DS #: 4601

APN: 138-20-212-002

PROJECT: Temple Sinai

SUBMITTAL: 2nd

SCANNED BY/DATE: _____

CHECKED BY/DATE: _____

CITY OF LAS VEGAS
NEVADA

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM				DATE: June 27, 2013
TO: **Land Development Services** Department of Public Works				FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for: **Temple Sinai**			**COPIES TO:** G.C. Wallace Companies
Cross Streets:	Hillpointe Road & Pinewood Hills Drive			Temple Sinai of Las Vegas
File Number:	F:\Depot\DSMemos\DS4601B.doc			Bart Anderson, P.E., DevCo
Parcel Number:	138-20-212-002			
Zoning Action:	CRG-49743			
FEMA Flood Zone	YES	NO	X	
Proposed Storm Drain	YES	NO	X	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1st Submittal	5/14/2013	5/29/2013	Not Approved	$400.00	319640: $400
2nd Submittal	6/11/2013 & 6/26/2013	6/27/2013	See Comments Below	$400.00	322737: $400
			TOTAL FEES (LDDRS):	**$800.00**	**----**

REMARKS:

The Drainage Study for the subject project has been reviewed and:

X	is approved subject to conformance to all City standards and the following conditions:
	must be resubmitted or supplemented including the following:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.

NOTE: Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Amendment and accepted by the *City of Las Vegas Flood Control Section*. Additionally, conditional acceptance of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the *City of Las Vegas* reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the *Nevada Division of Environmental Protection* a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see http://ndep.nv.gov/bwpc/storm01.htm or call (775) 687-9429.

END OF REMARKS

ays

T/R/S: T20S/R60E/20
AREA L-20

June 26, 2013

Mr. Richard Hollander
Temple Sinai Las Vegas, Inc.
9001 Hillpoint Road
Las Vegas, Nevada 89134

Re: CRG-49743 (PRJ-49744) - CITY REFERRAL GROUP

Dear Mr. Hollander:

Your request for AN AMENDMENT OF AN APPROVED SUMMERLIN SITE DEVELOPMENT PLAN REVIEW (SV-010-94) TO ADD 20,780 SQUARE FOOT TO THE CAMPUS on a portion of 3.98 acres at 9001 Hillpointe Road (APN 138-20-212-002), P-C (Planned Community) Zone, Ward 2 (Beers) [PRJ-49744], considered by the City Referral Group on Wednesday, June 26, 2013.

The City Referral Group ***APPROVED*** your request subject to the following:

Department of Planning

1. This approval shall be void two years from the date of final approval, unless exercised pursuant to the provisions of LVMC Title 19.16. An Extension of Time may be filed for consideration by the City of Las Vegas.

2. All development shall be in conformance with the site plan, landscape plan, and building elevations, date stamped 06/11/13, except as amended by conditions herein.

3. The fence design shall conform to the Summerlin Village Design Standards in style, color and pilaster design. Iron color: Dunn Edwards "Summerlin Bower" AM-1U-26B or Frazee "Bower – 1426B."

4. Prior to occupancy, all necessary building permits shall be obtained and final inspections shall be completed in compliance with Title 19 and all codes as required by the Building and Safety Department.

5. These Conditions of Approval shall be affixed to the cover sheet of any plan set submitted for building permit.

6. All utility boxes exceeding 27 cubic feet in size shall meet the standards of LVMC Title 19.12.040.

7. All City Code requirements and design standards of all City Departments must be satisfied, except as modified herein.

CITY OF LAS VEGAS
DEPARTMENT OF PLANNING
DEVELOPMENT SERVICES CENTER
333 NORTH RANCHO DRIVE
3RD FLOOR
LAS VEGAS, NEVADA 89106

VOICE 702.229.6301
FAX 702.474.0352
TTY 702.386.9108
www.lasvegasnevada.gov

Public Works

8. Remove all substandard public street improvements, if any, adjacent to this site and replace with new improvements meeting current City Standards concurrent with on-site development activities. All existing public improvements adjacent to this site damaged during construction shall be repaired at the applicant's expense.

9. All landscaping and private improvements installed with this project shall be situated and maintained so as not to create sight visibility obstructions for vehicular traffic at all development access drives and abutting street intersections. No structures and no trees or vegetation taller than three feet shall be allowed within the existing public sewer easement as shown on the approved site plan.

10. A Drainage Study update to the Flood Control Section must be submitted to and approved by the Department of Public Works prior to issuance of any building or grading permits. Provide and improve all drainageways recommended in the approved drainage study update.

11. Site development to comply with the Summerlin Development and Improvement Standards and any applicable conditions of SV-010-94.

This action by the City Referral Group on June 26, 2013 is final unless a written appeal is filed with the Director of the Department of Planning within ten (10) days of the date of the City Referral Group's decision.

Sincerely,

Yorgo Kagafas, AICP
Senior Planner
Department of Planning
Case Planning Division

YK:clb

cc: Mr. Roy Clark
GC Wallace, Inc.
1555 South Rainbow Boulevard
Las Vegas, Nevada 89146

Recd: 6/11/13 &
6/26/13
DS460

RESPONSE TO COMMENTS
ON THE
UPDATE TO THE TECHNICAL DRAINAGE STUDY
FOR
TEMPLE SINAI

L-20

$400

398-A482

June 2013

Prepared for:

Temple Sinai of Las Vegas
9001 Hillpointe Road
Las Vegas, Nevada 89134
Phone: (702) 254-5100
Fax: (702) 254-0997

G. C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS

RESPONSE TO COMMENTS
ON THE
UPDATE TO THE TECHNICAL DRAINAGE STUDY
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G. C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS

398-A482

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL

DRAINAGE STUDY INFORMATION FORM

Name of Development: Temple Sinai Date: June 2013

Location of Development a) Descriptive (Cross Streets) North/South: Pinewood Hills Drive

East/West: Hillpointe Road

b) Section: 20 Township: 20 S Range: 60 E

c) APN: 138-20-212-002

Name of Owner: Temple Sinai of Las Vegas

Telephone No.: (702) 254-5100 Fax No. (702) 254-0997 E-Mail Address: Not available

Address: 9001 Hillpointe Road, Las Vegas, Nevada 89134

Contact Person-Name: James A. Monroe, P.E. **Telephone No.:** (702) 804-2000

* **E-Mail Address:** jmonroe@gcwallace.com **Fax No.:** (702) 804-2299

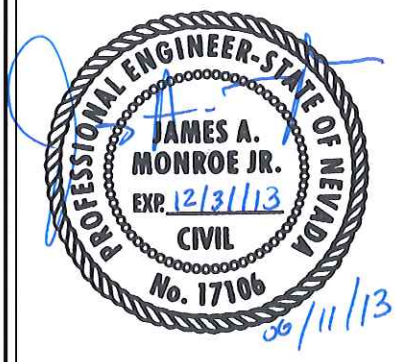
Firm: G. C. WALLACE COMPANIES

Address: 1555 S. Rainbow Blvd; Las Vegas, NV 89146

Type of Land Development/Land Disturbance

☐	Rezoning	☐	Subdivision Map	☐	Clearing and Grading Only
☐	Parcel Map	☐	Planned Unit Development	☒	Other (Please specify below)
☐	Large Parcel Map	☐	Building Permit	Technical Drainage Study	

1. Total Owned Land Area: At Site: 3.94 acres Being Developed/Disturbed: ± 2.5 acres
2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? ☐ Yes** ☒ No
3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☐ Yes** ☒ No
4. Proposed type of development (Residential, Commercial, Etc.): Commercial
5. Approximate upstream land area which drains to the subject site: ± 0 acres
6. Has the site drainage been evaluated in the past? ☒ Yes ☐ No If yes, please identify documentation: *Drainage Study for Temple Beth Am at Summerlin Village 1 South, August 1994, Pentacore Engineering, UpdateTo The Drainage Study for Temple Beth Am at Summerlin Village 1 South, June 1999, VTN*.
7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Existing surface drainage in Hillpointe Road and a 55' public drainage easement on the east side of the site.
8. Briefly describe your proposed schedule for the subject project: ASAP



Engineer's Seal

Submit this form as part of the required drainage study to the local entity which has jurisdiction over the subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

*New Required Field

**Review and concurrence of the Clark County Regional Flood Control District is required.

Local Entity File No.

Revision	Date

REFERENCE:

STANDARD FORM 1

Updated 05/01/2008

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM				DATE: May 29, 2013
TO: **Land Development Services** Department of Public Works				FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for: **Temple Sinai**			**COPIES TO:** G.C. Wallace Companies
Cross Streets:	Hillpointe Road & Pinewood Hills Drive			Temple Sinai of Las Vegas
File Number:	F:\Depot\DSMemos\DS4601A.doc			Bart Anderson, P.E., DevCo
Parcel Number:	138-20-212-002			
Zoning Action:	CRG-xxxxx; SDR-xxxxx			
FEMA Flood Zone	YES	NO	X	
Proposed Storm Drain	YES	NO	X	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1st Submittal	5/14/2013	5/29/2013	See Comments Below	$400.00	319640: $400
			TOTAL FEES (LDDRS):	**$400.00**	""

REMARKS:

The Drainage Study for the subject project has been reviewed and:

	is approved subject to conformance to all City standards and the following conditions:
X	must be resubmitted or supplemented including the following:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.
	is conditionally approved subject to Clark County Public Works Department concurrence.

1. Provide a copy of the zoning/planning conditions associated with this site (CRG-xxxxx and/or SDR-xxxxx) with the next submittal to verify compliance with conditions. *Flood Control* will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the *City Council*). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be revised and resubmitted.

2. Revise the onsite storm drain note on the grading plans to the fact that the storm drain system and the associated facilities are owned and to be privately maintained by **TEMPLE SINAI.**

3. A storm drain is proposed through and under a new building in the courtyard area which is not allowed in the *City of Las Vegas*. Review and re-route the drain in the next submittal.

4. Identify an existing public drainage easement in the adjacent property to the east. Label with the width of the easement and the recorded document number on the grading plan. Also identify the storm drain systems running under the drainage easement.

5. Identify an existing concrete flume at the northeast corner of the site for the surface discharge of the subject development.

6. Show an existing storm drain with all pertinent drop inlets and laterals, etc. in *Hillpointe Drive*. Label with pipe and inlet sizes and *City of Las Vegas* recorded drawing number on the plans.

7. Label the street name of *Hillpointe Drive* on the grading plan.

8. Label the finish floor elevation of existing houses adjacent to the south and the LDS building to the west of the subject improvements.

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the *Nevada Division of Environmental Protection* a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see http://ndep.nv.gov/bwpc/storm01.htm or call (775) 687-9429.

END OF REMARKS
ays

T/R/S: T20S/R60E/20
AREA L-20

RESPONSE TO COMMENTS
ON THE
UPDATE TO THE TECHNICAL DRAINAGE STUDY
FOR
TEMPLE SINAI

398-A482

June 2013

Prepared for:

Temple Sinai of Las Vegas
9001 Hillpointe Road
Las Vegas, Nevada 89134
Phone: (702) 254-5100
Fax: (702) 254-0997

Prepared by:

G. C. Wallace, Inc.
1555 S. Rainbow Blvd.
Las Vegas, Nevada 89146
Phone: (702) 804-2000
Fax: (702) 804-2299

G. C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS

G. C. WALLACE, INC.
G. C. WALLACE HOLDINGS, INC.

Writer's Contact Information:

702.804.2133

398-A482

June 11, 2013

Albert Y. Sung, PE
Flood Control Project Manager
City of Las Vegas - Land Development Services
Department of Public Works
333 N. Rancho Drive
Las Vegas, Nevada 89106

Re: Response to Comments on the Technical Drainage Study for Temple Sinai DS4601A

Dear Mr. Sung:

The purpose of this letter is to address your comments dated May 29, 2013, regarding the above-referenced project. The comments are individually addressed as follows:

Comment: "1. Provide a copy of the zoning/planning conditions associated with this site (CRG-xxxxx and/or SDR-xxxxx) with the next submittal to verify compliance with conditions. *Flood Control* will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the *City Council*). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be revised and resubmitted."

Response: Zoning/planning conditions for the site are required and will be obtained. GCW requests that the Study be conditionally approved pending final acceptance from the *City Council*.

Comment: "2. Revise the onsite storm drain note on the grading plans to the fact that the storm drain system and the associated facilities are owned and to be privately maintained by **TEMPLE SINAI**."

Response: The onsite storm drain note on the grading plans has been revised.

Comment: "3. A storm drain is proposed through and under a new building in the courtyard area which is not allowed in the *City of Las Vegas*. Review and re-route the drain in the next submittal."

Response: The storm drain under the building is no longer required and has been removed from the grading plans. A copy of the plumbing roof plan received from the Architect has been included in the Appendix for review. As shown in the plumbing roof plan, a portion of the runoff generated by the roof of the proposed building expansion will discharge north through the parking lot and north driveway entrance to the Site. The remaining portion of the flow generated by the proposed building expansion will be collected by the proposed trench drains within the aisles.

Subbasins AR and BR have been revised to reflect the current roof drain plan for the proposed building expansion. Please see revised Figures 1AR and 1BR in the Appendix. Approximately

0.07 acres of the proposed building expansion is included in Subbasin BR. The remaining 0.15 acres of the proposed building expansion has been added to Subbasin AR. The proposed conditions hydrologic model and supporting calculations have been revised to reflect the revised subbasin areas. The HEC-1 summary and prorated flow summary tables have been updated on Figures 1A and 1B. The total flow generated onsite will be 14 cfs during proposed conditions.

Cross Section 1 has been revised to include a portion of the flow from the proposed building expansion (Subbasin BR1) and a third of the flow generated by Subbasin BR4 for a total flow of 0.3 cfs. Cross Section 2 has been revised to include the flow generated by Subbasin BR2 in addition to the flow from Cross Section 1 for a total flow of 0.5 cfs. Existing and proposed finished floor elevations are elevated above twice the depth of flow above the flow line at these locations. Please see the updated cross section summary table on Figure 1BR. Cross Sections 3 thru 7 will remain the same and no additional revisions to the cross section normal depth calculations are required.

Normal depth calculations for Storm Drain Facilities SD1, SD4, SD5, SD6, and SD8 have been revised based on the updated flow patterns and flow summary. Since it's no longer planned to convey the majority of the flow generated by the proposed building expansion through the storm drain, the design flows for Storm Drain Facilities SD4, SD5, SD6, and SD8 have been reduced. These facilities have been reduced from double (2) to single (1) 14-inch wide by 4-inch high Curb-O-Let storm drain pipes. The revised storm drain calculations have been included in the Appendix.

Comment: "4. Identify an existing public drainage easement in the adjacent property to the east. Label with the width of the easement and the recorded document number on the grading plan. Also identify the storm drain systems running under the drainage easement."

Response: The existing 55-foot wide drainage easement has been identified and labeled on Sheet C-6.

Comment: "5. Identify an existing concrete flume at the northeast corner of the site for the surface discharge of the subject development."

Response: The existing concrete flume has been called out on the grading plans.

Comment: "6. Show an existing storm drain with all pertinent drop inlets and laterals, etc. in *Hillpointe Drive*. Label with pipe and inlet sizes and *City of Las Vegas* recorded drawing number on the plans."

Response: The existing storm drain facilities are and have been labeled accordingly.

Comment: "7. Label the street name of Hillpointe Drive on the grading plan."

Response: Hillpoint Drive has been labeled on the grading plans.

Comment: "8. Label the finish floor elevation of existing houses adjacent to the south and the LDS building to the west of the subject improvements."

Response: The finish floor elevation labels for the requested buildings have been added to the grading plans.

If you have any questions or require additional information, please contact our office at 804-2000.

Cordially,

G. C. WALLACE, INC.

James A. Monroe, PE, LEED AP
Project Manager
Flood Control Division

JAM/vlr

c: Calvin Black, GCW
Ryan Belsick, GCW
Roy Clark, GCW
Bob Doane, GCW
Michelle Castell, GCW

RESPONSE TO COMMENTS
TECHNICAL DRAINAGE STUDY FOR
TEMPLE SINAI
APPENDIX LAYOUT

Appendix A. Hydrologic Calculations and Information

1. Proposed Conditions Standard Form 4
2. Proposed Conditions HEC-1 Analysis
3. Figure 1AR - Proposed Conditions - Onsite Drainage Basin Map (1 of 2)
4. Figure 1BR - Proposed Conditions - Onsite Drainage Basin Map (2 of 2)
5. Plumbing Roof Plan

Appendix B. Hydraulic Calculations and Information

1. Cross Section Normal Depth Calculations
2. Storm Drain Calculations

APPENDIX A

Hydrologic Calculations

HYDROLOGIC CRITERIA AND DESIGN MANUAL

TIME OF CONCENTRATION

G. C. WALLACE COMPANIES
Engineers/Planners/Surveyors

LEVIN/BROWN + ASSOCIATES, INC.
TEMPLE SINAI
PROPOSED CONDITIONS

Project No: 398.A482
Date: 12-Dec-12
Calculated by: mmc

SUB-BASIN DATA						INITIAL / OVERLAND TIME (Ti)			TRAVEL TIME (Tt)					Tc CHECK URBANIZED BASINS		Tc	Tlag	REMARKS
DESIG: (1)	DEV./EX. (D or E)	CN (16)	K (2)	AREA Ac (3)	AREA Sq Mi (4)	INITIAL LENGTH Feet (5)	SLOPE % (6)	Ti Min (7)	TRAVEL LENGTH Feet (8)	SLOPE % (9a)	V1 VELOCITY fps (9b)	V2 VELOCITY fps (10)	Tt Min (11)	TOTAL LENGTH Feet (12)	Tc = (L/180)+10 Min (13)	Min (14)	Tlag = 0.6Tc/60 Hours (15)	Remarks:
AR	D	95.0	0.8640	1.84	0.003	40	4.60	1.6	525	1.25	2.3	3.4	3.8	565	13.1	5.4	0.054	3.00
BR	D	95.0	0.8640	2.09	0.003	40	3.85	1.7	565	1.79	2.7	4.1	3.3	605	13.4	5.1	0.051	3.00

$Tc = Ti + Tt$ $Tlag = 0.6\ Tc$

$Ti = 1.8\ (1.1 - K)\ L^{1/2} / S^{1/3}$

$K = 0.0132\ (CN) - 0.39$

For the travel time (Tt) calculations,
V1 applies to the first 500 feet of travel distance;
V2 applies to the remaining travel distance.

Existing: $V1 = 14.8*(S/100)^{1/2}$ $V2 = 29.4*(S/100)^{1/2}$

Developed: $V1 = 20.2*(S/100)^{1/2}$ $V2 = 30.6*(S/100)^{1/2}$

REFERENCE:

STANDARD FORM 4

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             JUN  1998                 *
*           VERSION 4.1                 *
*                                       *
*  RUN DATE   07JUN13  TIME  13:47:49   *
*                                       *
*****************************************
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```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
                        *DIAGRAM
*** FREE ***
               1        ID   ************************************************************
               2        ID   * .......................................................... *
               3        ID   * :                                                        : *
               4        ID   * :              LEVIN/BROWN + ASSOCIATES, INC.            : *
               5        ID   * :              TEMPLE SINAI                              : *
               6        ID   * :              DEVELOPED CONDITIONS                      : *
               7        ID   * :........................................................: *
               8        ID   * :              RETURN PERIOD_ _ _ _100 & 10 -YEAR        : *
               9        ID   * :              DISTRIBUTION_ _ _ _ 6-HOUR SDN3           : *
              10        ID   * :              PROJECT NO_ _ _ _ _ 398.A482              : *
              11        ID   * :              FILENAME_ _ _ _ _ _ DEVELOPED.H1          : *
              12        ID   * :              DATE MODELED_ _ _ _ 12/12/2012            : *
              13        ID   * :              MODELED BY_ _ _ _ _ MMC                   : *
              14        ID   * :........................................................: *
              15        ID   * :                                                        : *
              16        ID   * :........................................................: *
              17        ID   ************************************************************
              18        ID
              19        ID    JR CARDS CONTAIN DARFS BASED ON THE FOLLOWING VALUES:
              20        ID
              21        ID                        FREQUENCY       DARF
              22        ID
              23        ID                        100-YR          1.00
              24        ID                         10-YR          0.57
              25        ID
              26        IT       5       0       0     300
              27        IO       5       0       0
              28        IN       5       0       0
              29        JR    PREC       1    0.57
                        *
              30        KK BASINAR
              31        KM  PROPOSED SUBBASIN AR
              32        PB    3.00
              33        BA   0.003
              34        PC   0.000   0.020   0.057   0.070   0.087   0.108   0.124   0.130   0.130   0.130
              35        PC   0.130   0.130   0.130   0.133   0.140   0.142   0.148   0.158   0.172   0.181
              36        PC   0.190   0.197   0.199   0.200   0.201   0.204   0.214   0.229   0.241   0.249
              37        PC   0.251   0.256   0.270   0.278   0.281   0.283   0.295   0.322   0.352   0.409
              38        PC   0.499   0.590   0.710   0.744   0.781   0.812   0.819   0.835   0.851   0.856
              39        PC   0.860   0.868   0.876   0.888   0.910   0.926   0.937   0.950   0.970   0.976
              40        PC   0.982   0.985   0.987   0.989   0.990   0.993   0.993   0.994   0.995   0.998
              41        PC   0.998   0.999   1.000
              42        LS       0    95.0
              43        UD    .054
                        *
              44        KK BASINBR
              45        KM  PROPOSED SUBBASIN BR
              46        PB    3.00
              47        BA   0.003
              48        LS       0    95.0
              49        UD    .051
                        *
                        *
```



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          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
              50        ZZ
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1 SCHEMATIC DIAGRAM OF STREAM NETWORK

INPUT LINE NO.

(V) ROUTING (---->) DIVERSION OR PUMP FLOW

(.) CONNECTOR (<---) RETURN OF DIVERTED OR PUMPED FLOW

```
   30     BASINAR
            .
            .
   44       .      BASINBR

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*****************************************
*                                         *
*  FLOOD HYDROGRAPH PACKAGE   (HEC-1)     *
*             JUN   1998                  *
*           VERSION 4.1                   *
*                                         *
* RUN DATE   07JUN13  TIME  13:47:49      *
*                                         *
*******************************************

*******************************************
*                                         *
*   U.S. ARMY CORPS OF ENGINEERS          *
*   HYDROLOGIC ENGINEERING CENTER         *
*         609 SECOND STREET               *
*      DAVIS, CALIFORNIA 95616            *
*          (916) 756-1104                 *
*                                         *
*******************************************

**************************************************************
* :.........................................................: *
* :                                                         : *
* :             LEVIN/BROWN + ASSOCIATES, INC.              : *
* :             TEMPLE SINAI                                : *
* :             DEVELOPED CONDITIONS                        : *
* :.........................................................: *
* :             RETURN PERIOD_ _ _ _100 & 10 -YEAR          : *
* :             DISTRIBUTION_ _ _ _ 6-HOUR SDN3             : *
* :             PROJECT NO_ _ _ _ _ 398.A482                : *
* :             FILENAME_ _ _ _ _ _ DEVELOPED.H1            : *
* :             DATE MODELED_ _ _ _ 12/12/2012              : *
* :             MODELED BY_ _ _ _ _ MMC                     : *
* :.........................................................: *
* :                                                         : *
* :.........................................................: *
**************************************************************

    JR CARDS CONTAIN DARFS BASED ON THE FOLLOWING VALUES:

                    FREQUENCY      DARF

                     100-YR        1.00
                      10-YR        0.57

  27 IO         OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

     IT         HYDROGRAPH TIME DATA
                       NMIN          5  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1   0  STARTING DATE
                      ITIME       0000  STARTING TIME
                         NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      2   0  ENDING DATE
                     NDTIME       0055  ENDING TIME
                      ICENT         19  CENTURY MARK

                COMPUTATION INTERVAL     .08 HOURS
                     TOTAL TIME BASE   24.92 HOURS

        ENGLISH UNITS
                DRAINAGE AREA         SQUARE MILES
                PRECIPITATION DEPTH   INCHES
                LENGTH, ELEVATION     FEET
                FLOW                  CUBIC FEET PER SECOND
                STORAGE VOLUME        ACRE-FEET
                SURFACE AREA          ACRES
                TEMPERATURE           DEGREES FAHRENHEIT

     JP          MULTI-PLAN OPTION
                      NPLAN          1  NUMBER OF PLANS

     JR          MULTI-RATIO OPTION
                    RATIOS OF PRECIPITATION
                  1.00       .57
1

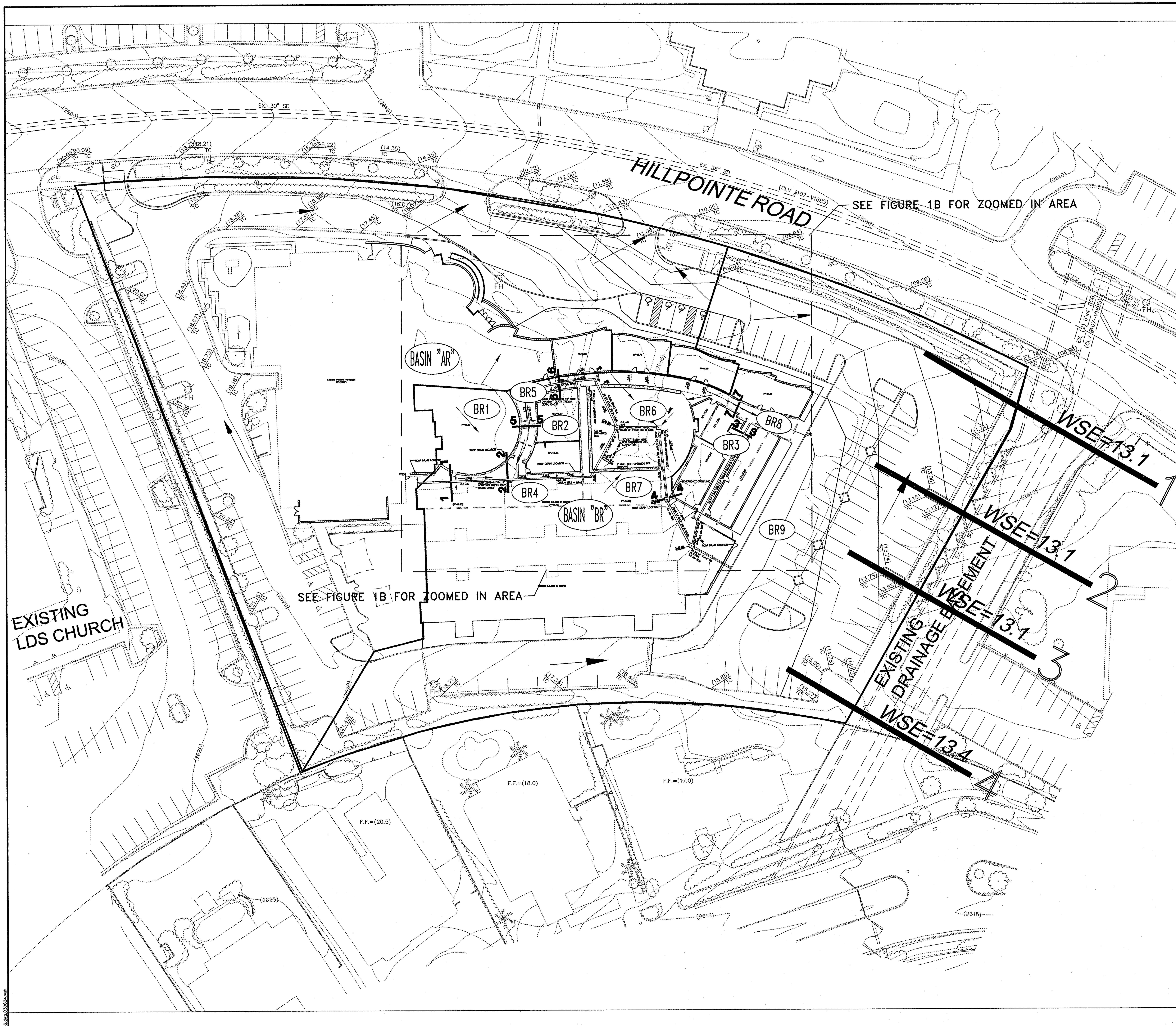
         PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
                         FLOWS IN CUBIC FEET PER SECOND,  AREA IN SQUARE MILES
                                        TIME TO PEAK IN HOURS

                                                         RATIOS APPLIED TO PRECIPITATION
 OPERATION       STATION     AREA    PLAN           RATIO 1  RATIO 2
                                                       1.00      .57

 HYDROGRAPH AT
+                BASINAR      .00      1   FLOW          7.       4.
                                           TIME        3.50     3.50

 HYDROGRAPH AT
+                BASINBR      .00      1   FLOW          7.       4.
                                           TIME        3.50     3.50


 *** NORMAL END OF HEC-1 ***
```



GRAPHIC SCALE

30 0 15 30

(IN FEET)
1 inch = 30 ft.

NORTH

ULTIMATE CONDITION PRORATED FLOW SUMMARY			
Ultimate Onsites			
Subbasin*	Q_{100} (cfs)	Area (acres)	cfs/acre
BASIN "AR"	7	1.84	3.80
BASIN "BR"	7	2.09	3.35
TOTAL	14	3.93	NA
Ultimate Onsite Prorated Subbasins			
BR1	0.2	0.07	3.35
BR2	0.1	0.04	3.35
BR3	0.2	0.06	3.35
BR4	0.2	0.07	3.35
BR5	0.1	0.02	3.35
BR6	0.4	0.12	3.35
BR7	0.1	0.04	3.35
BR8	0.1	0.03	3.35
BR9	5.4	1.64	3.35
TOTAL	7	2.09	NA

ULTIMATE CONDITION HEC-1 ANALYSIS			
SUBBASIN	AREA	100-YEAR	10-YEAR
BASIN "AR"	1.84	7	4
BASIN "BR"	2.09	7	4

LEGEND

- BASIN BOUNDARY
- BASIN "AR" — BASIN DESIGNATION
- PRORATED SUBBASIN BOUNDARY
- BR1 — PRORATED SUBBASIN DESIGNATION
- FLOW DIRECTION
- 1 1 — CROSS SECTION

DATE:

REV	DATE	DESCRIPTION	DATE	AGEN. APP.	DATE	GCW. APP.

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 06-11-13
PLOT TIME: 10:56:12

G.C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS
1555 S. RAINBOW BOULEVARD · LAS VEGAS, NV 89146
T: 702.804.2000 · F: 702.804.2299 · GCWALLACE.COM

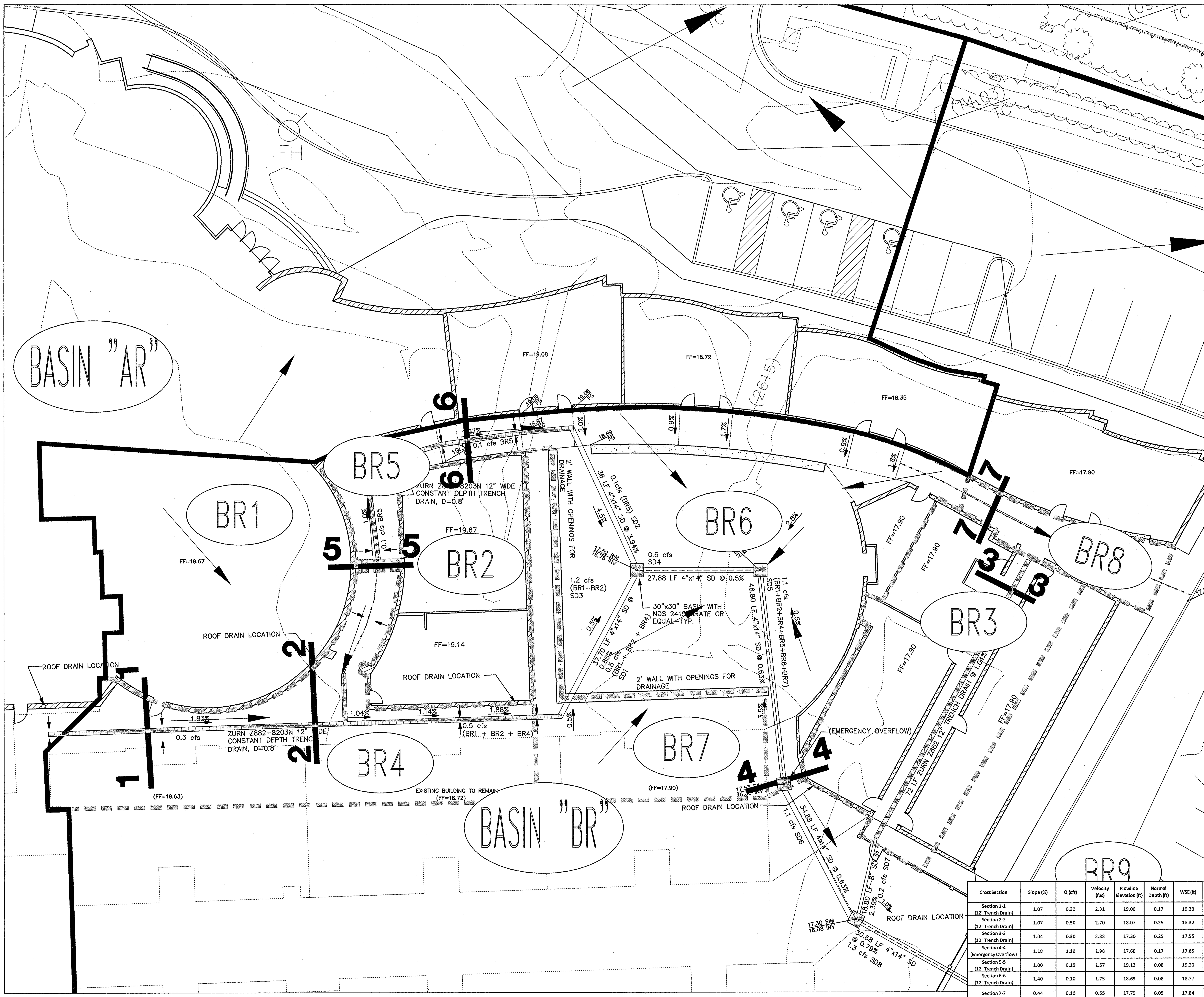
F:\Projects\300\398-A482\Division\Fct\Figures\RTC\Fig-5R.dwg:costell

MARK D. LEVIN, AIA

TEMPLE SINAI

FIGURE 1AR - PROPOSED CONDITIONS ONSITE DRAINAGE BASIN MAP (1 of 2)

DRAWING
FIG 1AR
SHT OF SHTS



LEGEND

- BASIN BOUNDARY
- ON1 — BASIN DESIGNATION
- PRORATED SUBBASIN BOUNDARY
- ON1A — PRORATED SUBBASIN DESIGNATION
- FLOW DIRECTION
- 1 — 1 CROSS SECTION
- CP1 — COMBINATION POINT

NORTH

GRAPHIC SCALE 10 0 5 10 (IN FEET) 1 inch = 10 ft.

ULTIMATE CONDITION PRORATED FLOW SUMMARY			
Ultimate Onsites			
Subbasin*	Q_{100} (cfs)	Area (acres)	cfs/acre
BASIN "AR"	7	1.84	3.80
BASIN "BR"	7	2.09	3.35
TOTAL	14	3.93	NA
Ultimate Onsite Prorated Subbasins			
BR1	0.2	0.07	3.35
BR2	0.1	0.04	3.35
BR3	0.2	0.06	3.35
BR4	0.2	0.07	3.35
BR5	0.1	0.02	3.35
BR6	0.4	0.12	3.35
BR7	0.1	0.04	3.35
BR8	0.1	0.03	3.35
BR9	5.4	1.64	3.35
TOTAL	7	2.09	NA

Cross Section	Slope (%)	Q (cfs)	Velocity (fps)	Flowline Elevation (ft)	Normal Depth (ft)	WSE (ft)	Min FF (ft)	Actual FF (ft)	Meets Critical Criteria?	Notes
Section 1-1 (12" Trench Drain)	1.07	0.30	2.31	19.06	0.17	19.23	19.40	19.63	Yes	Q=1/3(BR4) + BR1 = 0.3
Section 2-2 (12" Trench Drain)	1.07	0.50	2.70	18.07	0.25	18.32	18.57	18.72	Yes	BR1 + BR2 + BR4 = 0.5
Section 3-3 (12" Trench Drain)	1.04	0.30	2.38	17.30	0.25	17.55	17.80	17.90	Yes	
Section 4-4 (Emergency Overflow)	1.18	1.10	1.98	17.68	0.17	17.85	17.86	17.90	Yes	Total Emergency Overflow = BR4 + BR5 + BR6 + BR7 = 0.3 CFS + 0.1 CFS + 0.6 CFS + 0.2 CFS = 1.2 CFS
Section 5-5 (12" Trench Drain)	1.00	0.10	1.57	19.12	0.08	19.20	19.28	19.67	Yes	
Section 6-6 (12" Trench Drain)	1.40	0.10	1.75	18.69	0.08	18.77	18.85	19.08	Yes	
Section 7-7	0.44	0.10	0.55	17.79	0.05	17.84	17.89	17.90	Yes	

REV | DATE | DESCRIPTION | DATE AGEN. APP | DATE GCW APP | DATE

DESIGN:
DRAWN:
CHECK:
ISSUE DATE:
ISSUE EDITOR:
PLOT DATE: 06-11-13
PLOT TIME: 10:55:50

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MARK D. LEVIN, AIA

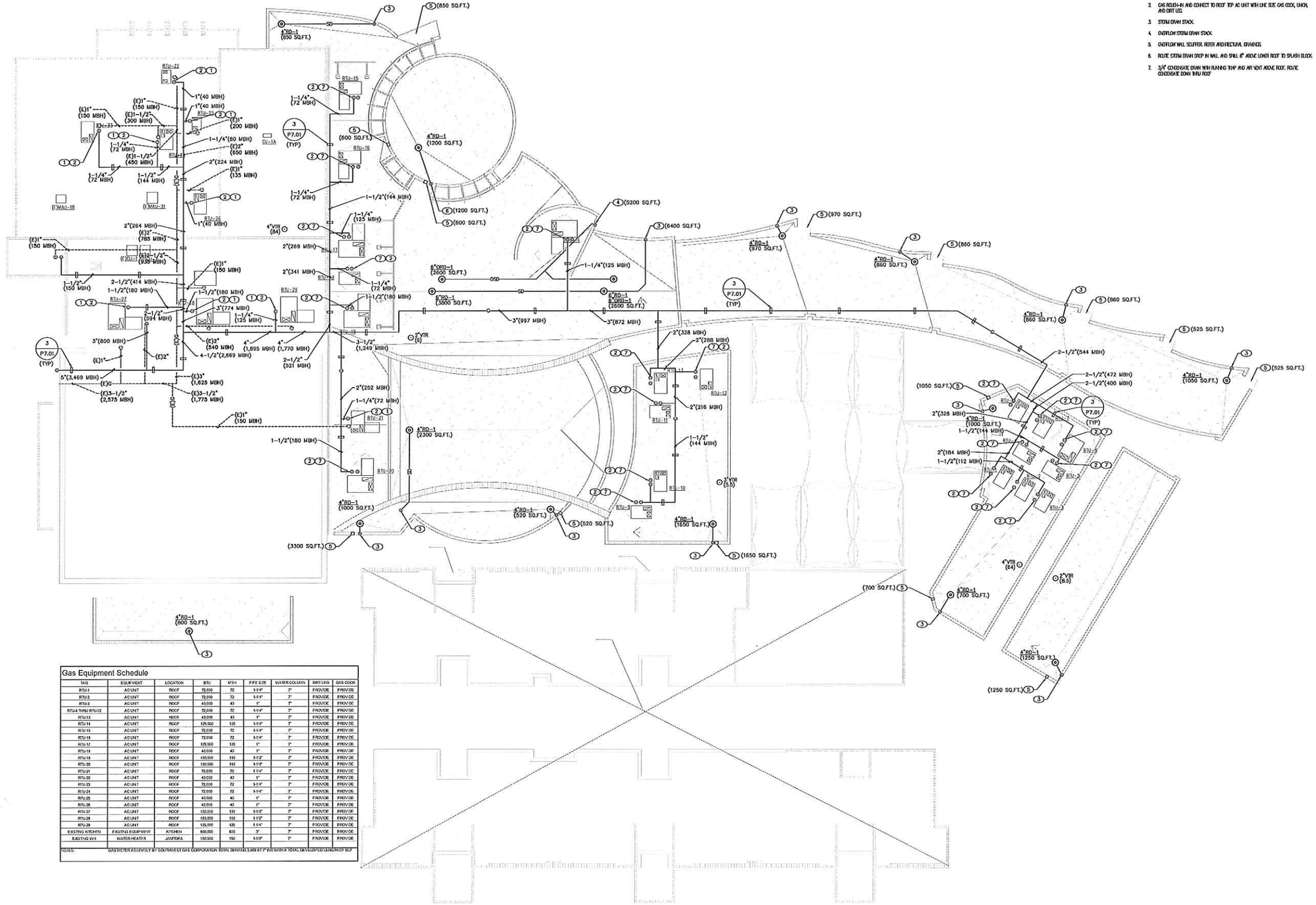
TEMPLE SINAI

FIGURE 1BR - PROPOSED CONDITIONS
ONSITE DRAINAGE BASIN MAP (2 of 2)

DRAWING
FIG 1BR
SHT OF SHTS

KEYED NOTES

1. EXISTING CONDENSATE PIPING TO REMAIN.
2. CAP, FOLD-IN AND CONNECT TO ROOF TOP AC UNIT WITH LINE SIZE CAP, ELBOW, UNION, AND DRIP LEG.
3. STORM DRAIN STACK.
4. OVERFLOW STORM DRAIN STACK.
5. OVERFLOW WALL SCUPPER. REFER ARCHITECTURAL DRAWINGS.
6. ROUTE STORM DRAIN DROP IN WALL AND STUB 6" ABOVE LOWER ROOF TO SPLASH BLOCK.
7. 3/4" CONDENSATE DRAIN WITH RUNNING TRAP AND AIR VENT ABOVE ROOF. ROUTE CONDENSATE DOWN THRU ROOF.



Gas Equipment Schedule

TAG	EQUIPMENT	LOCATION	BTU	MBH	PIPE SIZE	WATER COLUMN	DIRT LEG	GAS COCK
RTU-1	AC UNIT	ROOF	72,000	72	1-1/4"	7"	PROVIDE	PROVIDE
RTU-2	AC UNIT	ROOF	72,000	72	1-1/4"	7"	PROVIDE	PROVIDE
RTU-3	AC UNIT	ROOF	43,000	43	1"	7"	PROVIDE	PROVIDE
RTU-4 THRU RTU-12	AC UNIT	ROOF	72,000	72	1-1/4"	7"	PROVIDE	PROVIDE
RTU-13	AC UNIT	ROOF	43,000	43	1"	7"	PROVIDE	PROVIDE
RTU-14	AC UNIT	ROOF	125,000	125	1-1/4"	7"	PROVIDE	PROVIDE
RTU-15	AC UNIT	ROOF	72,000	72	1-1/4"	7"	PROVIDE	PROVIDE
RTU-16	AC UNIT	ROOF	72,000	72	1-1/4"	7"	PROVIDE	PROVIDE
RTU-17	AC UNIT	ROOF	125,000	125	1"	7"	PROVIDE	PROVIDE
RTU-18	AC UNIT	ROOF	43,000	43	1"	7"	PROVIDE	PROVIDE
RTU-19	AC UNIT	ROOF	150,000	150	1-1/2"	7"	PROVIDE	PROVIDE
RTU-20	AC UNIT	ROOF	150,000	150	1-1/2"	7"	PROVIDE	PROVIDE
RTU-21	AC UNIT	ROOF	72,000	72	1-1/4"	7"	PROVIDE	PROVIDE
RTU-22	AC UNIT	ROOF	43,000	43	1"	7"	PROVIDE	PROVIDE
RTU-23	AC UNIT	ROOF	72,000	72	1-1/4"	7"	PROVIDE	PROVIDE
RTU-24	AC UNIT	ROOF	72,000	72	1-1/4"	7"	PROVIDE	PROVIDE
RTU-25	AC UNIT	ROOF	43,000	43	1"	7"	PROVIDE	PROVIDE
RTU-26	AC UNIT	ROOF	43,000	43	1"	7"	PROVIDE	PROVIDE
RTU-27	AC UNIT	ROOF	150,000	150	1-1/2"	7"	PROVIDE	PROVIDE
RTU-28	AC UNIT	ROOF	150,000	150	1-1/2"	7"	PROVIDE	PROVIDE
RTU-29	AC UNIT	ROOF	125,000	125	1-1/4"	7"	PROVIDE	PROVIDE
EXISTING KITCHEN	EXISTING EQUIPMENT	KITCHEN	800,000	800	3"	7"	PROVIDE	PROVIDE
EXISTING WH	WATER HEATER	JANITORS	150,000	150	1-1/2"	7"	PROVIDE	PROVIDE

NOTES: GAS METER ASSEMBLY BY SOUTHWEST GAS CORPORATION TOTAL DEMAND 3,469 AT 7" WC WITH A TOTAL DEVELOPED LENGTH OF 602

PLUMBING ROOF PLAN

SCALE: 3/32" = 1'-0"

1

HARRIS CONSULTING ENGINEERS
PROJECT NO: 2012128
DESIGNED BY: K. JOHNSON
CHECKED BY: L. ANCHETA
DRAWN BY: A. MUNOZ
PM: J. HEAL

DATE OF REVISIONS

Temple Sinai

9001 Hillpointe Road, Las Vegas, NV 89134

PLUMBING ROOF PLAN

DATE 05/22/2013

PROJECT NUMBER 2711

Mark D. Levin, AIA
15 Greenspring Valley Road
Owings Mills, Maryland 21117-4101
Telephone: (410) 581-0104, Fax: (410) 581-0108

SHEET NUMBER

P-202

APPENDIX B

Hydraulic Calculations

Worksheet for Section 1-1 including 12" Trench Drain

Results

Normal Depth	0.17	ft
Critical Depth	0.17	ft
Critical Slope	0.01109	ft/ft
Velocity	2.31	ft/s
Velocity Head	0.08	ft
Specific Energy	0.26	ft
Froude Number	0.98	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.17	ft
Critical Depth	0.17	ft
Channel Slope	1.07	%
Critical Slope	0.01109	ft/ft

Cross Section for Section 1-1 including 12" Trench Drain

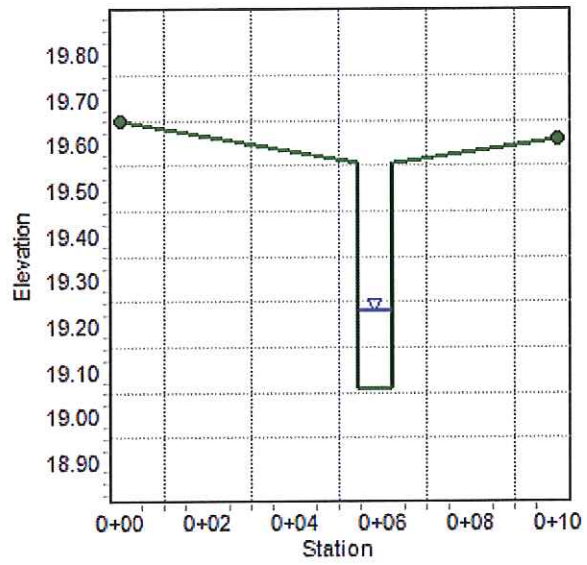
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.07	%
Normal Depth	0.17	ft
Discharge	0.30	ft³/s

Cross Section Image



Worksheet for Section 2-2 including 12" Trench Drain

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.07	%
Discharge	0.50	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	19.34
0+09.63	18.67
0+09.63	18.07
0+10.00	18.07
0+10.38	18.07
0+10.38	18.67
0+14.94	18.70

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 19.34)	(0+14.94, 18.70)	0.016

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	0.25	ft
Elevation Range	18.07 to 19.34 ft	
Flow Area	0.19	ft²
Wetted Perimeter	1.24	ft
Hydraulic Radius	0.15	ft
Top Width	0.75	ft

Worksheet for Section 2-2 including 12" Trench Drain

Results

Normal Depth		0.25	ft
Critical Depth		0.24	ft
Critical Slope		0.01161	ft/ft
Velocity		2.70	ft/s
Velocity Head		0.11	ft
Specific Energy		0.36	ft
Froude Number		0.96	
Flow Type	Subcritical		

GVF Input Data

Downstream Depth		0.00	ft
Length		0.00	ft
Number Of Steps		0	

GVF Output Data

Upstream Depth		0.00	ft
Profile Description			
Profile Headloss		0.00	ft
Downstream Velocity		Infinity	ft/s
Upstream Velocity		Infinity	ft/s
Normal Depth		0.25	ft
Critical Depth		0.24	ft
Channel Slope		1.07	%
Critical Slope		0.01161	ft/ft

Cross Section for Section 2-2 including 12" Trench Drain

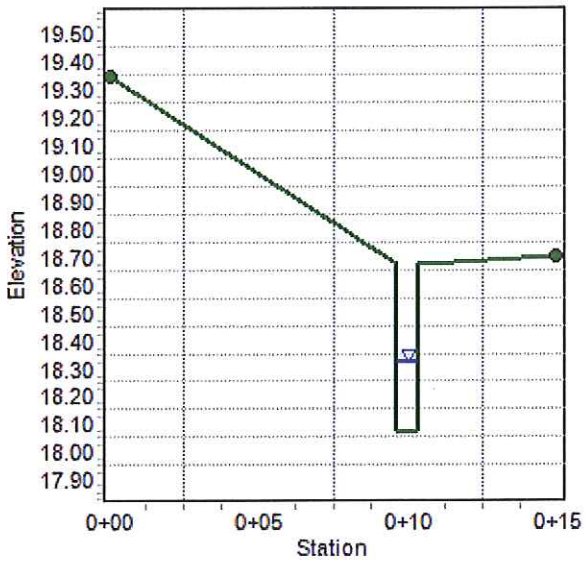
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.07	%
Normal Depth	0.25	ft
Discharge	0.50	ft^3/s

Cross Section Image



Worksheet for Section 1-1 including 12" Trench Drain

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	1.07	%
Discharge	0.30	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	19.65
0+05.46	19.56
0+05.46	19.06
0+05.83	19.06
0+06.21	19.06
0+06.21	19.56
0+10.00	19.61

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 19.65)	(0+10.00, 19.61)	0.016

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	0.17	ft
Elevation Range	19.06 to 19.65 ft	
Flow Area	0.13	ft²
Wetted Perimeter	1.10	ft
Hydraulic Radius	0.12	ft
Top Width	0.75	ft

Worksheet for SD 1 Rectangular

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.80	%
Bottom Width	14.00	in
Discharge	0.80	ft³/s

Results

Normal Depth	0.23	ft
Flow Area	0.26	ft²
Wetted Perimeter	1.62	ft
Hydraulic Radius	0.16	ft
Top Width	1.17	ft
Critical Depth	0.24	ft
Critical Slope	0.00628	ft/ft
Velocity	3.04	ft/s
Velocity Head	0.14	ft
Specific Energy	0.37	ft
Froude Number	1.13	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.23	ft
Critical Depth	0.24	ft
Channel Slope	0.80	%
Critical Slope	0.00628	ft/ft

Cross Section for SD 1 Rectangular

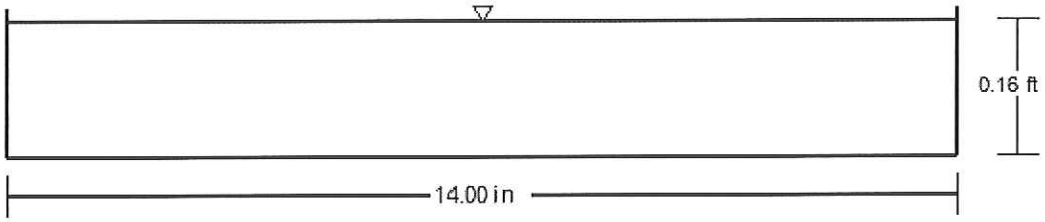
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.80	%
Normal Depth	0.16	ft
Bottom Width	14.00	in
Discharge	0.50	ft³/s

Cross Section Image



V: 1
H: 1

Worksheet for SD 4 Rectangular

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.50	%
Bottom Width	14.00	in
Discharge	0.80	ft^3/s

Results

Normal Depth	0.26	ft
Flow Area	0.31	ft^2
Wetted Perimeter	1.70	ft
Hydraulic Radius	0.18	ft
Top Width	1.17	ft
Critical Depth	0.24	ft
Critical Slope	0.00628	ft/ft
Velocity	2.59	ft/s
Velocity Head	0.10	ft
Specific Energy	0.37	ft
Froude Number	0.89	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.26	ft
Critical Depth	0.24	ft
Channel Slope	0.50	%
Critical Slope	0.00628	ft/ft

Cross Section for SD 4 Rectangular

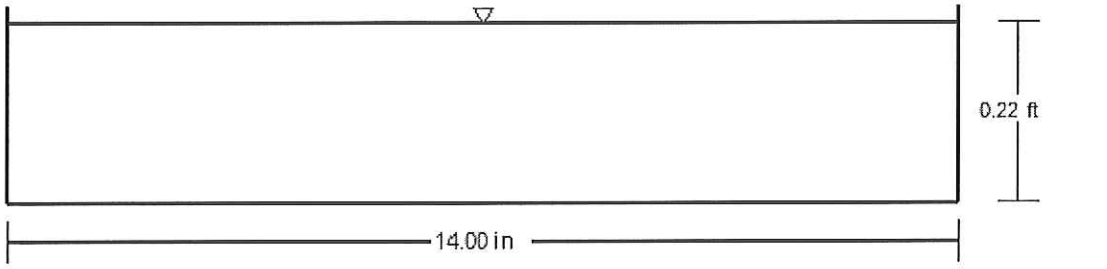
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.50	%
Normal Depth	0.22	ft
Bottom Width	14.00	in
Discharge	0.60	ft³/s

Cross Section Image



V: 1
H: 1

Worksheet for SD 5 Rectangular

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.63	%
Bottom Width	14.00	in
Discharge	1.10	ft^3/s

Results

Normal Depth	0.30	ft
Flow Area	0.35	ft^2
Wetted Perimeter	1.77	ft
Hydraulic Radius	0.20	ft
Top Width	1.17	ft
Critical Depth	0.30	ft
Critical Slope	0.00640	ft/ft
Velocity	3.10	ft/s
Velocity Head	0.15	ft
Specific Energy	0.45	ft
Froude Number	0.99	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.30	ft
Critical Depth	0.30	ft
Channel Slope	0.63	%
Critical Slope	0.00640	ft/ft

Cross Section for SD 5 Rectangular

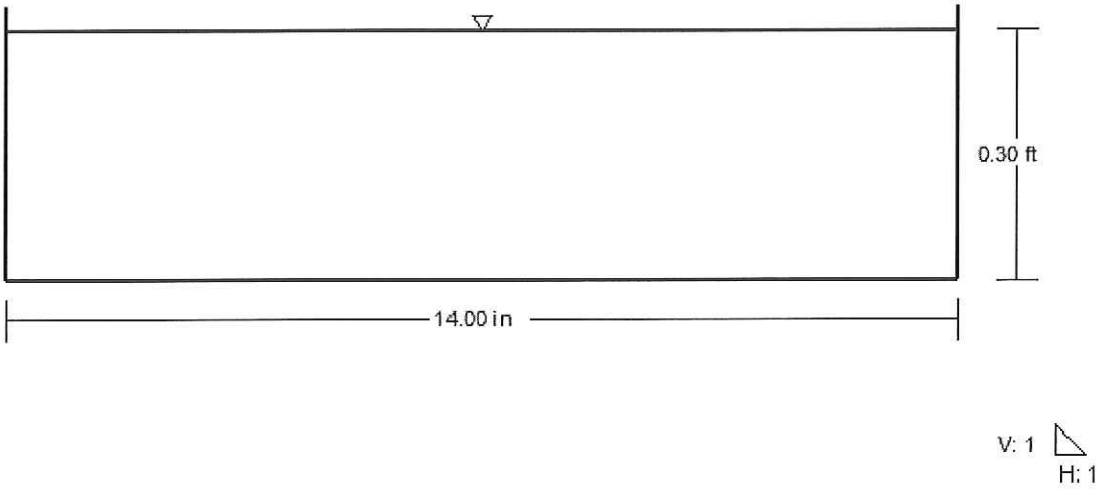
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.63	%
Normal Depth	0.30	ft
Bottom Width	14.00	in
Discharge	1.10	ft³/s

Cross Section Image



Worksheet for SD 6 Rectangular

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.63	%
Bottom Width	14.00	in
Discharge	1.10	ft³/s

Results

Normal Depth	0.30	ft
Flow Area	0.35	ft²
Wetted Perimeter	1.77	ft
Hydraulic Radius	0.20	ft
Top Width	1.17	ft
Critical Depth	0.30	ft
Critical Slope	0.00640	ft/ft
Velocity	3.10	ft/s
Velocity Head	0.15	ft
Specific Energy	0.45	ft
Froude Number	0.99	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.30	ft
Critical Depth	0.30	ft
Channel Slope	0.63	%
Critical Slope	0.00640	ft/ft

Cross Section for SD 6 Rectangular

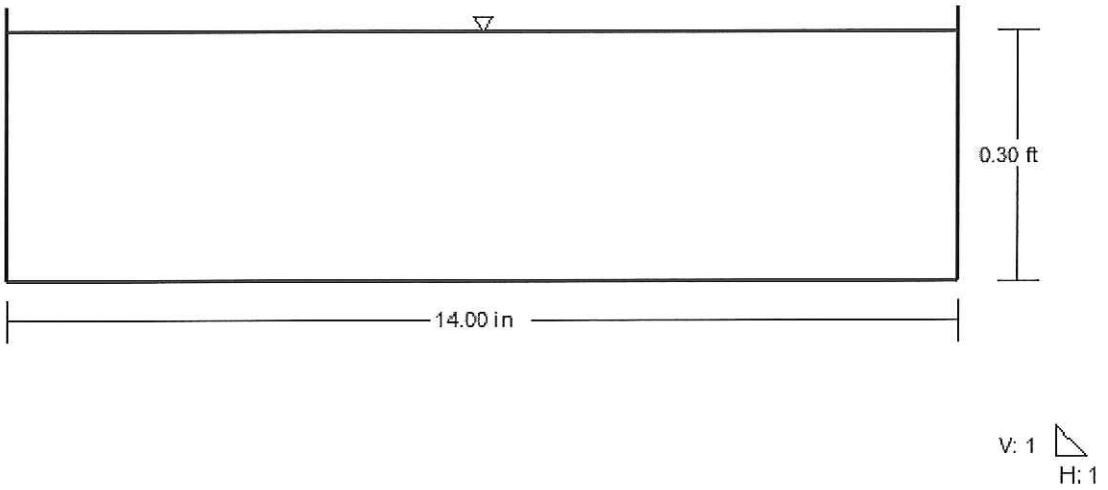
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.63	%
Normal Depth	0.30	ft
Bottom Width	14.00	in
Discharge	1.10	ft³/s

Cross Section Image



Worksheet for SD 7

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	2.39	%
Diameter	8.00	in
Discharge	0.20	ft³/s

Results

Normal Depth	0.15	ft
Flow Area	0.06	ft²
Wetted Perimeter	0.65	ft
Hydraulic Radius	0.09	ft
Top Width	0.55	ft
Critical Depth	0.21	ft
Percent Full	22.1	%
Critical Slope	0.00640	ft/ft
Velocity	3.49	ft/s
Velocity Head	0.19	ft
Specific Energy	0.34	ft
Froude Number	1.91	
Maximum Discharge	2.01	ft³/s
Discharge Full	1.87	ft³/s
Slope Full	0.00027	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	22.09	%
Downstream Velocity	Infinity	ft/s

Worksheet for SD 7

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	0.15	ft
Critical Depth	0.21	ft
Channel Slope	2.39	%
Critical Slope	0.00640	ft/ft

Cross Section for SD 7

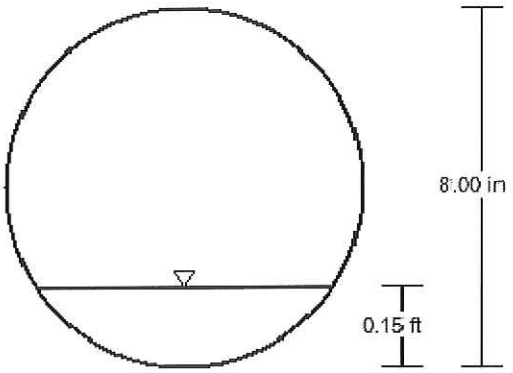
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	2.39	%
Normal Depth	0.15	ft
Diameter	8.00	in
Discharge	0.20	ft³/s

Cross Section Image



V: 1
H: 1

Worksheet for SD 8 Rectangular

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.79	%
Bottom Width	14.00	in
Discharge	1.30	ft³/s

Results

Normal Depth	0.32	ft
Flow Area	0.37	ft²
Wetted Perimeter	1.80	ft
Hydraulic Radius	0.20	ft
Top Width	1.17	ft
Critical Depth	0.34	ft
Critical Slope	0.00650	ft/ft
Velocity	3.53	ft/s
Velocity Head	0.19	ft
Specific Energy	0.51	ft
Froude Number	1.11	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.32	ft
Critical Depth	0.34	ft
Channel Slope	0.79	%
Critical Slope	0.00650	ft/ft

Cross Section for SD 8 Rectangular

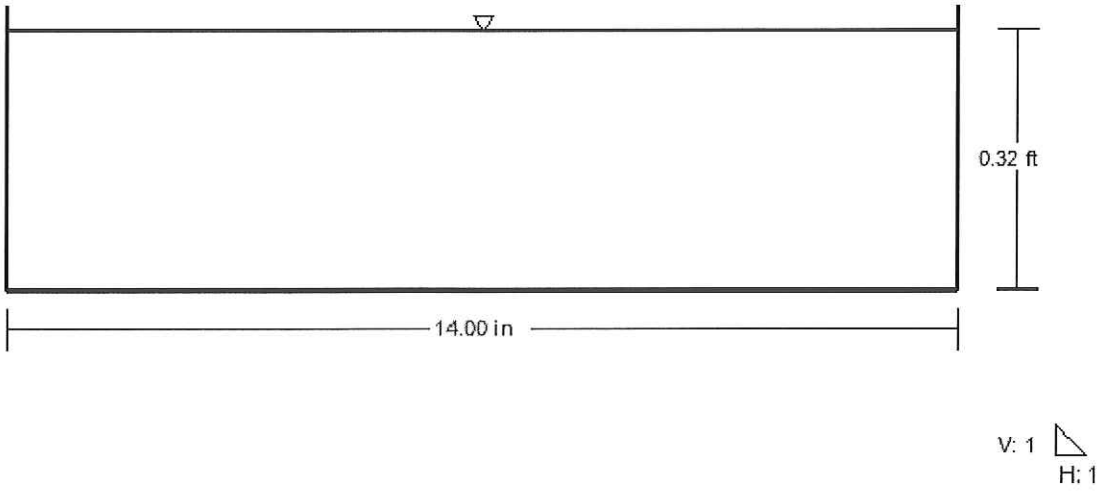
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

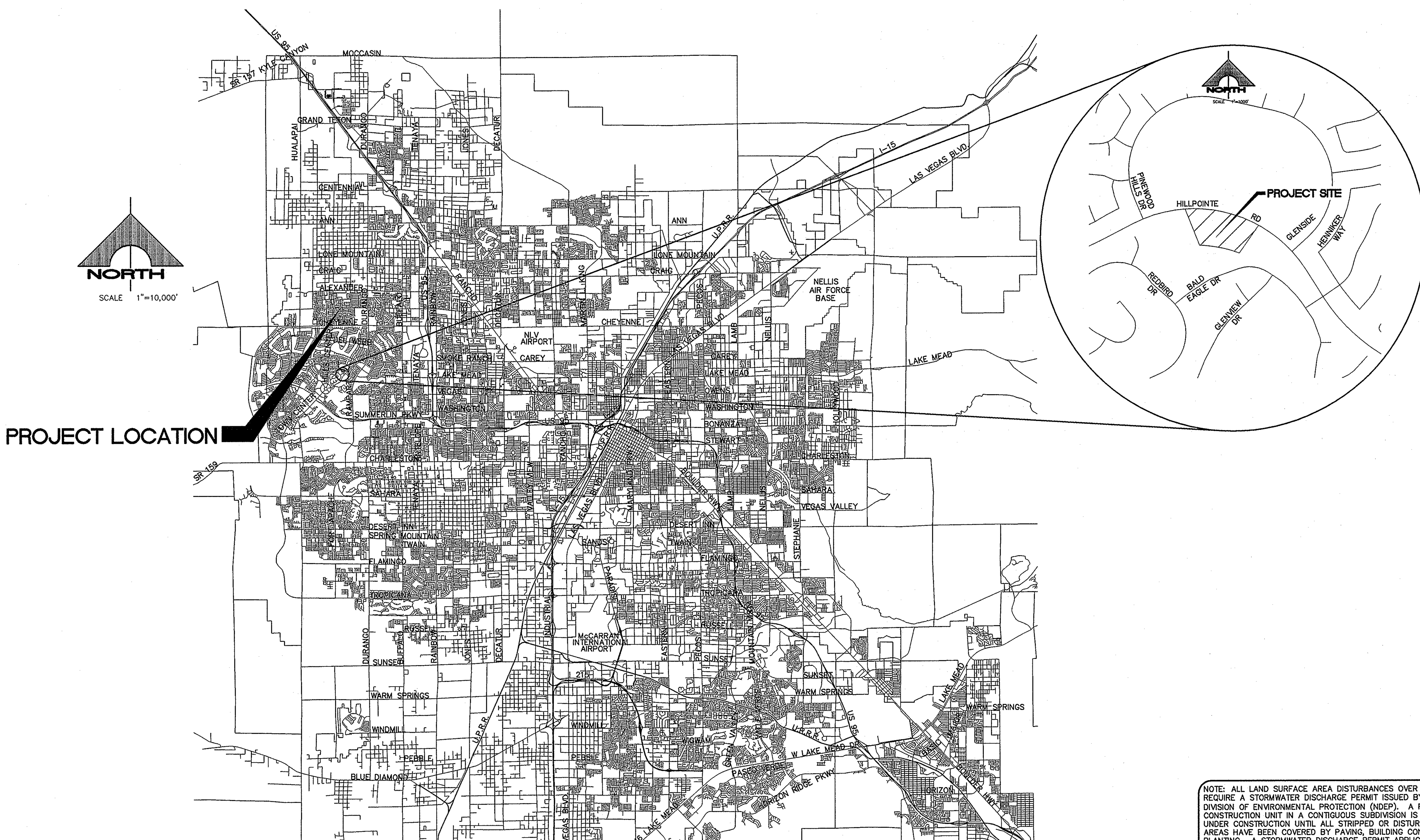
Roughness Coefficient	0.013	
Channel Slope	0.79	%
Normal Depth	0.32	ft
Bottom Width	14.00	in
Discharge	1.30	ft³/s

Cross Section Image



IMPROVEMENT PLANS
FOR
TEMPLE SINAI

CITY OF LAS VEGAS
STATE OF NEVADA
APN# 138-20-212-002



MARK D. LEVIN, AIA
15 GREENSPRING VALLEY ROAD
OWINGS MILLS, MARYLAND 21117
(410) 581-0104 TEL
(410) 581-0108 FAX

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL POINT '1LV00 20N6', BEING A RIVET & PLATE IN TOP OF CURB @SW CORNER OF HILL POINTE @ GLENSIDE DR.

ELEVATION: 2610.80 (FEET)
795.774 (METERS)
CITY OF LAS VEGAS VERTICAL CONTROL – 2008 ADJUSTMENT (UPDATED 5-24-2010)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88).

BASIS OF BEARING

NORTH 62°30'00" EAST, BEING THE BEARING OF THE CENTERLINE OF HILLPOINTE ROAD AS SHOWN IN FILE 62, PAGE 30 OF PARCEL MAPS ON FILE AT THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE.

UTILITY/AGENCY APPROVALS

COX COMMUNICATIONS LAS VEGAS, INC. DATE

CENTURYLINK DATE

CENTRAL TELEPHONE COMPANY DBA CENTURYLINK THE AFFIXED CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS.

NV ENERGY DATE

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

NV ENERGY – TRANSMISSION ENGINEERING DATE

SOUTHWEST GAS CORP. DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

PROJECT NO. 121666 DATE:
SHEETS C1-C3, C6

CLV PLANNING DEPARTMENT
THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE PLANNING DEPARTMENT

CHRIS KNIGHT, DIRECTOR, BUILDING & SAFETY DATE

APPROVED FOR CONSTRUCTION

CITY OF LAS VEGAS FIRE DEPARTMENT DATE

NOTE: ALL LAND SURFACE AREA DISTURBANCES OVER 1 ACRE REQUIRE A STORMWATER DISCHARGE PERMIT ISSUED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP). A PHASED CONSTRUCTION UNIT IN A CONTIGUOUS SUBDIVISION IS CONSIDERED UNDER CONSTRUCTION UNTIL ALL STRIPPED OR DISTURBED SURFACE AREAS HAVE BEEN COVERED BY PAVING, BUILDING CONSTRUCTION OR PLANTING. A STORMWATER DISCHARGE PERMIT APPLICATION AND ASSOCIATED INFORMATION MAY BE DOWNLOADED FROM THE WEB SITE: HTTP://WWW.STATE.NV.US/NDEP/BWPC/STORM01.HTM
PROJECTS THAT DISTURB MORE THAN ONE ACRE OF LAND MUST SUBMIT TO NDEP A "NOTICE OF INTENT" FOR INCLUSION UNDER STORMWATER PERMIT NO. NVR100000 ALONG WITH THE APPROPRIATE FILING FEE.

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

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

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

INDEX OF DRAWINGS

NO.	TITLE + DESCRIPTION
C-1	COVER SHEET
C-2	GENERAL NOTES
C-3	DEMOLITION PLAN
C-4	HORIZONTAL CONTROL PLAN
C-5	UTILITY PLAN
C-6	GRADING PLAN
C-7	DETAILS SHEET

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 398-A482
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 06-11-13
PLOT TIME: 11:32:04

G. C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS
1555 S. RAINBOW BLVD · LAS VEGAS, NV 89146
T: 702.804.2000 · F: 702.804.2299 · GCWALLACE.COM

LAS VEGAS

F:\Projects\300\398-A482\DWG\Production\TSc001_cover.dwg
Bob Doane

MARK D. LEVIN, AIA
TEMPLE SINAI
COVER SHEET

DRAWING
C-1
1 OF 7 SHTS

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 PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE, 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 OR 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 1/2" ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS.
9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER USD 216.
10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER USD 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 TRANSITIONS TO BE AS SHOWN ON PLANS.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY NOVA, REPORT #E-06-107 DATED OCTOBER 24, 2012 APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE DETERMINED IN THE FIELD BY A CITY ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 AND CITY OF LAS VEGAS TITLE 18, APPENDIX D.
15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOW LINES, 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 NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC, THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO THE 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 OFFSITE INSPECTION AND TESTING PRIOR TO PROJECT ACCEPTANCE. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, AND THE CONNECTION OF SEWER SERVICE LATERALS TO THE SERVICE MAIN AND WHERE THE SEWER SERVICE LATERALS EXITS THE PUBLIC RIGHT-OF-WAY. THE LOCATION SHALL BE DESCRIBED BY STATE PLANE COORDINATES WHICH SHALL BE BASED ON THE "NEVADA COORDINATE SYSTEM OF 1983, EAST ZONE" AS DEFINED BY THE NEVADA REVISED STATUTES CHAPTER 327, AND TIED TO THE CITY OF LAS VEGAS VERTICAL CONTROL BENCHMARK NETWORK. COORDINATES MUST BE CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTIES OF +/- 0.1 METER (+/- 0.3 FEET). 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. SANITARY SEWER SERVICE LATERALS REQUIRE THE INSTALLATION OF A MARKER BALL AT THE CONNECTION OF THE SEWER SERVICE LATERAL TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERAL EXITS THE PUBLIC RIGHT-OF-WAY. STORM DRAIN LATERALS REQUIRE THE INSTALLATION OF A MARKER BALL AT THE CONNECTION OF THE STORM DRAIN LATERAL TO THE STORM DRAIN MAIN AND WHERE THE STORM DRAIN LATERAL EXITS THE PUBLIC RIGHT-OF-WAY OR WHERE THE STORM DRAIN LATERAL CONNECTS TO A DROP INLET. THE MARKER BALL SHALL BE 3M 4" MARKER BALL 1404-XR OR APPROVED EQUAL.
23. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION.
24. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED 4/15/10

BASIS OF BEARING

NORTH 62°30'00" EAST, BEING THE BEARING OF THE CENTERLINE OF HILLPOINTE ROAD AS SHOWN IN FILE 62, PAGE 30 OF PARCEL MAPS ON FILE AT THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE.

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL POINT '1LV00 20N6', BEING A RIVET & PLATE IN TOP OF CURB @SW CORNER OF HILL POINTE @ GLENSIDE DR.

ELEVATION: 2610.80 (FEET)
795.774 (METERS)
CITY OF LAS VEGAS VERTICAL CONTROL – 2008 ADJUSTMENT
(UPDATED 5-24-2010)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88).

gcw2436.dwg.070203.jov

LAS VEGAS FIRE AND RESCUE GENERAL NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6124 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
2. AUTHORIZED FIRE HYDRANTS ARE AS FOLLOWS:

   KENNEDY – GUARDIAN MODELS K81A AND K81D
   MUELLER – SUPER CENTURION 250 MODEL A-423
   CLOW – MEDALLION MODEL F-2546LVD
   TROY VALVE – PATRIOT MODEL PT8100N NEVADA HYDRANT
   U.S. PIPE – METROFLOW/M-03
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.
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.
5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF STREET ADJACENT TO THE FIRE HYDRANTS.
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.
7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, AWWA APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE.
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 THE LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION.
9. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED.
10. PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW..
11. FIRE HYDRANTS SPACING SHALL BE AS FOLLOWS:
    RESIDENTIAL – 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
    COMMERCIAL – 300 FT UNSPRINKLERED; 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 1,000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR 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 FEET ON AN ALTERNATING BASIS.
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION.
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.
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.
17. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT.
18. TWO SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS 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.
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.
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 OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%.
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS.
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL BE NOT LESS THAN 13 FT 6 INS.
23. FIRE DEPARTMENT ACCESS ROADS IN ALL RESIDENTIAL DEVELOPMENTS (EXCEPT APARTMENT BUILDINGS) SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 36 FT FLOW LINE TO THE FLOW LINE (THIS WIDTH MAY BE REDUCED TO 24 FT IF ALL BUILDINGS FRONTING THE STREET ARE SPRINKLERED) FOR MAIN RESIDENTIAL STREETS, WITH PARKING PERMITTED ON BOTH SIDES OF THE STREET. PRIVATE DRIVE AISLES, DRIVEWAYS, ETC. SHALL BE ALLOWED TO BE REDUCED TO A MINIMUM WIDTH OF 24 FT WIDE FLOW LINE TO THE FLOW LINE WHEN SERVING NO MORE THAN 6 RESIDENCES, AND WHEN ON STREET PARKING IS DISALLOWED.
24. ALL FIRE APPARATUS ACCESS ROADS IN COMMERCIAL DEVELOPMENTS AND APARTMENT COMPLEXES SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 24 FT (FLOW LINE TO THE FLOW LINE), PROVIDED NO PARKING IS ALLOWED ON EITHER SIDE; 32 FT (FLOW LINE TO THE FLOW LINE), WITH PARALLEL PARKING ON ONE SIDE; AND 36 FT (FLOW LINE TO THE FLOW LINE), IF PARALLEL PARKING IS ALLOWED ON BOTH SIDES. THESE WIDTHS MAY BE REDUCED TO 24 FT IF SPRINKLERED.
25. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASE TO 250 FT IF THE BUILDING IS SPRINKLERED.
26. 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, AND FOR ALL COMMERCIAL, INDUSTRIAL, AND MULTI-FAMILY RESIDENTIAL DEVELOPMENTS.
27. ALL DEAD-END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA HAVING A MINIMUM DIAMETER OF 81 FT.
28. 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 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 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.
29. 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.

LAS VEGAS FIRE AND RESCUE ____________ DATE ____________

REVISED 2/01/11

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

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

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

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 ADVANCED 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 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 SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE VIP CLASS 6 REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREET NAME 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 ANIT-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 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 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 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. 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 4/15/10

CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT R/W AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" 'S SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
9. THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
10. INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED 04/15/10

FLOOD ZONE NOTE

NO PORTION OF THE SITE FALLS WITHIN A FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA. SITE LOCATED ON PANEL 32003C2135F, DATED NOVEMBER 16, 2011.

DEVIATION FROM STANDARD

NONE

CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.
4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.
6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

	HORIZONTAL	VERTICAL	COMPACTION
A. PAVEMENT AREA SUBGRADE	0.1'±	+0.0' TO -0.1'	SEE SOILS REPORT
B. ENGINEERED FILL	0.5'±	+0.1' TO -0.1'	SEE SOILS REPORT

   COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE. COMPACTION SHALL COMPLY WITH THE REQUIREMENTS OF THE ENGINEER.
7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT- OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, SUCH ITEM SHALL BE PROVIDED, AS DIRECTED BY THE CITY ENGINEER, AT NO EXPENSE TO THE CITY OF LAS VEGAS. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

REVISED 4/15/10

STORMWATER RUNOFF MANAGEMENT

1. THE OWNER, SITE DEVELOPER, CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE IN, THE PUBLIC RIGHTS OF WAYS OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CITY OF LAS VEGAS AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND ANY ADOPTED SPECIAL AREA STANDARDS.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC ENGINEER AND THE CITY ENGINEER.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL STREET LIGHTING CONDUITS STUB SHALL HAVE AT LEAST ONE GREEN #8 THW WIRE INSTALLED, AS TRACER WIRE. WHEN "EMPTY" CONDUIT IS COMPLETELY INSTALLED FROM PB TO PB, IT SHALL HAVE MINIMUM OF 2 #4 AND 1 #8 THW WIRE WITH THE ENDS TAPED OR "SAFE OFF" PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USD NO. 320A.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TEFO PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH NV ENERGY COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CIRCUIT TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED, AT NO EXPENSE TO THE CITY OF LAS VEGAS, BEFORE STREETLIGHT BASES ARE INSTALLED.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.
11. THE DEVELOPER/OWNER WILL BE REQUIRED TO SUPPLY POWER TO ALL NEW PUBLIC STREET LIGHTS INSTALLED UNDER THIS DESIGN PRIOR TO BOND RELEASE OR PROJECT COMPLETION. THE DEVELOPER/OWNER WILL BE RESPONSIBLE FOR ALL ITEMS ASSOCIATED WITH THE INSTALLATION, CONSTRUCTION, ENERGIZING, MAINTENANCE AND OPERATIONAL COST OF SAID STREET LIGHTS PRIOR TO PROJECT COMPLETION. REFER TO THE PLAN FOR ANY NEW SERVICE REQUIREMENTS. THE TRANSFER OF OWNERSHIP FROM THE DEVELOPER/OWNER TO THE CITY OF LAS VEGAS FOR ALL NEW PUBLIC STREET LIGHT/S AND/OR SERVICE/S INSTALLED UNDER THIS PLAN WILL BE IN CONJUNCTION WITH THIS PROJECT COMPLETION. COORDINATE ALL MAINTENANCE AND OPERATIONAL TRANSFERS WITH THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DEPARTMENT (TEFO) AT (702) 229-6331.

REVISED 04/15/10

LAS VEGAS VALLEY WATER DISTRICT (LVVWD) STANDARD NOTES

LVVWD PROJECT # ------

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS
9. ALL WATER FACILITIES 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 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 OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF IT'S 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.

APPROVED FOR CONSTRUCTION

____
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

PROJECT NO. ------ DATE: ____________

LEGEND + ABBREVIATIONS

- (1) DETAIL DRAWING NUMBER
- (1/–) DRAWING NUMBER FOR DETAIL DRAWN ON SAME SHEET
- (1/7) DRAWING NUMBER FOR DETAIL WITH REFERENCE TO IT'S SHEET
- INDICATES SEWER MANHOLE IN PROFILE
- INDICATES STORM DRAIN MANHOLE IN PROFILE
- (60.5) TC — EX. ELEVATION
- 60.5 TC — PROPOSED ELEVATION
- (2356.1) × — EX. SPOT ELEVATION
- [60.5] TC — FUTURE ELEVATION
- SUBDIVISION BOUNDARY
- EASEMENT LINE
- FUTURE LINE
- STREET CENTERLINE
- CONCRETE CURB & GUTTER
- EXISTING IMPROVEMENTS
- EXISTING ASPHALT
- (2612) EXISTING GROUND CONTOURS
- 34 FINISH GROUND CONTOUR
- DRAINAGE FLOW LINE
- RETAINING WALL
- EXISTING BLOCK WALL
- SCARP
- PROPERTY LINE
- FIRE HYDRANT

ABBREVIATIONS

HOA = HOME OWNER ASSOCIATION
W = WATER
SS = SEWER
G = GAS
SD = STORM DRAIN
SL = STREET LIGHT
SMH = SEWER MANHOLE
SDMH = STORM DRAIN MH
CLV = CITY OF LAS VEGAS
LVVWD = LAS VEGAS VALLEY WATER DISTRICT
EX = EXISTING
FL = FLOW LINE
HP = HIGH POINT
R/W = RIGHT-OF-WAY
TC = TOP BACK OF CURB
FG = FINISHED GRADE
BCR = BEGIN CURB RETURN
DS = DOWN SPOUT
USDCCA = UNIFORM STANDARD DRAWING CLARK COUNTY AREA
CF = CURB FACE
BW = BACK OF WALK
FS = FINISH SURFACE
NG = NATURAL GRADE
FF = FINISH FLOOR
GB = GRADE BREAK
FUT = FUTURE
EP = EDGE OF PAVEMENT
NP = NEVADA POWER
UDACS = UNIFORM DESIGN AND CONSTRUCTION STANDARDS
TR = TOP OF RETAINING
FNC = FENCE
HDPE = HIGH DENSITY POLYETHYLENE

ISSUE 5-3-13

PROFESSIONAL ENGINEER – STATE OF NEVADA
ROY D. CLARK
Exp. 12/31/2014
CIVIL
No. 8354

DATE: 6/11/13

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 398-A482
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 06-11-13
PLOT TIME: 11:32:08

G. C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS
1555 S. RAINBOW BLVD · LAS VEGAS, NV 89146
T: 702.804.2000 · F: 702.804.2299 · GCWALLACE.COM

LAS VEGAS

F:\Projects\300\398-A482\DWG\Production\TSc002_notes.dwg
Bob Doane

MARK D. LEVIN, AIA

TEMPLE SINAI

GENERAL NOTES

DRAWING
C-2
2 OF 7 SHTS

A.P.N. 138-20-110-003

HILLPOINTE ROAD (PUBLIC)

EXISTING BUILDING TO REMAIN FF=(19.67)

PROPOSED BUILDING EXPANSION FF=19.67

FOR DETAIL GRADING SEE SHEET C-7

LANDSCAPE AREA

FF=19.08

FF=18.72

FF=18.35

FF=17.90

FF=19.67

FF=18.72

EXISTING BUILDING TO REMAIN (FF=19.63) (FF=18.72) (FF=17.90)

EXISTING BUILDING TO REMAIN

EXISTING CONCRETE FLUME

EXISTING BLDG F.F.=(26.76)

A.P.N. 138-20-212-001

A.P.N. 138-20-212-003

F.F.=(18.0)

F.F.=(17.0)

A.P.N. 138-20-213-019

A.P.N. 138-20-213-018

F.F.=(20.5)

A.P.N. 138-20-213-017

NORTH

SCALE 1"=30'

30 0 30 60

SCALE FEET

BASIS OF BEARING

NORTH 62°30'00" EAST, BEING THE BEARING OF THE CENTERLINE OF HILLPOINTE ROAD AS SHOWN IN FILE 62, PAGE 30 OF PARCEL MAPS ON FILE AT THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE.

BENCHMARK

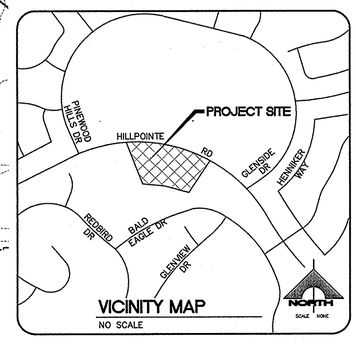
CITY OF LAS VEGAS VERTICAL CONTROL POINT '1LV00 2096', BEING A RIVET & PLATE IN TOP OF CURB @SW CORNER OF HILL POINTE @ GLENSIDE DR.

ELEVATION: 2610.80 (FEET)
795.774 (METERS)

CITY OF LAS VEGAS VERTICAL CONTROL – 2008 ADJUSTMENT (UPDATED 5-24-2010)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88).

GRADING CONSTRUCTION NOTES

1. CONSTRUCT "A TYPE" CURB (USDCCA NO. 219)
2. CONSTRUCT "L TYPE" CURB AND GUTTER (USDCCA NO. 219)
3. CONSTRUCT CONCRETE SIDEWALK (USDCCA NO. 234)
4. INSTALL TCD414 "CURB-O-LET" DRAIN PER MANUFACTURERS SPECIFICATION
5. CONSTRUCT ASPHALT PAVEMENT (3" A/C OVER 6" TYPE II COMPACTED TO 95%)
6. PROTECT IN PLACE



VICINITY MAP
NO SCALE

ALL ON-SITE STORM DRAIN AND ASSOCIATED FACILITIES ARE PRIVATELY OWNED AND MAINTAINED BY TEMPLE SINAI.

DRAINAGE CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

ROY D. CLARK PE No. DATE

ENGINEER - STATE OF NEVADA
ROY D. CLARK
Exp. 12/31/2014
CIVIL
No. 8354
PROFESSIONAL
DATE: 6/11/13

ISSUE 5-3-13

REV	DATE	DESCRIPTION	DATE	ASEN APP	DATE	CGW APP

PROJECT NO. 398-A482
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 06-11-13
PLOT TIME: 11:32:16

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T: 702.894.2000 - F: 702.894.2399 - GCWALLACE.COM

LAS VEGAS

F:\Projects\300_398-A482\DWG\Production\TS-006_grading1.dwg
Bob Dosne

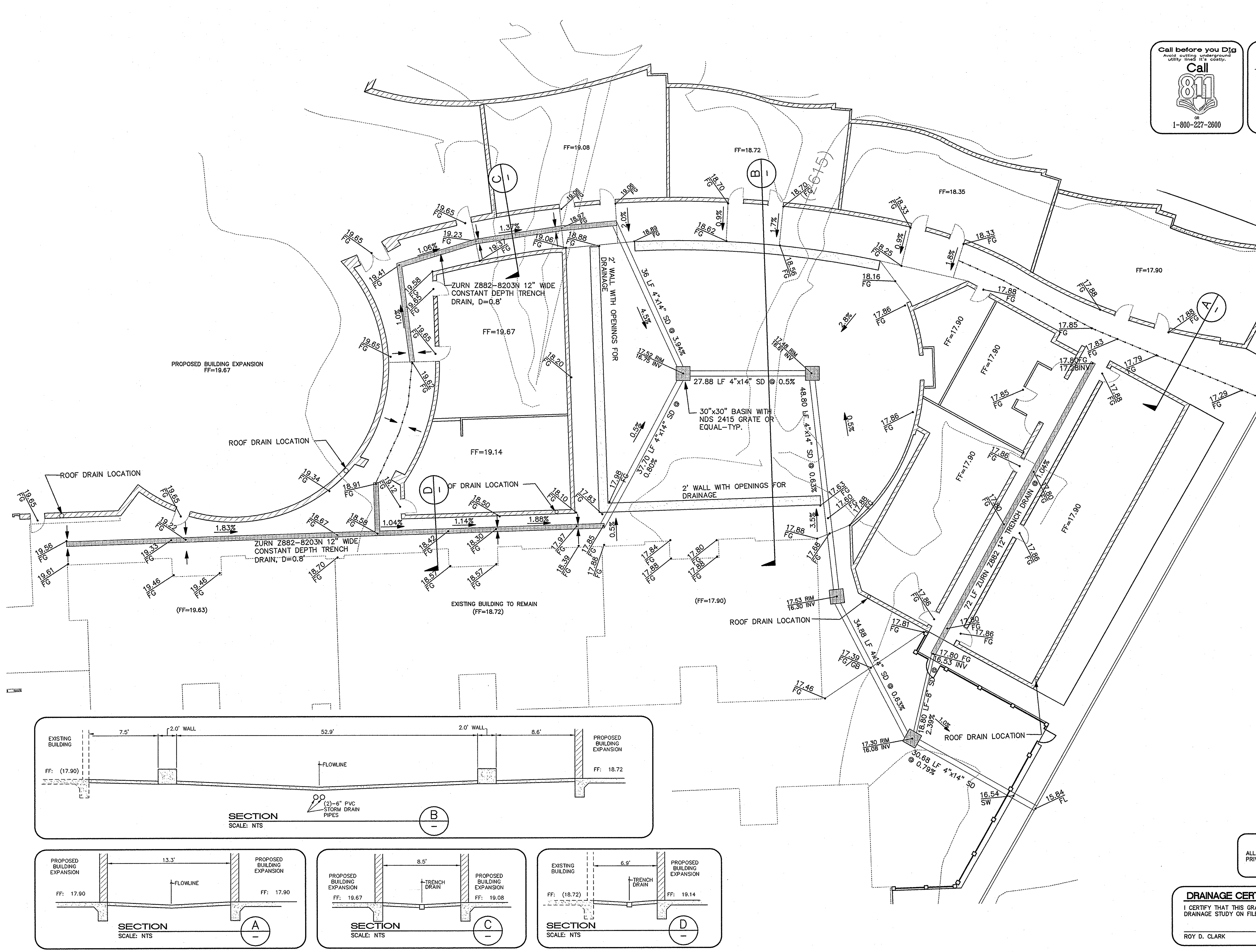
MARK D. LEVIN, AIA

TEMPLE SINAI

GRADING PLAN

DRAWING
C-6
6 OF 7 SHTS

gtw2435.dwg 070223.pv



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

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

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

BASIS OF BEARING

NORTH 62°30'00" EAST, BEING THE BEARING OF THE CENTERLINE OF HILLPOINTE ROAD AS SHOWN IN FILE 62, PAGE 30 OF PARCEL MAPS ON FILE AT THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE.

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL POINT '1LV00 20N6', BEING A RIVET & PLATE IN TOP OF CURB @SW CORNER OF HILL POINTE @ GLENSIDE DR.

ELEVATION: 2610.80 (FEET)
795.774 (METERS)

CITY OF LAS VEGAS VERTICAL CONTROL - 2008 ADJUSTMENT (UPDATED 5-24-2010)
BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88).

ALL ON-SITE STORM DRAIN AND ASSOCIATED FACILITIES ARE PRIVATELY OWNED AND MAINTAINED BY TEMPLE SINAI.

DRAINAGE CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

ROY D. CLARK PE No. DATE

PROFESSIONAL ENGINEER STATE OF NEVADA ROY D. CLARK CIVIL No. 8354 Exp. 12/31/2014

DATE: 6.11.13

ISSUE 5-3-13

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	CCW APP

PROJECT NO. 398-A482
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 06-11-13
PLOT TIME: 11:31:59

G.C. WALLACE COMPANIES
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LAS VEGAS

F:\Projects\300\398-A482\DWG\Production\TSc007_detail grading1.dwg
Bob Doane

MARK D. LEVIN, AIA

TEMPLE SINAI

DETAIL GRADING PLAN

DRAWING
C-7
7 OF 7 SHTS