

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

December 3, 2019

David Coley, P.E.
SDB, Inc.
4951 Airport Parkway, Suite 800
Addison, TX 75001

**RE: Encompass Health
7000 Jefferson NE
Grading Plan Stamp Date: 10/17/19
Hydrology File: D17D061A**

Dear Mr. Coley:

Based on the submittal received on 12/2/19, this project is approved for Building Permit.

PO Box 1293

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Albuquerque

Sincerely,

NM 87103

A handwritten signature in black ink, appearing to read "D. Peterson", is written over a light blue horizontal line.

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

www.cabq.gov



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Encompass Health Building Permit #: BP-2019-36690 Hydrology File #: 0170061A
DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: _____
City Address: 7000 Jefferson NE

Applicant: SDB, Inc. Contact: Ron Blackwell
Address: 4951 Airport Parkway, Suite 800 Addison, TX 75001
Phone#: 214-770-9949 Fax#: 480-967-5841 E-mail: Ron.Blackwell@SDB.com

Other Contact: LBYD, Inc. Contact: Landon Boggs
Address: 880 Montclair Road, Stte 600 Birmingham, AL 35213
Phone#: 205-488-4630 Fax#: _____ E-mail: lboggs@lbyd.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE ADMIN SITE

IS THIS A RESUBMITTAL? Yes _____ No

DEPARTMENT _____ TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ENGINEER/ARCHITECT CERTIFICATION
- PAD CERTIFICATION
- CONCEPTUAL G & D PLAN
- GRADING PLAN
- DRAINAGE REPORT
- DRAINAGE MASTER PLAN
- FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ELEVATION CERTIFICATE
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- TRAFFIC IMPACT STUDY (TIS)
- STREET LIGHT LAYOUT
- OTHER (SPECIFY) _____
- PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- BUILDING PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY
- PRELIMINARY PLAT APPROVAL
- SITE PLAN FOR SUB'D APPROVAL
- SITE PLAN FOR BLDG. PERMIT APPROVAL
- FINAL PLAT APPROVAL
- SIA/ RELEASE OF FINANCIAL GUARANTEE
- FOUNDATION PERMIT APPROVAL
- GRADING PERMIT APPROVAL
- SO-19 APPROVAL
- PAVING PERMIT APPROVAL
- GRADING/ PAD CERTIFICATION
- WORK ORDER APPROVAL
- CLOMR/LOMR
- FLOODPLAIN DEVELOPMENT PERMIT
- OTHER (SPECIFY) _____

DATE SUBMITTED: 11-20-19 By: Ron Blackwell

COA STAFF: _____

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: N/A (\$0.00)



11/18/2019

VIA UPS

**City of Albuquerque Planning Department
600 2nd. Street NW
Albuquerque, NM 87102
Attn: Hydrology Section - DRS**

NM 87103 2. Provide a resubmittal (mailed to: City of Albuquerque Planning Department, Attn: Hydrology Section- DRS, 600 2nd St NW, Albuquerque, NM 87102) including: a new DTIS form, the treasury deposit slip, and check for the Payment in Lieu amount. There is no resubmittal fee for his activity; please include a copy of this letter when resubmitting in order to receive the reduced fee.

www.cabq.gov

Sincerely,

SDB, Inc.

Ron Blackwell
Project Manager

1001 S. Edward Drive
Tempe, AZ 85281
480-967-5810 Tel
480-967-5841 Fax



TREASURY DIVISION DAILY DEPOSIT

Transmittals for:
PROJECTS Only

Payment In-Lieu for Storm Water Quality
Volume Requirement

Table with 8 columns: CASH COUNT, AMOUNT, ACCOUNT NUMBER, FUND NUMBER, BUSINESS UNIT, PROJECT ID, ACTIVITY ID, AMOUNT. Includes rows for TOTAL CHECKS and TOTAL AMOUNT.

Hydrology#: D17D061A Name: 7000 Jefferson NE, 24,634 sf imp.
Payment In-Lieu For Storm Water Quality
Volume Requirement

Address/Legal Description: 7000 Jefferson NE
TR 4A, INTERSTATE INDUSTRIAL TRACT UNIT 5

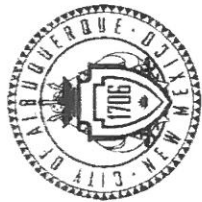
DEPARTMENT NAME: Planning Department/Development Review Services, Hydrology

PREPARED BY Dana Peterson PHONE 924-3695

BUSINESS DATE 11/13/19

DUAL VERIFICATION OF DEPOSIT [Signature]

DUPLICATE



Date: 12/2/2019
Office: ANNEX
Batch: 10887
Casher: e43322
Tran #: 2

Journal 24 (Misc)
Receipt #00611533
Account#:
J-24 Deposit

Date: 12/2/2019 Office: ANNEX
Station ID Cashier: e43322
Batch: 10887 Trans: 2
Fund: 305 Activity ID7547210
Account: 461615 Project ID24_MS4
Dept ID: Bus.Unit: PCDDM
Alloc Amt: \$4,272.00
Trans Amt: \$4,272.00

Payment Total: \$4,272.00
Transaction Total: \$4,272.00
Check Tendered: \$4,272.00



Thank you for your payment.
Have a nice day!

DUPLICATE

City of Albuquerque Treasury
J-24 Deposit

Date: 12/2/2019 Office: ANNEX
Station ID Cashier: e43322
Batch: 10887 Trans: 2
Fund: 305 Activity ID7547210
Account: 461615 Project ID24_MS4
Dept ID: Bus.Unit: PCDMD
Alloc Amt: \$4,272.00
Trans Amt: \$4,272.00
Check Tendered : \$4,272.00

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

November 13, 2019

David Coley, P.E.
SDB, Inc.
4951 Airport Parkway, Suite 800
Addison, TX 75001

RE: **Encompass Health**
7000 Jefferson NE
Grading Plan Stamp Date: 10/17/19
Hydrology File: D17D061A

Dear Mr. Coley:

Based on the submittal received on 11/7/19, this project cannot be approved until the following corrections are made:

PO Box 1293

Prior to Building Permit:

Albuquerque

1. Payment in Lieu (Amount = $534CF \times \$8/CF = \4272 , per sheet C3.0) of onsite management of the SWQV must be made.
2. Provide a resubmittal (mailed to: City of Albuquerque Planning Department, Attn: Hydrology Section- DRS, 600 2nd St NW, Albuquerque, NM 87102) including: a new DTIS form, the treasury deposit slip, and check for the Payment in Lieu amount. There is no resubmittal fee for his activity; please include a copy of this letter when resubmitting in order to receive the reduced fee.

NM 87103

www.cabq.gov

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

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Phone#: 214-770-9949 Fax#: 480-967-5841 E-mail: Ron.Blackwell@SDB.com

Other Contact: LBYD, Inc. Contact: Landon Boggs
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TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE ADMIN SITE

IS THIS A RESUBMITTAL? Yes _____ No

DEPARTMENT _____ TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that Apply:

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- WORK ORDER APPROVAL
- CLOMR/LOMR
- FLOODPLAIN DEVELOPMENT PERMIT
- OTHER (SPECIFY) _____

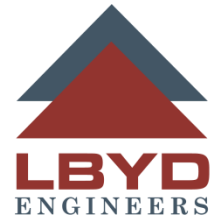
DATE SUBMITTED: 11-04-19 By: Ron Blackwell

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____ (\$310.00)

LBYD, Inc.
Civil and Structural Engineers
880 Montclair Road, Suite 600
Birmingham, AL 35213
(205) 251-4500



10/19/2019

Planning Department
Development Review Services
600 2nd St. NW
Albuquerque, NM 87102

Attention: Dana Peterson, P.E.

Reference: Encompass Health
7000 Jefferson NE
Grading Plan Stamp Date: 5/23/19
Hydrology File: D17D061A

LBYD # 102-18-004

Dear: Mr. Peterson,

We received your comments via email on Thursday, the 10th of October and submit the following updates for your review and approval:

1. Include project benchmark and datum,; all existing survey, proposed grades, and benchmarks must be provided in NAVD 88
Response: The survey has been added to the submittal which indicates benchmarks and datum provided in NAVD 88.
2. A digital (.pdf) submittal, emailed to PLNDRS@cabq.gov is required.
Response: A digital submittal will be provided.
3. Please provide the FIRM Map and floodplain note with effective date.
Response: The FIRM Map and floodplain note with effective date has been added to the plan set on Sheet C3.0.
4. Please provide the legal description of the property.
Response: The legal description of the property has been added to the plan set on Sheet C3.0.
5. Please provide a vicinity map showing the location of the site. Typically this is the Zone Atlas. It can be downloaded in pdf format from the City of Albuquerque's website.
Response: The survey has been added to the submittal which includes the vicinity map. The Zone Atlas Grid number has also been added to the plan set on Sheet C3.0.
6. For information. Hydrology and Transportation files are available online through the City's GIS Viewer 2.0: <https://www.cabq.gov/gis/advanced-map-viewer>. Turn on the HydroTrans layer: *Operational Layers > Albuquerque Layers > Sites > HydroTrans*. Select the desired polygon from the map and click *Link to Project Documents*.
Response: Noted.
7. Provide management onsite for the Stormwater Quality Volume (SWQV) in accordance with the new drainage ordinance, § 14-5-2-6 (H) enacted 10/2/18 (Council Bill C/S O-18-2). To calculate the required volume to be captured, multiply the redeveloped impervious area (SF) by 0.26 inches for the 80th percentile storm.

Response: Stormwater volume to be treated determined by multiplying the redeveloped impervious area (24,634 SF as shown in the exhibit on the plans). The total volume to be treated is calculated as 534 CF.

8. Runoff from the redeveloped impervious areas needs to be routed into the stormwater quality (SWQ) ponds. Please provide the SWQ volume calculations for each basin draining to each pond.

Response: N/A. Payment-in-Lieu of treatment option is being pursued. The required treatment volume is 534 CF as shown in the Water Quality Calculations on Sheet C3.0.

9. You may also elect to make Payment-in-Lieu of onsite management for the bypass volume. In order to pursue this, the plan must state that: you could provide onsite management, you do not want to (due to cost or convenience), and you are electing to make the Payment in lieu of onsite management. The bypass volume must be quantified; a treasury deposit slip can then be generated for the bypass amount at a rate of \$8/CF.

Response: Payment-in-Lieu option will be pursued. The total amount is determined to be \$4,272 ($\8×534 CF)

10. The site must demonstrate adequate downstream capacity per § 14-5-2-12 (G) of the Albuquerque Code of Ordinances. If downstream capacity cannot be shown, then the development will be required to retain all increased runoff.

Response: Calculations have been provided on the plans showing the increase in runoff volume and peak discharge is negligible.

11. Provide hydrologic calculations per the DPM, Ch. 22.2.A for the 100-yr storm. Also, a brief narrative describing the project and existing/proposed grading and drainage is recommended (DPM Ch 22.7: *Grading Plan Checklist*).

Response: Redeveloped drainage patterns are unchanged and match existing drainage patterns. Redeveloped runoff rate and volume essentially match existing runoff rate & volume with negligible (less than 0.01% runoff volume increase and 0.26% runoff rate increase). So there is no adverse impact downstream and no change from this redevelopment to the downstream system. Hydraulic calculations have been provided for the 100-yr storm. A narrative describing the project has also been added to the plan.

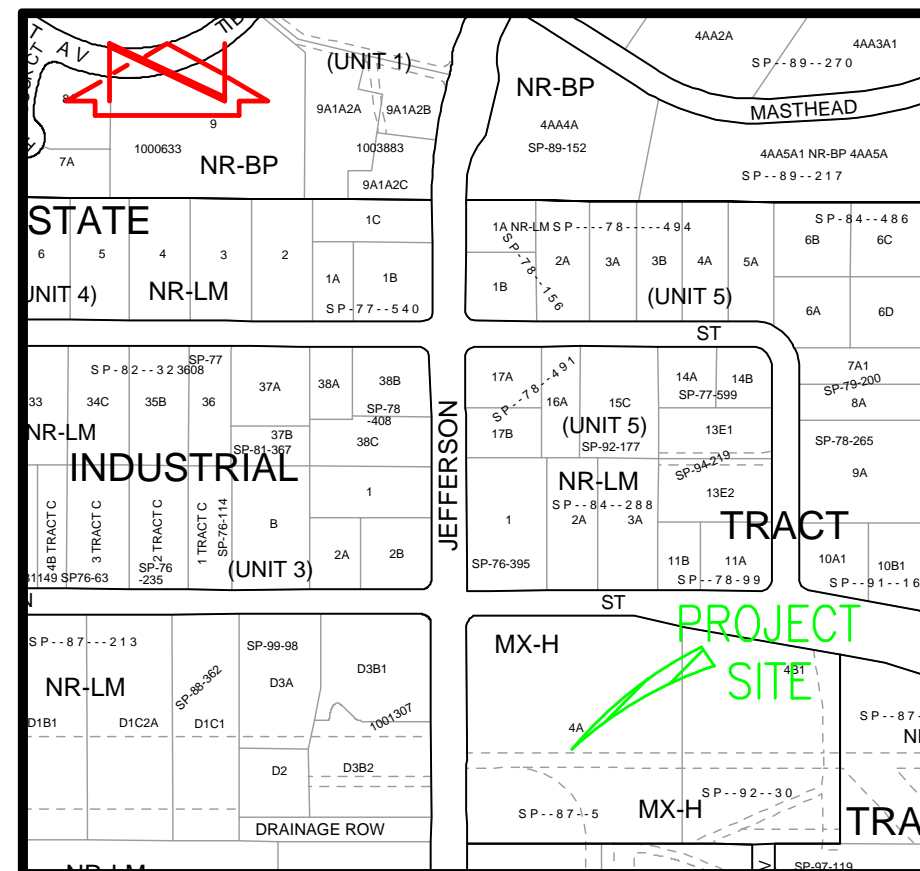
12. Provide hydraulic calculations as needed, per the DPM, Ch 22.3 for the 100-yr storm. Hydraulic calculations are required on any curb openings, weirs, swales, new storm drain, ponds, etc.

Response: A landscaping inlet was added and hydraulic calculations have been provided for the 100-yr storm on Sheet C3.1.

Sincerely,



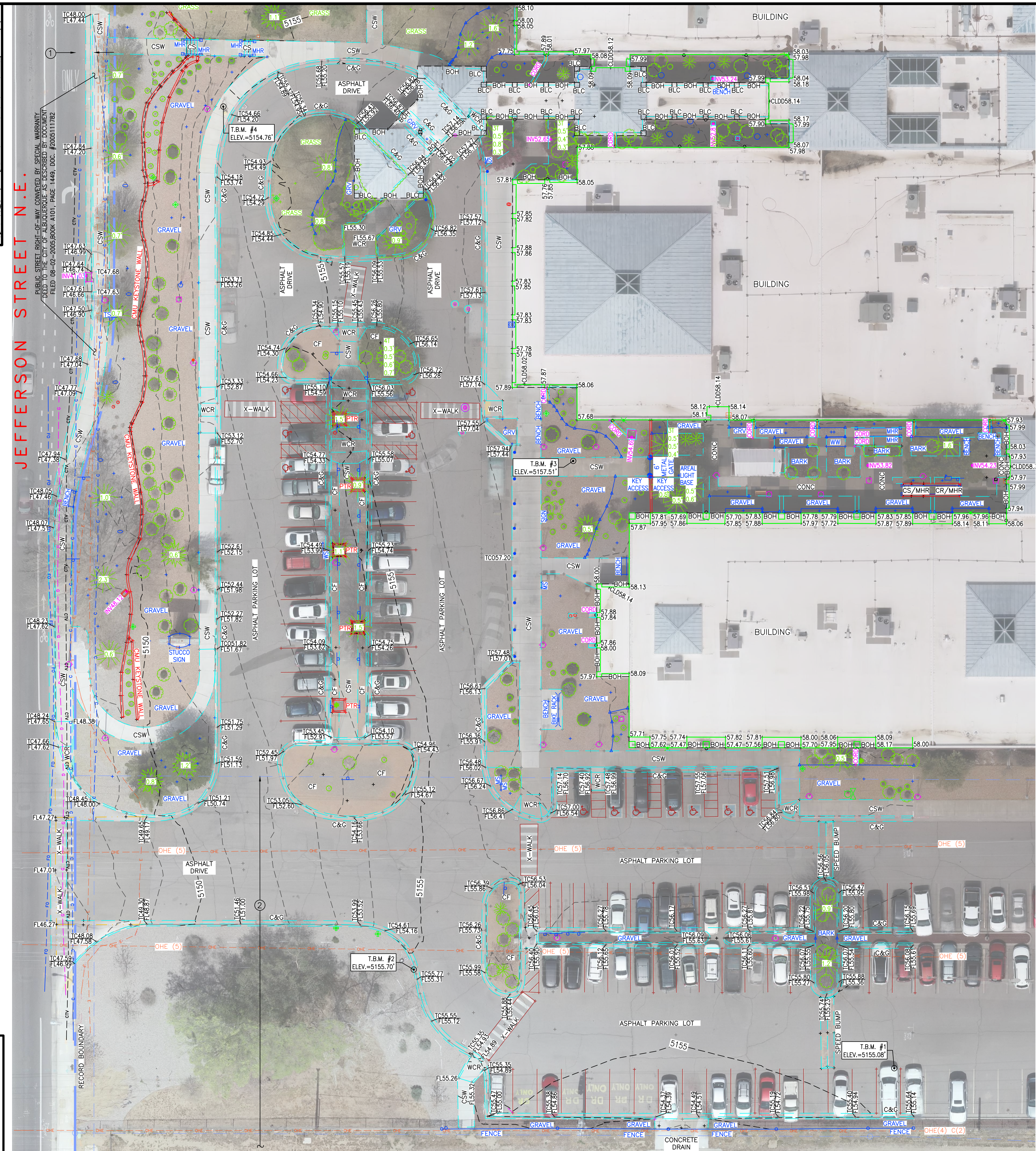
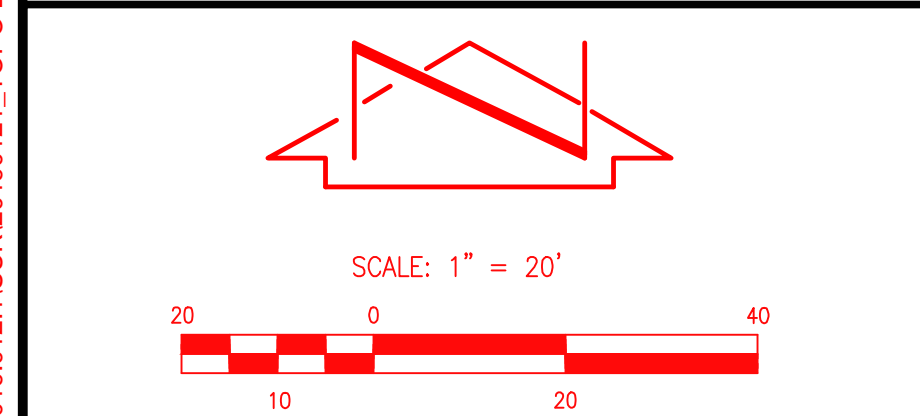
David Coley, P.E.
Senior Principal



VICINITY MAP
NOT TO SCALE

LEGEND

- 1.2" DIAMETER OF TREE
- DECIDUOUS TREE
- SMALL DECIDUOUS TREE
- CONIFEROUS TREE
- SMALL CONIFEROUS TREE
- GROUP OF TREES
- SHRUB
- SMALL SHRUB
- YUCCA
- TREE STUMP
- LANDSCAPE ROCK/BOULDER
- GUARD POST
- LANDSCAPE DIVIDER
- SIGN (TYPICAL)
- ELECTRIC JUNCTION BOX
- IRRIGATION VALVE BOX
- METAL/WOOD LIGHT POLE
- SANITARY SEWER CLEAN OUT
- STORM DRAIN CLEAN OUT
- ELECTRIC OUTLET
- AREA LIGHT
- WATER FAUCET
- CLAY POT
- ROOF DRAIN
- FIRE HYDRANT
- WATER VALVE BOX
- MAIL BOX
- SECURITY CAMERA
- FLAG POLE
- BOLLARD/STEEL POLE
- ELECTRIC CONDUIT
- STORM DRAIN INLET
- AUTOMATIC DOOR OPENER
- C&G CURB AND GUTTER
- CONC CONCRETE
- CORD CONCRETE RUNDOWN
- CR/MHR CONCRETE RAMP WITH METAL HANDRAIL
- CS CONCRETE STEPS
- CS/MHR CONCRETE STEPS WITH METAL HANDRAIL
- CSW CONCRETE SIDEWALK
- GRV GRAVEL
- MHR METAL HANDRAIL
- MS METAL SIGN
- PB PARK BENCH (TYPICAL)
- PTR PLANTER
- TS TRAFFIC SIGN
- WCR WHEELCHAIR RAMP
- WW WOOD WALK
- X-WALK PAINTED CROSSWALK
- 1.5" DIAMETER OF TREE



GENERAL NOTES

- A TOPOGRAPHIC AND UTILITY SURVEY WAS PERFORMED IN APRIL, 2019. THIS IS NOT A BOUNDARY SURVEY OR A RIGHT-OF-WAY SURVEY. APPARENT PROPERTY CORNERS, RIGHT-OF-WAY LINES, OR PROPERTY LINES AS SHOWN ARE DERIVED FROM RECORD SURVEY PLATS, RIGHT-OF-WAY MAPS, OR DEEDS REFERENCED HEREON AND ARE NOT GUARANTEED OR TO BE RELIED ON FOR THE ESTABLISHMENT OF PROPERTY LINES. BOUNDARY INFORMATION SHOWN IS FOR INFORMATION ONLY AND IS BASED UPON THE SURVEY EFFORT PREPARED BY THIS FIRM AND SIGNED OCTOBER 7, 2008. UPDATED EASEMENT INFORMATION WAS NOT AVAILABLE FROM OWNER TO SUPPORT THIS SURVEY.
- ALL DISTANCES ARE GROUND DISTANCES.
- SITE LOCATED WITHIN SECTION 26, TOWNSHIP 11 NORTH, RANGE 3 EAST, N.M.P.M. (ELENA GALLEGOS GRANT).
- THIS SURVEY HAS BEEN PREPARED BASED UPON NAVD 88 DATUM. PREVIOUS SURVEYS OF THIS AREA CONDUCTED BY OTHER CONSULTANTS MAY HAVE BEEN CONDUCTED BASED UPON NGVD 29 DATUM. SPECIAL CARE SHOULD BE EXERCISED WHEN COMPARING ELEVATIONS FROM THIS SURVEY TO CURRENT AND PREVIOUS SURVEYS, PLANS AND AS-BUILT DOCUMENTS.
- UTILITY INFORMATION SHOWN HEREON IS BASED UPON ONSITE SURFACE EVIDENCE, REVIEW OF AVAILABLE ABCWA AND CITY OF ALBUQUERQUE RECORD DRAWINGS AND DISTRIBUTION MAPS AND UTILITY LINE-SPOTS PROVIDED BY OWNER. IN ADDITION, UTILITY LINE-SPOTS WERE REQUESTED VIA THE NEW MEXICO ONE CALL SERVICE (NM811 TICKET NO. 19MA280095 03/28/19 08:07). UTILITY LINES SHOWN ON THIS DRAWING ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE SURVEYOR HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE PROPERTY OWNER, DEVELOPER, OR CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE PROPERTY OWNER, DEVELOPER, OR CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

CONTROL SURVEY NOTE

A CONTROL SURVEY WAS CONDUCTED AT THE SITE ON APRIL 9, 2019. CONTROL WAS PROJECTED ONTO THE SUBJECT SITE UTILIZING RTK GPS OBSERVATIONS COMBINED WITH GEOID MODEL 12B TO ESTABLISH HORIZONTAL AND VERTICAL POSITIONS BASED UPON NAD 83/NAVD 88 DATUM. THE RTK OBSERVATIONS WERE USED TO ESTABLISH THE TEMPORARY BENCHMARKS AT THE PROJECT SITE.

THE POINTS OBSERVED HAVE BEEN QUALITY CONTROLLED FOR RELATIVE ACCURACY. AN ABANDONED AGRS BENCHMARK "16-E17" AND A SEPARATE HORIZONTAL CONTROL STATION "1-25-14 1969" IN THE VICINITY OF THE PROJECT WERE OBSERVED IN ORDER TO PROVIDE REFERENCE TIES TO THE SITE. ALL HORIZONTAL COORDINATES ARE MODIFIED NAD 83 GRID VALUES AND HAVE BEEN ADJUSTED TO THE GROUND AT THE PROJECTION POINT (THE SCALE FACTOR USED IS 1/CF=1.00033094727259). THE CONTROL STATION USED TO PROJECT FROM GRID TO GROUND FOR THIS PROJECT IS THE PROJECT BENCHMARK "16-E17" WITH NAD GRID COORDINATES OF:
 NORTHING= 1,513,486.219 FEET
 EASTING= 1,537,858.287 FEET
 ELEVATION= 5147.20 FEET
 THE ELEVATIONS ARE BASED UPON THE NAVD DATUM AND REQUIRE NO FURTHER ADJUSTMENT.

PROJECT BENCHMARK

AN AGRS BRASS DISK STAMPED "16-E17", SET IN A CONCRETE HEADWALL ON THE EAST SIDE OF JEFFERSON STREET AND ABOVE THE S. PINO ARROYO CHANNEL.
 ELEVATION = 5147.20 FEET (NAVD 1988)

TEMPORARY BENCHMARK #1 (T.B.M.)

A MAG NAIL SET IN ASPHALT NEAR THE SOUTHEAST CORNER OF THE PROJECT SITE, AS SHOWN ON SHEET 1.
 ELEVATION = 5155.08 FEET (NAVD 1988)

TEMPORARY BENCHMARK #2 (T.B.M.)

A MAG NAIL SET IN BACK OF CONCRETE CURB JOINT NEAR THE SOUTHWEST CORNER OF THE PROJECT SITE, AS SHOWN ON SHEET 1.
 ELEVATION = 55155.70 FEET (NAVD 1988)

TEMPORARY BENCHMARK #3 (T.B.M.)

A (+) CHISLED IN A CONCRETE SIDEWALK NEAR THE EAST SIDE OF THE PROJECT SITE, AS SHOWN ON SHEET 1.
 ELEVATION = 5157.51 FEET (NAVD 1988)

TEMPORARY BENCHMARK #4 (T.B.M.)

A (+) CHISLED IN A CONCRETE SIDEWALK NEAR THE NORTHWEST CORNER OF THE PROJECT SITE, AS SHOWN ON SHEET 1.
 ELEVATION = 5154.76 FEET (NAVD 1988)

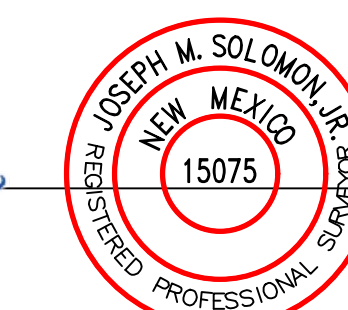
EASEMENTS

- 7' PUBLIC UTILITY EASEMENT GRANTED BY PLAT C32-129
- 200' PNM EASEMENT GRANTED BY DOCUMENT FILED 08-10-1956, BOOK D359, PAGE 275

SURVEYORS CERTIFICATION

I, JOSEPH M. SOLOMON, JR., NEW MEXICO PROFESSIONAL SURVEYOR NO. 15075, DO HEREBY CERTIFY: THAT THIS TOPOGRAPHIC AND UTILITY SURVEY AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Joseph M. Solomon, Jr.
 JOSEPH M. SOLOMON, JR., NMPS 15075



April 17, 2019
 DATE

SURVEYED BY	NO.	DATE	BY	REVISIONS		JOB NO.
				NO.	DATE	
E.J.S.						2019.012.1
R.W.U.						04-2019
J.M.S.						1 OF 1

PROJECT DESCRIPTION:

THE PROJECT, LOCATED AT 7000 JEFFERSON ST. NE. IN ZONE ATLAS GRID D17 AND SHOWN ON THE VICINITY MAP OF THE ATTACHED SURVEY, ENTAILS THE SELECTIVE REMOVAL AND REPLACEMENT OF EXISTING PAVING, CURBS, SIDEWALK, BUILDING CANOPY AND LANDSCAPING AS NECESSARY TO PROVIDE NEW ADA ACCESSIBLE PAVING & ASSOCIATED TRAVEL PATH TO THE FACILITY. THE SITE IS CURRENTLY USED AS A REHABILITATION HOSPITAL AND WILL REMAIN AS SUCH.

THE CURRENT LEGAL DESCRIPTION IS TRACTS 4A & 4B1 INTERSTATE INDUSTRIAL TRACT, UNIT 5. HOWEVER, WORK IS ONLY BEING PERFORMED ON TRACT 4A.

THE SITE IS CURRENTLY COMPRISED OF TWO DRAINAGE BASINS. ONE BASIN DISCHARGES FREELY INTO THE ADJACENT CITY STREET WHERE IT ENTERS A MUNICIPAL STORM SEWER SYSTEM AND DISCHARGES INTO PINO ARROYO. THE OTHER BASIN DRAINS TO AN EXISTING CURB OPENING ON THE SOUTH EDGE OF THE PARKING LOT WHERE IT DISCHARGES DIRECTLY INTO PINO ARROYO. THE PROPOSED WORK INVOLVED WITH THE PROJECT WILL NOT CHANGE CURRENT DRAINAGE PATTERNS.

AS INDICATED ON PANEL 0137H OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO DATED AUGUST 16, 2012, THE SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE. A DESIGNATED FLOOD HAZARD ZONE IS IDENTIFIED TO THE SOUTH OF THE SITE. THE PUBLIC STORM DRAIN PINO ARROYO MAKES UP THE LIMITS OF THE FLOOD HAZARD ZONE.

THE INCLUDED SURVEY SHOWS THE LIMITS OF THE FIELD TOPOGRAPHY, EXISTING ELEVATIONS AS INDICATED BY 1'-0" CONTOURS AND SPOT ELEVATIONS. THE GRADING PLAN SHOWS EXISTING & PROPOSED ELEVATIONS ON 1'-0" CONTOURS AND SPOT ELEVATIONS AS WELL AS PROPOSED IMPROVEMENTS AND THE CONTINUITY BETWEEN EXISTING AND PROPOSED GRADES.

THE CONTINUED FREE DISCHARGE OF RUNOFF FROM THIS SITE IS JUSTIFIED IN THAT THERE IS A NEGLIGIBLE INCREASE IN RUNOFF GENERATED BY THE PROPOSED REDEVELOPMENT, NO ADVERSE IMPACT ON DOWNSTREAM CAPACITY OR DOWNSTREAM PROPERTIES, AND THE EXISTING PREVIOUSLY APPROVED DRAINAGE PATTERNS WILL NOT BE ALTERED.

REDEVELOPED DRAINAGE PATTERNS ARE UNCHANGED AND MATCH EXISTING DRAINAGE PATTERNS. REDEVELOPED RUNOFF RATE AND VOLUME ESSENTIALLY MATCH EXISTING RUNOFF RATE & VOLUME WITH NEGLIGIBLE (LESS THAN 0.01% RUNOFF VOLUME AND 0.26% RUNOFF RATE INCREASE). THERE IS NO ADVERSE IMPACT DOWNSTREAM AND NO CHANGE FROM THIS REDEVELOPMENT TO THE DOWNSTREAM SYSTEM.

DRAINAGE CALCULATIONS:

CALCULATIONS ANALYZING THE EXISTING AND REDEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT HAVE BEEN PREPARED AND ARE INCLUDED ON THIS SHEET. THE DRAINAGE CALCULATIONS INCLUDED FOR THIS PROJECT ARE BASED ON THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) VOLUME II "DESIGN CRITERIA", CH. 22 "DRAINAGE AND FLOOD CONTROL", SECTION 2. "HYDROLOGY", PART A "PROCEDURE FOR 40 ACRE AND SMALL BASINS". THE INCLUDED CALCULATIONS SHOW A NEGLIGIBLE INCREASE IN RUNOFF VOLUME AND PEAK DISCHARGE FOR THE AREA OF REDEVELOPMENT ON TRACT 4A. NO ANALYSIS WAS PERFORMED ON TRACT 4B1 SINCE IT IS REMAINING AS IS.

WATER QUALITY:

AS INDICATED BY DRAINAGE ORDINANCE 14-5-2-6 (H), THE SITE IS REQUIRED TO PROVIDE TREATMENT FOR ALL REDEVELOPED IMPERVIOUS AREA OR MAKE A PAYMENT-IN-LIEU OF ONSITE MANAGEMENT.

THE REQUIRED VOLUME TO BE CAPTURED AND TREATED IS CALCULATED BY MULTIPLYING THE REDEVELOPED IMPERVIOUS AREA (SF) BY 0.26 INCHES FOR THE 80TH PERCENTILE STORM.

THE PAYMENT AMOUNT IS BASED ON A RATE OF \$8/CF.

DUE TO THE SMALL NATURE OF THE SITE, THE PAYMENT-IN-LIEU OF TREATMENT IS BEING PURSUED. THIS SITE COULD PROVIDE ONSITE STORMWATER MANAGEMENT BUT IT IS NOT BEING PROVIDED DUE TO COST AND PRACTICALITY. A PAYMENT-IN-LIEU OF ONSITE TREATMENT IS BEING PROVIDED IN THE AMOUNT OF \$4,272 AS DETERMINED BY THE WATER QUALITY CALCULATIONS PROVIDED ON THIS SHEET.

Calculations

I. Site Characteristics

- A. Precipitation Zone (from Table A-1): 2
- B. $P_{100/6\text{ HR}} = P_{360}$ (from Table A-2): 2.35
- $P_{100/10\text{ DAY}}$ (from Table A-2): 3.95
- C. Total Project Area (A_T) = 29414 SF
0.675 AC

D. Land Treatments (from Table A-4)

Treatment	Area (SF / AC)	%
A	N/A	N/A
B	N/A	N/A
C	5,007 / 0.115	17.0
D	24,407 / 0.560	83.0

2. Developed Land Treatment

Treatment	Area (SF / AC)	%
A	N/A	N/A
B	N/A	N/A
C	4780 / 0.110	16.3
D	24634 / 0.565	83.7

II. Hydrology

A. Existing Condition

1. Volume

$$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_w = (1.13 * 0.115 + 2.12 * 0.560) / 0.675 = 1.951 \text{ IN}$$

$$V_{100 \text{ 6 HR}} = (E_w / 12) * A_T = (1.951 / 12) * 0.675 = 0.10974 \text{ AC} - \text{FT} = 4780 \text{ CF}$$

2. Peak Discharge

$$Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D$$

$$Q_p = Q_{100} = (3.14 * 0.115 + 4.70 * 0.560) = 2.9931 \text{ CFS}$$

B. Redeveloped Condition

1. Volume

$$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_w = (1.13 * 0.110 + 2.12 * 0.565) / 0.675 = 1.959 \text{ IN}$$

$$V_{100 \text{ 6 HR}} = (E_w / 12) * A_T = (1.959 / 12) * 0.675 = 0.11019 \text{ AC} - \text{FT} = 4800 \text{ CF}$$

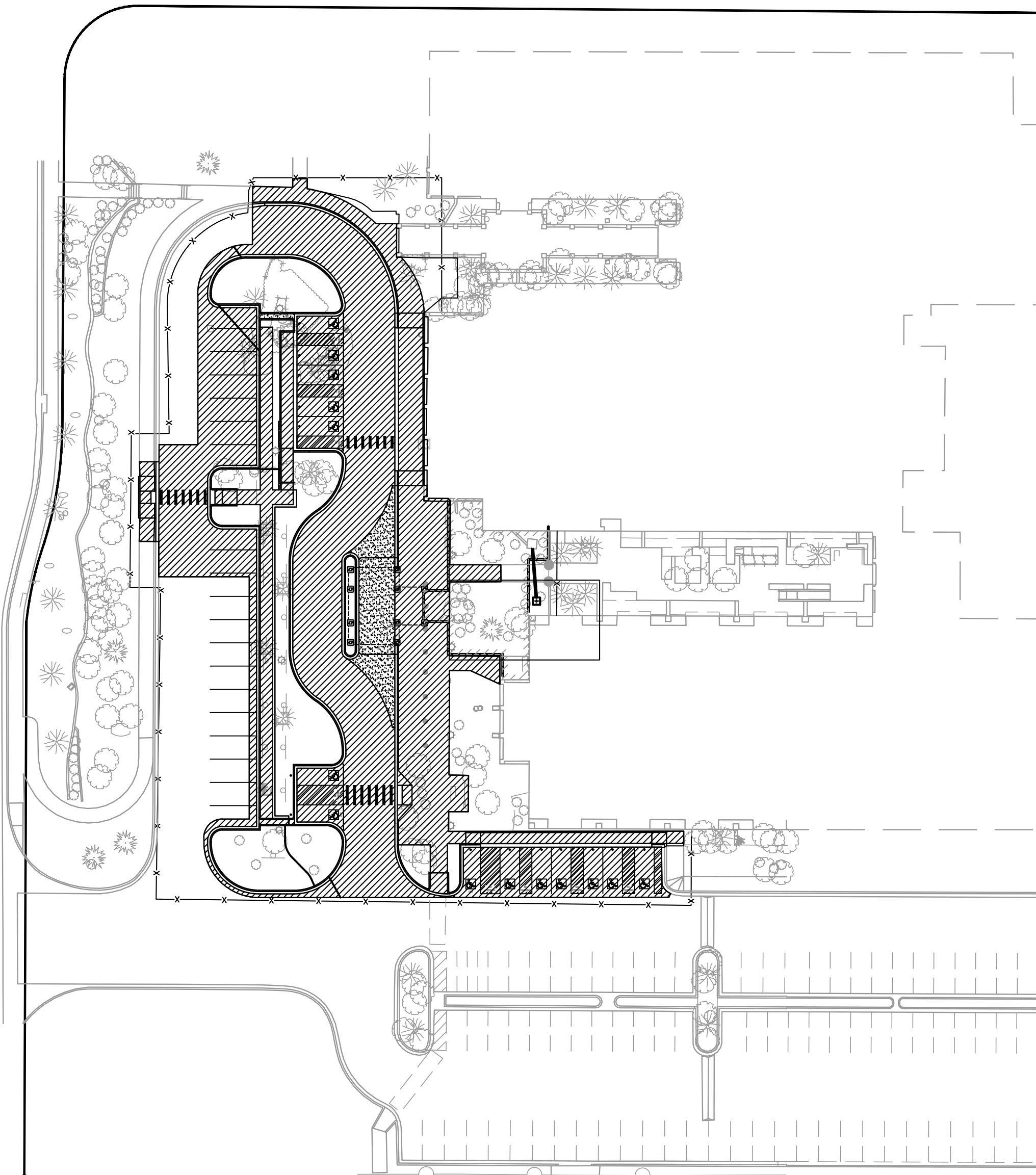
2. Peak Discharge

$$Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D$$

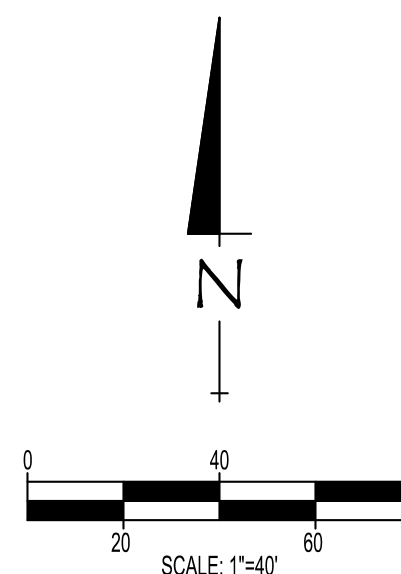
$$Q_p = Q_{100} = (3.14 * 0.110 + 4.70 * 0.565) = 3.0009 \text{ CFS}$$

C. Comparison

- 1. Volume
 $\Delta V_{100 \text{ 6 HR}} = 4800 - 4780 = 20 \text{ CF (INCREASE)}$
- 2. Peak Discharge
 $\Delta V_{100} = 3.0009 - 2.9931 \text{ CFS} = 0.0078 \text{ CFS (INCREASE)}$



POST DEVELOPMENT IMPERVIOUS EXHIBIT



NO.	DATE	SUBJECT

PROJECT NO:	019-00712-00
PROJECT MANAGER:	ANDY BURELL
DESIGNED:	LONDON BOGGS
CHECKED:	CURTIS EATMAN

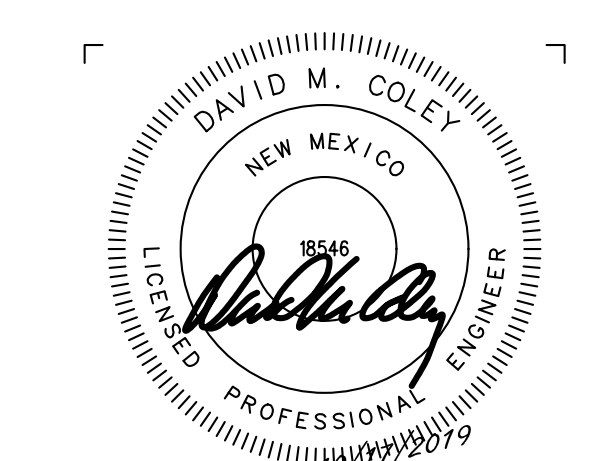
DRAWING TITLE:
**GRADING PLAN
(HYDROLOGY REPORT)**

DRAWING NO:
C3.0



CONSULTANTS:

SEAL ON THIS DOCUMENT AUTHORIZED BY:



PROJECT INFORMATION:

**ADA CORRECTIONS
Rehabilitation Hospital
of Albuquerque**
7000 Jefferson NE
Albuquerque, NM 87109

CLIENT INFORMATION:



9001 Liberty Parkway
Birmingham, AL 35242

CLIENT PROJECT NO:

PROJECT NO:

PROJECT MANAGER:

DESIGNED:

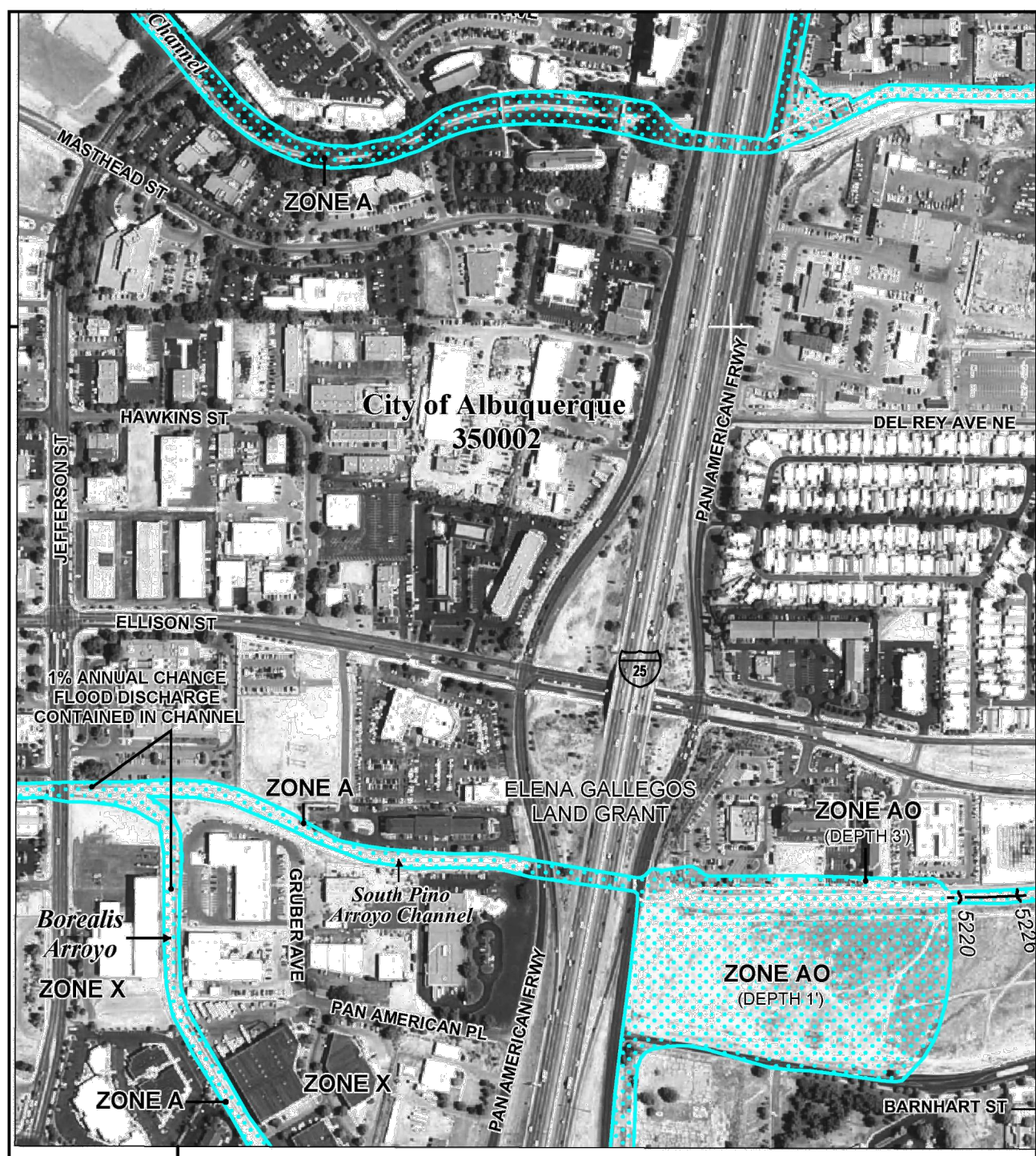
CHECKED:

DRAWING TITLE:

(HYDROLOGY REPORT)

DRAWING NO:

C3.0



PANEL 0137H

FIRM

FLOOD INSURANCE RATE MAP

BERNALILLO COUNTY, NEW MEXICO

AND INCORPORATED AREAS

PANEL 137 OF 825

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY NUMBER PANEL SHEETS
BERNALILLO COUNTY FIRM 0137H 11
UNINCORPORATED AREAS 36201 0137H 11

MAP NUMBER: 35001C0137H
MAP REVISED: AUGUST 16, 2012
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRM On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov.

WATER QUALITY CALCULATIONS:
 REDEVELOPED IMPERVIOUS AREA (SF) = 24,634 SF
 REQUIRED VOLUME TO BE TREATED = REDEVELOPED IMPERVIOUS AREA * 0.26 IN
 = 24,634 SF * (0.26 IN / 12) = 533.74 CF = 534 CF
 PAYMENT-IN-LIEU OF TREATMENT = \$8/CF = \$8 * 534 CF = \$4,272



NO.	DATE	SUBJECT

PROJECT NO:	019-00712-00
PROJECT MANAGER:	ANDY BURELL
DESIGNED:	LONDON BOGGS
CHECKED:	CURTIS EATMAN

DRAWING TITLE:
GRADING PLAN
(HYDROLOGY REPORT)

DRAWING NO:
C3.1

GRADING NOTES:

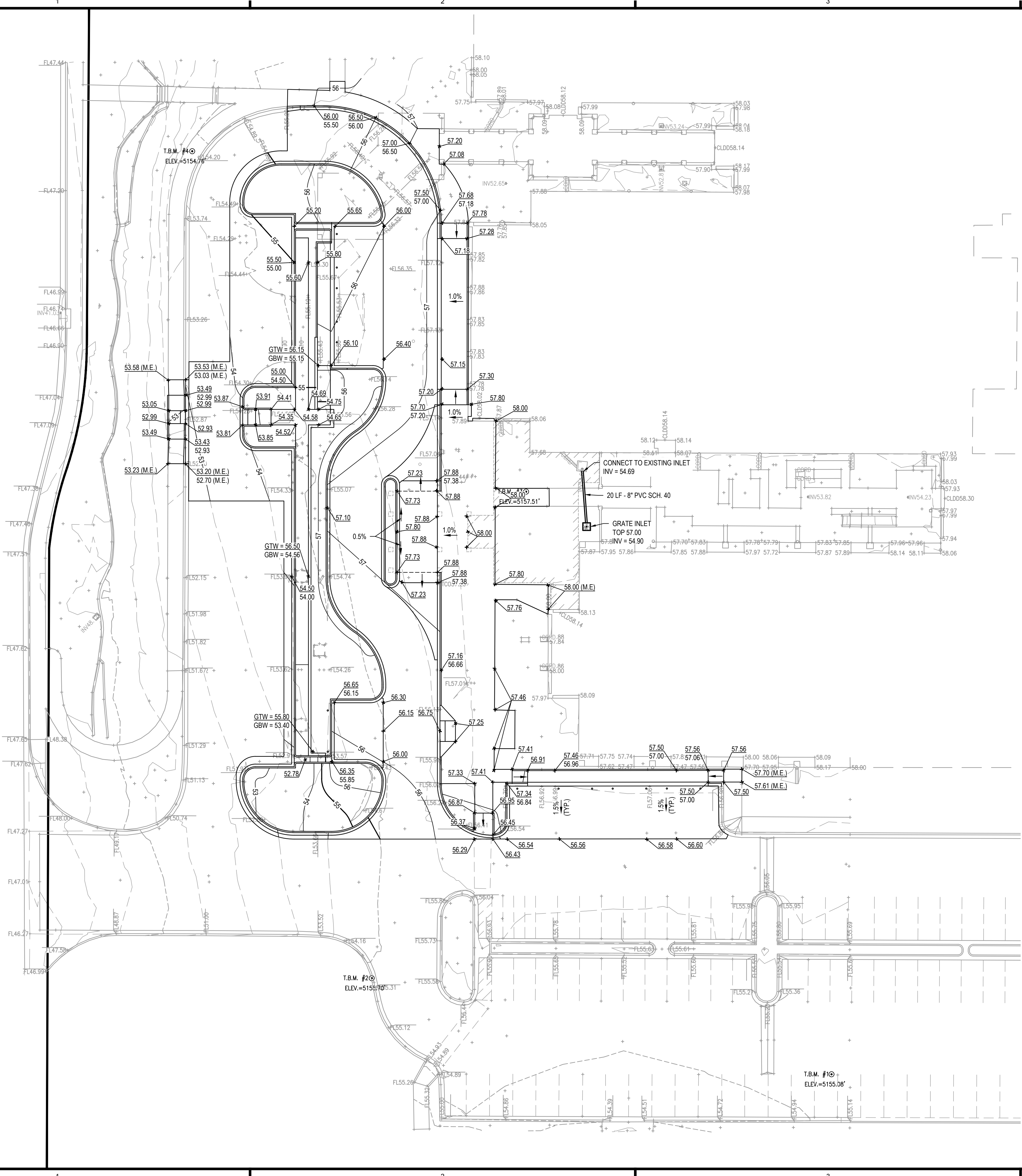
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPACTION TESTING.
2. ALL TOPSOIL SHALL BE STRIPPED WITHIN THE PROPOSED LIMITS OF GRADING AND SHALL BE STOCKPILED ON-SITE IN AN APPROVED LOCATION FOR LATER USE WITH ANY EXCESS TO BE DISPOSED OF OFF-SITE ONCE ALL LANDSCAPED AREAS HAVE BEEN BROUGHT TO FINISH GRADE UNLESS OTHERWISE NOTED ON THE PLANS.
3. SUBGRADE SHALL BE PROOF ROLLED WITH A HEAVILY LOADED DUMP TRUCK AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL. ANY AREAS SHOWING SIGNS OF PUMPING, RUTTING, OR ANY UNSUITABLE (ORGANIC, SOFT, WET, LOOSE) MATERIAL FOUND IN PLACE SHALL BE UNDERCUT AND REPLACED, OR MOISTURE CONDITIONED AND COMPACTED TO THE SPECIFIED DENSITY AND MOISTURE CONTENT LISTED BELOW.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE SUBGRADE AFTER IT HAS BEEN INITIALLY PREPARED DUE TO INCREASING WEATHER AND CONSTRUCTION TRAFFIC.
5. FILL MATERIAL SHALL HAVE THE FOLLOWING PROPERTIES: VIRTUALLY FREE OF ORGANICS, NO ROCK FRAGMENTS GREATER THAN 4" WITHIN 4' OF FINISH GRADE, LIQUID LIMIT NOT EXCEEDING 50, PLASTICITY INDEX NOT EXCEEDING 30, MINIMUM STANDARD PROCTOR (ASTM D-698) OF 100 PCF, COMPACTED 95% IN PAVED AND STRUCTURAL AREAS, 95% NON-STRUCTURAL AND LANDSCAPED AREAS, PLACED IN 8" LOOSE LIFTS, AND WITHIN ±2.0% OF OPTIMUM MOISTURE CONTENT. STRUCTURAL AREAS INCLUDE ZONES OF INFLUENCE AROUND THE BUILDING, PAVEMENT AREAS, FILL SLOPES, ETC.
6. COMPACTION TESTS SHALL BE TAKEN AT THE RECOMMENDATION OF THE ON-SITE GEOTECHNICAL ENGINEER, BUT AT A MINIMUM EVERY 2,500 SQUARE FEET OF AREA PER 8" LIFT.
7. COMPACTION WITHIN LIMITED SPACES (I.E. MANHOLES, INLETS, UTILITY TRENCHES) SHOULD BE BACKFILLED AND COMPACTED SYSTEMATICALLY, AT THE DIRECTION OF THE ON-SITE GEOTECHNICAL ENGINEER. STONE BACKFILL SHALL BE INSTALLED IN 12" LOOSE LIFTS AND COMPACTED WITH 6-8 PASSES OF A VIBRATORY COMPACTOR.
8. CLEARING LIMITS SHALL BE 5' OUTSIDE OF ALL PROPOSED GRADED AREAS OR NOT BEYOND THE PROPERTY LINES WHICHEVER IS LESS.
9. NO GRADING OFF-SITE OR IN ANY ROAD RIGHT-OF-WAY WITHOUT PROPER APPROVALS AND PRIOR NOTIFICATION.
10. COORDINATE THE SEQUENCING OF ALL GRADING OPERATIONS WITH THE EROSION CONTROL PLAN.
11. THE MAXIMUM SLOPE IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2.0% GRADE IN ANY DIRECTION. SLOPE IN THE DIRECTION OF TRAVEL IN ALL HANDICAP ACCESS ROUTES SHALL NOT EXCEED 5.0% GRADE AND 2.0% CROSS SLOPE.
12. ALL GRADING ADJACENT TO EXISTING OR PROPOSED BUILDINGS SHALL BE SLOPED AWAY FROM THE STRUCTURES AT A MINIMUM OF 1.0% GRADE. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM THE STRUCTURES. NOTIFY LBYD OF ANY DISCREPANCIES.
13. PROPOSED GRADES INDICATED ON THIS PLAN ARE TO FINISH GRADE. THE CONTRACTOR SHALL MAKE SUBGRADE ADJUSTMENTS FOR TOPSOIL, PAVING, BUILDING PAD, ETC.
14. ALL PROPOSED STORM INLETS (GRATES, CURB, YARD, AREA DRAINS) SHALL BE LOCATED AT THE LOWPOINTS. GRADING SHALL BE TO DIRECT RUNOFF TO THESE INLETS. NOTIFY LBYD OF ANY DISCREPANCIES.
15. STORM DRAINAGE SYSTEMS SHALL BE CONSTRUCTED FROM DOWNSTREAM TO UPSTREAM. VERIFY ALL PIPE SLOPES, INVERTS, AND POINTS OF CONNECTION PRIOR TO CONSTRUCTION. NOTIFY LBYD OF ANY DISCREPANCIES.
16. RETAINING WALL GRADES: GTW INDICATES FINISHED GRADE AT TOP OF WALL. GBW INDICATES FINISHED GRADE AT BOTTOM OF WALL. SEE DETAIL FOR FOOTING ELEVATIONS RELATIVE TO FINISHED GRADE AT BOTTOM OF WALL.
17. NO GEOTECHNICAL REPORT IS AVAILABLE FOR THIS PROJECT. THE CONTRACTOR SHALL VISIT THE SITE AND COMPLETE ANY EXPLORATIONS THAT IT FEELS NECESSARY IN ORDER TO PROVIDE A SATISFACTORY BID.

GRATE INLET CALCULATION:

Q = CIA
 C = 0.93 (FROM TABLE A-11)
 I = 5.05 IN/HR (FROM TABLE A-10)
 A = ±2,000 SF (0.05 AC)
 Q = ±0.25 CFS

A 2x2' GRATE WITH 1.9 SF OF GRATE OPENING WILL CARRY THE CALCULATED Q AND WILL GET ±0.6" DEEP WITH A SPREAD OF 6'.

AN 8" PVC SCH. 40 PIPE @ 1.0% SLOPE WILL CARRY APPROXIMATELY 1.5 CFS.



GRADING + DRAINAGE LEGEND

	MINOR CONTOUR
	MAJOR CONTOUR
	SPOT ELEVATION
	TOP OF CURB BOTTOM OF CURB
	M.E. MATCH EXISTING
	STORM DRAINAGE PIPING (18" OR MORE)
	STORM DRAINAGE PIPING (15" OR LESS)

