REP.	ANDREW CARLSON	PHONE:	702-365-2060
PROJECT CONTACT	DAVE WAGNER	PHONE:	702-258-5011
SHEET NO. 7 OF 9	SCALE 1" = 40'	DATE	09/03/2019
DWN. BY SEI	CHKD. BY JW	APPVD. BY	BWJ

V24 PARCEL N

44

CONSTRUCTION NOTES	
2	RTC 503

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	869'	0'	100-5101	2" PE MAIN	N/A	N/A

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PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE 02-0200	ISO_21_DIST_323	T20S R59E S33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	N/A
SYSTEM MOP:	N/A

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.
3875811
RELATED WR NO.S
N/A

ENGINEER/TECHNICIAN	JALANIA WRIGHT		PHONE: 702-365-2188
ACCOUNT REP.	ANDREW CARLSON		PHONE: 702-365-2060
PROJECT CONTACT	DAVE WAGNER		PHONE: 702-258-5011
SHEET NO. 8 OF 9		SCALE 1" = 40'	DATE 09/03/2019
DWN. BY SEI		CHKD. BY JW	APPVD. BY BWJ

V24 PARCEL N

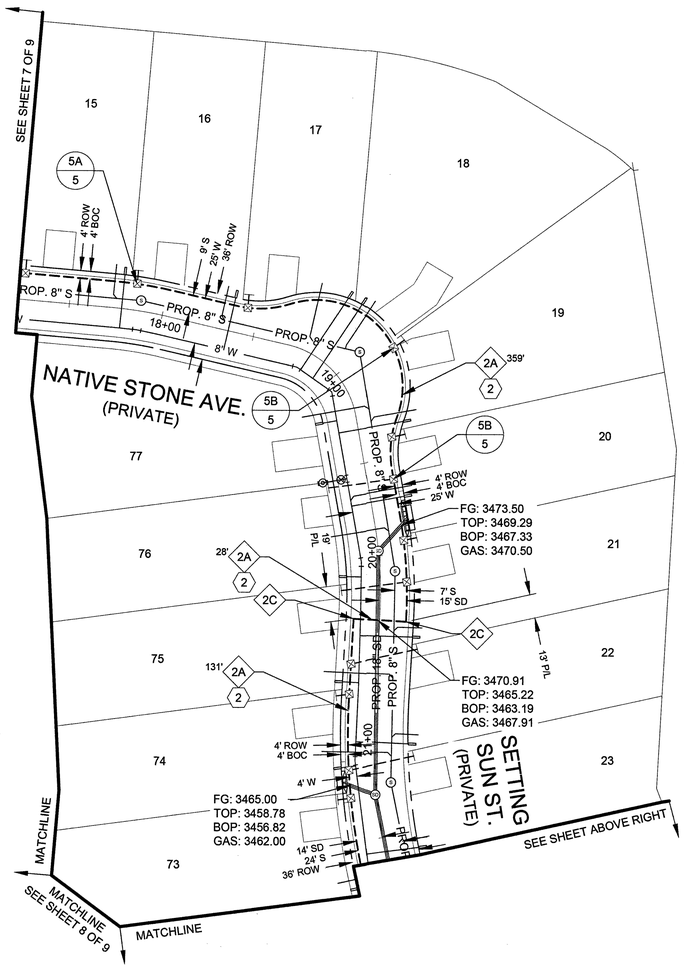
45

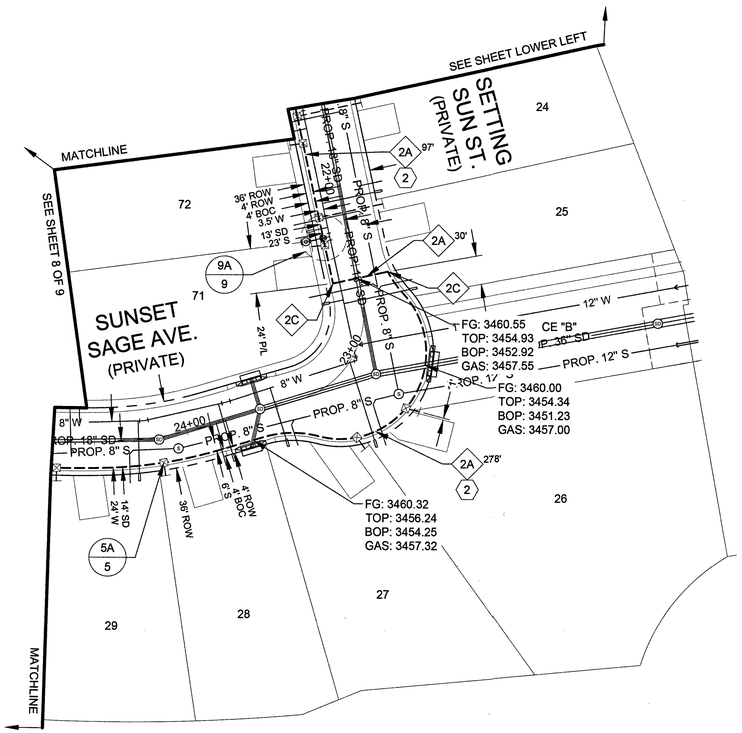
N

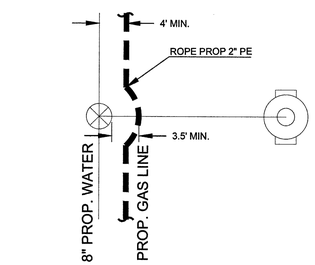
0 40
1" = 40'

CONSTRUCTION NOTES	
2	RTC 503

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	923'	0'	100-5101	2" PE MAIN	N/A	N/A
2C	4	0	140-3067	2" PE 90 DEGREE ELBOW	N/A	N/A







9A / 9 WATER VALVE DETAIL
N.T.S.

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REVISIONS			
NO.	DESCRIPTION	BY	DATE	APPVD.

PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE 02-0200	ISO_21_DIST_323	T20S R59E S33 M.D.M.	x561y516

D_W_VALLEY	
SYSTEM MAOP:	60
SYSTEM MOP:	55
N/A	
SYSTEM MAOP:	N/A
SYSTEM MOP:	N/A

JOB TYPE	
HP SERVICE	☐
DISTRIBUTION	☒
FEEDER	☐
TRANS. BY DEF	☐
TRANS > 20%	☐

WR NO.
3875811
RELATED WR NO.S
N/A

ENGINEER/TECHNICIAN	JALANIA WRIGHT		PHONE: 702-365-2188
ACCOUNT REP.	ANDREW CARLSON		PHONE: 702-365-2060
PROJECT CONTACT	DAVE WAGNER		PHONE: 702-258-5011
SHEET NO. 9 OF 9		SCALE 1" = 40'	DATE 09/03/2019
DWN. BY SEI		CHKD. BY JW	APPVD. BY BWJ

V24 PARCEL N

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