

AS BuW LVE 1/3/2018  
BuW Wgall



SM

**SID 808 PROJECT NO 37**

**HOWARD HUGHES COMPANY, LLC.**  
**10801 W. CHARLESTON BLVD., 3RD FLOOR**  
**LAS VEGAS, NEVADA 89135**  
**OFFICE PHONE NO. (702) 791-4300**  
**OFFICE FAX NO. (702) 791-4450**

**GCV**  
ENGINEERS & SURVEYORS

1555 S. RAINBOW BLVD  
LAS VEGAS, NV 89146  
T: 702.804.2000  
F: 702.804.2299  
[gcvengineering.com](http://gcvengineering.com)

**CAUTION TO CONTRACTOR**  
THE CONTRACTOR SHALL BE RESPONSIBLE TO INVESTIGATE AND  
VERIFY THE ACTUAL LOCATION AND DEPTH OF ALL EXISTING  
UNDERGROUND FACILITIES AT LEAST 48 HOURS IN ADVANCE OF  
THE PERFORMANCE OF ANY WORK.

  
\_\_\_\_\_  
KEVIN ORROCK  
VICE PRESIDENT

4-19-17  
\_\_\_\_\_  
DATE

4 / DISHAR, ER.  
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

PROJECT NO. 125355 DATE: 5/11/17  
SHEETS: 1, 3, 4

THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE PLANNING AND DEVELOPMENT DEPARTMENT

NA

CHRIS KNIGHT, BUILDING AND SAFETY DIRECTOR

DATE

"APPROVAL OF THESE PLANS IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHTS-OF-WAY AND / OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND / OR SPECIFICATIONS, EXCEPT THOSE SPECIFICALLY LISTED UNDER DEVIATIONS FROM STANDARD. THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN DEVIATIONS FROM STANDARDS IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA".

  
 ALLEN PAVELKA, P.E., P.E. #9029  
 CITY ENGINEER  
 CITY OF LAS VEGAS, NEVADA

| <u>SHEET NO.</u> | <u>SHEET DESCRIPTION</u>                |
|------------------|-----------------------------------------|
| 1                | COVER SHEET                             |
| 2                | LEGEND, ABBREVIATIONS, AND VICINITY MAP |
| 3                | GENERAL NOTES                           |
| 4                | TRAFFIC SIGNAL PLAN                     |
| 5                | TRAFFIC SIGNAL SCHEDULES AND DETAILS    |
| 6                | SIGNING AND STRIPING PLAN               |
| 7                | ITS IMPROVEMENTS                        |

Night Watch 4/25/17  
COX COMMUNICATIONS LAS VEGAS, INC. DATE  
Newman Aguero 4-24-17  
CENTRAL TELEPHONE COMPANY, D/B/A CENTURYLINK DATE  
THE AFFIRED CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS.

Barbara Garrison 4.24.17  
NV ENERGY - DISTRIBUTION DATE

NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.

4-24-17  
DATE

SWG 5/15/13  
SOUTHWEST GAS CORP. DATE

STATE OF NEVADA  
PROFESSIONAL ENGINEER  
No. 8151  
Exp. 04/10/2018  
DATE: 4/10/17

PROJECT NO. 62023-707

|            |          |
|------------|----------|
| DESIGN:    | JRT      |
| DRAWN:     | TJD      |
| CHECK:     | JRT      |
| PLOT DATE: | 04-10-17 |
| PLOT TIME: | 10:26:42 |

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**GCL**  
ENGINEERS & SURVEYORS

THE HOWARD HUGHES COMPANY, LLC

TRAFFIC SIGNAL SYSTEM AT  
DEBERT FOOTHILL'S DRIVE/ALTA DR

COVER SHEET

125355 OS-137-34.NE

DRAWING  
1  
L-69512  
1 OF 7 SHTS

11-5-21-65 66374 46031

TEL 4-2"

10" SS

8" W

18" SC

ELE

ONE

6" PE GAS

CATV ED

EXISTING TELEPHONE CABLE

EXISTING SANITARY SEWER LINE

EXISTING WATER LINE

EXISTING STORM DRAIN LINE

EXISTING ELECTRICAL LINE

EXISTING OVERHEAD POWER LINE

EXISTING GAS LINE

EXISTING CABLE TELEVISION LINE

EXISTING CURB & GUTTER

EXISTING MANHOLE

EXISTING VALVE (GAS OR WATER)

EXISTING FIRE HYDRANT

EXISTING CONDUIT RUN NO.

EXISTING CONDUIT

RIGHT-OF-WAY LINE

EASEMENT LINE

PROPERTY LINE

CENTERLINE

EXISTING STREETLIGHT (SUMMERLIN)

EXISTING POWER POLE

EXISTING SERVICE PEDESTAL

EXISTING NVE TRANSFORMER

EXISTING NO. 3 1/2 PULL BOX

EXISTING NO. 5 PULL BOX

EXISTING NO. 7 PULL BOX

EXISTING P30 PULL BOX

EXISTING TYPE 200 SPLICE VAULT

PROPOSED LED LUMINAIRE (400W HPS EQUIVALENT-SUMMERLIN)

PROPOSED NO. 3 1/2 PULL BOX

PROPOSED NO. 5 PULL BOX

PROPOSED NO. 7 PULL BOX

PROPOSED P30 PULL BOX

PROPOSED TYPE 200 SPLICE VAULT

PROPOSED CONTROLLER CABINET

PROPOSED SIGNAL POLE

PROPOSED TRAFFIC SIGN

PROPOSED STREET NAME SIGN (INTERNALLY ILLUMINATED)

PROPOSED OPTICOM DETECTOR

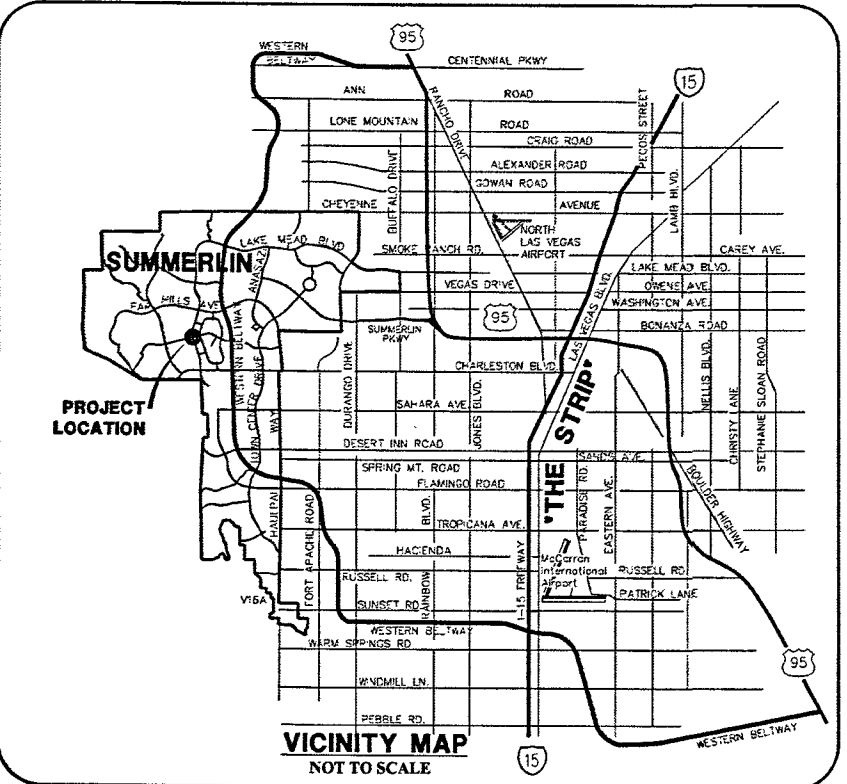
PROPOSED PEDESTRIAN SIGNAL HEAD

PROPOSED PEDESTRIAN PUSH BUTTON

PROPOSED CONDUIT RUN NO.

PROPOSED DETECTOR LOOP (SIZE AS SHOWN)

PROPOSED SIGNAL HEAD



| ABBREVIATIONS |                                              |
|---------------|----------------------------------------------|
| ADV           | ADVANCED                                     |
| AL            | ALTA DRIVE                                   |
| ASTM          | AMERICAN SOCIETY FOR TESTING & MATERIALS     |
| CATV          | CABLE TELEVISION                             |
| CCPW          | CLARK COUNTY PUBLIC WORKS                    |
| CCRFCD        | CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT |
| CG            | CURB & GUTTER                                |
| DET           | DETECTION                                    |
| DET           | DESERT FOOTHILLS DRIVE                       |
| DOC           | DOCUMENT                                     |
| DR            | DRIVE                                        |
| DS            | DOUBLE STACKED                               |
| DWG           | DRAWING                                      |
| E             | EAST                                         |
| ELEC          | ELECTRIC                                     |
| EOP           | EDGE OF PAVEMENT                             |
| ESMT          | EASEMENT                                     |
| EX/EXIST      | EXISTING                                     |
| FAST          | FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION  |
| FG            | FINISHED GRADE                               |
| FT            | FEET                                         |
| G             | GAS                                          |
| LT            | LEFT                                         |
| LJL           | LUMINAIRE                                    |
| MIN.          | MINIMUM                                      |
| N             | NORTH                                        |
| NO.           | NUMBER                                       |
| NVE           | NV ENERGY                                    |
| OHP           | OVERHEAD POWER                               |
| OP            | OPTICOM                                      |
| P.B.          | PULLBOX                                      |
| PE            | POLYETHYLENE                                 |
| PED.          | PEDESTRIAN                                   |
| PMF           | PAVEMENT MARKING FILM                        |
| PPM           | POLYUREA PAVEMENT MARKINGS                   |
| QUAD.         | QUADRANT                                     |
| RD            | ROAD                                         |
| RPM           | RAISED PAVEMENT MARKINGS                     |
| RT            | RIGHT                                        |
| R/W           | RIGHT-OF-WAY                                 |
| SD            | STORM DRAIN                                  |
| S.P.          | SERVICE PEDESTAL                             |
| SW            | SIDEWALK                                     |
| SIG.          | SIGNAL                                       |
| ST            | STREET                                       |
| STLT          | STREET LIGHT                                 |
| SS            | SANITARY SEWER                               |
| STA           | STATION                                      |
| STD           | STANDARD                                     |
| S.V.          | SPLICE VAULT                                 |
| TEL           | TELEPHONE                                    |
| TYP.          | TYPICAL                                      |
| UDACS         | UNIFORM DESIGN AND CONSTRUCTION STANDARDS    |
| USDOCA        | UNIFORM STANDARD DRAWINGS                    |
| W             | WEST OR WATER                                |
| W/            | WITH                                         |

**BENCHMARK**  
CITY OF LAS VEGAS VERTICAL CONTROL POINT "SLV03 34NES" BEING A RIVET & PLATE IN TOP OF CURB AT NE CORNER OF DESERT FOOTHILLS & ALTA.  
ELEVATION: 3304.45 (FEET)  
1007.197 (METERS)  
CITY OF LAS VEGAS VERTICAL CONTROL-DATE RE-OBSERVED: 2005-2007  
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

**BASIS OF BEARING**  
NORTH 89°45'05" EAST BEING THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 35, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., AS SHOWN BY MAP ON FILE IN FILE 91, PAGE 28 OF PARCEL MAPS IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

PROJECT NO. 62023-707

DESIGN: JRT

DRAWN: TJD

CHECK: JRT

PLOT DATE: 05-26-17

PLOT TIME: 09:14:46

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ENGINEERS \ SURVEYORS

THE HOWARD HUGHES COMPANY, LLC

TRAFFIC SIGNAL SYSTEM AT  
DESERT FOOTHILLS DR/ALTA DR

LEGEND, ABBREVIATIONS, AND VICINITY MAP

DRAWING

L-64512

2

2 OF 7 SHTS

1. ALL WORK PERFORMED ON ANY TRAFFIC SIGNAL COMPONENT MUST BE UNDER THE DIRECT ON-SITE SUPERVISION OF AN INSEA CERTIFIED TECHNICIAN. THE LEVEL OF CERTIFICATION REQUIRED SHALL BE LEVEL 6.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL EXISTING UTILITIES. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 72 HOURS PRIOR TO CONSTRUCTION.

|                     |                |
|---------------------|----------------|
| CALL-BEFORE-YOU-DIG | 1-703-227-2828 |
| CALL-BEFORE-YOU-DIG | 1-800-227-2800 |
| STREETLIGHTS        | 1-703-227-2838 |
| F.A.S.T.            | 1-703-432-5300 |

- [illegible]

REVISÉD 04/15/16

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND ANY ADDED SPECIAL AREA STANDARDS.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC ENGINEER AND THE CITY ENGINEER.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.

4. ALL STREET LIGHTING CONDUITS SHALL BE Laid, HAVE AT LEAST ONE GREEN #12 THW W/ INSTALLED, AS TRACER WIRE. WHEN "EMPTY" CONDUIT IS COMPLETELY INSTALLED FROM PB TO PB, IT MUST HAVE MINIMUM 1/4" AND 1/2" THW WIRE WITH THE ENDS TAPPED OR "SAFE OFF" PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USDO NO. 320A.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TFO PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT MUST BE COORDINATED WITH HWY ENGINEER COMPANY, AND WHEREVER POSSIBLE BE SITUATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
8. IT SHALL BE ASSURED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CIRCUIT TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING AND CONDUITS, THESE CONFLICTS MUST BE IDENTIFIED AND NOTED ON THE DEVELOPER AND THE UTILITIES INVOLVED, AT NO EXPENSE TO THE CITY OF LAS VEGAS, BEFORE STREETLIGHT BASES ARE INSTALLED.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL.
11. THE DEVELOPER/OWNER WILL BE REQUIRED TO SUPPLY POWER TO ALL NEW PUBLIC STREET LIGHTS INSTALLED UNDER THIS DESIGN PRIOR TO BOND RELEASE OR PROJECT COMPLETION. THE DEVELOPER/OWNER WILL BE RESPONSIBLE FOR ALL ITEMS ASSOCIATED WITH THE INSTALLATION OF THE CONSTRUCTION OF THE STREET LIGHTS AND THE CONDUITS TO THE ROAD STREET LIGHTS PRIOR TO PROJECT COMPLETION. REFER TO THE PLAN FOR ANY NEW CITY OF LAS VEGAS FOR ALL NEW PUBLIC STREET LIGHTS AND/OR SERVICE'S INSTALLED UNDER THIS PLAN. IT WILL BE IN CONJUNCTION WITH THE CITY OF LAS VEGAS, COORDINATE ALL THE DESIGN AND OPERATION OF THE STREET LIGHTING PROJECT WITH THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DEPARTMENT (TFO) AT (702) 223-4333.

REVISÉD 04/15/16

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.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS FROM THE CITY ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS FROM THE CITY ENGINEER.
3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYETHYLENE (PE) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE B AGGREGATE BASE.

3. ALL MANHOLES PAIR IN STREETS DIGNITY (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. THE SADDLES SHALL BE USED TO CONNECT SENIOR 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" SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVING STANDARDS WHENEVER A SENIOR MAIN CROSSES OVER A WATER MAIN OR THE SENIOR IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
8. ALL CONTRACTORS INSTALLING SENIOR 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 SENIOR MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE (1) INCH. EXCESSIVE CONSTRUCTION DEFLECTIONS AT ANY LOCATION. SENIOR MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REMOVED AND REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SENIOR REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISÉ 04/15/10

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 CAUSING OF THE EXCAVATION.
  4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THE PROJECT. THE EXCESS EARTHWORK REQUIRED OR LEFTOVER MATERIAL FROM 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 | 0.15"      | +0.0" TO -0.1" | SEE SOILS REPORT |
| B. ENGINEERED FILL        | 0.50"      | +0.1" TO -0.1" | SEE SOILS REPORT |
  7. 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 CONSIDERATION OF BACKFLOW 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 RIGHT-OF-WAY. 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 AND IN ACCORDANCE TO THE CITY OF LAS VEGAS. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERRIS, ROAD SIGNS AND BARRICADES, ETC.
- REVISED 4/25/20

Page 4 of 13

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE, THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR THE SUMMERLIN SUBDIVISION; 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".

1. 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 OR BY AN APPROPRIATE AND FOR RECORD NEAR OVERHEAD 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 TAKE ALL NECESSARY PRECAUTIONS TO PROTECT UNDERGROUND AND OVERHEAD UTILITIES WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION AND FOR RECORD NEAR OVERHEAD UTILITIES SO AS TO NOT PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.
  2. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE LOCATED IN PLACE. THE CONTRACTOR SHALL MAKE ALL 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.
  3. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PROPER WRITTEN APPROVAL OF THE CITY ENGINEER.
  4. TYPE V CONCRET SHALL BE USED IN ALL OFF-SET CONCRETE WORK. CONCRETE TO BE 3000 PSI MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.
  5. 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 (1/2") ABOVE UP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
  9. CURB AND GUTTER FLOW 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 ORDER TO ACCOMMODATE A CITY INSPECTOR.
  11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITION 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 SOLS REPORT AS PREPARED BY THE (COMPANY) (REPORT #) (DATE) APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
  13. EXACT LOCATION OF ALL SAWCUT UNITS MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY THE CITY ENGINEER. LOCATION ON PLANS WHICH IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATION.
  14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.E.S. STATUTE NO. 625.350 & CITY OF LAS VEGAS TITLE 16, APPENDIX D.
  15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC. SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APPROACHES, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.
- WALL NOTES:

10. All Mass.

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 MANHOLE, VALVE BOXES, MANHOLE COVERS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THE EXISTING MANHOLE IS IN GOOD WORKING CONDITION.
19. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE EDITIONS OF AOST OF THE CLARK COUNTY AREA. SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC., THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO THE OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN INSTALLED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
21. SANITARY SEWER AND STORM DRAIN FACILITY LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY 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 MANHOLE TO THE CONNECTION TO THE STORM DRAIN MAIN AND 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, AND THE STORM DRAIN SERVICE LATERALS TO THE STORM DRAIN MAIN. 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. A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FACILITY LOCATION MAP(S).
- OR
22. SANITARY SEWER AND STORM DRAIN FACILITIES SHOWN ON THESE PLANS SHALL BE USED TO MEET THE REQUIREMENTS ON NRS 455 AND SHALL SHOW AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN, THE LOCATION OF THE SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY. ANY DEVIATIONS FROM THE INFORMATION SHOWN HEREON MUST BE NOTED AND SUBMITTED TO THE CITY ENGINEER. THE PLANS AND APPROVED VIDEO INSPECTIONS SHALL BE USED TO MEET THE REQUIREMENTS OF THE PLANS AND APPROVED VIDEO INSPECTION.
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.

REVISÉ 02/03/15

NO PORTION OF THE SITE FALLS WITHIN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA. SITE LOCATED ON PANEL 32003C2150E, DATED SEPTEMBER 27, 2002, AND PANEL 32003C2145F, DATED NOVEMBER 16, 2011. 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.

LWWD PROJECT # 125355  
(Revised 01/09/2017)

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVNWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVNWD COMMUNICATIONS SUPPORT CENTER (258-7177) THAT WORKING WATER PIPES WILL BE EXPOSED. THE REPAIR WORK SHALL BE COMPLETED AND SHALL BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVNWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVNWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS AND TO 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 DISTRIBUTION SYSTEMS FOR PUBLIC WORKS CONSTRUCTION OFFISITE MANUAL, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL, SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVNWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVNWD APPROVED SERVICE SADDLES.
6. ALL WATER MAIN BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB CUTTERS.
8. SECTION 2.22 OF THE 2010 EDITION OF THE UDACS
9. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSEINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS
10. ALL WATER FACILITIES SHALL BE FILED, DISINPECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER QUALITY MAINTAINED, PRIOR TO CONNECTION TO THE LVNWD DISTRIBUTION SYSTEM.
11. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVNWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3002, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
12. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 2.01, AND APPROVED BY THE LVNWD INSPECTING SUPERVISOR PRIOR TO SHUTDOW. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
13. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE LISTED ON THE LVNWD PRE-APPROVED MATERIALS AND MANUFACTURERS'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
14. TELEPHONE "CALL BEFORE YOU DIG" AT 811 OR 1-800-227-2600.
15. THE INSTALLATION OF LAS VEGAS VALLEY WATER DISTRICT (LVNWD) MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARD SPECIFICATIONS INCLUDING THE TEN FOOT EASEMENT ADJUTING A PUBLIC OR PRIVATE STREET. ANY REPAIR WORK DONE BY THE LVNWD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.
16. ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNERS ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE PAVING SURFACES, INCLUDING CURBS, ARE THE TEN FOOT EASEMENT ADJUTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVNWD FOR THE REPAIR OR OPERATION OF THE FACILITIES, WILL BE REPLACED BY LVNWD WITH AN APPROPRIATELY SIZED PLAIN FINISH ASPHALT PATCH. THE LVNWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION, OF ANY DECORATIVE PAVING SURFACES WITHIN THE STREET. THE LVNWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.
17. NO LEAD COMPLIANCE NOTE:  
TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS, BRASS COMPONETS, TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

41 DISCARD: ER.   
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGE  
PROJECT NO. 125355 DATE: 5/1/17

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 AGENT 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 ALL EXPOSED AREAS PRACTICALLY AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY OR THE PORTION OF THE PROJECT TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY HWY000000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED 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 REEVALUATE STORAGE AREAS AND ALL LOCATIONS AND LOCATIONS WITH EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY HWY000000, 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 DESIGN RAINFALL EVENT. WHEN THE SEDIMENT STORAGE CAPACITY OF THE BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.



TRAFFIC SIGNAL SYSTEM AT  
DESERT FOOTHILLS DR/ALTA DR

DRAW

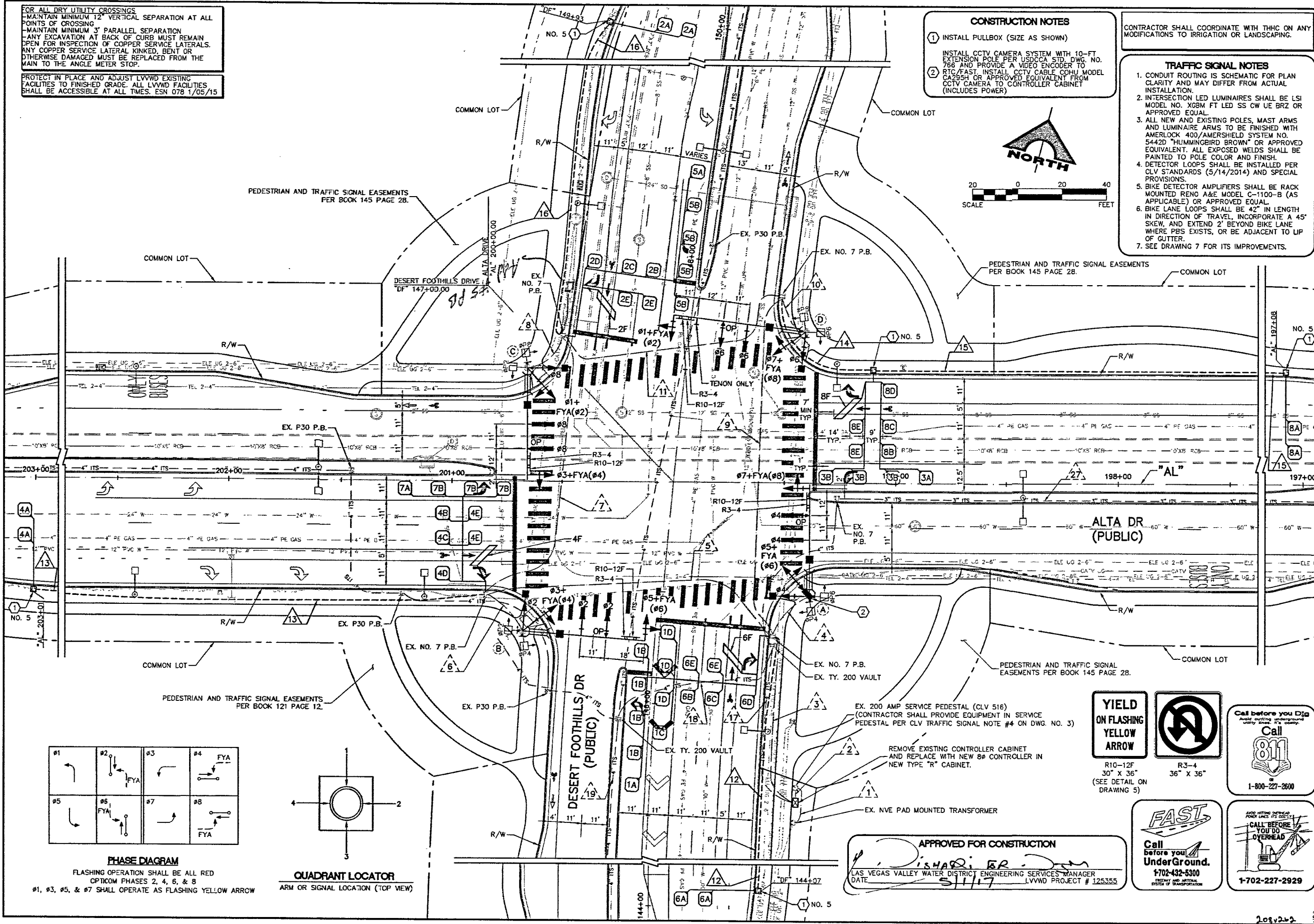
3

## GENERAL NOTES

PROJ #125355 QS 137-34-NE

PROJ #125355 QS 137-34-NE

AS Bld LVE 1/3/2018 Bnd Wjatt

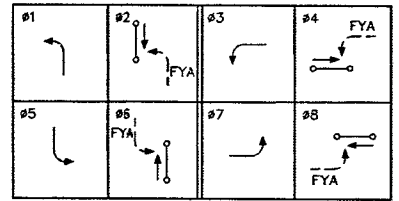


FOR ALL DRY UTILITY CROSSINGS  
- MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING  
- MAINTAIN MINIMUM 3' PARALLEL SEPARATION  
- ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.  
PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES. ESN 078 1/05/15

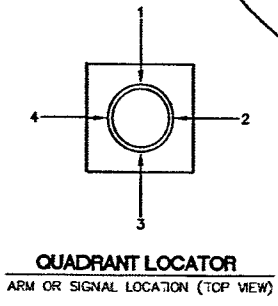
**CONSTRUCTION NOTES**  
① INSTALL PULLBOX (SIZE AS SHOWN)  
INSTALL CCTV CAMERA SYSTEM WITH 10-FT EXTENSION POLE PER USDOCA STD. DWG. NO. 768 AND PROVIDE A VIDEO ENCODER TO RTIC/FAST. INSTALL CCTV CABLE COUPLER MODEL CA2954 OR APPROVED EQUIVALENT FROM CCTV CAMERA TO CONTROLLER CABINET (INCLUDES POWER)  
②

CONTRACTOR SHALL COORDINATE WITH THHC ON ANY MODIFICATIONS TO IRRIGATION OR LANDSCAPING.

**TRAFFIC SIGNAL NOTES**  
1. CONDUIT ROUTING IS SCHEMATIC FOR PLAN CLARITY AND MAY DIFFER FROM ACTUAL INSTALLATION.  
2. INTERSECTION LED LUMINAIRES SHALL BE LSI MODEL NO. XGBM FT LED SS CW UE BRZ OR APPROVED EQUAL.  
3. ALL NEW AND EXISTING POLES, MAST ARMS AND LUMINAIRE ARMS TO BE FINISHED WITH AMERLOCK 400/AMERSHIELD SYSTEM NO. 54420 "HUMMINGBIRD BROWN" OR APPROVED EQUIVALENT. ALL EXPOSED WELDS SHALL BE PAINTED TO POLE COLOR AND FINISH.  
4. DETECTOR LOOPS SHALL BE INSTALLED PER CLV STANDARDS (5/14/2014) AND SPECIAL PROVISIONS.  
5. BIKE DETECTOR AMPLIFIERS SHALL BE RACK MOUNTED RENO A&E MODEL C-1100-B (AS APPLICABLE) OR APPROVED EQUAL.  
6. BIKE LANE LOOPS SHALL BE 42" IN LENGTH IN DIRECTION OF TRAVEL, INCORPORATE A 45° SKEW, AND EXTEND 2' BEYOND BIKE LANE WHERE PBS EXISTS, OR BE ADJACENT TO LIP OF GUTTER.  
7. SEE DRAWING 7 FOR ITS IMPROVEMENTS.



**PHASE DIAGRAM**  
FLASHING OPERATION SHALL BE ALL RED OPTICOM PHASES 2, 4, 6, & 8  
#1, #3, #5, & #7 SHALL OPERATE AS FLASHING YELLOW ARROW



**QUADRANT LOCATOR**  
ARM OR SIGNAL LOCATION (TOP VIEW)

**YIELD ON FLASHING YELLOW ARROW**  
R10-12F 30" X 36" (SEE DETAIL ON DRAWING 5)

**FAST**  
Call before you UnderGround.  
1-702-432-5300  
EMERGENCY AND ARTIFICIAL SYSTEM OF REPAIR/REPLACEMENT

**Call before you Dig**  
Call 811  
1-800-227-2600

**Call before you Dig**  
Call 811  
1-702-227-2929

**APPROVED FOR CONSTRUCTION**  
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER  
DATE 5/11/17 LVVWD PROJECT # 125355

STATE OF NEVADA  
ENGINEER  
JAMES E. JOHNSON  
No. 8190  
Date 5/11/17

PROJECT NO.  
62023-707  
DESIGN: JRT  
DRAWN: TJD  
CHECK: TAM  
PLOT DATE: 05-28-17  
PLOT TIME: 09:14:10

1555 S. RAINBOW BLVD.  
LAS VEGAS, NV 89146  
T: 702.804.2000  
F: 702.804.2299  
goverengineering.com

**GCV**  
ENGINEERS & SURVEYORS

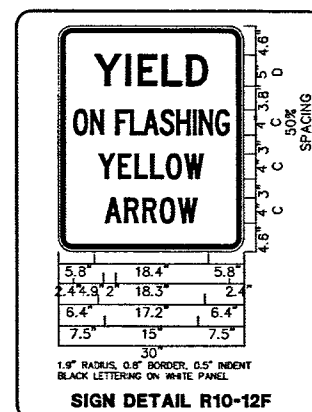
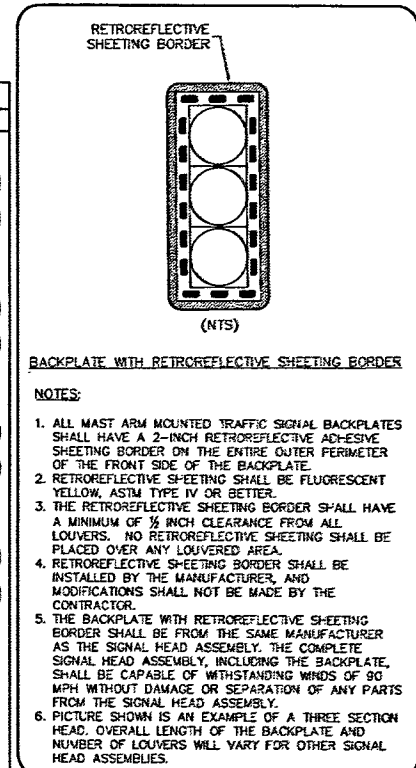
THE HOWARD HUGHES COMPANY, LLC  
TRAFFIC SIGNAL SYSTEM AT  
DESERT FOOTHILLS DR/ALTA DR  
TRAFFIC SIGNAL PLAN

DRAWING  
4  
4 OF 7 SHTS

PROJ #125355 OS 137-34-NE

(E) = EXISTING  
ALL LUMINAIRE ARMS AND FIXTURES SHALL BE PER SUMMERLIN IMPROVEMENT STANDARDS (DWG. E-1 AND E-2)  
ALL MAST ARM SIGNAL HEADS SHALL INCLUDE RETROREFLECTIVE SHEETING BORDERS, SEE DETAIL ON THIS SHEET

- A NO. 8 BRANDING WIRE SHALL BE RAN FROM THE CONTROLLER CABINET TO EACH SIGNAL POLE BASE.
- CONDUIT INSTALLATIONS AND ASSOCIATED PAVEMENT PATCHES SHALL BE IN CONFORMANCE WITH USDCGA DWG. NOS. 500.1, 500.2, 500.3, AND 733.
- ALL RIGHT TURN LANE LOOPS SHALL BE ON A DETECTION DELAY.
- NO MORE THAN 4 LOOPS SHALL BE CONNECTED TO A SINGLE LOOP LEAD-IN PAIR.
- TWO LOOP "TAILS" MAXIMUM PER SCAOUT.
- DO NOT CONNECT LOOP LEAD IN CABLES FOR LOOP DETECTORS 1C AND 1D.
- REMOVE AND REPUILL EXISTING INTERSECTION LIGHTING CONDUCTORS AS NEEDED.



**FAST**  
Call  
before you  
Underground.  
1-702-432-5300  
FREEWAY AND MATERIAL

THE HOWARD HUGHES COMPANY, LLC  
TRAFFIC SIGNAL SYSTEM AT  
DESERT FOOTHILLS DR/ALTA DR  
TRAFFIC SIGNAL SCHEDULES AND DETAILS

DRAWING  
5  
L-69512  
5 OF 7 SHTS



AS Build LVE Brad Wyatt 1/3/2018

FIBER OPTIC NOTES

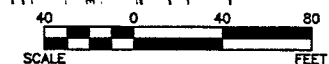
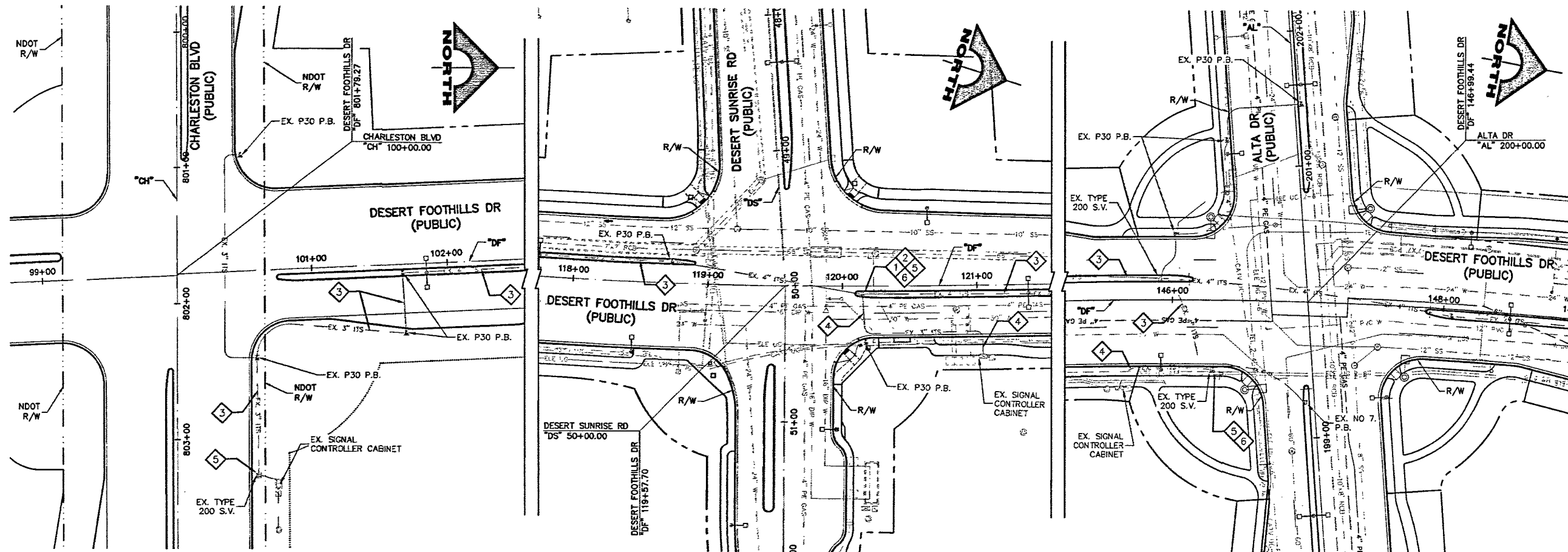
1. CONTRACTOR SHALL CONTACT JESUS MARMOLEGO AT 702-604-7078 TWO(2) WEEKS IN ADVANCE FOR FIBRE OPTIC SPICE DETAILS.
2. SLACK SHALL BE PROVIDED IN EACH P30 P.B. (30 FT) AND TYPE 200 S.V. (120 FT) UNLESS OTHERWISE NOTED. SEE PULLBOX SCHEDULE FOR P30 LOCATIONS.
3. PULL BOXES/VAULTS SHALL NOT BE INSTALLED IN SIDEWALK RAMP OR DRIVEWAYS.
4. CONDUIT ROUTING IS SCHEMATIC FOR THE PURPOSE OF CLARITY AND MAY DIFFER FROM ACTUAL INSTALLATION. FINAL LOCATION SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
5. ALL EXISTING ITS INFRASTRUCTURE SHALL BE MAINTAINED UNLESS OTHERWISE SPECIFIED OR DIRECTED BY THE ENGINEER.
6. PULL BOXES, VAULTS, AND CONDUIT SHALL BE INSTALLED WITHIN RIGHT-OF-WAY OR EASEMENTS. CONTRACTOR SHALL VERIFY PRIOR TO INSTALLATION.
7. LOCATIONS OF THE PROPOSED FIBER OPTIC SYSTEM PULL BOXES AND VAULTS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MARKING THE LOCATIONS IN THE FIELD. THESE LOCATIONS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER BEFORE INSTALLATION.
8. WHERE NEW CONDUIT CROSSES EXISTING SEWER AND WATERLINES, PROTECT SEWER AND WATERLINE IN PLACE. WHERE NEW CONDUIT IS PARALLEL TO EXISTING SEWER AND WATERLINES, MAINTAIN MINIMUM HORIZONTAL CLEARANCE OF 3 FEET. MAINTAIN MINIMUM 6" CLEARANCES AT ALL CROSSINGS.
9. WHERE NEW CONDUIT CROSSES EXISTING GAS LINES, PROTECT GAS LINES IN PLACE.
10. PROTECT IN PLACE EXISTING STORM DRAIN AND SANITARY SEWER MAINS, LATERALS AND MANHOLES AND STORM DRAIN DROP INLETS DURING CONSTRUCTION.
11. IF EXISTING SIDEWALKS AND/OR CURB AND GUTTER IS DAMAGED DURING CONSTRUCTION, CONTRACTOR SHALL REPLACE TO NEAREST EXISTING CONSTRUCTION JOINTS.

CONSTRUCTION NOTES

1. REMOVE EXISTING PULL BOX
2. INSTALL TYPE 100 VAULT (SEE DETAIL "A" ON SHEET 5)
3. INSTALL 72-STRAND FIBER OPTIC CABLE WITH 6PR #22 PE CABLE IN EXISTING CONDUIT FROM EXISTING TYPE 200 S.V. AT NEC OF CHARLESTON/DESERT FOOTHILLS TO EXISTING TYPE 200 S.V. AT SEC ALTA/DESERT FOOTHILLS. SEE PULL BOX SCHEDULE FOR P30 LOCATIONS
4. INSTALL 12-STRAND CDCA IN EXISTING CONDUIT
5. INSTALL SPICE ENCLOSURE AND PERFORM FIBER OPTIC SPICE
6. FURNISH TO RTC/FAST A LAYER 2 FIELD-HARDENED ETHERNET SWITCH FOR EACH CDCA (USS. SECTION 684)

PULL BOX SCHEDULE

| STATION     | LOCATION | REMARKS      |
|-------------|----------|--------------|
| "DF" 105+50 | MEDIAN   | EXISTING P30 |
| "DF" 109+98 | MEDIAN   | EXISTING P30 |
| "DF" 113+94 | MEDIAN   | EXISTING P30 |
| "DF" 124+45 | MEDIAN   | EXISTING P30 |
| "DF" 128+48 | MEDIAN   | EXISTING P30 |
| "DF" 132+51 | MEDIAN   | EXISTING P30 |
| "DF" 134+28 | MEDIAN   | EXISTING P30 |
| "DF" 138+08 | MEDIAN   | EXISTING P30 |
| "DF" 142+28 | MEDIAN   | EXISTING P30 |



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FREEDOM AND NATIONAL SYSTEM OF TRANSPORTATION

Call before you Dig  
811  
1-800-227-2600

Call before you Overhead  
1-702-227-2929  
AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

STATE OF NEVADA  
COUNTY OF CLATSOP  
JULY 10 2018  
11/2/15

PROJECT NO. 62023-707  
DESIGN: ART  
DRAWN: TAD  
CHECK: JRT  
PLOT DATE: 05-28-17  
PLOT TIME: 09:12:12  
F:\Projects\62023-707\DWG\Production\07\_DFA\_ITS.dwg  
Dillon Hines

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

THE HOWARD HUGHES COMPANY, LLC  
TRAFFIC SIGNAL SYSTEM AT  
DESERT FOOTHILLS DR/ALTA DR  
ITS IMPROVEMENTS

DRAWING  
L-44514-7  
7 OF 7 SHTS