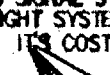
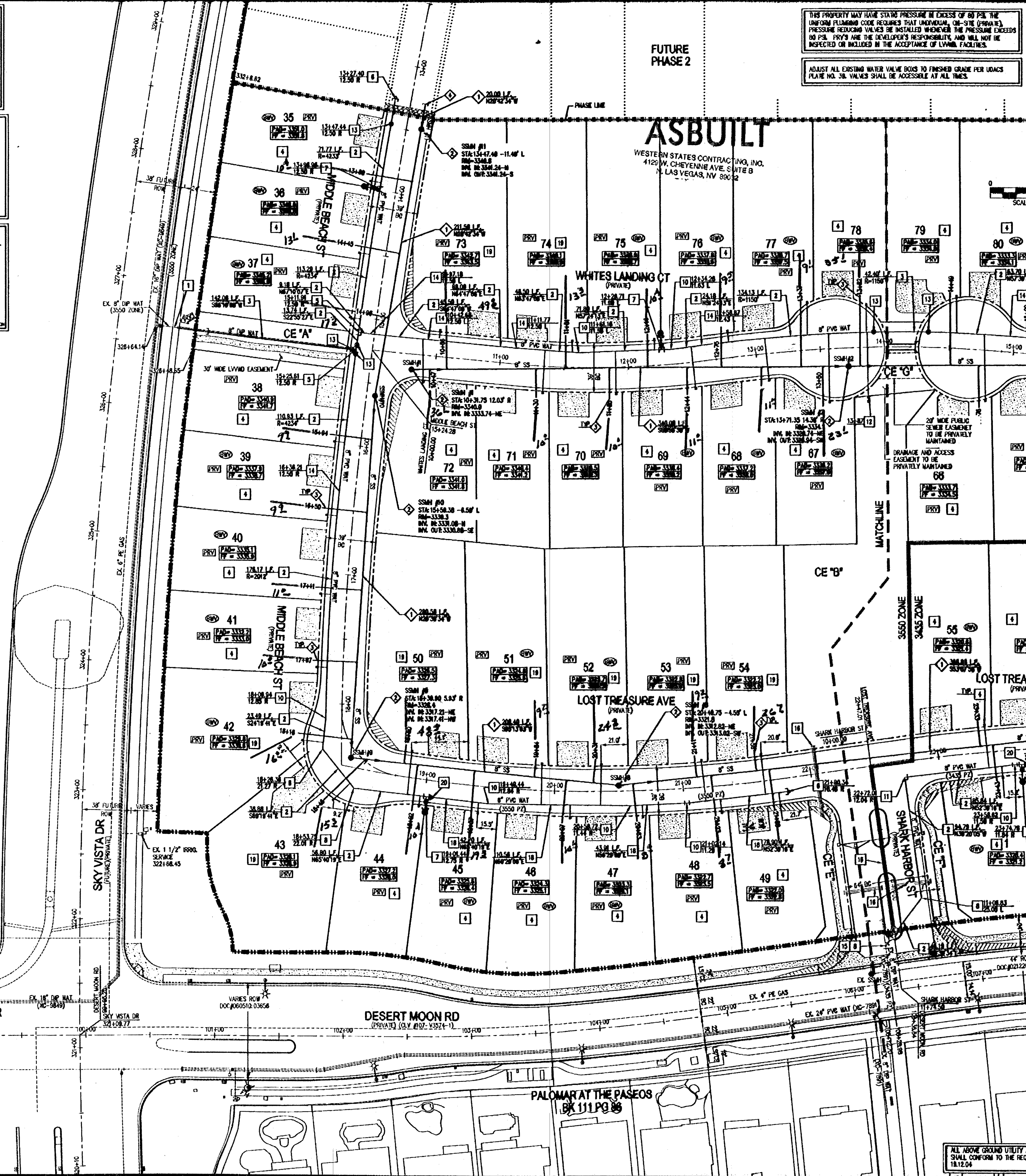


AVOID HITTING UNDERGROUND
TRAFFIC SIGNAL SYSTEMS AND
STREET LIGHT SYSTEM CONDUITS.
IT'S COSTLY.



**Call before you
do Underground**
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
1-702-432-5300
FREEDWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

HUGHES HOWARD COMPANY LLC
APN 137-22-000-015
BK 112 PG 94
DOC#16072180104;



THIS PROPERTY MAY HAVE STATIC PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRY'S ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LWWA FACILITIES.

ADJUST ALL EXISTING WATER VALVE BOXES TO FINISHED GRADE PER UDACS PLATE NO. 38. VALVES SHALL BE ACCESSIBLE AT ALL TIMES.

ABOVE GROUND UTILITY NOTE
ALL ABOVE GROUND UTILITY SHALL COMPLY WITH TITLE 19.08 UTILITY SCREENING REQUIREMENTS. ALL ABOVE GROUND UTILITIES GREATER THAN 27 CUBIC FEET SHALL BE SETBACK A MINIMUM OF 3 FEET FROM THE BACK OF SIDEWALK AND SHALL INCLUDE VEGETATION THAT UPON MATURITY WILL ADEQUATELY SCREEN SUCH EQUIPMENT FROM PUBLIC VIEWS

ABANDONED VALVES CUT AND CAP

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION UNLESS SHOWN OTHERWISE ON RECORD DRAWING OR IN THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE A AGGREGATE BASE. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2,000) PSI. THE LUTERAL JACKET OF CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE OR AS SHOWN ON PLANS, AND CAPS. CONTRACTOR SHALL CUT THE EXISTING PIPE WHERE SHOWN ON THE DRAWING

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY (S) SHALL BE INSTALLED PER THE UGACS PLATE NO. 6, NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LYVMD. ANY BLOCK WALL OR CULVER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

**ESTIMATED AVERAGE DAILY
SEWER CONTRIBUTIONS**

(TOTAL FOR PHASES 1 AND 2)
98 UNITS/250 GPD/UNITS=23,750 GPD
TOTAL AVERAGE CONTRIBUTION=0.02375 MGD
TOTAL PEAK FLOW=0.02375 MGDx3.74 (PEAK FACTOR)
= 0.0888 MGD

FIRE FLOW CALCULATIONS	
FIRE FLOW 2,000 GPM AT 20 P.S.I. RESIDUAL	
USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TIER V-B
AUTOMATIC FIRE SPRINKLERS	NO
SQUARE FOOTAGE	4,000
LARGEST AREA BETWEEN 4-WR WALLS	N/A
BUILDING HEIGHT	3.5
NO OF STORES INCLUDING BASEMENT	2
HIGH PILED COMBUSTIBLE STORAGE	NO
NO OF HYDRANTS INSTALLED	0

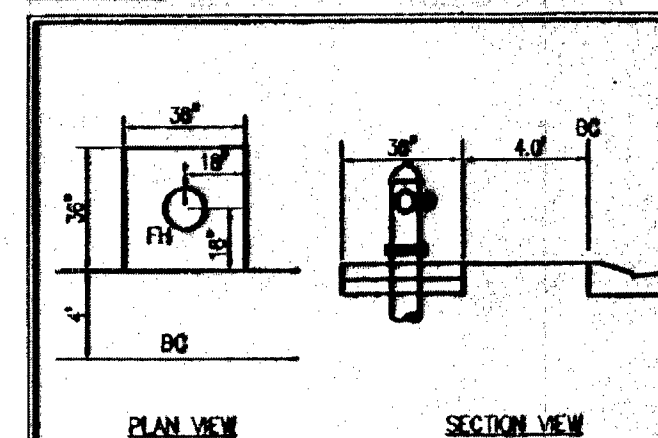
BENCHMARK
RIVET & PLATE IN TOP OF CURB IN THE SOUTHEAST CORNER OF
DESERT MOON ROAD & DESERT SUNRISE ROAD, 7LV08345MSA
NAVD 83 ELEVATION = 1008.289 METERS = 3301.47 FEET

BASIS OF BEARING
NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 58 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREON ON FILE IN BOOK 143, PAGE 47 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

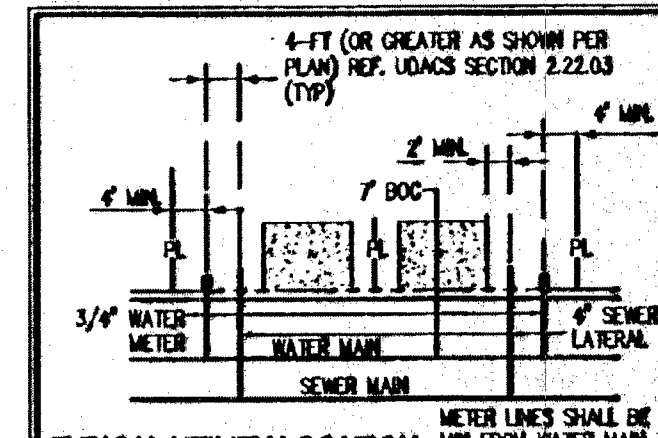
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15

WATER MAIN JOINT DEFLECTION (PWS, 4" - 24")
PWS 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 UDCS 2.07.01 AND 2.07.02.

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



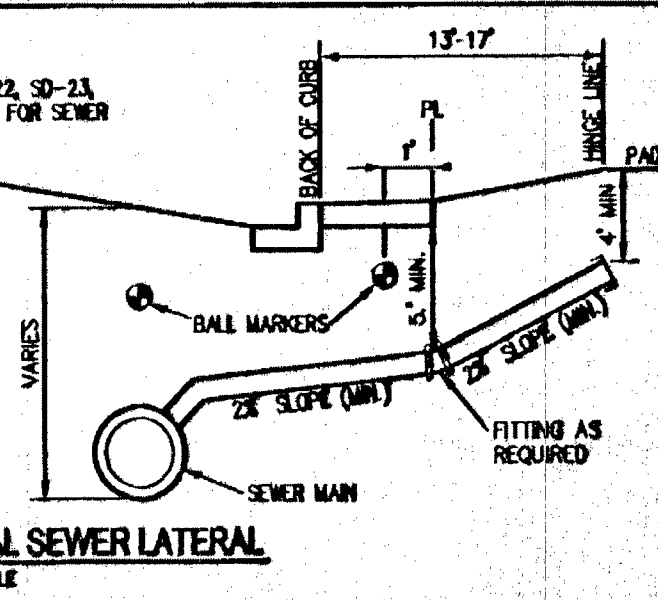
TYPICAL FIRE HYDRANT LOCATION DETAIL



TYPICAL UTILITY LOCATION
UNLESS OTHERWISE NOTED
(SIZES AS NOTED ON PLANS)

DISCLAIMER NOTE

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 IN THEIR PROPER LOCATION.



WATER NOTES

1 REMOVE EXL CAP AND BLOW-OFF ASSEMBLY AND CONNECT TO EXL BY TWO WAY

2. INSTALL 0" PVC (CLASS 150) WATER PIPE
 3. INSTALL 0" OF (CLASS 150) WATER PIPE W/ MECHANICAL JOINTS IN SLEEVE FOR PLATE #23. PIPE TO BE DOUBLE ENDGORED BARFILL. TRENCH WITH CLASS 1 CLEAN CARBON STEEL 1/2" DIAMETER. JOINTS TO BE LOCATED ABOVE WATCHING POINTS ARE TO BE BONDED AND TEST STATIONS PLACED EACH END OF EASEMENT.
 4. INSTALL 3/4" WATER METER FOR UOAGS PLATE # 2 (TYP)
 5. INSTALL 0" OF 1" TEE WITH THRUST BLOCKS FOR UOAGS PLATE # 2
 6. INSTALL CAP AND 2" BLOWOFF VALVE FOR UOAGS PLATE # 30
 7. INSTALL 1" OF 1" TEE FOR UOAGS PLATE # 31 AND HYDROMAN ASSEMBLY WITH 1" CAP VALVE FOR UOAGS PLATE # 40
 8. INSTALL 0" BOND FOR UOAGS PLATE # 31
 9. INSTALL 12.5" BOND FOR UOAGS PLATE # 31
 10. INSTALL 9" HORIZONTAL BOND (DESTRINE BOTH ENDS)
 11. INSTALL 9" HORIZONTAL BOND FOR UOAGS PLATE # 31
 12. INSTALL 1" IRRIGATION METER FOR UOAGS PLATE NO. 4
 13. BLOWOFF PREVENTION ASSEMBLY FOR UOAGS PLATE NO. 4
 14. 1" CAP VALVE WITH 1" FLOW BOU FOR UOAGS PLATE NO. 30 & 30
 15. 1" MAX. DEFLECTION
 16. PUT IN AND CONNECT TO EXISTING 0" PVC WATER MAIN
 17. 1" (SCH 40) PVC AND 1" EA. OF (SCH 40) PVC SLEEVES
 18. INSTALL CLEAN MAINLINE / PIPE SUPPORT FOR DETAIL ON SHEET # 2
 19. INSTALL 0" PVC (CLASS 150) WATER PIPE
 20. INSTALL 1" WATER METER FOR UOAGS PLATE NO. 4
 20. INSTALL 0" 6" REDUCER
- SEWER NOTES**
1. INSTALL 0" PVC SANITARY SEWER
 2. INSTALL 40" DIAMETER SANITARY SEWER MANHOLE FOR POINTS 11A, 12A, 13A, 14A, 15A, 16A, 17A, 18A, 19A, 20A, 21A, 22A, 23A, 24A, 25A, 26A, 27A, 28A, 29A, 30A, 31A, 32A, 33A, 34A, 35A, 36A, 37A, 38A, 39A, 40A, 41A, 42A, 43A, 44A, 45A, 46A, 47A, 48A, 49A, 50A, 51A, 52A, 53A, 54A, 55A, 56A, 57A, 58A, 59A, 60A, 61A, 62A, 63A, 64A, 65A, 66A, 67A, 68A, 69A, 70A, 71A, 72A, 73A, 74A, 75A, 76A, 77A, 78A, 79A, 80A, 81A, 82A, 83A, 84A, 85A, 86A, 87A, 88A, 89A, 90A, 91A, 92A, 93A, 94A, 95A, 96A, 97A, 98A, 99A, 100A, 101A, 102A, 103A, 104A, 105A, 106A, 107A, 108A, 109A, 110A, 111A, 112A, 113A, 114A, 115A, 116A, 117A, 118A, 119A, 120A, 121A, 122A, 123A, 124A, 125A, 126A, 127A, 128A, 129A, 130A, 131A, 132A, 133A, 134A, 135A, 136A, 137A, 138A, 139A, 140A, 141A, 142A, 143A, 144A, 145A, 146A, 147A, 148A, 149A, 150A, 151A, 152A, 153A, 154A, 155A, 156A, 157A, 158A, 159A, 160A, 161A, 162A, 163A, 164A, 165A, 166A, 167A, 168A, 169A, 170A, 171A, 172A, 173A, 174A, 175A, 176A, 177A, 178A, 179A, 180A, 181A, 182A, 183A, 184A, 185A, 186A, 187A, 188A, 189A, 190A, 191A, 192A, 193A, 194A, 195A, 196A, 197A, 198A, 199A, 200A, 201A, 202A, 203A, 204A, 205A, 206A, 207A, 208A, 209A, 210A, 211A, 212A, 213A, 214A, 215A, 216A, 217A, 218A, 219A, 220A, 221A, 222A, 223A, 224A, 225A, 226A, 227A, 228A, 229A, 230A, 231A, 232A, 233A, 234A, 235A, 236A, 237A, 238A, 239A, 240A, 241A, 242A, 243A, 244A, 245A, 246A, 247A, 248A, 249A, 250A, 251A, 252A, 253A, 254A, 255A, 256A, 257A, 258A, 259A, 260A, 261A, 262A, 263A, 264A, 265A, 266A, 267A, 268A, 269A, 270A, 271A, 272A, 273A, 274A, 275A, 276A, 277A, 278A, 279A, 280A, 281A, 282A, 283A, 284A, 285A, 286A, 287A, 288A, 289A, 290A, 291A, 292A, 293A, 294A, 295A, 296A, 297A, 298A, 299A, 300A, 301A, 302A, 303A, 304A, 305A, 306A, 307A, 308A, 309A, 310A, 311A, 312A, 313A, 314A, 315A, 316A, 317A, 318A, 319A, 320A, 321A, 322A, 323A, 324A, 325A, 326A, 327A, 328A, 329A, 330A, 331A, 332A, 333A, 334A, 335A, 336A, 337A, 338A, 339A, 340A, 341A, 342A, 343A, 344A, 345A, 346A, 347A, 348A, 349A, 350A, 351A, 352A, 353A, 354A, 355A, 356A, 357A, 358A, 359A, 360A, 361A, 362A, 363A, 364A, 365A, 366A, 367A, 368A, 369A, 370A, 371A, 372A, 373A, 374A, 375A, 376A, 377A, 378A, 379A, 380A, 381A, 382A, 383A, 384A, 385A, 386A, 387A, 388A, 389A, 390A, 391A, 392A, 393A, 394A, 395A, 396A, 397A, 398A, 399A, 400A, 401A, 402A, 403A, 404A, 405A, 406A, 407A, 408A, 409A, 410A, 411A, 412A, 413A, 414A, 415A, 416A, 417A, 418A, 419A, 420A, 421A, 422A, 423A, 424A, 425A, 426A, 427A, 428A, 429A, 430A, 431A, 432A, 433A, 434A, 435A, 436A, 437A, 438A, 439A, 440A, 441A, 442A, 443A, 444A, 445A, 446A, 447A, 448A, 449A, 450A, 451A, 452A, 453A, 454A, 455A, 456A, 457A, 458A, 459A, 460A, 461A, 462A, 463A, 464A, 465A, 466A, 467A, 468A, 469A, 470A, 471A, 472A, 473A, 474A, 475A, 476A, 477A, 478A, 479A, 480A, 481A, 482A, 483A, 484A, 485A, 486A, 487A, 488A, 489A, 490A, 491A, 492A, 493A, 494A, 495A, 496A, 497A, 498A, 499A, 500A, 501A, 502A, 503A, 504A, 505A, 506A, 507A, 508A, 509A, 510A, 511A, 512A, 513A, 514A, 515A, 516A, 517A, 518A, 519A, 520A, 521A, 522A, 523A, 524A, 525A, 526A, 527A, 528A, 529A, 530A, 531A, 532A, 533A, 534A, 535A, 536A, 537A, 538A, 539A, 540A, 541A, 542A, 543A, 544A, 545A, 546A, 547A, 548A, 549A, 550A, 551A, 552A, 553A, 554A, 555A, 556A, 557A, 558A, 559A, 560A, 561A, 562A, 563A, 564A, 565A, 566A, 567A, 568A, 569A, 570A, 571A, 572A, 573A, 574A, 575A, 576A, 577A, 578A, 579A, 580A, 581A, 582A, 583A, 584A, 585A, 586A,

GENERAL NOTES			
1	DETHA AGENT	M.S. TRAVERS	CONFIDENTIAL

2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONTROLS, LOOK ALIKE DEVICES OR ASSOCIATED EQUIPMENT ARE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 633.01.02.
3. ALL SEWER STORM DRAIN CROSSING WATER LINES MUST BE INSTALLED NOT LESS THAN 2.0' OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS. PROVIDE FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
4. THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITION OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBER CODE.
5. FITTINGS SHALL NOT FALL UNDER CURBS, OUTERS OR SIDEWALK.

APPROVAL *K. Smith* 12/10/11
LAS VEGAS FIRE AND RESCUE DA

APPROVED FOR CONSTRUCTION

Donna

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANUA
DATE 12/19/12 PROJECT NO. 120993
LYVING APPROVED FIRE FLOW 2,000 GPM AT 20 PSI RESIDUAL

SIGNATURE	
SUMMERLIN	DATE
SUMMERLIN RESIDENTIAL DESIGN REVIEW COMMITTEE	
THIS SIGNATURE IS LIMITED TO APPROVAL OF THESE DOCUMENTS CONFORMANCE TO THE DESIGN INTENT OF THE APPLICABLE DESIGN CRITERIA. NEITHER SUMMERLIN NOR THE SUMMERLIN RESIDENTIAL DESIGN REVIEW COMMITTEE ASSUMES RESPONSIBILITY FOR PLAN CONFORMANCE WITH APPLICABLE LAWS, ORDINANCES, AND CODES.	

S-I-C **SLATER HANIFAN GROUP**
CONSULTING ENGINEERS & PLANNERS
2000 S. 25TH AVE. • ARIELLE STREET #614, LAS VEGAS, NV 89116
PHONE (702) 264-4360 FAX (702) 264-4368

[illegible]

ENNAR®
ESPERANZA PHASE 1
UTILITY PLAN I



DATE: 11/29/12
DRAFTER: BOC
DESIGNER: BOC
CHECKED: STS
PROJECT NO.

12-512
 U-1
 SHEET 15 OF 18
 107V59m

ASBUILT

H# 46516