CITY OF LAS VEGAS GENERAL NOTES

CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE 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 INTERFERENCES 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 GEOTEK, PROJECT #14499-LVR, DECEMBER 27,2018, 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
PLANS.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 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~~ FACILITIES, ~~CONTRACTOR IS REQUIRED TO SCHEDULE CLV OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION~~ OF FINAL LOCATION COORDINATES ~~FOR~~ ITEMS 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 TENATIVE 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.
REVISED 06/04/2018

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 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

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 STREETLIGHT NOTES

CITY OF LAS VEGAS STREET LIGHT 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. DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITYS LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE, UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS.

3. 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.

4. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.

5. 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.

6. 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.

7. 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.

8. 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.

9. 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.

10. THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

REVISED JUNE 4, 2018 (LD VERSION)

BENCHMARK

7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES; NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

FAST
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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

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

CITY OF LAS VEGAS TRAFFIC NOTES

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 ADVANCE 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 "SUGGESTED 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 TRAFFIC SIGNS SHALL UTILIZE TYPE XI RETROREFLECTIVE SHEETING IN ACCORDANCE WITH CCAUSS 627 AND 716 AND SHALL HAVE AN ANTI-GRAFFITI PROTECTIVE OVERLAY FILM THAT IS A MATCHING COMPONENT TO AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO WHICH IT IS APPLIED. 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 THE TRAVELING PUBLIC.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA (RTC), 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. THE 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 JUNE 4, 2018

LAS VEGAS VALLEY WATER DISTRICT
LVVWD PROJECT # 136495

(REVISED 08/01/2017)

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

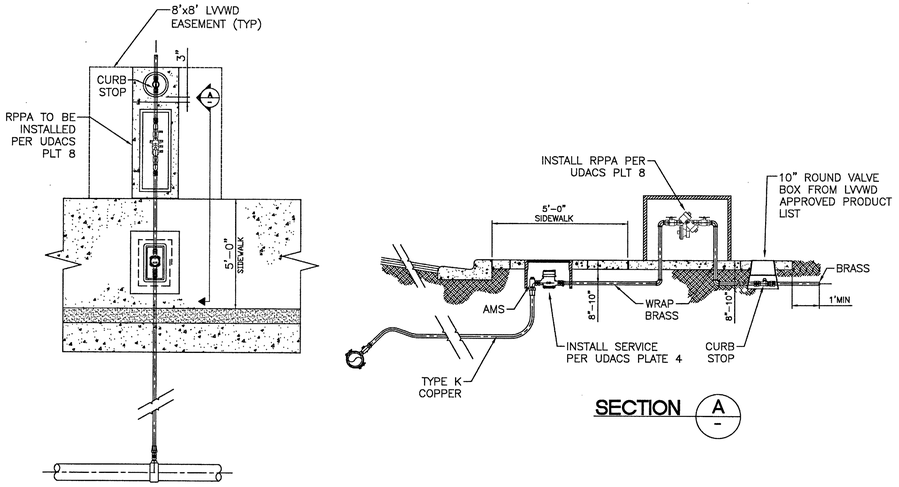
ABBREVIATIONS

A	AIR
AC	ASPHALT CONCRETE, ACRE
ACP	ASBESTOS CEMENT PIPE
ADD'L	ADDITIONAL
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
BVP	BEGIN VERTICAL POINT
BW	BACK OF SIDEWALK
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
CE	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
DBL	DOUBLE
DCS\	DESIGN AND CONSTRUCTION
DCSWCS	STANDARDS FOR WASTEWATER COLLECTION SYSTEM (LATEST EDITION)
DEFL	DEFLECTION
DG	DESIGN GRADE
DI/D.I.	DROP INLET
DIA, ø	DIAMETER
DIP	DUCTILE IRON PIPE
DIST	DISTANCE
DR	DRIVE
DS	DOWNSPOUT
DTL	DETAIL
DW	DRIVEWAY
DWG	DRAWING
E	EAST
ECR	END CURB RETURN
ELE,ELEC	ELECTRICAL
ELEV	ELEVATION
EP, EOP	EDGE OF PAVEMENT
ESMT	EASEMENT
EVC	END VERTICAL CURVE
EVP	END VERTICAL POINT
EX/ST,EX	EXISTING
EXP	EXPANSION JOINT
FC	FACE OF CURB
FF, FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FH	FIRE HYDRANT
℄	PROPERTY LINE
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
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	LOW POINT, LIGHT POLE
LSCP	LANDSCAPE
LVVWD	LAS VEGAS VALLEY WATER DISTRICT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MLTMCP	MORTAR LINED TAPE & MORTAR COATED PIPE
MP	MESA PARK
MOD	MODIFY/MODIFIED
MON	MONUMENT
MPH	MILES PER HOUR
N	NORTH
NAP	NOT A PART
NDOT	NEVADA DEPARTMENT OF TRANSPORTATION
N.I.C.	NOT IN CONTRACT
NO	NUMBER
NOSHA	STATE OF NEVADA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
NPC	NEVADA POWER COMPANY
NTS	NOT TO SCALE
NVE	NV ENERGY
OB	OVERBUILD
OC	ON CENTER
OHC	OVERHEAD COX COMMUNICATION
OHP	OVERHEAD POWER LINE
P	POWER LINE
PB	PULL BOX
PBS	PLANT-MIX BITUMINOUS SURFACE
PC	POINT OF CURVE, PRESSURE CLASS
PCC	POINT OF COMPOUND CURVE
PE	PROJECT ENGINEER OR POLYETHYLENE
PED	PEDESTRIAN
PGL	PROFILE GRADE LINE
PH	POTHOLE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
℄	PROPERTY LINE
PLCP	POLYURETHANE LINED AND COATED STEEL PIPE
PMF	PAVEMENT MARKING FILM
POB	POINT OF BEGINNING
POC	POINT ON CURVE, POINT OF CONNECTION
POT	POINT ON TANGENT
PP	POWER POLE
PROP	PROPOSED
PRC	POINT OF REVERSE CURVE
PRVC	POINT OF REVERSE VERTICAL CURVE
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
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
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
SIS	SUMMERLIN IMPROVEMENT STANDARDS
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
SV	SKY VISTA DRIVE
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
TRW	TOP OF RETAINING WALL
TS	TEST STATION
TS&V	TAPPING SLEEVE & VALVE
TW	TOP OF WALL
TYP,(TYP)	TYPICAL
UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (LATEST EDITION)
UG	UNDERGROUND
ULT	ULTIMATE
USD, USDCOA, CCAUSD	UNIFORM STD. 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
W/	WITH
WMH	WATER MANHOLE
WS	WATER SUPPLY
WT	WEIGHT
WTR	WATER
XING	CROSSING
YD	YARD, YARD DRAIN
Z	PRESSURE ZONE

LEGEND

- TYPICAL PROPOSED LINEWORK
- TYPICAL EXISTING LINEWORK
- TYPICAL FUTURE LINEWORK
- SECTION LINE
- EASEMENT LINE
- RIGHT-OF-WAY LINE
- PROPERTY LINE
- CENTERLINE
- TYPICAL UTILITY LINE 4" – 12" (SINGLE LINE)
- TYPICAL UTILITY LINE > THAN 12" (DOUBLE LINE)
- TYPICAL SEWER LINE W/MH
- TYPICAL WATER LINE W/GV
- TYPICAL STORM LINE W/MH
- 100 YR HYDRAULIC GRADE LINE
- CONCRETE OR STEEL ENCASEMENT
- TYPICAL STUB & BLOW-OFF
- EX. UTILITIES PROFILE VIEW
- PE GAS — EX. GAS LINE
- ELEC — EX. ELECTRICAL
- CATV — EX. CABLE TV
- TEL — EX. TELEPHONE
- OHP — EX. OVERHEAD POWER LINES
- EX. ELEC & PWR POLES
- TYPICAL CURB & GUTTER, SIDEWALK AND RAMP
- POST AND CABLE FENCE
- CHAIN LINK FENCE
- SAWCUT
- PAVEMENT RESORATION AREA
- PROPOSED ABANDONMENT
- EXISTING ABANDONMENT
- CUT LINE LIMITS
- FILL LINE LIMITS

- 1/C — DETAIL BUBBLE W/ REF.
- BENCHMARK
- GATE VALVE
- PRV — PRESSURE REDUCING VALVE
- BWV — BACK WATER VALVE
- DROP INLET
- FIRE HYDRANT
- WATER METER
- WATER RPPA
- WATER RPDA
- TRAFFIC SIGNAL PULL BOX
- STREET LIGHT CLARK COUNTY
- STREET LIGHT SUMMERLIN STD
- TRAFFIC SIGNAL/FLASHER
- EXISTING TELE POLE
- EXISTING POWER POLE
- EXISTING POLE
- EX. ELEC MARKER
- TRANSFORMER PAD
- SERVICE PEDESTAL
- PULLBOX
- 3005 — PROPOSED CONTOUR
- (3005) — EXISTING CONTOUR
- 60.50 TC — PROPOSED SPOT ELEVATION
- (60.50) TC — EXISTING SPOT ELEVATION
- 1.00% — PROPOSED SLOPE
- TOP SLOPE / TOE SLOPE — SLOPE DIRECTION
- FF = 2333.25 — FINISH FLOOR ELEVATION



QUANTITY ESTIMATE

NOTE: CONTRACTOR TO VERIFY QUANTITIES FOR BIDDING PURPOSES

SEWER

DESCRIPTION	UNIT	PUBLIC	PRIVATE
4" PVC SEWER PIPE	LF	0	580
8" PVC SEWER PIPE	LF	825	0
4" C900 SEWER PIPE	LF	0	2085
8" C900 SEWER PIPE	LF	1489	0
SEWER MANHOLE UNDER 6 FEET	EA	6	0
SEWER MANHOLE 6 TO 18 FEET	EA	13	0
BACKWATER VALVES	EA	0	36

WATER

DESCRIPTION	UNIT	PUBLIC	PRIVATE
6" WATER MAIN	LF	248	0
8" WATER MAIN	LF	2241	0
WATER LATERAL	LF	2259	0
LANDSCAPE WATER SERVICE	EA	2	0
WATER SERVICE TO LOTS	EA	124	0
FIRE HYDRANT	EA	5	0
1" RPPA	EA	3	0

ROADWAY

DESCRIPTION	UNIT	PUBLIC	PRIVATE
CURB & GUTTER (TYPE "L" & "A")	LF	0	5005
CROSS GUTTER	SF	1000	3155
SIDEWALK 4"	SF	0	1882
SIDEWALK RAMP	EA	2	0
TYPE 1 GRAVEL BASE	CY	75	0
TYPE II GRAVEL BASE	CY	46	1066
2" ASPHALTIC CONCRETE PAVING	SY	0	9590
5" ASPHALTIC CONCRETE PAVING	SY	300	0
SURVEY MONUMENTS	EA	1	32

TRAFFIC

DESCRIPTION	UNIT	PUBLIC	PRIVATE
ADJUST/RELOCATE STREETLIGHT	EA	1	0

DRAINAGE

DESCRIPTION	UNIT	PUBLIC	PRIVATE
18" STORM DRAIN	LF	79	0
STORM DRAIN TAP	EA	1	0
12.5' CM2 DROP INLET	EA	2	0
2' VALLEY GUTTER	LF	3,172	0

DRY UTILITY AND OTHER

DESCRIPTION	UNIT	PUBLIC	PRIVATE
EXCAVATION & EMBANKMENT	CY	0	26311
CABLE TO LOTS	EA	0	124
GAS TO LOTS	EA	0	124
PHONE TO LOTS	EA	0	124
POWER TO LOTS	EA	0	124

BENCHMARK

7LVDO7NWMB
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032	CLV DWG# 107Y5108

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

STATE OF NEVADA — PROFESSIONAL ENGINEER — HAO A. NGUYEN No. 19398 — DATE: 06-13-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-13-19
PLOT TIME: 11:28:13

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

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CCV.DWG
BRADY GUZMAN

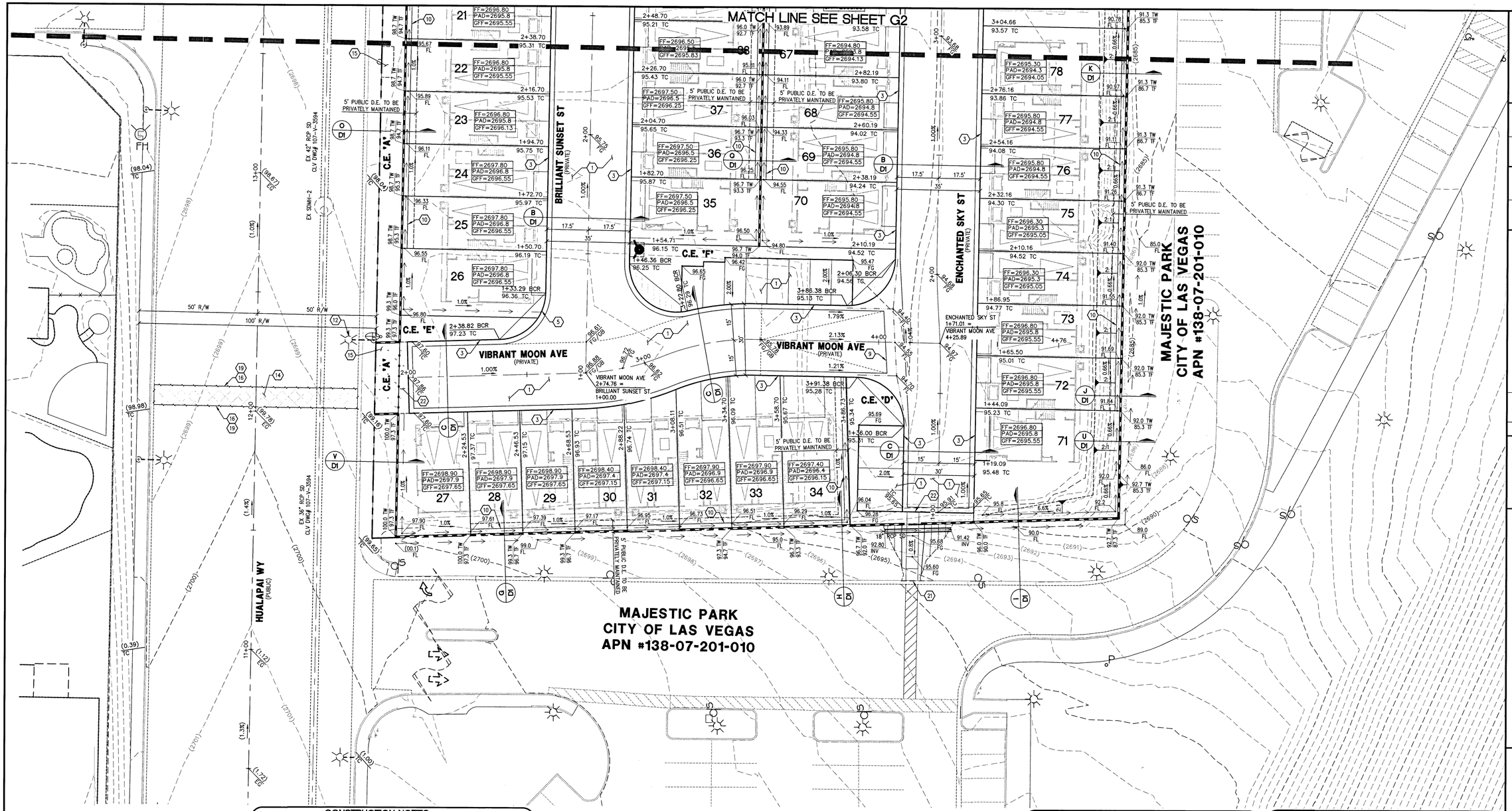
TOUCHSTONE LIVING

HUALAPAI AND ALEXANDER

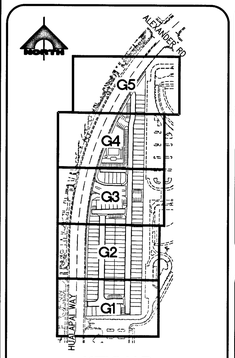
PROJECT DATA

DRAWING
C3
3 OF 33 SHTS

PROJ.#:136495A QS:138-07-NW



KEYMAP
NOT TO SCALE



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CONSTRUCTION NOTES
GRADING
1. CONSTRUCT 2" AC OVER 4" TYPE II AB.
2. CONSTRUCT L TYPE CURB AND GUTTER PER USDCCA DWG NO. 216.
3. CONSTRUCT RESIDENTIAL CURB AND GUTTER R-TYPE PER USDCCA DWG NO. 217.3.S1.
4. CONSTRUCT "A" TYPE ISLAND CURB PER USDCCA DWG NO. 219.
5. CONSTRUCT R-TYPE CURB OPENING PER DETAIL 4 ON SHEET D2.
6. CONSTRUCT MEDIAN ISLAND PER USDCCA DWG NO. 218.
7. CONSTRUCT HANDICAP RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER USDCCA DWG NO. 235, CASE 1, A=B=8.0' UNLESS OTHERWISE NOTED ON PLAN.
8. CONSTRUCT COMMERCIAL AND INDUSTRIAL DRIVEWAY (OPTION A) PER USDCCA DWG NO. 224.
9. CONSTRUCT 8' WIDE CROSS GUTTER PER USDCCA DWG NO 218.
10. CONSTRUCT 2' WIDE CONCRETE CROSS GUTTER PER DETAIL 6 ON SHEET D2.
11. REMOVE EXISTING CURB AND SIDEWALK.
12. RELOCATE.
13. CONSTRUCT WALL OPENING PER DETAIL 2 ON SHEET D2.
14. CONSTRUCT 5.5" AC OVER 6" TYPE II AB.
15. CONSTRUCT SIDEWALK PER USDCCA DWG NO 234.
16. SAWCUT AND MATCH EXSTING.
17. CONSTRUCT FENCE PER CCAUSD #425.S1
18. CONSTRUCT SLIDING GATE PER PLAN BY OTHERS
19. TRENCH AND PAVEMENT REPAIR/RESTORATION PER CCAUSD #500.3, 500.5, & 503
20. CONSTRUCT MODIFIED CASE III SIDEWALK RAMP PER CCAUSD #235.
21. CONSTRUCT SIDEWALK RAMP PER DETAIL 9 ON SHEET D2
22. CONSTRUCT SIDEWALK RAMP PER DETAIL 10 ON SHEET D2
23. CONSTRUCT 4" PCC OVER 4" TYPE II AB

NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

CONSTRUCTION NOTES
STORM DRAIN
1. CONSTRUCT 12.5' TYPE "CM2" DROP INLET PER USDCCA DWG NO. 412.1 AND 421.
2. STORM DRAIN PIPE PENETRATION PER DETAILS 1 AND 2 ON SHEET S1.

NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

NOTE
ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PUBLICLY 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.

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.
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. 6.23.G.01.02
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.
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.

NORTH

20' 0' 10' 20'
SCALE: 1" = 20'

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
1. GEOTECHNICAL EVALUATION FOR HUALAPAI AND ALEXANDER, A 14.02± ACRE RESIDENTIAL DEVELOPMENT LOCATED ON THE SOUTHWEST CORNER OF HUALAPAI AND ALEXANDER LAS VEGAS, NEVADA AS PREPARED BY GEOTEK PROJECT NUMBER 14499-LVR DATED DECEMBER 27, 2018.
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 TO BE DEDICATED AS PUBLIC DRAINAGE EASEMENT AND PUBLIC UTILITY EASEMENT TO BE PRIVATELY MAINTAINED.

NOTE
CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST BY THE CITY.

STORMWATER MANAGEMENT NOTES - CLV
1. STANDARD NOTE NO. 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 ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY 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. STANDARD NOTE NO. 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 TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. STANDARD NOTE NO. 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 THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR 100000, SECTION III.A.5.
4. STANDARD NOTE NO. 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 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 NVR 100000, SECTION III.A.12.
5. STANDARD NOTE NO. 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.

BENCHMARK
7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

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FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

FLOOD ZONE NOTE
NO PORTION OF THE SITE FALLS WITHIN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA. SITE LOCATED ON PANEL 2150 E, DATED SEPTEMBER 27, 2002, TO REFLECT A LOMR. THIS PANEL SHOWS THAT THE PROJECT IS LOCATED WITHIN A ZONE X AND NOT LOCATED WITHIN A FEMA DESIGNATED 100-YEAR ZONE A OR SPECIAL FLOOD HAZARD AREA.

DRAINAGE CERTIFICATION
I CERTIFY THAT THE GRADING PLANS ARE IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY DSS102A ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

HAO A. NGUYEN P.E. 19396 — 08-12-19
DATE

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA — HAO A. NGUYEN — No. 19396 — PROFESSIONAL ENGINEER — Exp. 12/31/2019
DATE: 08-12-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GOV APP

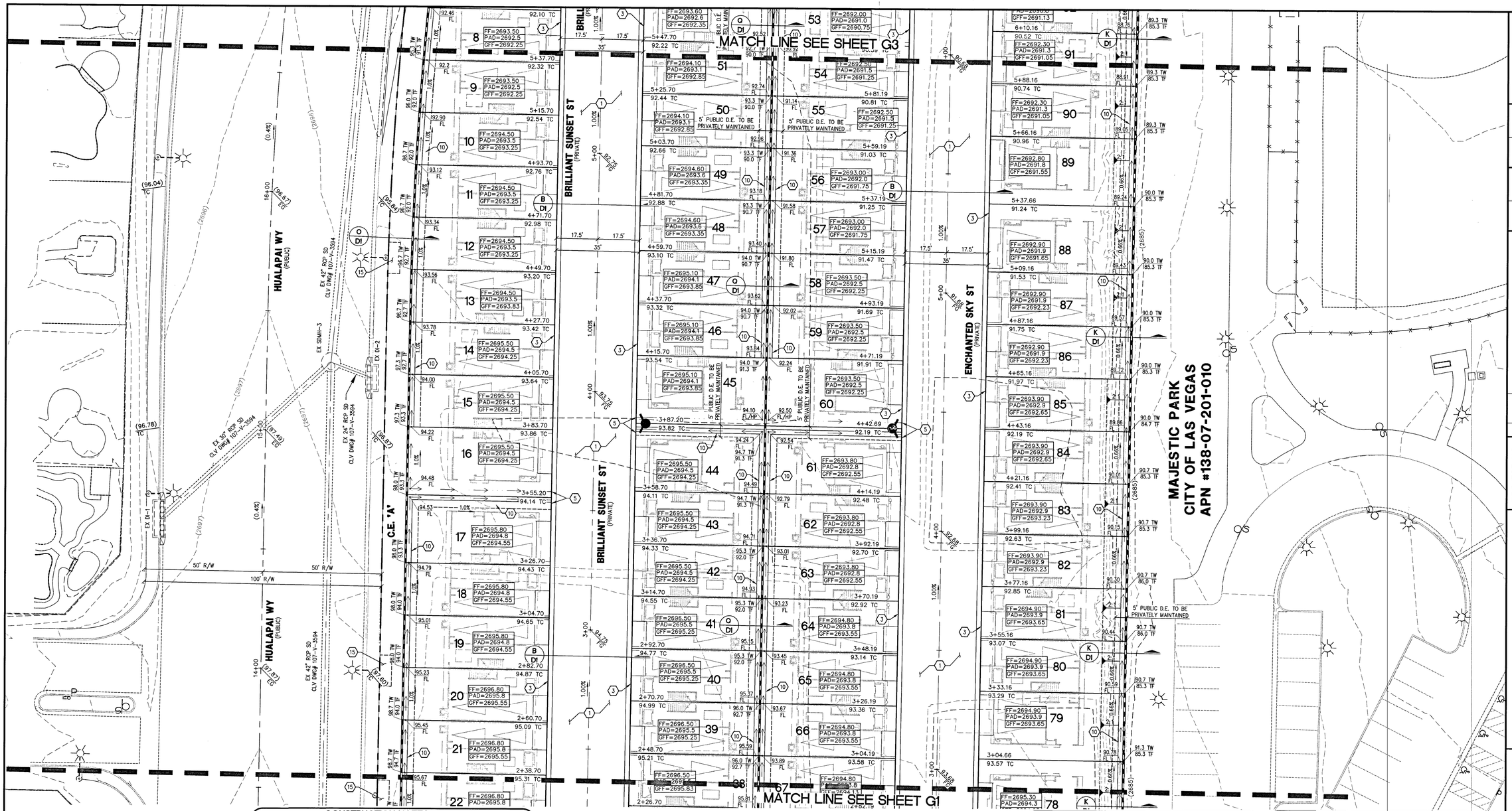
PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-12-19
PLOT TIME: 10:11:07

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

F:\PROJECTS\Y00\Y98-003\DWG\PRODUCTION\Y98-003CGLDWG
HAO NGUYEN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
GRADING PLAN 1

DRAWING
G1
4 OF 33 SHTS



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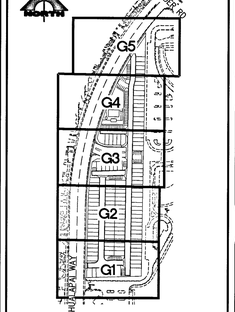

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Avoid cutting underground utility lines. It's costly.
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or
1-800-227-2600

CONSTRUCTION NOTES

GRADING

1. CONSTRUCT 2" AC OVER 4" TYPE II AB.
2. CONSTRUCT L TYPE CURB AND GUTTER PER USDCCA DWG NO. 216.
3. CONSTRUCT RESIDENTIAL CURB AND GUTTER R-TYPE PER USDCCA DWG NO. 217.3.S1.
4. CONSTRUCT "A" TYPE ISLAND CURB PER USDCCA DWG NO. 219.
5. CONSTRUCT R-TYPE CURB OPENING PER DETAIL 4 ON SHEET D2.
6. CONSTRUCT MEDIAN ISLAND PER USDCCA DWG NO. 218.
7. CONSTRUCT HANDICAP RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER USDCCA DWG NO. 235, CASE 1, A=B=8.0' UNLESS OTHERWISE NOTED ON PLAN.
8. CONSTRUCT COMMERCIAL AND INDUSTRIAL DRIVEWAY (OPTION A) PER USDCCA DWG NO. 224.
9. CONSTRUCT 8' WIDE CROSS GUTTER PER USDCCA DWG NO 218.
10. CONSTRUCT 2' WIDE CONCRETE CROSS GUTTER PER DETAIL 6 ON SHEET D2.
11. REMOVE EXISTING CURB AND SIDEWALK.
12. RELOCATE.
13. CONSTRUCT WALL OPENING PER DETAIL 2 ON SHEET D2.
14. CONSTRUCT 5.5" AC OVER 6" TYPE II AB.
15. CONSTRUCT SIDEWALK PER USDCCA DWG NO 234.
16. SAWCUT AND MATCH EXISTING.
17. CONSTRUCT FENCE PER CCAUSD #425.S1
18. CONSTRUCT SLIDING GATE PER PLAN BY OTHERS
19. TRENCH AND PAVEMENT REPAIR/RESTORATION PER CCAUSD #500.3, 500.5, & 503
20. CONSTRUCT MODIFIED CASE III SIDEWALK RAMP PER CCAUSD #235.
21. CONSTRUCT SIDEWALK RAMP PER DETAIL 9 ON SHEET D2
22. CONSTRUCT SIDEWALK RAMP PER DETAIL 10 ON SHEET D2
23. CONSTRUCT 4" PCC OVER 4" TYPE II AB

NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

CONSTRUCTION NOTES

STORM DRAIN

1. CONSTRUCT 12.5' TYPE "CM2" DROP INLET PER USDCCA DWG NO. 412.1 AND 421.
2. STORM DRAIN PIPE PENETRATION PER DETAILS 1 AND 2 ON SHEET S1.

NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

NOTE
ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PUBLICLY 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.

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.
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. 623.0.01.02
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.
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.

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
1. GEOTECHNICAL EVALUATION FOR HUALAPAI AND ALEXANDER, A 14.02± ACRE RESIDENTIAL DEVELOPMENT LOCATED ON THE SOUTHWEST CORNER OF HUALAPAI AND ALEXANDER LAS VEGAS, NEVADA AS PREPARED BY GEOTEK PROJECT NUMBER 14499-LVR DATED DECEMBER 27, 2018.
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.
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5. ALL PRIVATE STREETS ARE TO BE DEDICATED AS PUBLIC DRAINAGE EASEMENT AND PUBLIC UTILITY EASEMENT TO BE PRIVATELY MAINTAINED.

NORTH

20' 0' 10' 20'
SCALE: 1" = 20'

NOTE
CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST BY THE CITY.

BENCHMARK
7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

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HAO A. NGUYEN P.E. 19396 — 08-12-19 DATE

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA — HAO A. NGUYEN — No. 19396 — PROFESSIONAL ENGINEER — CIVIL — EXP. 12/31/2019
DATE: 08-12-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CGW APP

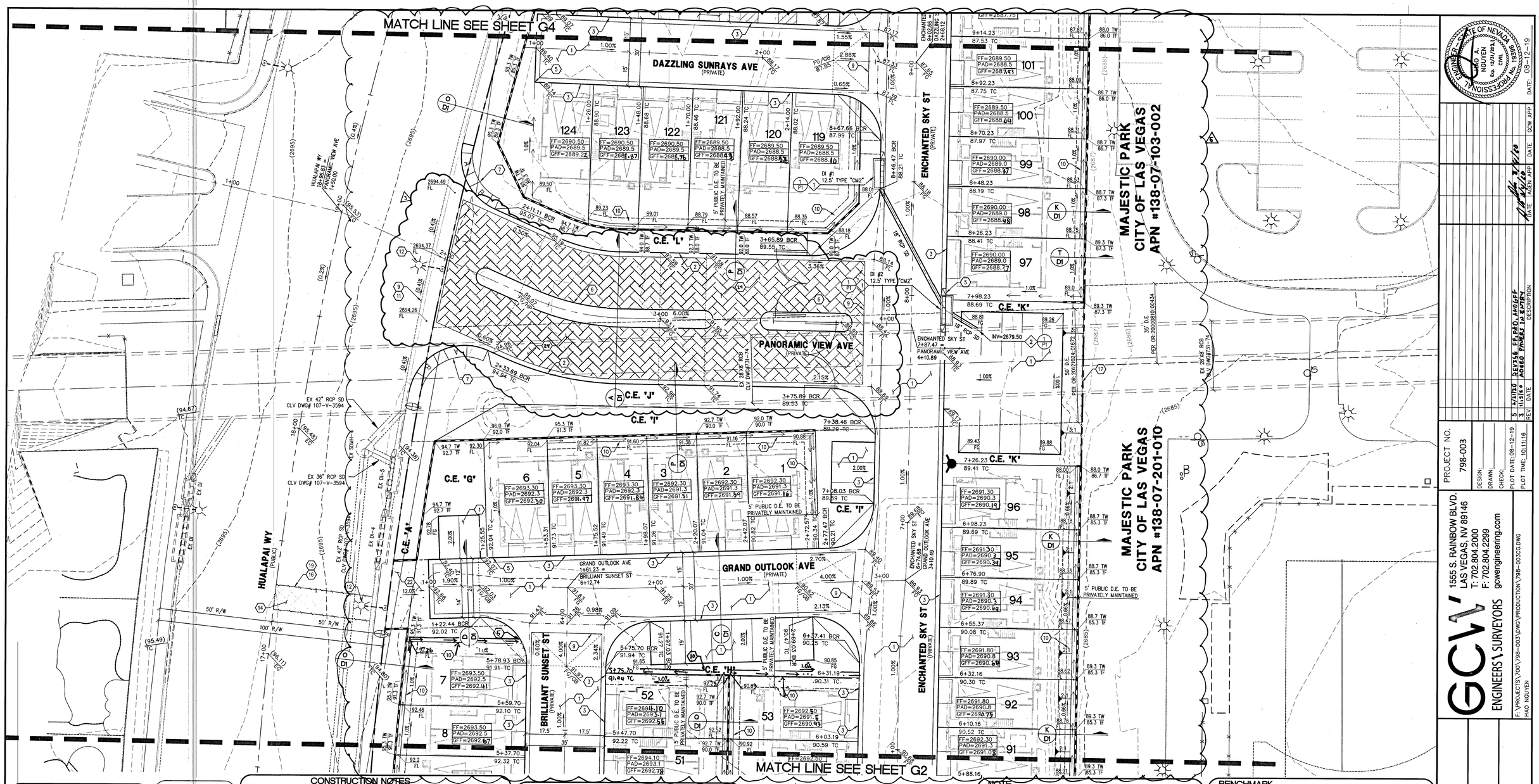
PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-12-19
PLOT TIME: 10:11:12

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

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CG.DWG
HAO NGUYEN

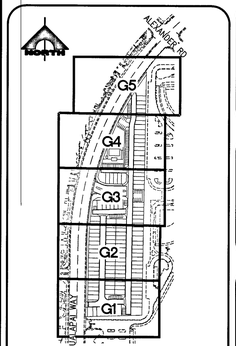
TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
GRADING PLAN 2

DRAWING
G2
5 OF 33 SHTS



KEYMAP

NOT TO SCALE



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22. CONSTRUCT SIDEWALK RAMP PER DETAIL 10 ON SHEET D2
23. CONSTRUCT 4" RCP OVER 4" TYPE II AB
24. INSTALL CONCRETE PAVERS W/ BANDS PER DETAIL 1 ON SHEET G3 (3)

NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

CONSTRUCTION NOTES

STORM DRAIN

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20' 0' 10' 20'

SCALE: 1" = 20'

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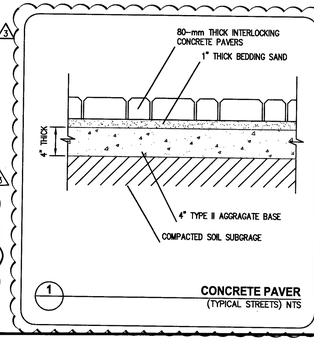

1 CONCRETE PAVER (TYPICAL STREETS) NTS

NOTE

CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST BY THE CITY.

BENCHMARK

7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.83

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

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STANDARD PARALLEL SCALE: 1.0001 (EXACT)
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HAO A. NGUYEN P.E. 19396 — 08-12-19 DATE

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA — HAO A. NGUYEN — Exp. 12/31/20 — CIVIL — No. 19396 — PROFESSIONAL ENGINEER

DATE: 08-12-19

REV	DATE	DESCRIPTION	DATE	AGENCY APP	DATE	GCW APP
5	5/31/19	PER 1ST SUBMITTAL COMMENTS				
4	8/12/19	PER 2ND SUBMITTAL COMMENTS				
3	11/15/19	ADDED PANELS TO ENTRY				

PROJECT NO. 798-003

DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-12-19
PLOT TIME: 10:11:16

GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CG.DWG
HAO NGUYEN

TOUCHSTONE LIVING

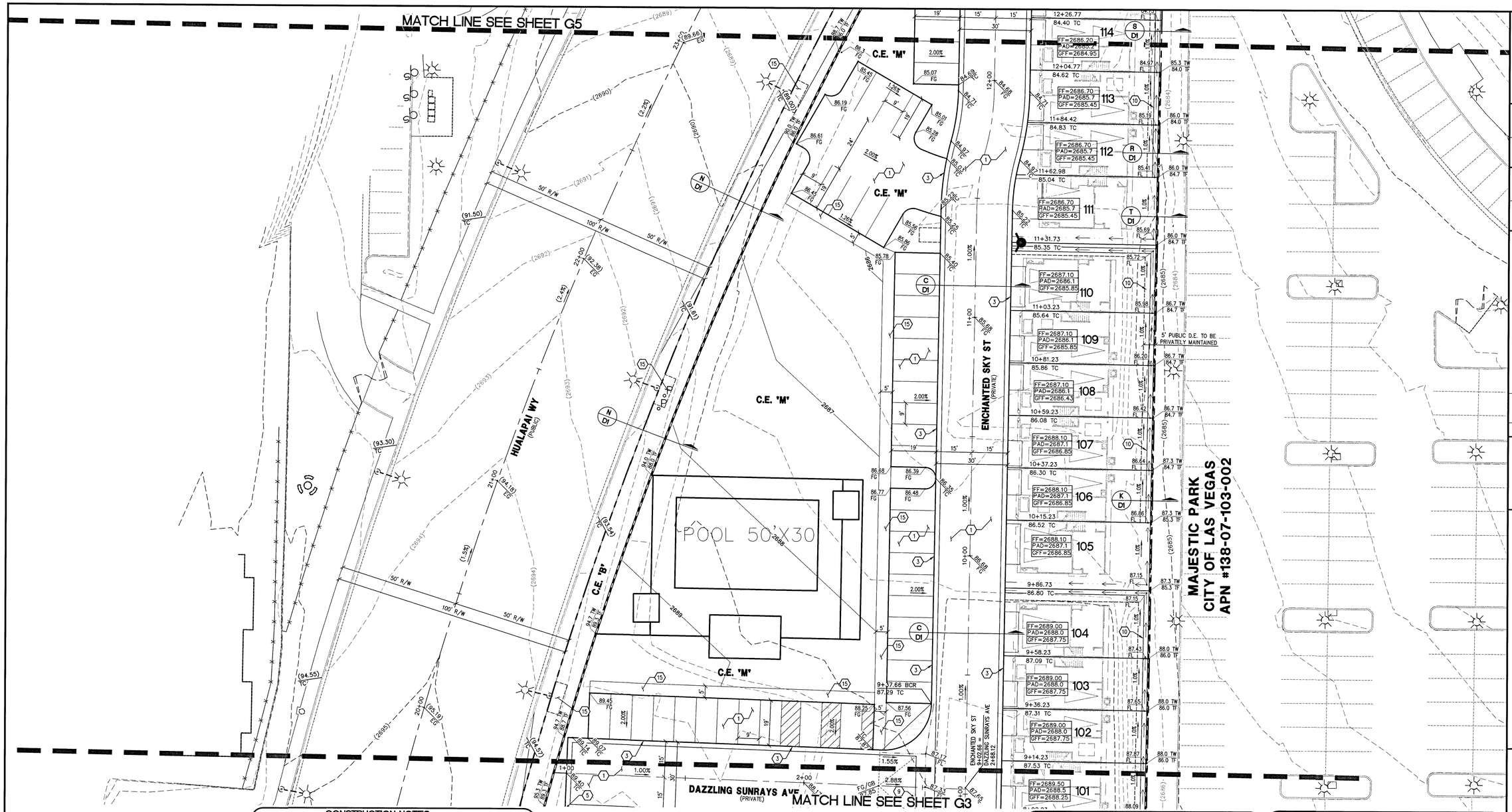
HUALAPAI AND ALEXANDER

GRADING PLAN 3

DRAWING G3

6 OF 33 SHTS

MATCH LINE SEE SHEET G5



KEYMAP
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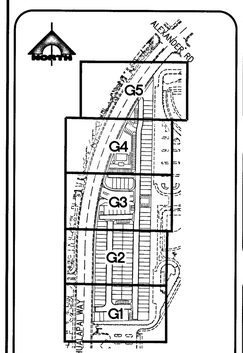

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11. REMOVE EXISTING CURB AND SIDEWALK.
12. RELOCATE.
13. CONSTRUCT WALL OPENING PER DETAIL 2 ON SHEET D2.
14. CONSTRUCT 5.5" AC OVER 6" TYPE II AB.
15. CONSTRUCT SIDEWALK PER USDCCA DWG NO 234.
16. SAWCUT AND MATCH EXISTING.
17. CONSTRUCT FENCE PER CCAUSD #425.51
18. CONSTRUCT SLIDING GATE PER PLAN BY OTHERS
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22. CONSTRUCT SIDEWALK RAMP PER DETAIL 10 ON SHEET D2
22. CONSTRUCT 4" PCC OVER 4" TYPE II AB

NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

CONSTRUCTION NOTES
STORM DRAIN
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NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

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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 TO BE DEDICATED AS PUBLIC DRAINAGE EASEMENT AND PUBLIC UTILITY EASEMENT TO BE PRIVATELY MAINTAINED.

NORTH

20' 0' 10' 20'
SCALE: 1" = 20'

NOTE
CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST BY THE CITY.

BENCHMARK
7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

FLOOD ZONE NOTE
NO PORTION OF THE SITE FALLS WITHIN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA. SITE LOCATED ON PANEL 2150 E, DATED SEPTEMBER 27, 2002, TO REFLECT A LOMR. THIS PANEL SHOWS THAT THE PROJECT IS LOCATED WITHIN A ZONE X AND NOT LOCATED WITHIN A FEMA DESIGNATED 100-YEAR ZONE A OR SPECIAL FLOOD HAZARD AREA.

DRAINAGE CERTIFICATION
I CERTIFY THAT THE GRADING PLANS ARE IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY DS5102A ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

HAO A. NGUYEN P.E. 19396 — 08-12-19 DATE

L# L19-01032 | CLV DWG# 107Y5108

MAJESTIC PARK
CITY OF LAS VEGAS
APN #138-07-103-002

STATE OF NEVADA — HAO A. NGUYEN — No. 19396 — PROFESSIONAL ENGINEER — Date: 12/31/2019
DATE: 05-12-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GOV APP

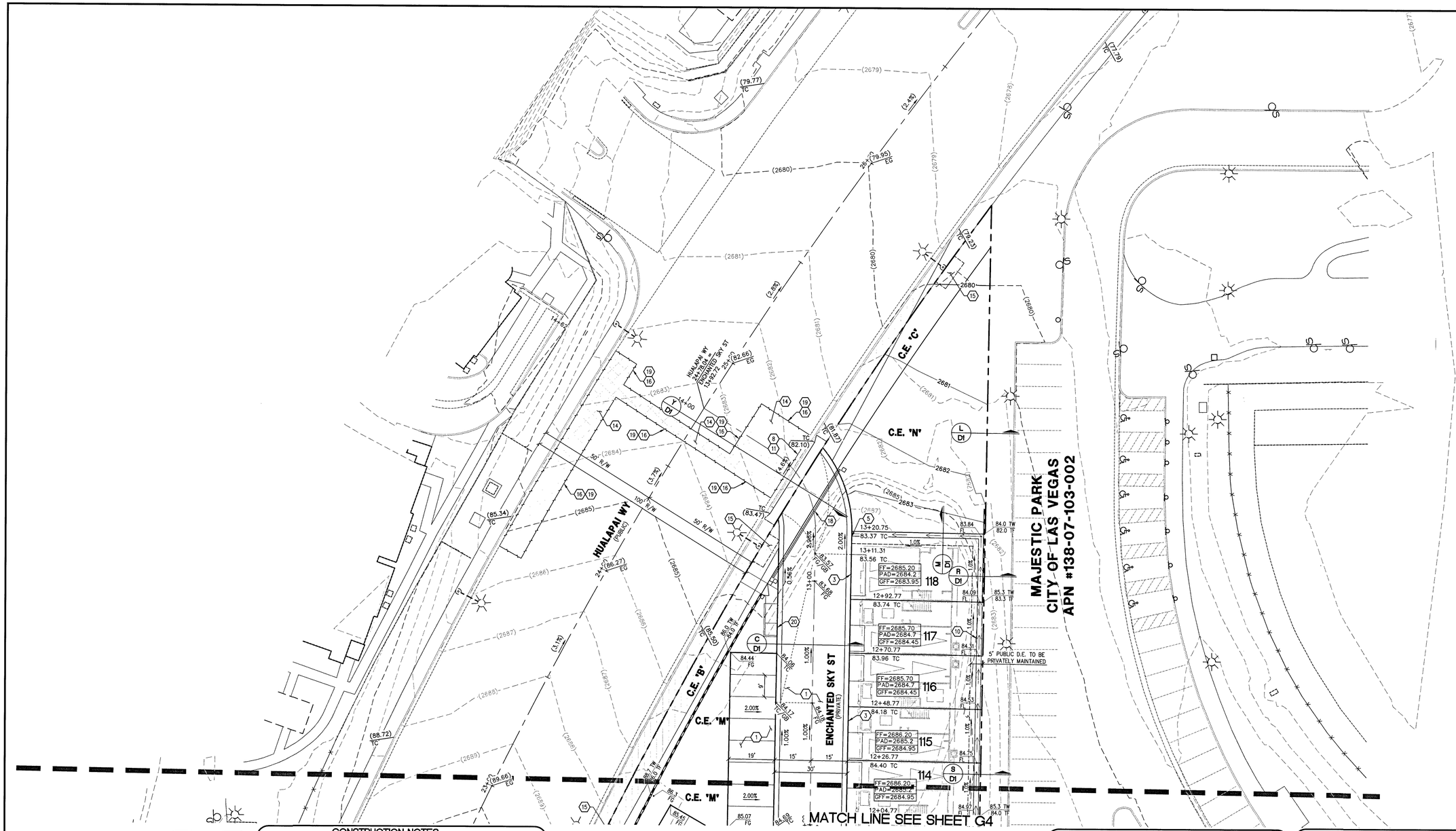
PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-12-19
PLOT TIME: 10:11:21

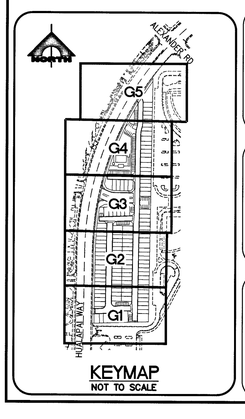
GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003GDWG
HAO NGUYEN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
GRADING PLAN 4

DRAWING
G4
7 OF 33 SHTS





KEYMAP
NOT TO SCALE

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

CONSTRUCTION NOTES

GRADING

1. CONSTRUCT 2" AC OVER 4" TYPE II AB.
2. CONSTRUCT L TYPE CURB AND GUTTER PER USDCCA DWG NO. 216.
3. CONSTRUCT RESIDENTIAL CURB AND GUTTER R-TYPE PER USDCCA DWG NO. 217.3.S1.
4. CONSTRUCT "A" TYPE ISLAND CURB PER USDCCA DWG NO. 219.
5. CONSTRUCT R-TYPE CURB OPENING PER DETAIL 4 ON SHEET D2.
6. CONSTRUCT MEDIAN ISLAND PER USDCCA DWG NO. 218.
7. CONSTRUCT HANDICAP RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER USDCCA DWG NO. 235, CASE 1, A=B=8.0' UNLESS OTHERWISE NOTED ON PLAN.
8. CONSTRUCT COMMERCIAL AND INDUSTRIAL DRIVEWAY (OPTION A) PER USDCCA DWG NO. 224.
9. CONSTRUCT 8' WIDE CROSS GUTTER PER USDCCA DWG NO 218.
10. CONSTRUCT 2' WIDE CONCRETE CROSS GUTTER PER DETAIL 6 ON SHEET D2.
11. REMOVE EXISTING CURB AND SIDEWALK.
12. RELOCATE.
13. CONSTRUCT WALL OPENING PER DETAIL 2 ON SHEET D2.
14. CONSTRUCT 5.5" AC OVER 6" TYPE II AB.
15. CONSTRUCT SIDEWALK PER USDCCA DWG NO 234.
16. SAWCUT AND MATCH EXISTING.
17. CONSTRUCT FENCE PER CCAUSD #425.S1
18. CONSTRUCT SLIDING GATE PER PLAN BY OTHERS
19. TRENCH AND PAVEMENT REPAIR/RESTORATION PER CCAUSD #500.3, 500.5, & 503
20. CONSTRUCT MODIFIED CASE III SIDEWALK RAMP PER CCAUSD #235.
21. CONSTRUCT SIDEWALK RAMP PER DETAIL 9 ON SHEET D2
22. CONSTRUCT SIDEWALK RAMP PER DETAIL 10 ON SHEET D2
22. CONSTRUCT 4" PCC OVER 4" TYPE II AB

NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

CONSTRUCTION NOTES

STORM DRAIN

1. CONSTRUCT 12.5' TYPE "CM2" DROP INLET PER USDCCA DWG NO. 412.1 AND 421.
2. STORM DRAIN PIPE PENETRATION PER DETAILS 1 AND 2 ON SHEET S1.

NOTE: SEE SHEET C2 & C3 FOR ABBREVIATIONS AND QUANTITIES

NOTE

ALL ONSITE STORM DRAINS AND ASSOCIATED STORM FACILITIES ARE PUBLICLY 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.

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.
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. 623.0.01.02
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.
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.

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

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7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
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HAO A. NGUYEN P.E. 19396 — 08-12-19 DATE

L# L19-01032 | CLV DWG# 107Y5108

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

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

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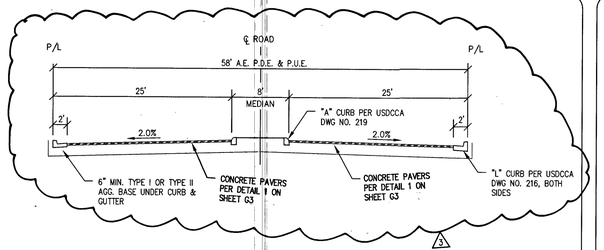
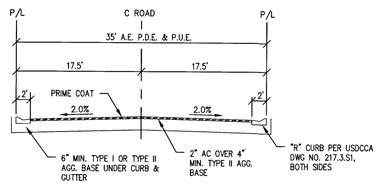
F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003GS.DWG
HAO NGUYEN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
GRADING PLAN 5

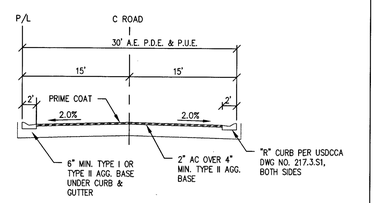
DRAWING
G5
8 OF 33 SHTS



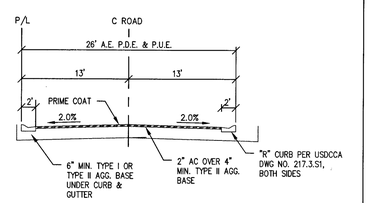
A **58.0' PRIVATE ENTRY**
(TYPICAL STREETS) NTS



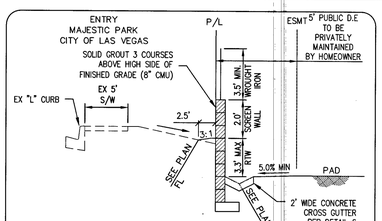
B **35' PRIVATE STREET**
(TYPICAL STREETS) NTS



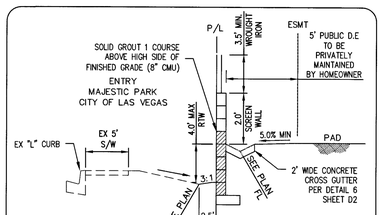
C **30' PRIVATE STREET**
PARKING ON ONE SIDE ONLY (TYPICAL STREETS) NTS



D **26' PRIVATE STREET**
NO PARKING ON BOTH SIDES (TYPICAL STREETS) NTS



G **TYPICAL SECTION**
NTS



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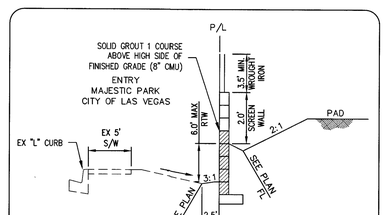

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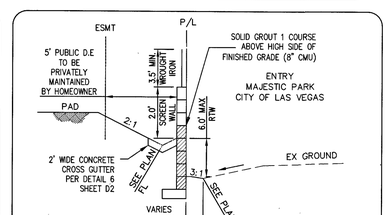

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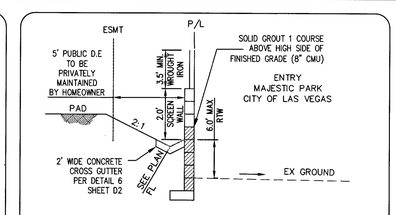

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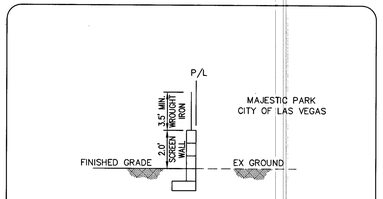

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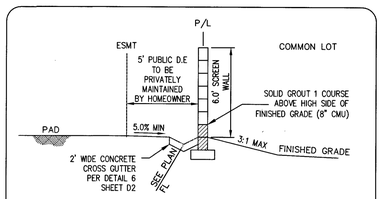

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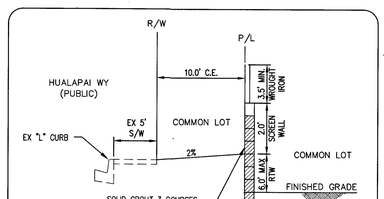

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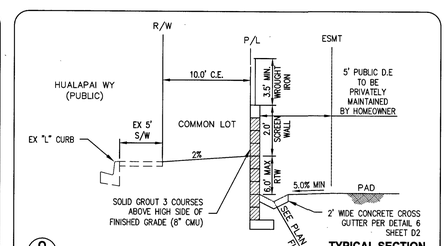

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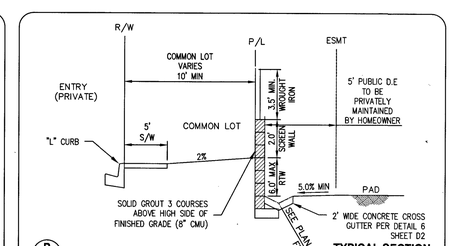

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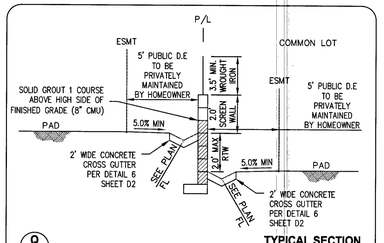

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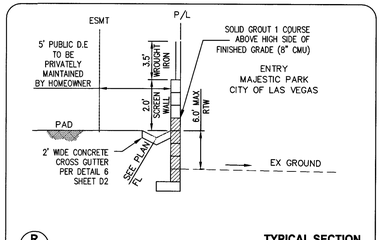

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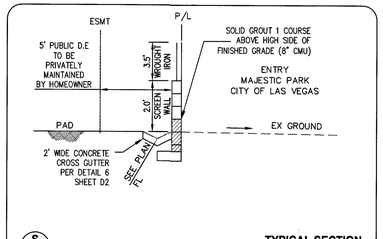

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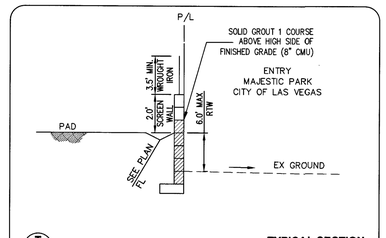

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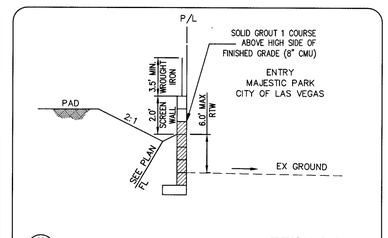

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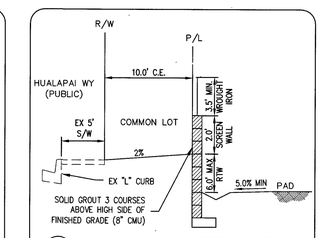

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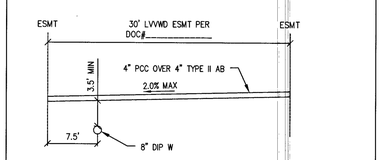

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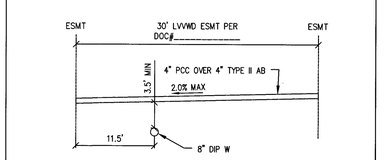

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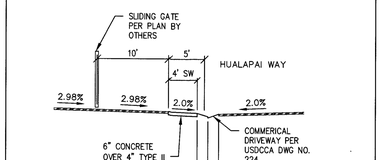

Y **TYPICAL SECTION**
NTS

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8-20-19
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA — ENGINEER — HAO A. NGUYEN — Exp. 12/31/2014 — No. 19596 — PROFESSIONAL — CIVIL

REV	DATE	DESCRIPTION	DRWN	CHK'D	APP
3	11/14/19	ADDED NOTES			
2	10/11/19	ADDED NOTES			
1	08-12-19				

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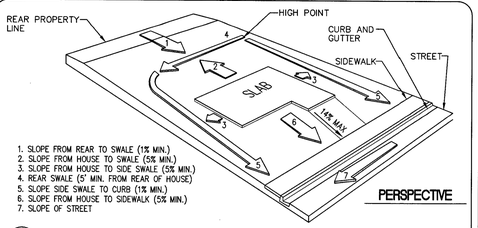
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcvengineering.com

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003D.DWG
HAO NGUYEN

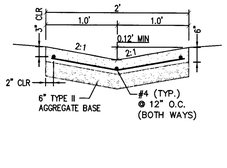
TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
SECTIONS AND DETAILS 1

DRAWING
D1
9 OF 33 SHTS

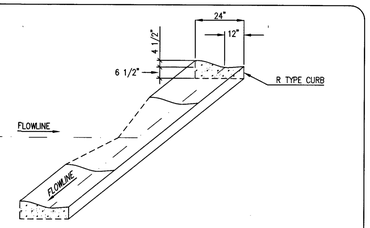
PROJ#:136495A QS:138-07-NW



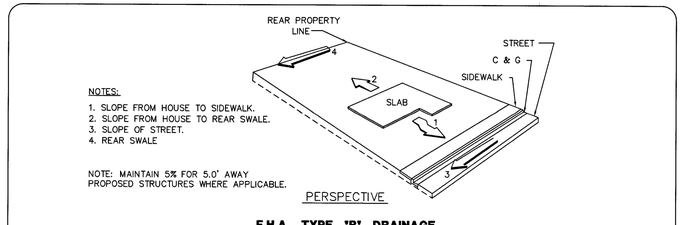
7 **TYPE "A" LOT GRADING (TYPICAL)**
NTS



6 **2' WIDE CONCRETE CROSS GUTTER**
NTS

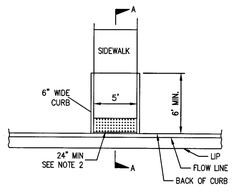


4 **R-TYPE CURB OPENING**
NTS

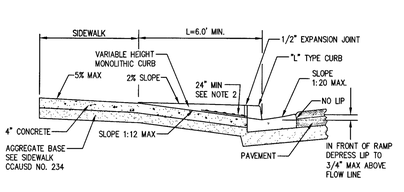


F.H.A. TYPE "B" DRAINAGE

1 **TYPE "B" LOT GRADING (TYPICAL)**
NTS



SIDEWALK RAMP

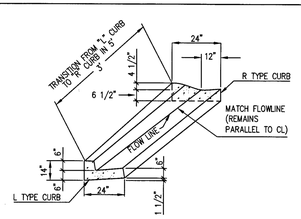


SECTION A-A

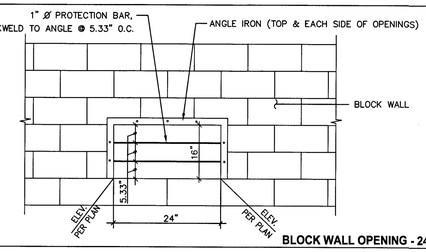
NOTES:

1. FLOWLINE IS TO BE MAITAINED ACROSS RAMP AREA.
2. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF CCAUSD DRAWING NO. 235 AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND EXTENDING A MINIMUM DISTANCE OF 24 INCHES UP THE RAMP.

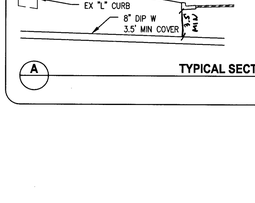
9 **SIDEWALK RAMP W/ "L" TYPE CURB**
NTS



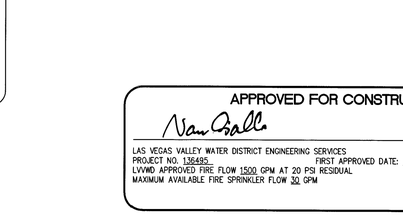
5 **R-TYPE CURB OPENING**
NTS



2 **BLOCK WALL OPENING - 24"x16" CMU**
NTS



SIDEWALK RAMP



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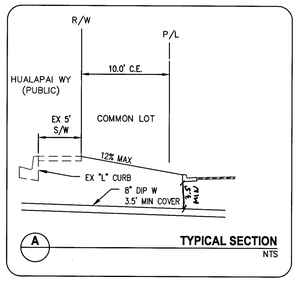
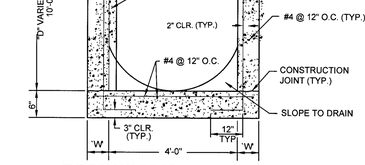
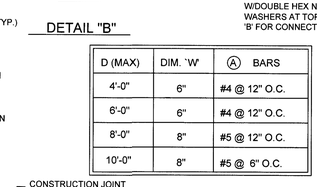
10 **SIDEWALK RAMP W/ "R" TYPE CURB**
NTS



A **TYPICAL SECTION**
NTS



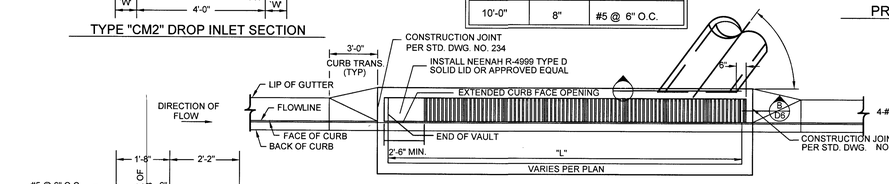
TYPE "CM2" DROP INLET SECTION



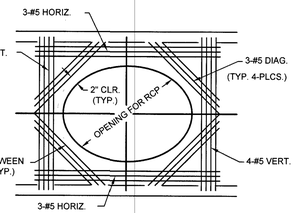
DETAIL "B"

D (MAX)	DIM. 'W'	Ⓐ BARS
4'-0"	6"	#4 @ 12" O.C.
6'-0"	6"	#4 @ 12" O.C.
8'-0"	8"	#5 @ 12" O.C.
10'-0"	8"	#5 @ 6" O.C.

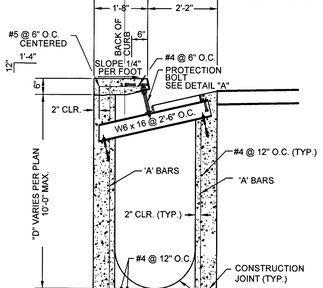
PROTECTIVE FACE & ROD - DETAIL "A"



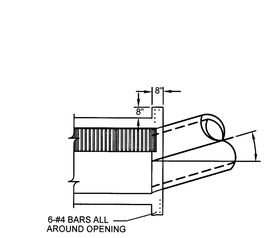
DROP INLET LAYOUT PLAN



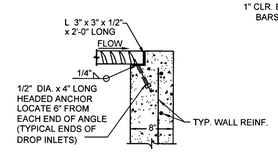
SECTION "A"



TYPE "DM2" DROP INLET SECTION



ALTERNATE CONNECTION DETAIL



SECTION "B"

NOTES:

1. ALL EXPOSED METALS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
2. PROVIDE 1/2" (MIN.) CLEARANCE ALL AROUND THE STEEL BEAM, DRY PACK AFTER INSTALLATION.
3. WHEN REQUIRED BY LENGTH OF OPENING, PLATE ANGLE MAY BE DELIVERED IN SECTIONS AND BUTT WELDED IN PLACE.
4. ALL GALVANIZED DAMAGED BY WELDING SHALL RECEIVE TWO COATS OF GALVALLOY OR EQUAL.
5. CONCRETE SHALL BE MODIFIED CLASS DA 4000 PSI, SEE SPECIAL PROVISIONS SECTION 501.
6. ANGLE ANCHORS SHALL BE EMBEDDED MIDPOINT IN EACH ENDWALL AND EVENLY SPACED, (MAXIMUM SPACING OF 2').

3 **DROP INLET**
NTS

APPROVED FOR CONSTRUCTION

Nan Gallo

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8-20-19
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA — PROFESSIONAL ENGINEER — HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — No. 19356 — DATE: 08-12-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-12-19
PLOT TIME: 10:11:40

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

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CD.DWG
HAO NGUYEN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
SECTIONS AND DETAILS 2

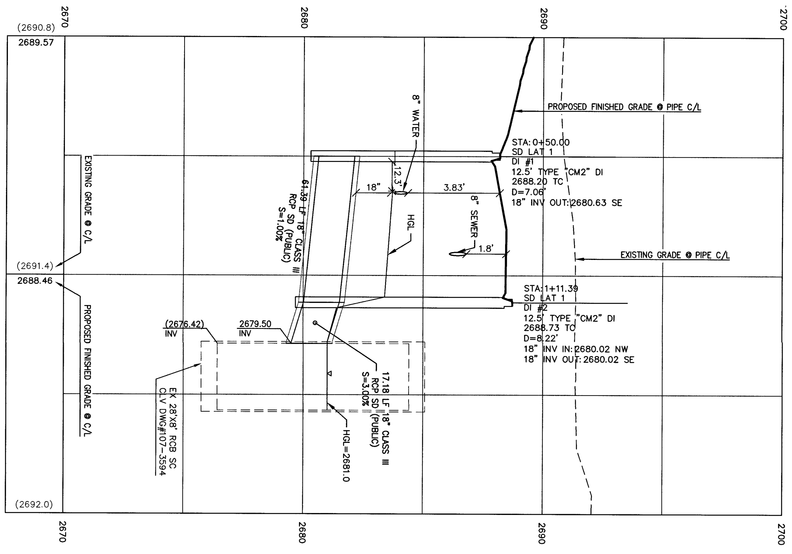
DRAWING
D2
10 OF 33 SHTS

PROJ#:136495A QS:138-07-NW

STORM DRAIN LATERAL 1

SCALE: HORIZ. 1" = 30'
VERT. 1" = 3'

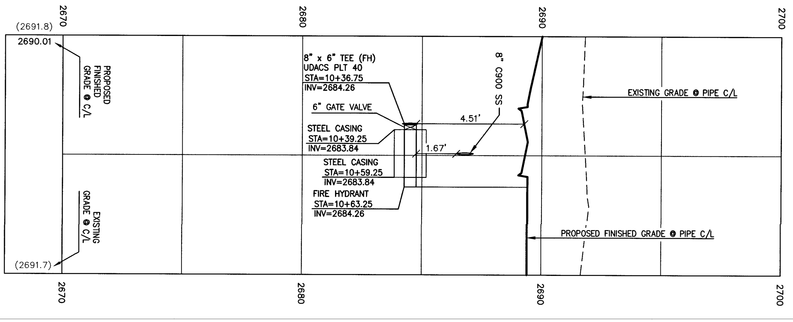
1 / -



FIRE HYDRANT LATERAL

SCALE: HORIZ. 1" = 30'
VERT. 1" = 3'

2 / -



APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
FIRE FLOW REQUIREMENTS PER LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

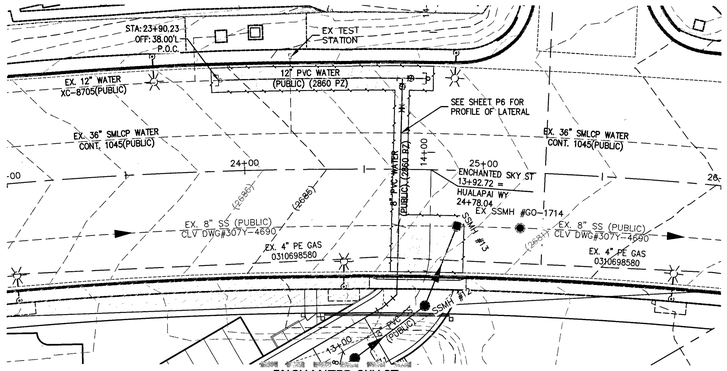
DATE: 8-20-19

L# L19-01032

CLV DWG# 107YS108

P1	DRAWING 11 OF 33 SHTS	TOUCHSTONE LIVING HUALAPAI AND ALEXANDER STORM DRAIN LATERAL PLAN AND PROFILE	GCW ENGINEERS \ SURVEYORS 1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146 T: 702.804.2000 F: 702.804.2299 gcwengineering.com F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CP.DWG HAO NGUYEN	PROJECT NO. 798-003 DESIGN: DRAWN: CHECK: PLOT DATE: 08-12-19 PLOT TIME: 10:12:07	REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	HAO A. NGUYEN Exp. 12/31/2019 CIVIL No. 19396 PROFESSIONAL ENGINEER STATE OF NEVADA DATE: 08-12-19

PROJ#:136495A QS:138-07-NW

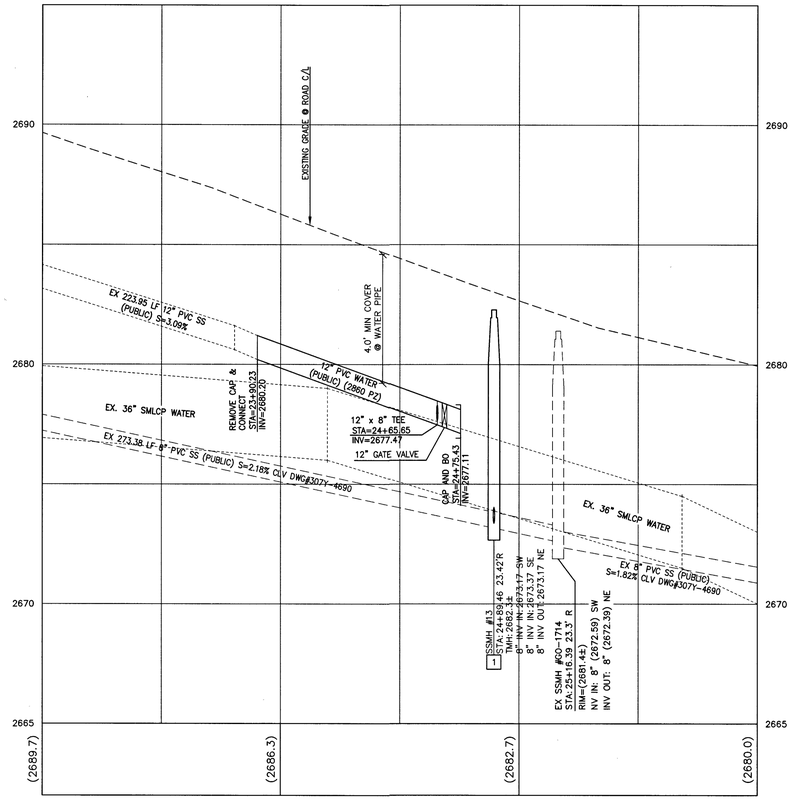


ENCHANTED SKY ST
SEE SHEET P6

HUALAPAI WAY
(PRIVATE)

PLAN AND PROFILE

HORIZ. 1" = 30'
VERT. 1" = 3'



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Call 811
OR
1-800-227-2600

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

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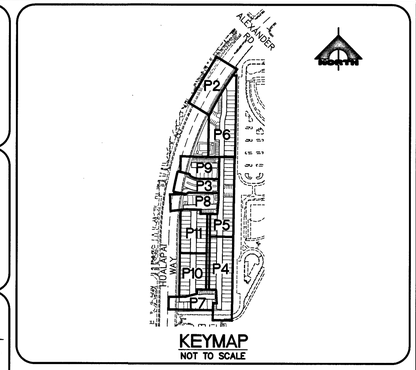

KEYMAP
NOT TO SCALE

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

NORTH

CONSTRUCTION NOTES

SEWER

1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1 & SD-3
5. INSTALL CORROSION PROTECTION PER DCSWCS 3.16.8.B
8. CONCRETE ENCASEMENT PER DCSWCS SD-14
9. CONSTRUCT 4" C-900 SEWER LATERAL PER DCSWCS SD-20 AND SD-21. MINIMUM 6" VERTICAL SEPARATION BETWEEN WATER AND SEWER
10. CONSTRUCT SPECIAL SHALLOW MANHOLES PER DCSWCS SD-13

NOTE TO CONTRACTOR

1. 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.
2. 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.
3. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

NOTE:

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.03. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

DEPTH OF COVER DURING CONSTRUCTION

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

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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.

CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

BENCHMARK

7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

CONSTRUCTION NOTES

(12) RELOCATE

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)

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 REGULAITON MAY APPLY PER UDACS 2.22.

NOTE

PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

NO EQUIPMENT ZONE NOTE

IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE".

SOUTHWEST GAS APPROVAL

Pamela Kennedy 8.15.19
SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

Nan Hallo
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA — PROFESSIONAL ENGINEER — HAO A. NGUYEN — No. 12701 — CIVIL — DATE: 08-12-19

DESCRIPTION	DATE	REV	AGEN APP	DATE	GCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-12-19
PLOT TIME: 14:41:27

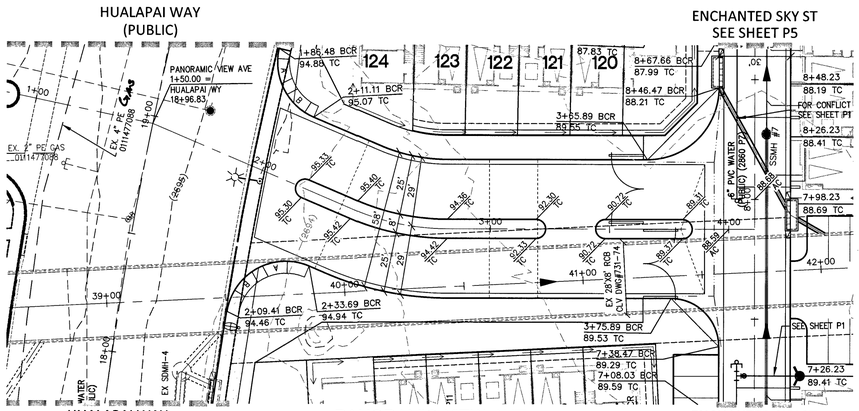
GCW
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
ENGINEERS \ SURVEYORS

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CP.DWG
HAO NGUYEN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
HUALAPAI WAY PLAN AND PROFILE

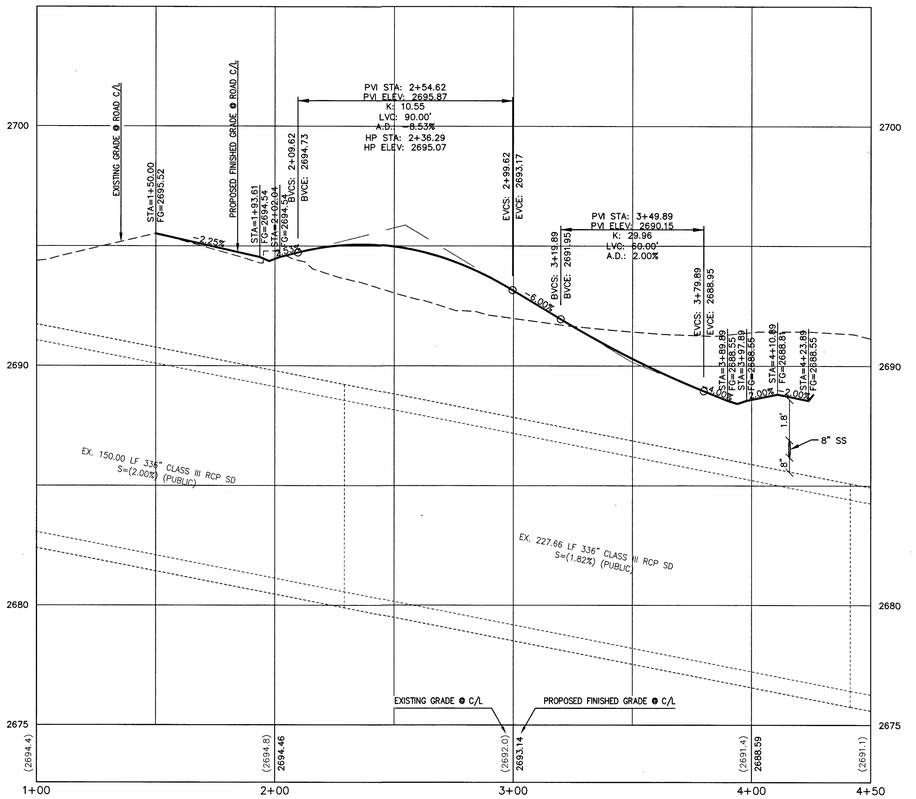
DRAWING
P2
12 OF 33 SHTS

PRO.#:136495A QS:138-07-NW



PANORAMIC VIEW AVE
(PRIVATE)
PLAN AND PROFILE

HORIZ. 1" = 30'
VERT. 1" = 3'



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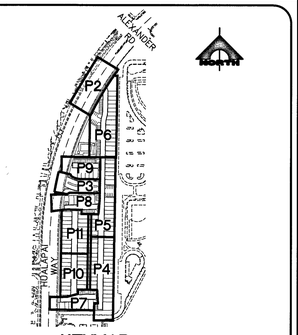

KEYMAP
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SCALE: 1" = 30'

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GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

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ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
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FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
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LINEAR UNIT: US SURVEY FOOT (US FT)

BENCHMARK

7LV007NWW6
RIVET & PLATE, TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

CONSTRUCTION NOTES

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SOUTHWEST GAS APPROVAL

Pamela Kennedy 8-15-19
SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

Van Gialis 8-20-19
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE:
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA
HAO A. NGUYEN
No. 019799
PROFESSIONAL ENGINEER
DATE: 08-12-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GOV APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-12-19
PLOT TIME: 14:41:38

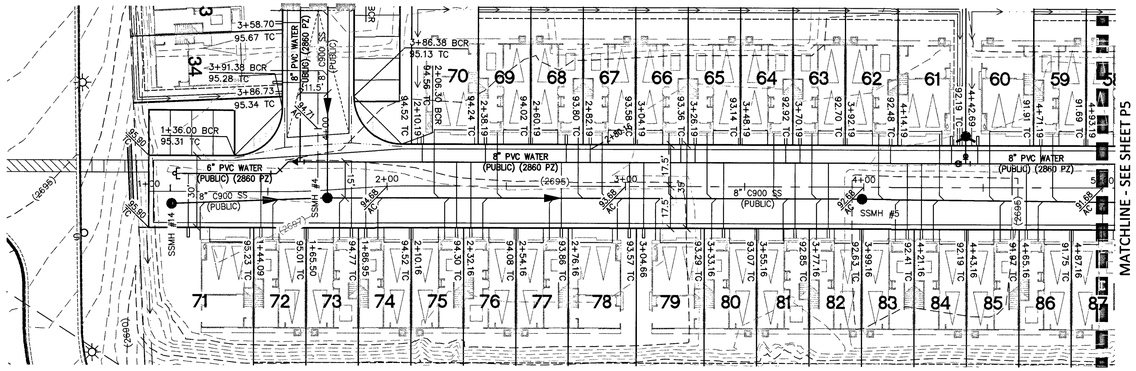
GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\Y00\798-003\DWG\PRODUCTION\798-003CP.DWG
HAO NGUYEN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
PANORAMIC VIEW AVE PLAN AND PROFILE

DRAWING
P3
13 OF 33 SHTS

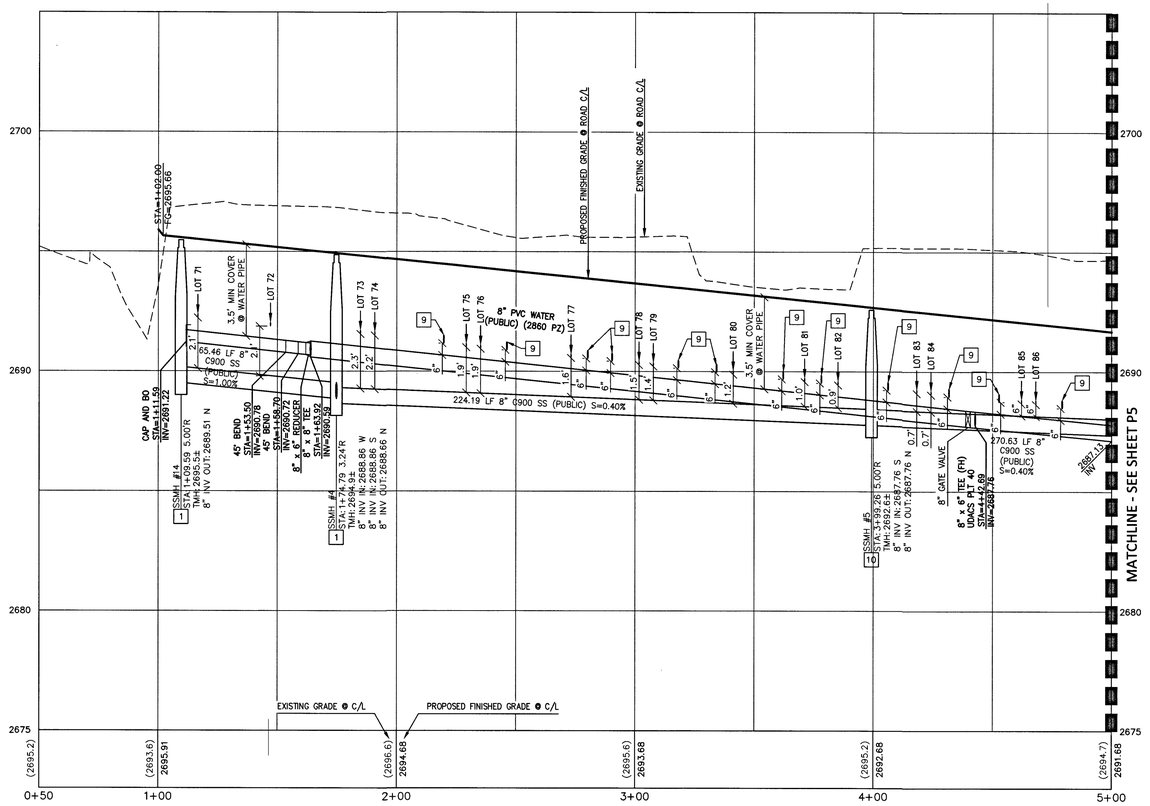
PROJ.#:136495A QS:138-07-NW



ENCHANTED SKY ST
(PRIVATE)

PLAN AND PROFILE

HORIZ. 1" = 30'
VERT. 1" = 3'



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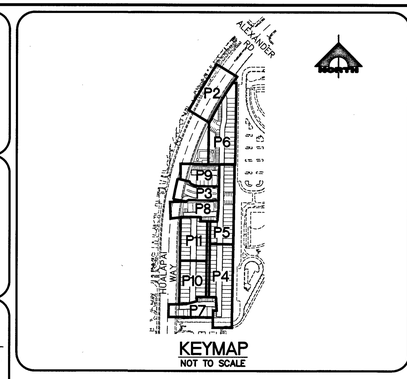

KEYMAP
NOT TO SCALE

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

NORTH

CONSTRUCTION NOTES

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SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

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PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
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L# L19-01032 | CLV DWG# 107Y5108

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STATE OF NEVADA — PROFESSIONAL ENGINEER — No. 19595 — NGUYEN — Exp. 12/31/2019 — CIVIL
DATE: 08-13-19

DESCRIPTION	DATE	REV	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-13-19
PLOT TIME: 14:20:09

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

TOUCHSTONE LIVING

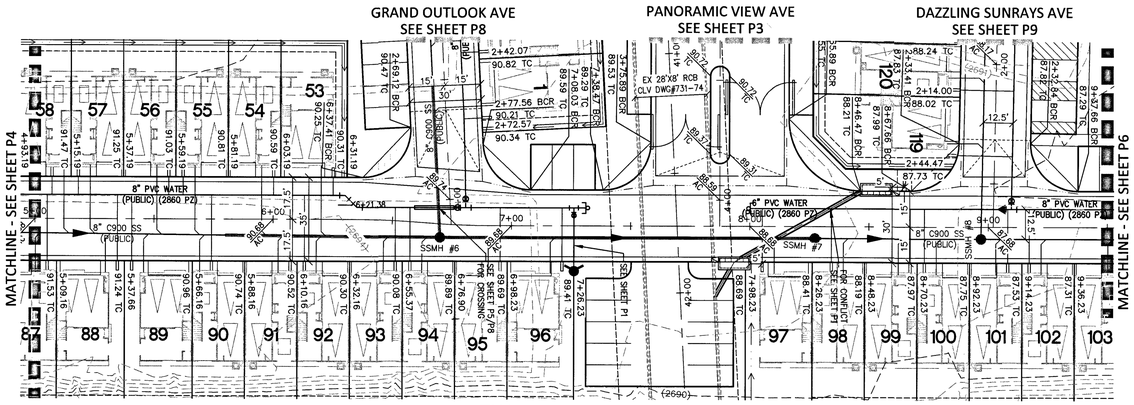
HUALAPAI AND ALEXANDER

ENCHANTED SKY ST PLAN AND PROFILE
STA 0+50 TO 5+00

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CP.DWG
BRADY GUZMAN

DRAWING
P4
14 OF 33 SHTS

PROJ.#: 136495A QS: 138-07-NW



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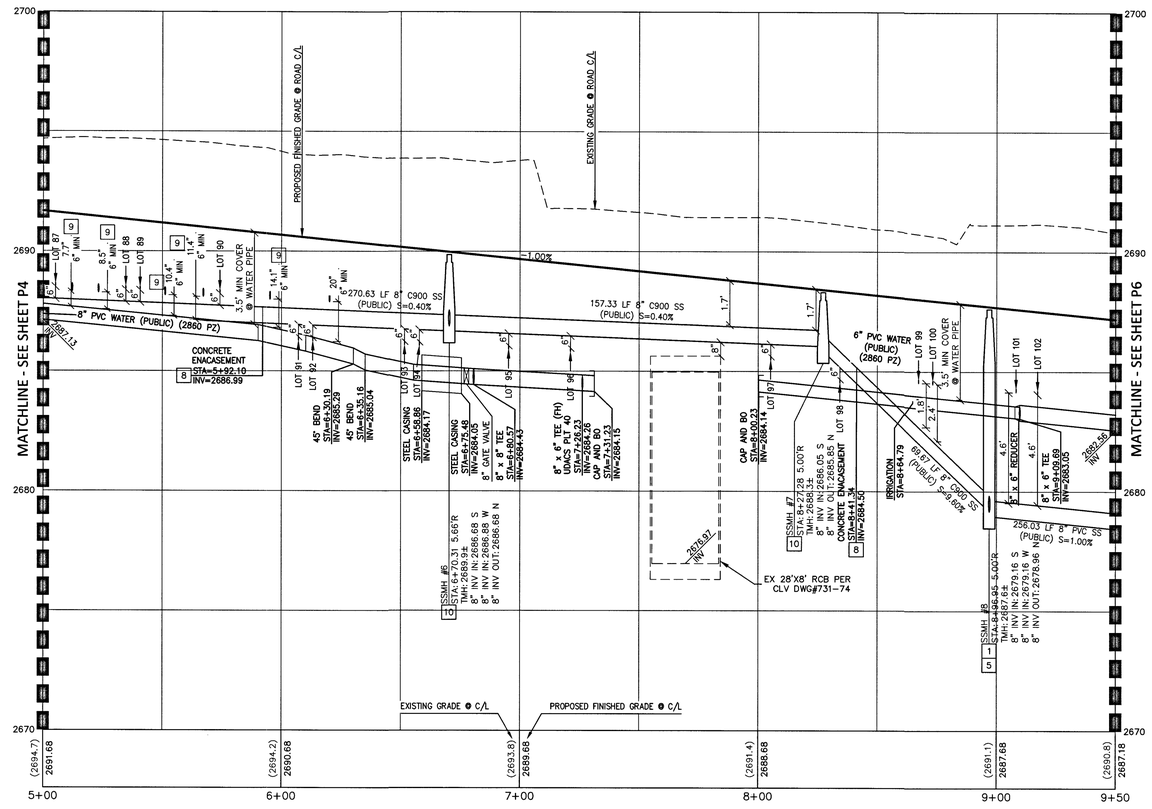

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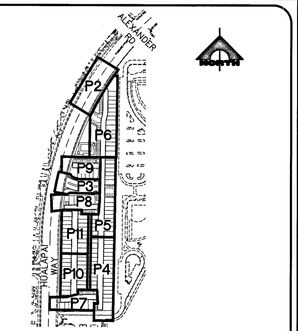

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SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

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STATE OF NEVADA
HAO A. NGUYEN
No. 021749
PROFESSIONAL ENGINEER
DATE: 08-13-19

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-13-19
PLOT TIME: 14:20:12

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

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003SP.DWG
BRADY GUZMAN

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DRAWING
P5
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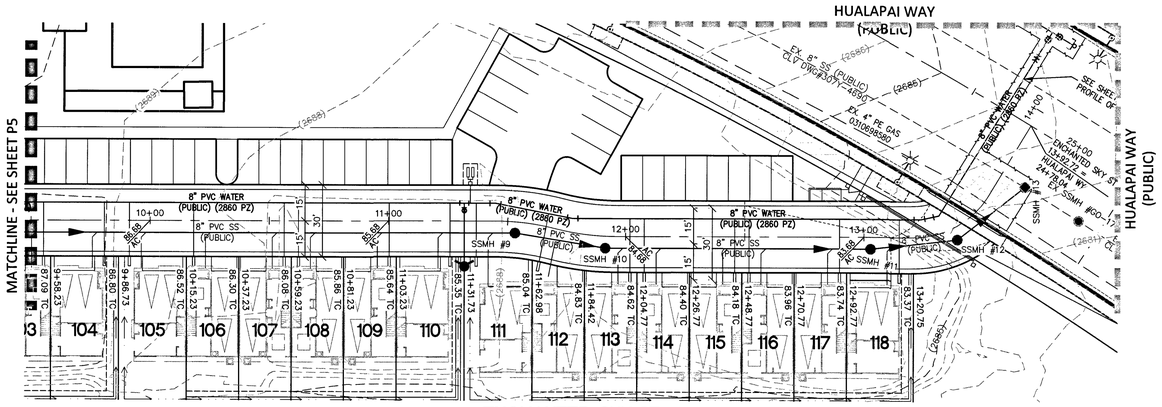

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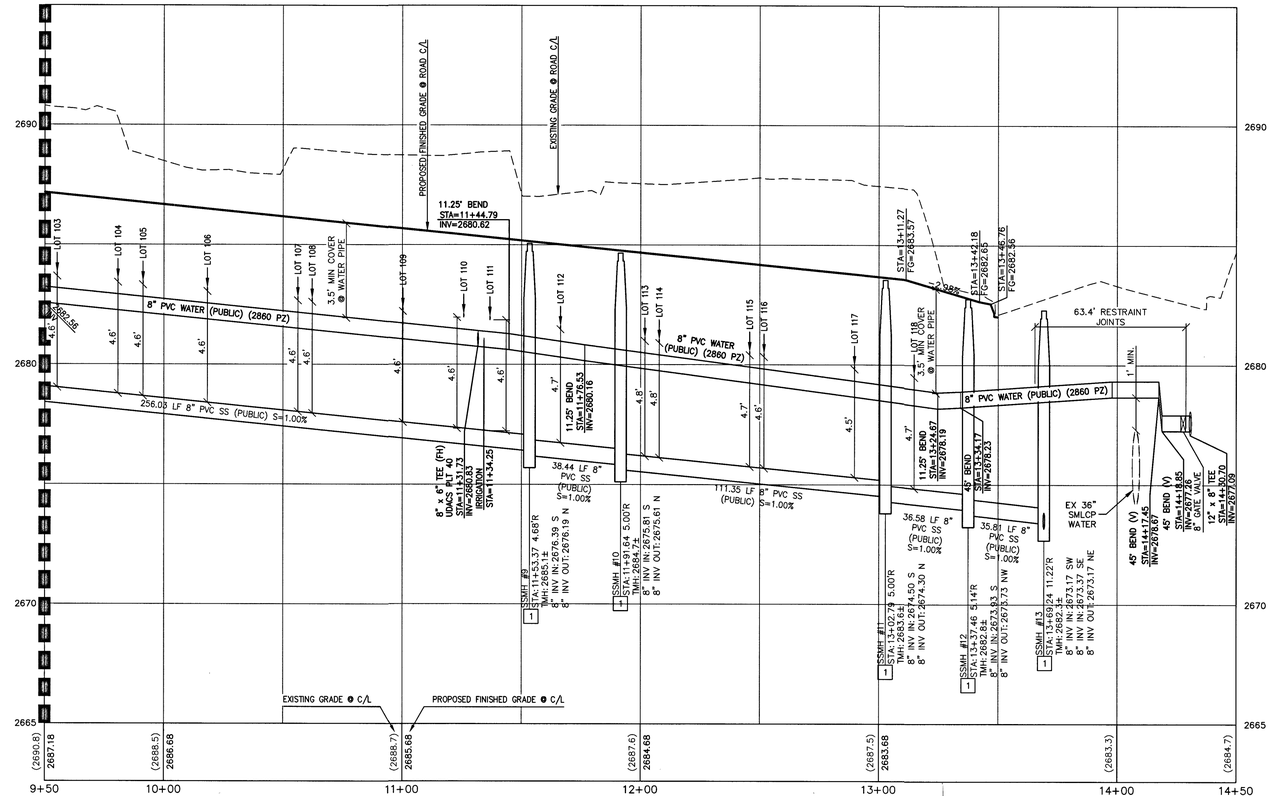

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LINEAR UNIT: US SURVEY FOOT (US FT)

BENCHMARK

7LVD07NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

SOUTHWEST GAS APPROVAL

Pamela Kennedy 8.15.19
SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

Van Fiallo
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 | CLV DWG# 107Y5108

CONSTRUCTION NOTES

12 RELOCATE

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Call before you Dig
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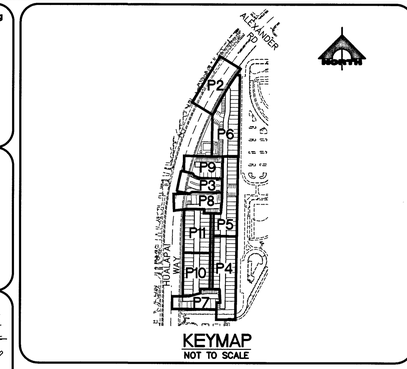
Call 811 or 1-800-227-2800

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



KEYMAP
NOT TO SCALE

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

NORTH

STATE OF NEVADA
PROFESSIONAL ENGINEER
RAO A. NGUYEN
Exp. 12/31/2019
No. 19356

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GOW APP	DATE: 05-14-19

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-14-19
PLOT TIME: 15:11:47

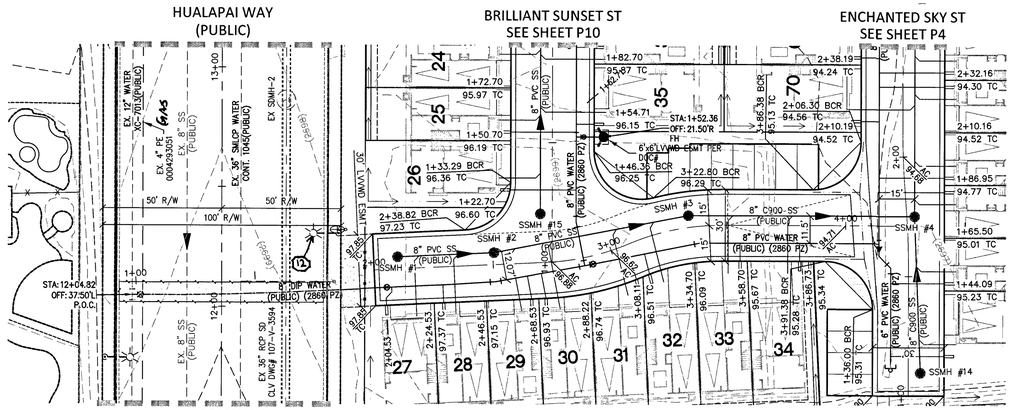
GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gowenengineering.com

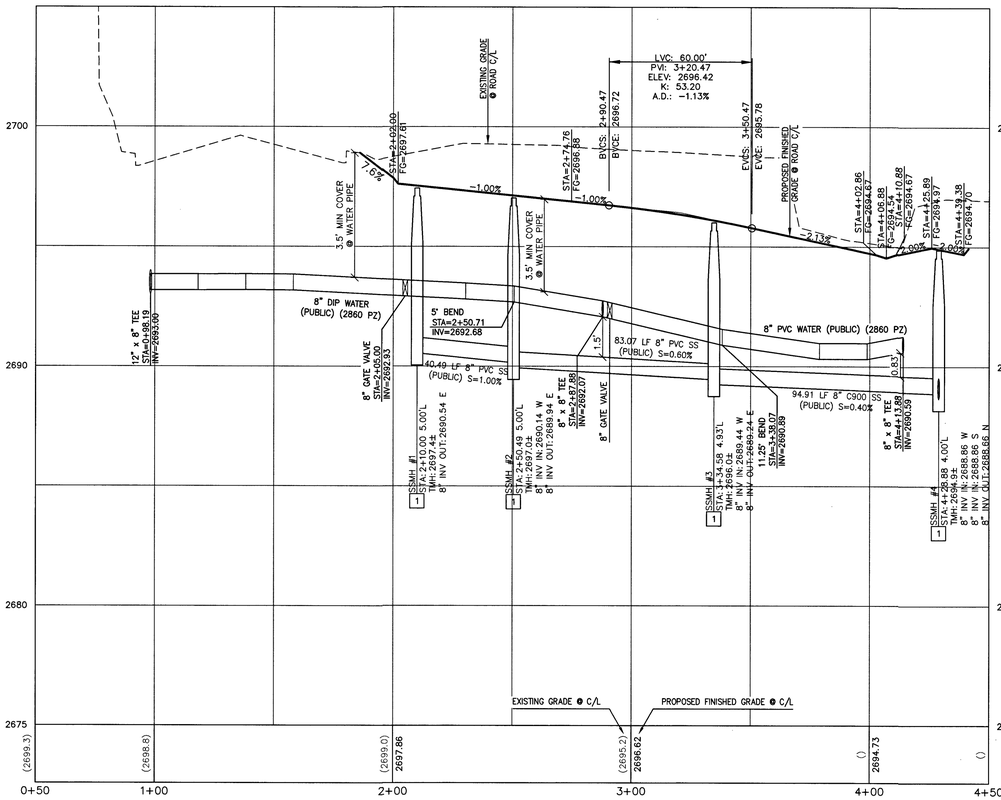
F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CP.DWG
BRADY GUZMAN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
ENCHANTED SKY ST PLAN AND PROFILE
STA 9+50 TO 14+50

DRAWING
P6
16 OF 33 SHTS

PRO.#:136495A QS:138-07-NW





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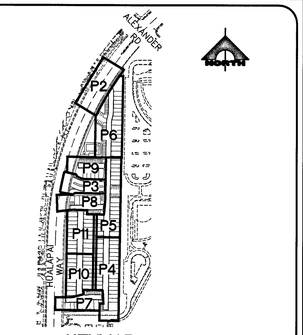

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Pamela Kennedy 8.15.19
SOUTHWEST GAS CORP. DATE

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Nan Fallis
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MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA
HAO N. NGUYEN
No. 19595
PROFESSIONAL ENGINEER
CIVIL
DATE: 08-12-19

DESCRIPTION	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-12-19
PLOT TIME: 14:42:00

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\798-003\DWG\PRODUCTION\798-0035P.DWG
HAO NGUYEN

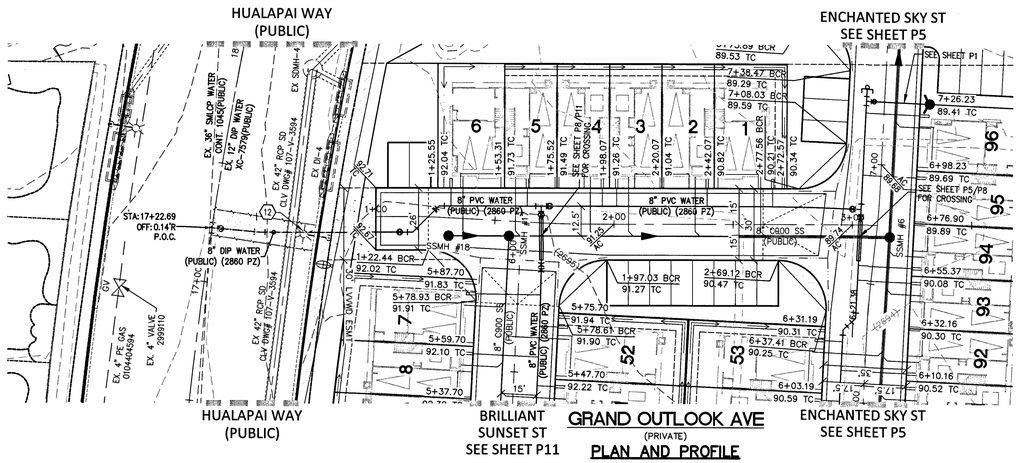
TOUCHSTONE LIVING

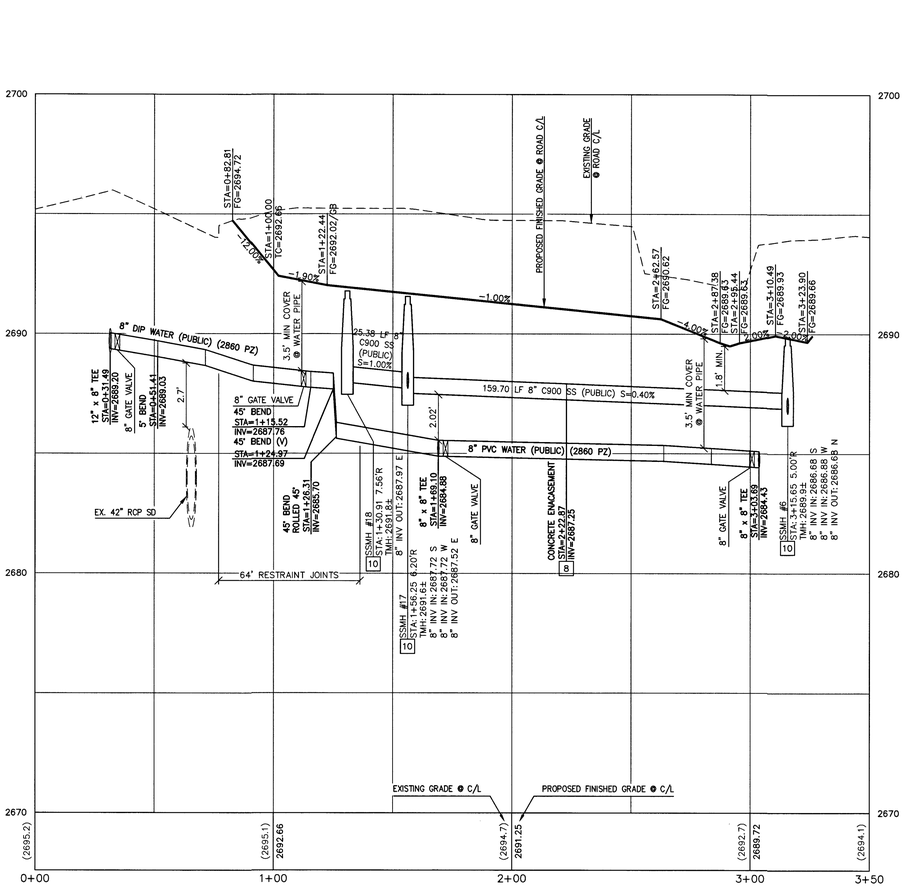
HUALAPAI AND ALEXANDER

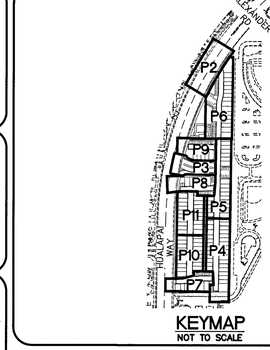
VIBRANT MOON AVE PLAN AND PROFILE

DRAWING
P7
17 OF 33 SHTS

PRO.#:136495A QS:138-07-NW







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SOUTHWEST GAS CORP. DATE

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ENGINEER - STATE OF NEVADA
HAO A. NGUYEN
Exp. 12/31/2019
CIVIL
No. 19396
PROFESSIONAL
DATE: 08-14-19

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REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-14-19
PLOT TIME: 15:11:51
F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CP.DWG
BRADY GUZMAN

TOUCHSTONE LIVING
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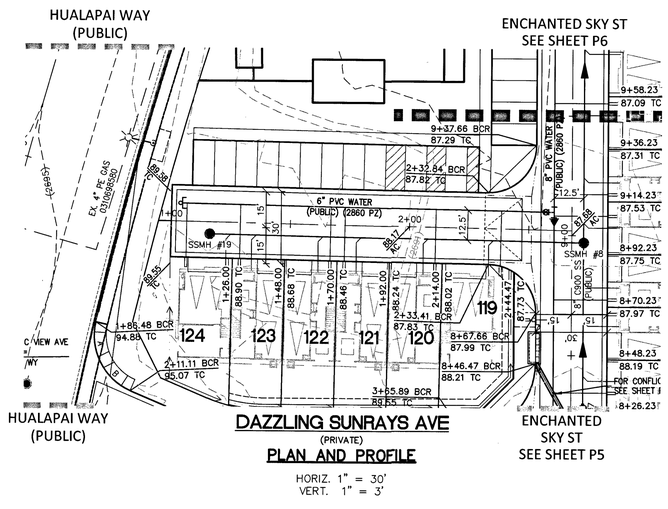

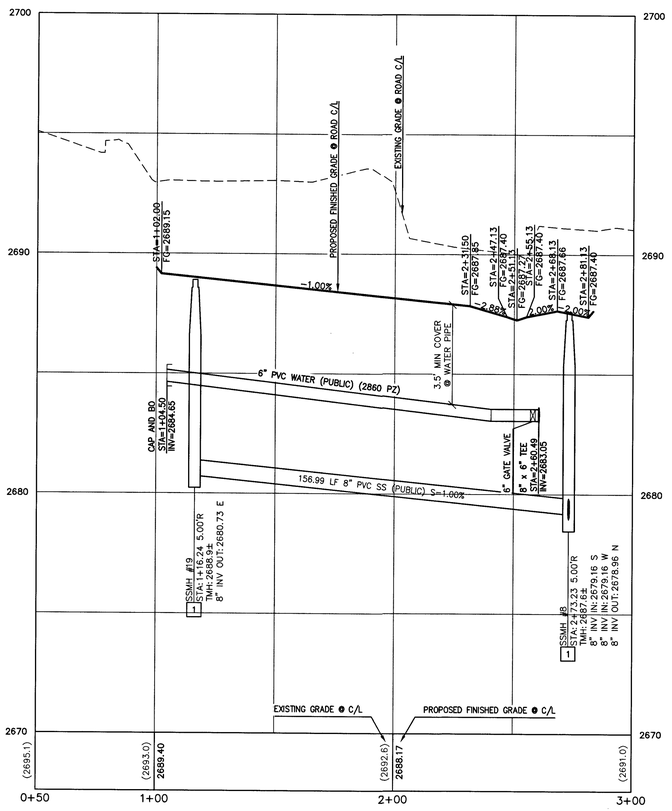

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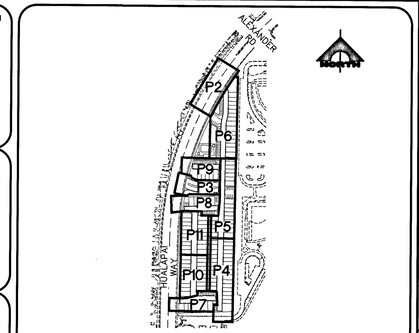
AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929



KEYMAP
NOT TO SCALE

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

NORTH

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SEWER

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BENCHMARK

7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

SOUTHWEST GAS APPROVAL

Pamela Kennedy 8.15.19
SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

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LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

L# L19-01032 | CLV DWG# 107Y5108

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STATE OF NEVADA — PROFESSIONAL ENGINEER — HAO A. NGUYEN — No. 19398 — Exp. 12/31/2019 CIVIL — DATE: 08-12-19

REV	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-12-19
PLOT TIME: 14:46:51

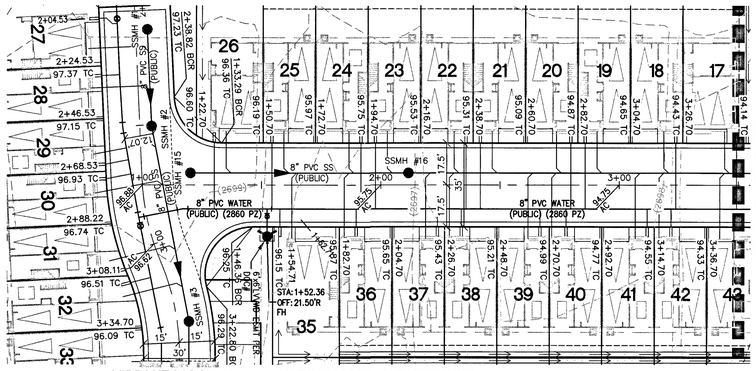
GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CP.DWG
THAO NGUYEN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
DAZZLING SUNRAYS AVE PLAN AND PROFILE

DRAWING
P9
19 OF 33 SHTS

PROJ.#:136495A QS:138-07-NW



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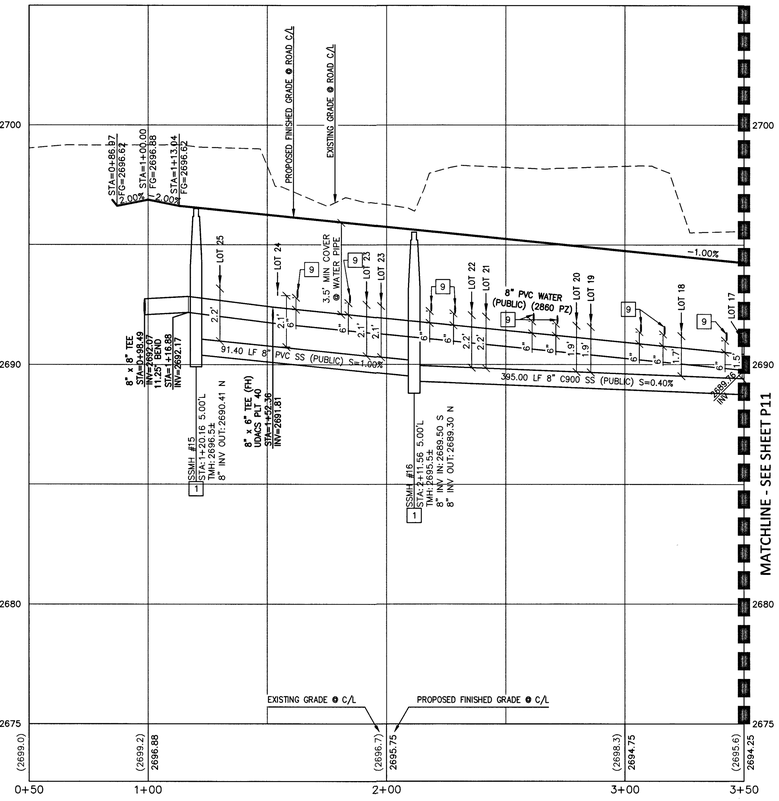

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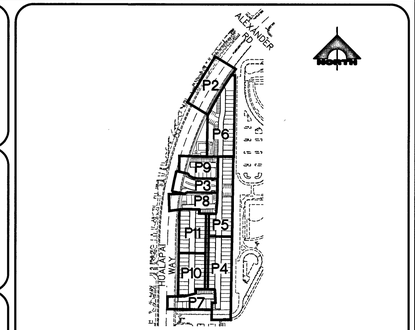

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7LVO07NWW6
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SOUTHWEST GAS APPROVAL

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L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA — HAO A NGUYEN — No. 19551 — CIVIL — Exp. 12/31/2019 — PROFESSIONAL ENGINEER
DATE: 08-13-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CKW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-13-19
PLOT TIME: 14:20:17

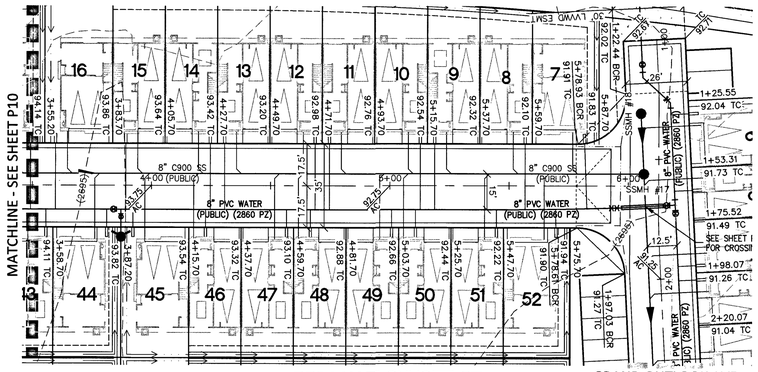
GCV
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
ENGINEERS \ SURVEYORS
gcvengineering.com

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CP.DWG
BRADY GUZMAN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
BRILLIANT SUSNET ST PLAN AND PROFILE
STA 0+50 TO 3+50

DRAWING
P10
20 OF 33 SHTS

PROJ#:1364954 QS:138-07-NW



SEE SHEET P8

BRILLIANT SUNSET ST
(PRIVATE)
PLAN AND PROFILE

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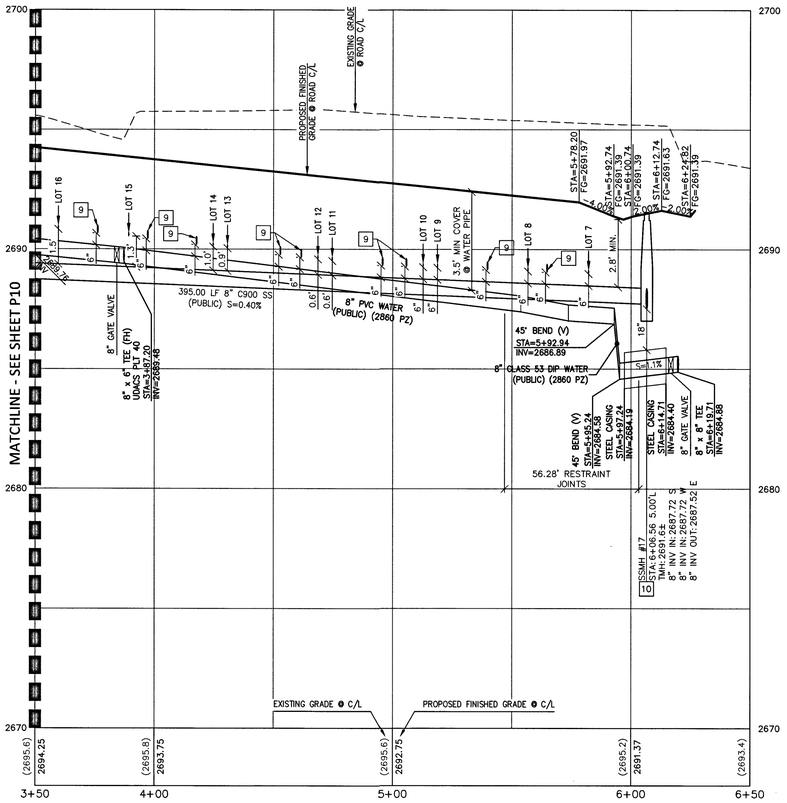

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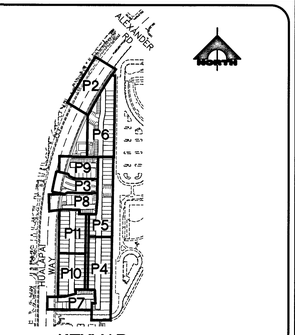

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ENGINEER'S STATE OF NEVADA — No. 19396 — PROFESSIONAL — NGUYEN — Exp. 12/31/2019 — DATE: 08-14-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GOW APP

PROJECT NO. 798-003
DESIGN:
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PLOT TIME: 15:11:55

GCV
1555 S. RAINBOW BLVD.
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T: 702.804.2000
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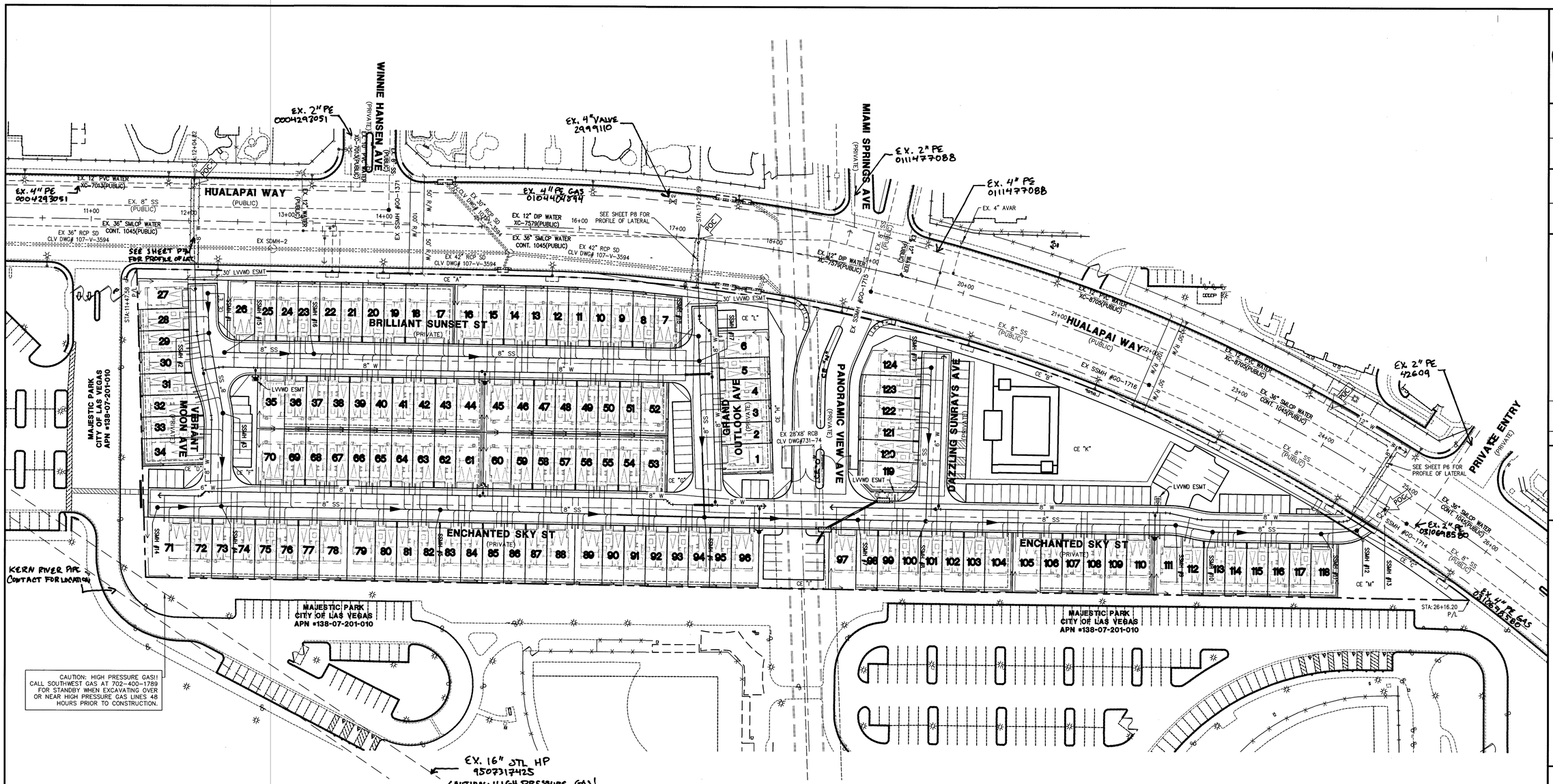
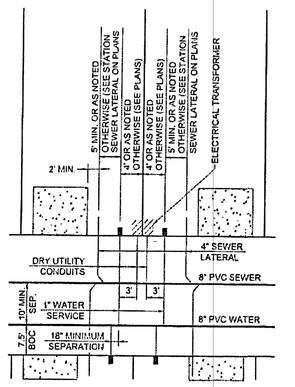


CAUTION: HIGH PRESSURE GAS!!
CALL SOUTHWEST GAS AT 702-400-1789
FOR STANDBY WHEN EXCAVATING OVER
OR NEAR HIGH PRESSURE GAS LINES 48
HOURS PRIOR TO CONSTRUCTION.

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

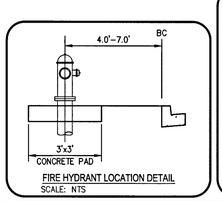
Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
OR
1-800-227-2600



TYPICAL UTILITY LOCATION

FOR LOTS LESS THAN 70' WIDE
UNLESS OTHERWISE NOTED
(SIZES AS NOTED ON PLANS)

NOT TO SCALE



FIRE HYDRANT LOCATION DETAIL
SCALE: NTS

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: 3,000 SQUARE FEET
NUMBER OF STORIES/FLOORS: 3

AUTOMATIC FIRE SPRINKLER SYSTEM: YES ☒ NO ☐

ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

OF HYDRANTS PROVIDED: 5

GENERAL NOTES

1. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST CONFORM TO UDACS SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
2. WATER SERVICE LATERALS SHALL BE INSTALLED PER UDACS SECTION 2.17.
3. INSTALL PIPE DETECTOR RIBBON PER UDACS PLATE NO. 15.
4. LOCATOR WIRE SHALL BE USED FOR ALL SERVICE LATERALS NOT PERPENDICULAR TO THE MAIN. (TYPICAL)
5. EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDER-GROUND 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. ALL DISCREPANCIES MUST BE IMMEDIATELY REPORTED TO THE ENGINEER.
6. MIN. 12" VERTICAL CLEARANCE BETWEEN WATER MAINS AND DRY UTILITIES PER UDACS SECTION 2.04.06
7. MIN. 12" VERTICAL CLEARANCE REQUIRED BETWEEN WATER LATERALS AND DRY UTILITIES PER UDACS SECTION 2.04.06
8. INSTALL PIPELINE MARKER IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15
9. ANNULAR SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM.)
10. ALL NEW MANHOLES TO HAVE PRE-CAST BASES
11. INSTALL PIPE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15.
12. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
13. 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.
14. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALKS.

NORTH

50' 0' 25' 50'
SCALE: 1" = 50'

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.

BENCHMARK

7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

SOUTHWEST GAS APPROVAL

Pamela Kennedy 8.16.19
SOUTHWEST GAS CORP. DATE

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
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
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA
HAO A. NGUYEN
No. 019739
PROFESSIONAL ENGINEER
DATE: 08-05-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CGW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:45:45

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

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CMU.DWG
BRADY GUZMAN

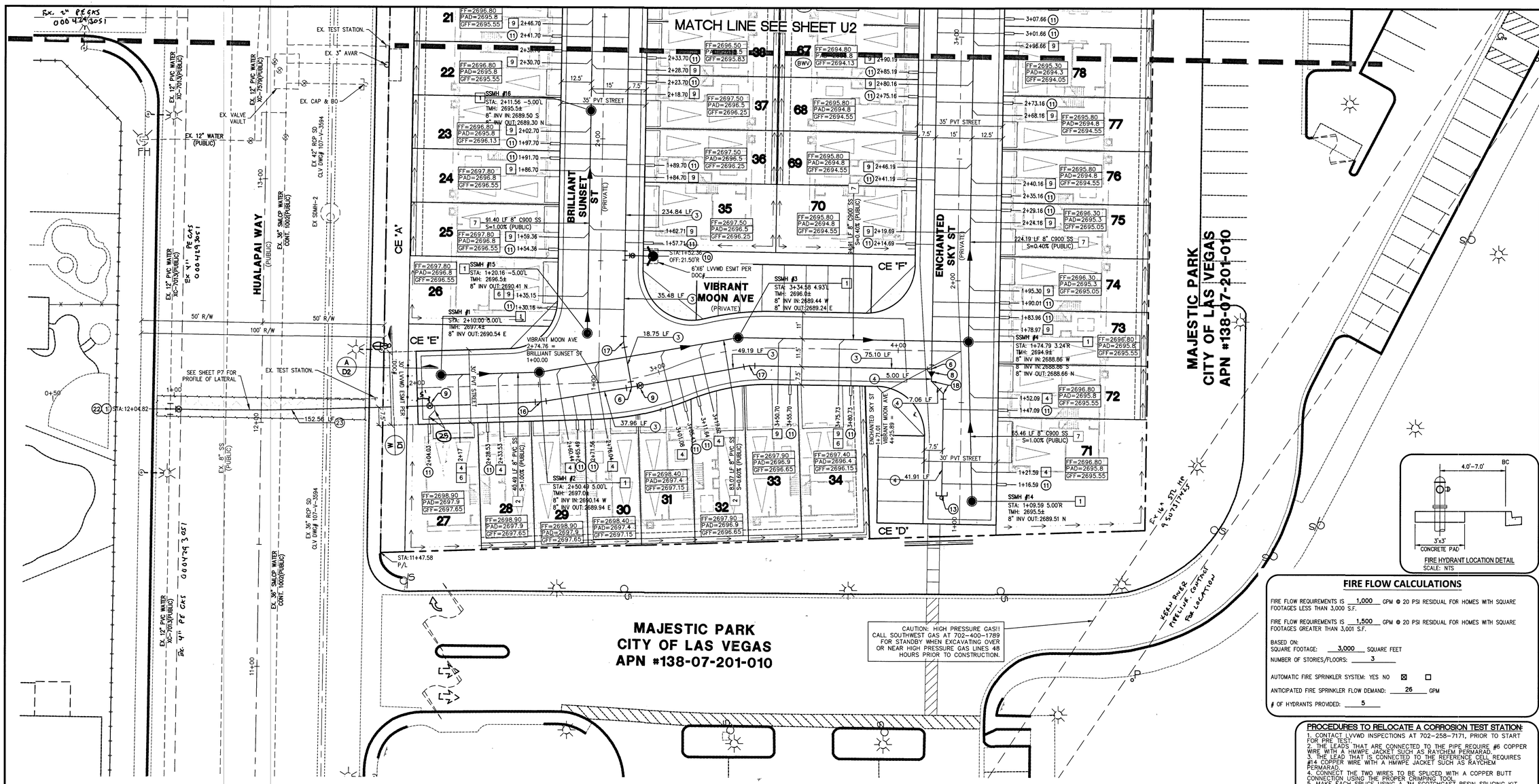
TOUCHSTONE LIVING

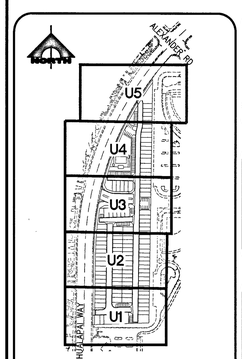
HUALAPAI AND ALEXANDER

MASTER UTILITY PLAN

DRAWING
MU
22 OF 33 SHTS

PRO.#:136495A QS:138-07-NW





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OR
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Call before you UnderGround
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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

CONSTRUCTION NOTES

WATER

1. CONNECT TO EXISTING WATER LINE. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
2. INSTALL 12" PVC WATER PIPE
3. INSTALL 8" PVC WATER PIPE
4. INSTALL 6" PVC WATER PIPE
5. INSTALL 12" x 8" TEE PER UDACS PLATE NO. 31.
6. INSTALL 8" x 8" TEE PER UDACS PLATE NO. 31.
7. INSTALL 8" x 6" TEE PER UDACS PLATE NO. 31.
8. INSTALL 8" X 6" REDUCER PER UDACS PLATE NO. 30.
9. INSTALL GATE VALVE, BOX, AND COVER SAME SIZE AS LINE PER UDACS PLATE NO. 30 & 39.
10. INSTALL FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 40.
11. INSTALL 1" WATER SERVICE (DOMESTIC) WITH 1" WATER METER PER UDACS PLATE NO. 1 (TYP).
12. INSTALL 1" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4, 8 AND DETAIL ON SHEET C3.
13. INSTALL 6" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
14. INSTALL IRRIGATION SLEEVES
15. INSTALL STEEL CASING PER UDACS PLATE NO. 22 & 23.
16. INSTALL 5" BEND SAME SIZE AS LINE
17. INSTALL 11.25° BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
18. INSTALL 45° BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
19. INSTALL 45° VERTICAL BEND WITH RESTRAINT JOINT AND THRUST BLOCK PER UDACS PLATE NO. 31.
20. INSTALL MANIFOLDED 1" IRRIGATION METER WITH TWO 1" RPPA'S PER UDACS PLATE NO. 4, 9 AND DETAIL ON SHEET C3.
21. INSTALL 12" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
22. INSTALL 12"x8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS SECTION 2.2401.B
23. INSTALL 8" DIP WATER PIPE
24. INSTALL 8" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.

CONSTRUCTION NOTES

SEWER

1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1 & SD-3.
2. INSTALL 8" PVC SANITARY SEWER PIPE.
3. CONNECT TO EXISTING SANITARY SEWER. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
4. INSTALL 4" SEWER LATERAL PER DCSWCS SD-20 (TYP)
5. INSTALL CORROSION PROTECTION PER DCSWCS 3.16.8.B
6. INSTALL CLEANOUT WITH TRAFFIC RATED LID PER DCSWCS SD-21 IN DRIVEWAY
7. INSTALL 8" C900 SANITARY SEWER PIPE.
8. CONCRETE ENCASEMENT PER DCSWCS SD-14
9. CONSTRUCT 4" C-900 SEWER LATERAL PER DCSWCS SD-20 AND SD-21, MINIMUM 6" VERTICAL SEPARATION BETWEEN WATER AND SEWER
10. CONSTRUCT SPECIAL SHALLOW MANHOLES PER DCSWCS SD-13

CONTRACTOR NOTE

WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.03.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

EASEMENTS WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL OR FENCE

TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL, SHALL BE DESIGNED AND CONSTRUCTED AROUND EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

WATER

(25) MARKER BALLS PER UDACS PLT.15
(26) DROP INLET, SEE DETAIL 3 ON SHEET D2 FOR 3' CURB TRANSITION.

GENERAL NOTES

1. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST CONFORM TO UDACS SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND SEWER CROSSINGS AND CLEARANCES.
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7. MIN. 12" VERTICAL CLEARANCE REQUIRED BETWEEN WATER LATERALS AND DRY UTILITIES PER UDACS SECTION 2.04.08.
8. INSTALL PIPELINE MARKER IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE No. 15
9. ANNULAR SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM I)
10. ALL NEW MANHOLES TO HAVE PRE-CAST BASES
11. INSTALL PIPE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15
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14. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALKS.

SOUTHWEST GAS APPROVAL

Bruce La Kennedy — 8.15.19
SOUTHWEST GAS CORP. — DATE

NORTH
20' 0' 10' 20'
SCALE: 1" = 20'

NOTE TO CONTRACTOR

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NOTE:

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BENCHMARK

7LV007NW#6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

FIRE HYDRANT LOCATION DETAIL
SCALE: NTS

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: 3,000 SQUARE FEET
NUMBER OF STORIES/FLOORS: 3

AUTOMATIC FIRE SPRINKLER SYSTEM: YES NO ☒ ☐

ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

OF HYDRANTS PROVIDED: 5

PROCEDURES TO RELOCATE A CORROSION TEST STATION:

1. CONTACT LVVWD INSPECTIONS AT 702-258-7171, PRIOR TO START FOR PRE TEST.
2. THE LEADS THAT ARE CONNECTED TO THE PIPE REQUIRE #6 COPPER WIRE WITH A HMWPE JACKET SUCH AS RAYCHEM PERMARAD.
3. THE LEAD THAT IS CONNECTED TO THE REFERENCE CELL REQUIRES #14 COPPER WIRE WITH A HMWPE JACKET SUCH AS RAYCHEM PERMARAD.
4. CONNECT THE TWO WIRES TO BE SPLICED WITH A COPPER BUTT CONNECTION USING THE PROPER CRIMPING TOOL.
5. MAKE EACH SPLICE USING A 3M SCOTCHCAST RESIN SPLICING KIT.
6. RECONNECT THE TEST BOARD TO PROPER LEADS, AND PLACE THE TEST BOX AT THE NEW SITE.
7. THE TEST BOX AT THE NEW SITE WILL BE INSTALLED ACCORDING TO THE TYPICAL TEST BOX DETAIL.
8. ALL TEST LEADS AND ANODE LEADS INSIDE THE TEST BOX SHALL BE BUNDLED TOGETHER AT 8 INCH INTERVALS WITH NYLON TIES AND SHALL BE PROVIDED WITH A MINIMUM OF 4 FEET OF SLACK.
9. ALL TEST LEADS AND ANODE LEADS SHALL BE COLOR CODED WITH COLORED TAPE AT EACH END, AND AT 4 FEET INTERVALS.
10. SCHEDULE FINAL TEST WITH LVVWD INSPECTIONS

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

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LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
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
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

L# L19-01032 | CLV DWG# 107Y5108

ENGINEER - STATE OF NEVADA
HAO A. NGUYEN
No. 12701
2019
PROFESSIONAL ENGINEER
CIVIL

DATE: 08-05-19

REV	DATE	DESCRIPTION	AGEN APP	DATE	CCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:45:07

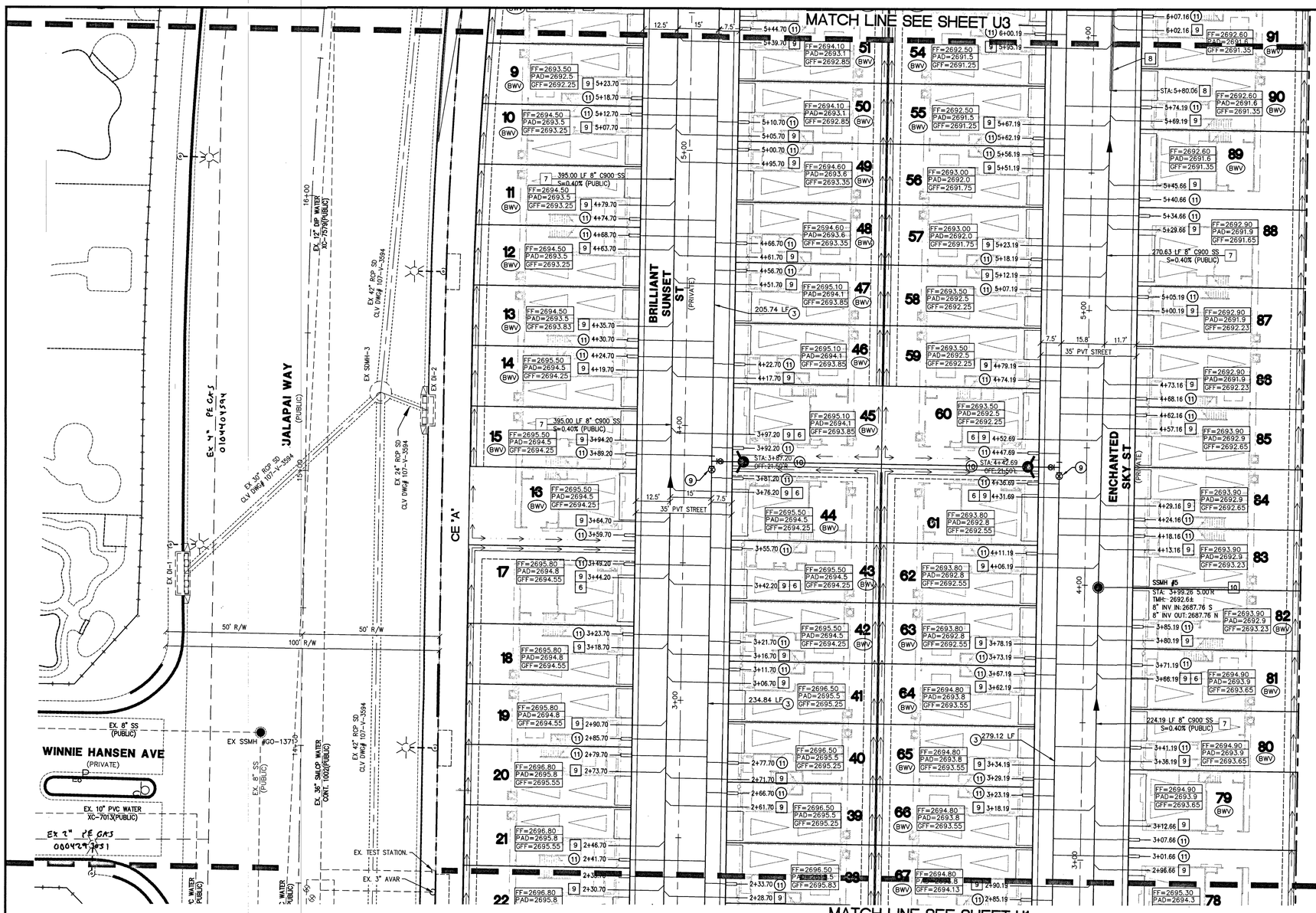
GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003DU.DWG
BRADY GUZMAN

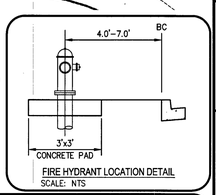
TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
UTILITY PLAN 1

DRAWING U1
23 OF 33 SHTS

PROJ#:136495A QS:138-07-NW



MAJESTIC PARK
CITY OF LAS VEGAS
APN #138-07-201-010



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SCALE: NTS

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LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 136495 FIRST APPROVED DATE: 8.20.19
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
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

CONSTRUCTION NOTES

WATER

1. CONNECT TO EXISTING WATER LINE. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
2. INSTALL 12" PVC WATER PIPE
3. INSTALL 8" PVC WATER PIPE
4. INSTALL 6" PVC WATER PIPE
5. INSTALL 12" x 8" TEE PER UDACS PLATE NO. 31.
6. INSTALL 8" x 8" TEE PER UDACS PLATE NO. 31.
7. INSTALL 8" x 6" TEE PER UDACS PLATE NO. 31.
8. INSTALL 8" X 6" REDUCER PER UDACS PLATE NO. 30.
9. INSTALL GATE VALVE, BOX, AND COVER SAME SIZE AS LINE PER UDACS PLATE NO. 30 & 35.
10. INSTALL FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 40.
11. INSTALL 1" WATER SERVICE (DOMESTIC) WITH 1" WATER METER PER UDACS PLATE NO. 1 (TYP).
12. INSTALL 1" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4, 8 AND DETAIL ON SHEET C3.
13. INSTALL 6" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
14. INSTALL IRRIGATION SLEEVES
15. INSTALL STEEL CASING PER UDACS PLATE NO. 22 & 23.
16. INSTALL 5' BEND SAME SIZE AS LINE
17. INSTALL 11.25° BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
18. INSTALL 45° BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
19. INSTALL 45° VERTICAL BEND WITH RESTRAINT JOINT AND THRUST BLOCK PER UDACS PLATE NO. 31
20. INSTALL MANIFOLDED 1" IRRIGATION METER WITH TWO 1" RPPA'S PER UDACS PLATE NO. 4, 9 AND DETAIL ON SHEET C3.
21. INSTALL 12" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
22. INSTALL 12"x8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS SECTION 2.2401.B
23. INSTALL 8" DIP WATER PIPE
24. INSTALL 8" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.

CONSTRUCTION NOTES

SEWER

1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1 → **SD-3.**
2. INSTALL 8" PVC SANITARY SEWER PIPE.
3. CONNECT TO EXISTING SANITARY SEWER. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
4. INSTALL 4" SEWER LATERAL PER DCSWCS SD-2**0** (TYP)
5. INSTALL CORROSION PROTECTION PER DCSWCS 3.16.B.B
6. INSTALL CLEANOUT WITH TRAFFIC RATED LID PER DCSWCS SD-2**4** IN DRIVEWAY
7. INSTALL 8" C900 SANITARY SEWER PIPE.
8. CONCRETE ENCASEMENT PER DCSWCS SD-14
9. CONSTRUCT 4" C-900 SEWER LATERAL PER DCSWCS SD-**2**0 AND SD-2**1**. MINIMUM 6" VERTICAL SEPARATION BETWEEN WATER AND SEWER
10. CONSTRUCT SPECIAL SHALLOW MANHOLES PER DCSWCS SD-13

WATER

25. MARKER BALLS PER UDACS PLT.15
26. DROP INLET, SEE DETAIL 3 ON SHEET D2 FOR 3' CURB TRANSITION.

GENERAL NOTES

1. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST CONFORM TO UDACS SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
2. WATER SERVICE LATERALS SHALL BE INSTALLED PER UDACS SECTION 2.17.
3. INSTALL PIPE DETECTOR RIBBON PER UDACS PLATE NO. 15.
4. LOCATOR WIRE SHALL BE USED FOR ALL SERVICE LATERALS NOT PERPENDICULAR TO THE MAIN. (TYPICAL)
5. EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDER-GROUND 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. ALL DISCREPANCIES MUST BE IMMEDIATELY REPORTED TO THE ENGINEER.
6. MIN. 12" VERTICAL CLEARANCE BETWEEN WATER MAINS AND DRY UTILITIES PER UDACS SECTION 2.04.06
7. MIN. 12" VERTICAL CLEARANCE REQUIRED BETWEEN WATER LATERALS AND DRY UTILITIES PER UDACS SECTION 2.04.06
8. INSTALL PIPELINE MARKER IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE No. 15
9. ANNULAR SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM.)
10. ALL NEW MANHOLES TO HAVE PRE-CAST BASES
11. INSTALL PIPE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE No. 15
12. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
13. 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.
14. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALKS.

CONTRACTOR NOTE

WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.03.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

EASEMENTS WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL, OR FENCE

TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

SOUTHWEST GAS APPROVAL

Pamela Kennedy 8.15.19
SOUTHWEST GAS CORP. DATE

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:

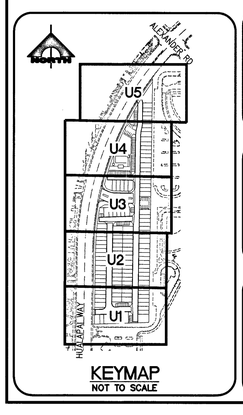
ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED BUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

BENCHMARK

7LVOO7NW96
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

L# L19-01032 | CLV DWG# 107Y5108

NORTH
20' 0' 10' 20'
SCALE: 1" = 20'



KEYMAP
NOT TO SCALE

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 DIG OVERHEAD
1-702-227-2929

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

ENGINEER - STATE OF NEVADA
HAO A. NGUYEN
Exp. 12/31/2019
CIVIL
No. 19596
PROFESSIONAL

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

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE: 08-05-19

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:46:10

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CU.DWG
BRADY GUZMAN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
UTILITY PLAN 2

DRAWING
U2
24 OF 33 SHTS

PROJ#:136495A QS:138-07-NW

MATCH LINE SEE SHEET U3

MIAMI SPRINGS AVE (PRIVATE)

HUALAPAI WAY (PUBLIC)

PANORAMIC VIEW AVE (PRIVATE)

CE "A" CE "B" CE "C" CE "D" CE "E" CE "F" CE "G" CE "H" CE "I" CE "J" CE "K" CE "L" CE "M" CE "N" CE "O"

30' PVT STREET

ENCHANTED SKY ST (PRIVATE)

GRAND OUTLOOK AVE (PRIVATE)

BRILLIANT SUNSET ST (PRIVATE)

MAJESTIC PARK
CITY OF LAS VEGAS
APN #138-07-103-002

MAJESTIC PARK
CITY OF LAS VEGAS
APN #138-07-201-010

SSMH #19 STA: 1+16.24 5.00'R TMH: 2688.9± 8" INV OUT: 2680.73 E

SSMH #17 STA: 1+56.25 6.20'R TMH: 2691.6± 8" INV IN: 2687.72 S 8" INV IN: 2687.72 W 8" INV OUT: 2687.52 E

SSMH #18 STA: 1+30.91 7.56'R TMH: 2691.8± 8" INV OUT: 2687.97 E

SSMH #8 STA: 8+96.95 5.00'R TMH: 2687.8± 8" INV IN: 2679.16 S 8" INV IN: 2679.16 W 8" INV OUT: 2678.96 N

SSMH #7 STA: 8+27.28 5.00'R TMH: 2688.3± 8" INV IN: 2686.05 S 8" INV OUT: 2685.85 N

SSMH #6 STA: 6+70.31 5.66'R TMH: 2689.9± 8" INV IN: 2686.68 S 8" INV IN: 2686.88 W 8" INV OUT: 2686.68 N

SSMH #4 STA: 1+56.26 5.00'R TMH: 2693.6± 8" INV IN: 2689.46 S 8" INV IN: 2689.46 W 8" INV OUT: 2689.26 N

SEE SHEET P1 FOR CROSSING

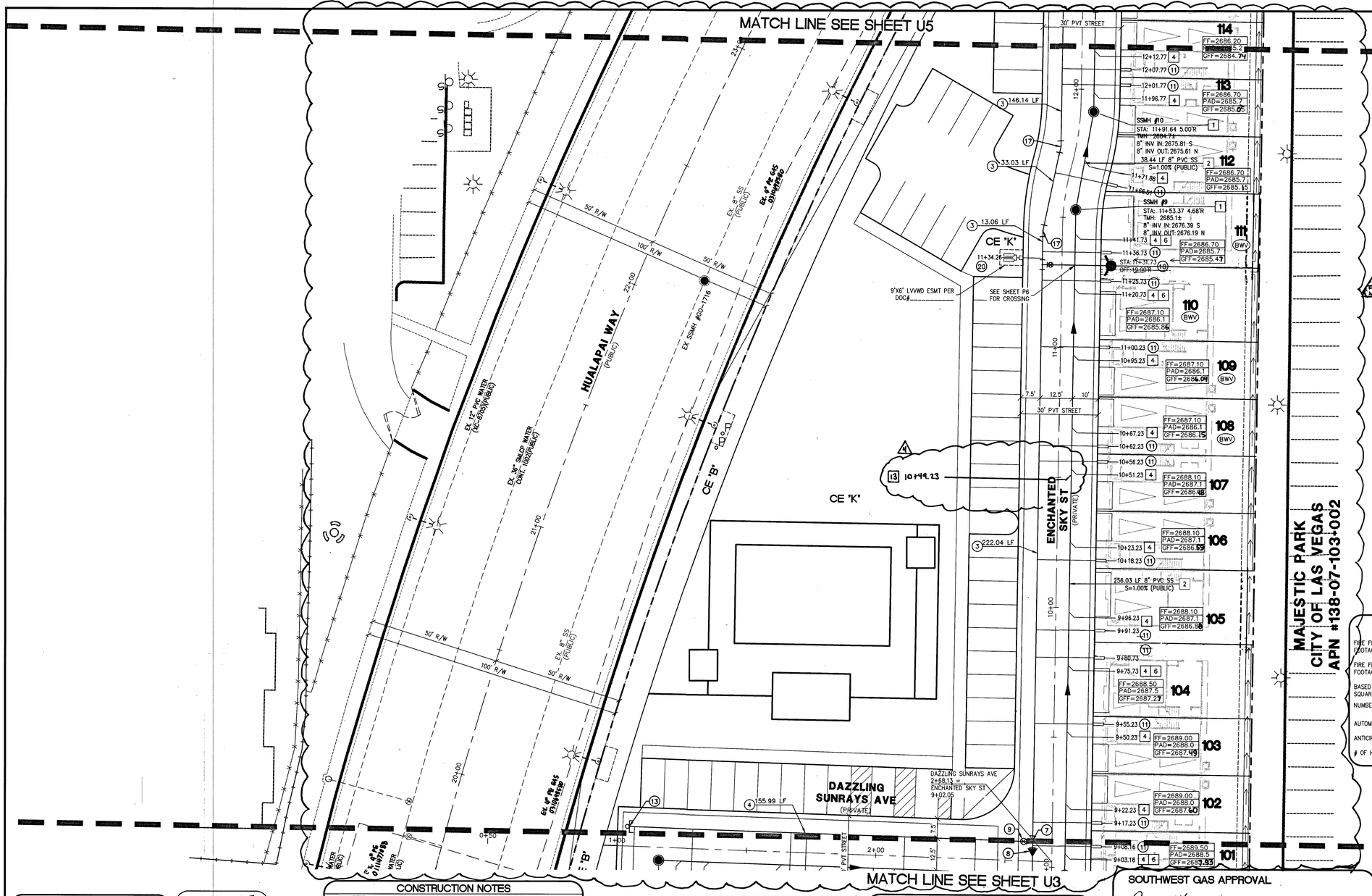
SEE SHEET P5 FOR CROSSING

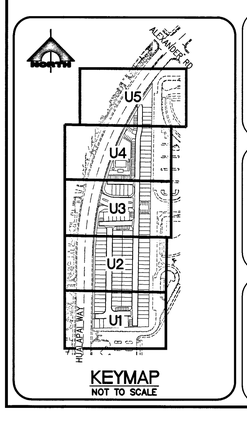
SEE SHEET P6 FOR PROFILE OF LATERAL

SEE SHEET P11 FOR CROSSING

MATCH LINE SEE SHEET U2

EX 12" PVC WATER (NC-8705)(PUBLIC)
EX 12" WATER (PUBLIC)
EX 36" SWLOP WATER CONT. 1002(PUBLIC)
EX 8" SS (PUBLIC)
EX 8" SS (PUBLIC)
EX 12" DIP WATER NC-7579(PUBLIC)
EX 42" RCP SD CLV DWG# 107-V-3594
EX 36" RCP SD CLV DWG# 107-V-3594
EX 42" RCP SD CLV DWG# 107-V-3594
EX 28'X8' RCB CLV DWG#131-74
EX 18" RCP SD
EX 30" SWLOP WATER CONT. 1002(PUBLIC)
EX 8" SS (PUBLIC)
EX 8" SS (PUBLIC)
EX 8" SS (





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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

CONSTRUCTION NOTES

WATER

1. CONNECT TO EXISTING WATER LINE. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
2. INSTALL 12" PVC WATER PIPE
3. INSTALL 8" PVC WATER PIPE
4. INSTALL 6" PVC WATER PIPE
5. INSTALL 12" x 8" TEE PER UDACS PLATE NO. 31.
6. INSTALL 8" x 8" TEE PER UDACS PLATE NO. 31.
7. INSTALL 8" x 6" TEE PER UDACS PLATE NO. 31.
8. INSTALL 8" X 6" REDUCER PER UDACS PLATE NO. 30.
9. INSTALL GATE VALVE, BOX, AND COVER SAME SIZE AS LINE PER UDACS PLATE NO. 30 & 39.
10. INSTALL FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 40.
11. INSTALL 1" WATER SERVICE (DOMESTIC) WITH 1" WATER METER PER UDACS PLATE NO. 1 (TYP).
12. INSTALL 1" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4, 8 AND DETAIL ON SHEET C3.
13. INSTALL 6" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
14. INSTALL IRRIGATION SLEEVES
15. INSTALL STEEL CASING PER UDACS PLATE NO. 22 & 23.
16. INSTALL 5" BEND SAME SIZE AS LINE
17. INSTALL 11.25° BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
18. INSTALL 45° BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
19. INSTALL 45° VERTICAL BEND WITH RESTRAINT JOINT AND THRUST BLOCK PER UDACS PLATE NO. 31
20. INSTALL MANIFOLDED 1" IRRIGATION METER WITH TWO 1" RPPA'S PER UDACS PLATE NO. 4, 9 AND DETAIL ON SHEET C3.
21. INSTALL 12" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
22. INSTALL 12"x8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS SECTION 2.2401.B
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CONSTRUCTION NOTES

SEWER

1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1.4 SD-3.
2. INSTALL 8" PVC SANITARY SEWER PIPE.
3. CONNECT TO EXISTING SANITARY SEWER. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
4. INSTALL 4" SEWER LATERAL PER DCSWCS SD-2.0 (TYP)
5. INSTALL CORROSION PROTECTION PER DCSWCS 3.16.8.B
6. INSTALL CLEANOUT WITH TRAFFIC RATED LID PER DCSWCS SD-2.4 IN DRIVEWAY
7. INSTALL 8" C900 SANITARY SEWER PIPE.
8. CONCRETE ENCASEMENT PER DCSWCS SD-14
9. CONSTRUCT 4" C-900 SEWER LATERAL PER DCSWCS SD-2.0 AND SD-2.1.
10. MINIMUM 6" VERTICAL SEPARATION BETWEEN WATER AND SEWER
11. CONSTRUCT SPECIAL SHALLOW MANHOLES PER DCSWCS SD-13

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WATER

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26. DROP INLET, SEE DETAIL 3 ON SHEET D2 FOR 3' CURB TRANSITION.

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14. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALKS.

SOUTHWEST GAS APPROVAL

Pamela Kennedy 8.15.19

SOUTHWEST GAS CORP. DATE

20' 0' 10' 20'

SCALE: 1" = 20'

NORTH

13 INSTALL 6" SEWER LATERAL PER DCSWCS SD-2.0 AND PER 2.3.10.A.3 OF DCSWCS.

NOTE TO CONTRACTOR

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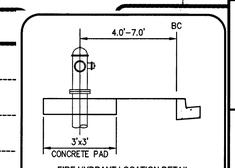
BENCHMARK

7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63



FIRE HYDRANT LOCATION DETAIL
SCALE: NTS

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: 3,000 SQUARE FEET
NUMBER OF STORIES/FLOORS: 3

AUTOMATIC FIRE SPRINKLER SYSTEM: YES NO ☒ ☐

ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

OF HYDRANTS PROVIDED: 5

PROCEDURES TO RELOCATE A CORROSION TEST STATION:

1. CONTACT LVVWD INSPECTIONS AT 702-258-7171, PRIOR TO START FOR PRE-TEST.
2. THE LEADS THAT ARE CONNECTED TO THE PIPE REQUIRE #6 COPPER WIRE WITH A HMWPE JACKET SUCH AS RAYCHEM PERMARAD.
3. THE LEAD THAT IS CONNECTED TO THE REFERENCE CELL REQUIRES #14 COPPER WIRE WITH A HMWPE JACKET SUCH AS RAYCHEM PERMARAD.
4. CONNECT THE TWO WIRES TO BE SPLICED WITH A COPPER BUTT CONNECTION USING THE PROPER CRIMPING TOOL.
5. MAKE EACH SPLICE USING A 3M SCOTCHCAST RESIN SPLICING KIT.
6. RECONNECT THE TEST BOARD TO PROPER LEADS, AND PLACE THE TEST BOX AT THE NEW SITE.
7. THE TEST BOX AT THE NEW SITE WILL BE INSTALLED ACCORDING TO THE TYPICAL TEST BOX DETAIL.
8. ALL TEST LEADS AND ANODE LEADS INSIDE THE TEST BOX SHALL BE BUNDLED TOGETHER AT 6 INCH INTERVALS WITH NYLON TIES AND SHALL BE PROVIDED WITH A MINIMUM OF 4 FEET OF SLACK.
9. ALL TEST LEADS AND ANODE LEADS SHALL BE COLOR CODED WITH COLORED TAPE AT EACH END, AND AT 4 FEET INTERVALS.
10. SCHEDULE FINAL TEST WITH LVVWD INSPECTIONS

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT NO. 1364915 FIRST APPROVED DATE: 8.20.19
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM RESIDUAL

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE DATE
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

L# L19-01032 | CLV DWG# 107Y5108

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

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003CU.DWG
BRADY GUZMAN

HAO A. NGUYEN
No. 19350
PROFESSIONAL ENGINEER
STATE OF NEVADA
CIVIL
DATE: 06-05-19

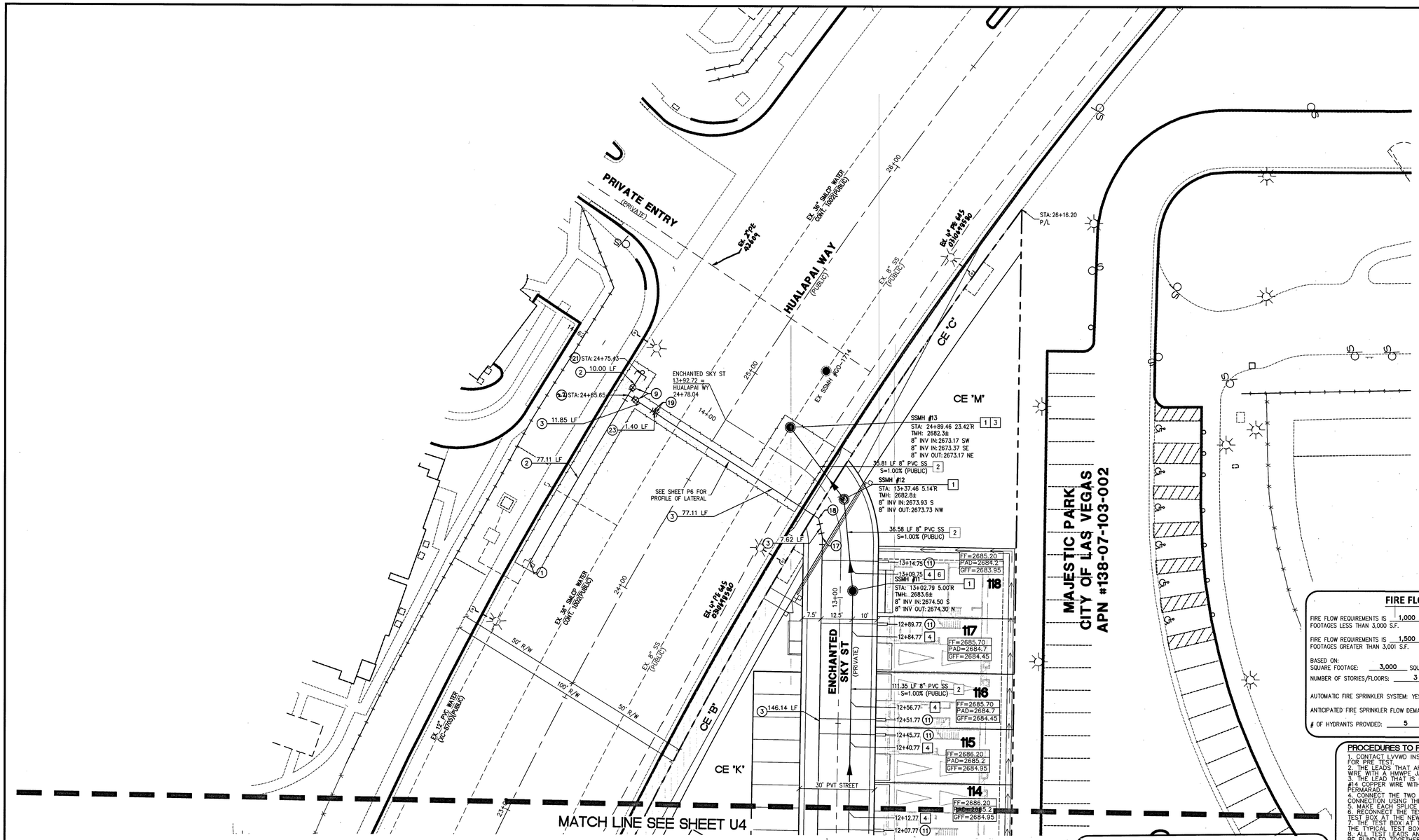
REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP
3	7/31/20	REVISE FF, PAD AND GFF				
4	8/6/20	ADDED SEWER LATERAL PER DCSWCS SD-2.0				

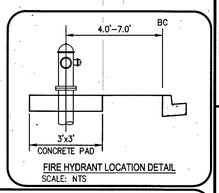
PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:46:16

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
UTILITY PLAN 4

DRAWING
U4
26 OF 33 SHTS

PROJ.#: 136495A QS: 138-07-NW





FIRE HYDRANT LOCATION DETAIL
SCALE: NTS

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

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ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 26 GPM

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10. SCHEDULE FINAL TEST WITH LVVWD INSPECTIONS

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS) OF LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES — FIRST APPROVED DATE: 8.20.19
PROJECT NO. 136495
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
FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

SOUTHWEST GAS APPROVAL

Pamela Kennedy — 8.15.19
SOUTHWEST GAS CORP. — DATE

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.

BENCHMARK

7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AV.
ELEVATION: 2694.63

L# L19-01032 | CLV DWG# 107Y5108

CONSTRUCTION NOTES

WATER

1. CONNECT TO EXISTING WATER LINE. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
2. INSTALL 12" PVC WATER PIPE
3. INSTALL 8" PVC WATER PIPE
4. INSTALL 6" PVC WATER PIPE
5. INSTALL 12" x 8" TEE PER UDACS PLATE NO. 31.
6. INSTALL 8" x 8" TEE PER UDACS PLATE NO. 31.
7. INSTALL 8" x 6" TEE PER UDACS PLATE NO. 31.
8. INSTALL 8" X 6" REDUCER PER UDACS PLATE NO. 30.
9. INSTALL GATE VALVE, BOX, AND COVER SAME SIZE AS LINE PER UDACS PLATE NO. 30 & 39.
10. INSTALL FIRE HYDRANT, VALVES, TEE, & 6" WATER LINE PER UDACS PLATE NO. 44.
11. INSTALL 1" WATER SERVICE (DOMESTIC) WITH ¾" WATER METER PER UDACS PLATE NO. 1 (TYP.).
12. INSTALL 1" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4, 8 AND DETAIL ON SHEET C3.
13. INSTALL 6" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
14. INSTALL IRRIGATION SLEEVES
15. INSTALL STEEL CASING PER UDACS PLATE NO. 22 & 23.
16. INSTALL 5° BEND SAME SIZE AS LINE
17. INSTALL 11.25° BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
18. INSTALL 45° BEND SAME SIZE AS LINE PER UDACS PLATE NO. 31.
19. INSTALL 45° VERTICAL BEND WITH RESTRAINT JOINT AND THRUST BLOCK PER UDACS PLATE NO. 31
20. INSTALL MANIFOLDED 1" IRRIGATION METER WITH TWO 1" RPPA'S PER UDACS PLATE NO. 4, 9 AND DETAIL ON SHEET C3.
21. INSTALL 12" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.
22. INSTALL 12"x8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS SECTION 2.2401.B
23. INSTALL 8" DIP WATER PIPE
24. INSTALL 8" CAP & 2" BLOW-OFF PER UDACS PLATE NO. 36.

CONSTRUCTION NOTES

SEWER

1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE 24" LID PER DCSWCS SD-1~~2~~ **SD-3**
2. INSTALL 8" PVC SANITARY SEWER PIPE.
3. CONNECT TO EXISTING SANITARY SEWER. CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION
4. INSTALL 4" SEWER LATERAL PER DCSWCS SD-2~~0~~ (TYP.)
5. INSTALL CORROSION PROTECTION PER DCSWCS 3.16.8.B
6. INSTALL CLEANOUT WITH TRAFFIC RATED LID PER DCSWCS SD-2~~4~~ IN DRIVEWAY
7. INSTALL 8" C900 SANITARY SEWER PIPE.
8. CONCRETE ENCASEMENT PER DCSWCS SD-14
9. CONSTRUCT 4" C-900 SEWER LATERAL PER DCSWCS SD-2~~0~~ AND SD-2~~1~~.
10. MINIMUM 6" VERTICAL SEPARATION BETWEEN WATER AND SEWER
10. CONSTRUCT SPECIAL SHALLOW MANHOLES PER DCSWCS SD-13

CONTRACTOR NOTE

WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.03.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

EASEMENTS WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL OR FENCE

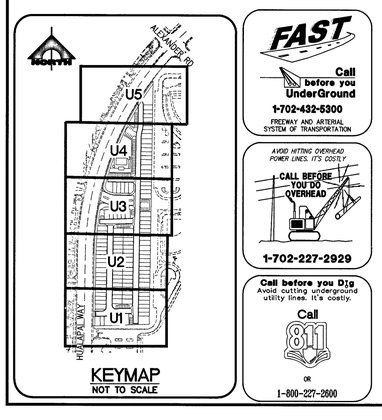
TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL, SHALL BE DESIGNED AND CONSTRUCTED AROUND EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VALVE(S), BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

WATER

25) MARKER BALLS PER UDACS PLT.15
26) DROP INLET, SEE DETAIL 3 ON SHEET D2 FOR 3' CURB TRANSITION.

GENERAL NOTES

1. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST CONFORM TO UDACS SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM DRAIN CROSSINGS AND CLEARANCES.
2. WATER SERVICE LATERALS SHALL BE INSTALLED PER UDACS SECTION 2.17.
3. INSTALL PIPE DETECTOR RIBBON PER UDACS PLATE NO. 15.
4. LOCATOR WIRE SHALL BE USED FOR ALL SERVICE LATERALS NOT PERPENDICULAR TO THE MAIN. (TYPICAL)
5. EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDER-GROUND 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. ALL DISCREPANCIES MUST BE IMMEDIATELY REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
6. MIN. 12" VERTICAL CLEARANCE BETWEEN WATER MAINS AND DRY UTILITIES PER UDACS SECTION 2.04.06
7. MIN. 12" VERTICAL CLEARANCE REQUIRED BETWEEN WATER LATERALS AND DRY UTILITIES PER UDACS SECTION 2.04.06
8. INSTALL PIPELINE MARKER IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE No. 15
9. ANNULAR SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM).
10. ALL NEW MANHOLES TO HAVE PRE-CAST BASES
11. INSTALL PIPE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15.
12. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
13. 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.
14. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALKS.



KEYMAP
NOT TO SCALE

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 DIG OVERHEAD
1-702-227-2929

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

NORTH
SCALE: 1" = 20'

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

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003DU.DWG
BRADY GUZMAN

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:46:19

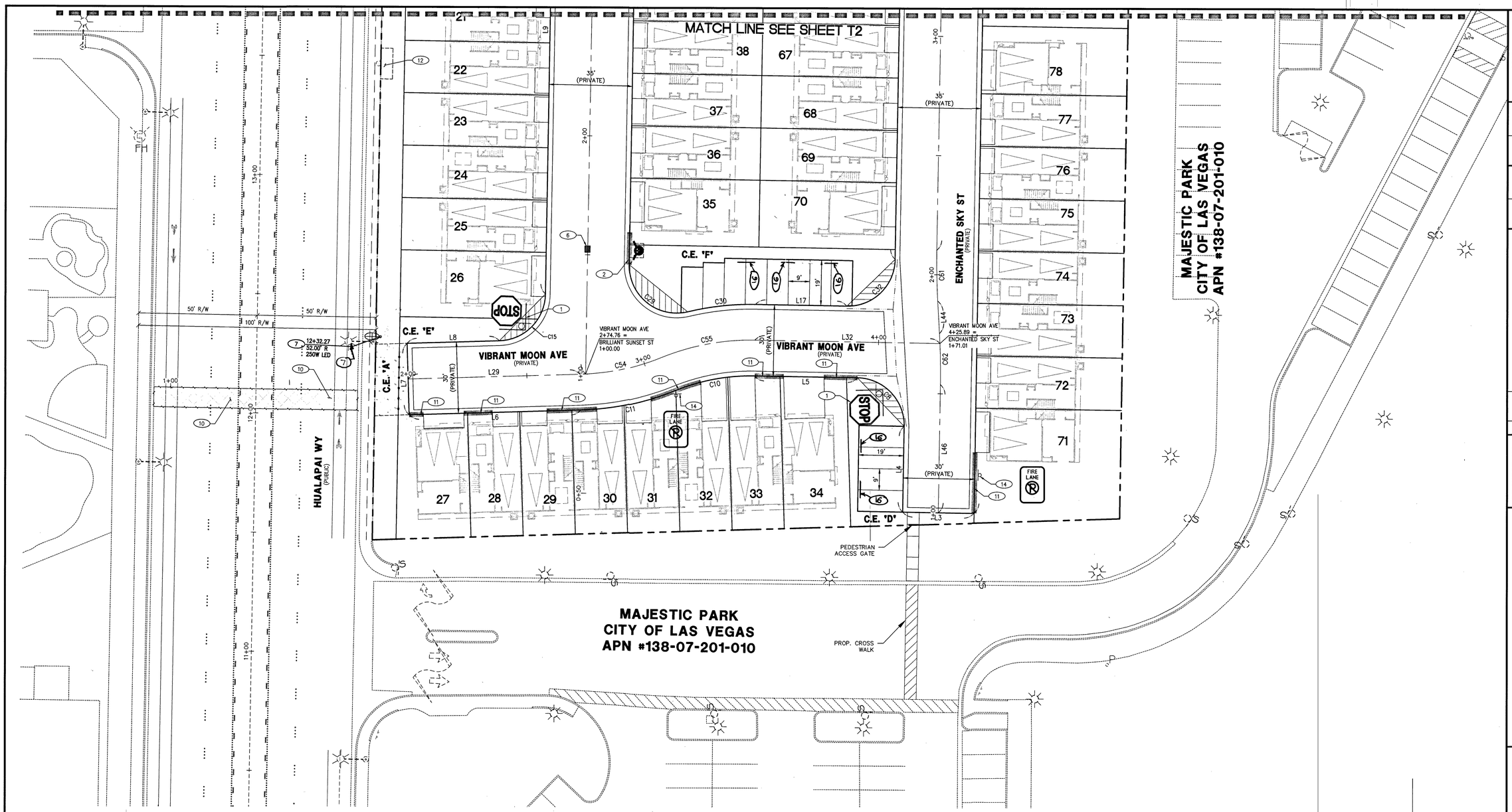
REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

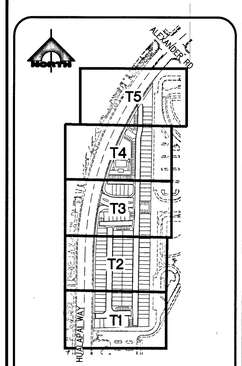
DATE: 08-05-19

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
UTILITY PLAN 5

DRAWING
U5
27 OF 33 SHTS

PRO.#:136495A QS:138-07-NW





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LEGEND

- STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1)
- 30" X 9" STREET NAME SIGN (D-3)
- NO OUTLET SIGN (W14-2P)
- SIGN - SEE PLAN FOR SPECIFICATION
- 200 AMP PAD MOUNT SERVICE PEDESTAL
- LED (100W EQUIVALENT)
- NO 3 1/2 PULL BOX
- EXISTING STREET LIGHT
- BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS
- RED PAINTED CURB

CONSTRUCTION NOTES

TRAFFIC

1. INSTALL (1) STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1) TO BE PRIVATELY MAINTAINED.
2. PAINT CURB RED 15' ON EACH SIDE OF FIRE HYDRANT.
3. INSTALL 6" SOLID WHITE LINE.
4. INSTALL TYPE 4 LANE LINE PER CCAUSD NO. 244.1.
5. INSTALL MEDIAN NOSE MARKING PER CCAUSD NO. 248.
6. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS.
7. RELOCATED STLT AND INSTALL PER CCAUSD NO. 314, 320, AND 321. RECONNECT CIRCUIT WITHOUT SPLICING.
8. INSTALL 6" X 2' WHITE SKIP LANE LINE.
9. INSTALL VAN ACCESSIBLE SIGN, 4" PAINTED PARKING LOT STRIPING AND PARKING BAY HANDICAP SYMBOL.
10. RESTORE OR REPLACE EXISTING STRIPING.
11. PAINT CURB RED (FIRE LANE)
12. 12' x 5' SIDEWALK AROUND OBSTRUCTION
13. INSTALL "NO PARKING" SIGN R8-3A, (24"x24")
14. INSTALL NO PARKING-FIRE LANE SIGN.
15. INSTALL DO NOT ENTER SIGN
16. INSTALL WHEEL STOP.

Line Table

Line #	Length	Direction
L3	30.00	N89° 07' 18.69"W
L4	36.00	N00° 52' 41.31"E
L5	43.49	N89° 07' 13.69"W
L6	72.35	S88° 15' 42.68"W
L7	30.00	N01° 44' 17.32"W
L8	38.82	N88° 15' 42.68"E
L17	38.49	S89° 07' 13.69"E
L29	72.35	N88° 15' 42.68"E
L32	78.00	S89° 07' 13.69"E
L44	13.63	S03° 12' 26.89"E
L46	53.83	S00° 52' 41.31"W

Curve Table

Curve #	Length	Radius	Delta	Tangent
C8	31.42	20.00	089.9986	20.00
C10	34.05	85.00	022.9505	17.26
C11	40.81	115.00	020.3329	20.62
C15	30.50	20.00	087.3837	19.11
C29	36.43	20.00	104.3725	25.77
C30	28.85	115.00	014.3739	14.50
C32	31.42	20.00	090.0014	20.00
C54	35.49	100.00	020.3329	17.93
C55	40.06	100.00	022.9505	20.30
C61	21.39	300.00	004.0856	10.70
C62	21.39	300.00	004.0856	10.70

NORTH

20' 0' 10' 20'
SCALE: 1" = 20'

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.
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 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.
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.

BENCHMARK

7LV007NW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 8-8-19

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA — PROFESSIONAL ENGINEER — No. 19999 — HAO N. NGUYEN — DATE: 08-05-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GOW APP

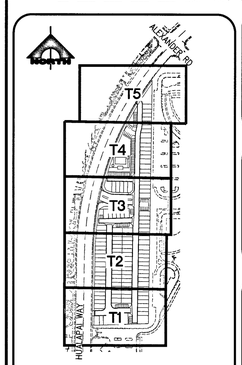
PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:46:33

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

F:\PROJECTS\7XX\798-003\DWG\PRODUCTION\798-003GT.DWG
BRADY GUZMAN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
TRAFFIC PLAN 1

DRAWING T1
28 OF 33 SHTS



KEYMAP
NOT TO SCALE

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

LEGEND

- STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1)
- 30" X 9" STREET NAME SIGN (D-3)
- NO OUTLET SIGN (W14-2P)
- SIGN – SEE PLAN FOR SPECIFICATION
- 200 AMP PAD MOUNT SERVICE PEDESTAL
- LED (100W EQUIVALENT)
- NO 3 1/2 PULL BOX
- EXISTING STREET LIGHT
- BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS
- RED PAINTED CURB

CONSTRUCTION NOTES

TRAFFIC

1. INSTALL (1) STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1) TO BE PRIVATELY MAINTAINED.
2. PAINT CURB RED 15' ON EACH SIDE OF FIRE HYDRANT.
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15. INSTALL DO NOT ENTER SIGN

Line Table		
Line #	Length	Direction
L10	223.73	N00° 52' 41.31"E
L18	431.56	N00° 52' 41.31"E
L20	432.25	S00° 52' 41.31"W
L42	423.30	S00° 52' 41.31"W
L47	512.74	N00° 52' 41.31"E

NORTH

20' 0' 10' 20'
SCALE: 1" = 20'

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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RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

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LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 8-8-19

L# L19-01032 | CLV DWG# 107Y5108

HAO A. NGUYEN — Exp. 12/31/2019 — CIVIL — No. 19356 — STATE OF NEVADA — PROFESSIONAL ENGINEER
DATE: 08-05-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:46:36

GCW
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LAS VEGAS, NV 89146
T: 702.804.2000
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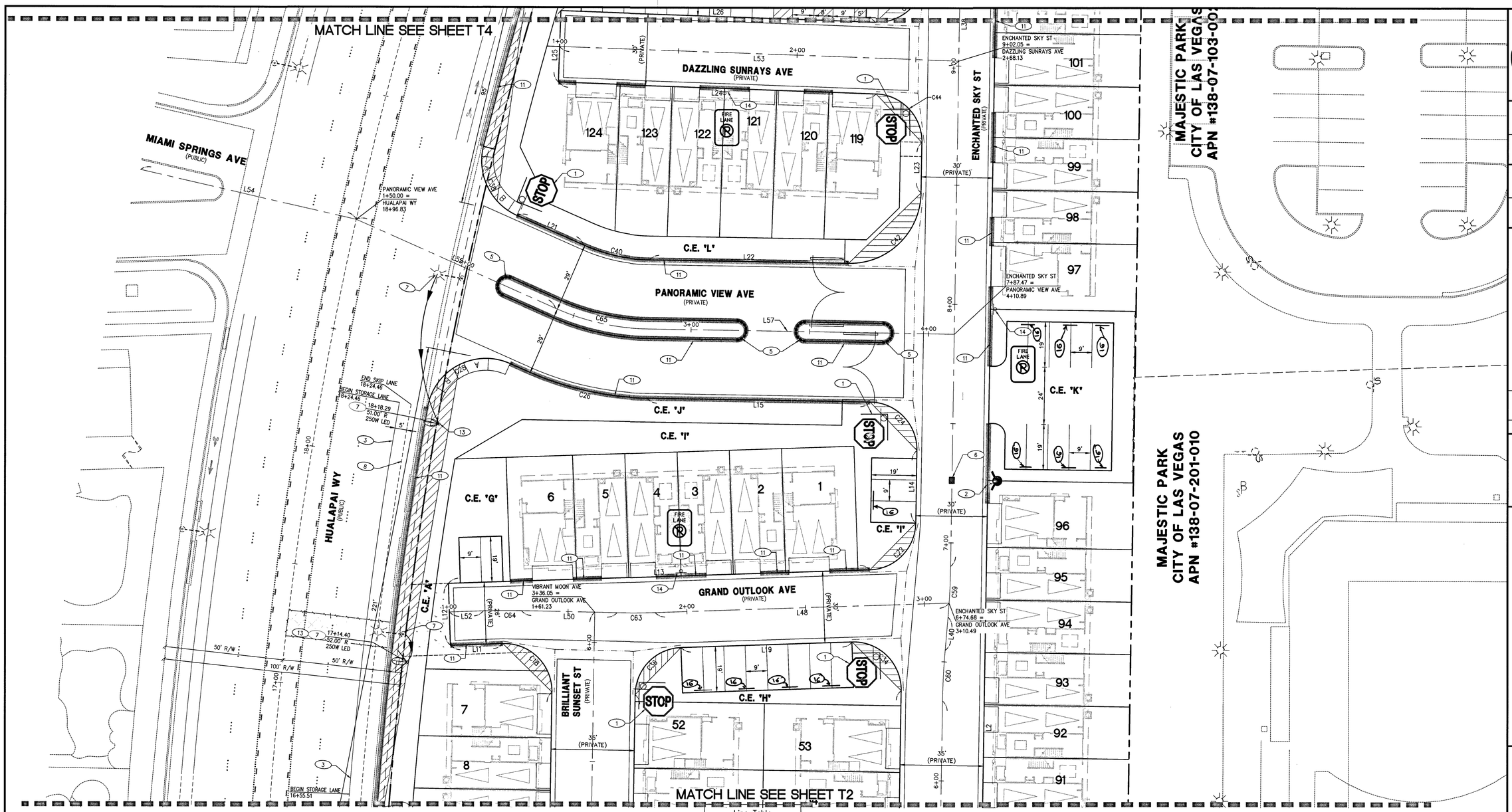
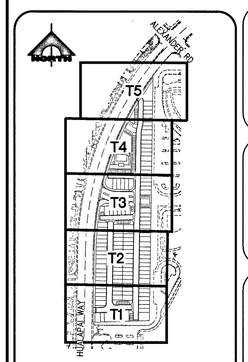
gcwengineering.com

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003ST1.DWG
BRADY GILZMAN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
TRAFFIC PLAN 2

DRAWING T2
29 OF 33 SHTS





KEYMAP
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4. INSTALL TYPE 4 LANE LINE PER CCAUSD NO. 244.1.
5. INSTALL MEDIAN NOSE MARKING PER CCAUSD NO. 248.
6. INSTALL BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS.
7. RELOCATED STLT AND INSTALL PER CCAUSD NO. 314, 320, AND 321. RECONNECT CIRCUIT WITHOUT SPLICING.
8. INSTALL 6" X 2' WHITE SKIP LANE LINE.
9. INSTALL VAN ACCESSIBLE SIGN, 4" PAINTED PARKING LOT STRIPING AND PARKING BAY HANDICAP SYMBOL.
10. RESTORE OR REPLACE EXISTING STRIPING.
11. PAINT CURB RED (FIRE LANE)
12. 12' x 5' SIDEWALK AROUND OBSTRUCTION
13. INSTALL "NO PARKING" SIGN R8-3A, (24"x24")
14. INSTALL NO PARKING-FIRE LANE SIGN.
15. INSTALL DO NOT ENTER SIGN
16. INSTALL WHEEL STOP.

Line Table

Line #	Length	Direction
L11	22.06	S88° 03' 55.34"W
L12	26.00	N01° 56' 04.66"W
L13	177.49	N88° 03' 55.34"E
L14	30.43	N00° 52' 41.31"E
L15	93.96	N89° 07' 18.69"W
L19	72.09	S88° 03' 55.34"W
L21	30.66	S66° 06' 49.74"E
L22	83.96	S89° 07' 18.69"E
L23	21.24	N00° 52' 41.31"E
L24	133.79	N88° 01' 56.81"W
L25	30.00	N01° 58' 03.19"E
L26	132.46	S88° 01' 56.81"E
L40	13.95	S04° 56' 40.73"W
L48	123.86	S88° 03' 55.34"W
L50	40.24	N88° 52' 38.75"W
L52	14.38	S88° 03' 55.34"W
L53	168.13	N88° 01' 56.81"W
L54	93.09	S77° 06' 49.74"E
L55	91.77	S66° 06' 49.74"E
L57	128.96	S89° 07' 18.69"E

Curve Table

Curve #	Length	Radius	Delta	Tangent
C18	32.40	20.00	092.8128	21.01
C22	30.43	20.00	087.1872	19.04
C24	31.42	20.00	090.0000	20.00
C26	51.80	129.00	023.0080	26.25
C28	45.27	25.00	103.7490	31.85
C34	32.40	20.00	092.8128	21.01
C36	30.43	20.00	087.1872	19.04
C38	34.96	25.00	080.1301	21.03
C40	28.51	71.00	023.0080	14.45
C42	47.12	30.00	090.0000	30.00
C44	31.04	20.00	088.9106	19.62
C59	21.29	300.00	004.0665	10.65
C60	21.29	300.00	004.0665	10.65
C63	16.01	300.00	003.0572	8.01
C64	16.01	300.00	003.0572	8.01
C65	40.16	100.00	023.0080	20.35

NORTH

20' 0' 10' 20'
SCALE: 1" = 20'

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.
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. 623.0.01.02
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.
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.

BENCHMARK

7LVD07NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

DATUM (REFERENCE FRAME): NAD 1983 (2011) EPOCH 2010.0

ZONE: LAS VEGAS ZONE
STANDARD PARALLEL AND GRID ORIGIN: 36°15'00" N
CENTRAL MERIDIAN: 114°58'00" W
FALSE NORTHING: 200,000.000 METERS (656,166.6667 US FT)
FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 8-5-19

L# L19-01032 | CLV DWG# 107Y5108

STATE OF NEVADA — HAO A. NGUYEN — No. 19396 — PROFESSIONAL ENGINEER — CIVIL — Exp. 12/31/2019
DATE: 08-05-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:46:40

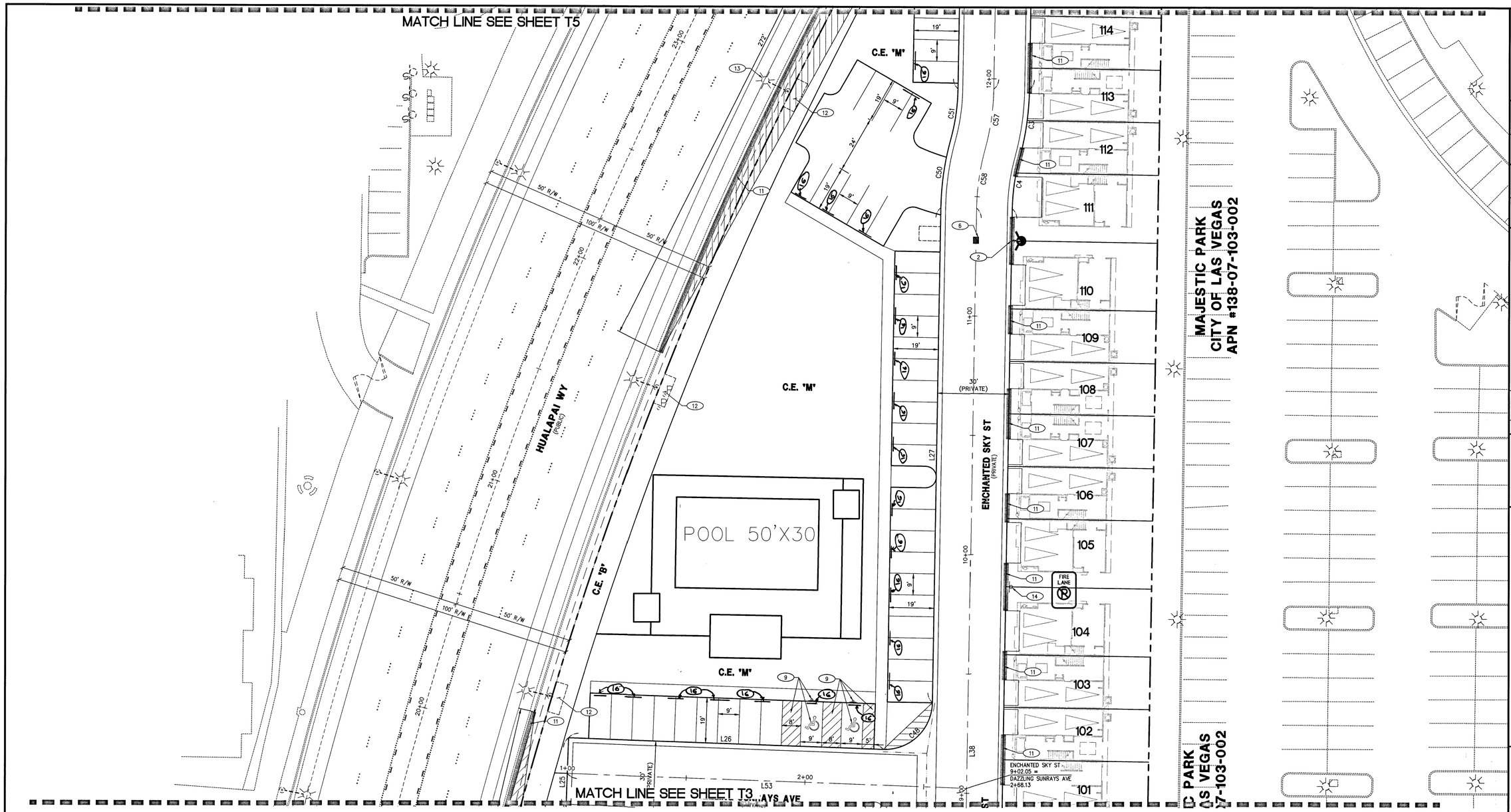
GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\700\798-003\DWG\PRODUCTION\798-003ST.DWG
BRADY GUZMAN

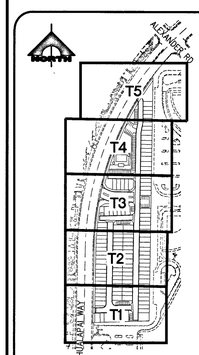
TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
TRAFFIC PLAN 3

DRAWING T3
30 OF 33 SHTS

MATCH LINE SEE SHEET T5



MATCH LINE SEE SHEET T3



KEYMAP
NOT TO SCALE

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

LEGEND

- STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1)
- 30" X 9" STREET NAME SIGN (D-3)
- NO OUTLET SIGN (W14-2P)
- SIGN – SEE PLAN FOR SPECIFICATION
- 200 AMP PAD MOUNT SERVICE PEDESTAL
- LED (100W EQUIVALENT)
- NO 3 1/2 PULL BOX
- EXISTING STREET LIGHT
- BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS
- RED PAINTED CURB

CONSTRUCTION NOTES

TRAFFIC

1. INSTALL (1) STREET NAME SIGN (D3) WITH 30" STOP SIGN (R1-1) TO BE PRIVATELY MAINTAINED.
2. PAINT CURB RED 15' ON EACH SIDE OF FIRE HYDRANT.
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Line Table		
Line #	Length	Direction
L27	207.49	N00° 52' 41.31"E

Curve Table				
Curve #	Length	Radius	Delta	Tangent
C3	29.01	115.00	014.4540	14.58
C4	21.44	85.00	014.4540	10.78
C50	29.01	115.00	014.4540	14.58
C51	21.44	85.00	014.4540	10.78
C57	25.23	100.00	014.4540	12.68
C58	25.23	100.00	014.4540	12.68

NORTH

20' 0' 10' 20'
SCALE: 1" = 20'

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BENCHMARK

7LV007NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

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FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
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APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 8-8-19

L# L19-01032 | CLV DWG# 107Y5108

HAO A. NGUYEN
Exp. 12/31/2019
CIVIL
STATE OF NEVADA
PROFESSIONAL ENGINEER
No. 19396
DATE: 08-05-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:46:43

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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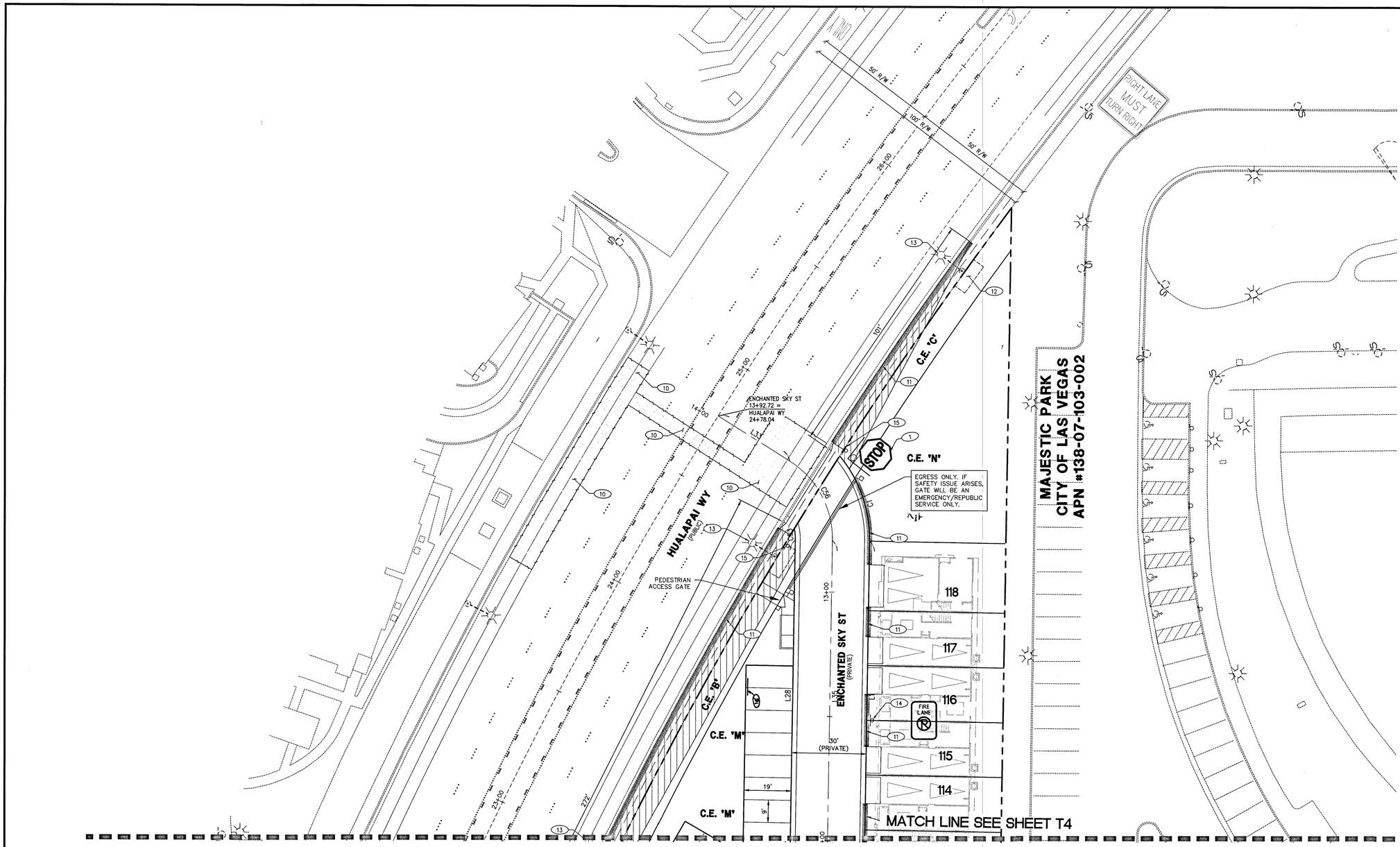
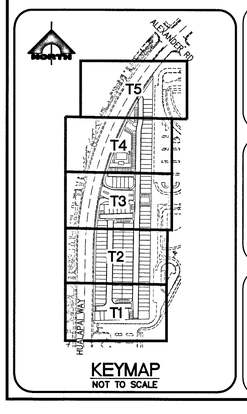
BRADY GUZMAN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
TRAFFIC PLAN 4

DRAWING
T4
31 OF 33 SHTS





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Line Table		
Line #	Length	Direction
L33	34.02	S57° 56' 19.05"E

Curve Table				
Curve #	Length	Radius	Delta	Tangent
C1	37.06	52.00	040.8381	19.36
C53	4.54	22.00	011.8316	2.28
C56	37.98	37.00	058.8168	20.86

NORTH

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BENCHMARK

7LVD07NWW6
RIVET & PLATE TOP CURB E. SIDE HUALAPAI WAY AT MIAMI SPRINGS AVE
ELEVATION: 2694.63

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS AND LAS VEGAS HIGH ELEVATION ZONES, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58'WEST OF THE GREENWICH MERIDIAN.

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FALSE EASTING: 100,000.000 METERS (328,083.3333 US FT)
STANDARD PARALLEL SCALE: 1.0001 (EXACT)
LINEAR UNIT: US SURVEY FOOT (US FT)

APPROVED FOR CONSTRUCTION

LAS VEGAS FIRE AND RESCUE — DATE 8-8-19

L# L19-01032 | CLV DWG# 107Y5108

PROFESSIONAL ENGINEER – STATE OF NEVADA
TAO A. NGUYEN
Exp. 12/31/2019
CIVIL
No. 19356
DATE: 08-05-19

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 798-003
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 08-05-19
PLOT TIME: 14:46:46

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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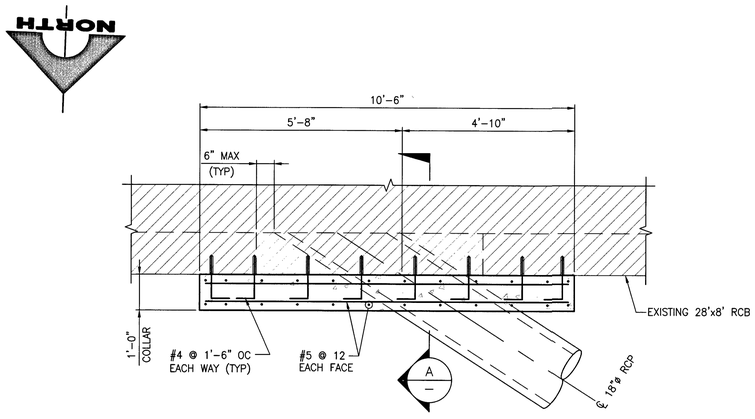
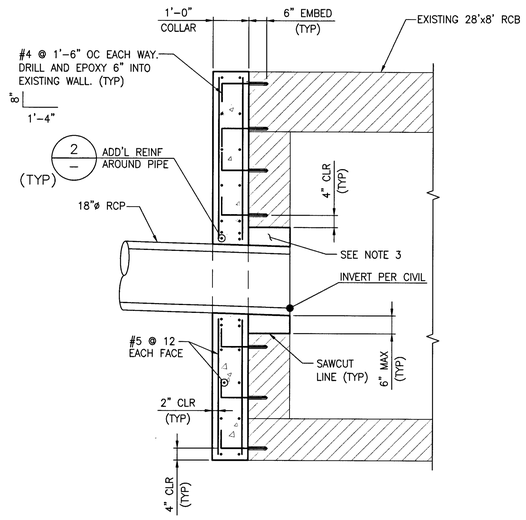
BRADY GUZMAN

TOUCHSTONE LIVING
HUALAPAI AND ALEXANDER
TRAFFIC PLAN 5

DRAWING
T5
32 OF 33 SHTS



1 PLAN - PIPE PENETRATION
SCALE: 1/2" = 1'-0"



NOTES:

1. CUT PIPE FLUSH WITH INTERIOR WALL FACE.
2. APPLY EPOXY BONDING ADHESIVE (SIKA SIKADUR 32 HI-MOD OR EQUAL) ALL AROUND INTERFACE BETWEEN EXISTING AND NEW CONCRETE.
3. FILL VOID AROUND PIPE WITH NON-SHRINK GROUT (f'c=4500 PSI MIN) AND TROWEL WALL FACE SMOOTH.

A SECTION
SCALE: 1/2" = 1'-0"

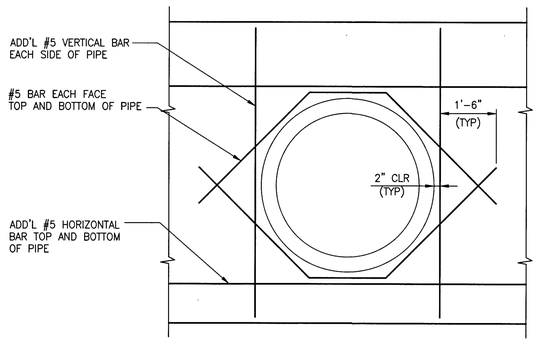
GENERAL STRUCTURAL NOTES

1. DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SEVENTH EDITION, 2018.
2. CONSTRUCTION SPECIFICATIONS: CLARK COUNTY UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. EXISTING UTILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN THE WORK AREA, AND PROVIDING PROTECTION FOR THE VARIOUS UTILITIES AFFECTED PRIOR TO PROCEEDING WITH THE WORK.
4. CONCRETE: CONCRETE SHALL BE CLASS D MODIFIED AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF f'c=4,500 PSI AND A MAXIMUM WATER TO CEMENT RATIO, BY WEIGHT, OF 0.45. USE TYPE V CEMENT PER ASTM C-150. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4", UNLESS NOTED OTHERWISE.
5. REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. DIMENSIONS ARE FROM OUT TO OUT OF BARS. MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 3" WHERE CONCRETE IS CAST AGAINST SOIL AND 2" ELSEWHERE, UNLESS NOTED OTHERWISE. HOOKS MAY BE ROTATED OR TILTED AS NECESSARY TO PROVIDE THE PROPER CLEARANCES.
6. EPOXY: SIMPSON STRONG-TIE SET-XP EPOXY-TIE ADHESIVE PER ICC ESR-2508. INSTALL IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS.
7. INVERTS, SLOPES, BEARINGS, ALIGNMENTS, AND ELEVATIONS SHOWN ARE FOR "REFERENCE ONLY". INFORMATION ON CIVIL DRAWINGS SHALL GOVERN.
8. CONTRACTOR SHALL PROVIDE SLOPE STABILIZATION, SHEETING, BRACING, AND/OR SHORING AS REQUIRED TO PROTECT EXISTING EMBANKMENTS, STRUCTURES, AND UNDERGROUND ITEMS.

SPECIAL INSPECTION:

	CONTINUOUS MONITORING	PERIODIC MONITORING
PLACEMENT AND COMPACTION OF FILL	X	
REBAR PLACEMENT IN CONCRETE		X
VERIFICATION OF CONCRETE MIX DESIGN		X
SAMPLING OF FRESH CONCRETE AND PLACEMENT	X	
CONCRETE CURING AND FORMWORK		X
POST-INSTALLED ANCHORS	X	

1. SPECIAL INSPECTIONS ARE TO BE PERFORMED BY QUALIFIED FIRMS OR PERSONNEL. THE SPECIAL INSPECTOR MUST BE ICC CERTIFIED AND APPROVED BY CLARK COUNTY IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION.
2. THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY CLARK COUNTY, FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS, AND EQUIPMENTS.
3. AS IDENTIFIED WITHIN THE CONTRACT DOCUMENTS, AND THE IBC 2018 BUILDING CODE CHAPTER 17. THE SPECIAL INSPECTORS SHALL MAINTAIN RECORDS OF ALL INSPECTIONS PERTAINING TO THE PORTIONS OF WORK THEY ARE TO INSPECT. PROVIDE COPIES OF REPORTS TO THE OWNER AND ARCHITECT/ ENGINEER PERIODICALLY AND AS REQUIRED FOR ADEQUATE COMMUNICATION AS WORK PROGRESSES.



NOTES:

1. FIELD CUT TYPICAL REINFORCING 2" CLR OF PIPE.
2. IF BARS CANNOT EXTEND BEYOND PIPE AS SHOWN, EXTEND AS FAR AS POSSIBLE AND PROVIDE STANDARD HOOK AT END.

2 REINFORCING AROUND PIPE
SCALE: 1/2" = 1'-0"

STATE OF NEVADA PROFESSIONAL DAVID A. TURNER No. 18976 Exp. 06/30/2020 CIVIL STRUCTURAL
DATE: 08-05-19

REV	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 798-003
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GCW ENGINEERS\SURVEYORS
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BRADY GUZMAN

TOUCHSTONE LIVING

HUALAPAI AND ALEXANDER

PIPE PENETRATION DETAILS

DRAWING
S1
33 OF 33 SHTS

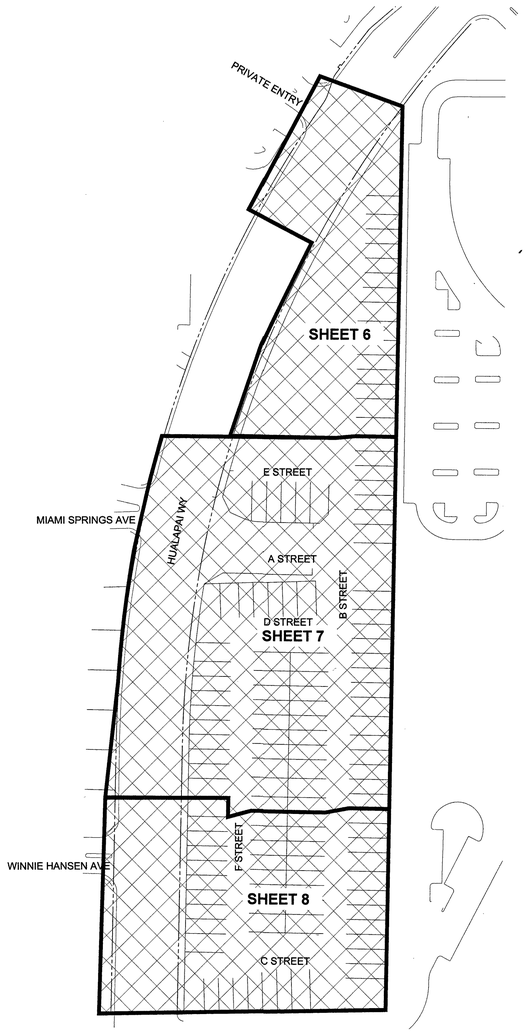
L# L19-01032 | CLV DWG# 107Y5108

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

N

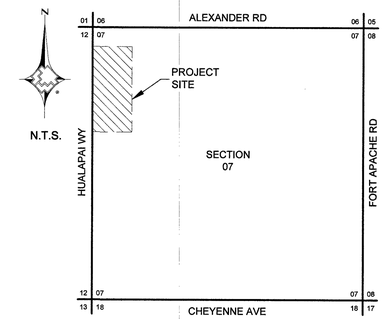
N.T.S.



SHEET INDEX MAP

SHEET INDEX

1	COVER SHEET
2	SIGNATURE SHEET
3	NOTES AND STANDARD DETAILS
4	NOTES AND STANDARD DETAILS
5	DETAIL SHEET
6	PLAN SHEET
7	PLAN SHEET
8	PLAN SHEET



LOCATION MAP

T20S R60E S7
T20 R59E S12

Total footage located in Public ROW 188'

APPROVED FOR CONSTRUCTION

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

See cover of Civil Plan
APPROVAL

CUSTOMER 124

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

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_508 ISO_21_DIST_509	T20S R60E S7 T20 R59E S12 M.D.M.	X579Y538

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. 3855289

RELATED WR NO.S N/A

ENGINEER/TECHNICIAN	JUSTIN MARTINEZ		PHONE: (702) 365-2095
ACCOUNT REP.	ANDREW CARLSON		PHONE: (702) 370-5067
PROJECT CONTACT	DAVE WAGNER		PHONE: (702) 258-4447
SHEET NO. 1 OF 8		SCALE N.T.S.	DATE 09/03/2019
DWN. BY INFINITY		CHKD. BY CS	APPVD. BY BWJ

HUALAPAI & ALEXANDER

3X

L19-61032

1074510 8=HA

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#_____

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

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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.
3855289
RELATED WR NO.S
N/A

ENGINEER/TECHNICIAN	JUSTIN MARTINEZ		PHONE: (702) 365-2095
ACCOUNT REP.	ANDREW CARLSON		PHONE: (702) 370-5067
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SHEET NO. 2 OF 8		SCALE N.T.S.	DATE 09/03/2019
DWN. BY INFINITY		CHKD. BY CS	APPVD. BY BWJ

HUALAPAI & ALEXANDER

35

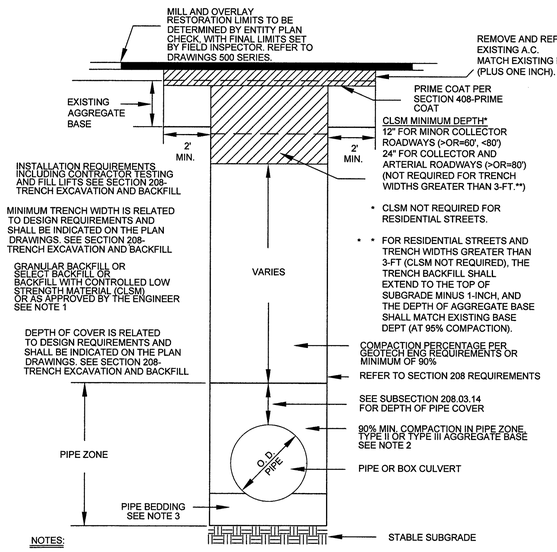
L19-01032

107Y5108-HA

GENERAL NOTES:

1. SUGGESTED GAS LOCATIONS ARE TO CLEAR SUBSTRUCTURES LOCATED IN THE 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. CONTACT ENGINEERING FOR BYPASS INFORMATION.
8. ALL MAIN TIE-INS REQUIRING TEES ARE TO BE FULL-FLOW TEES UNLESS OTHERWISE STATED.
9. ALL SHORING REQUIREMENTS SHALL CONFORM TO APPLICABLE PORTIONS OF THE OPERATIONS MANUAL.
10. REQUEST FOR SURVEYING AND/OR STAKING WILL BE SUBMITTED TO ENGINEERING 72 HOURS IN ADVANCE, MINIMUM.
11. PROPOSED MAIN SHOULD END 3' PAST THE LAST SERVICE FOR MAIN NOT BEING STUBBED FOR FUTURE PHASE(S).
12. MINIMUM TEST DURATION REQUIREMENTS AND GUIDELINES FOR MAIN INSTALLATION IN SYSTEMS <60 PSIG 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.
14. THE FOLLOWING VALVE(S) ARE TO BE INSTALLED ON THIS WORK REQUEST:
    A. 2" ISO BALL VALVE # 520327, FID# 21DVE5016314
15. TRENCHING AND BACKFILL TO CONFORM WITH RTC STANDARD 500.2, 500.3 & 503, AND UNIFORM STANDARD SPECIFICATION SECTION 208.
16. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
17. MAINTAIN A MINIMUM 3' PARALLEL SEPARATION.
18. ANY EXCAVATION EXPOSING LVVWD FACILITIES 24" IN DIAMETER AND LARGER MUST REMAIN OPEN UNTIL INSPECTED BY LVVWD. NO BACKFILL MATERIAL IS TO BE PLACED IN THE EXCAVATION UNTIL APPROVED BY THE LVVWD INSPECTOR. ANY DAMAGE TO THE FACILITIES MUST BE REPORTED TO LVVWD IMMEDIATELY. CONTRACTOR TO CALL (702) 258-7171 TO SCHEDULE LVVWD INSPECTION.

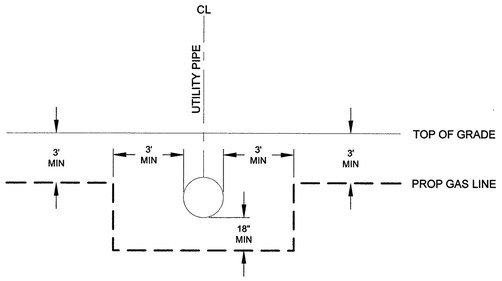
DESIGN PIPE SUMMARY	
DESIGN QTY.	DESCRIPTION
2,564'	2" PE8100 MAIN
1,348'	1" PE8100 SERVICE



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.

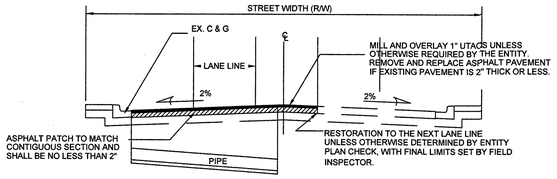
RTC STD DWG 503



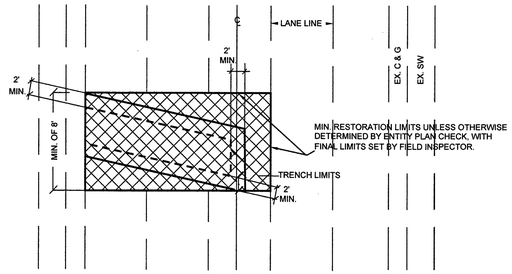
TYPICAL UTILITY CROSSING DETAIL

N.T.S.

THIS PROJECT IS NOT INSTALLING, ABANDONING, OR TYING INTO ANY STEEL GAS FACILITIES.



TRANSVERSE CUT RESTORATION

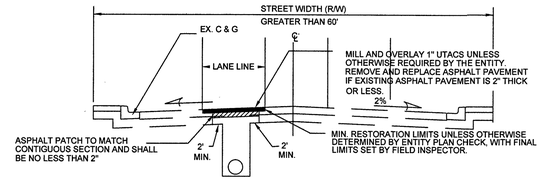


PLAN VIEW

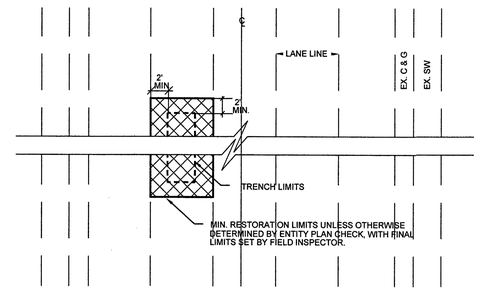
NOTES:

1. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
2. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

RTC STD DWG 500.2



LONGITUDINAL CUT RESTORATION



NOTES: PLAN VIEW

1. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
2. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

RTC STD DWG 500.3

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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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.
3855289
RELATED WR NO.S
N/A

ENGINEER/TECHNICIAN	JUSTIN MARTINEZ		PHONE: (702) 365-2095
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PROJECT CONTACT	DAVE WAGNER		PHONE: (702) 258-4447
SHEET NO. 3 OF 8		SCALE N.T.S.	DATE 09/03/2019
DWN. BY INFINITY		CHKD. BY CS	APPVD. BY BWJ

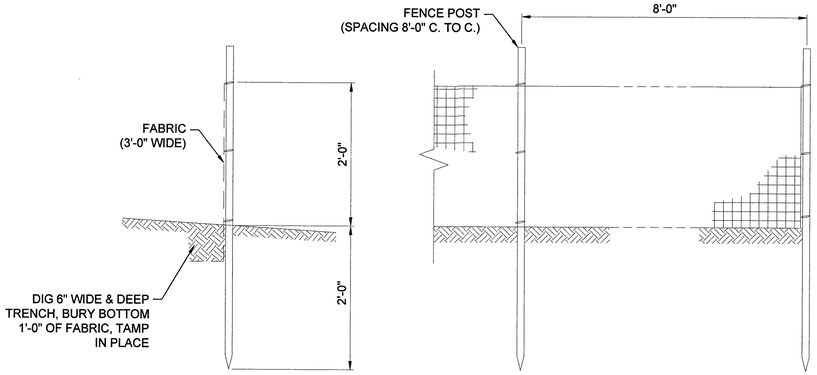
HUALAPAI & ALEXANDER

36

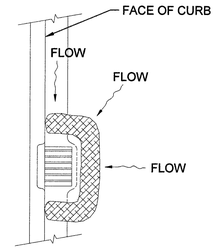
L19-01032

107S/108-HA

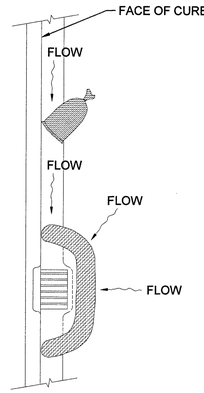
TYPICAL SWPPP BMPs DETAILS



1/4 SILT FENCE
NOT TO SCALE



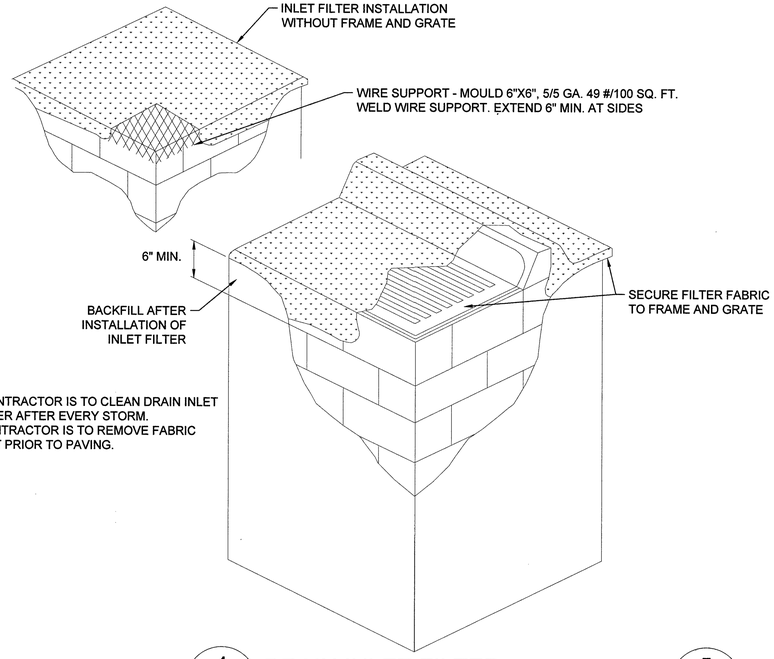
2/4 FIBER ROLL
NOT TO SCALE



3/4 SAND BAG / ROLL
NOT TO SCALE

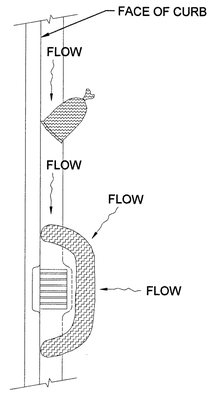
STORMWATER NOTES

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 DO 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 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.

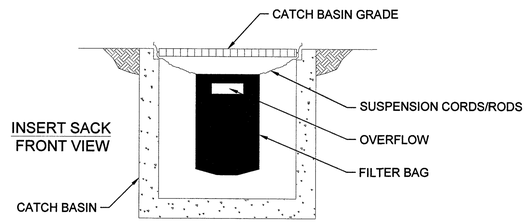


NOTE:
1. CONTRACTOR IS TO CLEAN DRAIN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR IS TO REMOVE FABRIC JUST PRIOR TO PAVING.

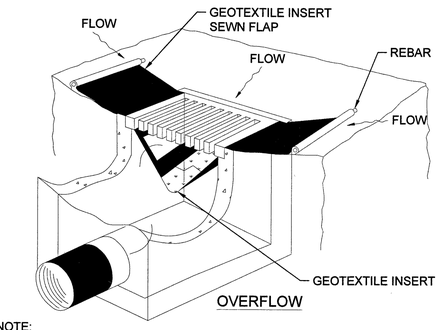
4/4 DRAIN INLET FILTER
NOT TO SCALE



5/4 GRAVEL BAG / ROLL
NOT TO SCALE



INSERT SACK
FRONT VIEW



OVERFLOW

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

6/4 SEDIMENT FILTER BAG
NOT TO SCALE

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

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SYSTEM MAOP:	60	HP SERVICE	☐
SYSTEM MOP:	55	DISTRIBUTION	☒
N/A		FEEDER	☐
SYSTEM MAOP:	N/A	TRANS. BY DEF	☐
SYSTEM MOP:	N/A	TRANS > 20%	☐

WR NO.	RELATED WR NO.S
3855289	N/A

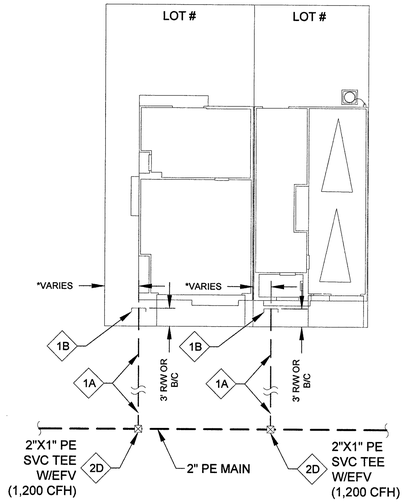
ENGINEER/TECHNICIAN	JUSTIN MARTINEZ		PHONE: (702) 365-2095
ACCOUNT REP.	ANDREW CARLSON		PHONE: (702) 370-5067
PROJECT CONTACT	DAVE WAGNER		PHONE: (702) 258-4447
SHEET NO. 4 OF 8		SCALE N.T.S.	DATE 09/03/2019
DWN. BY INFINITY		CHKD. BY CS	APPVD. BY BWJ

HUALAPAI & ALEXANDER

37

L19-01032

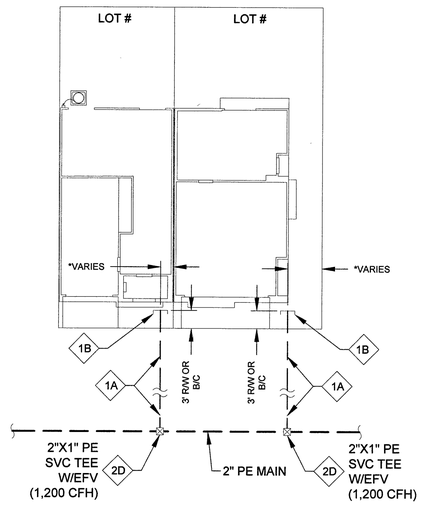
107Y5108-HA

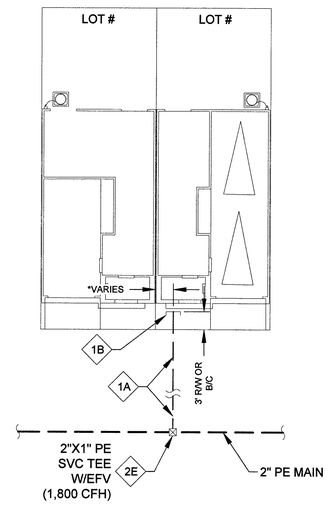


TYPICAL RESIDENTIAL SINGLE SERVICE LATERAL DETAIL

5A / -

N.T.S.





TYPICAL RESIDENTIAL BRANCH SERVICE LATERAL DETAIL

5B / -

N.T.S.

*LOCATION OF PROPOSED GAS SERVICES VARIES. ACTUAL LOCATION TO BE DETERMINED DURING INSTALLATION

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2D	62	0	160-8577	TAPPING TEE, 2" X 1" PE, 1200 EFV	N/A	N/A
2E	31	0	160-8394	TAPPING TEE, 2" X 1" PE, 1800 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	1,348'	0'	101-8526	PIPE 1" PE 8100 500 FT COIL	N/A	N/A
1B	93	0	850-8773	CAP, 1" PE LYCO	N/A	N/A

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.**

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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_508 ISO_21_DIST_509	T20S R60E S7 T20 R59E S12 M.D.M.	X579Y538

D_W_VALLEY		JOB TYPE	
SYSTEM MAOP:	60	HP SERVICE	☐
SYSTEM MOP:	55	DISTRIBUTION	☒
N/A		FEEDER	☐
SYSTEM MAOP:	N/A	TRANS. BY DEF	☐
SYSTEM MOP:	N/A	TRANS > 20%	☐

WR NO.	RELATED WR NO.S
3855289	N/A

ENGINEER/TECHNICIAN	JUSTIN MARTINEZ		PHONE: (702) 365-2095
ACCOUNT REP.	ANDREW CARLSON		PHONE: (702) 370-5067
PROJECT CONTACT	DAVE WAGNER		PHONE: (702) 258-4447
SHEET NO. 5 OF 8		SCALE N.T.S.	DATE 09/03/2019
DWN. BY INFINITY		CHKD. BY CS	APPVD. BY BWJ

HUALAPAI & ALEXANDER

38

L19-01032

107X5108-HA

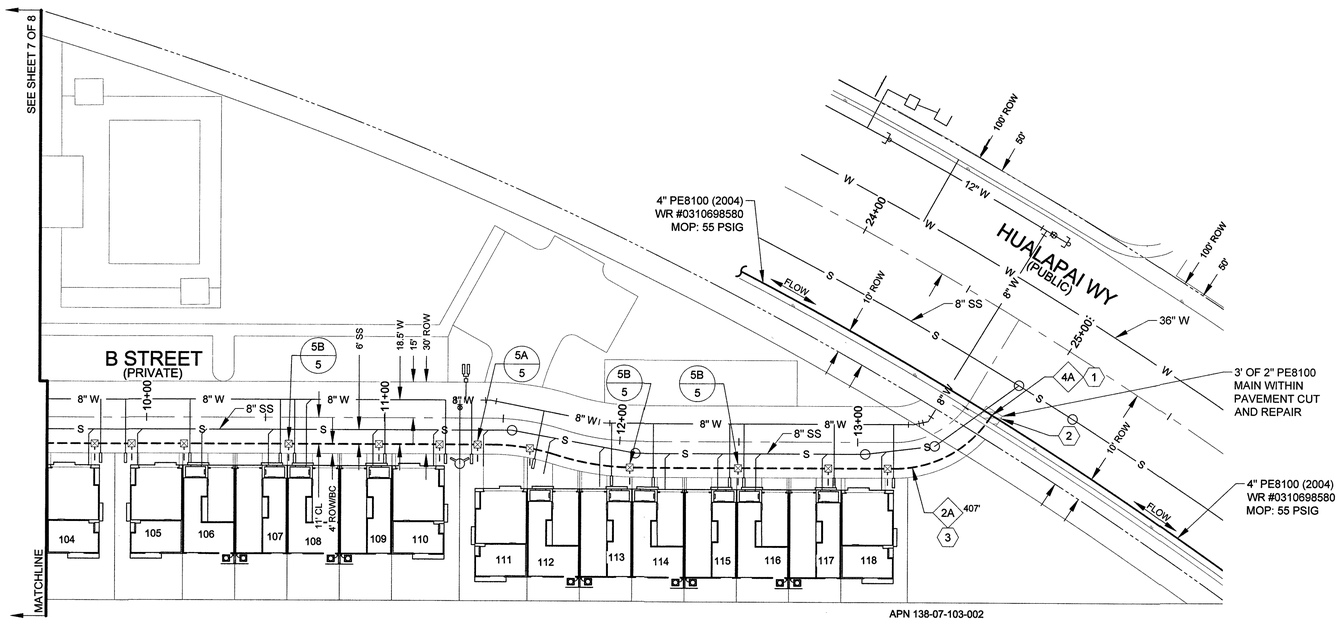
N

0 30
1" = 30'

4" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
4A	1	0	160-8174	HIGH VOLUME TAPPING TEE, 4" X 2" PE	N/A	N/A

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	407'	0'	100-5101	PIPE 2" PE 8100 500 FT COIL	N/A	N/A

CONSTRUCTION NOTES	
1	TIE NEW 2" PE8100 TO EXISTING 4" PE8100
2	RTC 500.2
3	RTC 503



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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_508 ISO_21_DIST_509	T20S R60E S7 T20 R59E S12 M.D.M.	X579Y538

D_W_VALLEY		JOB TYPE	
SYSTEM MAOP:	60	HP SERVICE	☐
SYSTEM MOP:	55	DISTRIBUTION	☒
N/A		FEEDER	☐
SYSTEM MAOP:	N/A	TRANS. BY DEF	☐
SYSTEM MOP:	N/A	TRANS > 20%	☐

WR NO.	RELATED WR NO.S
3855289	N/A

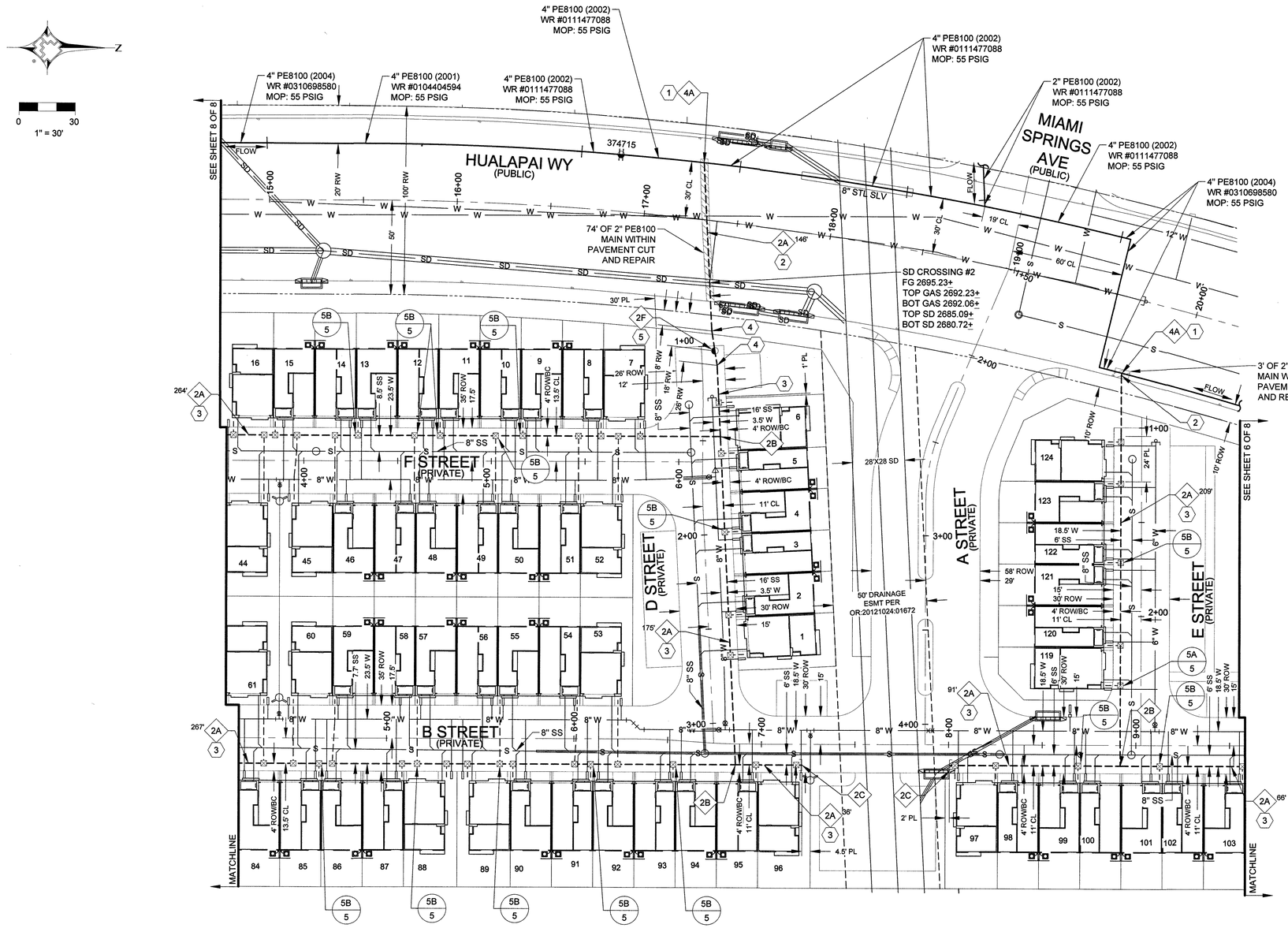
ENGINEER/TECHNICIAN	JUSTIN MARTINEZ		PHONE: (702) 365-2095
ACCOUNT REP.	ANDREW CARLSON		PHONE: (702) 370-5067
PROJECT CONTACT	DAVE WAGNER		PHONE: (702) 258-4447
SHEET NO. 6 OF 8		SCALE 1" = 30'	DATE 09/03/2019
DWN. BY INFINITY		CHKD. BY CS	APPVD. BY BWJ

39

HUALAPAI & ALEXANDER

L19-01032

107Y5108-HA



4" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
4A	2	0	160-8174	HIGH VOLUME TAPPING TEE, 4" X 2" PE	N/A	N/A

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	1,254'	0'	100-5101	PIPE 2" PE 8100 500 FT COIL	N/A	N/A
2B	3	0	140-3074	TEE, 2" PE	N/A	N/A
2C	2	0	140-3060	CAP, 2" PE	N/A	N/A
2F	1	0	120-8605	VALVE, 2", PE, BALL	N/A	N/A

CONSTRUCTION NOTES	
1	TIE NEW 2" PE8100 TO EXISTING 4" PE8100
2	RTC 500.2
3	RTC 503
4	ROPE PROP 2" PE
5	INSTALL NEW 2" BALL VALVE, VALVE# 520327, FID# 21DVE5016314

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

SOUTHWEST GAS CORPORATION

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REVISIONS			
NO.	DESCRIPTION	BY	DATE APPVD.

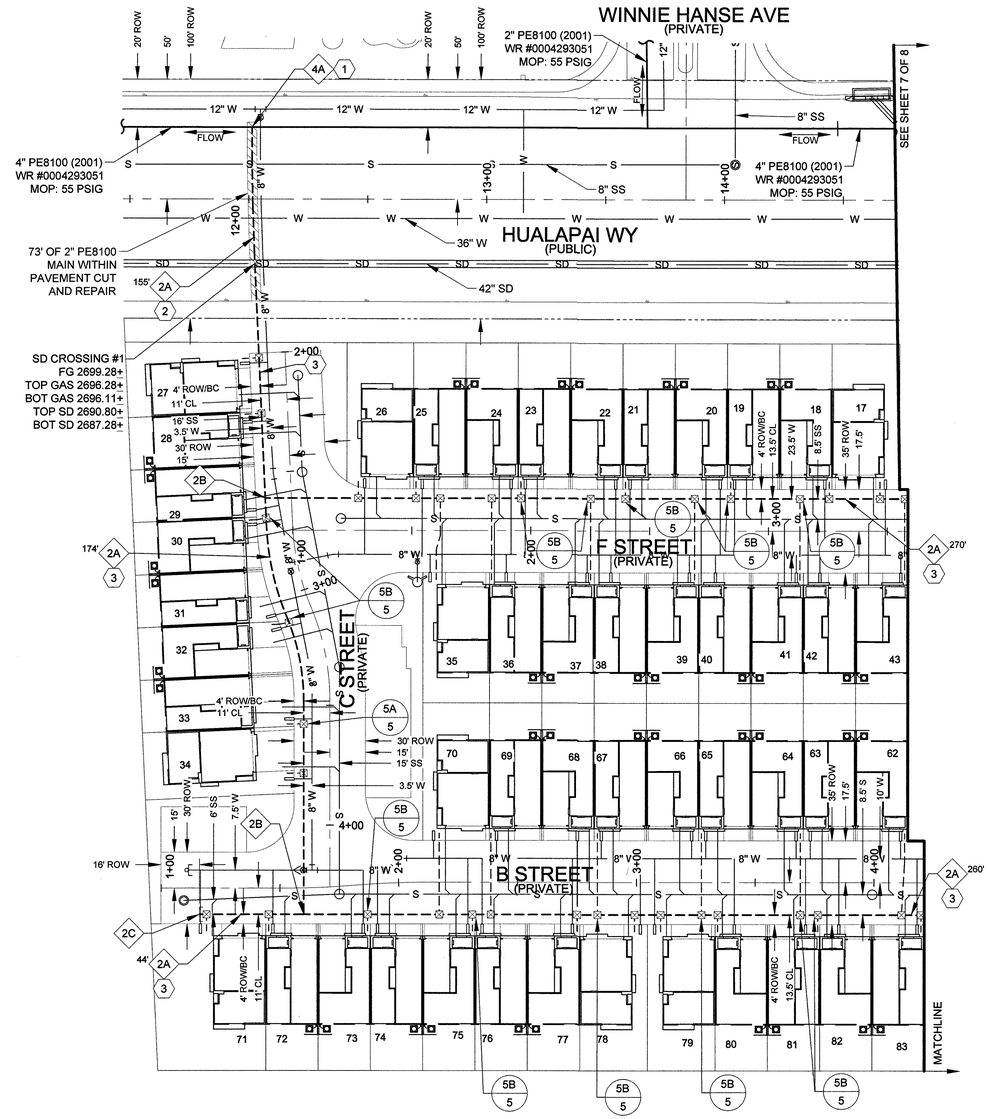
PERMIT INFORMATION	ISOLATION AREA	LOCATION	ATLAS OR TILE
CITY OF LAS VEGAS TAX CODE: 02-0200	ISO_21_DIST_508 ISO_21_DIST_509	T20S R60E S7 T20 R59E S12 M.D.M.	X579Y538

D_W_VALLEY		JOB TYPE	
SYSTEM MAOP:	60	HP SERVICE	☐
SYSTEM MOP:	55	DISTRIBUTION	☒
N/A		FEEDER	☐
SYSTEM MAOP:	N/A	TRANS. BY DEF	☐
SYSTEM MOP:	N/A	TRANS > 20%	☐

WR NO.	ENGINEER/TECHNICIAN	JUSTIN MARTINEZ	PHONE: (702) 365-2095
	ACCOUNT REP.	ANDREW CARLSON	PHONE: (702) 370-5067
3855289	PROJECT CONTACT	DAVE WAGNER	PHONE: (702) 258-4447
	SHEET NO. 7 OF 8	SCALE 1" = 30'	DATE 09/03/2019
	DWN. BY INFINITY	CHKD. BY CS	APPVD. BY BWJ
RELATED WR NO.S			
N/A	HUALAPAI & ALEXANDER		40
	L19-01032	107Y5108-HA	

N

0 30
1" = 30'



4" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
4A	1	0	160-8174	HIGH VOLUME TAPPING TEE, 4" X 2" PE	N/A	N/A

2" DISTRIBUTION MATERIALS LIST						
CODE	DESIGN QTY.	AS-BUILT QTY.	STOCK ID	DESCRIPTION	SEAM	COATING
2A	903'	0'	100-5101	PIPE 2" PE 8100 500 FT COIL	N/A	N/A
2B	2	0	140-3074	TEE, 2" PE	N/A	N/A
2C	1	0	140-3060	CAP, 2" PE	N/A	N/A

CONSTRUCTION NOTES	
1	TIE NEW 2" PE8100 TO EXISTING 4" PE8100
2	RTC 500.2
3	RTC 503

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

SOUTHWEST GAS CORPORATION

Southwest Gas Corporation Confidential and Proprietary Information

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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_508 ISO_21_DIST_509	T20S R60E S7 T20 R59E S12 M.D.M.	X579Y538

D_W_VALLEY		JOB TYPE	
SYSTEM MAOP:	60	HP SERVICE	☐
SYSTEM MOP:	55	DISTRIBUTION	☒
N/A		FEEDER	☐
SYSTEM MAOP:	N/A	TRANS. BY DEF	☐
SYSTEM MOP:	N/A	TRANS > 20%	☐

WR NO.	RELATED WR NO.S
3855289	N/A

ENGINEER/TECHNICIAN	JUSTIN MARTINEZ		PHONE: (702) 365-2095
ACCOUNT REP.	ANDREW CARLSON		PHONE: (702) 370-5067
PROJECT CONTACT	DAVE WAGNER		PHONE: (702) 258-4447
SHEET NO. 8 OF 8		SCALE 1" = 30'	DATE 09/03/2019
DWN. BY INFINITY		CHKD. BY CS	APPVD. BY BWJ

HUALAPAI & ALEXANDER

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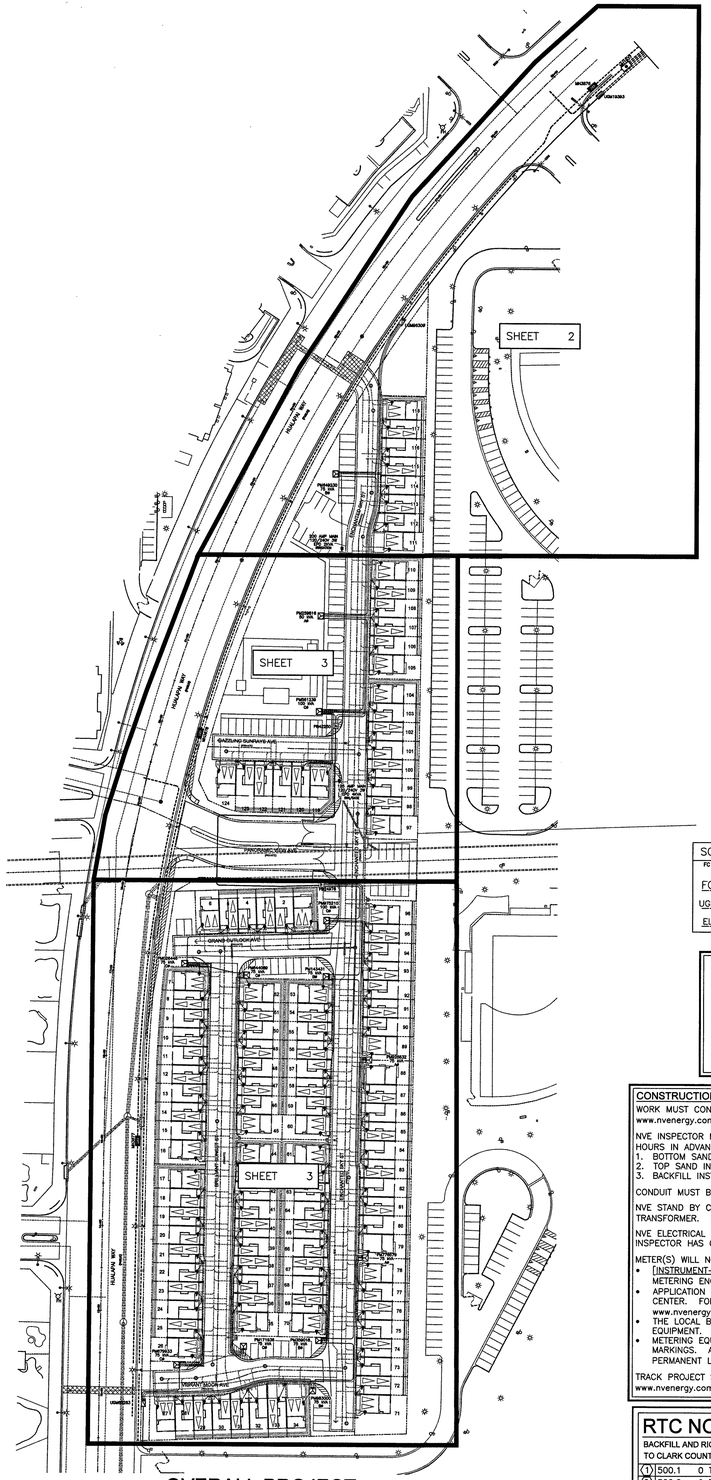
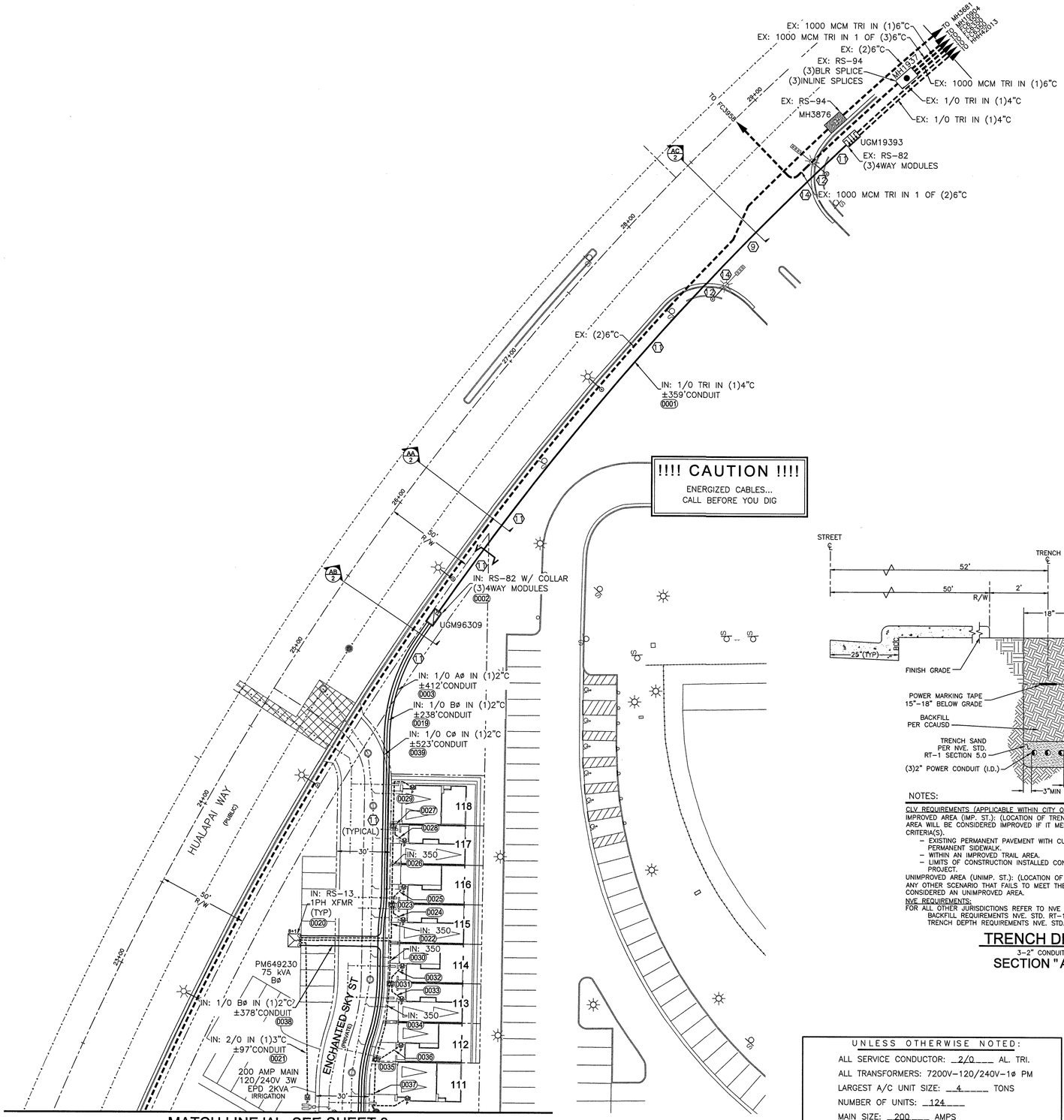
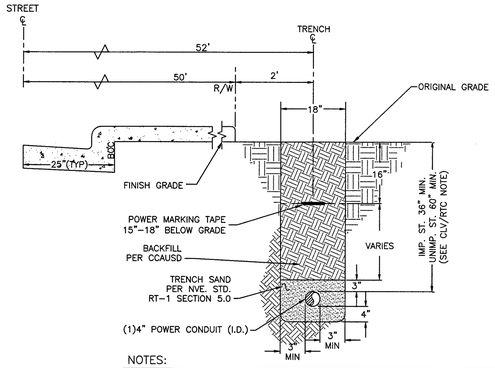
L19-01038

107Y5108 - HA


SHEET 2
SHEET 3
SHEET 3
HUALAPAI WAY
GAZZLING SUNWAYS AVE
CHEYENNE AVE
GOWAN AVE
ALEXANDER AVE
ALEXANDER AVE
POST FOR NO. 96
POST FOR NO. 97
POST FOR NO. 98
POST FOR NO. 99
POST FOR NO. 100
POST FOR NO. 101
POST FOR NO. 102
POST FOR NO. 103
POST FOR NO. 104
POST FOR NO. 105
POST FOR NO.





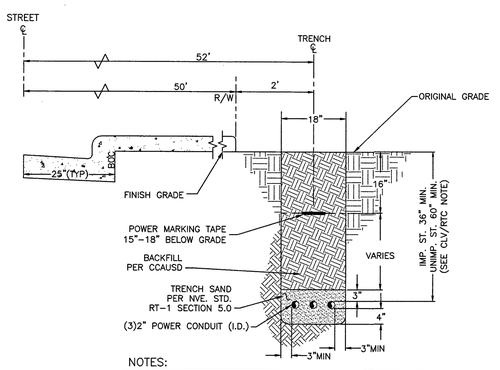
NOTES:

CLV REQUIREMENTS (APPLICABLE WITHIN CITY OF LAS VEGAS LIMITS ONLY):
IMPROVED AREA (IMP. ST.): (LOCATION OF TRENCH)
AREA WILL BE CONSIDERED IMPROVED IF IT MEETS ONE OR MORE OF THE FOLLOWING CRITERIA(S).
- EXISTING PERMANENT PAVEMENT WITH CURB & GUTTER AND/OR ADJACENT PERMANENT SIDEWALK.
- WITHIN AN IMPROVED TRAIL AREA.
- LIMITS OF CONSTRUCTION INSTALLED CONCURRENT WITH A PRIVATE OR PUBLIC PROJECT.

UNIMPROVED AREA (UNIMP. ST.): (LOCATION OF TRENCH)
ANY OTHER SCENARIO THAT FAILS TO MEET THE IMPROVED AREA CRITERIA(S) WILL BE CONSIDERED AN UNIMPROVED AREA.

NVE REQUIREMENTS:
FOR ALL OTHER JURISDICTIONS REFER TO NVE STANDARDS.
BACKFILL REQUIREMENTS NVE. STD. RT-1.
TRENCH DEPTH REQUIREMENTS NVE. STD. RT-5.

TRENCH DETAIL
1-4" CONDUITS
SECTION "AA"



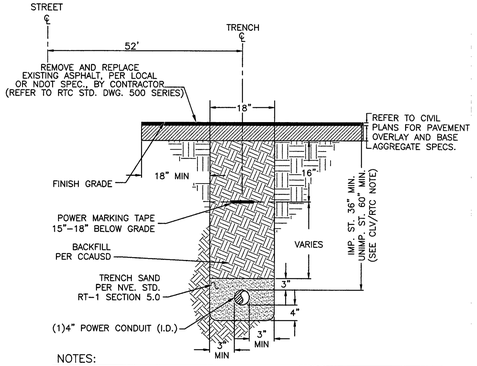
NOTES:

CLV REQUIREMENTS (APPLICABLE WITHIN CITY OF LAS VEGAS LIMITS ONLY):
IMPROVED AREA (IMP. ST.): (LOCATION OF TRENCH)
AREA WILL BE CONSIDERED IMPROVED IF IT MEETS ONE OR MORE OF THE FOLLOWING CRITERIA(S).
- EXISTING PERMANENT PAVEMENT WITH CURB & GUTTER AND/OR ADJACENT PERMANENT SIDEWALK.
- WITHIN AN IMPROVED TRAIL AREA.
- LIMITS OF CONSTRUCTION INSTALLED CONCURRENT WITH A PRIVATE OR PUBLIC PROJECT.

UNIMPROVED AREA (UNIMP. ST.): (LOCATION OF TRENCH)
ANY OTHER SCENARIO THAT FAILS TO MEET THE IMPROVED AREA CRITERIA(S) WILL BE CONSIDERED AN UNIMPROVED AREA.

NVE REQUIREMENTS:
FOR ALL OTHER JURISDICTIONS REFER TO NVE STANDARDS.
BACKFILL REQUIREMENTS NVE. STD. RT-1.
TRENCH DEPTH REQUIREMENTS NVE. STD. RT-5.

TRENCH DETAIL
3-2" CONDUITS
SECTION "AB"



NOTES:

CLV REQUIREMENTS (APPLICABLE WITHIN CITY OF LAS VEGAS LIMITS ONLY):
IMPROVED AREA (IMP. ST.): (LOCATION OF TRENCH)
AREA WILL BE CONSIDERED IMPROVED IF IT MEETS ONE OR MORE OF THE FOLLOWING CRITERIA(S).
- EXISTING PERMANENT PAVEMENT WITH CURB & GUTTER AND/OR ADJACENT PERMANENT SIDEWALK.
- WITHIN AN IMPROVED TRAIL AREA.
- LIMITS OF CONSTRUCTION INSTALLED CONCURRENT WITH A PRIVATE OR PUBLIC PROJECT.

UNIMPROVED AREA (UNIMP. ST.): (LOCATION OF TRENCH)
ANY OTHER SCENARIO THAT FAILS TO MEET THE IMPROVED AREA CRITERIA(S) WILL BE CONSIDERED AN UNIMPROVED AREA.

NVE REQUIREMENTS:
FOR ALL OTHER JURISDICTIONS REFER TO NVE STANDARDS.
BACKFILL REQUIREMENTS NVE. STD. RT-1.
TRENCH DEPTH REQUIREMENTS NVE. STD. RT-5.

TRENCH DETAIL
1-4" CONDUITS
SECTION "AC"

UNLESS OTHERWISE NOTED:	
ALL SERVICE CONDUCTOR:	2/0 AL. TRI.
ALL TRANSFORMERS:	7200V-120/240V-1ø PM
LARGEST A/C UNIT SIZE:	4 TONS
NUMBER OF UNITS:	124
MAIN SIZE:	200 AMPS
ESTIMATED KVA PER UNIT:	6.4 KVA
SQ. FT. OF LARGEST UNIT:	2000 FT²

DEVELOPER'S OFFSITE ENCROACHMENT PERMIT
TO BE UTILIZED FOR THE INSTALLATION OF NVEnergy FACILITIES

NOTE: ALL THE ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CLV UNIFIED DEVELOPMENT CODE TITLE 19.06 AND 19.08

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

SEE Cover of Civil plan #### APPROVAL BY: DATE

CITY OF LAS VEGAS PERMIT REQUIRED*

CONTACT CLV LAND DEVELOPMENT (229-6371) CLV CONSTRUCTION SERVICES MUST BE NOTIFIED 24 HOURS PRIOR TO COMMENCING CONSTRUCTION (229-6337)

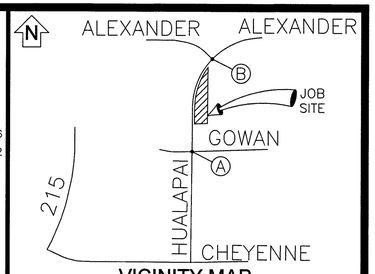
HANSEN # DATE #

*NVE INSPECTOR MUST BE NOTIFIED BY FAX 48 HOURS PRIOR TO COMMENCING CONSTRUCTION & WILL VERIFY CITY PERMIT FOR WORK DONE IN STREETS OR SIDEWALK.
FAX PERMIT TO:
LAS VEGAS NORTH (RYAN CENTER): 402-4354
LAS VEGAS SOUTH (BELTWAY CENTER): 402-6864

N

T,R,S: 20-60-07

APN: 13807103006
13807201002
13807201001



VICINITY MAP
(NOT TO SCALE)

EVERY EFFORT HAS BEEN MADE TO IDENTIFY ALL NVE FACILITIES. THE CUSTOMER SHALL CONFIRM THE EXISTENCE AND LOCATION OF THESE FACILITIES.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DIG OVERHEAD
CALL 1-702-402-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL 811
OR
1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

REVISIONS

NO.	DESCRIPTION	DATE	REV BY

STANDARD DCA

PROJECT PURPOSE:
TO PROVIDE 120/240V 1ø POWER TO NEW TOWNHOMES. 124 SINGLE FAMILY ATTACHED UNITS AND 2 GS METERS.

EXHIBIT 'A'

NVEnergy INFORMATION:
COORDINATOR: MONTOYA, LUIS
PHONE: (702)402-6824 D.F. LOWELL, KEN
DESIGNER: KERN, ZACHARY
DCA: 285-8182, 219-5761
INSPECTOR: 702-402-3008 OR UGI@NVENERGY.COM
STAND BY: (702) 402-4450, 4150, 4114, 4117, 4118
DISTRICT: LAS VEGAS NORTH DISTRICT

JPA INFORMATION:
JPA ADMIN PHONE: N/A JPA#: N/A

CUSTOMER INFORMATION:
APPLICANT: TOUCHSTONE LIVING, INC.
APPLICANT CONTACT: MANNING, DUSTIN
CONTACT: WAGNER, DAVE ** 702-376-0526
APPROVAL DATE: 11/04/19

GOVERNMENT INFORMATION:
AGENCY(S): CLV
APPROVAL DATE(S):

FOR EACH SERVICE POINT (POINT OF DELIVERY), ENERGY FOR EACH TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. ENERGY FOR ALL NON-TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. CONTACT NVE METER OPERATIONS FOR MULTIPLE RATE CLASS INSTALLATIONS.

NVEnergy.

HUALAPAI AND ALEXANDER TOWNHOMES

43

LI9-01032 107Y5108-HA

HUALAPAI / WINNIE HANSEN

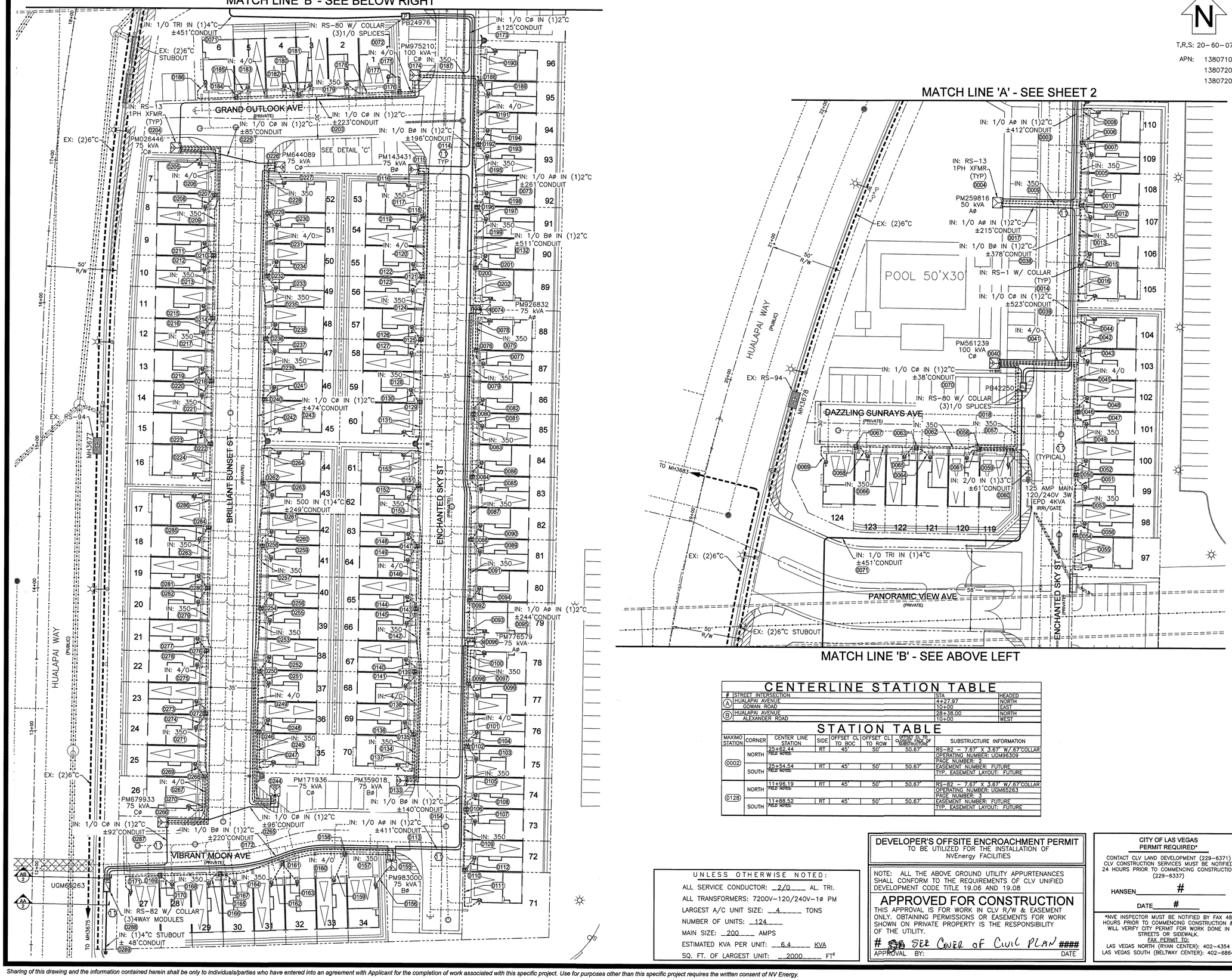
PROJ #3003956966	SCALE: 1"=30'
SHEET # 2 OF 3	DATE: 6/21/2019

lm21910

11/4/2019 4:28 PM

Sharing of this drawing and the information contained herein shall be only to individuals/parties who have entered into an agreement with Applicant for the completion of work associated with this specific project. Use for purposes other than this specific project requires the written consent of NV Energy.

0 REVISION(S)



T,R,S: 20-60-07

APN: 13807103006
13807201002
13807201001

CENTERLINE STATION TABLE

#	STREET INTERSECTION	STA	HEADED
A	HUALAPAI AVENUE GOWAN ROAD	4+27.97 10+00	NORTH EAST
B	HUALAPAI AVENUE ALEXANDER ROAD	28+38.00 10+00	NORTH WEST

STATION TABLE

MAXIMO STATION	CORNER	CENTER LINE STATION	SIDE	OFFSET CL TO BOC	OFFSET CL TO ROW	OFFSET CL TO CLOSEST FACE OF SUBSTRUCTURE	SUBSTRUCTURE INFORMATION
0002	NORTH	25+62.44 FIELD NOTES:	RT	45'	50'	50.67'	RS-82 - 7.67' X 3.67' W/ 67"COLLAR OPERATING NUMBER: UGM66309 PAGE NUMBER: 2
	SOUTH	25+54.54 FIELD NOTES:	RT	45'	50'	50.67'	EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE
0128	NORTH	11+96.19 FIELD NOTES:	RT	45'	50'	50.67'	RS-82 - 7.67' X 3.67' W/ 67"COLLAR OPERATING NUMBER: UGM65263 PAGE NUMBER: 3
	SOUTH	11+88.52 FIELD NOTES:	RT	45'	50'	50.67'	EASEMENT NUMBER: FUTURE TYP. EASEMENT LAYOUT: FUTURE

UNLESS OTHERWISE NOTED:

ALL SERVICE CONDUCTOR: 2/0 AL. TRI.
ALL TRANSFORMERS: 7200V-120/240V-1⌀ PM
LARGEST A/C UNIT SIZE: 4 TONS
NUMBER OF UNITS: 124
MAIN SIZE: 200 AMPS
ESTIMATED KVA PER UNIT: 6.4 KVA
SQ. FT. OF LARGEST UNIT: 2000 FT²

DEVELOPER'S OFFSITE ENCROACHMENT PERMIT
TO BE UTILIZED FOR THE INSTALLATION OF NVEnergy FACILITIES

NOTE: ALL THE ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CLV UNIFIED DEVELOPMENT CODE TITLE 19.06 AND 19.08

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

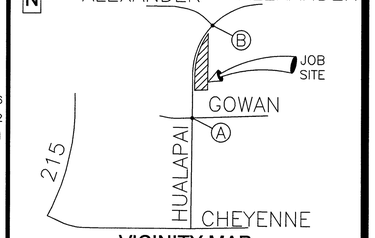
SEE COVER OF CIVIL PLAN
APPROVAL BY: DATE

CITY OF LAS VEGAS PERMIT REQUIRED*

CONTACT CLV LAND DEVELOPMENT (229-6371) CLV CONSTRUCTION SERVICES MUST BE NOTIFIED 24 HOURS PRIOR TO COMMENCING CONSTRUCTION (229-6337)

HANSEN #
DATE #

*NVE INSPECTOR MUST BE NOTIFIED BY FAX 48 HOURS PRIOR TO COMMENCING CONSTRUCTION & WILL VERIFY CITY PERMIT FOR WORK DONE IN STREETS OR SIDEWALK.
FAX PERMIT TO:
LAS VEGAS NORTH (RYAN CENTER): 402-4354
LAS VEGAS SOUTH (BELTWAY CENTER): 402-6864



VICINITY MAP
(NOT TO SCALE)

EVERY EFFORT HAS BEEN MADE TO IDENTIFY ALL NVE FACILITIES. THE CUSTOMER SHALL CONFIRM THE EXISTENCE AND LOCATION OF THESE FACILITIES.

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DO OVERHEAD
CALL 1-702-402-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL 811
OR
1-800-227-2600
AND CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

REVISIONS

NO.	DESCRIPTION	DATE	REV BY

STANDARD DCA

PROJECT PURPOSE:
TO PROVIDE 120/240V 1⌀ POWER TO NEW TOWNHOMES. 124 SINGLE FAMILY ATTACHED UNITS AND 2 GS METERS.

EXHIBIT 'A'

NVEnergy INFORMATION:
COORDINATOR: MONTOYA, LUIS
PHONE: (702)402-6824 D.F. LOWELL, KEN
DESIGNER: KERN, ZACHARY
DCA: 285-8182, 219-5761
INSPECTOR: 702-402-3008 OR UGI@NVENERGY.COM
STAND BY: (702) 402-4450, 4150, 4114, 4117, 4118
DISTRICT: LAS VEGAS NORTH DISTRICT

JPA INFORMATION:
JPA ADMIN PHONE: N/A JPA#: N/A

CUSTOMER INFORMATION:
APPLICANT: TOUCHSTONE LIVING, INC.
APPLICANT CONTACT: MANNING, DUSTIN
CONTACT: WAGNER, DAVE ** 702-376-0526
APPROVAL DATE: 11/04/19

GOVERNMENT INFORMATION:
AGENCY(S): CLV
APPROVAL DATE(S):

FOR EACH SERVICE POINT (POINT OF DELIVERY), ENERGY FOR EACH TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. ENERGY FOR ALL NON-TENANT SPACE WILL BE MEASURED THROUGH ONE WATTHOUR METER. CONTACT NVE METER OPERATIONS FOR MULTIPLE RATE CLASS INSTALLATIONS.

NVEnergy.

HUALAPAI AND ALEXANDER TOWNHOMES

L19-01032 107Y5108-11A

HUALAPAI / WINNIE HANSEN

PROJ #3003956966	SCALE: 1"=30'
SHEET # 3 OF 3	DATE: 6/21/2019

11/4/2019 4:29 PM
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0 REVISION(S)

Sharing of this drawing and the information contained herein shall be only to individuals/parties who have entered into an agreement with Applicant for the completion of work associated with this specific project. Use for purposes other than this specific project requires the written consent of NV Energy.