CITY OF ALBUQUERQUE

Timothy M. Keller, Mayor

January 10, 2018

J. Graeme Means, P.E.
High Mesa Consulting Group
6010 B Midway Park Blvd NE
Albuquerque, NM, 87109

RE: NM Mutual Home Office
Grading Plan
Engineer's Stamp Date: 09/28/17
Hydrology File: J13D206

Dear Mr. Means:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based upon the information provided in your submittal received 01/04/2018, the Grading Plan **is not** approved for Grading Permit and Paving Permit. The following comments need to be addressed for approval of the above referenced project:

1. Please provide a cross section longitudinal along the proposed drive within the retention pond. Please show the slope of the drive (it appears that it goes from South to North) on the cross section and the slope of the 48-inch storm pipe.

2. How is the proposed drive's drainage getting to the retention pond? An example, providing a valley gutter at the connection between the existing paving and the proposed drive with a swale that directs the drainage to the pond?

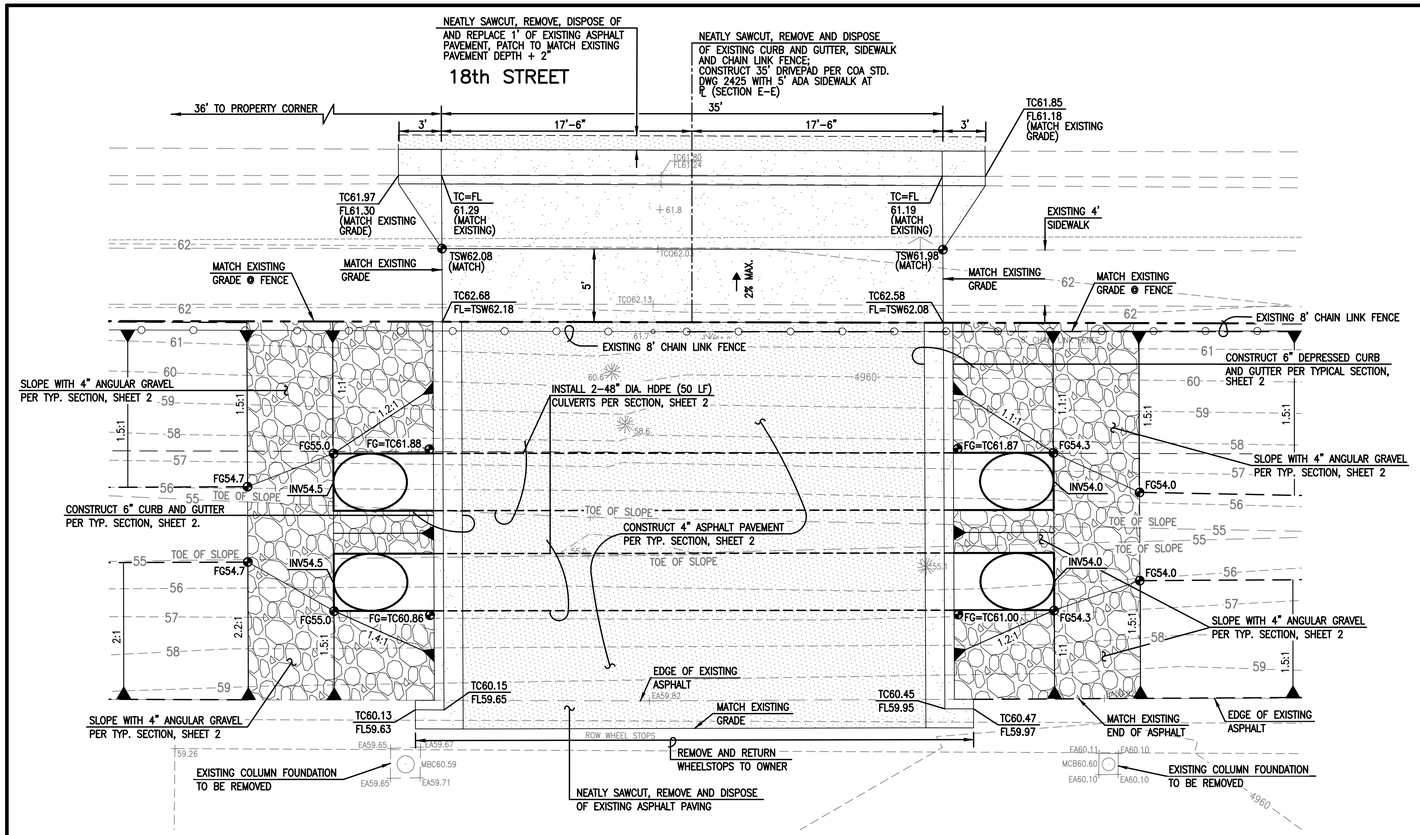
If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C Brissette

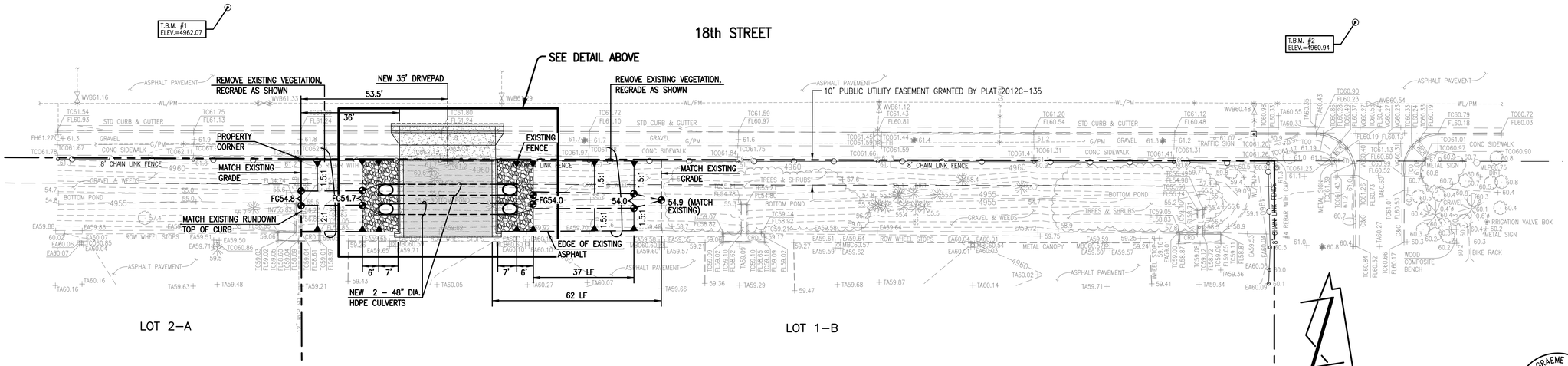
Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

Orig: Drainage File



ENLARGED DETAIL

SCALE: 1" = 5'



SCALE: 1" = 20'

20 0 40
10 20

LEGEND

C&G	CURB AND GUTTER
CLF	CHAINLINK FENCE
CONC	CONCRETE
CRD	CONCRETE RUNDOWN
EA	EDGE OF ASPHALT
EC	EDGE OF CONCRETE
FH	FIRE HYDRANT
FL	FLOW LINE
G/PM	GAS BY PAINT MARK
INV	INVERT ELEVATION
MCB	METAL BUILDING COLUMN
MLP	METAL LIGHT POLE
RCP	REINFORCED CONCRETE PIPE
SD	STORM DRAIN
STD	STANDARD
TA	TOP OF ASPHALT
TC	TOP OF CURB
TCO	TOP OF CONCRETE
TYP	TYPICAL
VG	VALLEY GUTTER
WCR	WHEEL CHAIR RAMP
WL/PM	WATERLINE BY PAINT MARK
WVB	WATER VALVE BOX
1.5'ø	DIAMETER OF TREE
*	PAINTED UTILITY MARKER
	DECIDUOUS TREE
	SMALL DECIDUOUS TREE
	SHRUB
	YUCCA
	TREE STUMP
	LANDSCAPE ROCK/BOULDER
FG	FINISH GRADE
FL	FLOWLINE
INV	INVERT
TA	TOP OF ASPHALT PAVEMENT
TC	TOP OF CURB
TG	TOP OF GRATE
TSW	TOP OF SIDEWALK
+ 59.71	EXISTING SPOT ELEVATION
57.00	PROPOSED SPOT ELEVATION
	EXISTING FLOWLINE
	PROPOSED FLOWLINE
4960	EXISTING CONTOUR
20	PROPOSED CONTOUR
	EXISTING DIRECTION OF FLOW
	PROPOSED DIRECTION OF FLOW
	RIGHT OF WAY LINE
	PUBLIC EASEMENT LINE
	HIGH POINT / DIVIDE
	PROPOSED CONCRETE
	PROPOSED ASPHALT PAVING
	PROPOSED GRAVEL

LEGAL DESCRIPTION

LOT 1-B, FREEWAY-OLD TOWN, LIMITED, ALBUQUERQUE, NEW MEXICO

PROJECT BENCHMARK

AN AGRS BRASS DISK STAMPED "5-J13A", SET FLUSH WITH TOP OF CURB, AT THE NORTHWEST QUADRANT OF THE INTERSECTION OF MOUNTAIN ROAD N.W. AND 19TH STREET N.W.
ELEVATION = 4960.499 FEET (NAVD 1988)

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

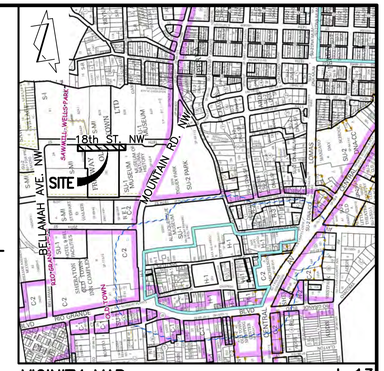
MAG NAIL IN SIDEWALK JOINT AS SHOWN ON THIS SHEET.
ELEVATION = 4962.07 FEET (NAVD 1988)

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

MAG NAIL IN TOP OF CURB JOINT JOINT AS SHOWN ON THIS SHEET. ELEVATION = 4960.94 FEET (NAVD 1988)

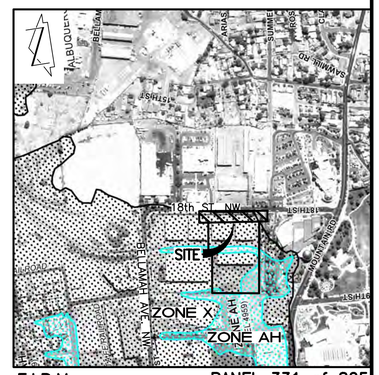
CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 811, FOR DESIGNATION (LINE-SPOTTING) OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERPRETATIONS IT MAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.
5. UTILITY INFORMATION SHOWN HEREON IS BASED UPON ONSITE SURFACE EVIDENCE, AND LINE SPOTS FROM UNKNOWN SOURCE. 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.
6. THE GRADES INDICATED ON THIS PLAN ARE FINISHED GRADES UNLESS OTHERWISE INDICATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING SUBGRADE AT ELEVATIONS THAT SHALL ACCOMMODATE PROPOSED IMPROVEMENTS AS INDICATED ON THE PLANS INCLUDING, BUT NOT LIMITED TO, SURFACE DRAINAGE STRUCTURES, PAVING AND LANDSCAPING SURFACING.



VICINITY MAP J-13

SCALE: 1" = 750'



F.I.R.M. PANEL 331 of 825

SCALE: 1" = 500' DATED 08-16-2012

SURVEY NOTE:
THIS IS NOT A BOUNDARY SURVEY; BOUNDARY INFORMATION SHOWN FOR ORIENTATION ONLY. THIS IS NOT A TOPOGRAPHIC SURVEY; BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON BASED UPON THE BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, NMPS NO. 11184, DATED 05/31/2017 (2017.024.1).

J. GRAEME MEANS NEW MEXICO 13676 REGISTERED PROFESSIONAL ENGINEER
9-28-2017

HIGH MESA Consulting Group
Engineers, Surveyors & Subsurface Utility Consultants
6010-B Midway Park Blvd. NE • Albuquerque, New Mexico 87109
Phone: 505.345.4250 • Fax: 505.345.4254 • www.highmesacg.com

SITE GRADING PLAN
EXPLORA SURPLUS PROPERTY DRIVEPAD

DESIGNED BY J.D.S.
DRAWN BY J.Y.R., S.C.C.
APPROVED BY G.M.

NO.	DATE	BY	REVISIONS

JOB NO. 2017.024.1
DATE 09-2017
SHEET 1 OF 2

File Path: P:\MHA\2017\2017.024.1\DWG\ | Plot Date: 09-28-2017
File Name: 20170241_SH1.DWG | Plot Time: 12:16 pm

CALCULATIONS

DISPLACED RETENTION PONDING VOLUME

- OVERFLOW WSL = 60.8± (AT SOUTHWEST CORNER OF PROPERTY)

PONDING VOLUME
- AREA OF EXISTING POND DISPLACED BY NEW DRIVEWAY = 2,650 (USING AVERAGE END-AREA METHOD)

CULVERT VOLUME CAPACITY
- VOLUME OF 2-48" DIA. HDPE @ 38 LF = 955 CF
- TOTAL VOLUME DISPLACED = 2,650 – 955 = 1,695 CF

DEVELOPED RETENTION PONDING VOLUME

- 78 SF = EXISTING CROSS-SECTIONAL AREA OF DITCH TO BE REGRADED
- 107 SF = DEVELOPED CROSS-SECTIONAL AREA OF DITCH AFTER REGRADING
- 75 LF = LENGTH OF DITCH TO BE REGRADED
- EXISTING CAPACITY = 78 SF * 75 LF = 5,850 CF
- DEVELOPED CAPACITY = 107 SF * 75 LF = 8,025 CF
- ADDITIONAL CAPACITY = 8025 – 5850 = 2,175 CF INCREASED CAPACITY > 1,695 CF DISPLACED THEREFORE OK.

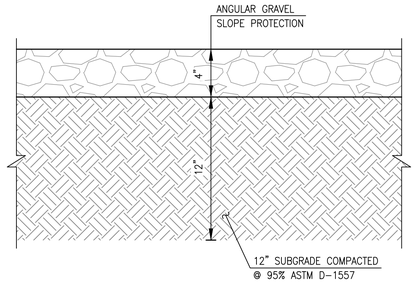
DRAINAGE PLAN

THE PROJECT SITE IS A NEW ENTRANCE TO AN EXISTING DEVELOPED PAVED SITE COMMERCIAL SITE WITHIN AN INFILL AREA. THE SITE IS LOCATED NEAR THE INTERSECTION OF 18TH STREET NW AND BELLAMAH AVE NW. THE PROPOSED PROJECT SCOPE IS TO CREATE A NEW DRIVEPAD ENTRANCE FROM 18TH STREET, ACROSS AN EXISTING PRIVATE RETENTION POND, TO SERVE THE EXISTING SITE. IN PREPARATION OF THIS PROJECT, THE 1977 PLAN OF RECORD FOR THE SITE WAS REVIEWED AND IT WAS NOTED THAT THIS PLAN DID NOT INCLUDE A DRAINAGE PLAN OR CALCULATIONS ESTABLISHING THE VOLUME OF THE RETENTION POND. PRELIMINARY DISCUSSIONS WITH CITY HYDROLOGY DURING PROJECT DESIGN DETERMINED THAT ABSENT OF A SET CRITERIA FROM THE 1977 PLAN, THE DRAINAGE INTENT FOR THIS PROJECT SHALL BE TO OFFSET ANY DISPLACED VOLUME SO AS TO MAINTAIN THE EXISTING RETENTION PONDING CAPACITY OF THE SITE.

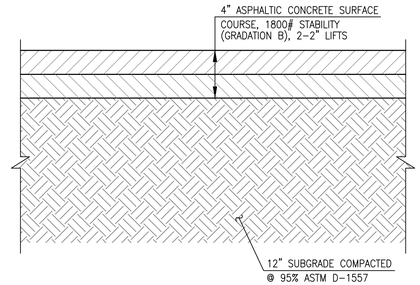
THE NEW DRIVEPAD ENTRANCE WILL RESULT IN INFILL OF AN EXISTING RETENTION POND IN ORDER TO PROVIDE ACCESS TO THE SITE. IN ORDER TO OFFSET THIS INFILL OF THE EXISTING POND, TWO NEW 48" CULVERT PIPES WILL BE INSTALLED BENEATH THE NEW ENTRANCE AND THE EXISTING RETENTION POND WILL BE REGRADED TO THE NORTH AND SOUTH OF THE NEW ENTRANCE. THE INCREASED CAPACITY FROM THE NEW CULVERTS AND THE REGRADED POND WILL OFFSET THE RETENTION VOLUME LOST BY THE CONSTRUCTION OF THE NEW ENTRANCE, THEREBY MAINTAINING THE EXISTING SITE RETENTION CAPACITY

CALCULATIONS FOR THE MODIFIED RETENTION POND WERE PERFORMED USING THE AVERAGE END-AREA METHOD; THE RETENTION CAPACITY OF THE NEW CULVERTS WAS BASED ON THE EQUATION FOR VOLUME OF A CYLINDRICAL PIPE.

THIS SUBMITTAL IS MADE IN SUPPORT OF GRADING AND DRAINAGE PERMIT APPROVAL.



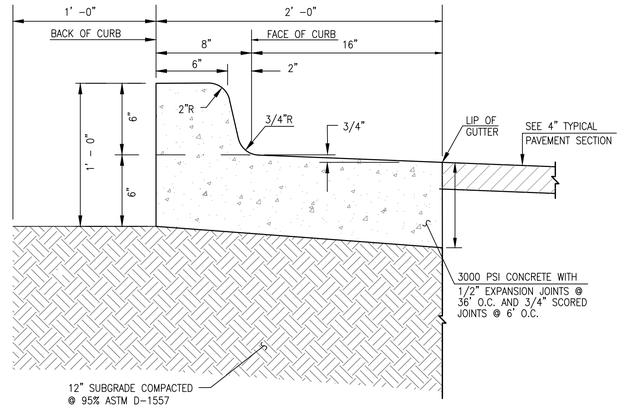
TYPICAL ANGULAR GRAVEL SLOPE PROTECTION SECTION
SCALE: 1" = 6"



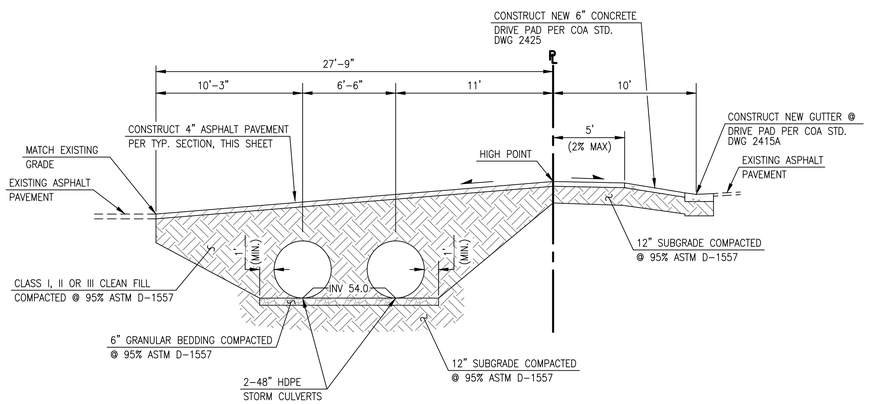
TYPICAL 4" ASPHALT PAVING SECTION
SCALE: 1" = 6" (VEHICULAR TRAFFIC AREAS)

ROAD SECTION NOTE:

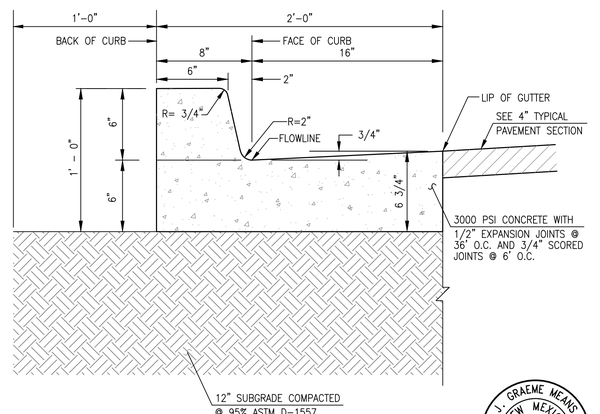
CONTRACTOR SHALL TEST SUBGRADE R-VALUE PRIOR TO CONSTRUCTION. IN THE EVENT THE R-VALUE IS LESS THAN 50, CONTRACTOR SHALL REMOVE 2 FT. OF SUBGRADE MATERIAL AND IMPORT SUITABLE MATERIAL WITH R-VALUE 50 OR GREATER.



TYPICAL SIX-INCH DEPRESSED CURB & GUTTER
SCALE: 1" = 0'-6" **NOTE: USE THIS SECTION FOR CASES WHERE PAVING SLOPES AWAY FROM FACE OF CURB**



SECTION A-A
SCALE: 1" = 5'



TYPICAL SIX-INCH CURB & GUTTER
SCALE: 1" = 0'-6"

J. GRAEME MEANS
NEW MEXICO
13676
REGISTERED PROFESSIONAL ENGINEER

09-28-2017

File Path: P:\DATA\2017\2017.024.1\DWG\ | Plot Date: 09-28-2017
File Name: 20170241_SH2.DWG | Plot Time: 12:15 pm

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SECTIONS, DETAILS AND CALCULATIONS

EXPLORA SURPLUS PROPERTY DRIVEPAD

DESIGNED BY	J.D.S.
DRAWN BY	J.Y.R., S.C.C.
APPROVED BY	G.M.

NO.	DATE	BY	REVISIONS

JOB NO.	2017.024.1
DATE	09-2017
SHEET	2 OF 2