

DS #:

4821

APN:

138-19-419-006

PROJECT:

Crossing Car Campus

SUBMITTAL:

2nd

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		October 27, 2016
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for:	
	Crossing Care Campus	
Cross Streets:	NWC Center Crossing Rd & Desert Crossing Ct	COPIES TO:
File Number:	F:\Depot\DSMemos\DS4821B.doc	DRC Surveying Nevada, Inc.
Parcel Number:	138-19-419-006	Crossing Business Center 8, LLC
Zoning Action:	CRG-65728	Bart Anderson, P.E., DevCo
FEMA Flood Zone	YES	NO X
Proposed Storm Drain	YES	NO X

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	8/16/2016	8/30/2016	Not Approved	\$400.00	455008: \$400
2 nd Submittal	10/17/2016	10/27/2016	See Comments Below	\$400.00	461971: \$400
TOTAL FEES (LDDRS):				\$800.00	----

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. The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFCDD) master planned facility. Therefore, CCRFCDD concurrence is required prior to final approval of the drainage study.
2. **Sheet GP2** and **Sheet GP4**: An existing 18"-RCP is proposed to be removed adjacent to SDMH #2. This storm drain is within an existing drainage easement. Is there intention to vacate this drainage easement? If yes, then the proposed 20'-public drainage easement must be extended to reach the property line. Please clarify the extent of the proposed public drainage easement in the next submittal.
3. The proposed 12"-PVC courtyard drainage system under the new buildings shows no overflow path in a worst case scenario that the drain pipes are totally clogged or broken.

If this is the intention of the property owner, provide a notarized letter to indemnify the **City of Las Vegas** of any liability for any future flooding potential in the enclosed courtyard area and the buildings. This letter will suffice in lieu of the courtyard drainage satisfying the **City's** minimum requirements. The letter must be submitted to **City of Las Vegas Flood Control Section** prior to the final acceptance of the drainage study.

4. **Second Request:** Revise the construction of all proposed drop inlets to either **Type "C-D" Modified Drop Inlet** (RTC Std. Dwg. 412.1) or **Type "CM" Drop Inlet** (RTC Std. Dwg. 422). Revise all pertinent plans and construction notes accordingly.
5. **Second Request:** The engineer/developer proposed to discharge the subject development to a regional flood control channel to the north at three locations with concrete flume. Provide structural connection detail from concrete to concrete in the next submittal.
6. The response to Previous Comment #10 was that the sand/oil separators in DI #1 and DI #5 were removed and replaced with landscape swales and curb openings in order to comply with the stormwater quality requirements per Section 1500 of the *CCRFCD Manual*. Provide calculations to justify the length, width and depth of the landscape swales per the design guidelines in the next submittal.

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/19

AREA L-19

 *** FAX TX REPORT ***

TRANSMISSION OK

JOB NO. 1983
 DESTINATION ADDRESS 7029326129
 PSWD/SUBADDRESS
 DESTINATION ID
 ST. TIME 10/27 15:03
 USAGE T 01' 34
 PGS. 2
 RESULT OK

CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		October 27, 2016
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for: Crossing Care Campus	COPIES TO: DRC Surveying Nevada, Inc.
Cross Streets:	NWC Center Crossing Rd & Desert Crossing Ct	Crossing Business Center 8, LLC
File Number:	F:\Depot\DSMemos\DS4821B.doc	Bart Anderson, P.E., DevCo
Parcel Number:	138-19-419-006	CCRFCD
Zoning Action:	CRG-65728	
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES NO X	

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	is conditionally approved subject to Clark County Public Works Department concurrence.

- The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFCD) master planned facility. Therefore, CCRFCD concurrence is required prior to final approval of the drainage study.
- Sheet GP2** and **Sheet GP4**: An existing 18"-RCP is proposed to be removed adjacent to SDMH #2. This storm drain is within an existing drainage easement. Is there intention to vacate this drainage easement? If yes, then the proposed 20'-public drainage easement must be extended to reach the property line. Please clarify the extent of the proposed public drainage easement in the next submittal.

**ADDENDUM #1 TO THE
TECHNICAL DRAINAGE STUDY
FOR
CROSSING CARE CAMPUS**

**DRC Job# SN 15-823
CLV # DS4821**

**Prepared for:
The Calida Group
10777 W. Twain Avenue, Suite 115
Las Vegas, Nevada 89135
Ph: (702) 990-3906
Fx: (702) 925-5506**

**Prepared by:
DRC Surveying Nevada, Inc.
7080 La Cienega Street, Ste. 200
Las Vegas, Nevada 89119
Ph: (702) 270-6119
Fax: (702) 932-6129**

**Submitted to:
City of Las Vegas
Department of Development Services
333 N. Rancho Drive
Las Vegas, NV 89103**

October 2016

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE STUDY INFORMATION FORM

Name of Development: Crossing Care Campus Date: August 5, 2016

Location of Development: a) Descriptive (Cross Streets): North/South Desert Crossing Ct East/West Center Crossing Rd
b) Sect. 19 Twn. 20S Rng. 60E

Name of Owner: Crossing Business Center 8, LLC

Assessor's Parcel Number: 138-19-419-006

Telephone Number: _____

Facsimile Number: _____

Address: 444 S. Flower St. #2100, Los Angeles, CA 90071

Contact Person - Name: Dennis Wertzler, P.E.

Telephone Number.: (702) 270-6119

* Email Address: dwertzler@drc-lasvegas.com

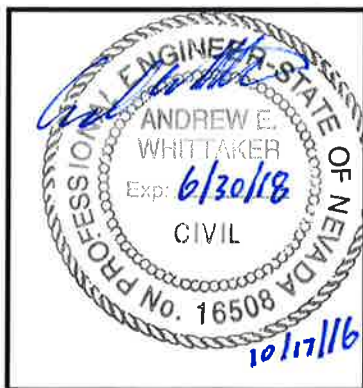
Firm: DRC Surveying Nevada, Inc.

Address: 7080 La Cienega Street, Ste. #200, Las Vegas, NV 89119

Type of Land Development/Land Disturbance Process:

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

- Total Owned Land Area: At site: 11.01 acres +/- Being Developed/Disturbed: 11.01 acres +/-
- Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? : YES** NO
- Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control Master Plan Facility? : YES** NO
- Proposed type of development (Residential, Commercial, Etc.): Commercial
- Approximate upstream land area which drains to the subject site: _____ sq. mi.
- Has the site been evaluated in the past? YES NO If yes, please identify documentation:
The Crossings Business Park Phase VII
- If known, please identify the proposed point(s) of runoff from the site: _____
- Briefly describe your proposed schedule for the subject project: ASAP



Submit this form as part of the required drainage study to the local entity which has jurisdiction over the 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.

Revisions	Date
Addendum #1	10/17/2016

Local Entity File Number _____

Engineer's Seal

REFERENCE:

STANDARD FORM 1

DRC Surveying Nevada, Inc

Civil Engineering · Land Surveying · Planning
7080 La Cienega Street, Ste. 200
Las Vegas, NV 89119

October 17, 2016

Albert Sung, P.E.
City of Las Vegas
Land Development Services
333 N. Rancho Drive
Las Vegas, NV 89103

**Subject: Technical Drainage Study for Crossing Care Campus
 DRC # SN 15-823**

**Re: Addendum #1 to the Technical Drainage Study for Crossing Care Campus
 DRC Job #: SN 15-823
 CLV # DS4821**

Dear Mr. Sung,

We have received the review comments for the above-mentioned study dated August 30, 2016. The comments are restated and addressed below.

- 1. Provide a copy of the zoning/planning conditions associated with this site (CRG-65728) 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.**

A copy of the zoning/planning conditions is provided in the appendix of this addendum. The grading plan complies with the zoning/planning conditions.

- 2. The site is adjacent to or crosses an existing or proposed Clark County Regional Flood Control (CCRFCD) master planned facility. Therefore, CCRFCD concurrence is required prior to final approval of the drainage study.**

A copy of the drainage study and addenda will be submitted to CCRFCD upon conditional letter of approval.

3. **Sites with a grade difference of 2 feet above or below the existing are required to have approval from the City Planning and Development Department. The engineer must submit copies of the grading plans and detail sheet with a letter justifying the grade difference to the City Planning Department (229-6301). The engineer must provide Planning approval with the next submittal.**

A copy of the approved justification letter is provided in the appendix of this addendum.

4. **The subject development accepts offsite flow through the site. Provide and delineate a public drainage easement(s) (privately maintained) through the site in the next submittal. The public drainage easement must be dedicated and recorded prior to the final approval of the improvement plans.**

The grading plans were revised to show two drainage easements. Each easement is labeled; "20-ft public drainage easements, privately maintained".

5. **The engineer/developer proposed offsite grading in the adjacent parcel to the southwest. Obtain a notarized letter or permission for the proposed grading from the adjacent parcel owner prior to the final approval of the subject drainage study.**

A copy of the signed and notarized "Permission to Grade" letter is provided in the appendix of this report.

6. **Provide grading and drainage design in the "Courtyard" areas on the pertinent grading plans in the next submittal.**

The grading plan was revised to show grading and drainage design of the four small courtyards. A normal depth calculation is provided in the appendix to show that the storm drain has capacity to convey the small amount of storm water within the courtyards. In Building #1, the total area of the Courtyard is less than 0.5 acres. Based on the average 100-year storm event of 3 cfs/acre, we analyzed the pipes for 1.5 cfs.

7. **Revise the construction of all proposed drop inlets either Type "C-D" Modified Drop Inlet (RTC Std. Dwg. 412.1) or Type "CM" Modified Drop Inlet (RTC Std. Dwg. 422). Revise all pertinent plans and construction notes accordingly.**

The proposed drop inlets in question were revised to be Modified Type "A" inlets per USD 411.1.

flume. Provide structural connection detail from concrete to concrete in the next submittal.

The detail sheet was revised to show a more detailed section of the proposed flume connecting into the existing channel similar to previously approved projects that required CCRFCD concurrence. The section shows "bond breaker" between the existing channel and proposed flume (see Section II on Sheet DT2 of the Grading Plans).

- 9. The re-construction of an existing 21' drop inlet to D.I. #2 is not clear. Provide structural and construction detail in the next submittal.**

The plans were revised to demolish the existing 21' drop inlet and install a new Modified Type "A" Inlet per USD 411.1. No structural calculations are necessary.

- 10. Provide detail of sand/oil separators in the two proposed onsite inlets (DI #1 and DI #5) in the next submittal.**

The sand/oil separator note for DI #1 and DI#5 was removed from the plans. To comply with Section 1500 of the CCRFCD Manual, additional landscape swales and curb openings are added to the design to convey the nuisance flows and minor storm flows from a majority of the parking lot and drive aisles.

- 11. Label an existing storm drain in the main entrance of the development with City of Las Vegas recorded drawing number on the pertinent grading plan.**

Grading Plan Sheet GP4 was revised to label the existing storm drain with the CLV recorded drawing number at the main entrance.

- 12. Provide a note on the grading plans: "All onsite storm drains and the associated facilities are Privately Maintained by the Property Owner".**

A note has been added to all grading plan sheets that states "All onsite storm drains and the associated facilities are Privately Maintained by the Property Owner", (see sheets GP1, GP2, GP3 and GP4).

- 13. Add a note in all pertinent sheets for the construction of all storm drain drop inlets per a newly adopted USDCCA Drawing No. 421 (Stormwater Quality Management Stamp and Sign Detail).**

A construction note has been added to each drop inlet that states "INSTALL STORMWATER QUALITY MANAGEMENT STAMP PER USD 421".

The grading plans were revised and provided in the appendix of this report. If there are any other questions or additional information necessary, please contact this office at (702) 270-6119.

Sincerely,
DRC Surveying Nevada, Inc.



Andrew E. Whittaker, P.E.

CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		August 31, 2016
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for: Crossing Care Campus	COPIES TO: DRC Surveying Nevada, Inc.
Cross Streets:	NWC Center Crossing Rd & Desert Crossing Ct	Crossing Business Center 8, LLC
File Number:	F:\Depot\DSMemos\DS4821A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	138-19-419-006	CCRFC
Zoning Action:	CRG-65728	
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES NO X	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	8/16/2016	8/30/2016	See Comments Below	\$400.00	455008: \$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.

- Provide a copy of the zoning/planning conditions associated with this site (**CRG-65728**) 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.
- The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFC) master planned facility. Therefore, CCRFC concurrence is required prior to final approval of the drainage study.
- Sites with a grade difference of 2 feet above or below existing are required to have approval from the *City Planning and Development Department*. The engineer must submit copies of the grading plans and detail sheet with a letter justifying the grade difference to the *City Planning Department* (229-6301). The engineer must provide Planning approval with the next submittal.
- The subject development accepts offsite flow through the site. Provide and delineate a public drainage easement(s) (privately maintained) through the site in the next submittal. The public drainage easement must be dedicated and recorded prior to the final approval of the improvement plans.

5. The engineer/developer proposed offsite grading in the adjacent parcel to the southwest. Obtain a notarized letter of permission for the proposed grading from the adjacent parcel owner prior to the final approval of the subject drainage study.
6. Provide grading and drainage design in the "Courtyard" areas on the pertinent grading plans in the next submittal.
7. Revise the construction of all proposed drop inlets to either **Type "C-D" Modified Drop Inlet** (RTC Std. Dwg. 412.1) or **Type "CM" Drop Inlet** (RTC Std. Dwg. 422). Revise all pertinent plans and construction notes accordingly.
8. The engineer/developer proposed to discharge the subject development to a regional flood control channel to the north at three locations with concrete flume. Provide structural connection detail from concrete to concrete in the next submittal.
9. The re-construction of an existing 21'-drop inlet to D.I. #2 is not clear. Provide structural and construction detail in the next submittal.
10. Provide detail of sand/oil separators in the two proposed onsite drop inlets (DI #1 and DI #5) in the next submittal.
11. Label an existing storm drain in the main entrance of the development with *City of Las Vegas* recorded drawing number on the pertinent grading plan.
12. Provide a note on the grading plans: "All onsite storm drains and the associated facilities are Privately Owned and to be Privately Maintained by the Property Owner".
13. Add a note in all pertinent sheets for the construction of all storm drain drop inlets per a newly adopted USDCCA Drawing No. 421 (*Stormwater Quality Management Stamp and Sign Detail*).

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/19
AREA L-19

APPENDIX A

- **Planning/Zoning Conditions**
- **Justification Letter**
- **Permission to Grade Letter**



**LAS VEGAS
CITY COUNCIL**

CAROLYN G. GOODMAN
MAYOR

STEVEN D. ROSS
MAYOR PRO TEM

LOIS TARKANIAN
RICKI Y. BARLOW
STAVROS S. ANTHONY
BOB COFFIN
BOB BEERS

ELIZABETH N. FRETWELL
CITY MANAGER

August 24, 2016

Mr. Douglas Eisner
ALF Land Company, LLC
Crossings Care Campus Land Company, LLC
10777 West Twain Avenue, Suite #115
Las Vegas, Nevada 89135

Re: CRG-65728 [PRJ-65551] - CITY REFERRAL GROUP

Dear Mr. Eisner:

Your request for a Summerlin Site Development Plan Review FOR A PROPOSED 110,725 SQUARE-FOOT SPECIAL CARE FACILITY AND A 130,530 SQUARE-FOOT ASSISTED LIVING & MEMORY CARE APARTMENT COMPLEX on 11.1 acres at the north corner of Desert Crossing Court and Center Crossing Road (APNs 138-19-419-006 and a portion of 138-30-113-011), P-C (Planned Community) Zone [EC (Employment Center) Summerlin North Special Land Use Designation], Ward 2 (Beers) [PRJ-65551] was considered by the City Referral Group on Wednesday, August 24, 2016.

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

Planning

1. Conformance to the Conditions of Approval for Summerlin Major Deviation (SCD-64471) shall be required.
2. 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.
3. All development shall be in conformance with the site plan, landscape plan, and building elevations, date stamped 07/19/16, except as amended by conditions herein.
4. 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 Department of Building and Safety.

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 7-1-1
www.lasvegasnevada.gov



/city of las vegas

Mr. Douglas Eisner
ALF Land Company, LLC
Crossings Care Campus Land Company, LLC
CRG-65728 [PRJ-65551] - Page Two
August 24, 2016

Public Works

5. These Conditions of Approval shall be affixed to the cover sheet of any plan set submitted for building permit.
6. A technical landscape plan, signed and sealed by a Registered Architect, Landscape Architect, Residential Designer or Civil Engineer, must be submitted prior to or at the same time application is made for a building permit. A permanent underground sprinkler system is required, and shall be permanently maintained in a satisfactory manner; the landscape plan shall include irrigation specifications. Installed landscaping shall not impede visibility of any traffic control device.
7. The applicant shall coordinate with the City Surveyor and other city staff to determine the most appropriate mapping action necessary to consolidate the existing lots. The mapping action shall be completed and recorded prior to the issuance of any building permits.
8. A fully operational fire protection system, including fire apparatus roads, fire hydrants and water supply, shall be installed and shall be functioning prior to construction of any combustible structures.
9. Prior to the submittal of a building permit application, the applicant shall meet with Department of Planning staff to develop a comprehensive address plan for the subject site. A copy of the approved address plan shall be submitted with any future building permit applications related to the site.
10. All City Code requirements and design standards of all City Departments must be satisfied, except as modified herein.

Public Works

11. No structures, trees or landscaping over 3 feet high shall be allowed within the Public Sewer Easement. The landscape plan shall be revised to remove landscaping that will ultimately be over 3 feet high and replace with landscaping that meets the City's sewer easement requirements.

Mr. Douglas Eisner
ALF Land Company, LLC
Crossings Care Campus Land Company, LLC
CRG-65728 [PRJ-65551] - Page Three
August 24, 2016

12. Contact the City Engineer's Office at 229-6272 to coordinate the development of this project with the "Summerlin Parkway Cable Barrier Safety Project" project and any other public improvement projects adjacent to this site. Comply with the recommendations of the City Engineer.
13. A Drainage Plan and Technical Drainage Study must be submitted to and approved by the Department of Public Works prior to the issuance of any building or grading permits or submittal of any construction drawings, whichever may occur first. Provide and improve all drainageways recommended in the approved drainage plan/study. The developer of this site shall be responsible to construct such neighborhood or local drainage facility improvements as are recommended by the City of Las Vegas Neighborhood Drainage Studies and approved Drainage Plan/Study concurrent with development of this site.

This action by the City Referral Group on August 24, 2016 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,



Steven Swanton, AICP
Senior Planner
Department of Planning
Case Planning Division

SS:clb

cc: Mr. Thomas Jurbala
The Calida Group
10777 West Twain Avenue, Suite #115
Las Vegas, Nevada 89135

CRG-46741
SCD 64471

DRC Surveying Nevada, Inc.

Civil Engineering • Land Surveying • Planning
7080 La Cienega St, Suite 200 LV, NV 89119 (Ph. 270-6119 Fax 270-4899)

October 4, 2016

City of Las Vegas – Dept of Building and Safety
Civil and Planning Development
333 N. Rancho Dr.
Las Vegas, NV 89106

Attention: Linda Hartman-Maynard, Planner II

**Regarding: Justification Letter for 2' Grade Difference
APN's #138-19-419-008 and 009**

This letter is to request a waiver from the requirement that the site be graded within 2' of the existing ground elevations. The proposed development consists of just two buildings with large footprints. Because of the nature of the use of the buildings (medical), the buildings can't be stepped. With about 38' of elevation fall across the site, 18' across one of the building footprints; it isn't possible to stay within 2' of the grade elevation and still utilize the site for its intended purpose. The finish floors elevations of the buildings were set at an elevation that matches the existing ground near the center of the buildings. Retaining walls and scarping are utilized on the perimeter of the site.

We have coordinated our grading with the owners of the 1 acres undeveloped property adjacent to the southwest corner of our site. We have their permission to grade on their property. Attached is a copy of their permission letter.

Please call me if you should have any questions or require additional information.

Sincerely,

DRC Surveying Nevada, Inc.

Dennis P. Wertzler, PE
President



PLANS APPROVED
PLANNING
Building & Safety Dept.
City of Las Vegas, Nevada
GRADE DIFFERENCE
LHM OCT 05 2016 ONLY

Conforms to the minimum requirements of
LVMC Title 19, applicable Master Plan
development standards and/or Conditions of
Approval. Make No Change Without Approval.
Plan is Not a Permit to Violate Any Ordinance.

DRC Surveying Nevada, Inc

Civil Engineering & Land Surveying & Planning

7080 La Cienega St, Suite #200 LV, NV 89119 (Ph. 270-6119 Fax 270-4899)

August 29, 2016

Subject: Permission to Grade Letter
(APN 138-19-419-007)

To Owner of said parcel:

As part of our civil plans for Crossings Care Campus (APN's 138-19-419-008) that is adjacent to your properties east and north property lines, we are proposing to grade on your property to direct the storm runoff from your site to the northeast corner of your property where our client, Calida Residential, LLC, a Nevada limited liability company ("Calida"), will have constructed a concrete flume to convey the flows onto their site as shown on the attached exhibit. If this permission is granted, the grading will be done as a part of our project per plans approved thru the City of Las Vegas. The grading contractor will be instructed to grade this area utilizing the same material and compaction specifications as is utilized on our subject site.

Please review the attached exhibit and contact me if you should have any questions. If you agree that we have permission to submit project plans to the City of Las Vegas and proceed with the proposed grading (subject to your approval of the final plans approved by the City of Las Vegas and a right of entry and indemnity agreement mutually acceptable to you and Calida), please sign and returned to me.

Sincerely,

DRC Surveying Nevada, Inc.

Dennis P. Wertzler, PE
President

RE: Permission to Grade Letter

EXPEDIA BUILDING LLC, a Delaware limited liability company ("Adjacent Owner"), as owner of the property designated by assessor parcel number 138-19-419-007 hereby gives permission to Special Care Land Co, LLC and/or its subsidiaries to submit project plans to the City of Las Vegas for approval and proceed with the proposed grading as outlined on the attached letter subject to Adjacent Owner's approval of the final plans approved by the City of Las Vegas and the execution of a right of entry and indemnity agreement mutually acceptable to both Adjacent Owner and Calida prior to entry.

EXPEDIA BUILDING LLC

By: Summerlin Properties LLC
Its: Sole Member

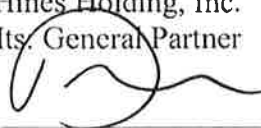
By: Summerlin Office Portfolio Venture LLC
Its: Sole Member

By: Hines Summerlin Office Portfolio Venture LLC
Its: Managing Member

By: Hines Summerlin Office Portfolio Venture
Associates Limited Partnership
Its: Sole Member

By: Hines Interest Limited Partnership
Its: General Partner

By: Hines Holding, Inc.
Its: General Partner

By:  _____

Name: Douglas H. Metzler
Senior Managing Director

Title: _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

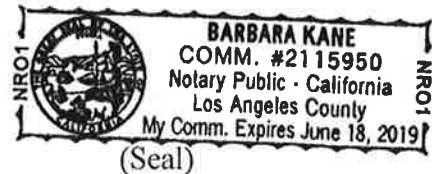
On September 26, 2016, before me, Barbara Kane Notary Public,
(here insert name and title of the officer)
personally appeared Douglas H. Metzler, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

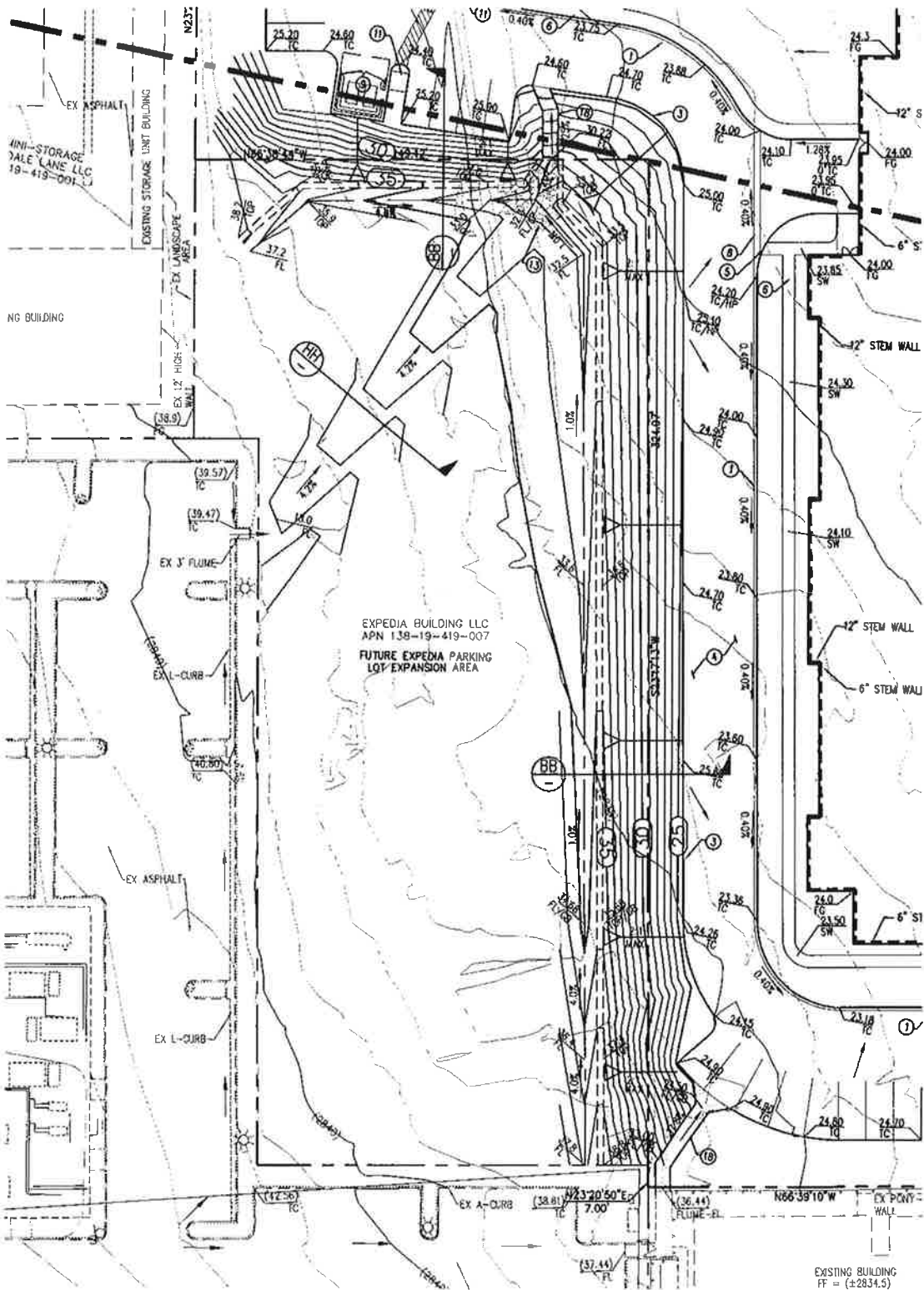
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Barbara Kane





SCALE: 1"=50'

EXHIBIT 1 OF 2



DRC Surveying Nevada, Inc.

7080 LA CIENEGA ST., STE #200
LAS VEGAS, NEVADA 89119
(702) 270-6119

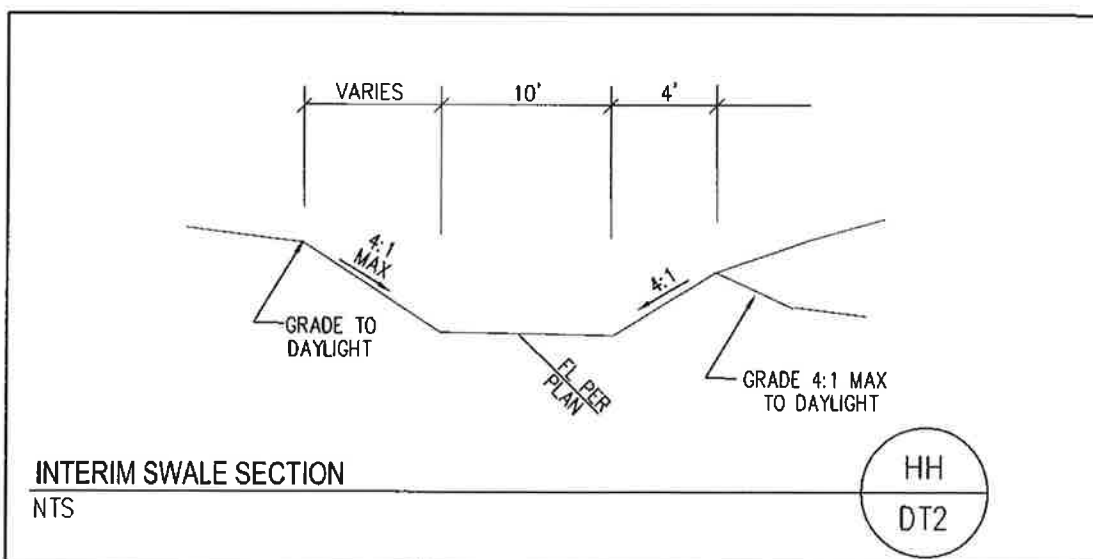
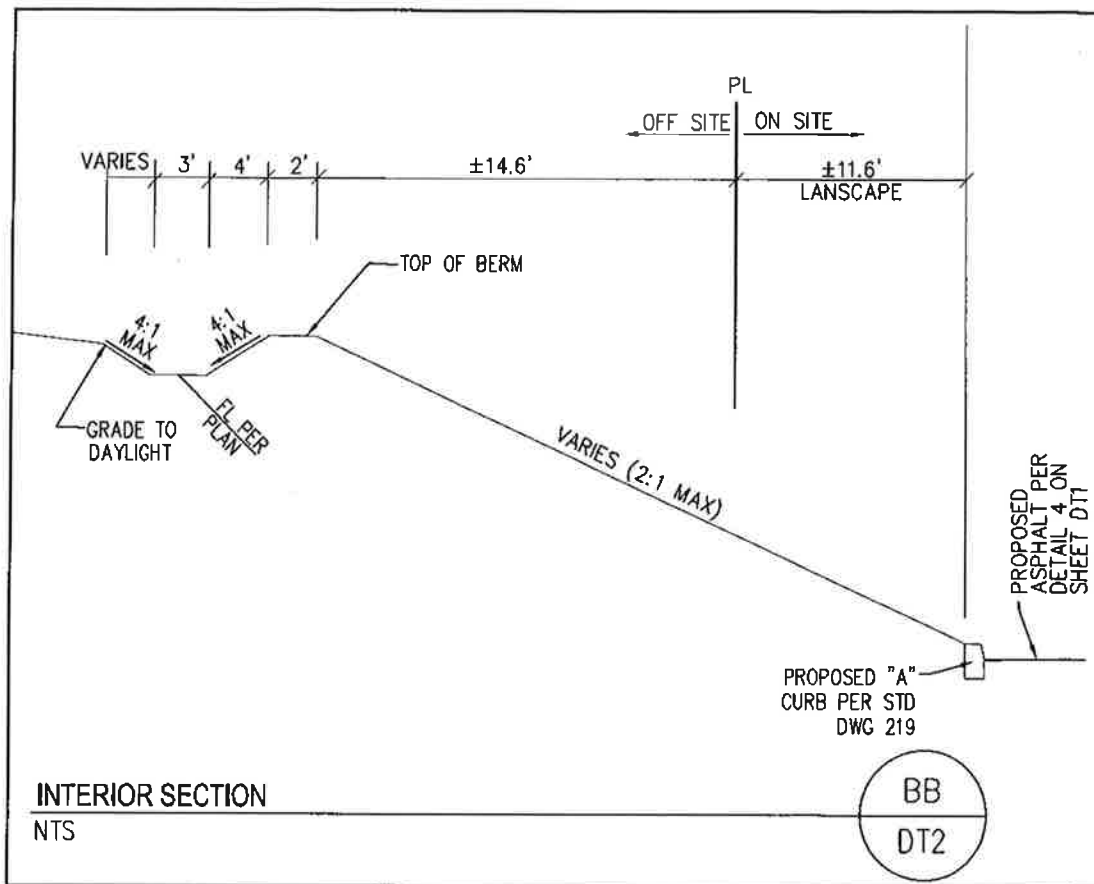


EXHIBIT 2 OF 2



DRC Surveying Nevada, Inc.

7080 LA CIENEGA ST., STE #200
LAS VEGAS, NEVADA 89119
(702) 270-6119

APPENDIX B

HYDRAULICS

12" PIPE @ 2%.

Worksheet

Worksheet for Circular Channel

Project Description	
Worksheet	Circular Channel - 1
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	
Mannings Coefficient	0.013
Channel Slope	2.00 %
Diameter	12.0 in
Discharge	1.50 cfs

Results	
Depth	0.37 ft
Flow Area	0.3 ft ²
Wetted Perimeter	1.32 ft
Top Width	0.00 ft
Critical Depth	0.52 ft
Percent Full	37.4 %
Critical Slope	0.62 %
Velocity	5.60 ft/s
Velocity Head	0.49 ft
Specific Energy	0.86 ft
Froude Number	1.87
Maximum Discharge	5.42 cfs
Discharge Full	5.04 cfs
Slope Full	0.18 %
Flow Type	Supercritical

12" STORM DRAIN PIPE
WITHIN COURTYARD

0.37' ALLOWS FOR
EXTRA CAPACITY

10" PIPE @ 2%

Worksheet

Worksheet for Circular Channel

Project Description	
Worksheet	Circular Channel - 1
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	
Mannings Coefficient	0.013
Channel Slope	2.00 %
Diameter	10.0 in
Discharge	1.50 cfs

Results	
Depth	0.41 ft
Flow Area	0.3 ft ²
Wetted Perimeter	1.29 ft
Top Width	0.00 ft
Critical Depth	0.55 ft
Percent Full	49.1 %
Critical Slope	0.79 %
Velocity	5.63 ft/s
Velocity Head	0.49 ft
Specific Energy	0.90 ft
Froude Number	1.76
Maximum Discharge	3.33 cfs
Discharge Full	3.10 cfs
Slope Full	0.47 %
Flow Type	Supercritical

10" DIAMETER
STORM DRAIN PIPE
WITH IN COURT YARD

0.41 ft ALLOWS FOR
EXTRA CAPACITY

12" PIPE @ 1%.

Worksheet

Worksheet for Circular Channel

Project Description	
Worksheet	Circular Channel - 1
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	
Mannings Coefficient	0.013
Channel Slope	1.00 %
Diameter	12.0 in
Discharge	1.50 cfs

Results	
Depth	0.45 ft
Flow Area	0.3 ft ²
Wetted Perimeter	1.48 ft
Top Width	0.00 ft
Critical Depth	0.52 ft
Percent Full	45.3 %
Critical Slope	0.62 %
Velocity	4.34 ft/s
Velocity Head	0.29 ft
Specific Energy	0.75 ft
Froude Number	1.30
Maximum Discharge	3.83 cfs
Discharge Full	3.56 cfs
Slope Full	0.18 %
Flow Type	Supercritical

0.45 FT ALLOWS FOR
EXTRA CAPACITY

Cross Section

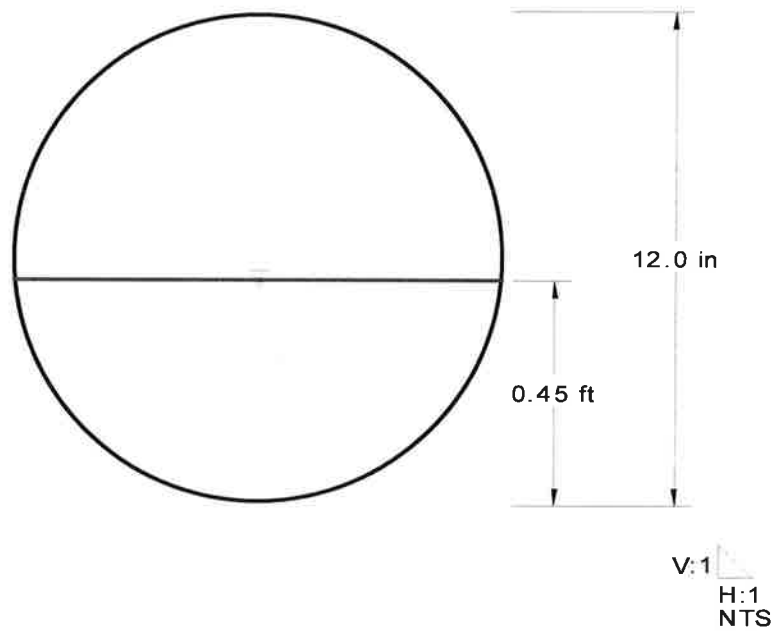
Cross Section for Circular Channel

Project Description

Worksheet	Circular Channel - 1
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data

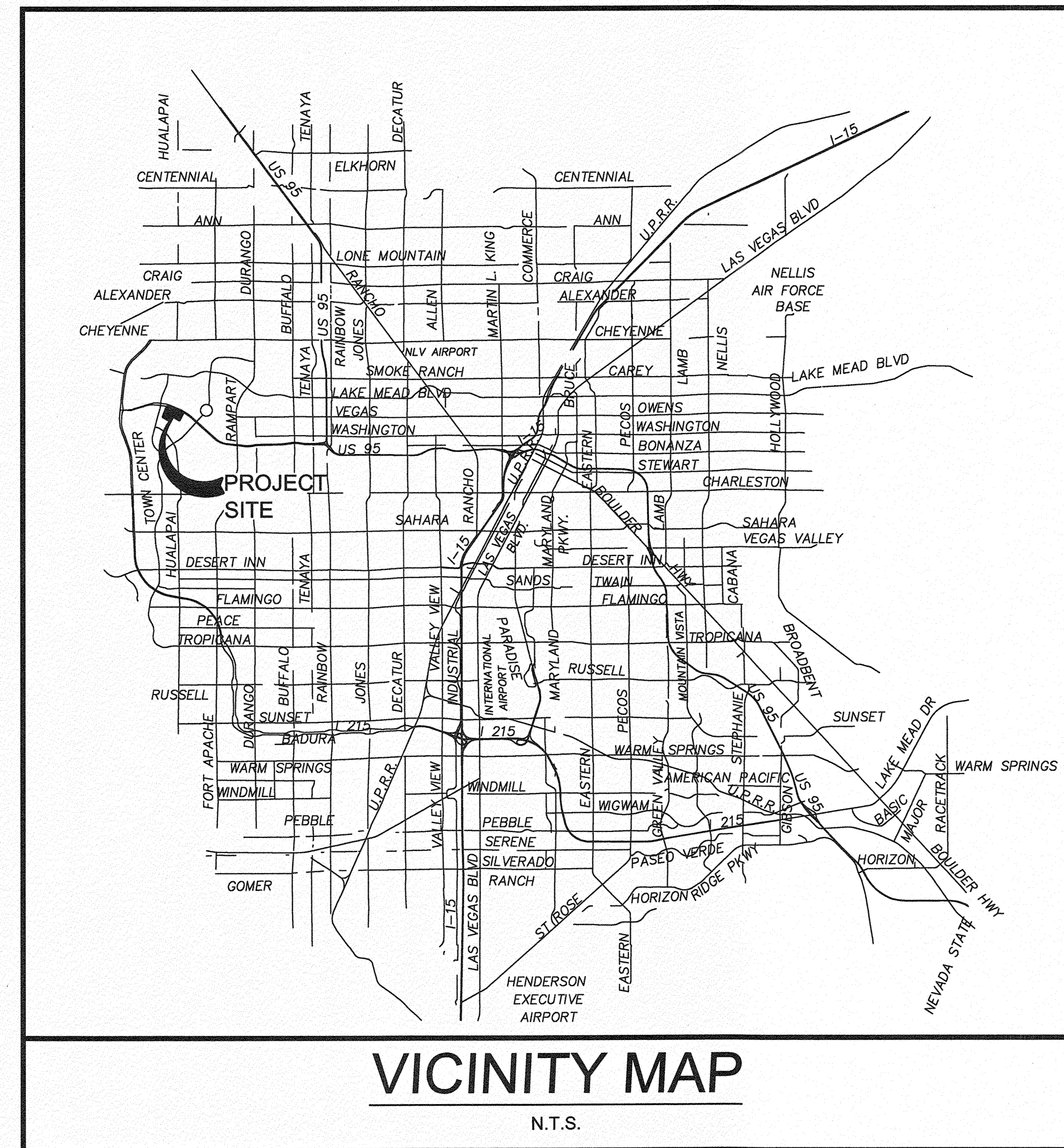
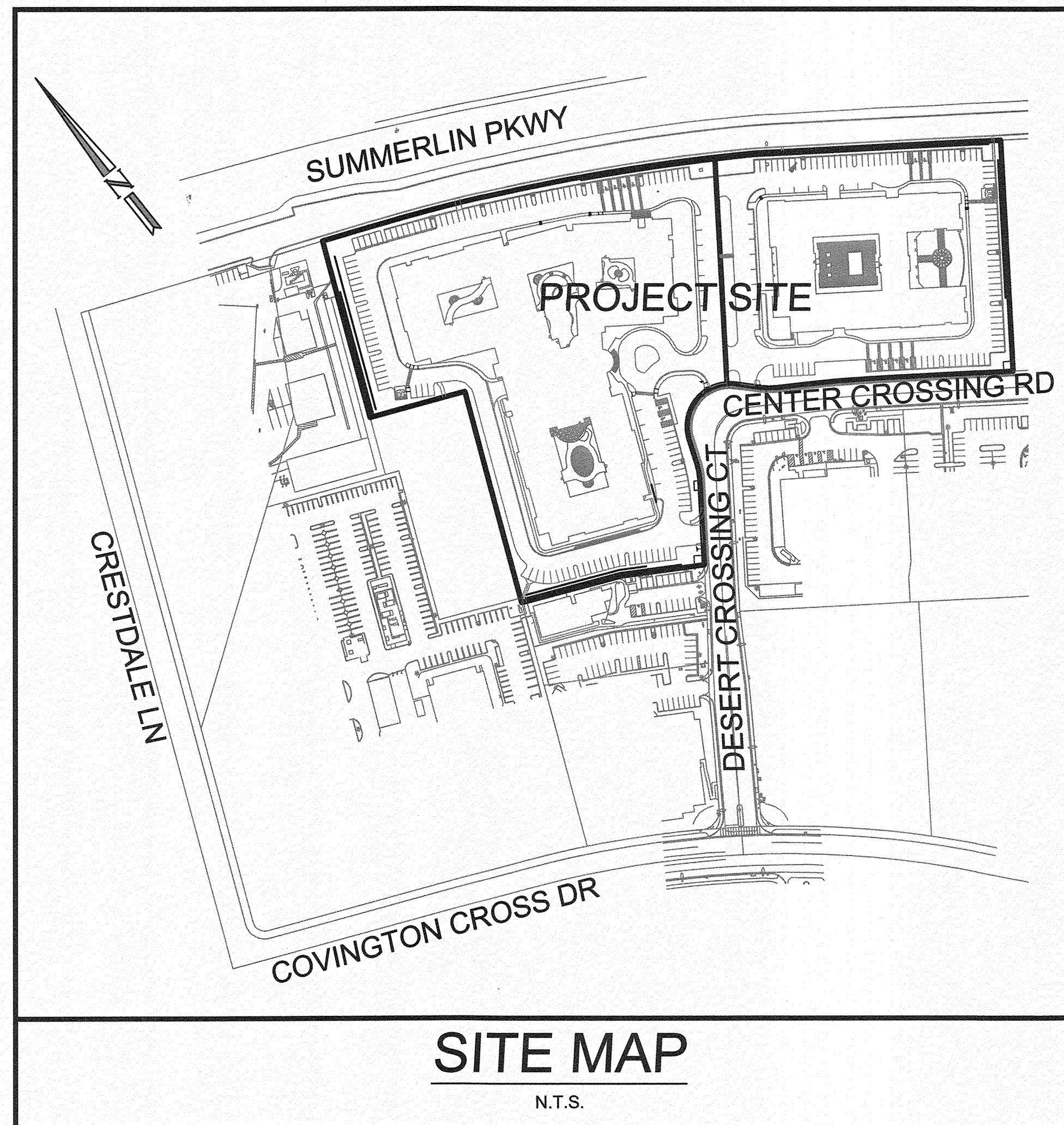
Mannings Coefficient	0.013
Channel Slope	1.00 %
Depth	0.45 ft
Diameter	12.0 in
Discharge	1.50 cfs



APPENDIX C
GRADING
PLANS

CITY OF LAS VEGAS
STATE OF NEVADA
APN # 138-19-419-008 & 138-19-419-009
9.75 ACRES

SHEET INDEX		
SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
1	CV	COVER SHEET
2	NT	GENERAL NOTES
3	GP1	GRADING PLAN 1
4	GP2	GRADING PLAN 2
5	GP3	GRADING PLAN 3
6	GP4	GRADING PLAN 4
7	DT1	DETAIL SHEET 1
8	DT2	DETAIL SHEET 2
9	MUP	MASTER UTILITY PLAN
10	UP1	UTILITY PLAN 1
11	UP2	UTILITY PLAN 2
12	UP3	UTILITY PLAN 3
13	FA	FIRE ACCESS PLAN
14	HC/TP1	HORIZONTAL CONTROL & TRAFFIC PLAN 1
15	HC/TP2	HORIZONTAL CONTROL & TRAFFIC PLAN 2
16	HC/TP3	HORIZONTAL CONTROL & TRAFFIC PLAN 3
17	PT	PATH OF TRAVEL PLAN
18	ADA1	PATH OF TRAVEL DETAILS
19	WP	WALL PLAN
20	PP1	WALL PLAN & PROFILE 1



APPROVALS

SOUTHWEST GAS CORPORATION

COX COMMUNICATIONS LAS VEGAS, INC

CENTRAL TELEPHONE COMPANY, d/b/a CENTURYLINK
THE AFFIXED CENTRAL TELEPHONE COMPANY, d/b/a 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.

DATE _____

NEVADA ENERGY COMPANY
NEVADA ENERGY COMPANY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NEVADA ENERGY 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.

SOUTHERN NEVADA WATER AUTHORITY

DPR # 2016-????

DATE

SNWA APPROVAL IS VALID ONE (1) YEAR FROM THE SIGNATURE DATE, IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE _____ PROJECT XXXXX
LVVWD APPROVED FIRE FLOW 2,750 GPM AT 20 PSI RESIDUAL
SHEETS: CV, NT, MUP, UP1, UP2, UP3

CITY OF LAS VEGAS FIRE DEPARTMENT DATE
APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL
FROM THE LAS VEGAS VALLEY WATER DISTRICT

CHRIS KNIGHT
DIRECTOR, BUILDING AND SAFETY
THIS PLAN MEETS THE APPLICABLE STANDARDS OF PLANNING

DAVID BOWER, PE, PTOE # 16736 DATE _____

CITY OF LAS VEGAS ENGINEER

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

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

THE CALIDA GROUP

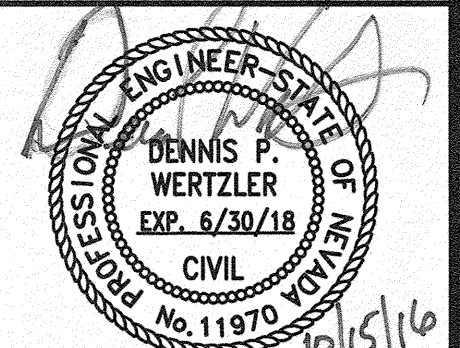
TEL: (702) 990-3906 FAX: (702) 925-5506

DRC  **DRC Surveying Nevada, Inc.**
7080 LA CIENEGA ST., STE #200
LAS VEGAS, NEVADA 89119
(702) 270-6119

CROSSINGS CARE CAMPUS

COVER SHEET

DRAWN BY: DPW
DESIGNED BY: DPW
CHECKED BY: DPW
PROJECT NO: SN15-823



SHEET
CV
1 OF 20 SHEETS
DRAWING #
XXXX

OWNER / DEVELOPER
DEVELOPER: THE CALIDA GROUP
10777 W TWAIN AVE., SUITE 115
LAS VEGAS, NEVADA 89135
PHONE (702) 990-3906
FAX (702) 925-5506

ENGINEER
DRC SURVEYING NEVADA, INC.
7080 LA CIENEGA ST., SUITE 200
LAS VEGAS, NEVADA 89110
PHONE: (702) 270-6119
FAX: (702) 932-6129

DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.



GEOTECHNICAL EXPLORATION REPORT

ORIGINAL PREPARED BY:
COMPANY NAME: NOVA GEOTECHNICAL
ADDRESS: 4480 HACIENDA AVE., STE 104
 LAS VEGAS, NV 89118
TEL: (702) 873-3478
PROJECT NO.: E-15-223
DATED: JANUARY 8, 2016

LEGAL DESCRIPTION

LEGAL DESCRIPTION
LOTS 1-3 AS SHOWN IN FILE 199, PAGE 92 OF SURVEYS,
OFFICIAL RECORDS, LYING WITHIN THE NORTHWEST QUARTER
(NW 1/4) OF SECTION 30, TOWNSHIP 21 SOUTH, RANGE 60
EAST, M.D.M., CLARK COUNTY NEVADA.

BASIS OF BEARINGS

NORTH 48°00'00" WEST, BEING THE BEARING OF THE CENTERLINE OF COVINGTON CROSS DRIVE AS SHOWN IN BOOK 70, PAGE 61 OF PLATS IN THE RECORDER'S OFFICE OF CLARK COUNTY, NEVADA.

BENCHMARK

BENCHMARK
CITY OF LAS VEGAS BENCHMARK NO. 0LV0030NW6
RIVET & PLATE IN THE TOP OF CURB NORTHWEST CORNER OF TOWN
CENTER DRIVE AND COVINGTON CROSS DRIVE.
ELEVATION = 856.034 METERS (PUBLISHED NAVD 88 DATUM)
ELEVATION = 2808.51 US SURVEY FEET (CALCULATED)

FILENAME: X:\2015\SN15-623 Summitm Senior Center\Caddmg\plans\SN15-623.dwg, LAST SAVED ON: 03/26/16 11:10pm PLOTTED BY: AMWHTAKER, ON: 04/14/16 12:27pm

CITY OF LAS VEGAS GENERAL NOTES

- 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 STANDARD SPECIFICATIONS, CLARK COUNTY AREA, NEVADA, LATEST REVISED EDITION, AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
- 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 CIVIL 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 UTILITIES WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION 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.
- 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.
- ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS. ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
- 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.
- PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
- EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
- AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE UP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
- CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
- SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 226. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
- 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 THESE PLANS.
- ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE NOVA GEOTECHNICAL PROJECT NO. E-15-223, DATED JANUARY 8, 2016, APPROVED BY THE CITY ENGINEER AND AS SHOWN ON THESE PLANS.
- EXACT LOCATION OF ALL SAWCUT 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 RELOCATIONS.
- 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.
- UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

- ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSES OF REVIEWING GRADING RELATIONS, CURB CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
- ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
- 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.
- MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF MDTOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREIN.
- 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 THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
- 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, AND THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXITS THE PUBLIC RIGHT-OF-WAY, AND STORM DRAIN MAIN ALIGNMENT, INCLUDES 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 MAP(S) MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINITIES OF +/- 0.09 METER (+/- 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).
- 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.
- A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED 02/15

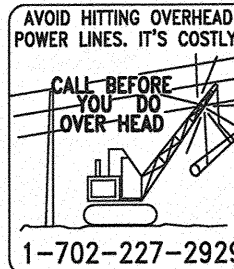
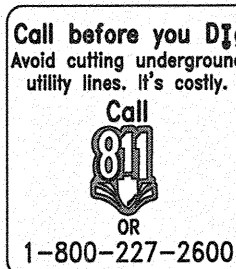
CITY OF LAS VEGAS GRADING NOTES

- 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.
- 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 GRADE AND SLOSH SHOWN.
- 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.
- 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 BECOME THE RESPONSIBILITY OF THE CONTRACTOR.
- 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.
- 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:
A. PAVEMENT AREA SUBGRADE: 0.1" +/- 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.
- ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
- THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING GASKET/LEAK DETECT CONTROL, IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS OF CONSTRUCTION WATER.
- THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPLILLS 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.
- IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ECT.

REVISED 04-15-10

DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.



CITY OF LAS VEGAS FIRE AND RESCUE GENERAL NOTES

- 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.
- ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICTS - APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
- 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. [JFC 105.7.12]
- 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. [JFC #3310, JFC 3312]
- 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. [JFC 507.5.7.3]
- 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. [JFC 106.3]
- 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. [JFC 507.2.1, NFPA 24]
- 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. [JFC 507]
- PRIVATE HYDRANTS SHALL BE PAINTED RED. [JFC 507.5.7.1]
- PRIOR TO 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. [JFC 507.5.7.2]
- FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [JFC C102]
RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
- 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. [JFC C102.8]
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [JFC C102.12]
- A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [JFC C102.4]
- THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [JFC C102.7]
- THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [JFC C102.6]
- TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS A 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. [JFC C104]
- 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. [JFC 503.2.3]
- 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%. [JFC 503.2.7, 503.2.8]
- THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADII. [JFC 503.2.4]
- VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13 FT 6 INS. [JFC 503.2.1]
- FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS 40 FT 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 ACCESS 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 BE NOT LESS THAN 24 FT. [JFC 503.2.1]
- 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 INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [JFC 503.1.1]
- 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 AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORY OR 30 FT IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA. [JFC 503.1.2]
- 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. [JFC 503.2.5]
- 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 OR ON 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. [JFC 503.3]
- ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH JFC 503.6 AND JFC APPENDIX M.

REVISED 3/1/2016

CITY OF LAS VEGAS TRAFFIC NOTES

- ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
- THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
- 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 SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
- WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCLOSED 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 DURATION OF TIME THAT CHILDREN OF THE SCHOOL ARE TO BE PRESENT.
- 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL BE FABRICATED WITH POLYESTER SHEETING AND BE ELEVATED 6' TO 8' ABOVE FINISH GRADE. ALL NEW TRAFFIC SIGNS, EXCEPT STREET NAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1180 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.
- 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 SIGNPOST SHALL BE MOUNTED ON THE END OF THE SIGNPOST AND THE SIGNPOST SHALL BE ELEVATED 6' TO 8' ABOVE FINISH GRADE.
- 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.
- STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
- 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 MSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
- 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.
- 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.
- GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE 822-3442) 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 SHALL BE RESPONSIBLE FOR THE REMOVAL OF THE GUARDS.
- ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS OTHERWISE DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECTS 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 BEFORE 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 04/15/10

CITY OF LAS VEGAS STREETLIGHT NOTES

- 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.
- NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF TRAFFIC ENGINEERING AND THE CITY ENGINEER.
- ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
- 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.
- ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USD NO. 320A.
- AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TEF0 PRIOR TO ANY PRE-FINAL INSPECTION. THE ASBUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
- 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 CIVIL PLANS.
- 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.
- 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.
- THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.
- 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/OR REPAIRS OF THE STREET LIGHTS. THE DEVELOPER/OWNER SHALL BE RESPONSIBLE 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 LIGHTS AND/OR SERVICES INSTALLED UNDER THIS PLAN DESIGN WILL BE IN CONJUNCTION WITH THIS PROJECT COMPLETION. COORDINATE ALL MAINTENANCE AND OPERATIONAL TRANSFERS WITH THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DEPARTMENT (TE) AT (702) 224-6331.

REVISED 04/15/10

CITY OF LAS VEGAS SEWER NOTES

- 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.
- 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.
- CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
- 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.
- 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.
- WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVWWD STANDARDS WHENEVER A SEWER MAIN CROSSES OR A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
- 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.
- 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 BE OUT OF 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.
- INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED 04/15/10

STORMWATER MANAGEMENT NOTES

- 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, ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY 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 DRAIN SYSTEM.
- 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 TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
- TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICAL AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.5.
- 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 RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE AND MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY, SOME EXCEPTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES, REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.12.
- 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.

LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

LVVWD PROJECT NO. XXXXX

- 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.
- 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 SUPERCEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
- ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
- A SINGLE PIPE MATERIAL, SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF THE DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
- ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.
- 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.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OF 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
- ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR OR SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
- TELEPHONE "CALL BEFORE YOU DIG" AT 1-800-227-2800 OR 811.
- 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.

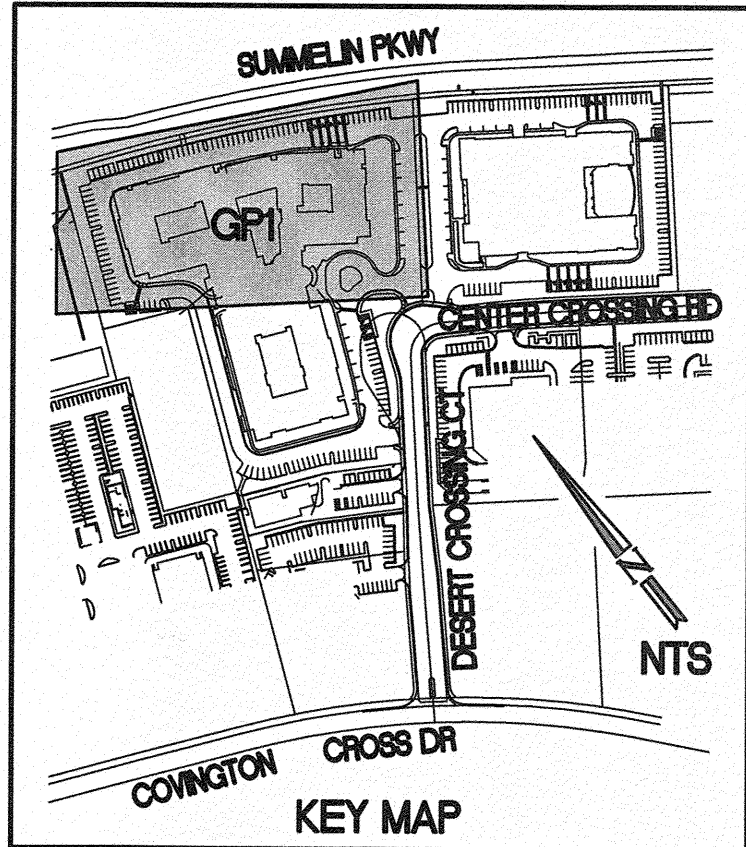
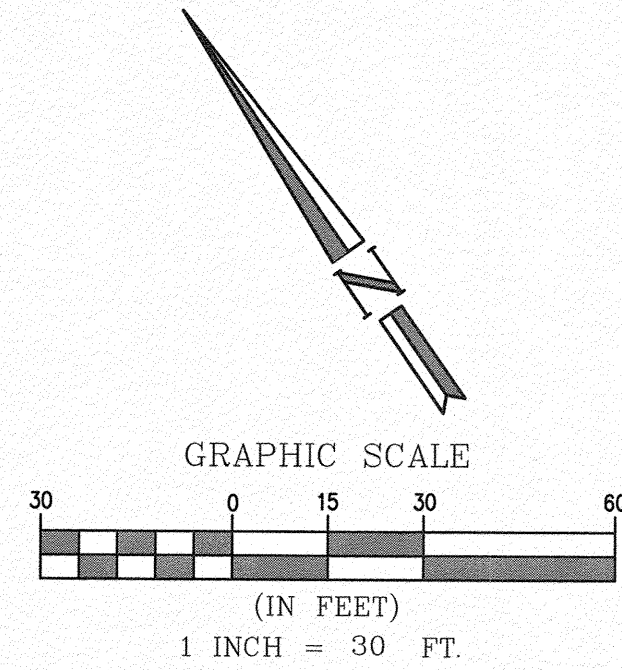
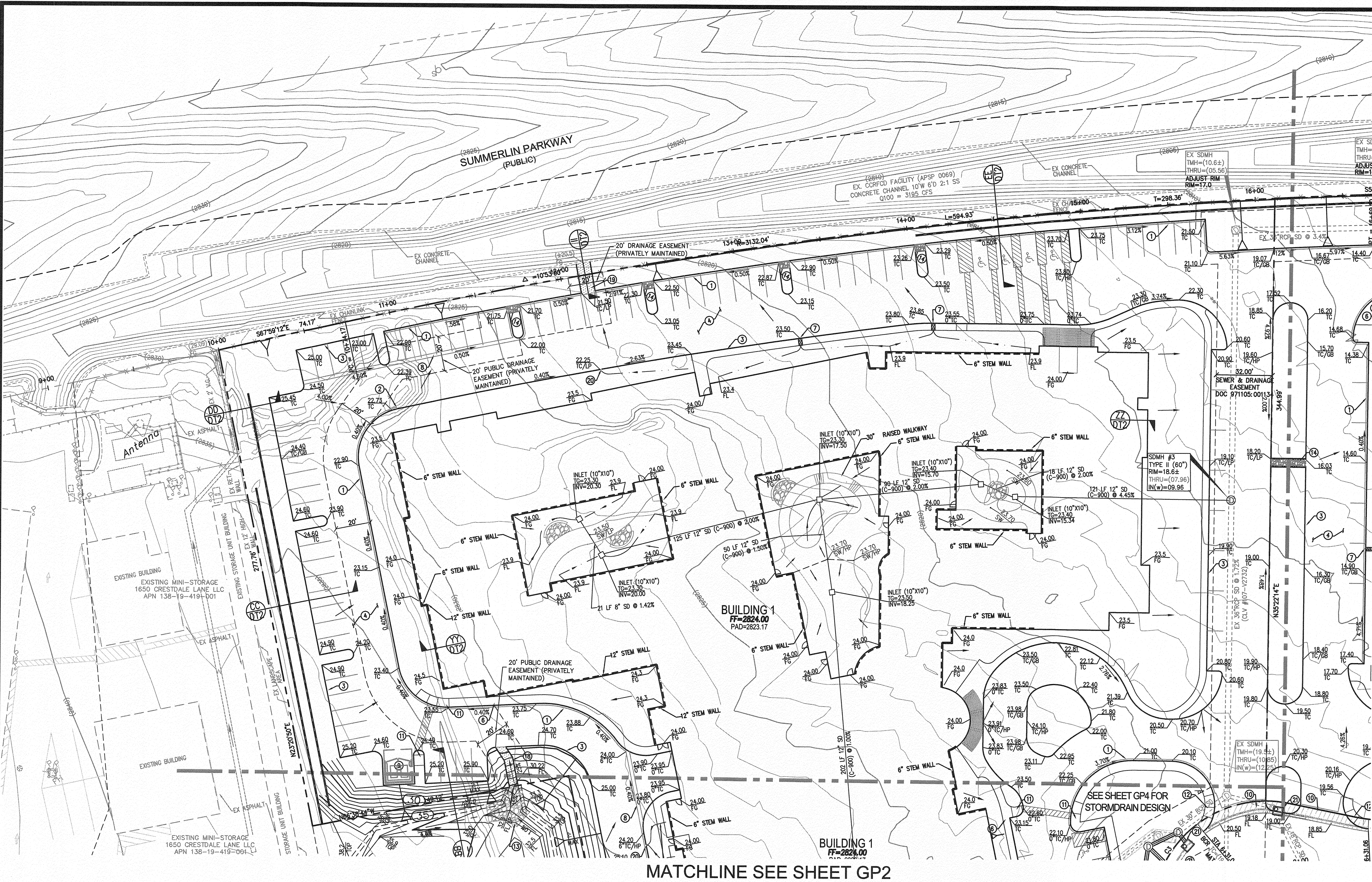
ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNER'S ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ADJUTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATE 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.

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	P	POWER
ADJ	ADJUST	PC	POINT OF CURVATURE
BC	BACK OF CURB	PCC	POINT OF COMPOUND CURVATURE
BOR	BEHIND CURB RETURN	PL	PAD ELEVATION
BNDY	BOUNDARY	PL	PROPERTY LINE
BM	BENCHMARK	P.C.	POINT OF CONNECTION
BSW	BACK OF SIDEWALK	PP	POWER POLE
C&G	CLARK COUNTY WATER RECLAMATION DISTRICT	PRC	POINT OF REVERSE CURVE
C	CURB AND GUTTER	PROP	PROPOSED
CL	CENTERLINE	PT	POINT OF TANGENT
CONC	CONCRETE	P.U.E.	PUBLIC UTILITY EASEMENT
DCVA	DOUBLE CHECK VALVE ASSEMBLY	PVC	POLYVINYL CHLORIDE PIPE
EC	END OF CURVE	RPPA	REDUCED PRESSURE PRINCIPLE ASSEMBLY
ECR	END OF CURB RETURN	RT	RIGHT
EX	EXISTING	R/W	FREEWAY AND ARTERIAL SYSTEM
F.A.S.T.	OF TRANSPORTATION	S	SEWER
FF	FINISH FLOOR	S	SEWER
FG	FINISH GRADE	STD	STANDARD
FH	FIRE HYDRANT	STA	STATION
FL	FLOW LINE	T	TELEPHONE
FS	FINISH SURFACE	TC	TOP OF CURB
FW	FLOOD WALL	TFW	TOP OF FLOOD WALL
G	GAS	TRC	TOP OF ROLL CURB
GB	GRADEBREAK	TMC	TOP OF MANHOLE
OFF	GARAGE FINISH FLOOR	TSW	TOP OF SIDEWALK
HP	HIGH POINT	TYP	TYPICAL
INV	INVERT	UDC	UNIFORM DESIGN AND CONSTRUCTION
LF	LINEAR FEET	U.D.C.S.	UNIFORM DESIGN AND CONSTRUCTION
LT	LEFT	USD	CLARK COUNTY WATER DISTRIBUTION SYSTEMS
LVVWD	LAS VEGAS VALLEY WATER DISTRICT	W	WATER
MAX	MAXIMUM	W	WATER
MH	MANHOLE	XF	EXPOSED FOOTING
MIN	MINIMUM	o TC	TOP OF CURB FLUSH WITH PAVEMENT
OC	ON CENTER		

PROJECT QUANTITY ESTIMATE		
DESCRIPTION	DEDICATED QUANTITY	PRIVATE QUANTITY
2-INCH ASPHALTIC CONCRETE PAVING	SY	SY
3-INCH ASPHALTIC CONCRETE PAVING	SY	SY
4-INCH ASPHALTIC CONCRETE PAVING	SY	SY
4-INCH ASPHALTIC CONCRETE PAVING	SY	SY
3/4" OPEN GRADE	SY	SY
TYPE I GRAVEL	CY	CY
TYPE II GRAVEL	CY	CY
EXCAVATION & EMBANKMENTS	CY	CY
CURB & GUTTER	LF	LF
COMMERCIAL DRIVEWAY	SF	SF
8" CONCRETE VALLEY GUTTER	SF	SF
4-INCH THK. CONCRETE SIDEWALK	SF	SF
8-INCH C900 SEWER	LF	LF
8-INCH SEWER	LF	LF
8-INCH SEWER	LF	LF
6-INCH C-900 SEWER	EA	EA
SEWER MANHOLE UNDER 6 FEET	EA	EA
48-INCH SEWER MANHOLES OVER 6'	EA	EA
ARTERIAL COLLECTOR STRIPING	LF	LF
8-INCH PAVEMENT STRIPING	LF	LF
STREET LIGHT STANDARD (STD. BASE)	EA	EA

FILENAME: X:\2015\SN15-823 Summerlin Senior Center\Cad\p\plans\SN15-823 GP.dwg, LAST SAVED ON: Oct 15 2016 10:30am PLOTTED BY: AWHITAKER, ON: Oct 15 2016 10:30am



MATCHLINE SEE SHEET GP3

- CONSTRUCTION NOTES**
- CONSTRUCT 18" "L" CURB PER USD NO. 219 (ON-SITE ONLY)
 - CONSTRUCT SPILL CURB WITH 0" ASPHALT LIP PER DETAIL 10 ON SHEET DT1
 - CONSTRUCT "A" TYPE 6" CURB PER USD NO. 219
 - CONSTRUCT AC PAVEMENT PER DETAIL 4 ON SHEET DT1
 - CONSTRUCT 0" CURB FACE PER DETAIL 9 ON SHEET DT1
 - CONSTRUCT SIDEWALK (4-INCH THICK) PER USD NO. 234
 - CONSTRUCT SIDEWALK DRAIN PER USD NO. 236
 - CONSTRUCT 2" VALLEY GUTTER PER DETAIL 5 ON SHEET DT1
 - CONSTRUCT TRASH ENCLOSURE PER ARCHITECTURAL PLANS
 - CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG. NO. 228 WITH GEOMETRICS OF USD NO. 222.1 AND 225.
 - CONSTRUCT PRIVATE SIDEWALK RAMPS PER ADA STANDARDS
 - CONSTRUCT SIDEWALK RAMPS PER USD NO. 235. (CASE 1)
 - INSTALL R/R RAMP D50 = 12" (24" THICK)
 - CONSTRUCT R/R RAMP U-CHANNEL PER DETAIL 10 ON SHEET DT1
 - CONSTRUCT 2" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 - CONSTRUCT 3" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 - CONSTRUCT 4" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 - CONSTRUCT 5" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 - CONSTRUCT 8" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 - CONSTRUCT 1-FT CURB OPENING PER DETAIL 8 ON SHEET DT1
 - INSTALL STORMWATER QUALITY MANAGEMENT STAMP PER USD 421
 - CONSTRUCT NON CURB AREA SIDEWALK UNDERDRAIN PER DETAIL 1 ON SHEET DT1

MATCHLINE SEE SHEET GP2

DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

FAST
Call before you Dig
UnderGround
1-702-432-5300

No.	GRADE (%)	"A" (FT)	"B" (FT)	P.T.
1	-6 TO -5.01	4.5	21.5	
2	-5 TO -4.01	4.5	15.0	
3	-4 TO -3.01	4.5	12.0	
4	-3 TO -2.01	4.5	9.5	
5	-2 TO -1	8.0	8.0	
6	-1 TO 0	9.5	4.5	
7	0 TO 1	12.0	4.5	
8	1 TO 2	15.0	4.5	
9	2 TO 3	21.5	4.5	

NOTE:
B TO A = NEGATIVE (-)
A TO B = POSITIVE (+)

SIDEWALK RAMP
PER STD. DWG. NO. 235 - CASE 1

LEGEND	
EXISTING TEXT	(TEXT)
PROPOSED TEXT	TEXT
FINISH FLOOR ELEVATION	FFXXXX.XX
PAD ELEVATION	PAD=XXXX.XX
PROPERTY LINE	
RETAINING WALL	
CUT FILL TRANSITION LINE	
EXISTING CONTOUR	2356
EDGE OF PAVEMENT	
SAWCUT LINE	
AC REMOVAL	
CONCRETE REMOVAL	
SIGHT VISIBILITY ZONE	

ABBREVIATIONS	
ADI	AREA DRAIN INLET
EXT	EXTENDED
FG	FINISH GRADE
FL	FLOW LINE
FTG	FOOTING
GB	GRADE BREAK
GF	GARAGE FLOOR
HP	HIGH POINT
LSA	LANDSCAPE AREA
SD	STORM DRAIN
SW	SIDEWALK
TC	TOP OF CURB
TF	TOP OF FOOTING
TW	TOP RETAINING WALL
VG	VALLEY GUTTER

NOTE
ALL STORM DRAINS AND ASSOCIATED FACILITIES ARE PRIVATELY MAINTAINED BY THE PROPERTY OWNER

NOTE
ADD 2800 FEET TO ALL TAGS

BENCHMARK
CITY OF LAS VEGAS BENCHMARK NO. 0LV0030NW6
RIVET & PLATE IN THE TOP OF CURB NORTHWEST CORNER OF TOWN CENTER DRIVE AND COVINGTON CROSS DRIVE.
ELEVATION = 856.034 METERS (PUBLISHED NAVD 88 DATUM)
ELEVATION = 2808.51 US SURVEY FEET (CALCULATED)

- GENERAL NOTES**
- SEE SHEET NT FOR ADDITIONAL NOTES, LEGEND AND QUANTITY ESTIMATE.
 - SEE SHEET UP1 FOR UTILITY LOCATIONS.
 - SEE SHEETS DT1 FOR CONSTRUCTION DETAILS.
 - THE CONTRACTOR SHALL VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES AND SURFACE FEATURES PERTINENT TO THIS PROJECT PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE DESIGN ENGINEER IF ANY DISCREPANCIES ARE ENCOUNTERED.
 - CONSTRUCTION SHALL COMPLY WITH SOILS REPORT PROJECT NUMBER: E-15-223 PREPARED BY: NOVA GEOTECHNICAL DATED: 01-08-2016
 - UPDATE: N/A
 - ESTIMATED EARTHWORK QUANTITIES: (UNADJUSTED)
CUT: 25,400 CY (UNADJUSTED)
FILL: 36,140 CY (UNADJUSTED)

DRAINAGE STUDY NOTE:

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT CITY OF LAS VEGAS FOR THIS PROJECT. (054821)

Dennis P. Wertzler 10/15/16
DENNIS P. WERTZLER PE NO. 11970 DATE

APPROVED	DATE	BY

REVISION	REV	DATE	BY

THE CALIDA GROUP
10777 W TWAIN AVE., SUITE 115, LAS VEGAS NV, 89135
TEL: (702) 990-3906 FAX: (702) 925-5506

DRC
DRC Surveying Nevada, Inc.
7080 LA CIENEGA ST., STE #200
LAS VEGAS, NEVADA 89119
(702) 270-6119

CROSSINGS CARE CAMPUS

GRADING PLAN 1

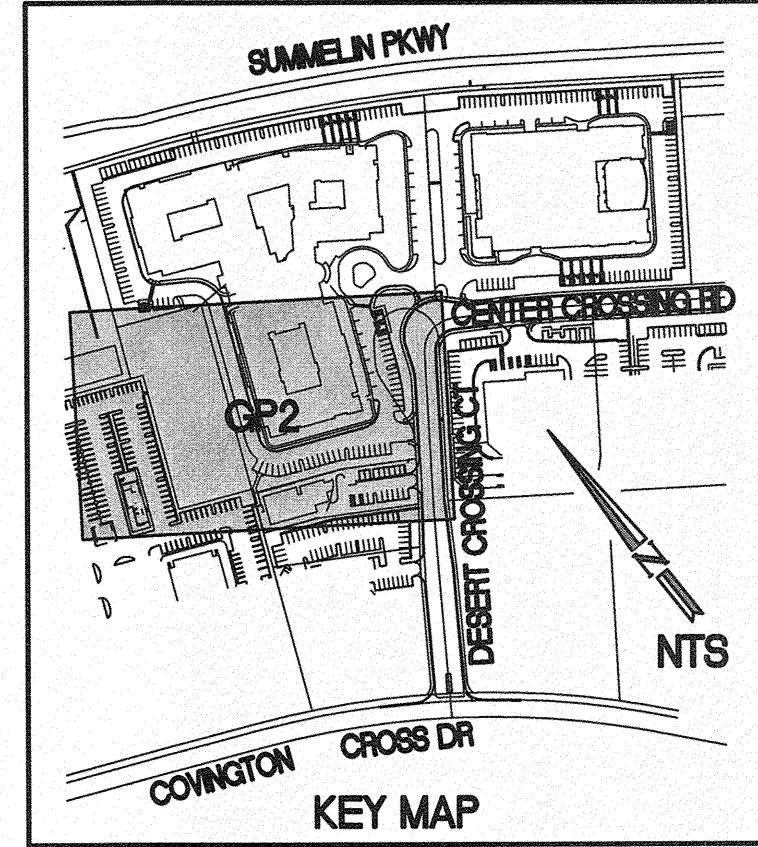
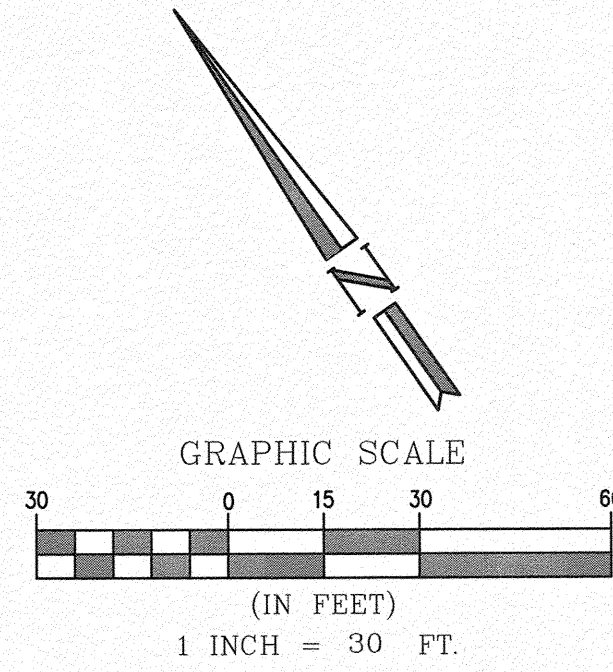
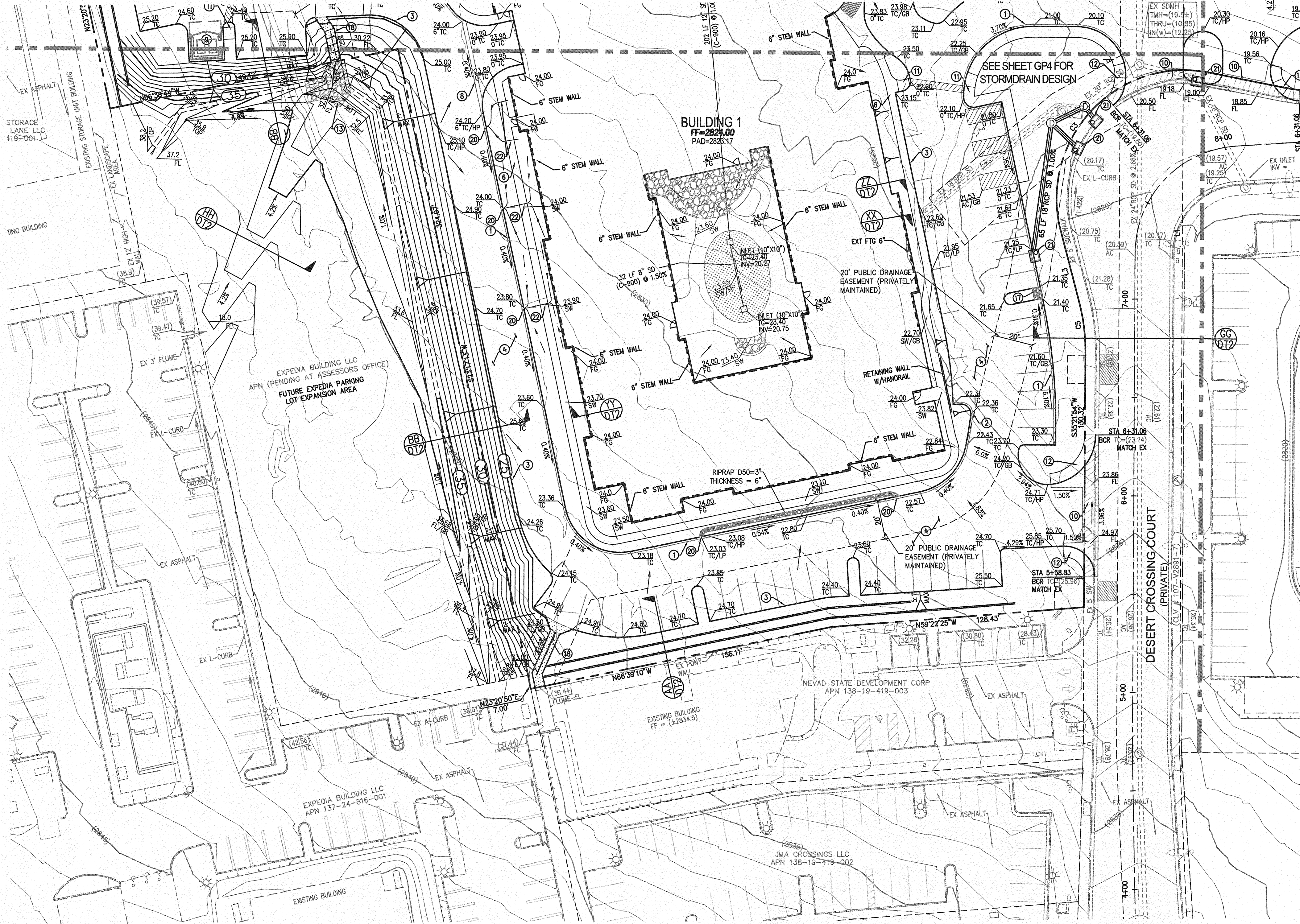
DRAWN BY: DPW
DESIGNED BY: DPW
CHECKED BY: DPW
PROJECT NO: SN15-823

GP1
3 OF 20 SHEETS
DRAWING # XXXX

PLANNAME: C:\DOCUMENTS\1\HAWKITT-1\LOCALS\1\TEMP\GP2.dwg, 7/20/2016 10:18am PLOTTED BY: AWHITAKER, OK, 15/2016 10:20am

MATCHLINE SEE SHEET GP1

MATCHLINE SEE SHEET GP3



- CONSTRUCTION NOTES**
1. CONSTRUCT 18" "L" CURB PER USD NO. 219 (ON-SITE ONLY)
 2. CONSTRUCT SPILL CURB WITH 0" ASPHALT LIP PER DETAIL 10 ON SHEET DT1
 3. CONSTRUCT "A" TYPE 6" CURB PER USD NO. 219
 4. CONSTRUCT AC PAVEMENT PER DETAIL 4 ON SHEET DT1
 5. CONSTRUCT 0" CURB FACE PER DETAIL 9 ON SHEET DT1
 6. CONSTRUCT SIDEWALK (4-INCH THICK) PER USD NO. 234
 7. CONSTRUCT SIDEWALK DRAIN PER USD NO. 236
 8. CONSTRUCT 2" VALLEY GUTTER PER DETAIL 5 ON SHEET DT1
 9. CONSTRUCT TRASH ENCLOSURE PER ARCHITECTURAL PLANS
 10. CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG. NO. 228 WITH GEOMETRICS OF USD NO. 222.1 AND 225
 11. CONSTRUCT PRIVATE SIDEWALK RAMPS PER ADA STANDARDS
 12. CONSTRUCT SIDEWALK RAMPS PER USD NO. 235, (CASE 1)
 13. INSTALL RIP RAP D50 = 12" (24" THICK)
 14. CONSTRUCT RIP RAP U-CHANNEL PER DETAIL 10 ON SHEET DT1
 15. CONSTRUCT 2" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 16. CONSTRUCT 3" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 17. CONSTRUCT 4" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 18. CONSTRUCT 5" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 19. CONSTRUCT 8" U-CHANNEL PER DETAIL 6 ON SHEET DT1
 20. CONSTRUCT 1-FT CURB OPENING PER DETAIL 8 ON SHEET DT1
 21. INSTALL STORMWATER QUALITY MANAGEMENT STAMP PER USD 421
 22. CONSTRUCT NON CURB AREA SIDEWALK UNDERDRAIN PER DETAIL 1 ON SHEET DT1

APPROVED	DATE	BY
REVISION	DATE	BY
REV	DATE	BY

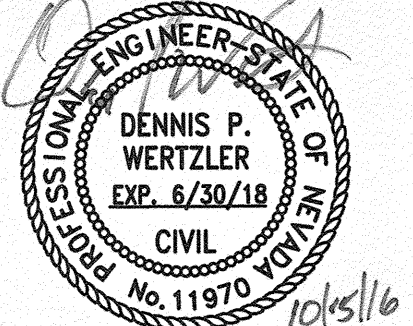
THE CALIDA GROUP
10777 W TWAIN AVE., SUITE 115, LAS VEGAS NV, 89135
TEL: (702) 990-3906 FAX: (702) 925-5506

DRC
DRC Surveying Nevada, Inc.
7080 LA CENEJA ST., STE #200
LAS VEGAS, NEVADA 89119
(702) 270-6119

CROSSINGS CARE CAMPUS

GRADING PLAN 2

DRAWN BY: DPW
DESIGNED BY: DPW
CHECKED BY: DPW
PROJECT NO: SN15-823



SHEET
GP2
4 OF 20 SHEETS
DRAWING #
XXXX

DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.



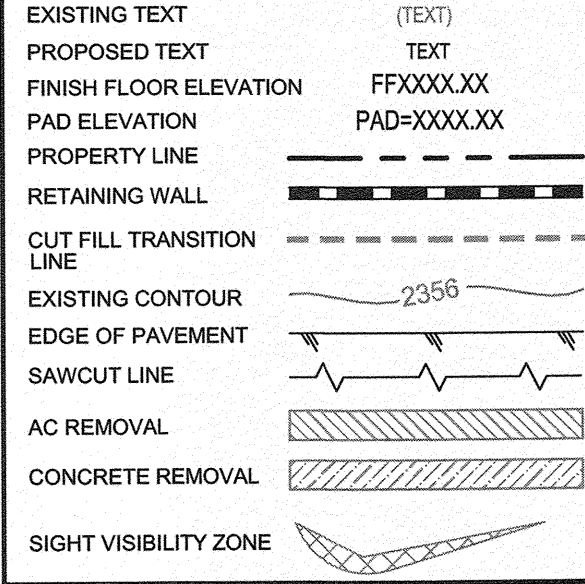
No.	GRADE (%)	"A"(FT)	"B"(FT)	P.T.
1	6 TO -5.01	4.5'	21.5'	
2	-5 TO -4.01	4.5'	15.0'	
3	-4 TO -3.01	4.5'	12.0'	
4	-3 TO -2.01	4.5'	9.5'	
5	-2 TO 2	8.0'	8.0'	
6	2.01 TO 3	9.5'	4.5'	
7	3.01 TO 4	12.0'	4.5'	
8	4.01 TO 5	15.0'	4.5'	
9	5.01 TO 6	21.5'	4.5'	

NOTE:
B TO A = NEGATIVE (-)
A TO B = POSITIVE (+)

SIDEWALK RAMP
PER STD. DWG. NO. 235 - CASE 1

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 WHERE NO CURB EXISTS, A 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.

LEGEND



ABBREVIATIONS

ADI AREA DRAIN INLET
EXT EXTENDED
FG FINISH GRADE
FL FLOW LINE
FTG FOOTING
GB GRADE BREAK
GF GARAGE FLOOR
HP HIGH POINT
LSA LANDSCAPE AREA
SD STORM DRAIN
SW SIDEWALK
TC TOP OF CURB
TF TOP OF FOOTING
TW TOP RETAINING WALL
VG VALLEY GUTTER

NOTE
ALL STORM DRAINS AND ASSOCIATED FACILITIES ARE PRIVATELY MAINTAINED BY THE PROPERTY OWNER

NOTE
ADD 2800 FEET TO ALL TAGS

BENCHMARK
CITY OF LAS VEGAS BENCHMARK NO. 0LV030NW6
RIVET & PLATE IN THE TOP OF CURB NORTHWEST CORNER OF TOWN CENTER DRIVE AND CONVENTON CROSS DRIVE.
ELEVATION = 856.034 METERS (PUBLISHED NAVD 88 DATUM)
ELEVATION = 2808.51 US SURVEY FEET (CALCULATED)

GENERAL NOTES

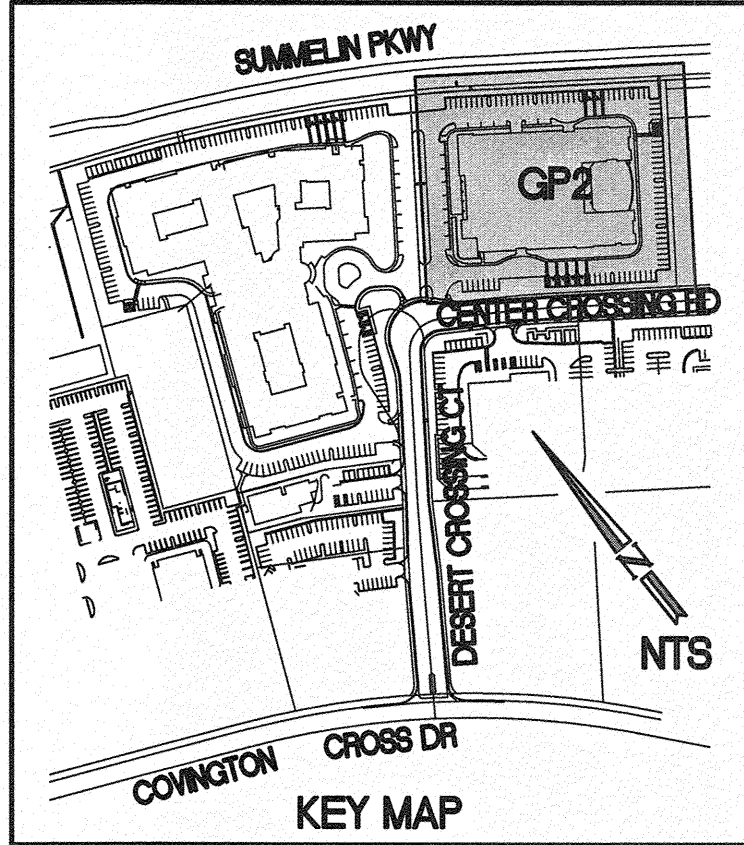
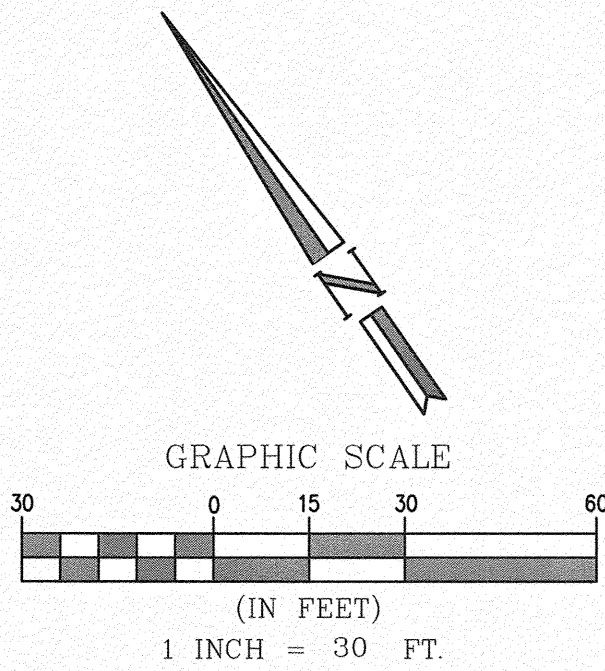
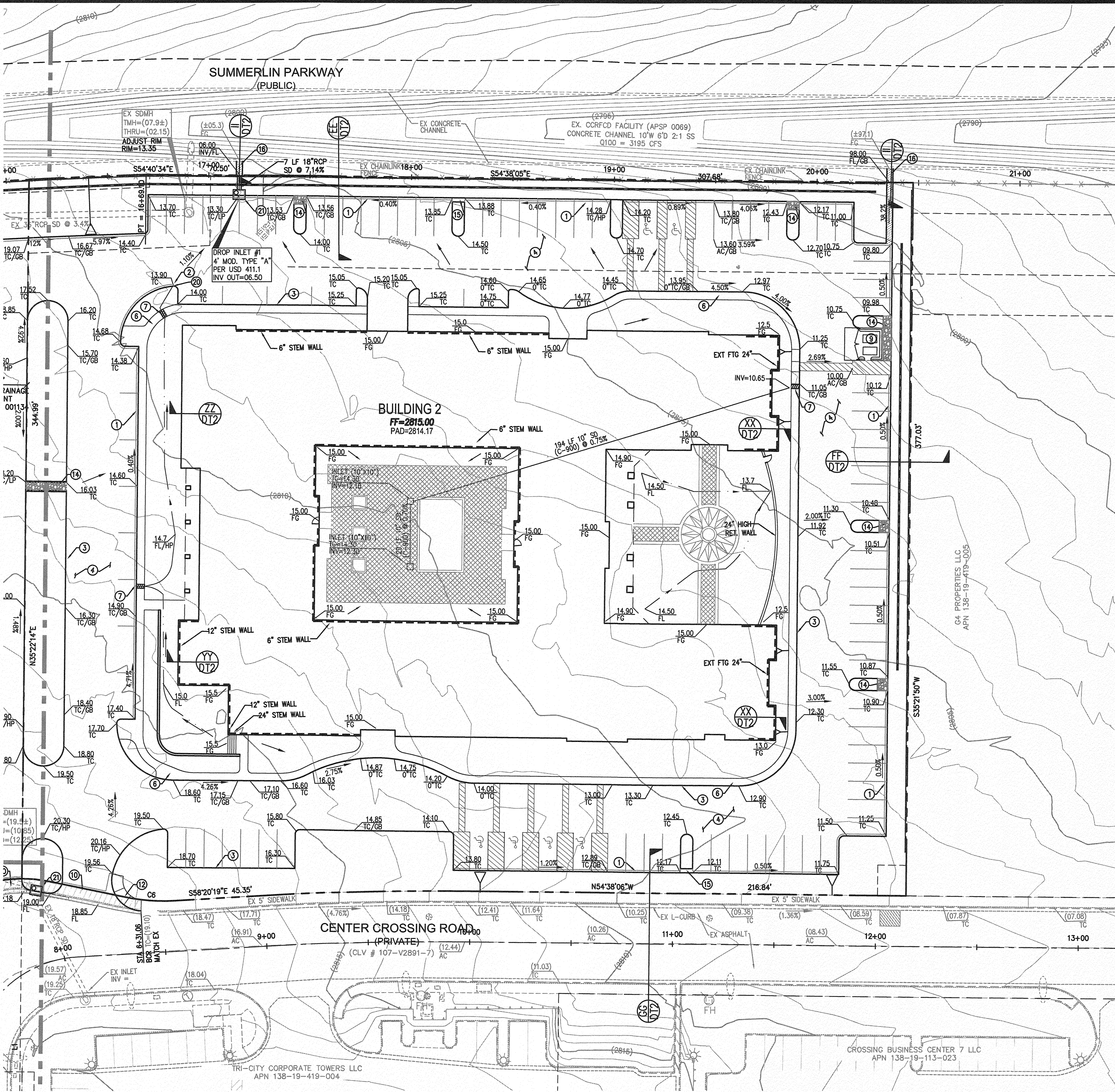
1. SEE SHEET NT FOR ADDITIONAL NOTES, LEGEND AND QUANTITY ESTIMATE.
2. SEE SHEET UP1 FOR UTILITY LOCATIONS.
3. SEE SHEETS DT1 FOR CONSTRUCTION DETAILS.
4. THE CONTRACTOR SHALL VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES AND SURFACE FEATURES PERTINENT TO THIS PROJECT PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE DESIGN ENGINEER IF ANY DISCREPANCIES ARE ENCOUNTERED.
5. CONSTRUCTION SHALL COMPLY WITH SOILS REPORT PROJECT NUMBER: E-15-223
DATED: 01-08-2016
UPDATED: NA

DRAINAGE STUDY NOTE:

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT CITY OF LAS VEGAS FOR THIS PROJECT. (DS4821)
DENNIS P. WERTZLER PE No. 11970 10/5/16 DATE

FILENAME: C:\DOCUME~1\VAH\HTT~1\LOCALS~1\Temp\AcadPlot.dwg, LAST SAVED ON: Oct 15 2016 10:18am PLOTTED BY: AWHITAKER, ON: Oct 15 2016 10:23am

MATCHLINE SEE SHEET GP1



- CONSTRUCTION NOTES**
1. CONSTRUCT 18" "L" CURB PER USD NO. 219 (ON-SITE ONLY)
 2. CONSTRUCT SPILL CURB WITH 0" ASPHALT UP PER DETAIL 10 ON SHEET DT1
 3. CONSTRUCT "A" TYPE 6" CURB PER USD NO. 219
 4. CONSTRUCT AC PAVEMENT PER DETAIL 4 ON SHEET DT1
 5. CONSTRUCT 0" CURB FACE PER DETAIL 9 ON SHEET DT1
 6. CONSTRUCT SIDEWALK (4-INCH THICK) PER USD NO. 234
 7. CONSTRUCT SIDEWALK DRAIN PER USD NO. 236
 8. CONSTRUCT 2" VALLEY GUTTER PER DETAIL 5 ON SHEET DT1
 9. CONSTRUCT TRASH ENCLOSURE PER ARCHITECTURAL PLANS
 10. CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG. NO. 228 WITH GEOMETRICS OF USD NO. 222.1 AND 225
 11. CONSTRUCT PRIVATE SIDEWALK RAMP PER ADA STANDARDS
 12. CONSTRUCT SIDEWALK RAMP PER USD NO. 235. (CASE 1)
 13. INSTALL RIP RMP 050 = 12" (24" THICK)
 14. CONSTRUCT RIP RAP U-CHANNEL PER DETAIL 10 ON SHEET DT1
 15. CONSTRUCT 2" U CHANNEL PER DETAIL 6 ON SHEET DT1
 16. CONSTRUCT 3" U CHANNEL PER DETAIL 6 ON SHEET DT1
 17. CONSTRUCT 4" U CHANNEL PER DETAIL 6 ON SHEET DT1
 18. CONSTRUCT 5" U CHANNEL PER DETAIL 6 ON SHEET DT1
 19. CONSTRUCT 8" U CHANNEL PER DETAIL 6 ON SHEET DT1
 20. CONSTRUCT 1-FT CURB OPENING PER DETAIL 8 ON SHEET DT1
 21. INSTALL STORMWATER QUALITY MANAGEMENT STAMP PER USD 421
 22. CONSTRUCT NON CURB AREA SIDEWALK UNDERDRAIN PER DETAIL 1 ON SHEET DT1

DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

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 CUT
1-702-227-2929

FAST
Call before you UnderGround
1-702-432-5300
BEFORE ANY SURFACE SYSTEM OF TRANSPORTATION

No.	GRADE (%)	"A"(FT)	"B"(FT)
1	-5 TO -5.01	4.5'	21.6'
2	-5 TO -4.01	4.5'	15.0'
3	-4 TO -3.01	4.5'	12.0'
4	-3 TO -2.01	4.5'	9.5'
5	-2 TO 2	8.0'	8.0'
6	2.01 TO 3	9.5'	4.5'
7	3.01 TO 4	12.0'	4.5'
8	4.01 TO 5	15.0'	4.5'
9	5.01 TO 6	21.5'	4.5'

SIDEWALK RAMP
PER STD. DWG. NO. 235 - CASE 1

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 WHERE NO CURB EXISTS, A 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.

LEGEND

EXISTING TEXT (TEXT)
PROPOSED TEXT TEXT
FINISH FLOOR ELEVATION FFXXXX.XX
PAD ELEVATION PAD=XXXX.XX
PROPERTY LINE
RETAINING WALL
CUT FILL TRANSITION LINE
EXISTING CONTOUR
EDGE OF PAVEMENT
SAWCUT LINE
AC REMOVAL
CONCRETE REMOVAL
SIGHT VISIBILITY ZONE

ABBREVIATIONS

ADI AREA DRAIN INLET
EXT EXTENDED
FG FINISH GRADE
FL FLOW LINE
FTG FOOTING
GB GRADE BREAK
GF GARAGE FLOOR
HP HIGH POINT
LSA LANDSCAPE AREA
SD STORM DRAIN
SW SIDEWALK
TC TOP OF CURB
TF TOP OF FOOTING
TW TOP RETAINING WALL
VG VALLEY GUTTER

NOTE

ALL STORM DRAINS AND ASSOCIATED FACILITIES ARE PRIVATELY MAINTAINED BY THE PROPERTY OWNER

NOTE

ADD 2800 FEET TO ALL TAGS

BENCHMARK

CITY OF LAS VEGAS BENCHMARK NO. 0LV0030NW6
RIVET & PLATE IN THE TOP OF CURB NORTHWEST CORNER OF TOWN CENTER DRIVE AND COVINGTON CROSS DRIVE.
ELEVATION = 856.034 METERS (PUBLISHED NAVD 88 DATUM)
ELEVATION = 2808.51 US SURVEY FEET (CALCULATED)

GENERAL NOTES

1. SEE SHEET NT FOR ADDITIONAL NOTES, LEGEND AND QUANTITY ESTIMATE.
2. SEE SHEET DT1 FOR UTILITY LOCATIONS.
3. SEE SHEETS DT1 FOR CONSTRUCTION DETAILS.
4. THE CONTRACTOR SHALL VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES AND SURFACE FEATURES PERTINENT TO THIS PROJECT PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE DESIGN ENGINEER IF ANY DISCREPANCIES ARE ENCOUNTERED.
5. CONSTRUCTION SHALL COMPLY WITH SOILS REPORT PROJECT NUMBER: E-16-223
PREPARED BY: NOVA GEOTECHNICAL
DATED: 01-08-2016
UPDATED: N/A

DRAINAGE STUDY NOTE:

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT CITY OF LAS VEGAS FOR THIS PROJECT.
(S54524)

DENNIS P. WERTZLER PE NO. 11970
DATE 10/5/16

THE CALIDA GROUP

10777 W TWAIN AVE., SUITE 115, LAS VEGAS NV, 89135
TEL: (702) 990-3906 FAX: (702) 925-5506

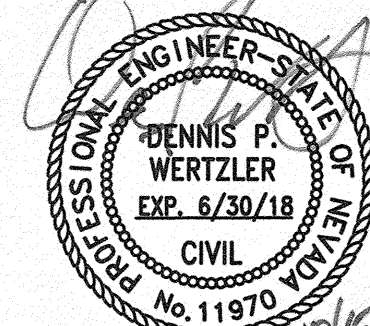


DRC Surveying Nevada, Inc.
7080 LA BIENEGA ST., STE #200
LAS VEGAS, NEVADA 89119
(702) 270-6119

CROSSINGS CARE CAMPUS

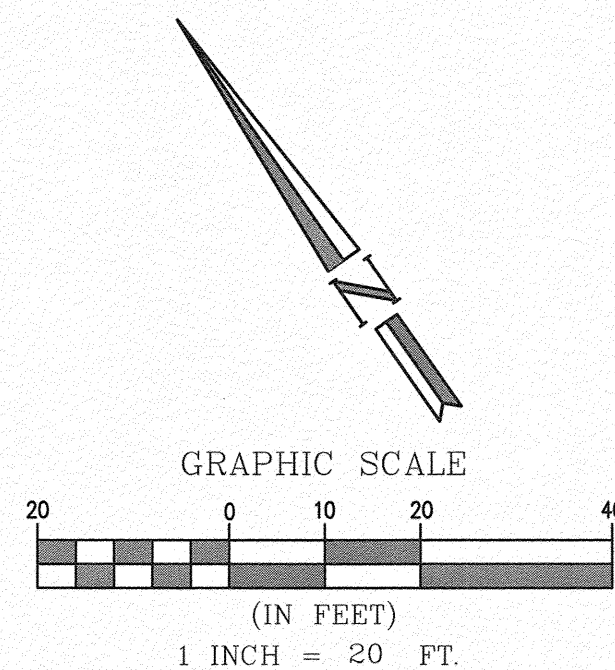
GRADING PLAN 3

DRAWN BY: DPW
DESIGNED BY: DPW
CHECKED BY: DPW
PROJECT NO: SN15-823



SHEET
GP3

5 OF 20 SHEETS
DRAWING #
XXXX

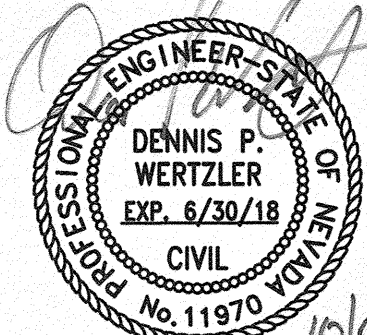
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10777 W TWAIN AVE., SUITE 115, LAS VEGAS NV, 89135
TEL: (702) 990-3906 FAX: (702) 925-5506

DRC  **DRC Surveying Nevada, Inc.**
7080 LA CIENEGA ST., STE #200
LAS VEGAS, NEVADA 89119
(702) 270-6119

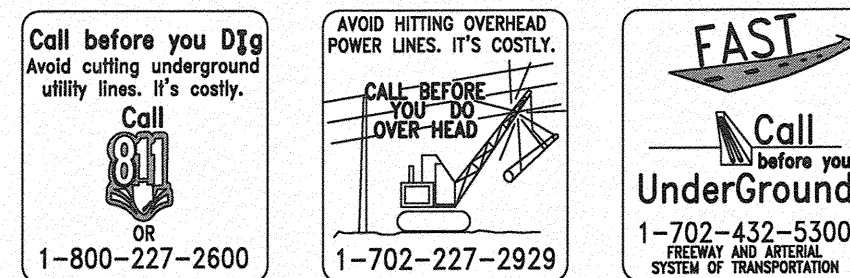
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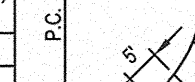
DRAWN BY: DPW
DESIGNED BY: DPW
CHECKED BY: DPW
PROJECT NO: SN15-823



SHEET
GP4
6 OF 20 SHEETS
DRAWING #
XXXX

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.



No.	GRADE (%) "B" TO "A"	"A"(FT) MIN.	"B"(FT) MIN.	
1	-6 TO -5.01	4.5	21.5	
2	-5 TO -4.01	4.5	15.0	
3	-4 TO -3.01	4.5	12.0	
4	-3 TO -2.01	4.5	9.5	
5	-2 TO 2	8.0	8.0	
6	2.01 TO 3	9.5	4.5	
7	3.01 TO 4	12.0	4.5	
8	4.01 TO 5	15.0	4.5	
9	5.01 TO 6	21.5	4.5	

RAMP IN CURB RETURN

NOTE:
 B TO A = NEGATIVE (-)
 A TO B = POSITIVE (+)

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 WHERE NO CURB EXISTS, A 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.

EXISTING TEXT
PROPOSED TEXT
FINISH FLOOR ELEVATION
PAD ELEVATION
PROPERTY LINE
RETAINING WALL
CUT FILL TRANSITION LINE
EXISTING CONTOUR
EDGE OF PAVEMENT
SAWCUT LINE
AC REMOVAL
CONCRETE REMOVAL
SIGHT VISIBILITY ZONE

(TEXT)
TEXT
FFXXXXXX
PAD=XXXXXX

2356

ABBREVIATIONS

ADI	AREA DRAIN INLET
EXT	EXTENDED
FG	FINISH GRADE
FL	FLOW LINE
FTG	FOOTING
GB	GRADE BREAK
GF	GARAGE FLOOR
HP	HIGH POINT
LSA	LANDSCAPE AREA
SD	STORM DRAIN
SW	SIDEWALK
TC	TOP OF CURB
TF	TOP OF FOOTING
TW	TOP RETAINING WALL
VG	VALLEY GUTTER

ALL STORM DRAINS AND ASSOCIATED FACILITIES ARE PRIVATELY MAINTAINED BY THE PROPERTY OWNER

ADD 2800 FEET TO ALL TAGS

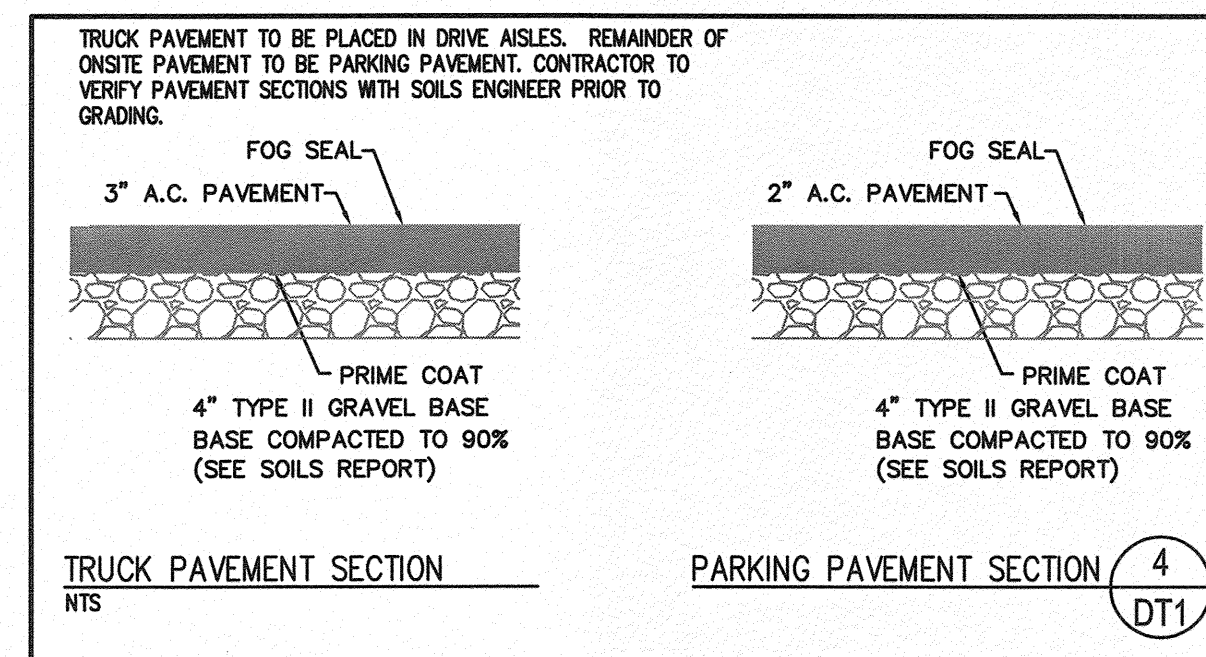
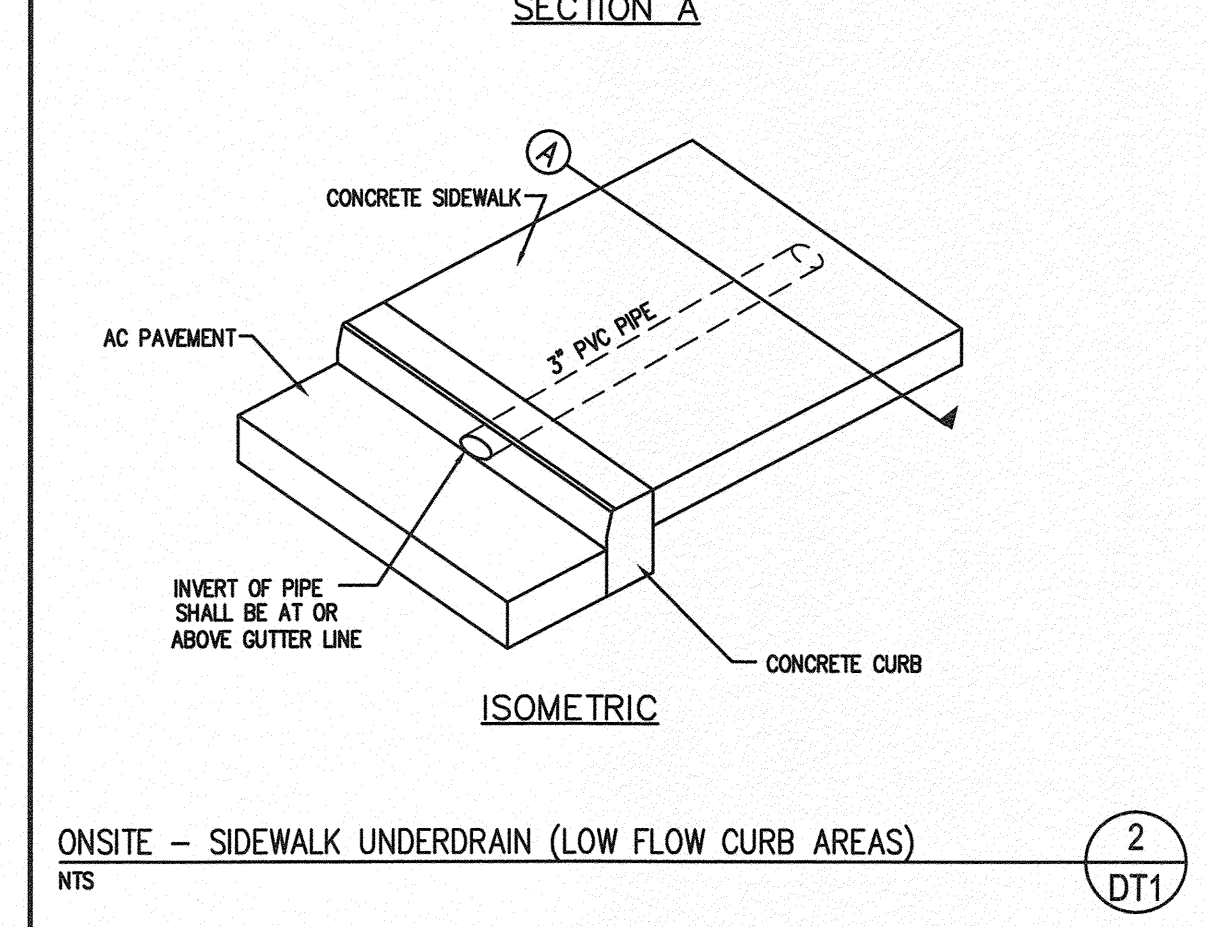
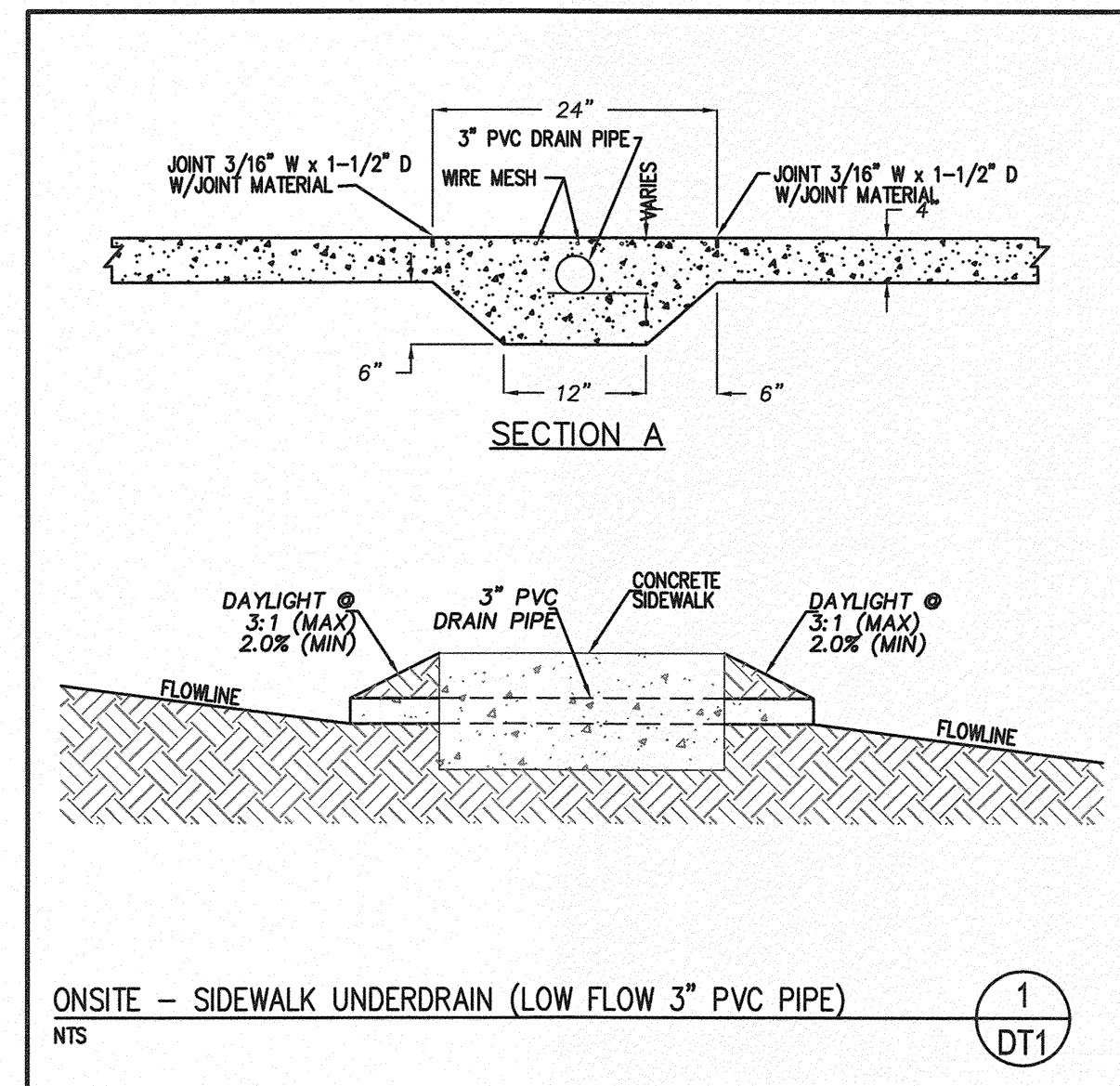
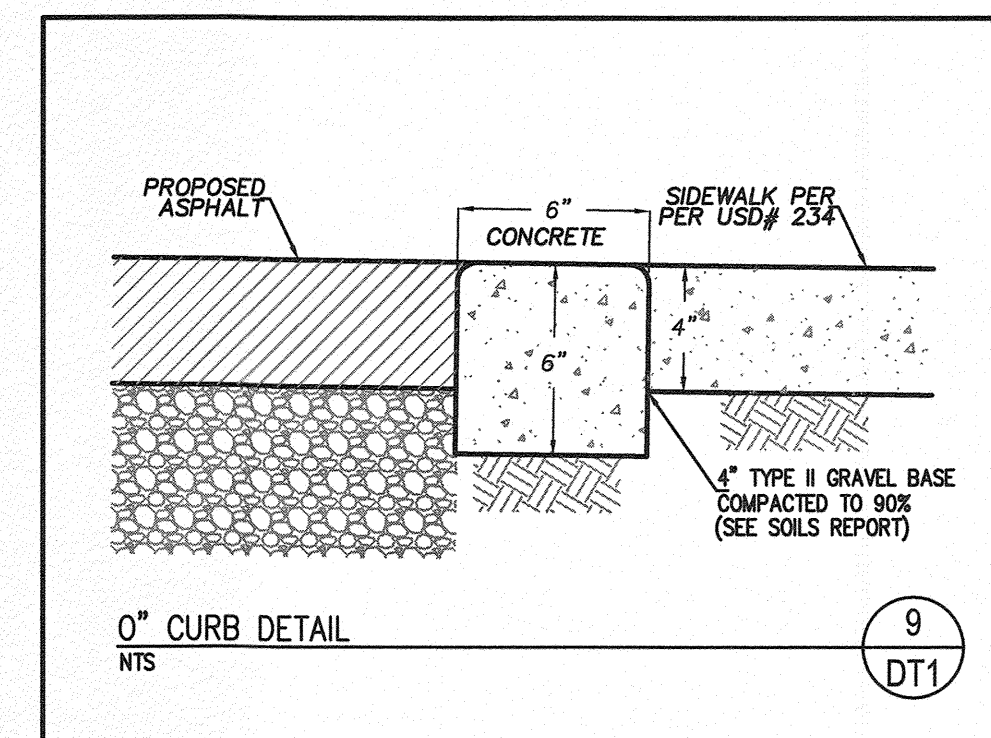
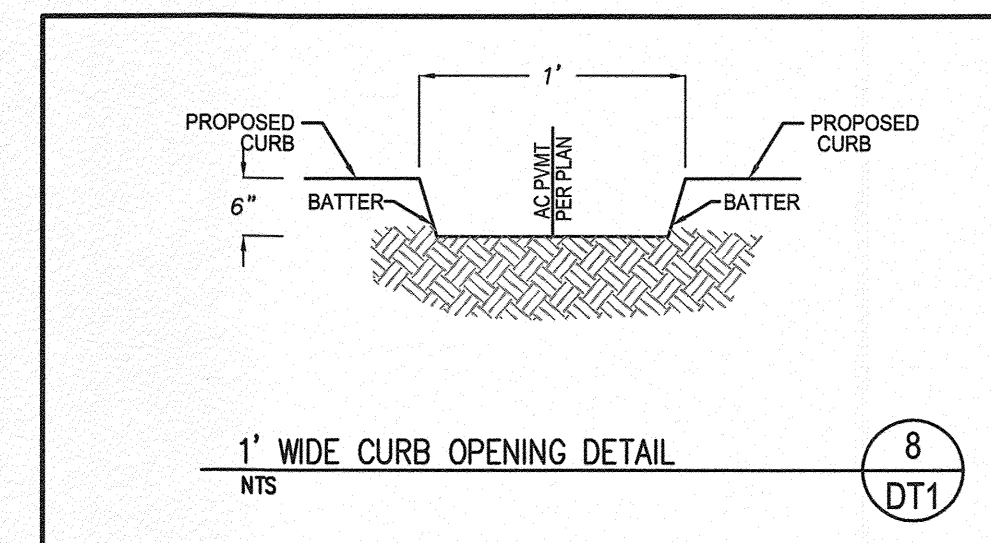
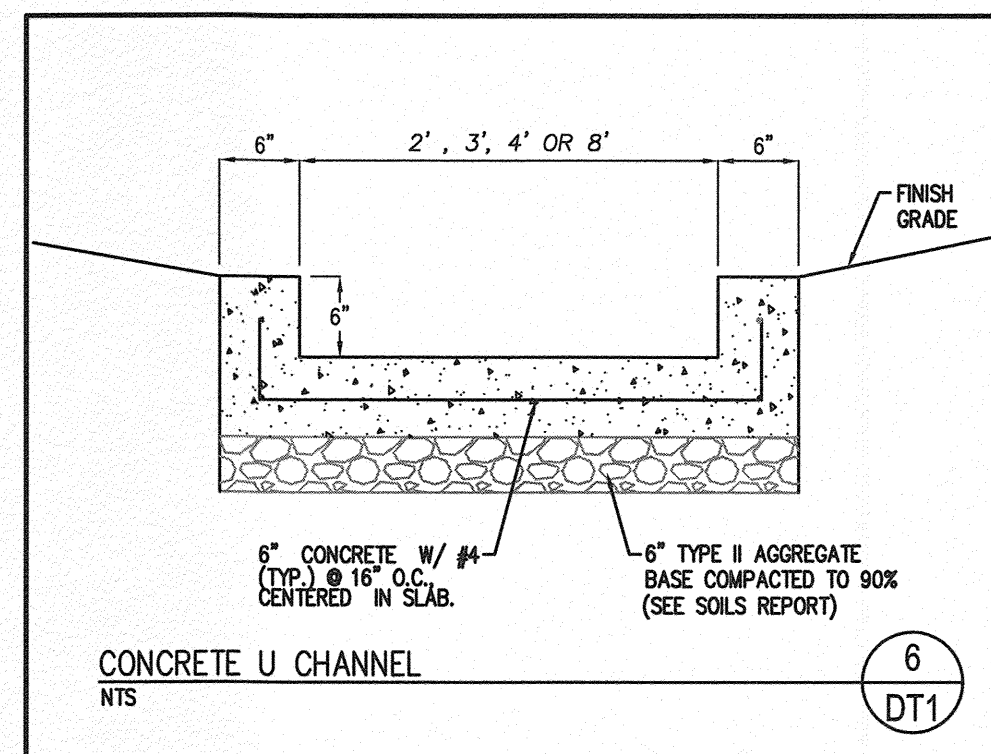
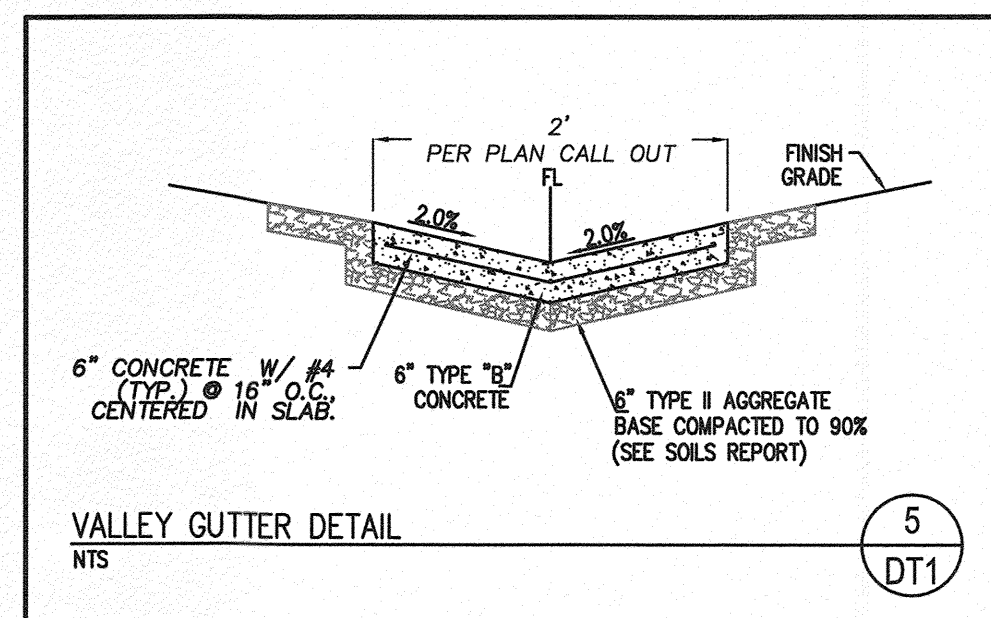
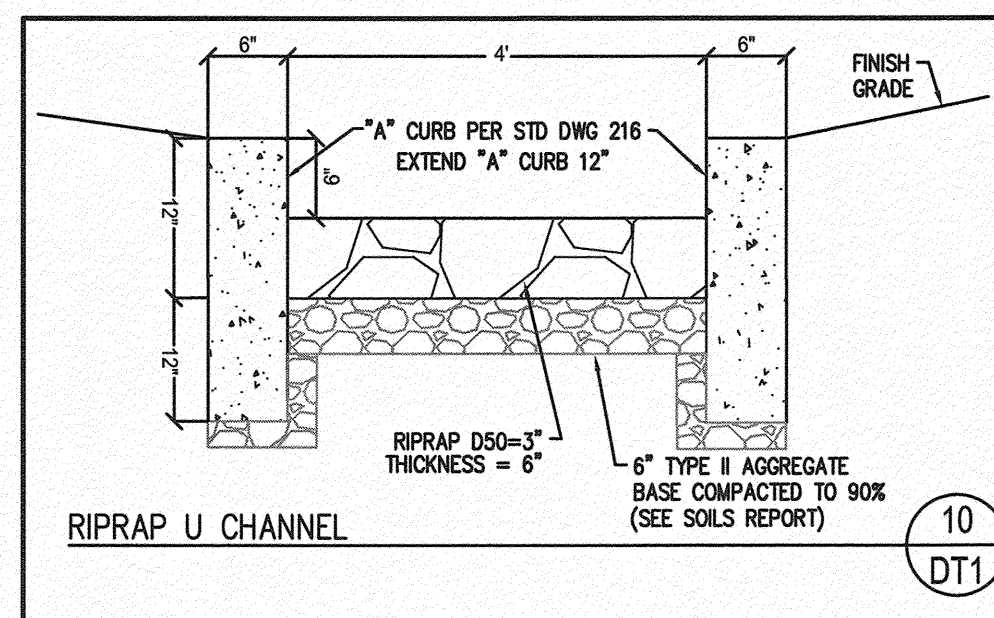
BENCHMARK
CITY OF LAS VEGAS BENCHMARK NO. 0LV0030NW6
RIVET & PLATE IN THE TOP OF CURB NORTHWEST CORNER
CENTER DRIVE AND COVINGTON CROSS DRIVE.
ELEVATION = 856.034 METERS (PUBLISHED NAVD 88 DATUM)
ELEVATION = 2808.51 US SURVEY FEET (CALCULATED)

1. SEE SHEET NT FOR ADDITIONAL NOTES, LEGEND AND QUANTITY ESTIMATE.
2. SEE SHEET UP1 FOR UTILITY LOCATIONS.
3. SEE SHEETS DT1 FOR CONSTRUCTION DETAILS.
4. THE CONTRACTOR SHALL VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES AND SURFACE FEATURES PERTINENT TO THIS PROJECT PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST NOTIFY THE DESIGN ENGINEER IF ANY DISCREPANCIES ARE ENCOUNTERED.
5. CONSTRUCTION SHALL COMPLY WITH SOILS REPORT PROJECT NUMBER: E-15-223
PREPARED BY: NOVA GEOTECHNICAL
DATED: 01-08-2016
UPDATED: N/A

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT CITY OF LAS VEGAS FOR THIS PROJECT. (DS4821)



 10/15/16
 DENNIS P WERTZLER PE NO. 11970 DATE

[illegible]

