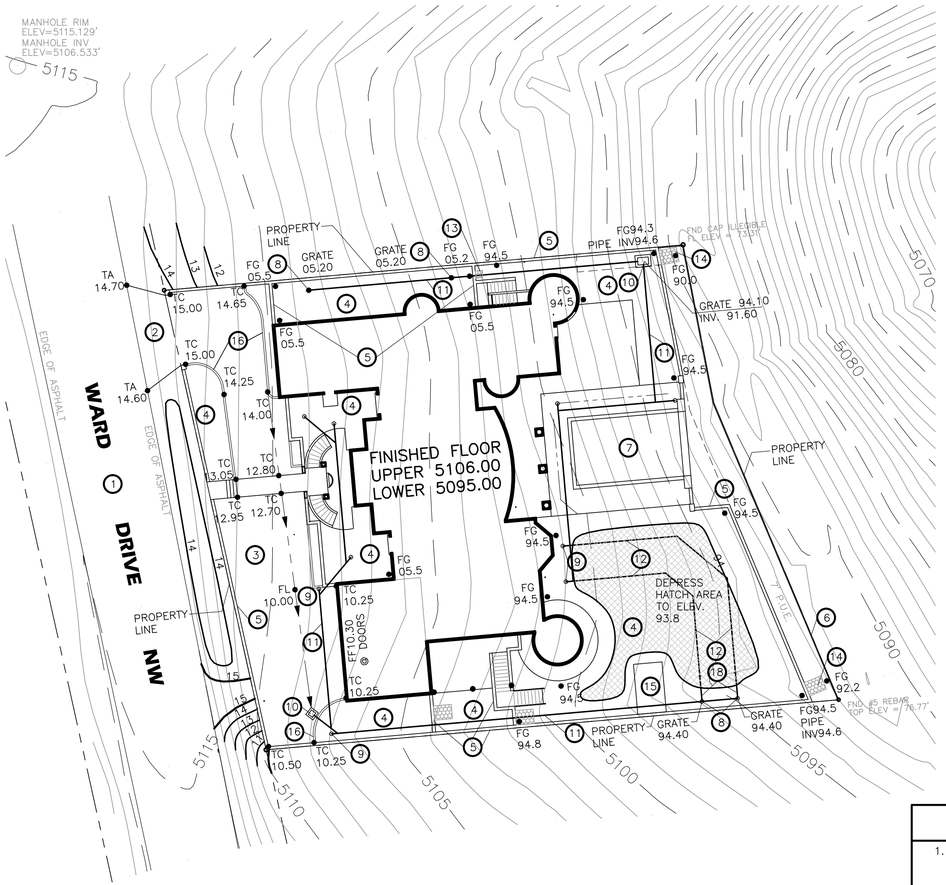
GRADING PLAN



NOTES:

1. ALL DRAINAGE SYSTEM OPENINGS SHALL BE SEALED FROM THE TIME OF INSTALLATION UNTIL ALL CONSTRUCTION (INCLUDING LANDSCAPING) IS COMPLETE.

2. THIS SITE IS DESIGNED WITH A RETENTION DRAINAGE SYSTEM. PROPERTY OWNER IS RESPONSIBLE FOR REGULAR INSPECTION AND MAINTENANCE OF THE DRAINAGE SYSTEM TO ASSURE IT'S VIABILITY. WATER QUALITY CATCH BASINS MUST BE INSPECTED AND CLEANED ON A REGULAR BASIS.

KEYED NOTES

1. EXISTING PAVED PUBLIC STREET, NO CURB ORE SIDEWALK
2. ASPHALT DRIVE TRANSITION.
3. CONCRETE DRIVEWAY.
4. LANDSCAPED AREA.
5. CMU YARD/RETAINING WALL. ENTIRE WALL INCLUDING FOOTING MUST BE CONSTRUCTED INSIDE THE PROPERTY UNLESS WRITTEN APPROVAL, FILED WITH THE COUNTY CLERK IS GRANTED BY OWNERS OF NEIGHBORING PROPERTIES. SEE ARCHITECTURAL PLANS FOR WALL STRUCTURAL DETAILS. TOP OF RETAINING PORTION OF THE WALL SHALL BE AT LEAST 8" ABOVE THE HIGHER OF THE EXISTING GROUND OR THE PROPOSED GROUND. THE EARTH SURFACE OF ADJACENT LOTS SHALL BE RETURNED TO ELEVATIONS PRIOR TO ANY GRADING OF THE SUBJECT LOT.
6. WROUGHT IRON FENCE.
7. SWIMMING POOL AND DECK. DECK FLUSH WITH PORCH FLOOR.
8. 6" DIAM. CAST IRON, LOW PROFILE, LIGHT DUTY, BEE HIVE, AREA DRAIN SET IN 12" DIAM. x 6" THICK CONCRETE COLLAR. SET AREA DRAINS AND COLLARS TO GRADE DURING LANDSCAPING INSTALLATION TO COORDINATE ELEVATIONS.
9. STORM DRAIN CLEAN OUT.
10. WATER QUALITY CATCH BASIN. SEE DETAIL ON SHEET C-2.
11. 6" SOLID WALL PVC STORM DRAIN @ 1/8" /FOOT GRADE.
12. 6" PERFORATED PVC STORM DRAIN IN GRAVEL INFILTRATION TRENCH. SEE DETAIL ON SHEET C-2.
13. PLACE 2-3" PVC PIPES THRU WALL. SET PIPE INVERT AT FG + 3". BUILD SPLASH PAD (2'x2'x12" THICK AT OUTLET.
14. PLACE 4-3" PVC PIPES THRU WALL. SET PIPE INVERT AT FG + 3". BUILD SPLASH PAD (4' WIDE x 5' LONG x 12" THICK) AT OUTLET.
15. POOL EQUIPMENT.
16. 6" HEADER CURB.
17. 6" DIAM. CAST IRON, FLAT AREA DRAIN SET IN POOL DECK.
18. 10' SOLDI WALL PVC STORM DRAIN @ 1/8"/FOOT GRADE.

GRADING NOTES

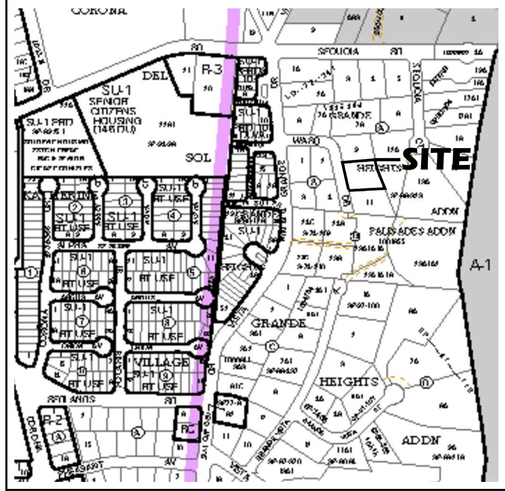
1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE NEW MEXICO ONE CALL SYSTEM AT 260-1990 FOR LOCATION OF EXISTING UTILITIES.

2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

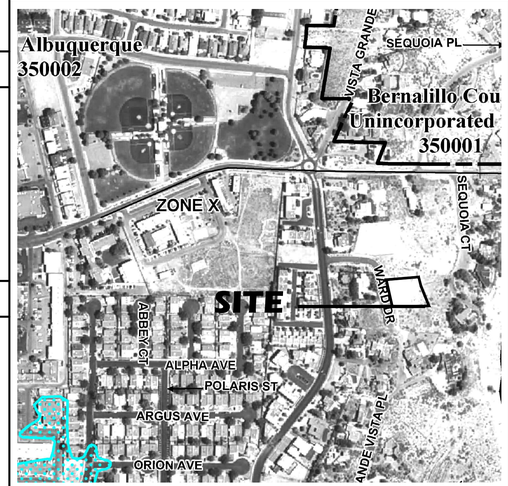
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.

4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

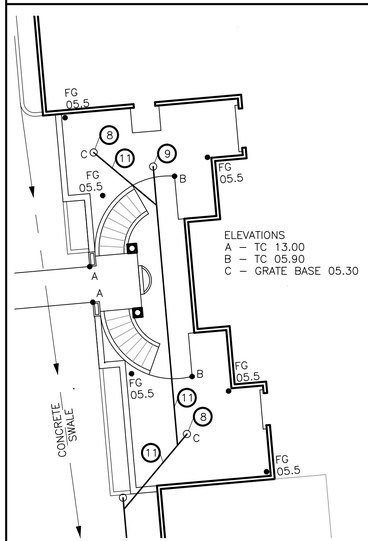
VICINITY MAP G-11



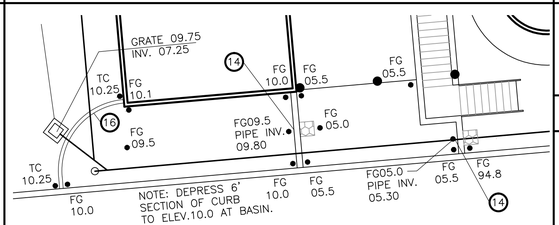
FEMA FIRM PANEL NO. 327



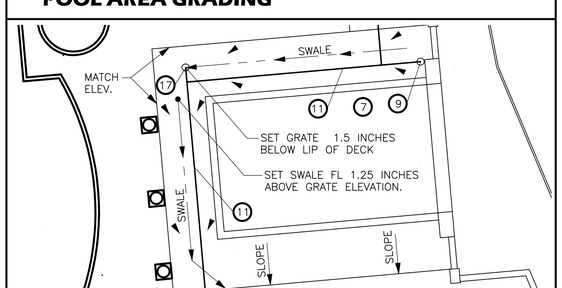
FRONT COURT GRADING



SOUTH YARD GRADING



POOL AREA GRADING



CONSTRUCTION NOTES

1. TRENCHES FOR PERFORATED DRAINS MUST BE LOCATED IN SANDY SOILS. DRAINAGE ENGINEER SHALL BE CONTACTED AFTER TRENCH IS EXCAVATED AND PRIOR TO BACKFILLING WITH GRAVEL TO EXAMINE TRENCH. IF LOCATED IN CLAY OR HIGH SILT SOILS THE TRENCH SHALL BE WIDENED TO 5 FEET AND BACKFILLED WITH SANDY SOIL PRIOR TO INSTALLING FILTER FABRIC AND GRAVEL.
2. ALL SOLID WALL STORM DRAIN LINES SHALL HAVE AT LEAST 2 FEET OF COVER AND SHALL HAVE MAGNETIC MARKING TAPES 6 INCHES ABOVE THE PIPE.
3. ALL PERFORATED STORM DRAIN LINES SHALL HAVE 2 FEET OF COVER OVER AND SHALL HAVE MAGNETIC MARKING TAPES 6 INCHES ABOVE THE GRAVEL TRENCH ENVELOPE.

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONSTRUCTION OF TEMPORARY SOIL BERMS OR SILT FENCES AT PROPERTY LINES AND WETTING SOIL TO PREVENT IT FROM BLOWING. IF THE SITE IS CONTROLLED BY A SWPPP PLAN, EROSION CONTROL SHALL BE ACCOMPLISHED ACCORDING TO THE PLAN.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE THE APPROPRIATE BARRICADING, TOP SOIL DISTURBANCE AND EXCAVATION PERMITS FROM THE CITY PRIOR TO BEGINNING CONSTRUCTION.

OFFSITE DRAINAGE DATA

A LARGE RETENTION POND IS LOCATED WEST OF WARD DRIVE CONTAINING FLOWS FROM THE WEST AS WELL AS THE WESTERLY HALF OF WARD DRIVE. WARD DRIVE IS THE DAM FORMING THE RETENTION POND. FLOWS FROM THE EASTERLY HALF OF WARD DRIVE WILL BE RETAINED IN A POND GRADED IN THE WARD DRIVE ROW.

DRAINAGE NOTES

1. THE SITE IS PRESENTLY VACANT WITH A GRADED PAD. VEGETATION IS ESSENTIALLY NOT-EXISTANT. ALL RUNOFF FLOWS EXIT THE EAST SIDE OF THE LOT AND CROSS THE ABUTTING UNDEVELOPED LOT TO SEQUOIA CT.

2. THE SITE IS LOCATED IN RAINFALL ZONE 1. DUE TO THE LACK OF DRAINAGE FACILITIES IN THE AREA THE SITE IS DESIGNED ON A RETENTION SYSTEM BASIS. THE SITE IS DESIGNED TO CONTAIN THE 100 YEAR, 24 HOUR STORM. THE SYSTEM UTILIZES BOTH ABOVE AND BELOW GROUND SYSTEMS TO RETAIN STORM FLOWS.

THE SYSTEM IS DESIGNED TO HAVE THE CAPACITY TO RETAIN THE 100 YEAR, 6 HOUR STORM IN SURFACE AND SUBSURFACE (INFILTRATION GALLERIES) PONDING. INFILTRATION TO THE SURROUNDING SOIL IS NOT CONSIDERED EFFECTIVE DURING THIS PERIOD.

THE ADDITIONAL RUNOFF VOLUME BETWEEN THE SIX HOUR AND 24 HOUR STORMS IS DISTRIBUTED TO SUBSURFACE SOIL VIA UNDERGROUND INFILTRATION GALLERIES. THE GALLERIES PROVIDE AN INFILTRATION SURFACE AREA OF 1330 S.F. WITH A HYDRAULIC CONDUCTIVITY RATE OF 0.01.33 CM/SEC (0.53 CFS) BASED ON CONDUCTIVITY TESTS PERFORMED BY GEOTEST, INC. SUBMITTED WITH THIS REPORT.

THE SITE IS ALSO PROVIDED WITH TWO EMERGENCY OUTLETS AT THE NORTHEAST AND SOUTHEAST CORNERS OF THE SITE.

3. THE SITE IS LOCATED IN 'ZONE X' PER FEMA FIRM MAP NO. 327, DATED AUGUST, 2012.

4. TOPO SURVEY DATA SHOWN ON THIS DRAWING WAS OBTAINED BY ADVANTAGE SURVEYING DATED DECEMBER, 2008.

LEGEND

TBM	TEMPORARY BENCHMARK
G	GROUND
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOWLINE
TA	TOP OF ASPHALT
TC	TOP OF CONCRETE
BC	TOP OF CURB
TP	TOP OF EARTH PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
WM	WATER METER
WV	WATER VALVE
MH	MANHOLE
CB	CATCH BASIN GRATE
GM	GAS MATER
GV	GAS VALVE
LP	LIGHT POLE
PP	POWER POLE
GW	GUY WIRE
PED	ELEC. OR TEL. PEDESTAL
RD ▶	ROOF DRAINAGE POINT
	FEMA FLOODPLAIN BOUNDARY
	DRAINAGE BASIN BOUNDARY
	EROSION SETBACK LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
XX.XX	EXISTING SPOT ELEVATION
XX.XX	PROPOSED SPOT ELEVATION
~~XX.XX~~	RECORD SPOT ELEVATION

LEGAL DESCRIPTION

LOT 10, BLOCK A, GRANDE HEIGHTS ADDITION

PERMANENT BENCHMARK

ACS 12-E14 ELEVATION 4978.632 (NAVD 1988)

no.	date	remarks	by

REVISIONS

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR NO. 9878 NEW MEXICO STEVEN J. BORDENAVE

07/28/14

project title
LOVATO RESIDENCE
3412 WARD DRIVE NW
ALBUQUERQUE, NM

sheet title
GRADING & DRAINAGE PLAN

sheet date	design by	project no.
07/28/14	JJB	1311

BORDENAVE DESIGNS
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sheet **C-1** of