

LAS VEGAS VALLEY WATER DISTRICT

(LVVWD) STANDARD NOTES

LVVWD PROJECT # 125592

(REVISED 08/01/2017)

1.0 No work shall begin until the water plans have been approved for construction by the LVVWD. Following water plan approval, notice shall be given to the LVVWD Communication Support Center (258-7171) two (2) working days prior to the start of construction. For future inspections, notice must be given by 2:00 p.m. the business day prior to the requested LVVWD inspection. When requesting inspections, please refer to the Project # identified above.

2. All work shall conform to LVVWD Standard Plates, Drawings, and Specifications, and to the 2010 Edition of the Uniform Design and Construction Standards for Potable Water Systems (UDACS). The latest edition of UDACS shall supersede any conflicts contained in the approved drawings and/or specifications.

3. All work, except as modified by these plans or by Note 2 above, shall be done in accordance with the most recent draft or edition of the Uniform Standard Specifications for Public Works Construction Office Improvement, Clark County Area.

4. A single pipe material shall be used throughout the project unless otherwise approved by the LVVWD.

5. All service laterals two (2) inches in diameter and smaller shall be Type K copper tubing with LVVWD approved service saddles.

6. All water meter boxes shall be located outside of driveway areas.

7. All valves shall be located outside of driveways, valley and curb gutters.

8. All water and storm drain or sanitary sewer crossings shall conform to Section 2.22 of the 2010 Edition of the UDACS.

9. All water facilities and appurtenances shall be disinfected, pressure tested and have an acceptable passing health water sample obtained prior to operation and use.

10. The contractor must obtain all meters two (2) inches and smaller from LVVWD Central Stores. Telephone 258-3152 or 258-3802, two (2) working days prior to meter pickup.

11. Any interruption of service must be performed in accordance with UDACS Section 3.14.01, and approved by the LVVWD Inspection Division prior to shutdown. Proper written notification must be given to all affected customers.

12. All water facility construction materials used must be as listed on the LVVWD Pre-Approved Products List for New Facilities, latest revision, or specifically approved on these plans by submitting shop drawings.

13. Telephone "Call Before You Dig" at "811" or 1-800-227-2600.

14. The installation of 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 or private street, if disturbed by the LVVWD during the repair or operation of its facilities, will be replaced by LVVWD with an appropriately sized plain finish concrete patch. The LVVWD will not restore, and will not be responsible for the restoration of, any decorative paving surface within the street. The LVVWD will not attempt to match color or finish of any adjacent materials.

15. **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.

SWPPP NOTES

1. THE OWNER, SITE DEVELOPER, CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF THE CLARK COUNTY AREA OF CONSTRUCTION PROJECTS ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.

2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORSEEN EROSION PROBLEMS OR THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CLARK COUNTY AIR QUALITY CONTROL AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.

3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITIES IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.

4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMP'S WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.

5. ACCUMULATED SEDIMENT IN BMP'S SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WITH BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

ABBREVIATIONS

AB	AGGREGATE BASE	MIN	MINIMUM	ELEV	ELEVATION	SEW	SEWER
AC	ASPHALTIC CONCRETE	N	NORTH	EP	EDGE OF PAVEMENT	SW	SIDEWALK
ACP	ASBESTOS CEMENT PIPE	NTS	NOT TO SCALE	ESMT	EASEMENT	TC	TOP OF CURB
ADJ	ADJUST	P	POWER	EP	EDGE OF PAVEMENT	TMH	TOP OF GRADE
AGG	AGGREGATE	P	POWER	EVC	END OF VERTICAL CURVE	TS	TRAFFIC SIGNAL
AVE	AVENUE	PB	PULL BOX	EX	EXCAVING	TOW	TOP OF WALL
BC	BACK OF CURB	P	POINT OF CURVE	FG	FINISH GRADE	TP	TOP OF PAVEMENT
BCR	BEGIN CURB RETURN	PCC	POINT OF COMPOUND CURVE	FC	FIRE CLAY	UVC	UNSYMMETRICAL VERTICAL CURVE
BH	BENCH MARK	P	POINT OF INTERSECTION	FL	FEET OR FOOT	VAR	VARIABLE
BVC	BEGIN OF VERTICAL CURVE	PI	POINT OF INTERSECTION	FT	FEET OR FOOT	VAL	VALVE BOX
BY	BOTTOM WALL	PM	PARKING METER	FL	FLOW LINE	VC	VERTICAL CURVE
C	CLARK COUNTY	P	POINT OF REVERSE CURVE	G	GAUGE	VCP	VERTICAL CLAY PIPE
C/L	CENTERLINE	PUB	PUBLIC	GA	GALVANIZED	W	WATER
CL	CURB INLET	P	POINT OF TANGENCY	GB	GRADE BREAK	WM	WATER MAIN
CI	CURB INLET	P	POINT OF TANGENCY	H	HYDRAULIC GRADE LINE	WS	WATER SERVICE
CM	CONCRETE MASONRY UNIT	PVI	POINT OF VERTICAL INTERSECTION	HG	HIGH POINT	(XX,XX)	EXISTING ELEVATION
CU	CURB	RET	RADIUS POINT	IN	INVERT	FIN	FINISHED PAVEMENT GRADE
CU	CURB	RR	RAILROAD	INV	INVERT	DELTA	DELTA
CON	CONCRETE	SD	SLOPE	ISLAND	ISLAND	F	EXTERNAL ORDINATE
CONST	CONSTRUCTION	SP	SQUARE FEET	LAT	LATERAL	D/W	DRIVEWAY
CONT	CONTINUOUS	SHT	SHEET	L	LENGTH	M/L	MONUMENT LINE
CL	CENTERLINE	SP	SQUARE FEET	LP	LOW POINT	S/W	SIDEWALK
CULV	CULVERT	SS	SANITARY SEWER	LVVWD	LAS VEGAS VALLEY WATER DISTRICT	T/L	TRACT LINE
DI	DETAIL	SS	SANITARY SEWER	MAN	MANHOLE	LS	LANDSCAPE
DET	DETENTION	STN	STATION				
DIA	DIAMETER	STD	STANDARD				
E	ENERGY GRADE LINE						

CITY OF LAS VEGAS GENERAL NOTES

1. All construction and materials shall be in accordance with the Uniform Standard Specifications for Public Works Construction Off-Site Improvements, Clark County Area Nevada, latest issue; the Uniform Standard Drawings for Works Construction, Clark County Area Nevada, latest revised edition; the Summerlin Improvement Standards for work in the Summerlin area; and other applicable approved standards issued by the controlling agency, the Uniform Building Code and all local city codes and ordinances applicable, except as noted on this sheet as Deviations from Standards.

2. The existence and location of any overhead or underground utility lines, pipes, or structures shown on these plans are obtained by a research of the available records. Existing utilities as shown from CLV Plans Library are approximate and for record purposes. Existing utilities are located on plans only for the convenience of the Contractor. Existing utility service laterals may not be shown on the plans. The Contractor shall, at his own expense, locate all underground and overhead interferences which may affect his operation during construction and shall take all necessary precautions to avoid damage to same. The Contractor shall use extreme caution when working near overhead utilities so as to safely protect all personnel and equipment, and shall be responsible for all cost and liability in connection therewith.

3. The Contractor shall take all precautionary measures necessary to protect existing utility lines, structures and street improvements which are to remain in place, from damage, and all such improvements or structures damaged by the Contractor's operations shall be repaired or replaced satisfactory to the City Engineer and owning utility company at the expense of the Contractor.

4. All construction shall be as shown on these plans, any revisions shall have the prior written approval of the City Engineer.

5. Type V cement shall be used in all off-site concrete work. Concrete to be 3000 P.S.I. minimum @ 28 days. Mix designs to be approved by the City, prior to the use on the project.

6. Permits are required for any work in the public Right-of-way. The Contractor shall secure all permits and inspections required for this construction.

7. Expansion joints required, maximum every 300' in extruded-type curb.

8. AC pavement to be one-half inch (1/2") above lip of all gutters after compaction, except at sidewalk ramps and cross gutters.

9. Curb and gutter found to be unacceptable to the City of Las Vegas shall be removed and replaced per standard drawing 216.

10. Sidewalk ramps shall be constructed in each quadrant of an intersection per standard drawing 235. Exact location of ramps may be adjusted in the field by a City Inspector.

11. Contractor shall provide all necessary horizontal and vertical transitions between new construction and existing surfaces to provide for proper drainage and for ingress and egress to new construction. The extent of the transitions to be as shown on plans.

12. All grading work shall conform to the soils report as prepared by the (company, _ report #, date) approved by the City Engineer, and as shown on these plans.

13. Exact location of all sewer lines may be adjusted or determined in the field by a City of Las Vegas Engineer if location on plans is not clearly shown, or existing pavement condition requires 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.R.S. Statute No. 625.380 & City of Las Vegas Title 18, Appendix D.

15. Utility company meter boxes, manhole lids, valve covers, etc., shall be located out of right-of-way, driveway aprons, roadways, and cross gutters unless written approval is granted by the utility company and the City Engineer.

16. All walls, new or existing, are only shown on civil plans for the purpose of reviewing grading relationships; flood control and sight distance at intersections. New walls require a separate permit and inspection by the Building Department.

17. Asphalt mix design must be submitted and approved by the City Engineer prior to the placement of Asphalt within City Right of Way.

18. Contractor shall adjust all new and existing inlets, valve boxes, manhole rims, and sewer clean outs, etc. to finish grade as applicable whether or not they are shown on the plans.

19. Materials, handling and placement of Portland Cement Concrete shall be in accordance with applicable sections of MDT or the Clark County Area Specifications (as applicable) and the plans and details shown herein.

20. When installing underground facilities that require underground locating devices such as marker balls, locating ribbon, etc., the contractor shall provide written documentation to Offsite Inspection and Testing certifying that all devices have been placed and verified to be in good working condition prior to the construction of any road base.

21. Sanitary sewer and storm drain final location map(s) shall be provided to the city and approved prior to acceptance of facility video inspection. The map(s) shall include the horizontal and vertical (invert) location of public sewer manholes, storm drain manholes and transition structures, storm drain laterals at the connection to the storm drain main and at the connection to a drop inlet, the connection of the sewer service laterals to the sewer main and where the sewer service laterals exit the public right-of-way, and storm drain main alignment, including deflection points. The location shall be described by coordinates which shall be based on the official horizontal and vertical control networks of the City of Las Vegas. Final location maps must be sealed and certified by a Nevada professional land surveyor to have positional certainties of ± 0.09 meters (± 0.3 feet) horizontally and vertically. A separate electronic comma delimited file for the sanitary sewer and storm drain coordinates shall also accompany the sanitary sewer and storm drain final location map(s).

22. CCTV video inspection is required for all sewer and storm drains. The CCTV video inspections shall 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.

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LAS VEGAS FIRE & RESCUE GENERAL NOTES

1. All work shall be done in strict accordance with the Las Vegas Fire and Rescue adopted Fire Code Ordinance # 6325 for Hydrant Specifications and Hydrant Installation Specifications.

2. Only fire hydrants that are on the Las Vegas Valley Water District's - Approved Products List are allowed to be installed.

3. A permit is required from Las Vegas Fire and Rescue for the installation of on-site water lines and fire hydrants. The permit and contractors material test certificate for underground piping form shall be obtained from the Fire Protection Engineer before commencement of work. **IFC 105.7.12**

4. On any residential or commercial installations, fire hydrants shall be installed and fire apparatus access roads shall be maintained before commencement of any combustible construction. All fire hydrants shall be in good working order and shall be capable of delivering the required fire flow. **IFC 3310, 3312**

5. To identify the fire hydrant locations, the contractor shall place a blue reflective marker at the center line of the street adjacent to the fire hydrants. **IFC 507.5.7.3**

6. All underground inspections, pressure and flush verifications of all fire hydrants and fire lines, shall be conducted before covering the lines. Center loading is acceptable for the hydro tests with prior Fire Prevention approval **IFC 106.3**

7. All on-site underground water mains and materials shall be U.L. listed, A.W.W.A approved and shall be rated for the appropriate working pressure. **IFC 507.2.1, NFPA 24**

8. Painting of curbs, fire hydrants, pads, protection of fire hydrants from physical damage, and all other work necessary per plans shall be completed before approval by Las Vegas Fire and Rescue, Fire Prevention division. **IFC 507**

9. Private hydrants shall be painted RED. **IFC 507.5.7.4**

10. Prior to the final occupancy, a fire flow test shall be witnessed by Las Vegas Fire and Rescue, Fire Prevention Division to verify availability of the required fire flow. **IFC 507**

11. Fire hydrant spacing shall be as follows: **IFC C102**
Residential - 500 ft unspinklered; 600 ft sprinklered.
Commercial - 300 ft unspinklered; 400 ft sprinklered.

12. Where the water mains are extended along streets or new streets are installed where fire hydrants are not needed for protection of the structures, fire hydrants shall be installed at a maximum of 1000 ft spacing, to provide for transportation hazards.

Where streets are provided with median dividers or have four (4) or more traffic lanes and have a traffic count of more than 30,000 per day, hydrants are required on each side of the street spaced at 500 ft on an alternating basis. **IFC C102.8**

13. No fire hydrants shall be located within the radius of a cul-de-sac and within 20 ft of the perimeter of the radius of the cul-de-sac.

14. No fire hydrants shall be located within 6 ft of any curb return, driveway, power pole, streetlight or any other obstruction. **IFC C102.12**

15. A maximum distance from a fire hydrant to a one-two family dwelling shall not exceed 300 ft, as measured by an approved route. **IFC 102.4**

16. The maximum distance from a fire hydrant to a Fire Department Connection (FDC) shall not exceed 100 ft, as measured by an approved route. **IFC C102.7**

17. The maximum distance from a hydrant to the end of a dead-end street shall not exceed 200 ft. **IFC C102.6**

18. Two (2) sources of supply are required whenever there is 4 or more fire hydrants/sprinkler lead-ins are installed on a single system. Sectional control valves shall be installed so that no more than 2 fire hydrants can be out of service due to a break in a water main. **IFC C104**

19. All fire apparatus access roads shall be paved to provide all-weather driving capabilities, and shall be designed and maintained to support the imposed loads of the fire apparatus. **IFC 503.2.3**

20. The gradient for the fire apparatus access roads shall not exceed 12%. Angles of approach and angles of departure shall not exceed 6% for 25 ft prior to and after the grade change. Adjacent to the structures gradient shall not exceed 6%. **IFC 503.2.7 / 503.2.8**

21. The turning radius of the fire apparatus access roads shall be no less than 52 ft outside and 28 ft inside turning radius. **IFC 503.2.4**

22. Vertical clearance of all fire apparatus access roads shall not be less than 13ft 6 ins. **IFC 503.2.1**

23. Fire department access shall have a minimum unobstructed width of not less than 40ft flow line to flow line with parallel parking permitted on both sides. Not less than 32 ft wide flow line to flow line, where parking is permitted only on one side of the fire apparatus road. Not less than 24 ft wide, flow line to flow line, where no parking is permitted on either side. Fire lanes through parking lots shall not be less than 24ft. **IFC 503.2.1.1**

24. A fire apparatus access road shall be required when any portion of an exterior wall of the first story is located more than 150ft from a fire department vehicle access. This distance could be increased to 250 ft if the building is sprinklered. **IFC 503.1.1**

25. Approved secondary fire apparatus access shall be provided for 100 or more dwelling units, road(s) with dead-ends or with a single point of access in excess of 600 ft. Commercial, industrial, adobelements where buildings exceed 2 stories or 30 feet in height, or exceeding 62,000 square feet in area. **IFC 503.1.2**

26. All dead-end fire apparatus roads and/or fire lanes, public or private, in excess of 150 ft in length shall be provided with an approved turn around having a minimum diameter of 81 ft. **IFC 503.2.5**

27. All fire apparatus access roads shall be marked by placing approved signs at the start of the designated fire lane, one sign at the end of the fire lane and with signs at intervals of 100 ft along the designated fire lanes. Signs to be placed on both sides of an access roadway if needed to prevent parking on either side. Signs to be installed no higher than 10 ft or less than 6 ft from the roadway level. The curb along or on the pavement or cement (if no curb is provided) shall be painted with a red weather resistant paint in addition to the signs. **IFC 503.3**

28. Electrically controlled access gates shall be provided with an approved emergency vehicle detector/receiver system. Said system shall be installed in accordance with the City of Las Vegas guidelines for Automatic Emergency Vehicle Access Gates. **IFC 503.6**

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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 "SAFE ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING OF 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 OBSTRUCTION, 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 BE FABRICATED WITH RAMOND OR EQUIVALENT REFLECTIVE SHEETING AND AN APPROVED SET OF NEW TRAFFIC SIGNS, EXCEPT STREETNAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1160 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1150 ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.

7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5) FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.

8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.

9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.

10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR INSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.

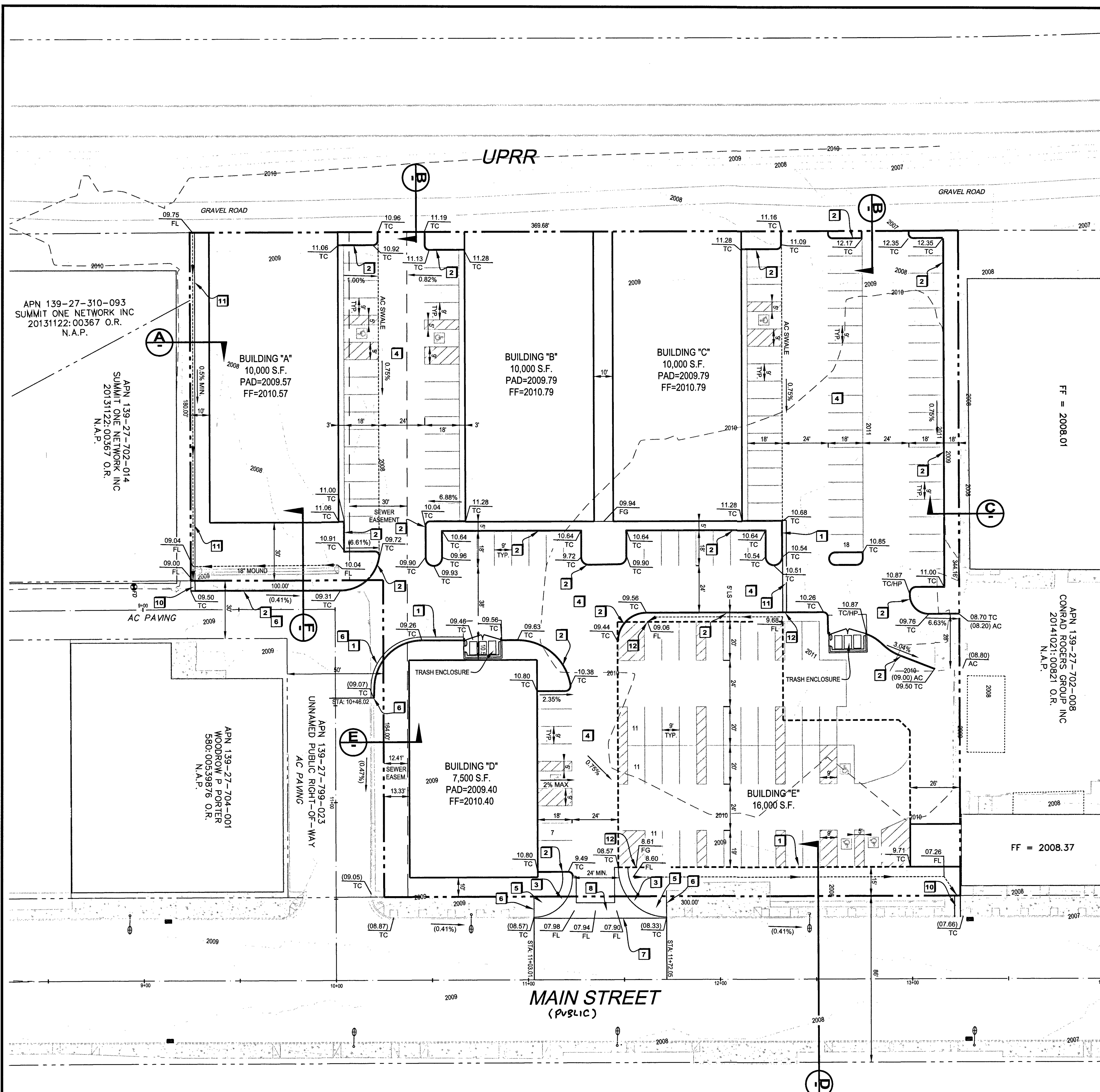
11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF BUS SERVICE.

13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT. SPECIAL EVENTS UNIT (PHONE # 828-3442) MUST PROVIDE OFFICERS PREVIOUSLY 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.

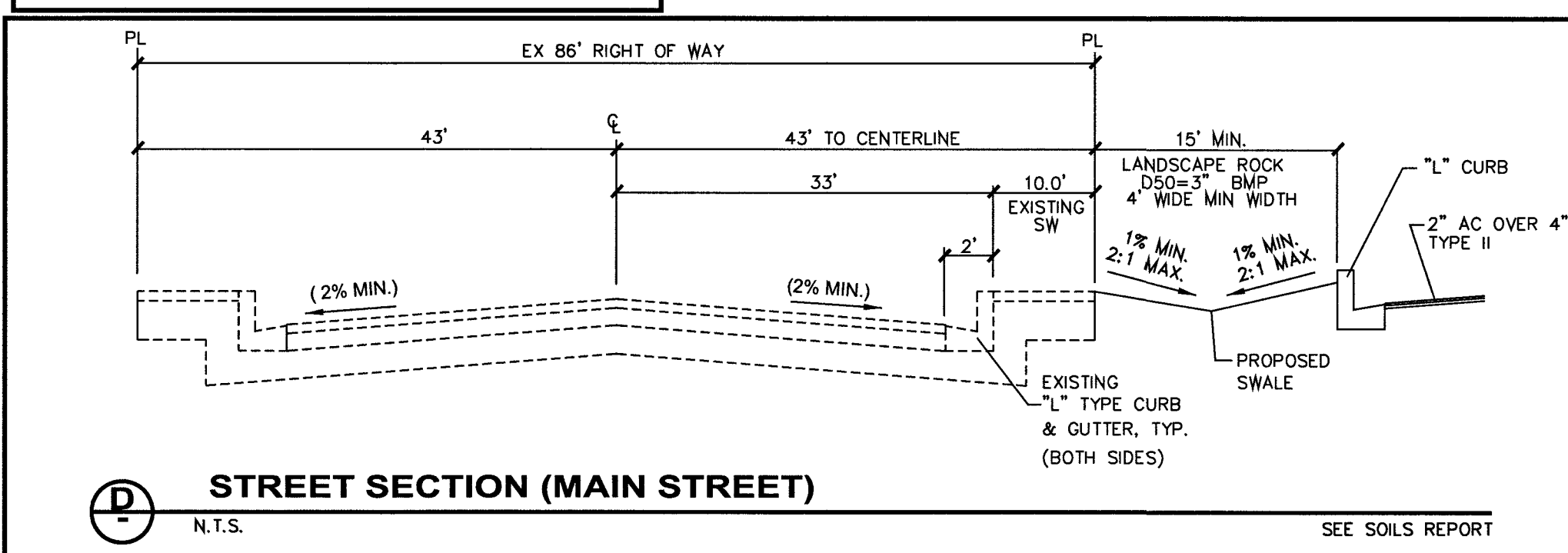
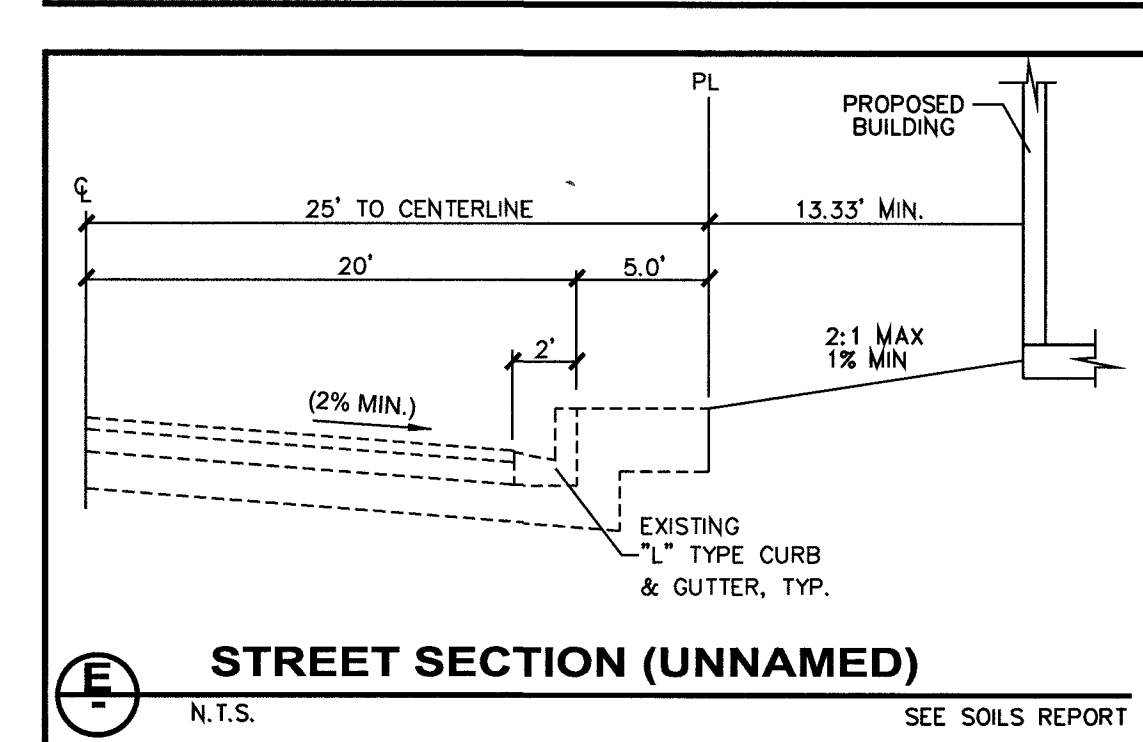
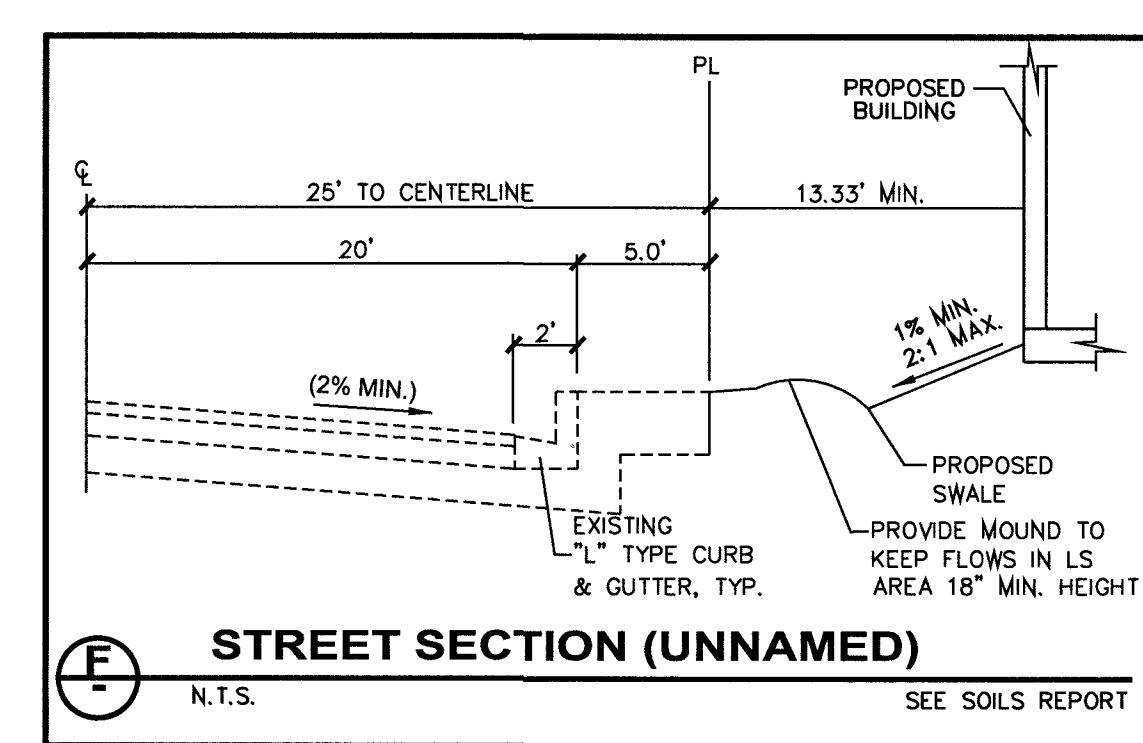
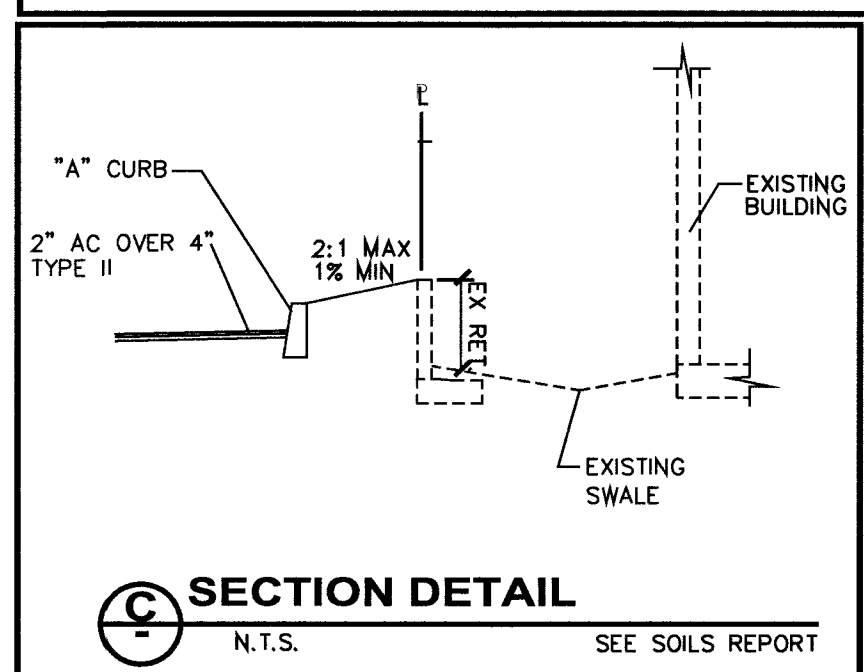
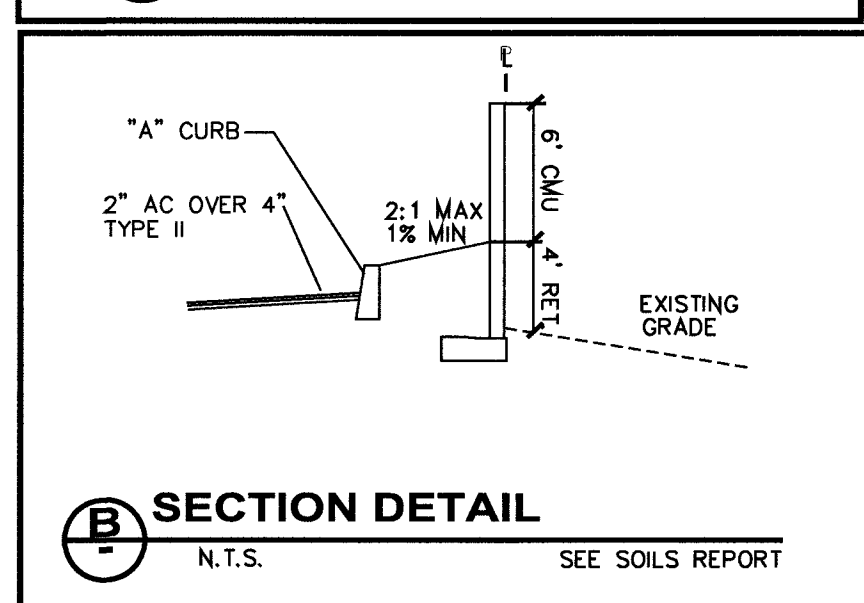
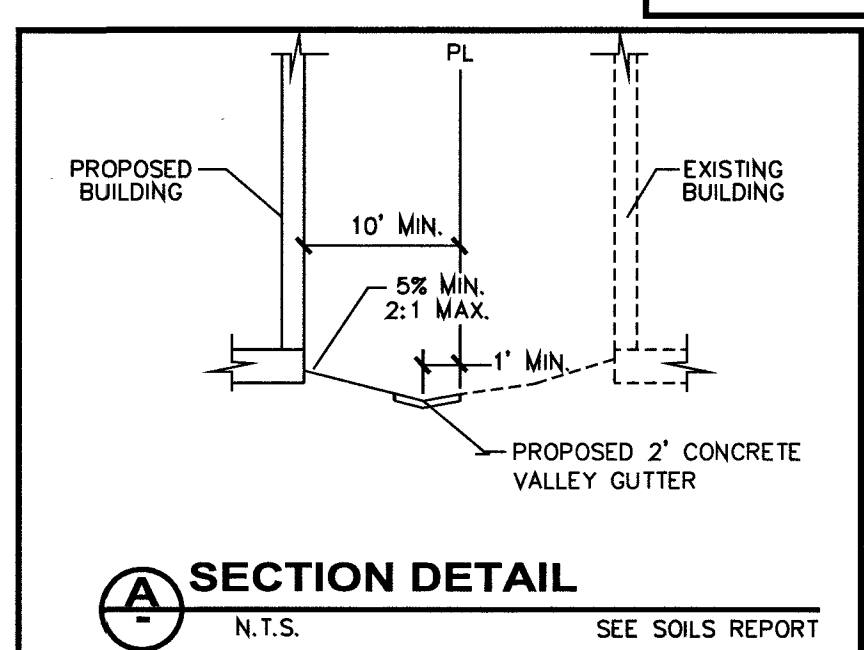
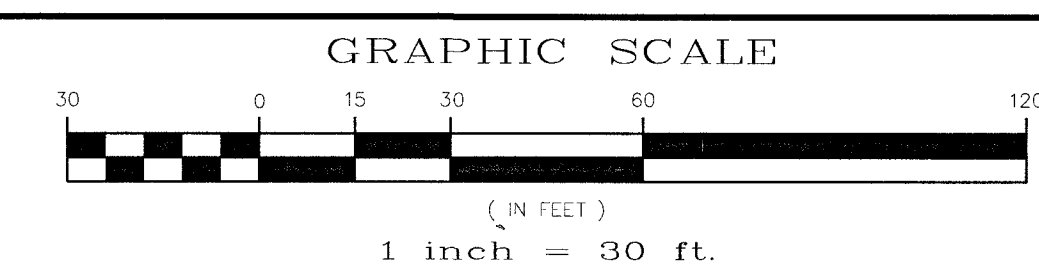
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS OTHERWISE DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.

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 CHANGES TO MOVING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT



LEGEND

---	EXISTING/ ADJACENT RIGHT-OF-WAY LINE	14.58	EXISTING ELEVATION DESCRIPTION
---	EXISTING EDGE OF PAVEMENT	14.22	PROPOSED ELEVATION DESCRIPTION
---	5' EXISTING GROUND CONTOUR	14.22	PROPOSED AC ELEVATION DESCRIPTION
---	1' EXISTING GROUND CONTOUR	0.42%	EXISTING RATE OF GRADE/ DIRECTION OF FLOW
---	EXISTING RETAINING WALL	14.22	EXISTING MANHOLE
---	PROPOSED RETAINING WALL	14.22	EXISTING FIRE HYDRANT
---	PROPERTY LINE	14.22	PROPOSED FIRE HYDRANT
---	CENTER LINE		
---	SAWCUT LINE		
---	DETAIL NUMBER / SHEET NUMBER		



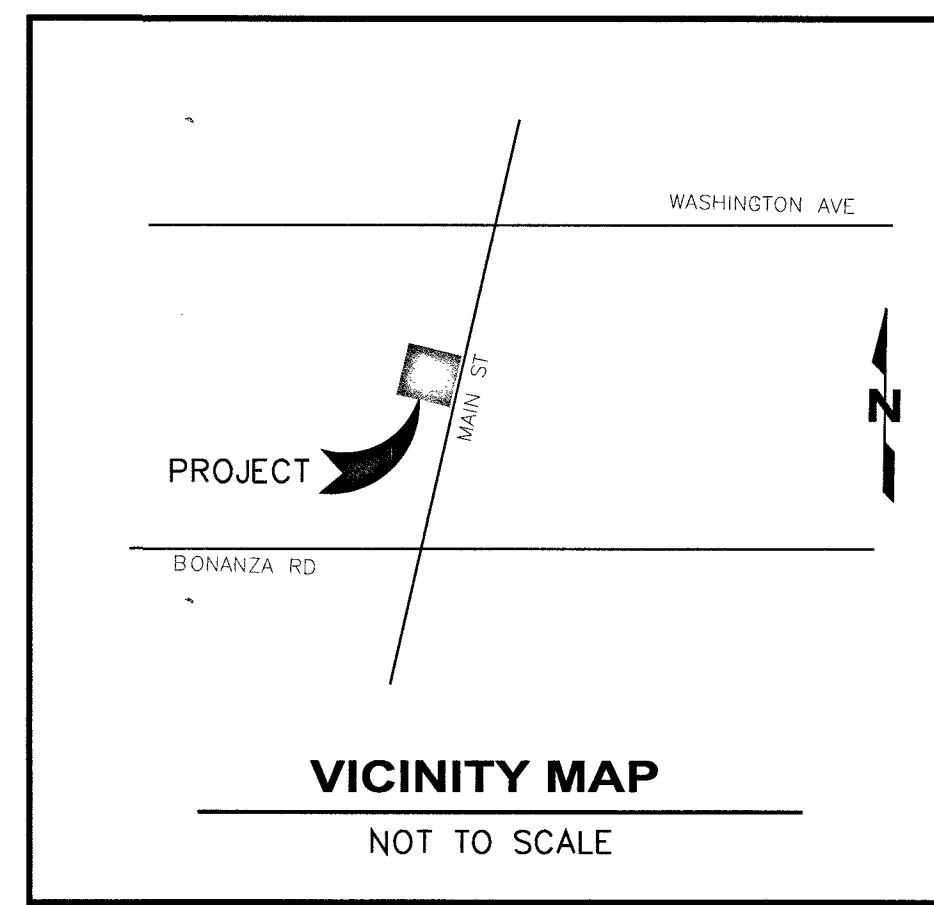
BMP - DRAINAGE THRU LANDSCAPE

DESCRIPTION	AREA	% OF TOTAL
PROJECT SITE	2.74 AC	
DRAINAGE INTO LANDSCAPING	2.42 AC	88%
DRAINAGE NOT IN LANDSCAPING	0.32 AC	12%

BONDABLE DRAINAGE QUANTITIES

1. "L" CURB	178 LF
2. SIDEWALK UNDER DRAIN	2 EA

- GRADING CONSTRUCTION NOTES**
- CONSTRUCT "L" TYPE CURB & GUTTER PER C.C.A.U.S.D. STD. DWG. NO. 218.
 - CONSTRUCT ON-SITE "A" CURB PER C.C.A.U.S.D. STD. DWG. NO. 219.
 - CONSTRUCT SIDEWALK RAMP PER STANDARDS IN C.C.A.U.S.D. STD. DWG. NO. 235.
 - CONSTRUCT 2" AC MIN. IN PARKING AREA REFER TO SOILS REPORT.
 - CONSTRUCT SIDEWALK PER C.C.A.U.S.D. STD. DWG. NO. 234.
 - SAW CUT EXISTING AS NEEDED AND MATCH EXISTING.
 - SAW CUT EXISTING AND REMOVE CURB GUTTER. MATCH EXISTING AC.
 - CONSTRUCT COMMERCIAL DRIVE PER C.C.A.U.S.D. STD. DWG. NO. 226.
 - PROPOSED 10' DRAINAGE EASEMENT TO PRIVATELY MAINTAINED.
 - CONSTRUCT SIDEWALK UNDER DRAIN PER C.C.A.U.S.D. STD. DWG. NO. 236.
 - CONSTRUCT 2" VALLEY GUTTER.
 - CONSTRUCT 2" OPENING FOR DRAINAGE.



GEOTECHNICAL REPORT

DLC CONSULTING
2885 E. QUAIL AVENUE
LAS VEGAS, NV 89120
(702) 702-5211-7021
PROJECT NO. 2017-682 MI-05
DATED: APRIL 14, 2017

- GENERAL NOTES**
- ADD 2000 TO ALL PLAN ELEVATIONS.
 - CONTRACTOR TO FIELD VERIFY ALL EXISTING PLAN ELEVATIONS AND NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
 - THIS SITE IS NOT LOCATED IN A 100 YEAR FLOOD PLAIN PER F.I.R.M. MAP No 32003C2930E REVISED SEPTEMBER 27, 2002.
 - ESTIMATED EARTHWORK QUANTITIES: 4,408 C.Y.=CUT, 1,610 C.Y.=FILL.

BASIS OF BEARINGS

N 27°45'00" W, BEING THE EAST RIGHT-OF-WAY LINE OF MAIN STREET AS SHOWN BY MAP IN THE OFFICE OF THE CLARK COUNTY, NEVADA RECORDER IN BOOK 2 OF PLATS, PAGE 33.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK BLV0127E6
RIVET AND PLATE IN TOP OF CURB AT SE CORNER OF WASHINGTON & MAIN
ELEVATION: 1999.78 (U.S. SURVEY FEET)
609.633 (METERS)

NOTE: THIS GRADING PLAN COMPLIES WITH THE APPROVED DRAINAGE STUDY # 2017-682 MI-05
LEONARD L. CHRISTOPHERSON, P.E. No. 15257
DATE: 4/12/17

OWNER/DEVELOPER

ROGERS CONRAD GROUP INC
737 MAIN ST
LAS VEGAS, NV 89101

ENGINEER

LONDON CHRISTOPHERSON
2885 E. QUAIL AVENUE
LAS VEGAS, NV 89120
PHONE: (702) 521-7021

NOTE:
ALL ON-SITE STORM DRAINS AND THE ASSOCIATED FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE PROPERTY OWNER.

Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE ALERT (USA)

Call before you Overhead.
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

#	DATE / DESCRIPTION

ENGINEER'S SEAL:
LEONARD L. CHRISTOPHERSON
EXP. 12/31/20
CIVIL
No. 15257

DLC CONSULTING
DEVELOPMENT | LAND ANALYSIS | CONSTRUCTION
2885 EAST QUAIL AVENUE
LAS VEGAS, NEVADA 89120
PHONE: 702-521-7021

ROGERS CONRAD GROUP INC
737 MAIN ST
LAS VEGAS, NV 89101

PROJECT:
DOWNTOWN BUSINESS PARK
721 N. MAIN STREET
LAS VEGAS, NV 89101
APN: 139-27-702-009, 012, 013 & 015

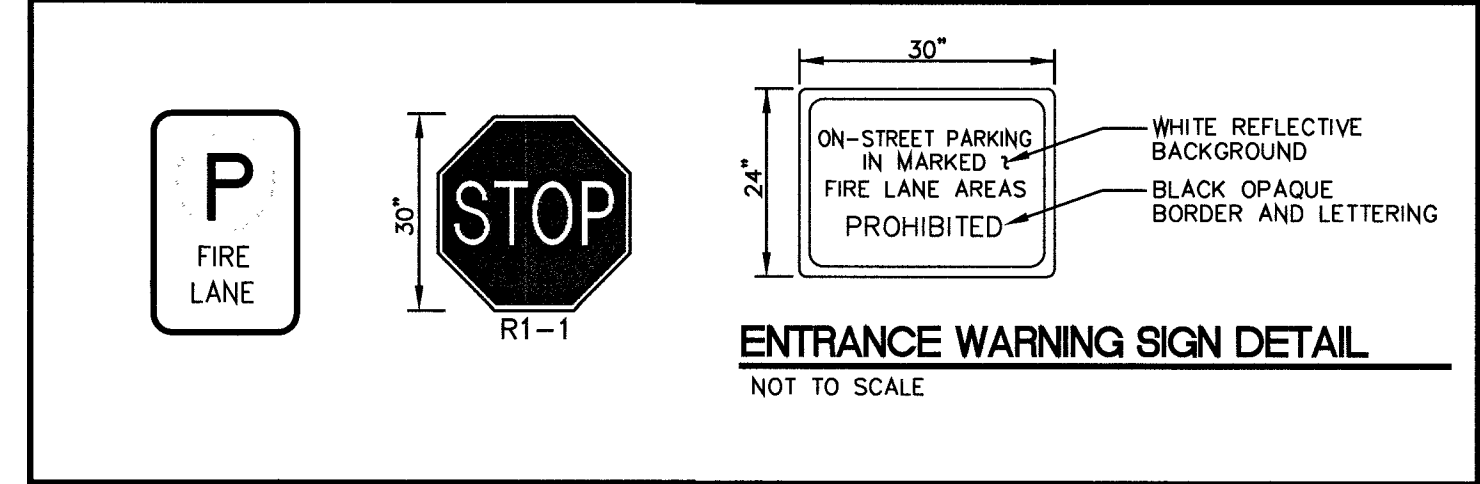
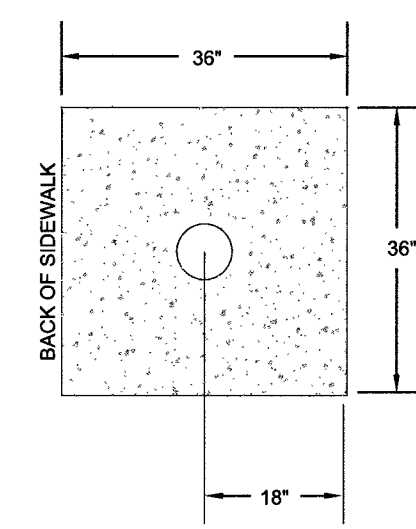
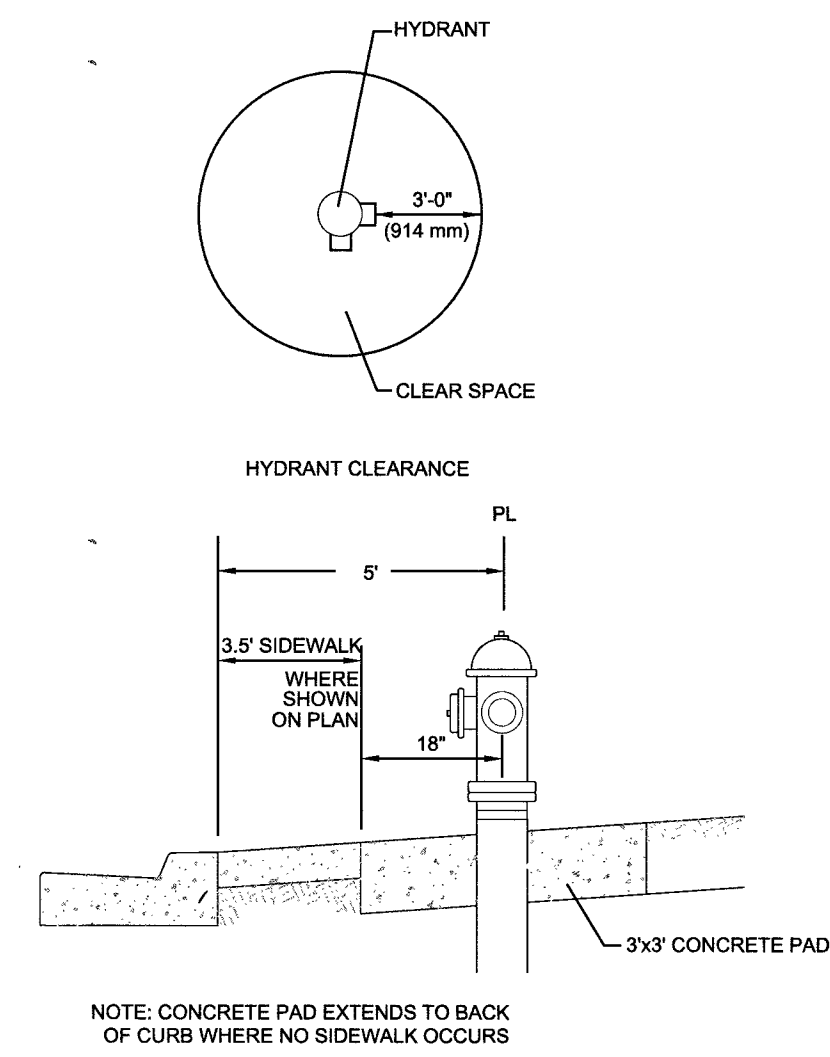
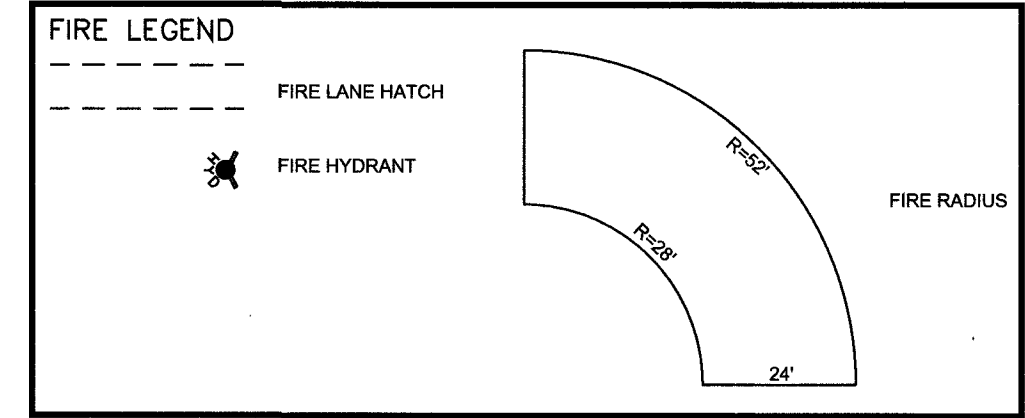
SHEET TITLE:
GRADING PLAN

DATE:
SEP. 20, 2019

SCALE:
1"=30'

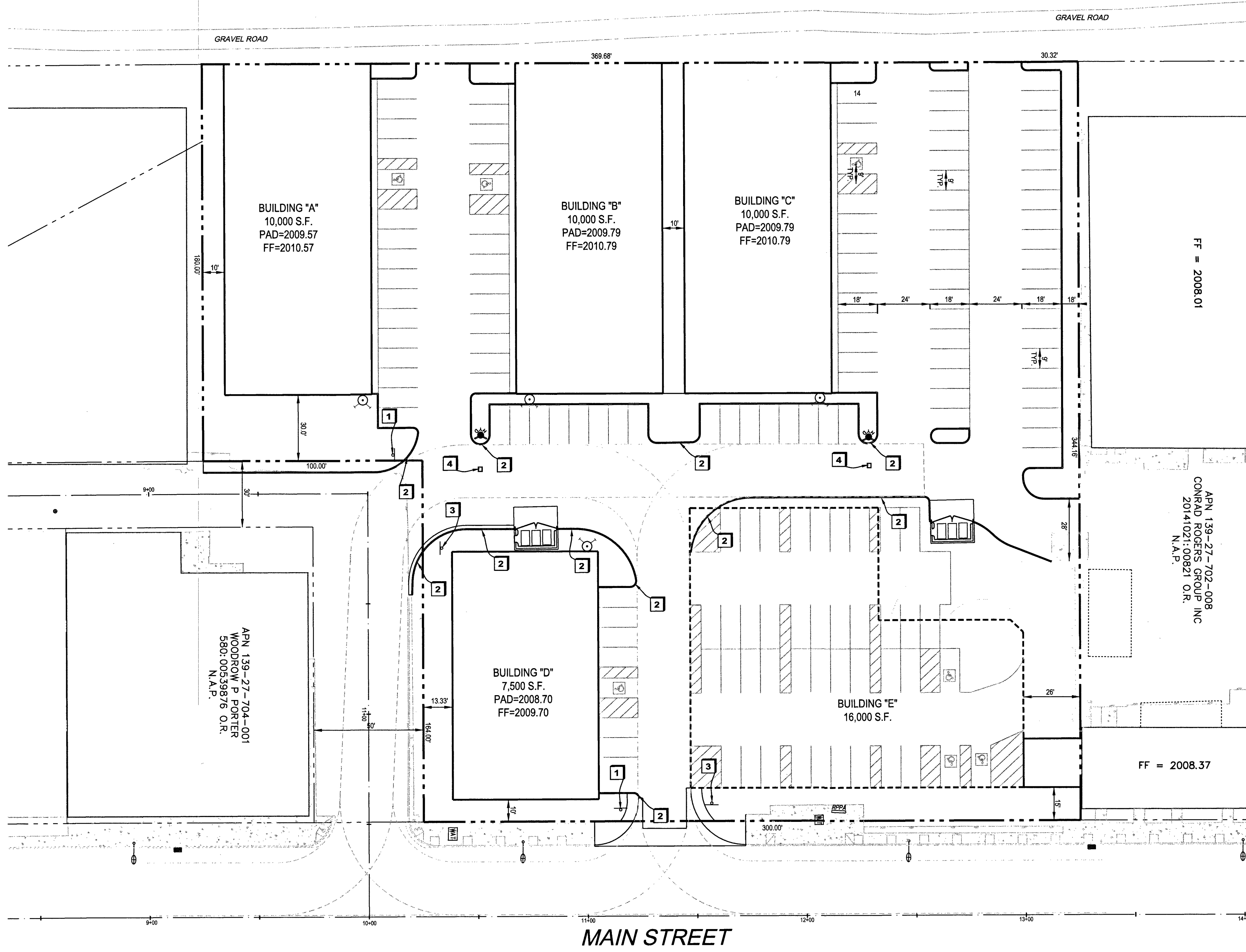
SHEET NUMBER:
3 OF 6

4-78767
107V 8/70

[illegible]

PLAN VIEW
OF 3'X3' CONCRETE PAD

SECTION VIEW



NOTE:
NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHEN NO CURB EXISTS, AT HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS.

BASIS OF BEARINGS

N 27°45'00" W. BEING THE EAST RIGHT-OF-WAY LINE OF MAIN STREET AS SHOWN BY MAP IN THE OFFICE OF THE CLARK COUNTY, NEVADA RECORDER IN BOOK 2 OF PLATS, PAGE 33.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK BLVD127E6

RIKET AND PLATE IN TOP OF CURB AT SE CORNER OF
WASHINGTON & MAIN

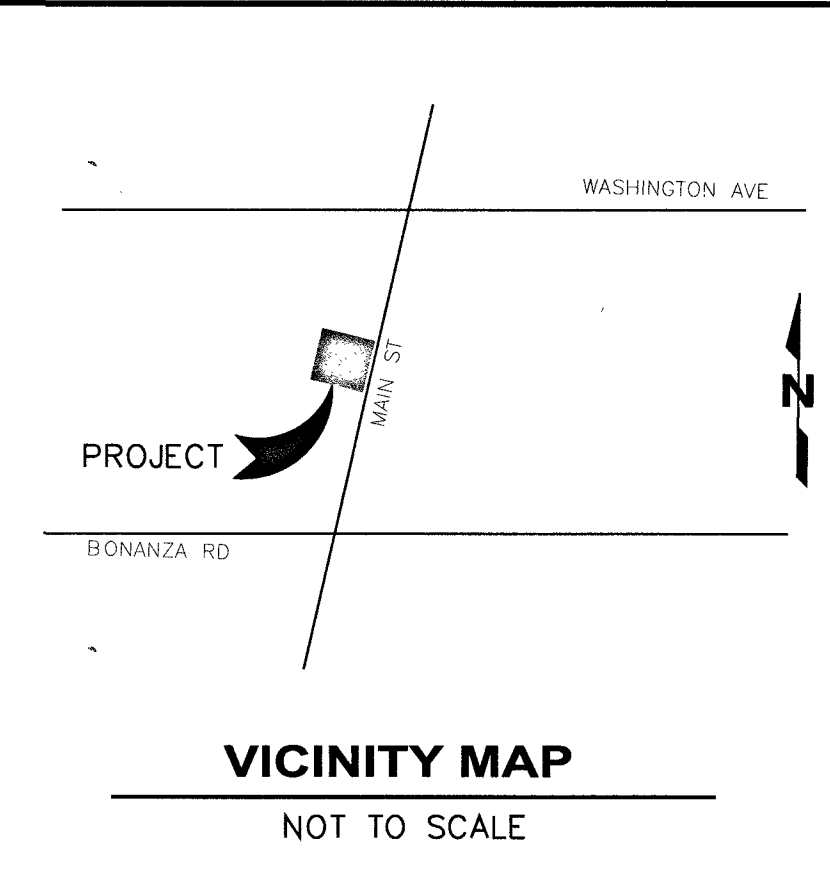
ELEVATION: 1999.78 (U.S. SURVEY FEET)
609.533 (METERS)

KEY NOTES

- 1** INSTALL 30" R1-1 STOP SIGN PER DETAIL THIS SHEET
- 2** CURB TO BE PAINTED RED TO DESIGNATE FIRE LANE WITH "NO PARKING FIRE LANE" TO BE PAINTED IN WHITE BLOCK LETTERS MINIMUM 4" IN HEIGHT WITH A BRUSH STROKE OF NOT LESS THEN 3/4" EVERY 50' OR A PORTION THEREOF.
- 3** INSTALL ENTRANCE WARNING SIGN PER DETAIL THIS SHEET
- 4** INSTALL BLUE REFLECTIVE RAISED PAVEMENT MARKERS ADJACENT TO THE FIRE HYDRANT ON ALL IMPROVED FIRE EQUIPMENT ACCESS ROADWAYS WITH HARD SURFACES INCLUDING BOTH PUBLIC & PRIVATE ROADS, STREETS OR FIRE LANES:

ON ROADWAYS WITH NO PARKING PERMITTED ON THE HYDRANT SIDE; EIGHT (8) FEET FROM THE FACE OF THE CURB ON THE HYDRANT SIDE

ON ROADWAYS WITH PARKING PERMITTED ON THE HYDRANT SIDE; (16) FEET FROM THE FACE OF THE CURB ON THE HYDRANT SIDE



ENGINEER'S SEAL

REGISTERED PROFESSIONAL ENGINEER-STATE OF MARYLAND

LEONARD L. CHRISTOPHERSON

EXP. 12/31/20

CIVIL

No. 15257

2/12/19

ENGINEER:

DLC

CONSULTING

DEVELOPMENT | LAND ANALYSIS | CONSTRUCTION

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PHONE: 702-521-7021

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DOWNTOWN BUSINESS PARK
721 N. MAIN STREET
LAS VEGAS, NV 89101
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TRAFFIC/FIRE ACCESS PLAN

PROJECT:		SHEET TITLE:	
DATE:		MAR. 27, 2019	
SCALE:		1"=30'	
SHEET NUMBER:		5 OF 6	
L-70767		10TV 8/10	

DRAWING:

AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

Call
before you
Dig.

1-800-227-2600
UNDERGROUND SERVICE ALERT (USA)

AVOID OVERHEAD POWER LINE
CONTACT. IT'S COSTLY.

 Call 
before you
OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND
SAFETY PROMOTES DEPARTMENT

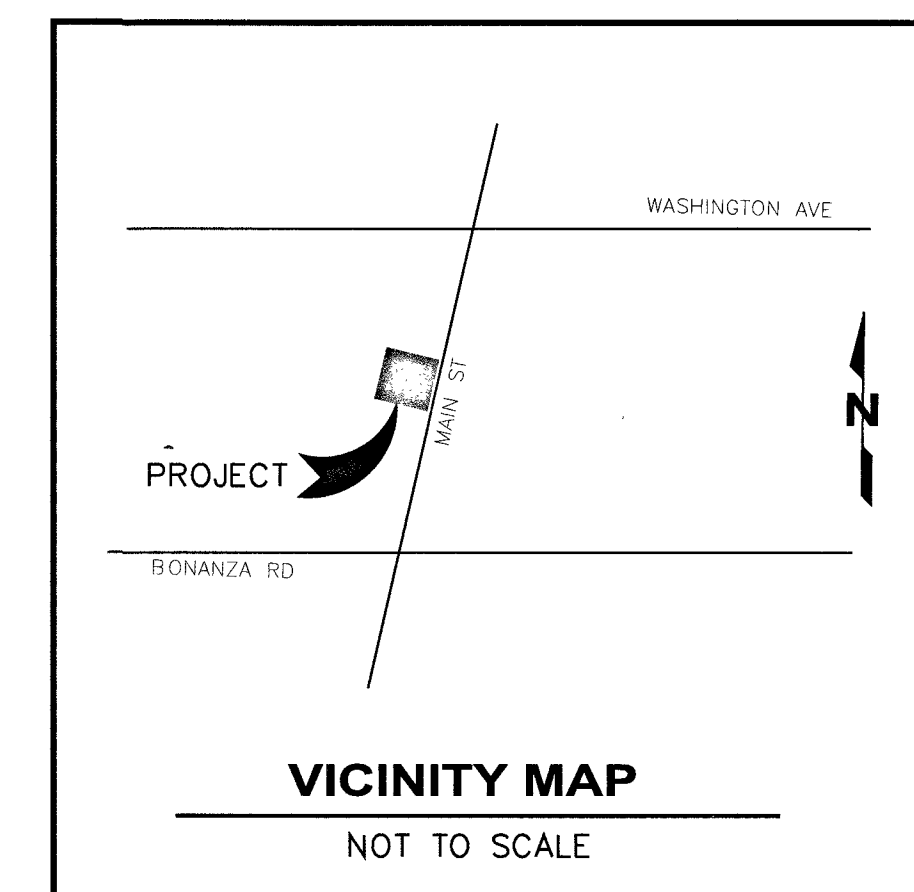
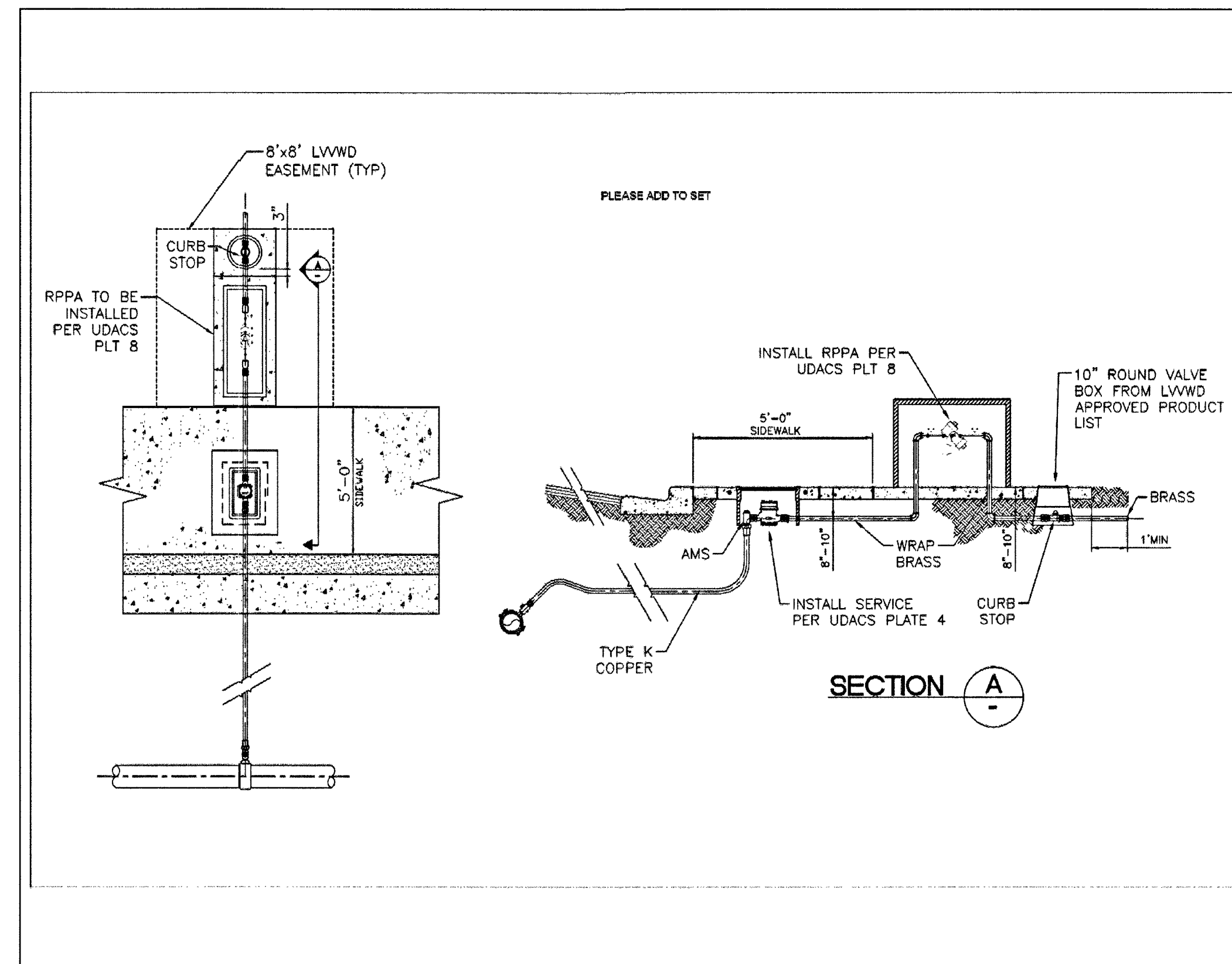
Diagram illustrating the process of existing vault structure abandonment, showing various steps and dimensions:

- REPLACE TO MATCH EXISTING SURFACE MATERIAL. WHERE IN PAVEMENT SAWCUT, REMOVE AND REPLACE THE EXISTING ASPHALTIC CONCRETE PAVING AND AGGREGATE BASE COURSE MATERIAL ABOVE THE EXISTING CONCRETE VAULT. THE THICKNESS OF THE ASPHALTIC CONCRETE PAVING SHALL BE 3" MINIMUM OR MATCH EXISTING WHICHEVER IS GREATER. THE AGGREGATE BASE MATERIAL SHALL BE TYPE II COMPACTED TO 95% MAXIMUM DENSITY AND SHALL BE Laid DOWN IN MAXIMUM LIFTS OF 8".
- REMOVE AND DISPOSE OF THE EXISTING REINFORCED ROOF SLAB, VAULT ACCESS, AND COLLAR AROUND ACCESS AS REQUIRED.
- REMOVE APPROXIMATELY 24" OF THE TOP OF ALL VERTICAL WALLS BELOW THE ROOF SLAB. CUT OFF ANY PROTRUDING REINFORCING BARS AS REQUIRED AT THE TOP OF THE BROKEN WALL SECTION.
- THE EXISTING VAULT INTERIOR SHALL BE FILLED COMPLETELY WITH CLEAN GLASS #1 (300 PSI).
- REMOVE EXISTING CONTROL VALVES AND METERS (IF APPLICABLE). ABANDON REMAINING PIPING AND EXISTING VAULT APPURTENANCES IN PLACE AS REQUIRED (TYP).
- REMOVE EXISTING GRAVE.
- CUT A 1" SQUARE HOLE IN CONCRETE FLOOR (IF APPLICABLE).
- EXCAVATE AND EXPOSE THE ROOF OF THE EXISTING VAULT. THE HORIZONTAL LIMITS OF THE EXCAVATION SHALL BE A MINIMUM OF 12" GREATER ON ALL SIDES AND 30" BELOW THE TOP OF THE EXPOSED VAULT STRUCTURE.
- Dimensions: 12", VARIES, VARIES.

EXISTING VAULT STRUCTURE ABANDONMENT

NOT TO SCALE

PL18-1 111203



AVOID OVERHEAD POWER LINE
CONTACT. IT'S COSTLY.

 Call 

before you
OVERHEAD

1-702-227-2929
NEVADA POWER ENVIRONMENT AND

DRAWING:

[illegible]

ENGINEER'S SEAL:



ENGINEER:

ENGINEER:

BLC

CONSULTING

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APN: 139-27-702-009, 012, 013 & 015

PROJECT:

DATE: MAR. 27, 2019

SCALE: N/A

SHEET NUMBER:
6 OF 6

6.70767
107V 8170

UTILITY DETAILS