DEPARTMENT OF OPERATIONS AND MAINTENANCE

ASPHALT OVERLAY

FUNDED BY: REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA
FUEL REVENUE INDEXING
SANITARY SEWER FUND

Mayor:
CAROLYN G. GOODMAN

City Council:
LOIS TARKANIAN
(Mayor Pro-Tem)
STEVEN G. SEROKA
BOB COFFIN
STAVROS S. ANTHONY
RICKI Y. BARLOW
MICHELLE FIORE

City Manager:
Scott D. Adams

Director of Department of
Operations and Maintenance:
Jerry Walker, P.E.

REVIEWED BY:

Regional Transportation Commission of Southern Nevada — Date 9/7/17

Department of Operations and Maintenance — Date 8-22-17

City of Las Vegas Traffic Engineer — Date 8/22/17

GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE
BID # 15.1762.02-JH REN #2

APPROVED FOR CONSTRUCTION
LVVWD ENGINEERING SERVICES MANAGER — DATE 9/5/17
PROJECT NO. 124986
SHEETS: G-01, G-02, C-01 THRU C-03, AND UT-01 THRU UT-03

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

PROFESSIONAL ENGINEER - STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131
8/22/17

CLV DWG No. 107v7382

GRAND TETON DRIVE – DURANGO DRIVE TO BUFFALO DRIVE

PROJ.#:124986 AGREE#: 116118 QS:125-16-NE/NW

ABBREVIATIONS

AC	ASPHALT CONCRETE
ACP	ASBESTOS CEMENT PIPE
AVE	AVENUE
BC	BACK OF CURB
BLVD	BOULEVARD
BM	BENCHMARK
BOW	BACK OF WALK
BR	BARRIER RAIL
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CP	CONCRETE PIPE
CL	CENTERLINE
DI	DROP INLET
DR	DRIVE
DWG	DRAWING
E	EAST
EG	EXISTING GROUND
ELEC	ELECTRICAL
EOP	EDGE OF PAVEMENT
EX or EXIST	EXISTING
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FYG	FLUORESCENT YELLOW GREEN
HL	HINGE LINE
LL	LANE LINE
MED	MEDIAN
MH	MANHOLE
MON	MONUMENT
MUTCD	MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
N	NORTH
NTS	NOT TO SCALE
OH CATV	OVERHEAD CABLE TELEVISION
P or UGP	UNDERGROUND POWER LINE
PB	PULL BOX
PC	POINT OF CURVE
PE	PROJECT ENGINEER or POLYETHYLENE
PED	PEDESTRIAN
PMF	PAVEMENT MARKING FILM
POC	POINT ON CURVE
POT	POINT ON TANGENT
PP	POWER POLE
PPCBR	PORTABLE PRECAST BARRIER RAIL
R	RADIUS
RP	RADIUS POINT
ROW	RIGHT-OF-WAY
S	SOUTH OR SANITARY SEWER
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SHT	SHEET
SQ	SQUARE
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
ST	STREET
SW	SIDEWALK
T-1	TYPE 1 PAVEMENT MARKING FILM
T-2	TYPE 2 PAVEMENT MARKING FILM
TELE	TELEPHONE
TC	TOP OF CURB
TCB	TRAFFIC CONTROL BOX
TCE	TEMPORARY CONSTRUCTION EASEMENT
TS	TRAFFIC SIGNAL
TYP	TYPICAL
USD	UNIFORM STANDARD DWG
W	WEST OR WATER LINE
WL	WATER LINE
WV	WATER VALVE
WMH	WATER MANHOLE
WVLT	WATER VAULT

RTC NOTES:

1. THE CONTRACTOR SHALL NOT BE ALLOWED TO CLOSE MORE THAN ONE CONSECUTIVE BUS STOP ON THE SAME SIDE OF THE STREET. TEMPORARY CLOSURES SHALL BE PWD (PERSONS WITH DISABILITY) ACCESSIBLE BEFORE ANY BUS STOP CAN BE CLOSED. THE CONTRACTOR SHALL NOTIFY CARL SCARBROUGH AT (702) 676-1608, ELLEN MARCIEL AT (702) 676-1593 AT LEAST SEVEN WORKING DAYS IN ADVANCE.
2. THE CONTRACTOR SHALL SUBMIT A BUS STOP CLOSURES SCHEDULE WITH THE TRAFFIC CONTROL PLAN. THE BUS STOP CLOSURE SCHEDULE SHALL IDENTIFY SPECIFIC DURATIONS AND TIMES OF THE DAY FOR ALL PROPOSED BUS STOP CLOSURES. BUS STOP CLOSURES ARE NOT TO EXCEED TWO CONSECUTIVE STOPS AT ONE TIME, OR MORE THAN 1,000 FEET AT A TIME. PERSONS WITH DISABILITIES SHALL HAVE ACCESS TO BUS STOPS. THE CONTRACTOR SHALL PROVIDE A 100 FOOT LONG BY 10 FEET WIDE GRAVELED TURN OUT AT TEMPORARY BUS STOPS.

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. THE REFERENCE FRAME BEING NAD 83 (2011) EPOCH 2010

BENCHMARK:

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCHMARK: CITY OF LAS VEGAS 0LV9017NES

NAVD88 ELEVATION: 774.109 METERS (2539.72 FEET)

RIVET & PLATE IN TOP OF CURB AT SW CORNER OF GRAND TETON & DURANGO.

UTILITY NOTE

UTILITY LOCATIONS SHOWN ON THESE PLANS ARE INFORMATIONAL ONLY AND NOT ALL UTILITIES ARE DEPICTED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. THE DEPTH VARIES THROUGHOUT THE PROJECT AREA. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHERE EXCAVATING AND GRADING IN THE VICINITY OF UTILITIES TO AVOID DAMAGE. ALL EXISTING UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.

LEGEND

TELEPHONE MANHOLE (T)
TELEPHONE VAULT [TEL]
SEWER MANHOLE (S)
STORM DRAIN MANHOLE (D)
DROP INLET
FIRE HYDRANT
WATER MANHOLE (W)
WATER METER W■M
WATER VALVE WV
WATER BLOW-OFF BO
GAS VALVE GV
POWER POLE
POWER POLE W/GUY ANCHOR
ELECTRICAL MANHOLE (E)
ELECTRICAL VAULT
CABLE VAULT [TV]
STREET LIGHT
STREET LIGHT PULLBOX [STL]
TRAFFIC SIGNAL PULLBOX [TSB]
TRAFFIC SIGNAL
PEDESTRIAN TRAFFIC SIGNAL
GROUND MOUNTED SIGN
IRRIGATION PULLBOX [IRR]
SURVEY MONUMENT
BOLLARD
BENCHMARK (BENCH)
HINGE LINE
CONSTRUCTION NOTE
UTILITY CONSTRUCTION NOTE # 001
MANHOLE NUMBER

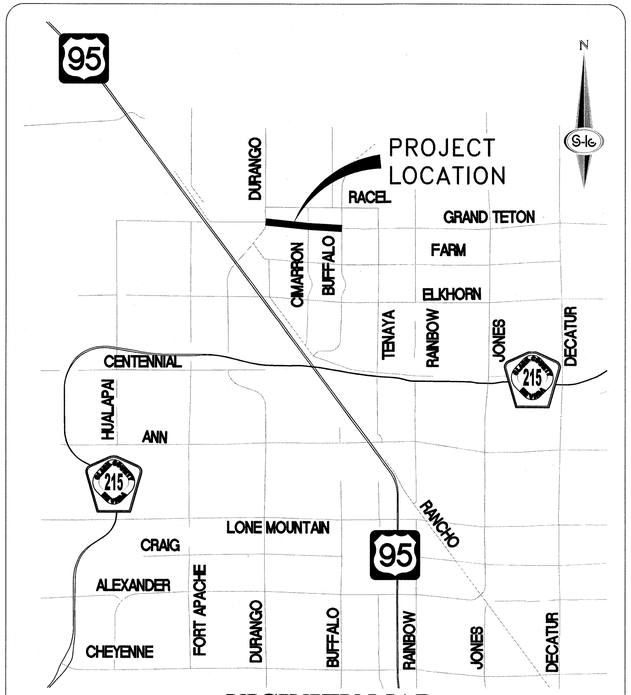
LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES

LVVWD PROJECT #124986
(REVISED 01/09/2017)

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 PM THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT NUMBER 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 IMPROVEMENTS, 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 SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2600.
14. THE INSTALLATION OF LAS VEGAS VALLEY WATER DISTRICT (LVVWD) MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVVWD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE. ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ABUTTING A PUBLIC OF PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF ANY DECORATIVE PAVING SURFACE WITH THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.
15. NO LEAD COMPLIANCE NOTE:
TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS PRODUCTS PROPOSED TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

APPROVED FOR CONSTRUCTION

LVVWD ENGINEERING SERVICE MANAGER — 9/5/17 DATE
LVVWD PROJECT # 124986



VICINITY MAP

CITY OF LAS TRAFFIC SIGNAL NOTES:

1. ALL WORK PERFORMED ON ANY TRAFFIC SIGNAL COMPONENT MUST BE UNDER THE DIRECT ON-SITE SUPERVISION OF AN IMSA CERTIFIED TECHNICIAN. THE LEVEL OF CERTIFICATION REQUIRED SHALL BE LEVEL II.
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-OVERHEAD	1-702-227-2929
CALL-BEFORE-YOU-DIG	1-800-227-2600
STREETLIGHTS	1-702-229-6331
F.A.S.T.	1-702-432-5300

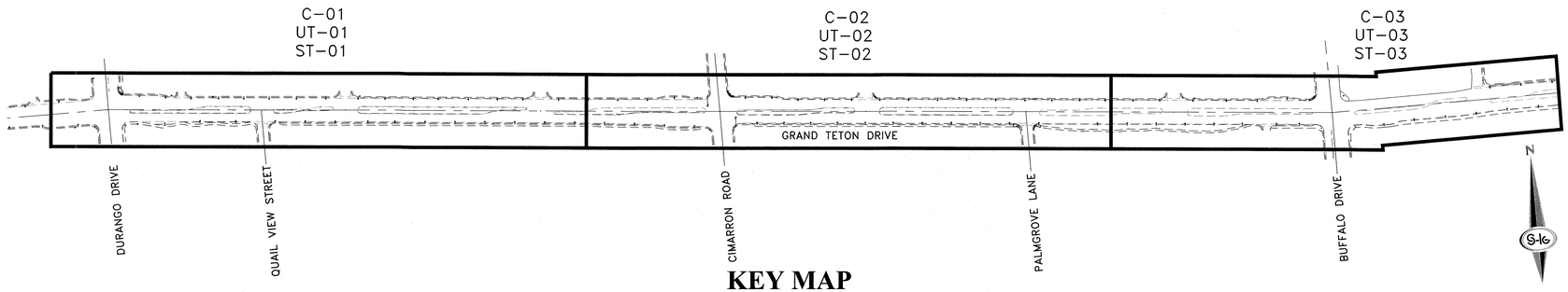
3. ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, VOLUMES I AND II, ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION APRIL 8, 1992 WITH ALL SUBSEQUENT REVISIONS.
4. TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR #14 AWG SOLID (TYPICAL) CABLE AND SHALL CONFORM TO IMSA SPEC. NO. 20-1.
5. WHERE NEW LOOPS WILL BE OVERLAID WITH NEW PAVEMENT, LOOP DETECTORS SHALL BE PREFORMED LOOPS AS MANUFACTURED BY RENO A & E OR NEVER-FAIL LOOP SYSTEMS, AND ALL LOOPS SHALL BE INSTALLED IN THE ROADWAY PRIOR TO PLACEMENT OF THE FINAL PAVEMENT LIFT. WHERE NEW LOOPS ARE INSTALLED THAT ARE NOT OVERLAID WITH NEW PAVEMENT, LOOPS SHALL BE CABLE-IN-DUCT PER SECTION 623 T.02.04.C OF THE CITY OF LAS VEGAS SPECIAL PROVISIONS. LOOPS SHALL BE LOCATED AS SHOWN ON THE TRAFFIC SIGNAL PLANS AND APPROVED BY THE CLV TRAFFIC ENGINEERING DIVISION PRIOR TO INSTALLATION. REFER TO SECTION 623T.02.04 OF THE CLV SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
6. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY CONSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE CITY.
7. THE CONTRACTOR SHALL INSTALL CROSSWALKS, STOP BARS, STRIPING AND SIGNS AS IDENTIFIED ON THE PLANS.
8. WHERE THE PLANS CALL FOR REMOVAL AND SALVAGE OF EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR SHALL CALL 702-229-6331 TO SPEAK TO A TRAFFIC FIELD SUPERVISOR TO ARRANGE FOR DELIVERY TIMES AND LOCATIONS.
9. THE CONTRACTOR SHALL MAINTAIN EXISTING SIGNALS THROUGH THE LIFE OF THE PROJECT PER SECTION 623 G.03.01N OF THE CLV SPECIAL PROVISIONS.

REVISED 4/24/17

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 RTC TRANSIT 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 JULY 13, 2013



KEY MAP

INDEX OF DRAWINGS:

NO.	REVISIONS	DATE

DEPARTMENT OF OPERATIONS AND MAINTENANCE
DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC
DATE: 8/31/17

GRAND TETON DRIVE - DURANGO DRIVE TO BUFFALO DRIVE

TITLE:
GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

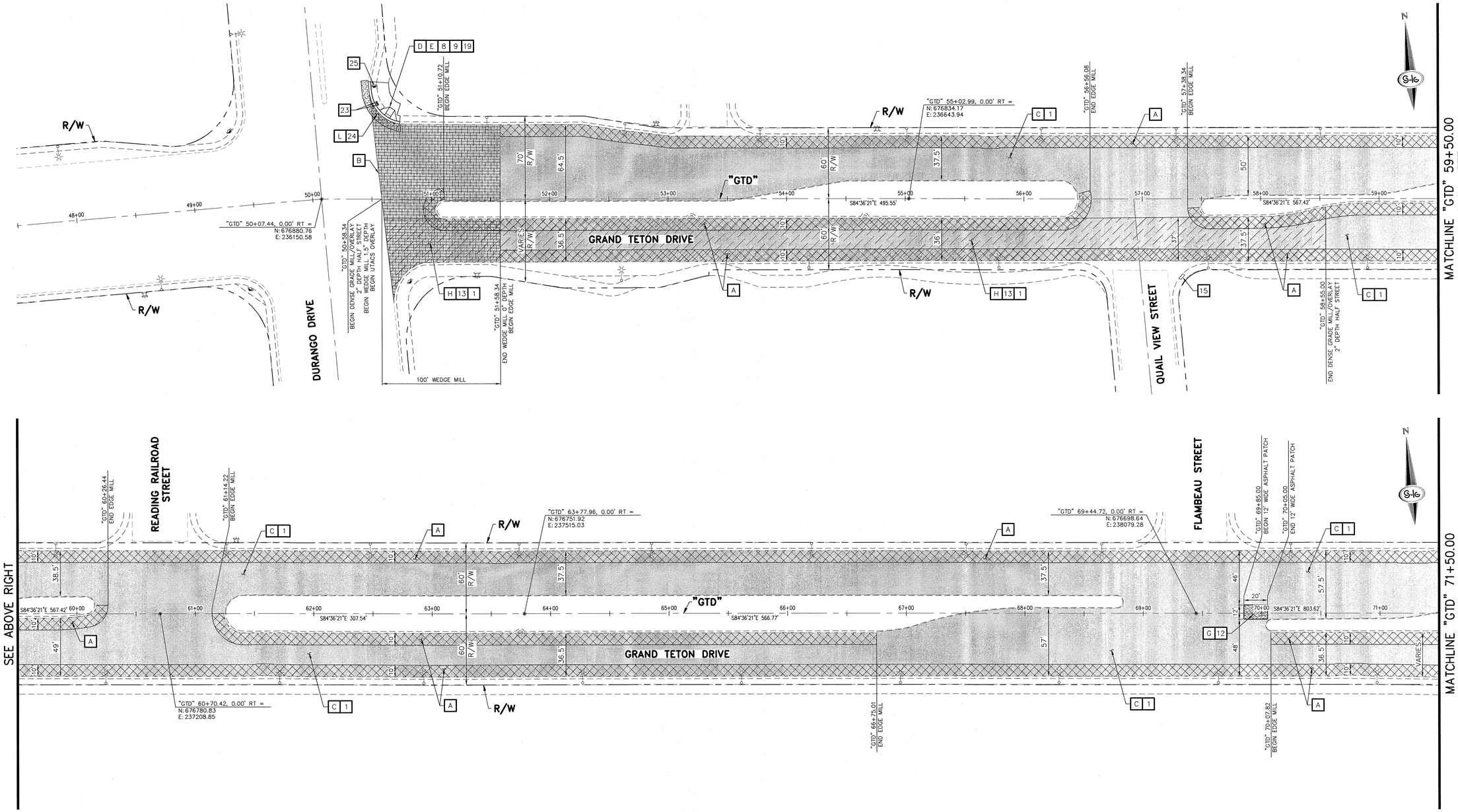
SHEET:
INDEX OF DRAWINGS, KEY MAP, ABBREVIATIONS, NOTES AND LEGEND

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16151
8/31/17

Sheet
G-02
2 of 11
BID NO.

PROJ#:124986 AGREE#: 116118 QS:125-16-NE/NW

CLV DWG No. 107v7382



LEGEND

- EDGE MILL 0" TO 1/2" TO MATCH EXISTING
- UTACS OVERLAY
- REMOVE AND REPLACE CONCRETE SIDEWALK & C&G
- REMOVE AND REPLACE AC
- DENSE GRADE MILL OVERLAY
- WEDGE MILL
- SURFACE MILL FULL WIDTH STREET 1/2" TO 1/4"
- MILL 1" EXISTING AC
- TYPE II AGGREGATE BASE

REMOVAL ITEMS:

A	COLD PLANE EXISTING SURFACE, 0" – 1/2" DEPTH.
B	MATCH LINE, NEW A.C. TO MATCH EXISTING
C	REMOVE EXISTING TRAFFIC DELINEATION, MARKINGS AND SYMBOLS.
D	REMOVE EXISTING CONCRETE SIDEWALK (BY CLV)
E	REMOVE EXISTING CURB & GUTTER (BY CLV)
F	REMOVE EXISTING CROSS GUTTER SPANDREL (BY CLV)
G	REMOVE EXISTING ASPHALT
H	MILL 2" EXISTING AC
J	MILL 2.5" EXISTING AC
K	MILL 3" EXISTING AC
L	REMOVE EXISTING ASPHALT (BY CLV)
M	MILL 1" EXISTING AC
N	REMOVE EXISTING CURB (BY CLV)

CONSTRUCTION ITEMS:

1	CONSTRUCT 1" THICK ULTRA THIN ASPHALTIC CONCRETE SURFACE (UTACS) S3 GRADATION
2	INSTALL 4" TYPE II AGGREGATE BASE
3	CONSTRUCT TACK–ON ISLAND CURB PER USD. DWG. #220
4	SET TYPE III SURVEY MONUMENT. (BY CLV)
5	SCARIFY AND RECOMPACT TOP 8" OF EXPOSED SOIL TO MIN. 95% COMPACTION (ASTM D1557)
6	CONSTRUCT 18" L–TYPE CURB AND GUTTER PER USD. DWG. #219
7	CONSTRUCT "A" TYPE CURB PER USD DWG. #219 (BY CLV)
8	CONSTRUCT CONCRETE SIDEWALK PER USD DWG. #234 (BY CLV)
9	CONSTRUCT 24" L–TYPE CONCRETE CURB & GUTTER PER USD DWG. #216 (BY CLV)
10	CONSTRUCT CONCRETE CROSS GUTTER PER USD DWG. #228 (BY CLV)
11	CONSTRUCT CONCRETE RESIDENTIAL DRIVEWAY PER USD DWG. #223 (BY CLV)
12	CONSTRUCT ASPHALT PATCH TO MATCH EXISTING DEPTH, MINIMUM 5" DEPTH FOR ARTERIAL AND 3" DEPTH FOR LOCAL.
13	CONSTRUCT 2" DENSE GRADE AC OVERLAY
14	CONSTRUCT 2.5" DENSE GRADE AC OVERLAY
15	CONSTRUCT GLUE DOWN TACTILE (WARNING) DETECTABLE STRIP AND GRIND CURB LIP FLUSH WITH GUTTER FLOW LINE AT RAMP LANDING PER USD. DWG. #235 (BY CLV)
16	CONSTRUCT 3" DENSE GRADE AC OVERLAY
17	CONSTRUCT 2' MEDIAN ISLAND
18	CONSTRUCT CASE I SIDEWALK RAMP PER USD. DWG. #235 (BY CLV)
19	CONSTRUCT CASE II SIDEWALK RAMP PER USD. DWG. #235 (BY CLV)
20	CONSTRUCT CASE III SIDEWALK RAMP PER USD. DWG. #235 (BY CLV)
21	CONSTRUCT TACK–ON ISLAND PER USD. DWG. #220.1.S1
22	CONSTRUCT ALLEY DRIVEWAY PER USD. DWG. #227.S1 (BY CLV)
23	ADJUST UTILITY PULL BOX TO FG. (BY CLV)
24	CONSTRUCT ASPHALT PATCH TO MATCH EXISTING DEPTH, MINIMUM 5" DEPTH FOR ARTERIAL AND 3" DEPTH FOR LOCAL. (BY CLV)
25	CONSTRUCT CRASH CAP FLUSH WITH SIDEWALK – VERTICAL AT BASE (BY CLV)
26	CONSTRUCT TACTILE (WARNING) DETECTABLE STRIP PER USD. DWG. #235
27	INSTALL 3" TYPE II AGGREGATE BASE
28	INSTALL 0.75" DIAMETER LANDSCAPE ROCK (2" THICK) COLOR TO BE APPROVED BY CLV

APPROVED FOR CONSTRUCTION

LVVWD ENGINEERING SERVICES MANAGER — DATE 9/5/17

PROJECT NO. 124986

GENERAL NOTE:

1. LENGTH OF ASPHALT PATCH SHOWN ON THE DRAWINGS IS TO THE CENTER OF THE ASPHALT PATCH UNLESS OTHERWISE NOTED.
2. ALL CONSTRUCTION ACTIVITIES WILL BE PERFORMED WITHIN CITY OF LAS VEGAS RIGHT–OF–WAY.
3. SEE UT–SHEETS FOR UTILITY ADJUSTMENTS.

GRAPHIC SCALE

40 0 40 80

SCALE (IN FEET) FEET

1 inch = 40 ft.

NO.	REVISIONS	DATE

DEPARTMENT OF OPERATIONS
AND MAINTENANCE

DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC

DATE: 8/31/17

GRAND TETON DRIVE – DURANGO DRIVE TO BUFFALO DRIVE

CITY OF LAS VEGAS NEVADA

TITLE: GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

SHEET: IMPROVEMENT PLAN
"GTD" 47+50.00 TO "GTD" 71+50.00

SEAL

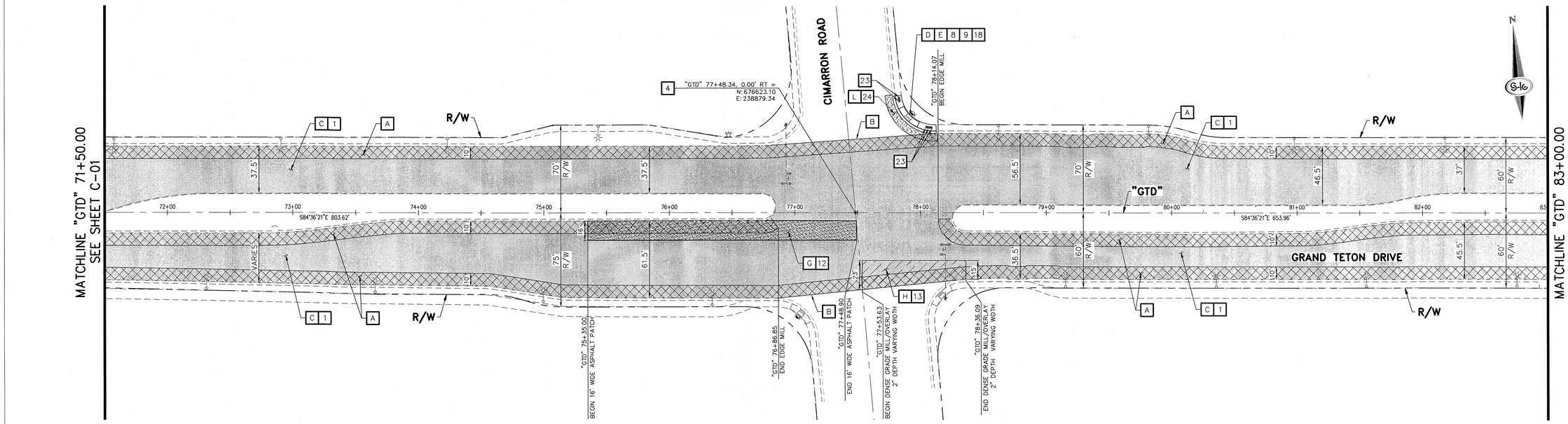
PROFESSIONAL ENGINEER STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131

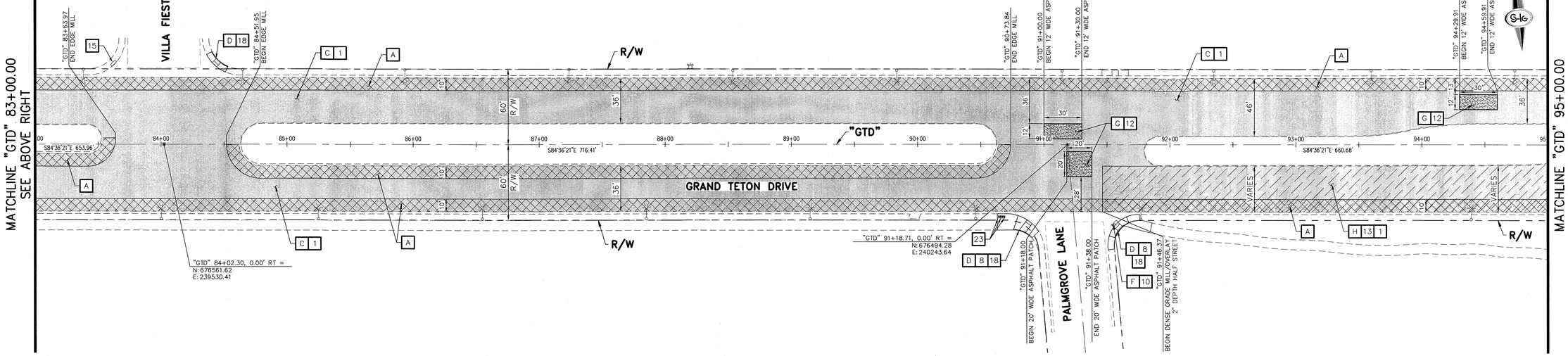
Sheet C-01
3 of 11

BID NO.

PROJ.#:124986 AGREE#: 116118 QS:125-16-NE/NW

CLV DWG No. 107v7382





LEGEND

- EDGE MILL 0" TO 1/2" TO MATCH EXISTING
- UTACS OVERLAY
- REMOVE AND REPLACE CONCRETE SIDEWALK & C&G
- REMOVE AND REPLACE AC
- DENSE GRADE MILL OVERLAY
- WEDGE MILL
- SURFACE MILL FULL WIDTH STREET 1/2" TO 1/4"
- MILL 1" EXISTING AC
- TYPE II AGGREGATE BASE

REMOVAL ITEMS:

A	COLD PLANE EXISTING SURFACE, 0" – 1/2" DEPTH.
B	MATCH LINE, NEW A.C. TO MATCH EXISTING
C	REMOVE EXISTING TRAFFIC DELINEATION, MARKINGS AND SYMBOLS.
D	REMOVE EXISTING CONCRETE SIDEWALK (BY CLV)
E	REMOVE EXISTING CURB & GUTTER (BY CLV)
F	REMOVE EXISTING CROSS GUTTER SPANDREL (BY CLV)
G	REMOVE EXISTING ASPHALT
H	MILL 2" EXISTING AC
J	MILL 2.5" EXISTING AC
K	MILL 3" EXISTING AC
L	REMOVE EXISTING ASPHALT (BY CLV)
M	MILL 1" EXISTING AC
N	REMOVE EXISTING CURB (BY CLV)

CONSTRUCTION ITEMS:

1	CONSTRUCT 1" THICK ULTRA THIN ASPHALTIC CONCRETE SURFACE (UTACS) S3 GRADATION
2	INSTALL 4" TYPE II AGGREGATE BASE
3	CONSTRUCT TACK–ON ISLAND CURB PER USD. DWG. #220
4	SET TYPE III SURVEY MONUMENT. (BY CLV)
5	SCARIFY AND RECOMPACT TOP 8" OF EXPOSED SOIL TO MIN. 95% COMPACTION (ASTM D1557)
6	CONSTRUCT 18" L–TYPE CURB AND GUTTER PER USD. DWG. #219
7	CONSTRUCT "A" TYPE CURB PER USD DWG. #219 (BY CLV)
8	CONSTRUCT CONCRETE SIDEWALK PER USD DWG. #234 (BY CLV)
9	CONSTRUCT 24" L–TYPE CONCRETE CURB & GUTTER PER USD DWG. #216 (BY CLV)
10	CONSTRUCT CONCRETE CROSS GUTTER PER USD DWG. #228 (BY CLV)
11	CONSTRUCT CONCRETE RESIDENTIAL DRIVEWAY PER USD DWG. #223 (BY CLV)
12	CONSTRUCT ASPHALT PATCH TO MATCH EXISTING DEPTH, MINIMUM 5" DEPTH FOR ARTERIAL AND 3" DEPTH FOR LOCAL.
13	CONSTRUCT 2" DENSE GRADE AC OVERLAY
14	CONSTRUCT 2.5" DENSE GRADE AC OVERLAY
15	CONSTRUCT GLUE DOWN TACTILE (WARNING) DETECTABLE STRIP AND GRIND CURB LIP FLUSH WITH GUTTER FLOW LINE AT RAMP LANDING PER USD. DWG. #235 (BY CLV)
16	CONSTRUCT 3" DENSE GRADE AC OVERLAY
17	CONSTRUCT 2' MEDIAN ISLAND
18	CONSTRUCT CASE I SIDEWALK RAMP PER USD. DWG. #235 (BY CLV)
19	CONSTRUCT CASE II SIDEWALK RAMP PER USD. DWG. #235 (BY CLV)
20	CONSTRUCT CASE III SIDEWALK RAMP PER USD. DWG. #235 (BY CLV)
21	CONSTRUCT TACK–ON ISLAND PER USD. DWG. #220.1.S1
22	CONSTRUCT ALLEY DRIVEWAY PER USD. DWG. #227.S1 (BY CLV)
23	ADJUST UTILITY PULL BOX TO FG. (BY CLV)
24	CONSTRUCT ASPHALT PATCH TO MATCH EXISTING DEPTH, MINIMUM 5" DEPTH FOR ARTERIAL AND 3" DEPTH FOR LOCAL. (BY CLV)
25	CONSTRUCT CRASH CAP FLUSH WITH SIDEWALK – VERTICAL AT BASE (BY CLV)
26	CONSTRUCT TACTILE (WARNING) DETECTABLE STRIP PER USD. DWG. #235
27	INSTALL 3" TYPE II AGGREGATE BASE
28	INSTALL 0.75" DIAMETER LANDSCAPE ROCK (2" THICK) COLOR TO BE APPROVED BY CLV

APPROVED FOR CONSTRUCTION

LVVWD ENGINEERING SERVICES MANAGER — DATE 9/5/17

PROJECT NO. 124986

GENERAL NOTE:

1. LENGTH OF ASPHALT PATCH SHOWN ON THE DRAWINGS IS TO THE CENTER OF THE ASPHALT PATCH UNLESS OTHERWISE NOTED.
2. ALL CONSTRUCTION ACTIVITIES WILL BE PERFORMED WITHIN CITY OF LAS VEGAS RIGHT–OF–WAY.
3. SEE UT–SHEETS FOR UTILITY ADJUSTMENTS.

GRAPHIC SCALE

40 0 40 80

SCALE (IN FEET) FEET

1 inch = 40 ft.

DEPARTMENT OF OPERATIONS
AND MAINTENANCE

DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

NO.	REVISIONS	DATE

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC
DATE: 8/31/17

GRAND TETON DRIVE – DURANGO DRIVE TO BUFFALO DRIVE

TITLE:
GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

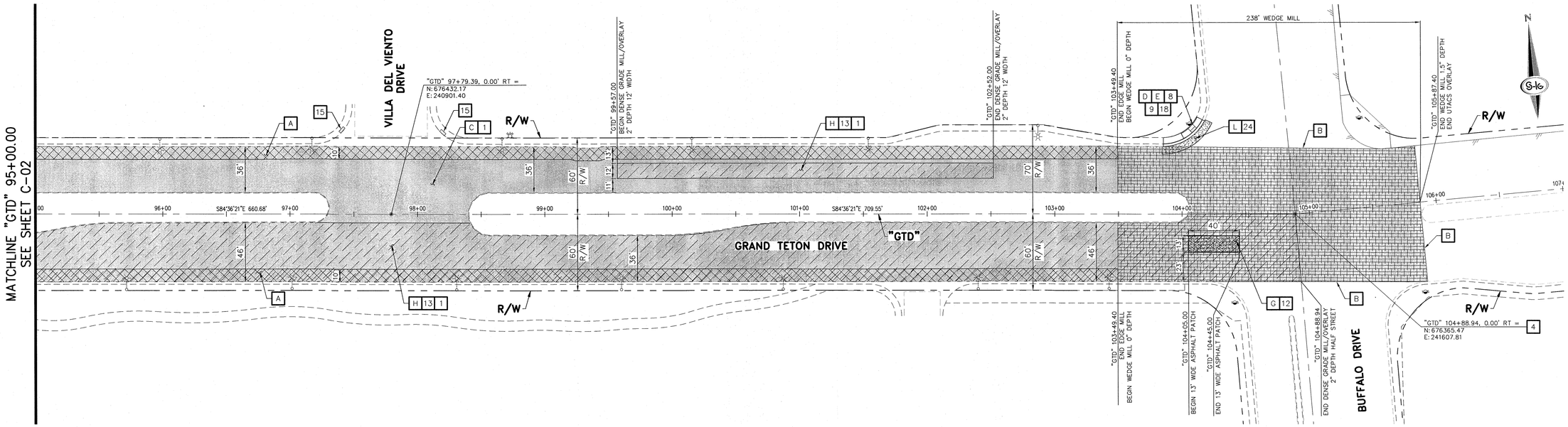
SHEET:
IMPROVEMENT PLAN
"GTD" 71+50.00 TO "GTD" 95+00.00

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131

Sheet
C-02
4 of 11
BID NO.

PROJ#:124986 AGREE#: 116118 QS:125-16-NE/NW

CLV DWG No. 107v7382



LEGEND

- EDGE MILL 0" TO 1/2" TO MATCH EXISTING
- UTACS OVERLAY
- REMOVE AND REPLACE CONCRETE SIDEWALK & C&G
- REMOVE AND REPLACE AC
- DENSE GRADE MILL OVERLAY
- WEDGE MILL
- SURFACE MILL FULL WIDTH STREET 1/2" TO 1/4"
- MILL 1" EXISTING AC
- TYPE II AGGREGATE BASE

REMOVAL ITEMS:

A	COLD PLANE EXISTING SURFACE, 0" – 1/2" DEPTH.
B	MATCH LINE, NEW A.C. TO MATCH EXISTING
C	REMOVE EXISTING TRAFFIC DELINEATION, MARKINGS AND SYMBOLS.
D	REMOVE EXISTING CONCRETE SIDEWALK (BY CLV)
E	REMOVE EXISTING CURB & GUTTER (BY CLV)
F	REMOVE EXISTING CROSS GUTTER SPANDREL (BY CLV)
G	REMOVE EXISTING ASPHALT
H	MILL 2" EXISTING AC
J	MILL 2.5" EXISTING AC
K	MILL 3" EXISTING AC
L	REMOVE EXISTING ASPHALT (BY CLV)
M	MILL 1" EXISTING AC
N	REMOVE EXISTING CURB (BY CLV)

CONSTRUCTION ITEMS:

1	CONSTRUCT 1" THICK ULTRA THIN ASPHALTIC CONCRETE SURFACE (UTACS) S3 GRADATION
2	INSTALL 4" TYPE II AGGREGATE BASE
3	CONSTRUCT TACK-ON ISLAND CURB PER USD. DWG. #220
4	SET TYPE III SURVEY MONUMENT. (BY CLV)
5	SCARIFY AND RECOMPACT TOP 8" OF EXPOSED SOIL TO MIN. 95% COMPACTION (ASTM D1557)
6	CONSTRUCT 18" L-TYPE CURB AND GUTTER PER USD. DWG. #219
7	CONSTRUCT "A" TYPE CURB PER USD DWG. #219 (BY CLV)
8	CONSTRUCT CONCRETE SIDEWALK PER USD DWG. #234 (BY CLV)
9	CONSTRUCT 24" L-TYPE CONCRETE CURB & GUTTER PER USD DWG. #216 (BY CLV)
10	CONSTRUCT CONCRETE CROSS GUTTER PER USD DWG. #228 (BY CLV)
11	CONSTRUCT CONCRETE RESIDENTIAL DRIVEWAY PER USD DWG. #223 (BY CLV)
12	CONSTRUCT ASPHALT PATCH TO MATCH EXISTING DEPTH, MINIMUM 5" DEPTH FOR ARTERIAL AND 3" DEPTH FOR LOCAL.
13	CONSTRUCT 2" DENSE GRADE AC OVERLAY
14	CONSTRUCT 2.5" DENSE GRADE AC OVERLAY
15	CONSTRUCT GLUE DOWN TACTILE (WARNING) DETECTABLE STRIP AND GRIND CURB LIP FLUSH WITH GUTTER FLOW LINE AT RAMP LANDING PER USD. DWG. #235 (BY CLV)
16	CONSTRUCT 3" DENSE GRADE AC OVERLAY
17	CONSTRUCT 2' MEDIAN ISLAND
18	CONSTRUCT CASE I SIDEWALK RAMP PER USD. DWG. #235 (BY CLV)
19	CONSTRUCT CASE II SIDEWALK RAMP PER USD. DWG. #235 (BY CLV)
20	CONSTRUCT CASE III SIDEWALK RAMP PER USD. DWG. #235 (BY CLV)
21	CONSTRUCT TACK-ON ISLAND PER USD. DWG. #220.1.S1
22	CONSTRUCT ALLEY DRIVEWAY PER USD. DWG. #227.S1 (BY CLV)
23	ADJUST UTILITY PULL BOX TO FG. (BY CLV)
24	CONSTRUCT ASPHALT PATCH TO MATCH EXISTING DEPTH, MINIMUM 5" DEPTH FOR ARTERIAL AND 3" DEPTH FOR LOCAL. (BY CLV)
25	CONSTRUCT CRASH CAP FLUSH WITH SIDEWALK – VERTICAL AT BASE (BY CLV)
26	CONSTRUCT TACTILE (WARNING) DETECTABLE STRIP PER USD. DWG. #235
27	INSTALL 3" TYPE II AGGREGATE BASE
28	INSTALL 0.75" DIAMETER LANDSCAPE ROCK (2" THICK) COLOR TO BE APPROVED BY CLV

APPROVED FOR CONSTRUCTION

LVVWD ENGINEERING SERVICES MANAGER — DATE 9/5/17

PROJECT NO. 124986

GENERAL NOTE:

1. LENGTH OF ASPHALT PATCH SHOWN ON THE DRAWINGS IS TO THE CENTER OF THE ASPHALT PATCH UNLESS OTHERWISE NOTED.
2. ALL CONSTRUCTION ACTIVITIES WILL BE PERFORMED WITHIN CITY OF LAS VEGAS RIGHT-OF-WAY.
3. SEE UT-SHEETS FOR UTILITY ADJUSTMENTS.

GRAPHIC SCALE

40 0 40 80

SCALE (IN FEET) FEET

1 inch = 40 ft.

CLV DWG No. 107v7382

DEPARTMENT OF OPERATIONS AND MAINTENANCE

DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC
DATE: 8/31/17

NO.	REVISIONS	DATE

GRAND TETON DRIVE – DURANGO DRIVE TO BUFFALO DRIVE

TITLE: GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

SHEET: IMPROVEMENT PLAN
"GTD" 95+00.00 TO "GTD" 107+00.00

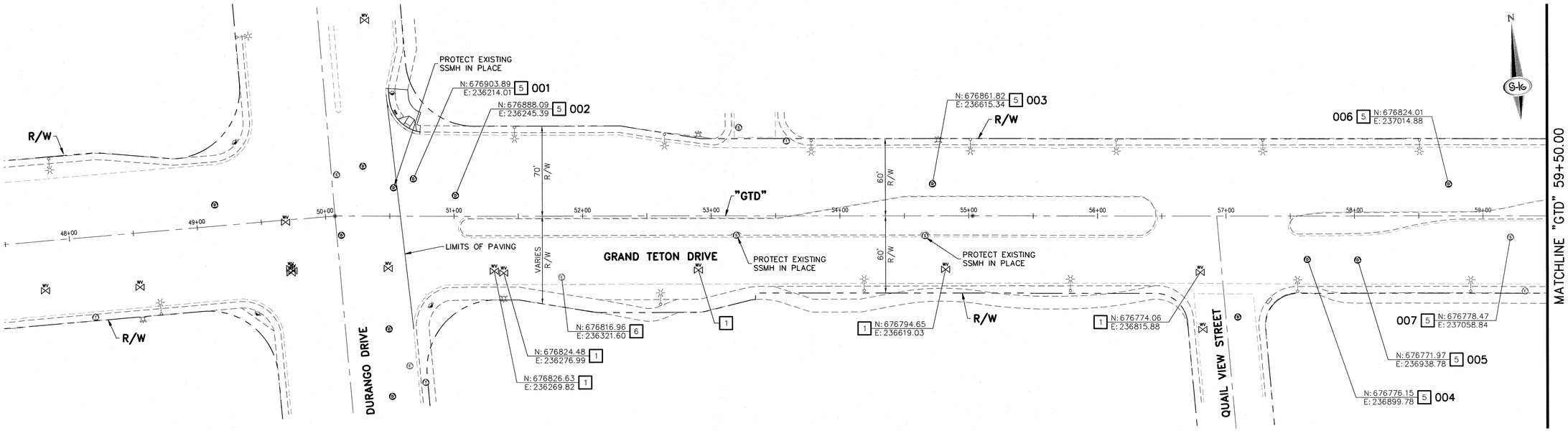
SEAL

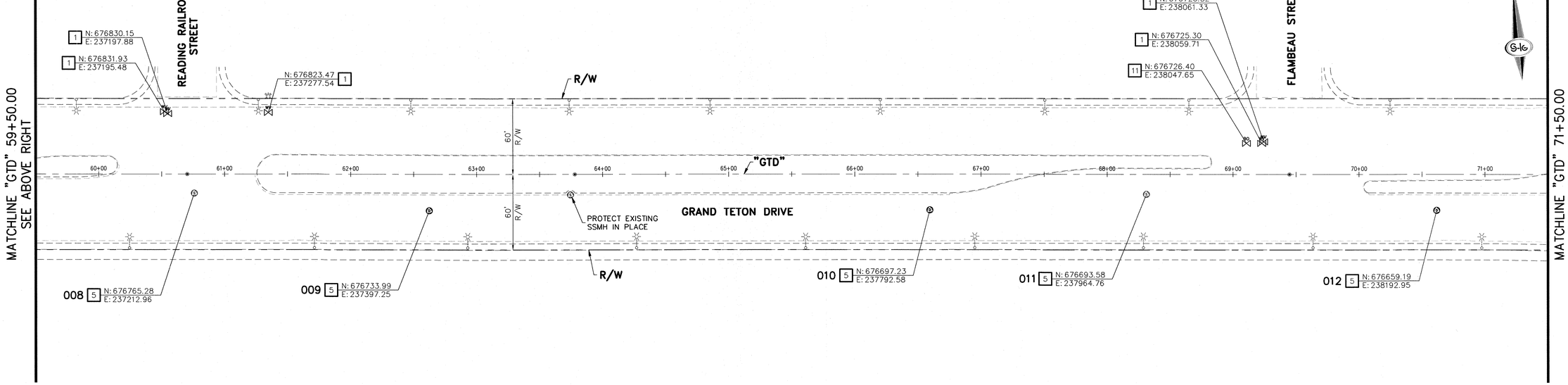
PROFESSIONAL ENGINEER — STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131

9/5/17

Sheet
C-03
5 of 11
BID NO.

PROJ#:124986 AGREE#: 116118 QS:125-16-NE/NW





CONSTRUCTION ITEMS:

1	ADJUST WATER VALVE BOX TO FINISHED GRADE PER UDACS PLATE NO. 39, VALVE SHALL BE ACCESSIBLE AT ALL TIMES
2	CONTRACTOR SHALL INSTALL BLIND FLANGE, CONCRETE COLLAR, MANHOLE FRAME AND COVER AND ADJUST WATER BLOW-OFF ASSEMBLY TO FG PER UDACS PLATE NO. 37
3	ADJUST WATER MANHOLE TO FG PER LVVWD DESIGN STD. PL08-4 (LVVWD ACAD STD)
4	ADJUST 4" BYPASS VALVE TO FINISH GRADE
5	ADJUST SSMH OR SDMH TO FG AND CONSTRUCT CONCRETE COLLAR PER USD. DWG. #408
6	ADJUST ELECTRICAL OR TELEPHONE MANHOLE TO FG AND CONSTRUCT CONCRETE COLLAR
7	ADJUST GAS VALVE TO FG AND CONSTRUCT CONCRETE COLLAR (BY OTHERS)
8	ADJUST TELEPHONE MANHOLE TO FG AND CONSTRUCT CONCRETE COLLAR (BY OTHERS)
9	ADJUST GAS MANHOLE TO FG AND CONSTRUCT CONCRETE COLLAR (BY OTHERS)
10	REMOVE FRAME AND COVER AND INSTALL NEW FRAME AND COVER PER DCSWCS NO. SD-2 (FRAME AND COVER TO BE PROVIDED TO CONTRACTOR BY CLV)
11	ADJUST 2" WATER BLOW-OFF ASSEMBLY TO FINISHED GRADE PER UDACS PLATE NO. 36
12	REPLACE MANHOLE LID WITH CLV MANHOLE LID

APPROVED FOR CONSTRUCTION

Y. Dishaji for Dan 9/5/17

LVVWD ENGINEERING SERVICES MANAGER — DATE

PROJECT NO. 124986

GENERAL NOTE:

1. LENGTH OF ASPHALT PATCH SHOWN ON THE DRAWINGS IS TO THE CENTER OF THE ASPHALT PATCH UNLESS OTHERWISE NOTED.
2. ALL CONSTRUCTION ACTIVITIES WILL BE PERFORMED WITHIN CITY OF LAS VEGAS RIGHT-OF-WAY.

GRAPHIC SCALE

40 0 40 80

SCALE (IN FEET) FEET

1 inch = 40 ft.

NO.	REVISIONS	DATE

GRAND TETON DRIVE - DURANGO DRIVE TO BUFFALO DRIVE

DEPARTMENT OF OPERATIONS AND MAINTENANCE

DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC

DATE: 8/31/17

CITY OF LAS VEGAS NEVADA

TITLE: GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

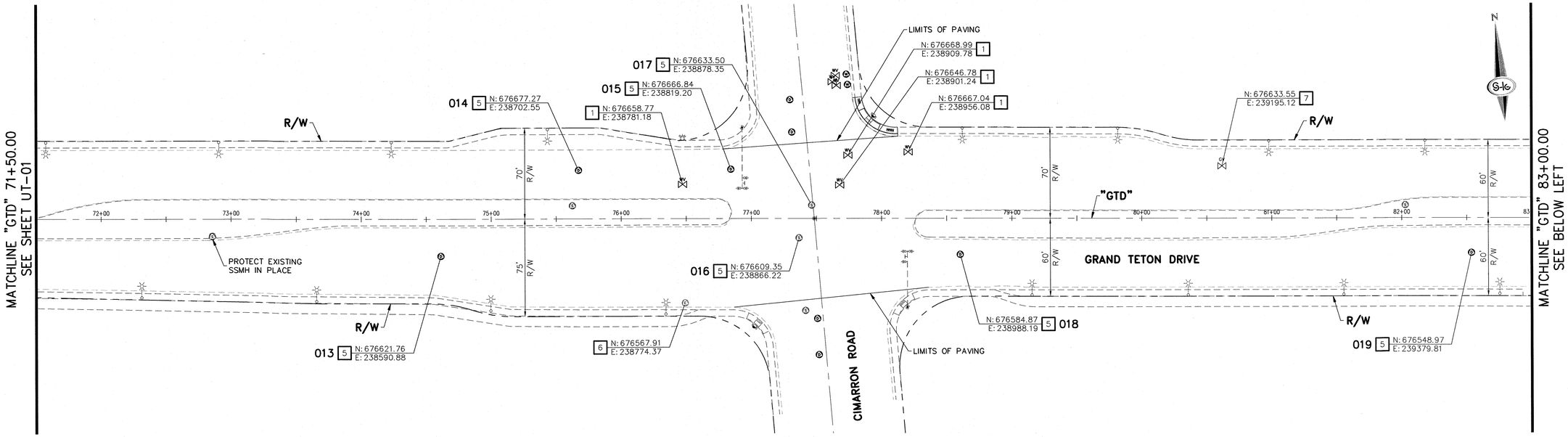
SHEET: UTILITY PLAN
"GTD" 47+50.00 TO "GTD" 71+50.00

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131

Sheet
UT-01
6 of 11
BID NO.

PROJ.#:124986 AGREE#: 116118 QS:125-16-NE/NW

CLV DWG No. 107v7382



CONSTRUCTION ITEMS:

1	ADJUST WATER VALVE BOX TO FINISHED GRADE PER UDACS PLATE NO. 39, VALVE SHALL BE ACCESSIBLE AT ALL TIMES
2	CONTRACTOR SHALL INSTALL BLIND FLANGE, CONCRETE COLLAR, MANHOLE FRAME AND COVER AND ADJUST WATER BLOW-OFF ASSEMBLY TO FG PER UDACS PLATE NO. 37
3	ADJUST WATER MANHOLE TO FG PER LVVWD DESIGN STD. PL08-4 (LVVWD ACAD STD)
4	ADJUST 4" BYPASS VALVE TO FINISH GRADE
5	ADJUST SSMH OR SDMH TO FG AND CONSTRUCT CONCRETE COLLAR PER USD. DWG. #408
6	ADJUST ELECTRICAL OR TELEPHONE MANHOLE TO FG AND CONSTRUCT CONCRETE COLLAR
7	ADJUST GAS VALVE TO FG AND CONSTRUCT CONCRETE COLLAR (BY OTHERS)
8	ADJUST TELEPHONE MANHOLE TO FG AND CONSTRUCT CONCRETE COLLAR (BY OTHERS)
9	ADJUST GAS MANHOLE TO FG AND CONSTRUCT CONCRETE COLLAR (BY OTHERS)
10	REMOVE FRAME AND COVER AND INSTALL NEW FRAME AND COVER PER DCSWCS NO. SD-2 (FRAME AND COVER TO BE PROVIDED TO CONTRACTOR BY CLV)
11	ADJUST 2" WATER BLOW-OFF ASSEMBLY TO FINISHED GRADE PER UDACS PLATE NO. 36
12	REPLACE MANHOLE LID WITH CLV MANHOLE LID

APPROVED FOR CONSTRUCTION

LVVWD ENGINEERING SERVICES MANAGER — DATE 9/5/17

PROJECT NO. 124986

GENERAL NOTE:

1. LENGTH OF ASPHALT PATCH SHOWN ON THE DRAWINGS IS TO THE CENTER OF THE ASPHALT PATCH UNLESS OTHERWISE NOTED.
2. ALL CONSTRUCTION ACTIVITIES WILL BE PERFORMED WITHIN CITY OF LAS VEGAS RIGHT-OF-WAY.

GRAPHIC SCALE

40 0 40 80

SCALE (IN FEET) FEET

1 inch = 40 ft.

NO.	REVISIONS	DATE

GRAND TETON DRIVE - DURANGO DRIVE TO BUFFALO DRIVE

DEPARTMENT OF OPERATIONS
AND MAINTENANCE

DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC

DATE: 8/31/17

TITLE: GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

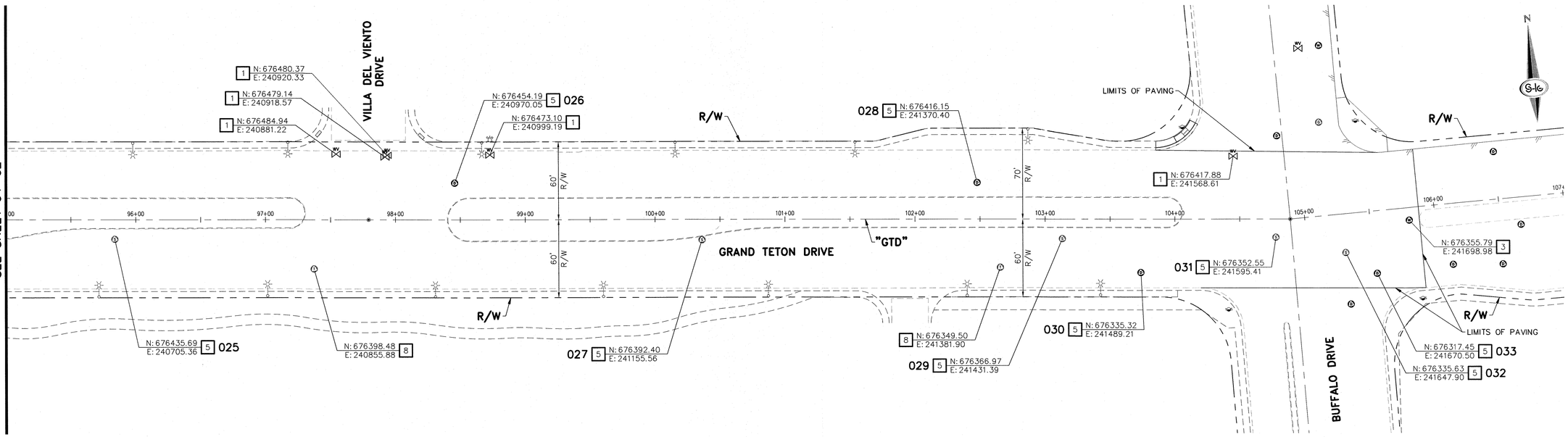
SHEET: UTILITY PLAN
"GTD" 71+50.00 TO "GTD" 95+00.00

SEAL — PROFESSIONAL ENGINEER — STATE OF NEVADA — RANDY W. CARROLL — Exp. 12/31/2018 — CIVIL — No. 16131 — 9/5/17

Sheet UT-02
7 of 11
BID NO.

PROJ.#:124986 AGREE#: 116118 QS:125-16-NE/NW

CLV DWG No. 107v7382



CONSTRUCTION ITEMS:

1. ADJUST WATER VALVE BOX TO FINISHED GRADE PER UDACS PLATE NO. 39, VALVE SHALL BE ACCESSIBLE AT ALL TIMES
2. CONTRACTOR SHALL INSTALL BLIND FLANGE, CONCRETE COLLAR, MANHOLE FRAME AND COVER AND ADJUST WATER BLOW-OFF ASSEMBLY TO FG PER UDACS PLATE NO. 37
3. ADJUST WATER MANHOLE TO FG PER LVVWD DESIGN STD. PL08-4 (LVVWD ACAD STD)
4. ADJUST 4" BYPASS VALVE TO FINISH GRADE
5. ADJUST SSMH OR SDMH TO FG AND CONSTRUCT CONCRETE COLLAR PER USD. DWG. #408
6. ADJUST ELECTRICAL OR TELEPHONE MANHOLE TO FG AND CONSTRUCT CONCRETE COLLAR
7. ADJUST GAS VALVE TO FG AND CONSTRUCT CONCRETE COLLAR (BY OTHERS)
8. ADJUST TELEPHONE MANHOLE TO FG AND CONSTRUCT CONCRETE COLLAR (BY OTHERS)
9. ADJUST GAS MANHOLE TO FG AND CONSTRUCT CONCRETE COLLAR (BY OTHERS)
10. REMOVE FRAME AND COVER AND INSTALL NEW FRAME AND COVER PER DCSWCS NO. SD-2 (FRAME AND COVER TO BE PROVIDED TO CONTRACTOR BY CLV)
11. ADJUST 2" WATER BLOW-OFF ASSEMBLY TO FINISHED GRADE PER UDACS PLATE NO. 36
12. REPLACE MANHOLE LID WITH CLV MANHOLE LID

APPROVED FOR CONSTRUCTION

LVVWD ENGINEERING SERVICES MANAGER — DATE 9/5/17

PROJECT NO. 124986

GENERAL NOTE:

1. LENGTH OF ASPHALT PATCH SHOWN ON THE DRAWINGS IS TO THE CENTER OF THE ASPHALT PATCH UNLESS OTHERWISE NOTED.
2. ALL CONSTRUCTION ACTIVITIES WILL BE PERFORMED WITHIN CITY OF LAS VEGAS RIGHT-OF-WAY.

GRAPHIC SCALE

40 0 40 80

SCALE (IN FEET) FEET

1 inch = 40 ft.

NO.	REVISIONS	DATE

GRAND TETON DRIVE - DURANGO DRIVE TO BUFFALO DRIVE

DEPARTMENT OF OPERATIONS AND MAINTENANCE

DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC

DATE: 8/31/17

TITLE: GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

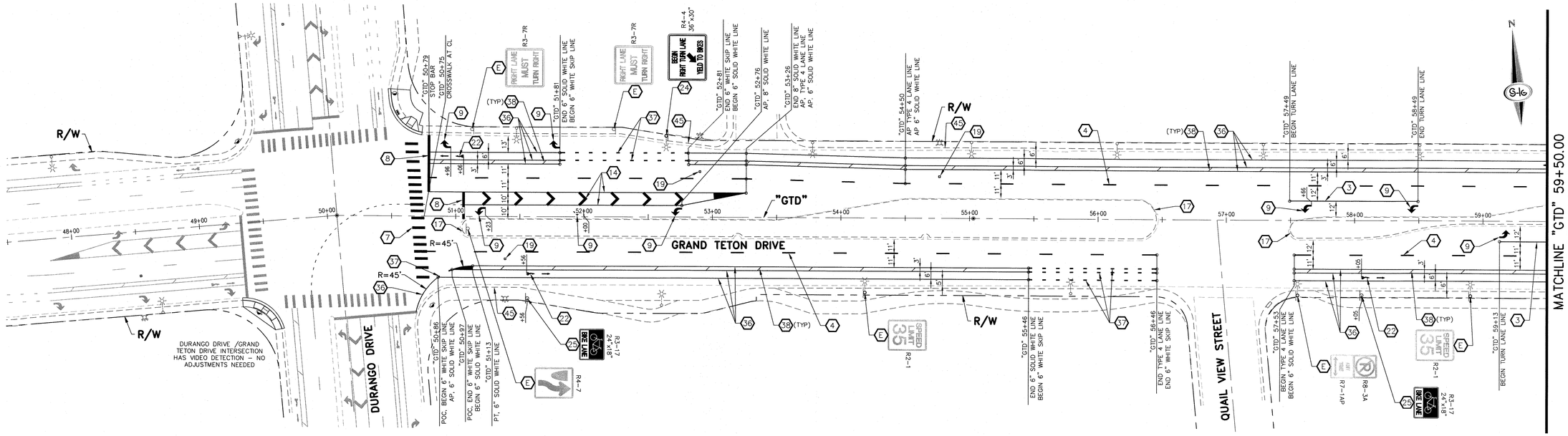
SHEET: UTILITY PLAN
"GTD" 95+00.00 TO "GTD" 107+00.00

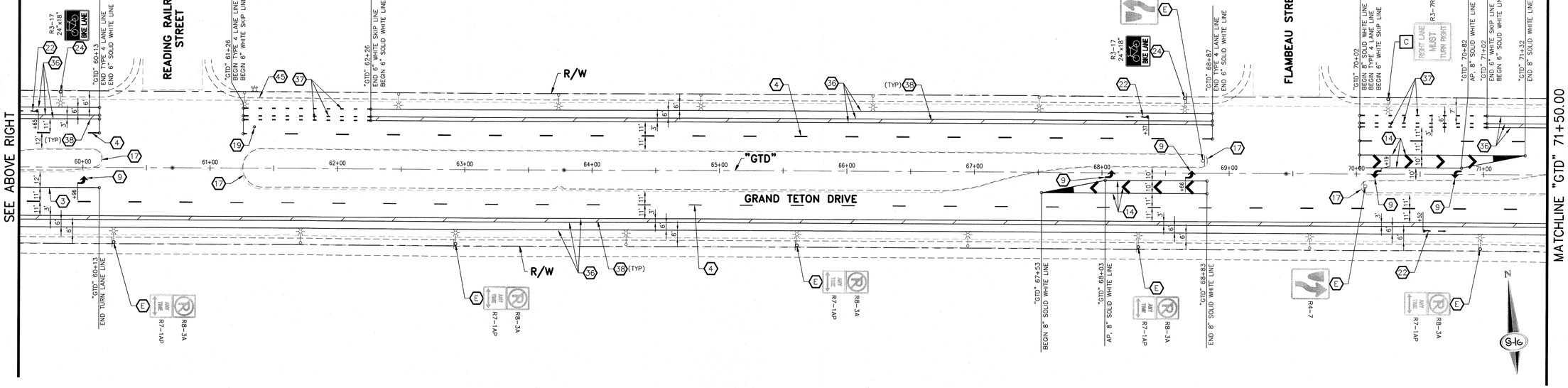
SEAL — PROFESSIONAL ENGINEER — STATE OF NEVADA — No. 16131 — RANDY W. CARROLL — Exp. 12/31/2018 — CIVIL — 8/25/17

Sheet
UT-03
8 of 11
BID NO.

PROJ.#:124986 AGREE#: 116118 QS:125-16-NE/NW

CLV DWG No. 107v7382





REMOVAL ITEMS:

- A — REMOVE EXISTING TRAFFIC DELINEATION, MARKINGS AND SYMBOLS.
- B — SAWCUT AND REMOVE EXISTING ISLAND AND ISLAND NOSE FROM CROSSWALK PATH.
- C — REMOVE AND SALVAGE SIGN(S).

GENERAL NOTE:

1. ALL LANE LINE DIMENSIONS ARE TO LIP OF GUTTER OR FACE OF MEDIAN ISLAND UNLESS OTHERWISE NOTED.

CONSTRUCTION ITEMS:

1. INSTALL TYPE I CENTERLINE AS PER USD. DWG. #244.
2. INSTALL TYPE 2 CENTERLINE AS PER USD. DWG. #244.
3. INSTALL TURN LANE LINE (RPM) AS PER USD. DWG. #246.
4. INSTALL TYPE 4 LANE LINE AS PER USD. DWG. #244.1.
5. INSTALL 6" SOLID WHITE LINE (T–2 FILM) AS PER USD. DWG. #244.9.
6. INSTALL WHITE T–2 FILM SCHOOL CROSSWALK PER USD. DWG. #254.1.51.
7. INSTALL WHITE T–2 FILM CROSSWALK PER USD. DWG. #254.
8. INSTALL WHITE T–2 FILM STOP BAR PER USD. DWG. #254.
9. INSTALL WHITE T–2 FILM "ARROW" SYMBOL PER MUTCD 2009 PART 3 AND USD. DWG. #246.
10. INSTALL WHITE T–2 FILM LANE LINE (3' SEGMENTS AND 9' GAPS).
11. INSTALL WHITE T–2 FILM "ONLY" LEGEND PER MUTCD 2009 PART 3 AND USD. DWG. #246.6.
12. INSTALL TRAFFIC LOOP DETECTOR AS PER USD. DWG. #826, 827, 828, AND 834.
13. INSTALL WHITE T–2 FILM STRIPING PER USD. DWG. #245.
14. INSTALL TRANSITION SECTION (T–2 FILM) AS PER USD. DWG. #245 (3 OF 3).
15. INSTALL TRANSITION SECTION (T–2 FILM) AS PER USD. DWG. #245 (2 OF 3).
16. INSTALL FORCED TURN LANE LINE (RPM) AS PER USD. DWG. #246.6.
17. INSTALL YELLOW MEDIAN NOSE MARKINGS AS PER USD. DWG. #248.
18. INSTALL MEDIAN ISLAND NOSE NOT TO ENCROACH INTO CROSSWALK PATH.
19. INSTALL FIRE HYDRANT MARKER PER CITY OF LAS VEGAS FIRE CODE.
20. INSTALL RIGHT TURN ONLY LANE PER MUTCD 2009 PART 9 FIG. 9C–4.
21. INSTALL 6" WHITE SKIP LINE (T–2 FILM) AS PER USD. DWG. #244.9.
22. INSTALL WHITE T–2 FILM BICYCLE SYMBOL PAVEMENT MARKING PER MUTCD 2009 PART 9 FIG. 9C–3 AND USD. DWG. #244.9.
23. INSTALL WHITE MEDIAN NOSE MARKINGS AS PER USD. DWG. #248.
24. INSTALL NEW SIGN(S) (POLE MOUNTED).
25. INSTALL NEW SIGN(S) (GROUND MOUNTED) AS PER USD. DWG. #249.1.
26. INSTALL T–2 FILM "U–TURN ARROW" SYMBOL.
27. INSTALL WHITE CAT TRACKS (RPM).
28. PAINT MEDIAN ISLAND YELLOW UP TO 2' WIDTH.
29. INSTALL WHITE K71 SELF RE–ERECTING MARKER POST.
30. INSTALL TYPE I CENTERLINE AS PER USD. DWG. #244 (ALL PAVEMENT MARKERS SHALL BE WHITE).
31. INSTALL 4" SOLID WHITE LINE (T–1 FILM).
32. INSTALL 8" SOLID WHITE LINE (T–2 FILM).
33. REMOVE AND RESET SIGN(S).
34. INSTALL YELLOW K71 SELF RE–ERECTING MARKER POST.
35. INSTALL WHITE T–2 FILM MERGE ARROW AS PER NDOT STD. PLAN T–38.1.1
36. INSTALL 6" SOLID WHITE LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
37. INSTALL 6" WHITE SKIP LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
38. INSTALL 4" DIAGONAL WHITE LINE @ 40' O.C. (WATERBORNE PAINT).
39. INSTALL 4" SOLID WHITE LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
40. INSTALL 4" WHITE SKIP LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
41. INSTALL TRANSITION SECTION (EPOXY PAINT) AS PER USD. DWG. #245 (3 OF 3).
42. INSTALL TRANSITION SECTION (EPOXY PAINT) AS PER USD. DWG. #245 (2 OF 3).
43. INSTALL BICYCLE DETECTOR LOOP (SEE DETAIL 1, SHEET ST–06). BICYCLE LOOP CONNECTION TO LOOP LEAD–IN BY CLV. PROVIDE A MIN. OF 5' OF LOOP LEADS COILED IN LOOP PULL BOX.
44. INSTALL COMPRESSED WHITE T–2 FILM "ARROW" SYMBOL PER MUTCD 2009 PART 3.
45. REFRESH EXISTING RED PAINTED CURB WITH NEW PAINT.
E. EXISTING SIGN TO REMAIN IN PLACE.

GRAPHIC SCALE
40 0 40 80
SCALE (IN FEET) FEET
1 inch = 40 ft.

DEPARTMENT OF OPERATIONS
AND MAINTENANCE
DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

NO.	REVISIONS	DATE

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC
DATE: 8/31/17

GRAND TETON DRIVE – DURANGO DRIVE TO BUFFALO DRIVE

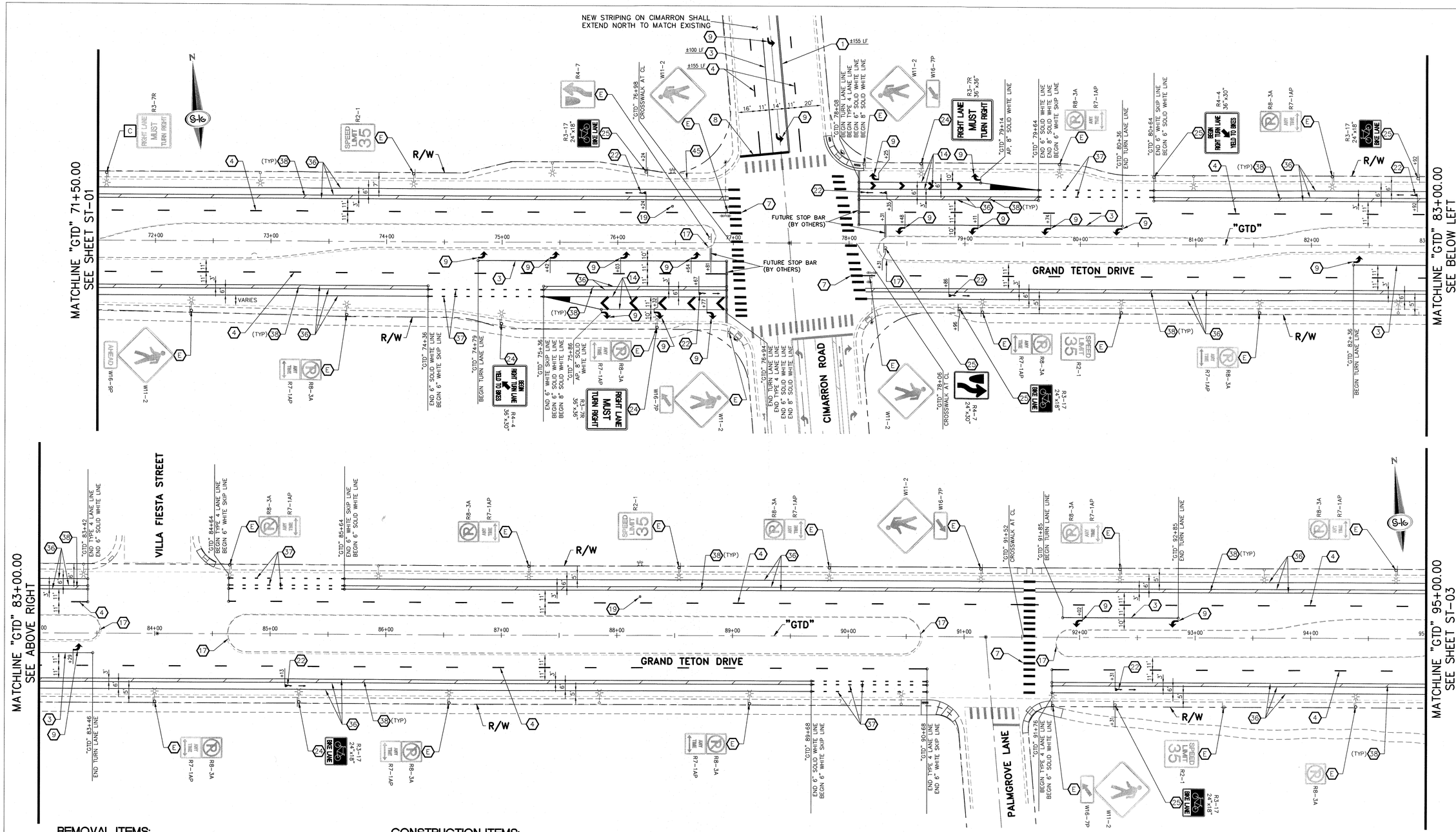
TITLE: GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

SHEET: STRIPING PLAN
"GTD" 47+50.00 TO "GTD" 71+50.00

SEAL
PROFESSIONAL ENGINEER
STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131
8/31/17

Sheet ST-01
9 of 11
BID NO.

CLV DWG No. 107v7382



REMOVAL ITEMS:

- A — REMOVE EXISTING TRAFFIC DELINEATION, MARKINGS AND SYMBOLS.
- B — SAWCUT AND REMOVE EXISTING ISLAND AND ISLAND NOSE FROM CROSSWALK PATH.
- C — REMOVE AND SALVAGE SIGN(S).

GENERAL NOTE:

1. ALL LANE LINE DIMENSIONS ARE TO LIP OF GUTTER OR FACE OF MEDIAN ISLAND UNLESS OTHERWISE NOTED.

CONSTRUCTION ITEMS:

1. INSTALL TYPE I CENTERLINE AS PER USD. DWG. #244.
2. INSTALL TYPE 2 CENTERLINE AS PER USD. DWG. #244.
3. INSTALL TURN LANE LINE (RPM) AS PER USD. DWG. #246.
4. INSTALL TYPE 4 LANE LINE AS PER USD. DWG. #244.1.
5. INSTALL 6" SOLID WHITE LINE (T-2 FILM) AS PER USD. DWG. #244.9.
6. INSTALL WHITE T-2 FILM SCHOOL CROSSWALK PER USD. DWG. #254.1.51.
7. INSTALL WHITE T-2 FILM CROSSWALK PER USD. DWG. #254.
8. INSTALL WHITE T-2 FILM STOP BAR PER USD. DWG. #254.
9. INSTALL WHITE T-2 FILM "ARROW" SYMBOL PER MUTCD 2009 PART 3 AND USD. DWG. #246.
10. INSTALL WHITE T-2 FILM LANE LINE (3' SEGMENTS AND 9' GAPS).
11. INSTALL WHITE T-2 FILM "ONLY" LEGEND PER MUTCD 2009 PART 3 AND USD. DWG. #246.6.
12. INSTALL TRAFFIC LOOP DETECTOR AS PER USD. DWG. #826, 827, 828, AND 834.
13. INSTALL WHITE T-2 FILM STRIPING PER USD. DWG. #245.
14. INSTALL TRANSITION SECTION (T-2 FILM) AS PER USD. DWG. #245 (3 OF 3).
15. INSTALL TRANSITION SECTION (T-2 FILM) AS PER USD. DWG. #245 (2 OF 3).
16. INSTALL FORCED TURN LANE LINE (RPM) AS PER USD. DWG. #246.6.
17. INSTALL YELLOW MEDIAN NOSE MARKINGS AS PER USD. DWG. #248.
18. INSTALL MEDIAN ISLAND NOSE NOT TO ENCROACH INTO CROSSWALK PATH.
19. INSTALL FIRE HYDRANT MARKER PER CITY OF LAS VEGAS FIRE CODE.
20. INSTALL RIGHT TURN ONLY LANE PER MUTCD 2009 PART 9 FIG. 9C-4.
21. INSTALL 6" WHITE SKIP LINE (T-2 FILM) AS PER USD. DWG. #244.9.
22. INSTALL WHITE T-2 FILM BICYCLE SYMBOL PAVEMENT MARKING PER MUTCD 2009 PART 9 FIG. 9C-3 AND USD. DWG. #244.9.
23. INSTALL WHITE MEDIAN NOSE MARKINGS AS PER USD. DWG. #248.
24. INSTALL NEW SIGN(S) (POLE MOUNTED).
25. INSTALL NEW SIGN(S) (GROUND MOUNTED) AS PER USD. DWG. #249.1.
26. INSTALL T-2 FILM "U-TURN ARROW" SYMBOL.
27. INSTALL WHITE CAT TRACKS (RPM).
28. PAINT MEDIAN ISLAND YELLOW UP TO 2' WIDTH.
29. INSTALL WHITE K71 SELF RE-ERECTING MARKER POST.
30. INSTALL TYPE I CENTERLINE AS PER USD. DWG. #244 (ALL PAVEMENT MARKERS SHALL BE WHITE).
31. INSTALL 4" SOLID WHITE LINE (T-1 FILM).
32. INSTALL 8" SOLID WHITE LINE (T-2 FILM).
33. REMOVE AND RESET SIGN(S).
34. INSTALL YELLOW K71 SELF RE-ERECTING MARKER POST.
35. INSTALL WHITE T-2 FILM MERGE ARROW AS PER NDOT STD. PLAN T-38.1.1
36. INSTALL 6" SOLID WHITE LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
37. INSTALL 6" WHITE SKIP LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
38. INSTALL 4" DIAGONAL WHITE LINE @ 40' O.C. (WATERBORNE PAINT).
39. INSTALL 4" SOLID WHITE LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
40. INSTALL 4" WHITE SKIP LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
41. INSTALL TRANSITION SECTION (EPOXY PAINT) AS PER USD. DWG. #245 (3 OF 3).
42. INSTALL TRANSITION SECTION (EPOXY PAINT) AS PER USD. DWG. #245 (2 OF 3).
43. INSTALL BICYCLE DETECTOR LOOP (SEE DETAIL 1, SHEET ST-06). BICYCLE LOOP CONNECTION TO LOOP LEAD-IN BY CLV. PROVIDE A MIN. OF 5' OF LOOP LEADS COILED IN LOOP PULL BOX.
44. INSTALL COMPRESSED WHITE T-2 FILM "ARROW" SYMBOL PER MUTCD 2009 PART 3.
45. REFRESH EXISTING RED PAINTED CURB WITH NEW PAINT.
E. EXISTING SIGN TO REMAIN IN PLACE.

GRAPHIC SCALE
40 0 40 80
SCALE (IN FEET) FEET
1 inch = 40 ft.

DEPARTMENT OF OPERATIONS
AND MAINTENANCE
DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

NO.	REVISIONS	DATE

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC
DATE: 8/31/17

GRAND TETON DRIVE - DURANGO DRIVE TO BUFFALO DRIVE

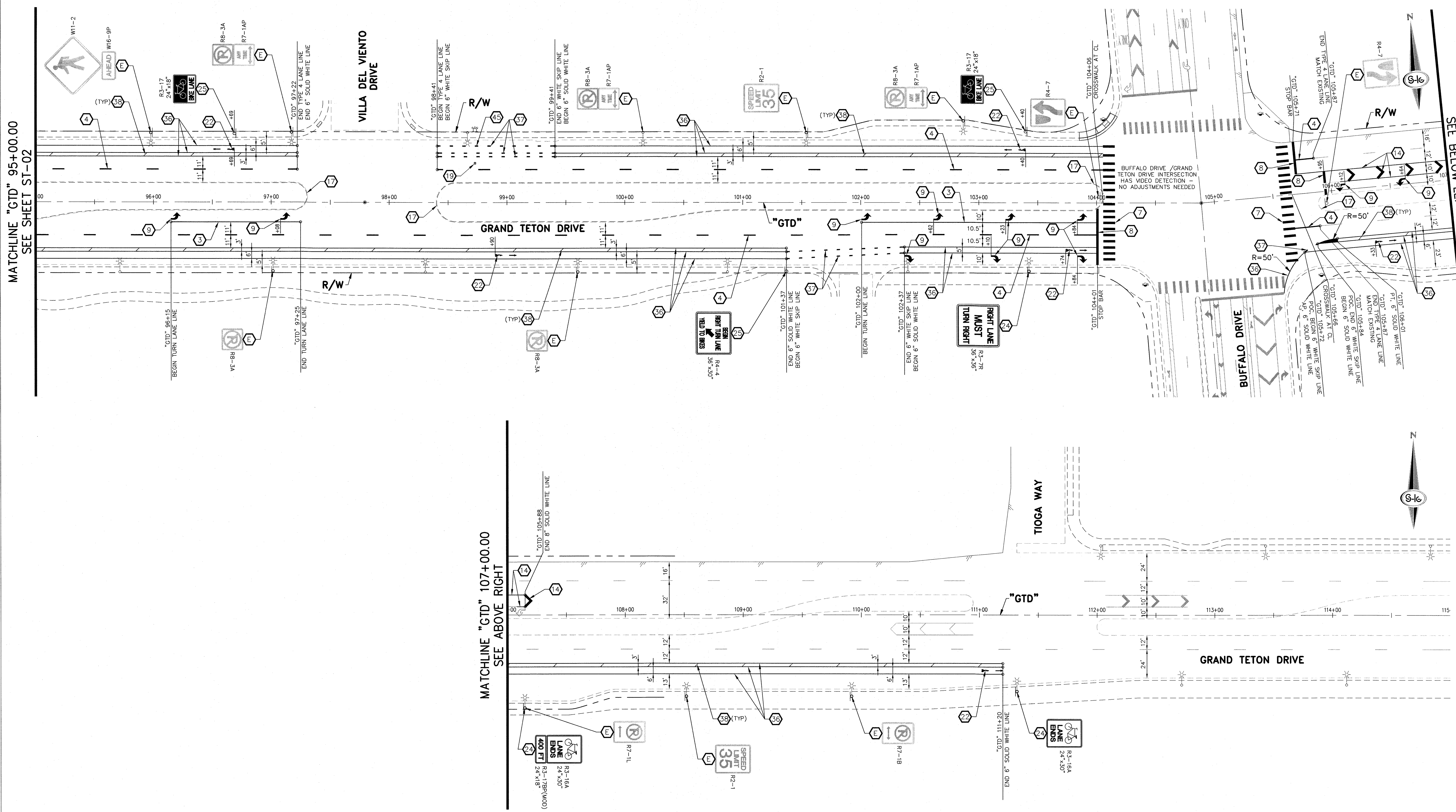
TITLE:
GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE
STRIPING PLAN
"GTD" 71+50.00 TO "GTD" 95+00.00

SHEET:

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131
8/25/17

Sheet
ST-02
10 of 11
BID NO.

CLV DWG No. 107v7382



REMOVAL ITEMS:

- A — REMOVE EXISTING TRAFFIC DELINEATION, MARKINGS AND SYMBOLS.
- B — SAWCUT AND REMOVE EXISTING ISLAND AND ISLAND NOSE FROM CROSSWALK PATH.
- C — REMOVE AND SALVAGE SIGN(S).

GENERAL NOTE:

1. ALL LANE LINE DIMENSIONS ARE TO LIP OF GUTTER OR FACE OF MEDIAN ISLAND UNLESS OTHERWISE NOTED.

CONSTRUCTION ITEMS:

- 1 — INSTALL TYPE I CENTERLINE AS PER USD. DWG. #244.
- 2 — INSTALL TYPE 2 CENTERLINE AS PER USD. DWG. #244.
- 3 — INSTALL TURN LANE LINE (RPM) AS PER USD. DWG. #246.
- 4 — INSTALL TYPE 4 LANE LINE AS PER USD. DWG. #244.1.
- 5 — INSTALL 6" SOLID WHITE LINE (T-2 FILM) AS PER USD. DWG. #244.9.
- 6 — INSTALL WHITE T-2 FILM SCHOOL CROSSWALK PER USD. DWG. #254.1.51.
- 7 — INSTALL WHITE T-2 FILM CROSSWALK PER USD. DWG. #254.
- 8 — INSTALL WHITE T-2 FILM STOP BAR PER USD. DWG. #254.
- 9 — INSTALL WHITE T-2 FILM "ARROW" SYMBOL PER MUTCD 2009 PART 3 AND USD. DWG. #246.
- 10 — INSTALL WHITE T-2 FILM LANE LINE (3' SEGMENTS AND 9' GAPS).
- 11 — INSTALL WHITE T-2 FILM "ONLY" LEGEND PER MUTCD 2009 PART 3 AND USD. DWG. #246.6.
- 12 — INSTALL TRAFFIC LOOP DETECTOR AS PER USD. DWG. #826, 827, 828, AND 834.
- 13 — INSTALL WHITE T-2 FILM STRIPING PER USD. DWG. #245.
- 14 — INSTALL TRANSITION SECTION (T-2 FILM) AS PER USD. DWG. #245 (3 OF 3).
- 15 — INSTALL TRANSITION SECTION (T-2 FILM) AS PER USD. DWG. #245 (2 OF 3).
- 16 — INSTALL FORCED TURN LANE LINE (RPM) AS PER USD. DWG. #246.6.
- 17 — INSTALL YELLOW MEDIAN NOSE MARKINGS AS PER USD. DWG. #248.
- 18 — INSTALL MEDIAN ISLAND NOSE NOT TO ENCROACH INTO CROSSWALK PATH.
- 19 — INSTALL FIRE HYDRANT MARKER PER CITY OF LAS VEGAS FIRE CODE.
- 20 — INSTALL RIGHT TURN ONLY LANE PER MUTCD 2009 PART 9 FIG. 9C-4.
- 21 — INSTALL 6" WHITE SKIP LINE (T-2 FILM) AS PER USD. DWG. #244.9.
- 22 — INSTALL WHITE T-2 FILM BICYCLE SYMBOL PAVEMENT MARKING PER MUTCD 2009 PART 9 FIG. 9C-3 AND USD. DWG. #244.9.
- 23 — INSTALL WHITE MEDIAN NOSE MARKINGS AS PER USD. DWG. #248.
- 24 — INSTALL NEW SIGN(S) (POLE MOUNTED).
- 25 — INSTALL NEW SIGN(S) (GROUND MOUNTED) AS PER USD. DWG. #249.1.
- 26 — INSTALL T-2 FILM "U-TURN ARROW" SYMBOL.
- 27 — INSTALL WHITE CAT TRACKS (RPM).
- 28 — PAINT MEDIAN ISLAND YELLOW UP TO 2' WIDTH.
- 29 — INSTALL WHITE K71 SELF RE-ERECTING MARKER POST.
- 30 — INSTALL TYPE I CENTERLINE AS PER USD. DWG. #244 (ALL PAVEMENT MARKERS SHALL BE WHITE).
- 31 — INSTALL 4" SOLID WHITE LINE (T-1 FILM).
- 32 — INSTALL 8" SOLID WHITE LINE (T-2 FILM).
- 33 — REMOVE AND RESET SIGN(S).
- 34 — INSTALL YELLOW K71 SELF RE-ERECTING MARKER POST.
- 35 — INSTALL WHITE T-2 FILM MERGE ARROW AS PER NDOT STD. PLAN T-38.1.1
- 36 — INSTALL 6" SOLID WHITE LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
- 37 — INSTALL 6" WHITE SKIP LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
- 38 — INSTALL 4" DIAGONAL WHITE LINE @ 40' O.C. (WATERBORNE PAINT).
- 39 — INSTALL 4" SOLID WHITE LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
- 40 — INSTALL 4" WHITE SKIP LINE (EPOXY PAINT) AS PER USD. DWG. #244.9.
- 41 — INSTALL TRANSITION SECTION (EPOXY PAINT) AS PER USD. DWG. #245 (3 OF 3).
- 42 — INSTALL TRANSITION SECTION (EPOXY PAINT) AS PER USD. DWG. #245 (2 OF 3).
- 43 — INSTALL BICYCLE DETECTOR LOOP (SEE DETAIL 1, SHEET ST-06). BICYCLE LOOP CONNECTION TO LOOP LEAD-IN BY CLV. PROVIDE A MIN. OF 5' OF LOOP LEADS COILED IN LOOP PULL BOX.
- 44 — INSTALL COMPRESSED WHITE T-2 FILM "ARROW" SYMBOL PER MUTCD 2009 PART 3.
- 45 — REFRESH EXISTING RED PAINTED CURB WITH NEW PAINT.
- E — EXISTING SIGN TO REMAIN IN PLACE.

GRAPHIC SCALE
40 0 40 80
SCALE FEET
(IN FEET)
1 inch = 40 ft.

NO.	REVISIONS	DATE

GRAND TETON DRIVE - DURANGO DRIVE TO BUFFALO DRIVE

DEPARTMENT OF OPERATIONS AND MAINTENANCE

DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

DESIGNED BY: JSR
DRAWN BY: JAS
CHECKED BY: RWC

DATE: 8/31/17

CITY OF LAS VEGAS NEVADA

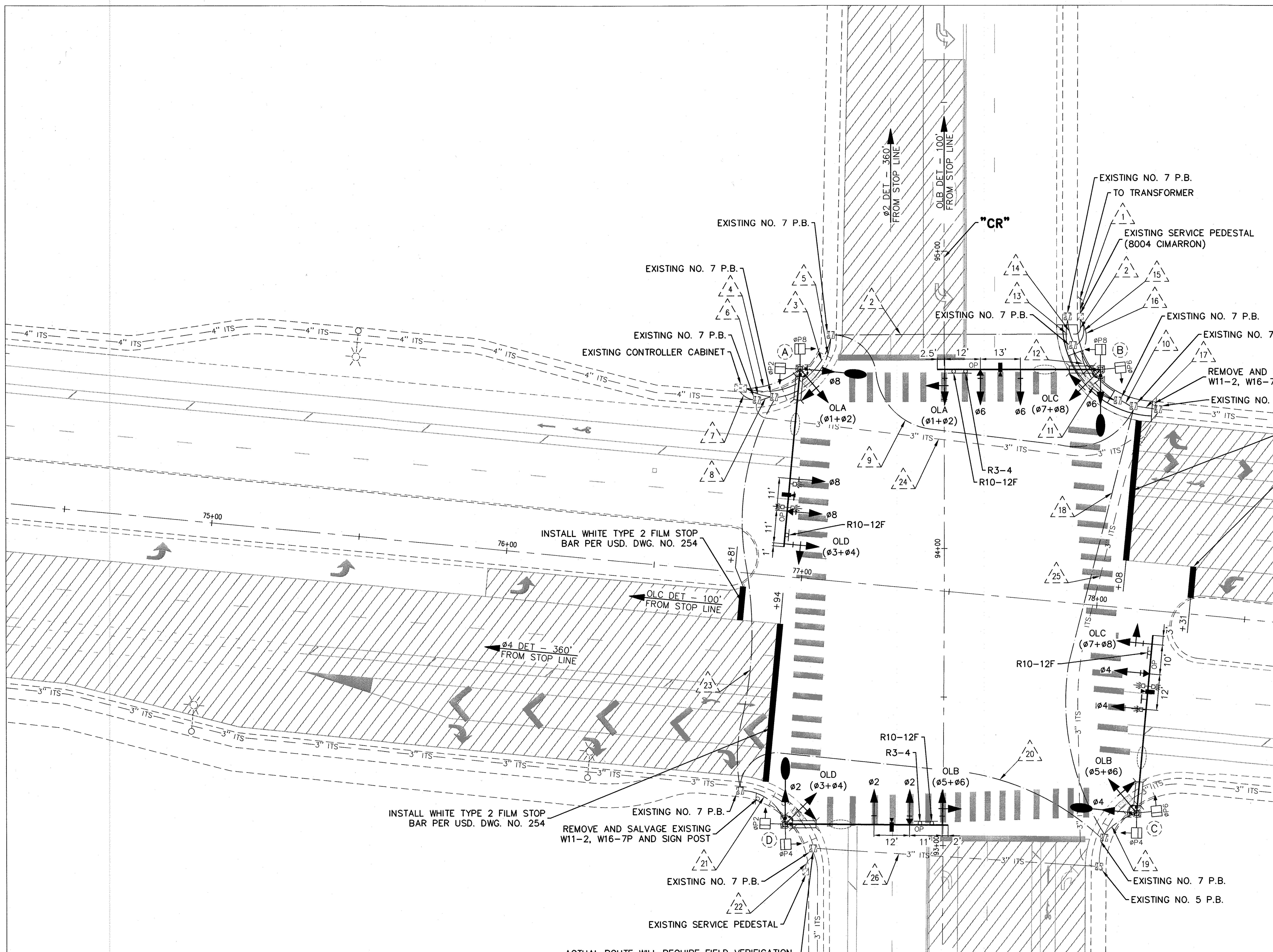
TITLE: GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

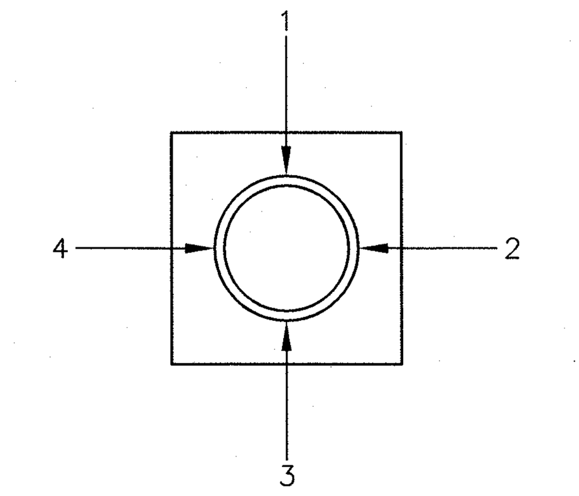
SHEET: STRIPING PLAN
"GTD" 95+00.00 TO "GTD" 115+00.00

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131
8/25/17

Sheet
ST-03
11 of 11
BID NO.

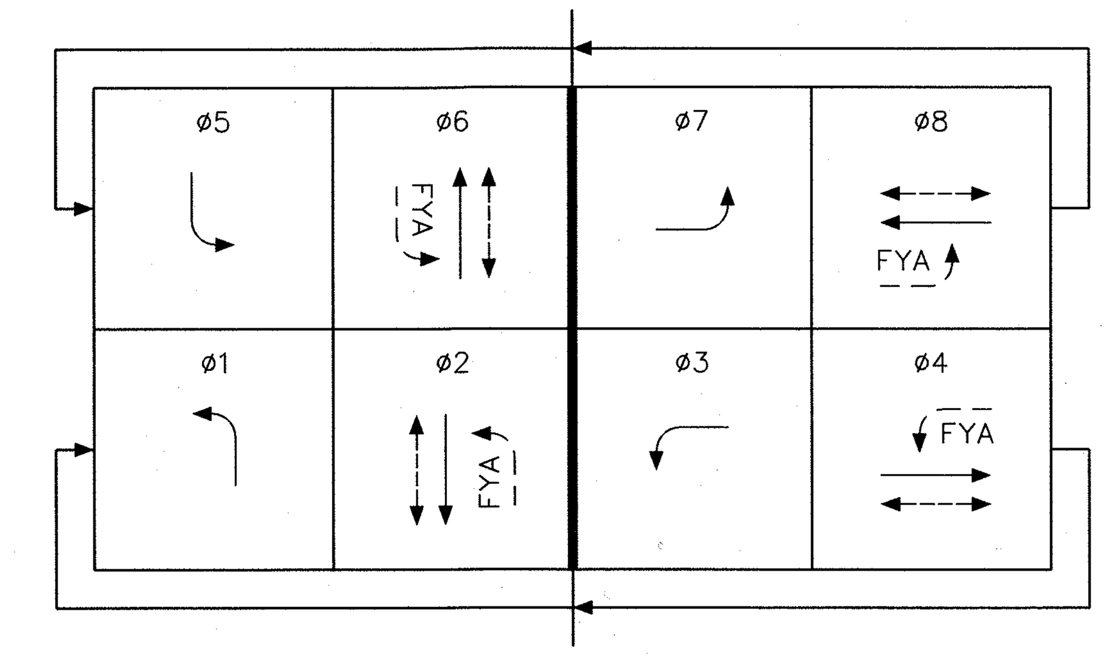
CLV DWG No. 107v7382





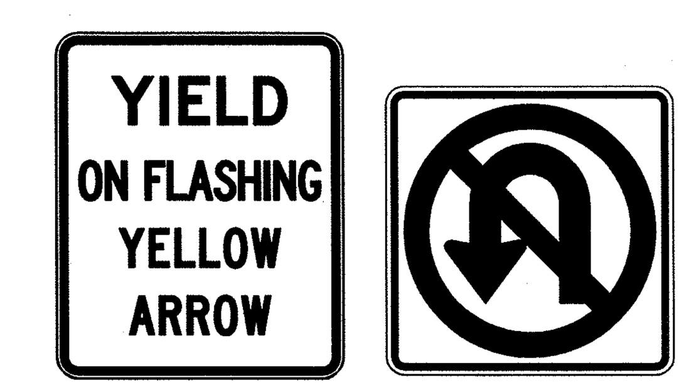
QUADRANT LOCATOR

ARM OR SIGNAL LOCATION (TOP VIEW)



PHASE DIAGRAM

CONFLICT FLASH SHALL BE ALL RED
ø1+ø2, ø3+ø4 ø5+ø6, ø7+ø8 SHALL HAVE
FYA PROTECTED/PERMISSIVE MODE OPERATION
NB LT FYA = OLA (ø1+ø2)
SB LT FYA = OLB (ø5+ø6)
EB LT FYA = OLC (ø7+ø8)
WB LT FYA = OLD (ø3+ø4)
SOLID ARROWS ON PHASE LOAD SWITCHES
FYA'S ON O.L. LOAD SWITCHES



R10-12F
30"X36"

R3-4
36"X36"

LEGEND

MINIMUM LIMITS OF DETECTION ZONE

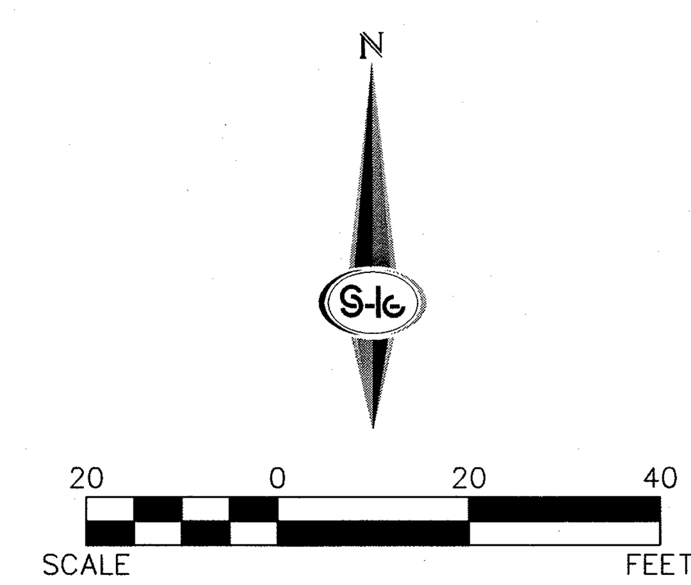
SEE DRAWING TS-02 FOR CONDUIT AND WIRE SCHEDULE AND POLE SCHEDULE

STREET AND BLOCK SIGNS

POLE		SIGN LEGEND
A	DOUBLE FACE	5C N Cimarron RD 8000
B	DOUBLE FACE	5C W Grand Teton DR 8000
C	DOUBLE FACE	12D N Cimarron RD 7900 5C 5C
D	DOUBLE FACE	12B W Grand Teton DR 7900 5C 5C

92" TO 94-3/4"

* CONTRACTOR SHALL VERIFY BLOCK NUMBERS WITH CITY OF LAS VEGAS PRIOR TO ORDERING



DATE | REVISIONS | NO.

DEPARTMENT OF OPERATIONS AND MAINTENANCE

DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

DESIGNED BY: DAM
DRAWN BY: DAM
CHECKED BY: JSR

DATE: 11/20/17

CITY OF LAS VEGAS NEVADA

TITLE: GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

SHEET: TRAFFIC SIGNAL PLAN
GRAND TETON DRIVE AND CIMARRON ROAD

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131
11/20/17

Sheet
TS-01
1 of 2
BID NO.

GRAND TETON DRIVE – DURANGO DRIVE TO BUFFALO DRIVE

CLV DWG No. 107v7382

TRAFFIC SIGNAL NOTES

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

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-OVERHEAD	1-702-227-2929
CALL-BEFORE-YOU-DIG	1-800-227-2600
STREETLIGHTS	1-702-229-6331
F.A.S.T.	1-702-432-5300

3. ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, VOLUMES I AND II, ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION APRIL 8, 1992 WITH ALL SUBSEQUENT REVISIONS.

4. SERVICE SHALL HAVE 1-60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND ONE 40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL BE 200 AMP PADMOUNT.

5. LINE SIDE OF METER TO BE WIRED WITH THREE #3/0 AWG THW. LOAD SIDE SHALL BE WIRED WITH FOUR #4 AWG THW (2 BLACK, 2 WHITE) AND ONE #8 AWG THW (GREEN).

6. LUMINAIRES ON ALL SIGNAL POLES SHALL BE L.E.D. AS APPROVED BY THE CITY OF LAS VEGAS (CLV). INTERSECTION LIGHTING SHALL MEET THE REQUIREMENTS OF UNIFORM STANDARD DRAWING NUMBER 300.S3. EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 1000 WATT P.E. CONTROL. FOR LUMINAIRES THERE SHALL BE 2(TWO)-#4 AWG THW AND 1(ONE) #8 AWG THW CONDUCTORS FROMSTREETLIGHT CIRCUIT TO THE BASE OF THE FLASHER SIGNAL POLE. THE #4 AWG THW CONDUCTORS SHALL BRANCH OFF INTO 2 (TWO) #10 AWG THW CONDUCTORS FOR EACH LUMINAIRE INDIVIDUALLY FUSED WITH 10 AMP FUSES. THERE SHALL BE NO SPLICES BETWEEN THE CABINET AND LUMINAIRE FIXTURES.

7. THE INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE WIRED TO THE LUMINAIRES PHOTO CELL FOR CONTROL WITH #10 AWG THW COPPER STRANDED WIRE (TYPICAL). THE SIGN SHALL BE WIRED TO THE LUMINAIRE DIRECTLY ABOVE IT. IN THE EVENT THERE IS NO LUMINAIRE ON THE TRAFFIC SIGNAL POLE, THE 1000 WATT P.E. CONTROL SHALL BE MOUNTED ON THE POLE CAP. ALL NEW ILLUMINATED STREET NAME SIGNS SHALL HAVE LIGHT EMITTING DIODE (LED) LAMPS PER SECTION 623 T.02.16 OF THE SPECIAL PROVISIONS.

8. CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT, CABLE, AND WIRE SIZE. VERIFY ALL EXISTING CONDUIT RUNS.

9. ALL PULLBOXES SHALL BE IN ACCORDANCE WITH UNIFORM STANDARD DRAWINGS NO. 705, NO. 706, AND NO. 707.

10. TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR #14 AWG SOLID (TYPICAL) CABLE AND SHALL CONFORM TO IMSA SPEC. NO. 20-1.

11. PEDESTRIAN PUSH BUTTONS SHALL BE AUDIBLE TACTILE "POLARA NAVIGATOR" TYPE (2 WIRE SYSTEM) OR CAMPBELL COMPANY ADVANCED ACCESSIBLE PEDESTRIAN SYSTEM BUTTONS WITH AAPS APC (CONTROLLER) IN ACCORDANCE WITH CITY OF LAS VEGAS SPECIAL PROVISIONS AND SECTION 623 OF THE CCA USS. PUSH BUTTON SIGNS SHALL BE R10-3e PER MUTCD, 2009 EDITION, WITH FULL MOUNTING BRACKETS, as modified by THE MANUFACTURER to fit on a 9"x12" sign, and shall be porcelain-enameled metal. ALL PUSH BUTTONS TO BE MOUNTED 42" ABOVE SIDEWALK. THE MAXIMUM HORIZONTAL REACH DISTANCE IS TO BE 10". SIDEWALK RAMPS WILL BE ACCORDING TO U.S.D. No. 235 (1-4) LATEST EDITION. WHEN AN EXISTING SIGNAL WITH EXISTING AUDIBLE-TACILE PUSH BUTTONS IS MODIFIED, THE CONTRACTOR SHALL VERIFY NEW PEDESTRIAN PUSH BUTTONS OR CABINET EQUIPMENT MATCHES THE MANUFACTURE AND MODEL OF ANY EXISTING EQUIPMENT SCHEDULED TO REMAIN, TO PROVIDE A FULLY FUNCTIONING SYSTEM. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL CABINET EQUIPMENT, INCLUDING THE PEDESTRIAN PUSH BUTTON CONTROL UNIT, INTERFACE PANEL AND ANY REQUIRED HARNESSES, TO PROVIDE A FULLY FUNCTIONING SYSTEM.

12. THE ROUTING AND TERMINATION OF CONDUITS AND THE PLACING OF POLES AND CABINETS SHALL BE AS INDICATED ON THE PLANS. ALL CHANGES SHALL BE APPROVED BY THE ENGINEER.

13. MAST ARM R10-12 SIGNS TO BE ADJACENT (NO GAP) TO THE M-5 SIGNAL HEAD. WHERE FLASHING YELLOW ARROW LEFT TURN SIGNALS ARE USED, A MAST ARM R10-12F "LEFT TURN YIELD ON FLASHING YELLOW ARROW" SIGN SHALL BE MOUNTED ADJACENT TO THE M-4 SIGNAL HEAD.

14. TRAFFIC SIGNAL CABINET SHALL BE A TYPE VIII CABINET UNLESS OTHERWISE SPECIFIED IN THE PLANS. THIS IS COMMONLY REFERRED TO AS AN "R" CABINET. THE CABINET SHALL CONFORM TO THE CLARK COUNTY AREA UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS AND THE CITY OF LAS VEGAS SPECIAL PROVISIONS. INSTALL CABINET NEAR THE R.O.W. LINE OR AS SHOWN ON THE DRAWINGS. THE TRAFFIC SIGNAL CONTROLLER CABINET, SHALL BE EQUIPPED WITH 16 LOAD BAY POSITIONS,SHALL BE A 48 DETECTOR CHANNEL R CABINET AND SHALL INCLUDE TWO (2) RACK-MOUNTED, 12 SLOT, LOOP DETECTION RACKS, WITH 2 DETECTOR LOOP CHANNELS PER SLOT FULLY WIRED SO THAT ALL CHANNELS ARE USABLE AND 4 CHANNEL SLOTS THAT CAN ACCOMMODATE VIDEO DETECTION CARDS. THE CABINET SHALL CONTAIN A 764 OPTICOM PHASE SELECTOR IN A 760 RACK, WITH A 768 AUXILIARY INTERFACE PANEL MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SENSE CAPABILITIES.

15. THE CONTRACTOR SHALL SUPPLY A MALFUNCTION MANAGEMENT UNIT (MMU) TO THE CITY OF LAS VEGAS TRAFFIC SIGNAL REPAIR SHOP A MINIMUM OF FOURTEEN DAYS PRIOR TO SIGNAL TURN-ON OR PRIOR TO CONVERTING TO A NEW PHASING SCHEME, FOR TESTING AND PROGRAMMING PURPOSES. THE MMU SHALL BE A MODEL MMU-1600GE AS MANUFACTURED BY RENO A&E, OR APPROVED EQUAL. THE CONTRACTOR SHALL DELIVER THE MMU TO AND PICKUP THE CONTROLLER AT 2985 RONEMUS DRIVE. CONTRACTOR SHALL NOTIFY THE TRAFFIC SIGNAL REPAIR SHOP (229-6075) SEVEN DAYS PRIOR TO PICK UP. THE CITY, AT ITS DISCRETION, MAY PROVIDE A DIFFERENT MODEL MMU FOR INITIAL TURN-ON, IN WHICH CASE CITY PERSONNEL WILL SWAP THE MMU AFTER THE PROJECT IS ACCEPTED.

16. CONTRACTOR SHALL POTHOLE SIGNAL POLE LOCATIONS PRIOR TO ORDERING OF POLES.

17. ALL MAST ARMS TO BE HOT-DIP GALVANIZED BY THE MANUFACTURER THE MAST ARM IS TO BE FABRICATED WITH END TENON ONLY. THE END TENON SHALL BE FACTORY INSTALLED AND THE REMAINING TENONS SHALL BE FABRICATED IN THE FIELD AT THE LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE TRAFFIC ENGINEER AND/OR HIS AUTHORIZED REPRESENTATIVE. FOR TENON FABRICATION DETAILS SEE CLARK COUNTY AREA U.S.D. NO. 808 SHEET 2. ALL WELDING SHALL CONFORM TO AWS D 2.0, "SPECIFICATION FOR WELDED HIGHWAYS AND RAILWAY BRIDGES," AND TO ANY ADDITIONAL REQUIREMENTS OF SECTION 623 OF THE SPECIFICATIONS. ALL EXPOSED WELDS, SHALL BE PAINTED AS PROVIDED FOR REPAIRING DAMAGED GALVANIZED SURFACES.

18. ALL VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL HAVE LIGHT EMITTING DIODE (LED) TYPE INDICATIONS, IN CONFORMANCE TO CITY OF LAS VEGAS SPECIAL PROVISIONS AND TO SECTION 623 OF THE CCA USS. All pedestrian signal faces shall provide "Walking Person", "Hand", and "Countdown" messages as provided by Duralight model #JXM-400-VIEIL or Dialight model #430-6479-001X, or approved equal. THE "COUNTDOWN" MESSAGE SHALL NOT FLASH. WHERE EXISTING SIGNALS ARE MODIFIED, THE CONTRACTOR SHALL VERIFY THAT LED PEDESTRIAN INDICATIONS FOR A SPECIFIC PHASE ARE OF THE SAME MANUFACTURE SO THAT THEY FUNCTION CORRECTLY, OR SHALL REPLACE ALL COUNTDOWN PEDESTRIAN INDICATIONS FOR THAT PHASE.

19. VIDEO DETECTION SYSTEMS WILL BE EITHER ITERIS EDGE 2 WITH EDGECONNECT PAK, (IP addressable); PEEK VideoTrak IQ (with Ethernet port); OR TRAFICON VIP WITH VIEWCOM (IP ADDRESSABLE). WHEN VIDEO DETECTION IS SPECIFIED ON THE TRAFFIC SIGNAL PLANS. ALL VIDEO DETECTION SYSTEMS WILL BE STAND ALONE SYSTEMS TO INCLUDE ALL NECESSARY EQUIPMENT TO PROGRAM THE VIDEO DETECTION SYSTEM. A PROGRAMMING "MOUSE", KEYPAD OR LAPTAOP COMPUTER (IF REQUIRED FOR PROGRAMMING THE VIDEO DETECTION SYSTEM) AND APPROPRIATE SOFTWARE WILL BE SUPPLIED WITH EACH VIDEO SYSTEM. PERSONAL COMPUTERS (PCs) MAY NOT BE SUBSTITUTED FOR LAPTOPS. A VIDEO MONITOR (COLOR FLAT SCREEN) 9" TO 13" WILL BE SUPPLIED WITH EACH VIDEO DETECTION SYSTEM. EACH VIDEO CAMERA WILL HAVE POWER AND VIDEO CABLE DIRECTLY FROM THE CABINET. COAXIAL CABLE WILL BE TYPE 8281 (SOLID CENTER CONDUCTOR). CAMERAS THAT USE A PREFABRICATED CABLE INTEGRATING POWER AND COAXIAL CABLE INTO A SINGLE WEATHERPROOF CONNECTOR ARE ACCEPTABLE. "BNC" ARE THE ONLY ACCEPTABLE TERMINATION OF COAXIAL CABLES. CAMERAS WILL BE MOUNTED PER MANUFACTURERS RECOMMENDATIONS AND PER CLV TRAFFIC ENGINEER APPROVAL. VIDEO CAMERAS SHALL BE COLOR AND SHALL BE MOUNTED ON A MINIMUM 6 FOOT RISER ON THE SIGNAL MAST ARM WITH EXTENSION BRACKETS (TYPE AB-0166.5-62 OR EQUIVALENT). THE LOCATION OF THE CAMERA ON THE MAST ARM SHALL BE APPROVED BY THE TRAFFIC SIGNAL SUPERVISOR. A VIDEO FILTER (CX06-BNYC OR EQUIVALENT) WILL BE INSTALLED IN THE SIGNAL CABINET FOR EACH CAMERA VIDEO INPUT. VIDEO DETECTION PROCESSORS AND COMMUNICATIONS CARDS SHALL BE PROVIDED WITH THE LATEST VERSIONS OF THE MANUFACTURERS SOFTWARE. THE CONTRACTOR SHALL AIM CAMERAS AND PROGRAM AND CONFIGURE THE VIDEO DETECTION PROCESSORS TO PROVIDE A FULLY FUNCTIONING SYSTEM.

20. WHERE NEW LOOPS WILL BE OVERLAID WITH NEW PAVEMENT, LOOP DETECTORS SHALL BE PREFORMED LOOPS AS MANUFACTURED BY RENO A & E OR NEVER-FAIL LOOP SYSTEMS, AND ALL LOOPS SHALL BE INSTALLED IN THE ROADWAY PRIOR TO PLACEMENT OF THE FINAL PAVEMENT LIFT. WHERE NEW LOOPS ARE INSTALLED THAT ARE NOT OVERLAID WITH NEW PAVEMENT, LOOPS SHALL BE CABLE-IN-DUCT PER SECTION 623 T.02.04.C OF THE CITY OF LAS VEGAS SPECIAL PROVISIONS. LOOP LEAD-IN CABLE SHALL BE 6-PAIR 16 AWG MULTIPLE CONDUCTOR CABLE AS SPECIFIED IN SECTION 623T.02.04 OF THE CLV SPECIAL PROVISIONS. ALL WIRING HARNESSES, RACK POSITIONS, AND LOOP LEAD-IN CABLE SHALL BE CLEARLY MARKED AS TO THE APPROPRIATE PHASE AND LETTER DESIGNATION TO WHICH IT BELONGS AS SHOWN ON THE TRAFFIC SIGNAL PLANS. LOOPS SHALL BE LOCATED AS SHOWN ON THE TRAFFIC SIGNAL PLANS AND APPROVED BY THE CLV TRAFFIC ENGINEERING DIVISION PRIOR TO INSTALLATION. REFER TO SECTION 623T.02.04 OF THE CLV SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

21. OPTICAL PREEMPTION UNITS WILL BE GLOBAL TRAFFIC TECHNOLOGIES (ENCODING CAPABLE), MODEL 764 OPTICOM PHASE SELECTOR INSTALLED IN A MODEL 760 RACK WITH A MODEL 768 AUXILIARY INTERFACE PANEL (AIP) MOUNTED IN THE CABINET AND FULLY WIRED FOR GREEN SENSE CAPABILITIES. OPTICAL SENSORS WILL BE MODEL 721 WITH ONE DETECTOR PER DIRECTION, UNLESS SHOWN OTHERWISE IN THE PLANS, AND WILL BE INTERFACED TO THE TRAFFIC SIGNAL CONTROLLER CABINET WITH M-138 CABLE. THE SOUTHBOUND OPTICOM DETECTOR SHALL BE WIRED TO INPUT PREEMPTS ON CHANNEL 1 IN THE PHASE SELECTOR, EASTBOUND ON CHANNEL 2, NORTHBOUND ON CHANNEL 3, AND WESTBOUND ON CHANNEL 4, UNLESS VARIATIONS ARE APPROVED BY THE TRAFFIC SIGNAL SUPERVISOR. WHEN 764 PHASE SELECTORS ARE ADDED TO A CABINET WITHOUT A 768 AIP, THE CONTRACTOR SHALL INSTALL AND WIRE A NEW 768 AIP.

22. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY CONSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE CITY.

23. INTERCONNECT CABLE SHALL BE AS SHOWN IN THE WIRE SCHEDULE.

24. THE CONTRACTOR SHALL INSTALL CROSSWALKS, STOP BARS, STRIPING AND SIGNS AS IDENTIFIED ON THE PLANS.

25. WHERE THE PLANS CALL FOR REMOVAL AND SALVAGE OF EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR SHALL CALL 702-229-6331 TO SPEAK TO A TRAFFIC FIELD SUPERVISOR TO ARRANGE FOR DELIVERY TIMES AND LOCATIONS.

26. THE CONTRACTOR SHALL MAINTAIN EXISTING SIGNALS THROUGH THE LIFE OF THE PROJECT PER SECTION 623 G.03.01N OF THE CLV SPECIAL PROVISIONS.

REVISED 4/24/17

POLE SCHEDULE

POLE	LOCATION (OFFSET)	POLE TYPE	SIGNAL ARM QUAD.	SIGNAL ARM LENGTH	LUM. ARM QUAD.	LUM. ARM LENGTH	SIGNALS (VEH.)*** TYPE	QTY.	QUAD.	SIGNALS(PED.) TYPE	QUAD.	PEDESTRIAN PUSH BUTTON QUAD. (PHASE)	PEDESTRIAN PUSH BUTTON SIGN	REMARKS
(A)	EXISTING	XX-A(E)	3(RS) 3	45'(RS) 60'	2** 3(E)	15' 15'(E)	M-4 M-2 B2-43*	1 2 1	MAST ARM MAST ARM 1	W-3T	1	2(RS) 2(#P2) 3(#P8)	LT(RS) LT RT	REMOVE AND SALVAGE EXISTING MAST ARM AND FLASHER HEADS, SIGNS AND PUSH BUTTONS. REMOVE AND SALVAGE EXISTING POLE MOUNTED CONFIRMATION INDICATION. INSTALL NEW MAST ARM ON EXISTING POLE. INSTALL ILLUMINATED STREET NAME SIGN PER SCHEDULE. MOUNT OPTICOM DETECTOR ON SIGNAL HEAD INDICATED. MOUNT VIDEO DETECTION CAMERA PER CLV AND MANUFACTURER REQUIREMENTS. ø1+ø2 & ø3+ø4 DISPLAY SHALL BE 4-SECTION FYA IN CONFORMANCE WITH MUTCD AND USDCCA STD. DWG. NO. 857.
(B)	EXISTING	XX-A(E)	4	55'	3 4(E)	15' 15'(E)	M-4 M-2 B2-43*	1 2 1	MAST ARM MAST ARM 2	W-3T	2	3(#P8) 4(#P6)	LT RT	REMOVE AND SALVAGE EXISTING POLE MOUNTED CONFIRMATION INDICATION. INSTALL NEW MAST ARM ON EXISTING POLE. INSTALL ILLUMINATED STREET NAME SIGN PER SCHEDULE. MOUNT OPTICOM DETECTOR ON SIGNAL HEAD INDICATED. MOUNT VIDEO DETECTION CAMERA PER CLV AND MANUFACTURER REQUIREMENTS. INSTALL R3-4 AND R10-12F ON MAST ARM. ø1+ø2 & ø7+ø8 DISPLAY SHALL BE 4-SECTION FYA IN CONFORMANCE WITH MUTCD AND USDCCA STD. DWG. NO. 857.
(C)	EXISTING	XX-A(E)	1(RS) 1	45'(RS) 60'	1(E) 4**	15'(E) 15'	M-4 M-2 B2-43*	1 2 1	MAST ARM MAST ARM 3	W-3T	3	1(#P4) 4(RS) 4(#P6)	RT LT(RS) LT	REMOVE AND SALVAGE EXISTING MAST ARM AND FLASHER HEADS, SIGNS AND PUSH BUTTONS. REMOVE AND SALVAGE EXISTING POLE MOUNTED CONFIRMATION INDICATION. INSTALL NEW MAST ARM ON EXISTING POLE. INSTALL ILLUMINATED STREET NAME SIGN PER SCHEDULE. MOUNT OPTICOM DETECTOR ON SIGNAL HEAD INDICATED. MOUNT VIDEO DETECTION CAMERA PER CLV AND MANUFACTURER REQUIREMENTS. ø5+ø6 & ø7+ø8 DISPLAY SHALL BE 4-SECTION FYA IN CONFORMANCE WITH MUTCD AND USDCCA STD. DWG. NO. 857.
(D)	EXISTING	XX-A(E)	2	55'	1** 2(E)	15' 15'(E)	M-4 M-2 B2-43*	1 2 1	MAST ARM MAST ARM 4	W-3T	4	1(#P4) 2(#P2)	LT RT	REMOVE AND SALVAGE EXISTING POLE MOUNTED CONFIRMATION INDICATION. INSTALL NEW MAST ARM ON EXISTING POLE. INSTALL ILLUMINATED STREET NAME SIGN PER SCHEDULE. MOUNT OPTICOM DETECTOR ON SIGNAL HEAD INDICATED. MOUNT VIDEO DETECTION CAMERA PER CLV AND MANUFACTURER REQUIREMENTS. INSTALL R3-4 AND R10-12F ON MAST ARM. ø3+ø4 & ø5+ø6 DISPLAY SHALL BE 4-SECTION FYA IN CONFORMANCE WITH MUTCD AND USDCCA STD. DWG. NO. 857.

(E) EXISTING
(RS) REMOVE AND SALVAGE
* B2-43 PER USDCCA STD. DWG. NO. 844, OPTION "B", WITH MENERALLIC STRAP, OR APPROVED EQUAL, PER USDCCA STD. DWG. NO. 863
** MODIFY POLES A, C, & D FOR SECOND LUMINAIRE PER USDCCA STD. DWG. NO. 808
*** SEE USDCCA STD. DWG. NO. 840 THROUGH 842 FOR ADDITIONAL BACKPLATE DETAILS

CONDUIT AND WIRE SCHEDULE

WIRE & CABLE	FROM	TO	VIA CONDUIT 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
(E)	TRANSFORMER (E)	SERVICE PEDESTAL (E) (8004 CIMARRON)	X																									
4-#4 AWG THW, 1-#8 THW GROUND	SERVICE PEDESTAL (E) (8004 CIMARRON)	CONTROLLER (E)		X	X				D						D	D	D	D				D		D				
25 CONDUCTOR #14, 4-#10, 1-#8 GROUND, VIDEO DETECTION CABLE	CONTROLLER (E)	POLE A (E)				X			E						E	E	E	E	E			E		E				
25 CONDUCTOR #14, 4-#10, 1-#8 GROUND, VIDEO DETECTION CABLE	CONTROLLER (E)	POLE B (E)					X	X	S		X	X	X	X	S	S	S	S	S			E		E				
25 CONDUCTOR #14, 4-#10, 1-#8 GROUND, VIDEO DETECTION CABLE	CONTROLLER (E)	POLE C (E)					X	X	J		X				J	J	J	J	J	X	X	J		J				
25 CONDUCTOR #14, 4-#10, 1-#8 GROUND, VIDEO DETECTION CABLE	CONTROLLER (E)	POLE D (E)						X												X	X		X		X			
MODEL 138 OPTICOM CABLE	CONTROLLER (E)	POLE A (E)				X			F						F	F	F	F	F			F		F				
MODEL 138 OPTICOM CABLE	CONTROLLER (E)	POLE B (E)					X	X	O		X	X	X	X	O	O	O	O	O			O		O				
MODEL 138 OPTICOM CABLE	CONTROLLER (E)	POLE C (E)					X	X	Z		X				Z	Z	Z	Z	Z	X	X	Z		Z				
MODEL 138 OPTICOM CABLE	CONTROLLER (E)	POLE D (E)						X												X	X		X		X			
12 PAIR COPPER INTERCONNECT CABLE	CONTROLLER (E)	NO. 7 P.B. (E)						X		X																X	X	X
CONDUIT SIZE			1-2" (E)	1-2" (E)	1-2" (E)	1-3" (E)	1-3" (E)	2-3" (E)	2-3" (E)	2-2" (E)	2-3" (E)	1-3" (E)	6-3" (E)	1-3" (E)	1-3" (E)	1-3" (E)	1-2" (E)	1-2" (E)	1-2" (E)	2-3" (E)	1-3" (E)	2-3" (E)	1-3" (E)	1-2" (E)	2-3" (E)	1-3" (E)	1-3" (E)	1-3" (E)	1-3" (E)

(E) EXISTING
ONE NO. 8 GREEN GROUNDING WIRE SHALL BE RUN FROM THE CONTROLLER CABINET TO EACH SIGNAL POLE BASE

SEE DRAWING TS-01 FOR PLAN VIEW

DEPARTMENT OF OPERATIONS AND MAINTENANCE
DIRECTOR OF DEPARTMENT OF OPERATIONS AND MAINTENANCE
JERRY WALKER, P.E.

DESIGNED BY: DAM
DRAWN BY: DAM
CHECKED BY: JSR
DATE: 11/20/17

NO.	REVISIONS	DATE

GRAND TETON DRIVE – DURANGO DRIVE TO BUFFALO DRIVE

TITLE: GRAND TETON DRIVE
DURANGO DRIVE TO BUFFALO DRIVE

SHEET: TRAFFIC SIGNAL NOTES AND SCHEDULES
GRAND TETON DRIVE AND CIMARRON ROAD

SEAL
PROFESSIONAL ENGINEER
STATE OF NEVADA
RANDY W. CARROLL
Exp. 12/31/2018
CIVIL
No. 16131
11/20/17

Sheet
TS-02
2 of 2
BID NO.

CLV DWG No. 107v7382