

DRAINAGE SUMMARY

EXISTING CONDITIONS:

AS INDICATED ON THE GRADING & DRAINAGE PLAN PREPARED BY RICHARD LOVATO DATED / SEALED 3/9/2004, THE RANCHO DE CANDELARIA SUBDIVISION WAS ROUGH GRADED AND CERTIFIED RECORD DRAWINGS WERE PROVIDED ON 11/27/2005. THE SUBDIVISION WAS DESIGNED UTILIZING THE "FLAT GRADING SCHEME" AS ALLOWED IN THE PROXIMITY OF THE AREA AS REFERENCED IN SECTION 22.2 OF THE DPM. THROUGHOUT THE 3 LOT SUBDIVISION, RETENTION PONDS HAVE BEEN PLACED TO RECEIVE DEVELOPED FLOWS FROM EACH LOT AND 1/2 OF THE DEVELOPED STREET FRONTAGE. THE REQUIRED PONDING VOLUME FOR EACH LOT WAS PROVIDED IN THE TABLE FROM THE ORIGINAL GRADING AND DRAINAGE PLAN UTILIZING THE 10-DAY, 100% EVENT. LOT 6 WAS CONSTRUCTED AND CERTIFIED WITH 2 RETENTION PONDS THAT ACCEPT 1/2 OF THE DEVELOPED FLOWS FROM 1/2 OF THE ADJACENT STREET (CONRADO COURT NW) AND FROM THE DEVELOPED FLOWS FROM LOT 6 ITSELF.

ACCORDING TO FIRM MAP 55-00100531, THE SITE IS IN FLOOD HAZARD ZONE X.

PROPOSED CONDITIONS:

THE GRADING AND DRAINAGE PLAN SHOWS TWO BASINS (A & B) SHOWING THE PROPOSED BUILDING FOOTPRINT FOR LOT 6 AND THE PROPOSED MODIFICATIONS TO THE RETENTION PONDS. AS SHOWN ON THE PLAN, THE NORTHERN PORTION OF THE ADJACENT ELEVATED STREET FRONTAGE ENTER THE SITE. AT THE NORTHEAST PORTION OF THE SITE AND COMBINE WITH THE DEVELOPED FLOWS FROM BASIN A. THESE FLOWS DRAIN NORTH/NORTHWEST AND WEST INTO THE ADJACENT POND A, WHICH HAS A CAPACITY OF 842CF. THE SOUTHERN PORTION OF THE ADJACENT ELEVATED STREET FRONTAGE ENTERS THE SOUTHEAST PORTION OF THE SITE AT THE LOWER PORTION OF THE PROPOSED DRIVEWAY. THE DEVELOPED FLOWS FROM THE WESTERN PORTION OF BASIN B DRAIN SOUTHWEST INTO THE ADJACENT POND B, WHICH HAS A CAPACITY OF 1598CF. THESE PONDS HAVE A TOTAL CAPACITY OF 2440CF WHICH IS GREATER THAN THE REQUIRED 10-DAY, 100% EVENT OF 2377CF FOR BOTH BASINS. THE DEVELOPED FLOWS FROM BASIN A IS 0.25CF/S AND THE DEVELOPED FLOWS FROM BASIN B IS 0.71CF/S.

CIVIL CONSTRUCTION NOTES

A. GENERAL

- The contractor shall be responsible for verifying the existence and location of all underground utilities.
- Contractor shall repair any and all infrastructure damaged during the course of construction in accordance with City of Albuquerque specifications.
- The contractor shall notify all applicable utility companies two (2) working days prior to any digging or excavation.
- The jobsite, at the completion of construction, shall be cleaned of any debris or spoils resulting from the construction.
- It is the contractor's responsibility to inspect the job site to familiarize himself/herself with all the existing conditions that could affect the installation of any work set forth in these plans.
- Contractor is responsible for obtaining all required construction permits including a topsoil disturbance permit, prior to start of construction.
- 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.
- The contractor shall not install items as shown on the plans when it is obvious that field conditions are different than shown in the design. Such conditions should be brought to the attention of the Engineer. In the event the contractor does not notify the Engineer, the contractor assumes full responsibility and expense for any revisions necessary.
- Existing site improvements which are damaged or displaced by the contractor shall be removed and replaced by the contractor.
- Existing fencing that is not designated for removal shall not be disturbed. Any fencing that is disturbed or altered by the contractor shall be restored to its original condition at the contractor's expense. If the contractor would like to remove fencing to facilitate construction operations, this may be done with the owner's permission, and the contractor shall restore the fence to its original condition prior to the close of the project. Contractor is responsible for security of the site until the fence is replaced.
- The contractor shall refer to the project specifications for site specifications. Any work within the City easements or ROW shall follow CDA Specifications for Public Infrastructure.
- All existing mainline utilities are to remain in place and are to be protected during demolition and construction.
- Neither the owner, nor the Architect or Engineer of record will enforce any safety measure or regulation. The contractor shall design, construct and maintain all safety devices, including traffic control, shoring, and shall be solely responsible for conformance to all local, state and federal safety and health standards, laws and regulations.
- Contractor will be responsible for any monumentation and/or benchmarks which will be disturbed or destroyed by construction. Such points shall be referenced and replaced with appropriate monumentation by a licensed land surveyor.
- Any work done without inspection or testing is subject to removal or correction.
- The engineer of record shall not be responsible for the contractor's failure to carry out the construction work in accordance with the contract documents, nor shall he be required to supervise the conduct of the work on the construction procedures and safety procedures followed by the contractor or the subcontractor or their respective employees or by any other person at the job site other than that of the Engineer's employees.
- Contractor agrees that he shall assume sole and complete responsibility for the job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify and hold the owner and engineer harmless of any and all liability, real or alleged, in connection with the performance of work on this project, excepting liability arising from the sole negligence of the owner or the Engineer.
- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied upon as being exact or complete. The contractor must call the appropriate utility company at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.
- Contractor is responsible for obtaining all permits to construct facilities within City easements or ROW.
- All existing topo, existing boundary, existing easement information, & existing utilities shown on the design drawings were obtained from Harris Surveying Co. and Cartesian Surveyors. GJA, LLC is not responsible for any discrepancies or redesign of any and all infrastructure due to the inaccuracy of the surveys.
- The contractor shall reference the boundary and topographic survey prepared by Harris Surveying for all easements, existing infrastructure and elevations. In June 2014, supplemented by Cartesian Surveyors who provided interim grading as-built and the actual location of the house prior to the contractor adding the request for a 30' swimming pool and had built the pad 4' higher than the approved plan. Adjustments were made to the approved plan dated/sealed February March 19, 2014.
- The contractor shall contact Harris Surveying or Cartesian Surveyors for surveying control, construction staking and final as-builts with mark-ups provided by GJA, LLC.

B. GRADING & DRAINAGE NOTES

- The contractor shall excavate the existing soils in the pond areas to a depth recommended by the geotechnical report and supplemental letters provided by Earthworks Engineering Group, LLC. Free draining material with gradation and classification provided by Earthworks Engineering Group shall then be placed once verified by the contractor w/ the concurrence of the geotechnical engineer.
- The contractor shall install 3' to 8' diameter cobbles in the retention ponds per the recommendations of Earthworks Engineering Group, LLC.
- With exception of the north pond, which is 4' from the structure, the location of south retention pond shown on this plan was placed 5' from the proposed residence similar to those shown on the certified record drawings prepared by Richard Lovato, PE dated 11/27/05. This grading plan does not address existing soil types nor treatment of soils for the potential saturation of soils adjacent to structures. The contractor shall obtain supplemental recommendations from Earthworks Engineering Group, LLC for treatment of the pond soils to prevent saturation of structure foundations by the use of waterproof cutoff/foundation walls.
- Once grading is constructed and approved, the owner shall maintain all drainage paths, retention ponds, drain pipe and areas not to receive impervious treatment.
- The contractor shall follow earthwork recommendations per the geotechnical report and supplemental letters provided by Earthworks Engineering Group, LLC.
- The contractor shall obtain and follow earthwork recommendations per the geotechnical engineer and the contractor's structural engineer for the design and construction of the retention pond wall that is shown to be placed at the north property line of lot 6. The retention pond wall shall be designed for the hydrostatic and soil saturation conditions resulting from the retention of the storm water runoff indicated by this plan and the certified grading plan prepared by Richard Lovato dated 11-27-05.
- The contractor shall provide copies of this revised grading plan to obtain recommendations from the geotechnical engineer for waterproofing of structures adjacent to the drainages and retention ponds.
- The contractor shall provide adjusted roof drain plan to GJA, LLC that match roof drain and site drainage patterns established by this plan prior to final Certificate of Occupancy request.
- The contractor shall follow the waterproofing recommendations of the geotechnical engineer for the swales and cutoff walls for the protection of the foundations.
- The contractor is responsible for all necessary shoring for overexcavating required for the installation of the swimming pool to be installed by others.
- The contractor is responsible to notify Earthworks Engineering to verify the bottom of the overexcavation limits for assurance of required free-draining material.

C. EROSION CONTROL, ENVIRONMENTAL PROTECTION, AND STORM WATER, POLLUTION PREVENTION PLAN

- The contractor shall conform to all City, County, State, and Federal dust and erosion control regulations. The contractor shall prepare and obtain any necessary dust or erosion control permits from regulatory agencies.
- The contractor shall secure an excavation and dirt moving permit from the appropriate County Environmental Health Division prior to beginning construction if required.
- The contractor shall promptly remove any material excavated within the public Right-Of-Way to keep it from washing off the project site.
- The contractor shall ensure that no soil erodes from the site onto other property by constructing temporary erosion control berms or installing silt fences at the property lines and wetting the soil to keep it from blowing.
- Watering, as required for construction and dust control, shall be considered incidental to construction and no measurement or payment shall be made there of. Construction areas shall be watered for dust control in compliance with government ordinances. The contractor shall be responsible for locating and supplying water as required.
- Any areas disturbed by construction and not covered by landscaping or an impervious surface shall be revegetated with reclamation seeding.
- The contractor shall properly handle and dispose of all asphalt removed on the project by hauling to an approved landfill in accordance with the requirements of the State of New Mexico.
- All waste products from the construction site, including items designed for removal, construction waste, construction equipment waste products (oil, gas, tires, etc.), garbage, grubbing, excess cut material, vegetative debris, etc. shall be appropriately disposed of off-site at no additional cost to the owner. It shall be the contractor's responsibility to obtain any permits required for haul or disposal of waste products. It shall be the contractor's responsibility to ensure that the waste disposal site complies with government regulations regarding the environment, endangered species, and archaeological resources.
- The contractor shall be responsible for the clean-up and reporting of spills of hazardous materials and with the construction site. Hazardous materials include gasoline, diesel fuel, oil, hydraulic fluid, chemicals, paint, etc. which may be a threat to the environment. The contractor shall report the discovery of past or present spills to the appropriate County Environmental Department.
- The contractor shall comply with all applicable regulations concerning surface and underground water. Contact with surface water by storm water point source discharges shall be minimized. Equipment maintenance and refueling operations shall be performed in an environmentally safe manner in compliance with government regulations.
- The air pollution control regulations of the appropriate county environmental services dept. county air quality control board limit the emission of particulates and the use of cutback asphalt. The contractor shall apprise himself of these regulations prior to bidding and performing the work.
- The contractor shall comply with all applicable regulations concerning construction noise and hours of operations.
- The contractor shall conform to all City, County, State & Federal storm water pollution prevention requirements established under the National Pollutant Discharge Elimination System (NPDES). The contractor shall prepare & obtain all NPDES permits for storm water point source discharges. A Storm Water Pollution Prevention Plan shall be provided by the contractor. The contractor shall maintain the site engineer at applicable records to maintain the SWPPP.

RETENTION POND A
V10DAY-100YR REQUIRED = 783CF
POND A VOL PROVIDED = 842CF

LEGAL DESCRIPTION:

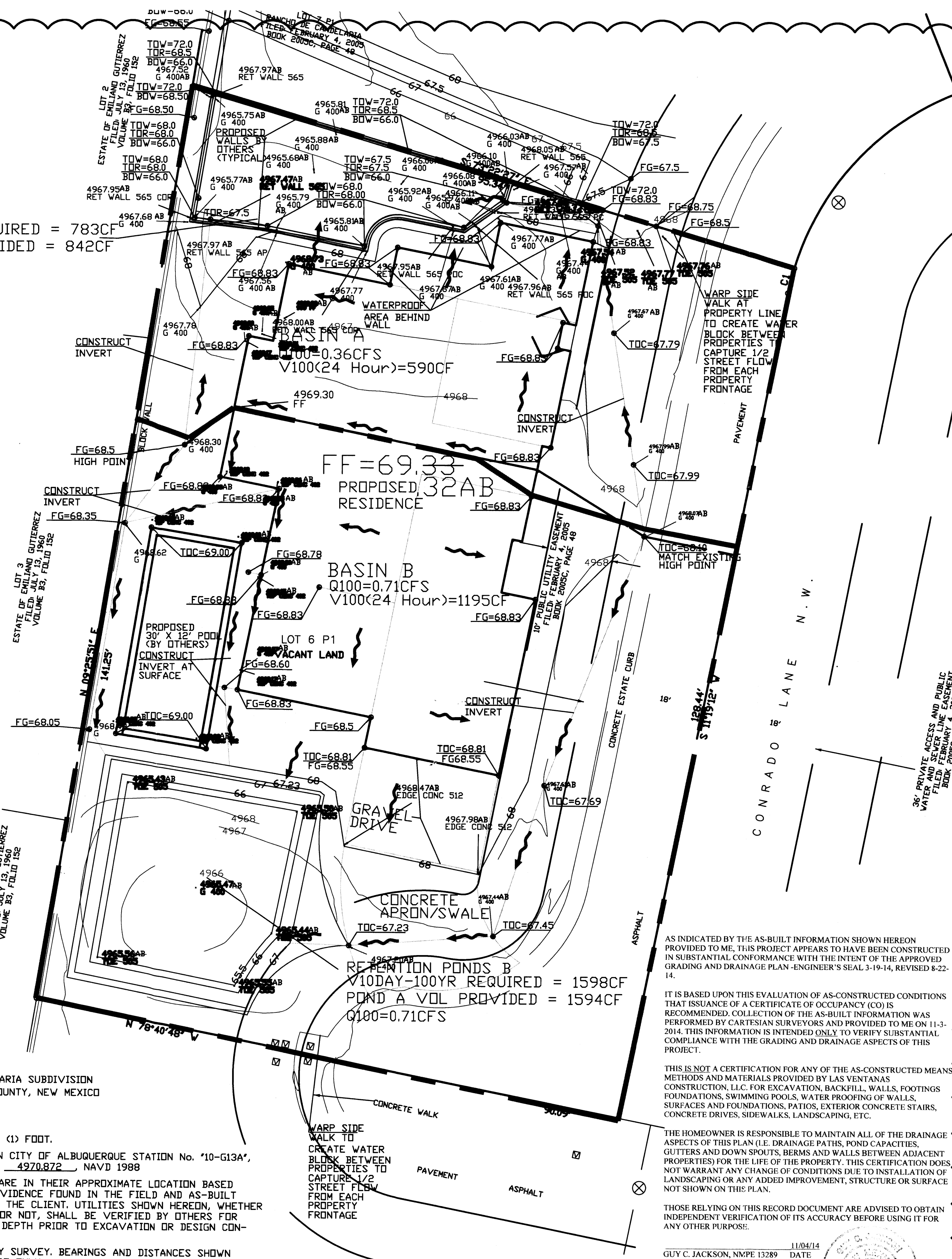
LOT 6 P1, RANCHO DE CANDELARIA SUBDIVISION
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

SURVEY NOTES:

- CONTOUR INTERVAL IS ONE (1) FOOT.
- ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. "10-G13A", HAVING AN ELEVATION OF 4970.872 NAVD 1988
- UTILITIES SHOWN HEREIN ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREIN, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
- THIS IS NOT A BOUNDARY SURVEY. BEARINGS AND DISTANCES SHOWN HEREIN ARE FOR REFERENCE ONLY.

SURVEY LEGEND:

- EC = EDGE OF CONCRETE
- CLM = CENTERLINE MONUMENT
- CLR = CENTERLINE OF ROAD
- NRSASH = NORTH RIM OF SANITARY SEWER MANHOLE
- WM = WATER METER
- PHB = PHONE BOX
- EBX = ELECTRIC BOX
- CATV = CABLE BOX
- SSM = SEWER STUB MARK
- INV = INVERT
- G = GROUND



AS INDICATED BY THE AS-BUILT INFORMATION SHOWN HEREON PROVIDED TO ME, THIS PROJECT APPEARS TO HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE INTENT OF THE APPROVED GRADING AND DRAINAGE PLAN - ENGINEER'S SEAL 3-19-14, REVISED 8-22-14.

IT IS BASED UPON THIS EVALUATION OF AS-CONSTRUCTED CONDITIONS THAT ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO) IS RECOMMENDED. COLLECTION OF THE AS-BUILT INFORMATION WAS PERFORMED BY CARTESIAN SURVEYORS AND PROVIDED TO ME ON 11-3-2014. THIS INFORMATION IS INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE WITH THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT.

THIS IS NOT A CERTIFICATION FOR ANY OF THE AS-CONSTRUCTED MEANS, METHODS AND MATERIALS PROVIDED BY LAS VENTANAS, CONSTRUCTION, LLC, FOR EXCAVATION, BACKFILL, WALLS, FOOTINGS, FOUNDATIONS, SWIMMING POOLS, WATER PROOFING OF WALLS, SURFACES AND FOUNDATIONS, PATIOS, EXTERIOR CONCRETE STAIRS, CONCRETE DRIVES, SIDEWALKS, LANDSCAPING, ETC.

THE HOMEOWNER IS RESPONSIBLE TO MAINTAIN ALL OF THE DRAINAGE ASPECTS OF THIS PLAN (I.E. DRAINAGE PATHS, POND CAPACITIES, GUTTERS AND DOWN SPOUTS, BERMS AND WALLS BETWEEN ADJACENT PROPERTIES) FOR THE LIFE OF THE PROPERTY. THIS CERTIFICATION DOES NOT WARRANT ANY CHANGE OF CONDITIONS DUE TO INSTALLATION OF LANDSCAPING OR ANY ADDED IMPROVEMENT, STRUCTURE OR SURFACE NOT SHOWN ON THIS PLAN.

THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

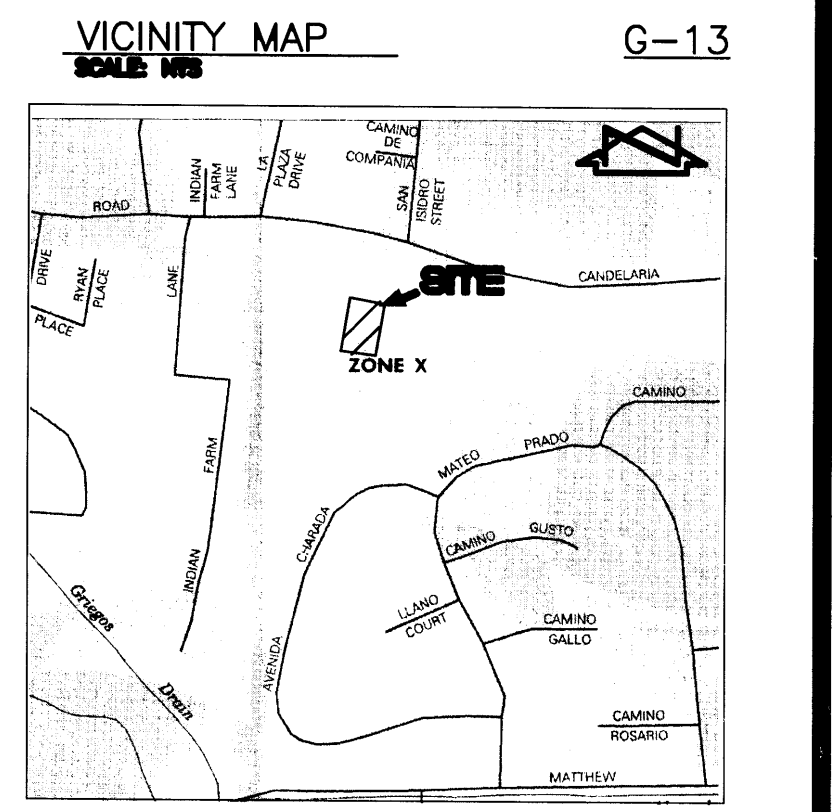
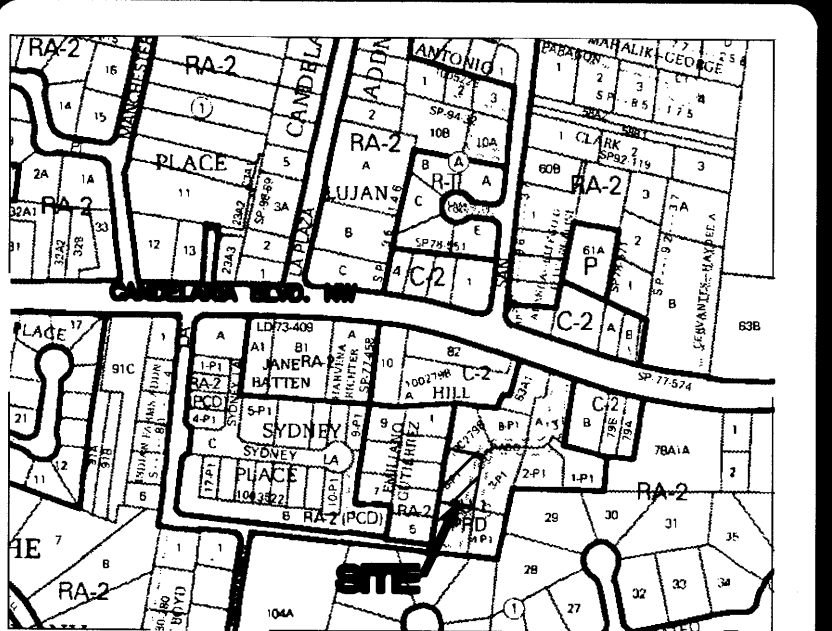
GUY C. JACKSON, NMPE 13289 DATE 11/04/14

GRADING & DRAINAGE PLAN

0 5' 10' 20'

RECEIVED
NOV - 4 - 14
LAND DEVELOPMENT SECTION

GUY JACKSON
AND ASSOCIATES, LLC
CIVIL ENGINEERING



F.I.R.M. PANEL 331 of 825
DATED 08-28-2008
FEDERAL EMERGENCY
MANAGEMENT AGENCY

LEGEND

- DIRECTION OF FLOW
- PROPOSED BASIN BOUNDARY
- PROPOSED SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR

REV.	DESCRIPTION	DATE
1	GRADING REVISIONS	JULY 2014

ENGINEER
ARCHITECT

Lot 6, Conrado Ct. NW
Albuquerque, NM

PROJECT NO. DATE
MARCH 2014

GRADING & DRAINAGE PLAN

DRAWING NO.

C-2.1

Occupied

DRAINAGE SUMMARY

EXISTING CONDITIONS:

AS INDICATED ON THE GRADING & DRAINAGE PLAN PREPARED BY RICHARD LOVATO DATED / SEALED 3/9/2004, THE RANCHO DE CANDELARIA SUBDIVISION WAS ROUGH GRADED AND CERTIFIED RECORD DRAWINGS WERE PROVIDED ON 11/27/2005. THE SUBDIVISION WAS DESIGNED UTILIZING THE "PLAT GRADING SCHEME" AS ALLOWED IN THE PROXIMITY OF THE AREA AS REFERENCED IN SECTION 22.2 OF THE DPM. THROUGHOUT THE 8 LOT SUBDIVISION, RETENTION PONDS HAVE BEEN PLACED TO RECEIVE DEVELOPED FLOWS FROM EACH LOT AND 1/2 OF THE DEVELOPED STREET FRONTAGE. THE REQUIRED PONDING VOLUME FOR EACH LOT WAS PROVIDED IN THE TABLE FROM THE ORIGINAL GRADING AND DRAINAGE PLAN UTILIZING THE 10-DAY, 100YR EVENT. LOT 6 WAS CONSTRUCTED AND CERTIFIED WITH 2 RETENTION PONDS THAT ACCEPT 1/2 OF THE DEVELOPED FLOWS FROM 1/2 OF THE ADJACENT STREET (CONRADO COURT NW) AND FROM THE DEVELOPED FLOWS FROM LOT 6 ITSELF.

ACCORDING TO FIRM MAP 35001C0351, THE SITE IS IN FLOOD HAZARD ZONE X.

PROPOSED CONDITIONS:

THE GRADING AND DRAINAGE PLAN SHOWS TWO BASINS (A & B) SHOWING THE PROPOSED BUILDING FOOTPRINT FOR LOT 6 AND THE PROPOSED MODIFICATIONS TO THE RETENTION PONDS. AS SHOWN ON THE PLAN, THE NORTHERN PORTION OF THE ADJACENT ELEVATED STREET FRONTAGE ENTER THE SITE AT THE NORTHEAST PORTION OF THE SITE AND COMBINE WITH THE DEVELOPED FLOWS FROM BASIN A. THESE FLOWS DRAIN NORTH/NORTHWEST AND WEST INTO THE ADJACENT POND A, WHICH HAS A CAPACITY OF 842CF. THE SOUTHERN PORTION OF THE ADJACENT ELEVATED STREET FRONTAGE ENTERS THE SOUTHEAST PORTION OF THE SITE AT THE LOWER PORTION OF THE PROPOSED DRIVEWAY. THE DEVELOPED FLOWS FROM THE WESTERN PORTION OF BASIN B DRAIN SOUTH/SOUTHWEST INTO THE ADJACENT POND B, WHICH HAS A CAPACITY OF 1598CF.

THESE PONDS HAVE A TOTAL CAPACITY OF 2440CF WHICH IS GREATER THAN THE REQUIRED 10-DAY, 100YR EVENT OF 2377CF FOR BOTH BASINS. THE DEVELOPED FLOWS FROM BASIN A IS 0.35CFS AND THE DEVELOPED FLOWS FROM BASIN B IS 0.71CFS.

CIVIL CONSTRUCTION NOTES

A. GENERAL

- The contractor shall be responsible for verifying the existence and location of all underground utilities.
- Contractor shall repair any and all infrastructure damaged during the course of construction in accordance with City of Albuquerque specifications.
- The contractor shall notify all applicable utility companies two (2) working days prior to any digging or excavation.
- The jobsite, at the completion of construction, shall be cleaned of any debris or spoils resulting from the construction.
- It is the contractor's responsibility to inspect the job site to familiarize himself/herself with all the existing conditions that could affect the installation of any work set forth in these plans.
- Contractor is responsible for obtaining all required construction permits including a topsoil disturbance permit, prior to start of construction.
- 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.
- The contractor shall not install items as shown on the plans when it is obvious that field conditions are different than shown in the design. Such conditions should be brought to the attention of the Engineer. In the event the contractor does not notify the Engineer, the contractor assumes full responsibility and expense for any revisions necessary.
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- The contractor shall refer to the project specifications for site specifications. Any work within the City easements or RDW shall follow CDA Specifications for Public Infrastructure.
- All existing mainline utilities are to remain in place and are to be protected during demolition and construction.
- Neither the owner, nor the Architect or Engineer of record will enforce any safety measure or regulation. The contractor shall design, construct and maintain all safety devices, including traffic control, shoring, and shall be solely responsible for conforming to all local, state and federal safety and health standards, laws and regulations.
- Contractor will be responsible for any monumentation and/or benchmarks which will be disturbed or destroyed by construction. Such points shall be referenced and replaced with appropriate monumentation by a licensed land surveyor.
- Any work done without inspection or testing is subject to removal or correction.
- The engineer of record shall not be responsible for the contractor's failure to carry out the construction work in accordance with the contract documents, nor shall he be required to supervise the conduct of the work or the construction procedures and safety procedures followed by the contractor or the subcontractor or their respective employees or by any other person at the job site other than that of the Engineer's employees.
- Contractor agrees that he shall assume sole and complete responsibility for the job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify and hold the owner and engineer harmless of any and all liability, real or alleged, in connection with the performance of work on this project, excepting liability arising from the sole negligence of the owner or the Engineer.
- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied upon as being exact or complete. The contractor must call the appropriate utility company at least 48 hours before any excavation to request exact field location of utilities. It is the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.
- Contractor is responsible for obtaining all permits to construct facilities within City easements or RDW.
- All existing topo, existing boundary, existing easement information, & existing utilities shown on the design drawings were obtained from Harris Surveying Co. and Cartesian Surveyors. GJA, LLC is not responsible for any discrepancies or redesign of any and all infrastructure due to the inaccuracy of the surveys. The contractor shall reference the boundary and topographic survey prepared by Harris Surveying for all easements, existing infrastructure and elevations. In June 2014, supplemented by Cartesian Surveyors who provided interior grading asbluts and the actual location of the house pad after the contractor added the request for a 12' X 30' sidewalk and had built the pad 4' higher than the approved plan. Adjustments were made to the approved plan dated/SEALED February March 13, 2014. The contractor shall contact Harris Surveying or Cartesian Surveyors for surveying control, construction staking and final asbluts with mark-ups provided by GJA, LLC.

B. GRADING & DRAINAGE NOTES

- The contractor shall excavate the existing soils in the pond areas to a depth recommended by the geotechnical report and supplemental letters provided by Earthworks Engineering Group, LLC. Free draining material with gradation and classification provided by Earthworks Engineering Group shall then be placed once verified by the contractor w/ the concurrence of the geotechnical engineer.
- The contractor shall install 3' to 8' diameter cobbles in the retention ponds per the recommendations of Earthworks Engineering Group, LLC.
- With exception of the north pond, which is 4' from the structure, the location of south retention pond shown on this plan was placed 5' from the proposed residence similar to those shown on the certified record drawings prepared by Richard Lovato, PE dated 11/27/05. This grading plan does not address existing soil types nor treatment of soils for the potential saturation of soils adjacent to structures. The contractor shall obtain supplemental recommendations from Earthworks Engineering Group, LLC for treatment of the pond soils to prevent saturation of structure foundations by the use of waterproof cutoff/foundation walls.
- Once grading is constructed and approved, the owner shall maintain all drainage paths, retention ponds, drain pipe and areas not to receive impervious treatment.
- The contractor shall follow earthwork recommendations per the geotechnical report and supplemental letters provided by Earthworks Engineering Group, LLC.
- The contractor shall obtain and follow earthwork recommendations per the geotechnical report and the contractor's structural engineer for the design and construction of the retention pond wall that is shown to be placed at the north property line of Lot 6. The retention pond wall shall be designed for the hydrostatic and solid saturation conditions resulting from the retention of the storm water runoff indicated by this plan and the certified grading plan prepared by Richard Lovato dated 11-27-05.
- The contractor shall provide copies of this revised grading plan to obtain recommendations from the geotechnical engineer for waterproofing of structures adjacent to the drainages and retention ponds.
- The contractor shall provide adjusted roof drain plan to GJA, LLC that match roof drain and site drainage patterns established by this plan prior to final Certificate of Occupancy request.
- The contractor shall follow the waterproofing recommendations of the geotechnical engineer for the scales and cutoff for the protection of the foundations.
- The contractor is responsible for all necessary shoring for overexcavation required for the installation of the swimming pool to be installed by others.
- The contractor is responsible to notify Earthworks Engineering to verify the bottom of the overexcavation limits for assurance of required free-draining material.

C. EROSION CONTROL, ENVIRONMENTAL PROTECTION, AND STORM WATER, POLLUTION PREVENTION PLAN

- The contractor shall conform to all City, County, State, and Federal dust and erosion control regulations. The contractor shall prepare and obtain any necessary dust or erosion control permits from regulatory agencies.
- The contractor shall secure an excavation and dirt moving permit from the appropriate County Environmental Health Division prior to beginning construction if required.
- The contractor shall promptly remove any material excavated within the public Right-of-Way to keep it from washing off the project site.
- The contractor shall ensure that no soil erodes from the site onto other property by constructing temporary erosion control berms or installing silt fences at the property lines and wetting the soil to keep it from blowing.
- Watering, as required for construction and dust control, shall be considered incidental to construction and no measurement or payment shall be made there of. Construction areas shall be covered with erosion control blankets or other government ordinances. The contractor shall be responsible for locating and supplying water as required.
- Any areas disturbed by construction and not covered by landscaping or an impervious surface shall be revegetated with reclamation seeding.
- The contractor shall properly handle and dispose of all asphalt removed on the project by hauling to an approved landfill in accordance with the requirements of the State of New Mexico.
- All waste products from the construction site, including items designed for removal, construction waste, construction equipment waste products (oil, gas, tires, etc.), garbage, grubbing, excess cut material, vegetative debris, etc. shall be appropriately disposed of off-site at no additional cost to the owner. It shall be the contractor's responsibility to obtain any permits required for haul or disposal of waste products. It shall be the contractor's responsibility to ensure that the waste disposal site complies with government regulations regarding the environment, endangered species, and archaeological resources.
- The contractor shall be responsible for the clean-up and reporting of spills of hazardous materials associated with the construction site. Hazardous materials include gasoline, diesel fuel, motor oil, solvents, chemicals, paint, etc. which may be a threat to the environment. The contractor shall report the discovery of past or present spills to the appropriate County Environmental Department.

The contractor shall comply with all applicable regulations concerning surface and underground water. Contact with surface water by construction and personnel shall be minimized. Equipment maintenance and refueling operations shall be performed in an environmentally safe manner in compliance with government regulations.

- The air pollution control regulations of the appropriate county environmental services dept., county air quality control board limit the emission of particulates and the use of cutback asphalt. The contractor shall apprise himself of these regulations prior to bidding and performing the work.
- The contractor shall comply with all applicable regulations concerning construction noise and hours of operations.
- The contractor shall conform to all City, County, State & Federal storm water pollution prevention requirements established under the Natural Pollutant Discharge Elimination System (NPDES). The contractor shall prepare & obtain all NPDES permits for storm water point source discharges. A Storm Water Pollution Prevention Plan shall be provided by the contractor. The contractor shall maintain the site and keep all applicable records to maintain to the SWPPP.

RETENTION POND A
V10DAY-100YR REQUIRED = 783CF
POND A VOL PROVIDED = 842CF

FF=69.33
PROPOSED 32' AB
RESIDENCE

BASIN B
Q100=0.71CFS
V100(24 Hour)=1195CF

RETENTION PONDS B
V10DAY-100YR REQUIRED = 1598CF
POND B VOL PROVIDED = 1594CF
Q100=0.71CFS

LEGAL DESCRIPTION:

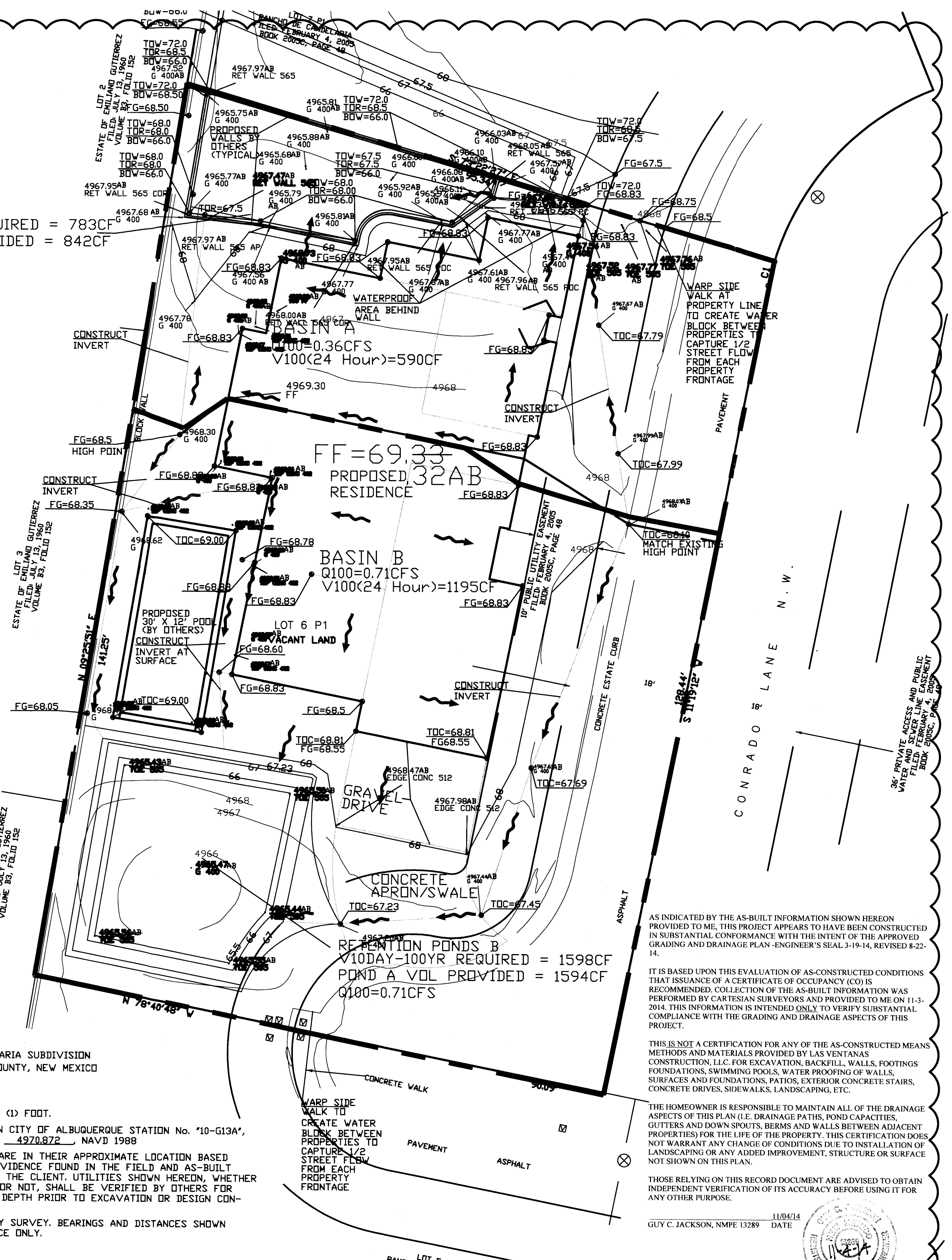
LOT 6 P1, RANCHO DE CANDELARIA SUBDIVISION
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

SURVEY NOTES:

- CONTOUR INTERVAL IS ONE (1) FOOT.
- ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. "10-G13A", HAVING AN ELEVATION OF 4970.872 NAVD 1988
- UTILITIES SHOWN HEREIN ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREIN, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
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SURVEY LEGEND

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- CLM = CENTERLINE MONUMENT
- CLR = CENTERLINE OF ROAD
- NRSASHM = NORTH RIM OF SANITARY SEWER MANHOLE
- WM = WATER METER
- PHB = PHONE BOX
- EBX = ELECTRIC BOX
- CATV = CABLE BOX
- SSM = SEWER STUB MARK
- INV = INVERT
- G = GROUND



AS INDICATED BY THE AS-BUILT INFORMATION SHOWN HEREON PROVIDED TO ME, THIS PROJECT APPEARS TO HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE INTENT OF THE APPROVED GRADING AND DRAINAGE PLAN - ENGINEER'S SEAL 3-19-14, REVISED 8-22-14.

IT IS BASED UPON THIS EVALUATION OF AS-CONSTRUCTED CONDITIONS THAT ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO) IS RECOMMENDED. COLLECTION OF THE AS-BUILT INFORMATION WAS PERFORMED BY CARTESIAN SURVEYORS AND PROVIDED TO ME ON 11-3-2014. THIS INFORMATION IS INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE WITH THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT.

THIS IS NOT A CERTIFICATION FOR ANY OF THE AS-CONSTRUCTED MEANS METHODS AND MATERIALS PROVIDED BY LAS VENTANAS CONSTRUCTION, LLC, FOR EXCAVATION, BACKFILL, WALLS, FOOTINGS, FOUNDATIONS, SWIMMING POOLS, WATER PROOFING OF WALLS, SURFACES AND FOUNDATIONS, PATIOS, EXTERIOR CONCRETE STAIRS, CONCRETE DRIVES, SIDEWALKS, LANDSCAPING, ETC.

THE HOMEOWNER IS RESPONSIBLE TO MAINTAIN ALL OF THE DRAINAGE ASPECTS OF THIS PLAN (I.E. DRAINAGE PATHS, POND CAPACITIES, GUTTERS AND DOWN SPOUTS, BERMS AND WALLS BETWEEN ADJACENT PROPERTIES) FOR THE LIFE OF THE PROPERTY. THIS CERTIFICATION DOES NOT WARRANT ANY CHANGE OF CONDITIONS DUE TO INSTALLATION OF LANDSCAPING OR ANY ADDED IMPROVEMENT, STRUCTURE OR SURFACE NOT SHOWN ON THIS PLAN.

THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

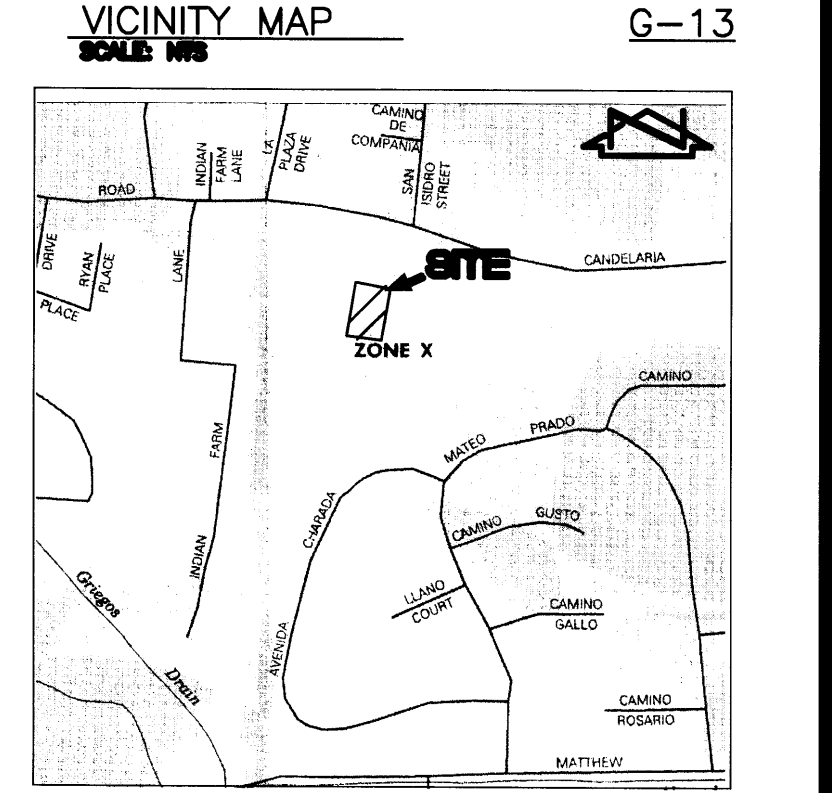
GUY C. JACKSON, NMPE 13289 11/04/14 DATE

GRADING & DRAINAGE PLAN

0 5' 10' 20'

RECEIVED
NOV - 4 2014
LAND DEVELOPMENT SECTION

GUY JACKSON
AND ASSOCIATES, LLC
CIVIL ENGINEERING



F.I.R.M. PANEL 331 of 825
FEDERAL EMERGENCY
MANAGEMENT AGENCY

LEGEND

- DIRECTION OF FLOW
- PROPOSED BASIN BOUNDARY
- PROPOSED SPOT ELEVATION
- 6424- EXISTING CONTOUR
- 6424- PROPOSED CONTOUR

REV.	DESCRIPTION	DATE
1	GRADING REVISIONS	JULY 2014

ENGINEER
ARCHITECT

Lot 6, Conrado Ct. NW
Albuquerque, NM

PROJECT NO. DATE
MARCH 2014

GRADING & DRAINAGE PLAN

DRAWING NO.

C-2.1

EXISTING CONDITIONS:
AS INDICATED ON THE GRADING & DRAINAGE PLAN PREPARED BY RICHARD LOVATO DATED / SEALED 5/9/2004, THE RANCHO DE CANCELARIA SUBDIVISION WAS
ROUGH GRADED AND CERTIFIED RECORD DRAWINGS WERE PROVIDED ON 11/27/2005. THE SUBDIVISION WAS DESIGNED UTILIZING THE "FLAT GRADING SCHEME" AS
ALLOWED IN THE PROXIMITY OF THE AREA AS REFERENCED IN SECTION 22.2 OF THE 2004 SUBDIVISION MAP. RETENTION PONDS HAVE BEEN
PLACED TO RECEIVE DEVELOPMENT FLOWS FROM THE DEVELOPED STREET FRONTAGE. THE REQUIRED PONDING VOLUME FOR EACH LOT WAS
DETERMINED IN THE TABS FROM THE ORIGINAL GRADING AND DRAINAGE PLAN UTILIZING THE 10-DAY, 100% EVENT. LOT 6 WAS CONSTRUCTED AND CERTIFIED WITH 2
RETENTION PONDS THAT ACCEPT 1/2 OF THE DEVELOPED FLOWS FROM 1/2 OF THE ADJACENT STREET (CONRADO COURT NW) AND FROM THE DEVELOPED FLOWS
FROM LOT 6 ITSELF.
ACCORDING TO FIRM MAP 9500C0391, THE SITE IS IN FLOOD HAZARD ZONE X.

PROPOSED CONDITIONS:
THE GRADING AND DRAINAGE PLAN SHOWS TWO BASINS (A & B) SHOWING THE PROPOSED BUILDING FOOTPRINT FOR LOT 6 AND THE PROPOSED MODIFICATIONS TO THE RETENTION PONDS. AS SHOWN ON THE PLAN, THE NORTHERN PORTION OF THE ADJACENT ELEVATED STREET FRONTAGE ENTERS THE SITE AT THE NORTHEAST PORTION OF THE SITE AND COMBINE WITH THE DEVELOPED FLOWS FROM BASIN A. THESE FLOWS DRAIN NORTHLY TOWARDS AND WEST INTO THE ADJACENT POND A, WHICH HAS A CAPACITY OF 842CF. THE SOUTHERN PORTION OF THE ADJACENT ELEVATED STREET FRONTAGE ENTERS THE SOUTHEAST PORTION OF THE SITE AT THE LOWER PORTION OF THE PROPOSED DRIVEWAY. THE DEVELOPED FLOWS FROM THE WESTERN PORTION OF BASIN B DRAIN SOUTH/SOUTHWEST INTO THE ADJACENT POND B, WHICH HAS A CAPACITY OF 1598CF.
THESE PONDS HAVE A TOTAL CAPACITY OF 2440CF WHICH IS GREATER THAN THE REQUIRED 10-IPAY, 100YR EVENT OF 2297CF FOR BOTH BASINS. THE DEVELOPED FLOWS FROM BASIN A IS 0.39CFS AND THE DEVELOPED FLOWS FROM BASIN B IS 0.71CFS.

B. GRADING & DRAINAGE NOTES

A. GENERAL

- GENERAL. The contractor shall be responsible for verifying the existence and location of all underground utilities.
2. Contractor shall repair any and all Infrastructure damaged during the course of construction in accordance with City of Albuquerque specifications.
3. The contractor shall notify all applicable utility companies two (2) working days prior to any digging or excavation.
4. The Jobsite, at the completion of construction, shall be cleaned of any debris or spoils resulting from the construction.
5. It is the contractor's responsibility to inspect the Job site to familiarize herself/himself with all the existing conditions that could affect the installation of any work set forth in these plans.
6. Contractor is responsible for obtaining all required construction permits including a topsoil disturbance permit, prior to start of construction.
7. 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.
8. The contractor shall not install items as shown on the plans when it is obvious that field conditions are different than shown in the descriptions and dimensions of the work, or the intention of the Engineer. In the event the contractor does not notify the Engineer, the contractor assumes full responsibility and expense for any revisions necessary.
9. Existing site Improvements which are damaged or displaced by the contractor shall be removed and replaced by the contractor.
10. Existing fencing that is not designated for removal shall be removed. Any fencing that is disturbed or altered by the contractor shall be restored to its original condition at the contractor's expense. If the contractor would like to remove or alter the fencing during construction operations, this may be done with the owner's permission, and the contractor shall restore the fence to its original condition prior to the close of the project. Contractor is responsible for security of the site until the fence is replaced.
11. The contractor shall refer to the project specifications for site specifications. Any work to be done during construction shall follow GJA Specifications for Public Infrastructure.
12. All existing mainline utilities are to remain in place and are to be protected during demolition and construction.
13. Neither the owner, nor the Architect or Engineer of record will enforce any safety measure or regulation. The contractor shall design, construct and maintain all safety devices, including traffic control, shoring, etc. The contractor is responsible for conforming to all local, state and federal safety and health standards, laws and regulations.
14. Contractor will be responsible for any monumentation and/or benchmarks which will be disturbed or destroyed by construction. Such points shall be referenced and replaced with appropriate monumentation by a licensed land surveyor.
15. Any work done without inspection or testing is subject to removal or correction.
16. The engineer of record shall not be responsible for the contractor's failure to carry out construction work in accordance with the contract documents, nor shall he be required to supervise the conduct of the work or the construction procedures or safety procedures followed by the contractor or the subcontractor or their respective employees or by any other person at the Job site other than that of the Engineer's employees.
17. Contractor agrees that he shall assume sole and complete responsibility for the job site during the course of construction of this project, including safety of all persons and property that this requirement shall apply continuously and not be limited to normal working hours and that the contractor shall defend, indemnify and hold the owner and engineer harmless of any and all liability, real or alleged, in connection with the performance of work on this project, excepting liability arising from the sole negligence of the owner or the Engineer.
18. The contractor is specifically cautioned that the location and/or elevation of existing utilities and structures and/or easements are based on records of the various utility companies and, where possible, measurements taken in the field. The location is not to be relied upon as a guarantee of accuracy or complete. The contractor must recall that applicable utility company at least 48 hours before any excavation to obtain exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.
19. Contractor is responsible for obtaining all permits to construct facilities within City easements or RDV.
20. All existing top, existing boundary, existing easement information, & existing utilities shown on the design drawings were obtained from Harris Surveying Co. and Cartesien Surveyors. GJA LLC is not responsible for any discrepancies or redesign of any and all Infrastructure due to the inaccuracy of the surveys.
- The contractor shall reference the boundary and topographic survey prepared by Harris Surveying for all easements, existing Infrastructure and elevations. In June 2014, supplemented by Cartesien Surveyors, the contractor shall reference the existing location of the house pad after the contractor added the request for a 12' x 12' swimming pool and the contractor shall reference the approved plan. Adjustments were made to the approved plan dated/sealed February March 19, 2014.
- The contractor shall contact Harris Surveying or Cartesien Surveyors for surveying control, construction staking and/or as-built surveys with mark-ups provided by GJA, LLC.
1. The contractor shall be responsible for the geotechnical report and supplemental letters provided by Earthworks Engineering Group, LLC. Free draining material with 10% fines, as recommended by Earthworks Engineering Group, LLC for the treatment of the port soils to provide structure foundations by the use of waterproof cutoff/Foundation walls.
2. The contractor shall install 3' to 8' diameter cobbles in the retention ponds per the recommendations of Earthworks Engineering Group, LLC.
3. With exception of the north pond, which is 4' from the structure, the location of south retention pond shown on this plan was placed 3' from the proposed residence similar to the location shown on the certified record drawings prepared by Richard Lovato, PE dated 11/27/05. This grading plan does not address existing soil types nor treatment of soils for hydrostatic and solid saturation of soils adjacent to structures. The contractor shall obtain supplemental recommendations from Earthworks Engineering Group, LLC for the treatment of the port soils to provide structure foundations by the use of waterproof cutoff/Foundation walls.
4. Once grading is constructed and approved, the owner shall maintain all drainage paths, retention ponds, drain pipe and areas not to receive hazardous materials.
5. The contractor shall follow earthwork recommendations per the geotechnical report and supplemental letters provided by Earthworks Engineering Group, LLC.
6. The contractor shall obtain and follow earthwork recommendations per the geotechnical report and the contractor shall engineer for the design and construction of the retention pond wall that is shown to be placed at the north property line of lot 6.
7. The retention pond wall shall be designed for the hydrostatic and solid saturation conditions resulting from the retention of the storm water runoff indicated by this plan and the certified grading plan prepared by Richard Lovato dated 11-27-05.
8. The contractor shall provide copies of this revised grading plan to obtain recommendations from the geotechnical engineer for waterproofing of structures adjacent to retention ponds.
9. The contractor shall provide adjusted roof drain plan to GJA, LLC that match roof drain and site drainage patterns established by this plan prior to final Certificate of Occupancy request.
10. The contractor shall follow the waterproofing recommendations of the geotechnical engineer for the walls and cutoff walls for the protection of the foundations.
11. The contractor is responsible for all necessary shoring for overexcavation required for the installation of the swimming pool to be installed by others.
12. The contractor is responsible to notify Earthworks Engineering to verify the bottom of the overexcavation limits for assurance of required free-draining material.
- C. EROSION CONTROL, ENVIRONMENTAL PROTECTION, AND STORM WATER, POLLUTION PREVENTION PLAN**
1. The contractor shall conform to all City, County, State, and Federal dust and erosion control regulations. The contractor shall prepare and obtain any necessary dust or erosion control permits from regulatory agencies.
2. The contractor shall secure an excavation and dirt moving permit from the appropriate County Environmental Health Division prior to beginning construction.
3. The contractor shall promptly remove any material excavated within the public Right-Of-Way to keep from washing off the project site.
4. The contractor shall ensure that no soil erodes from the site onto any other property by constructing temporary erosion control berms or installing silt fences at the property line and wetting the soil to keep it from blowing.
5. Watering, as required for construction and dust control, shall be considered incidental to construction. Materials include no measurement or payment shall be made there of. Construction areas shall be watered and dust control measures shall follow government ordinances. The contractor shall be responsible for locating and supplying water as required.
6. Any areas disturbed by construction and not covered by landscaping or an impervious surface shall be revegetated with reclamation seeding.
7. The contractor shall properly handle and dispose of all materials removed or excavated on haul trucks to approved landfill in accordance with the requirements of the State of New Mexico.
8. All waste products from the construction site, including items designed for removal, construction waste, construction equipment waste products (oil, gas, sludge, etc.), rubble, grubbing, excess cut material, vegetative debris, etc. shall be appropriately disposed of off-site at no additional cost to the contractor. It shall be the contractor's responsibility to obtain all permits required for haul or disposal of waste products. It shall be the contractor's responsibility to ensure that the waste disposal complies with government regulations regarding the environment, endangered species, and archaeological resources.
9. The contractor shall be responsible for the clean-up and reporting of spills of hazardous materials associated with the construction site. Hazardous materials include gasoline, diesel fuel, motor oil, solvents, chemicals, paints, etc. which may be a threat to the public or the environment. The contractor shall report the discovery of such or pret spills to the appropriate County Environmental Department.
10. The contractor shall comply with all applicable regulations concerning surface and underground water. Contact with surface water by construction and personnel shall be minimized. Equipment maintenance and refueling operations shall be performed in an environmentally safe manner in compliance with government regulations.
11. The air pollution control regulations of the appropriate county environmental services dept., county air quality control board, limit the emissions of dust and particulates from the use of cutback asphalt. The contractor shall apprise himself of these regulations prior to bidding and performing the work.
12. The contractor shall comply with all applicable regulations concerning construction noise and hours of operations.

C. EROSION CONTROL, ENVIRONMENTAL PROTECTION,
AND STORM WATER, POLLUTION PREVENTION PLAN

1. The contractor shall conform to all City, County, State, and Federal dust and erosion control regulations. The contractor shall prepare and obtain any necessary dust or erosion control permits from the appropriate agencies.
2. The contractor shall secure an excavation and dirt moving permit from the appropriate County Environmental Health Division prior to beginning construction if required.
3. The contractor shall promptly remove any material excavated within the public Right-Of-Way to keep it from washing off the project site.
4. The contractor shall ensure that no soil erodes from the site and that other erosion control measures, such as erosion control berms or installing silt fences at the property lines and setting the soil to keep it from blowing.
5. Watering, as required for construction and dust control, shall be considered incidental to construction and no measurement or payment shall be made there of. Construction areas shall be watered for dust control in compliance with government ordinances. The contractor shall be responsible for locating and supplying water for watering.
6. Any areas disturbed by construction and not covered by landscaping or an erosion surface shall be revegetated with reclamation seeding.
7. The contractor shall properly handle and dispose of all asphalt removed on the project by hauling to an approved landfill in accordance with the requirements of the State of Nevada.
8. All waste products from the construction site, including items designed for removal, construction waste, construction equipment waste products (oil, gas, tires, etc.), garbage, paint, excess concrete, and all vegetation debris, etc. shall be appropriately disposed of off-site at no additional cost to the owner. It shall be the contractor's responsibility to obtain any permits required for haul or disposal of waste products. It shall be the contractor's responsibility to ensure that the waste disposal site complies with government regulations regarding environment, endangered species, and archaeological resources.
9. The contractor shall be responsible for the clean-up and reporting of spills of hazardous materials associated with the construction site. Hazardous materials include gasoline, diesel oil, oil, hydraulic fluid, antifreeze, paint, etc., which may be a threat to the environment. The contractor shall be responsible for the proper disposal of materials to the appropriate County Environmental Department.

s. 10. The contractor shall comply with all applicable regulations concerning surface and underground water. Contact with surface water by construction and personnel shall be minimized. Equipment maintenance and refueling operations shall be performed in an environmentally safe manner in compliance with government regulations.

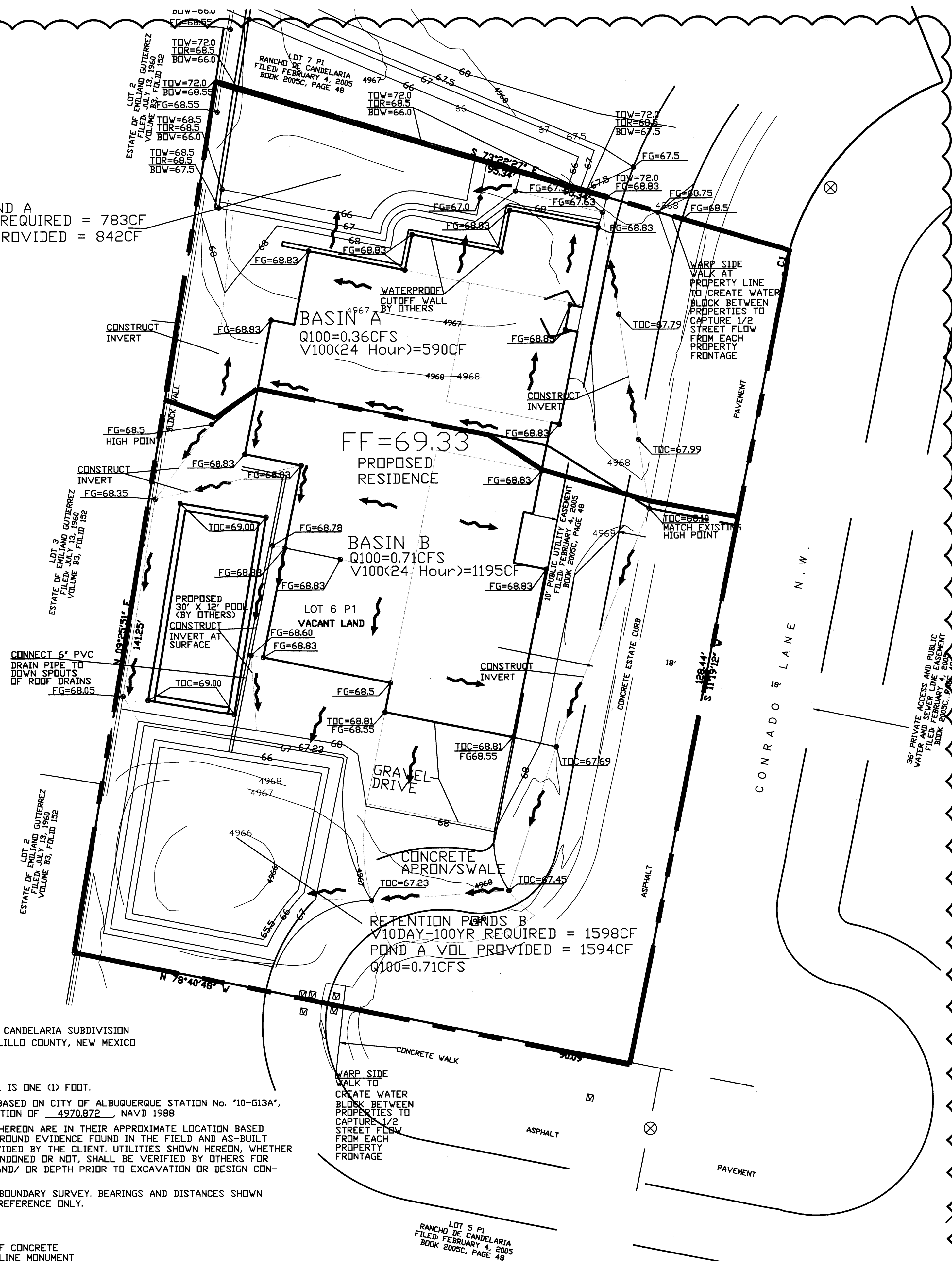
LEGAL DESCRIPTION:
LOT 6 P1, RANCHO DE CANDELARIA SUBDIVISION
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

SURVEY NOTES:


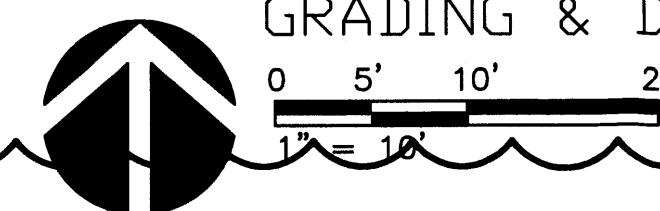
1. CONTOUR INTERVAL IS ONE (1) FOOT.
2. ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. "10-G13A", HAVING AN ELEVATION OF 4970.872 NAVD 1988
3. UTILITIES SHOWN HEREIN ARE AT THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREIN, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/ OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
4. THIS IS NOT A BOUNDARY SURVEY. BEARINGS AND DISTANCES SHOWN HEREIN ARE FOR REFERENCE ONLY.

SURVEY LEGEND

- EC = EDGE OF CONCRETE
CLM = CENTERLINE MONUMENT
CLR = CENTERLINE OF ROAD
NRSASHM = NORTH RIM OF SANITARY SEWER MANHOLE
WM = WATER METER
PHB = PHONE BOX
EBX = ELECTRIC BOX
CATV = CABLE BOX
SSM = SEWER STUB MARK
INV = INVERT
G = GROUND



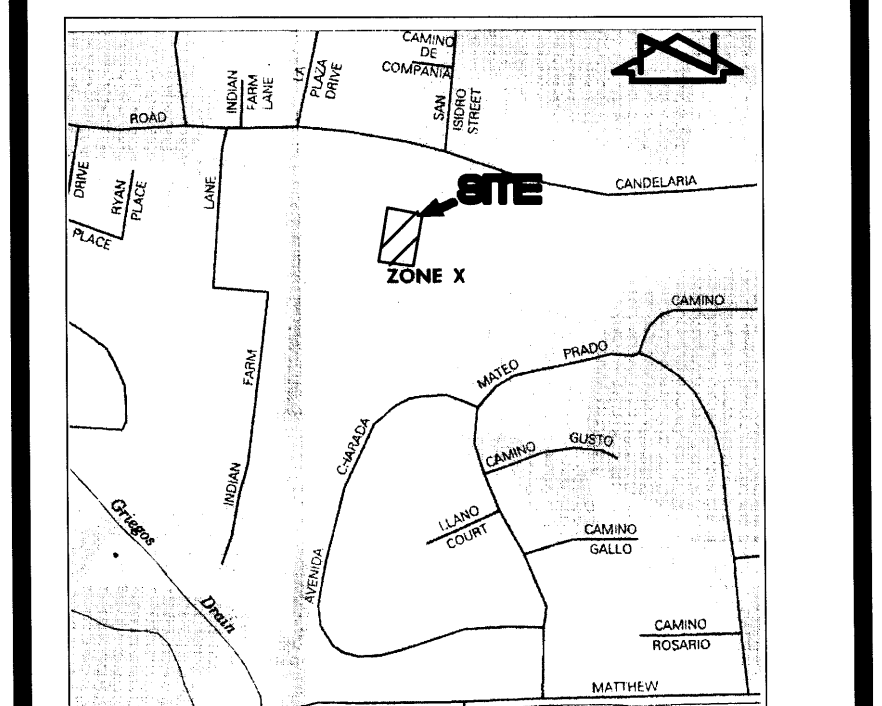
GRADING & DRAINAGE PLAN



GUY JACKSON
AND ASSOCIATES, LLC
CIVIL ENGINEERING




VICINITY MAP G-13



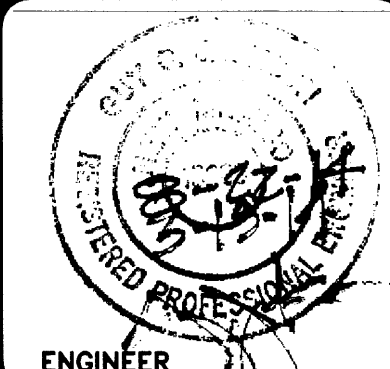
F.I.R.M. PANEL 331 of 825
SCALE: MTS DATED: 09-28-2008

FEDERAL EMERGENCY
MANAGEMENT AGENCY

LEGEND

- 
 DIRECTION OF FLOW
 PROPOSED BASIN BOUNDARY
 FG=57.75
 6424
 -6424
 EXISTING CONTOUR
 PROPOSED CONTOUR

1	GRADING REVISIONS	JULY 2014
REV.	DESCRIPTION	DATE



ENGINEER

ARCHITECT

Box 6, Conrado Ct. NW
Albuquerque, NM

PROJECT NO.

DATE _____

MARCH 2014

GRADING & DRAINAGE PLAN

DRAWING NO.

C-2.1

DRAINAGE SUMMARY

EXISTING CONDITIONS:

AS INDICATED ON THE GRADING & DRAINAGE PLAN PREPARED BY RICHARD LOVATO DATED / SEALED 3/9/2004, THE RANCHO DE CANDELARIA SUBDIVISION WAS ROUGH GRADED AND CEMENTED RECORD DRAINAGE WERE PROVIDED ON 11/27/2005. THE SUBDIVISION WAS DESIGNED UTILIZING THE "FLAT GRADING SCHEME" AS ALLOWED IN THE PROVISIONS OF THE AREA AS REFERENCED IN SECTION 22.2 OF THE DPM. THROUGHOUT THE 8 LOT SUBDIVISION, RETENTION PONDS HAVE BEEN PLACED TO RECEIVE DEVELOPED FLOWS FROM EACH LOT AND 1/2 OF THE DEVELOPED STREET FRONTAGE. THE REQUIRED PONDING VOLUME FOR EACH LOT WAS PROVIDED IN THE TABLE FROM THE ORIGINAL GRADING AND DRAINAGE PLAN UTILIZING THE 10-DAY, 100YR EVENT. LOT 6 WAS CONSTRUCTED AND CERTIFIED WITH 2 RETENTION PONDS THAT ACCEPT 1/2 OF THE DEVELOPED FLOWS FROM 1/2 OF THE ADJACENT STREET (CONRADO COURT NW) AND FROM THE DEVELOPED FLOWS FROM LOT 6 ITSELF.

ACCORDING TO FIRM MAP 3500C0331, THE SITE IS IN FLOOD HAZARD ZONE X.

PROPOSED CONDITIONS:

THE GRADING AND DRAINAGE PLAN SHOWS TWO BASINS (A & B) SHOWING THE PROPOSED BUILDING FOOTPRINT FOR LOT 6 AND THE PROPOSED MODIFICATIONS TO THE RETENTION PONDS. AS SHOWN ON THE PLAN, THE NORTHERN PORTION OF THE ADJACENT ELEVATED STREET FRONTAGE ENTER THE SITE AT THE NORTHEAST PORTION OF THE SITE AND COMBINE WITH THE DEVELOPED FLOWS FROM BASIN A. THESE FLOWS DRAIN NORTH/NORTHWEST AND WEST INTO THE ADJACENT POND A, WHICH HAS A CAPACITY OF 842CF. THE SOUTHERN PORTION OF THE ADJACENT ELEVATED STREET FRONTAGE ENTERS THE SOUTHEAST PORTION OF THE SITE AT THE LOWER PORTION OF THE PROPOSED DRIVEWAY. THE DEVELOPED FLOWS FROM THE WESTERN PORTION OF BASIN B DRAIN SOUTH/SOUTHWEST INTO THE ADJACENT POND B, WHICH HAS A CAPACITY OF 1598CF.

THESE PONDS HAVE A TOTAL CAPACITY OF 2440CF WHICH IS GREATER THAN THE REQUIRED 10-DAY, 100YR EVENT OF 2577CF FOR BOTH BASINS. THE DEVELOPED FLOWS FROM BASIN A IS 0.36CFS AND THE DEVELOPED FLOWS FROM BASIN B IS 0.71CFS.

CIVIL CONSTRUCTION NOTES

A. GENERAL

- The contractor shall be responsible for verifying the existence and location of all underground utilities.
- Contractor shall repair any and all infrastructure damaged during the course of construction in accordance with City of Albuquerque specifications.
- The contractor shall notify all applicable utility companies two (2) working days prior to any digging or excavation.
- The Jobsite, at the completion of construction, shall be cleaned of any debris or spoils resulting from the construction.
- It is the contractor's responsibility to inspect the job site to familiarize himself with all the existing conditions that could affect the installation of any work set forth in these plans.
- Contractor is responsible for obtaining all required construction permits including a topsoil disturbance permit, prior to start of construction.
- 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.
- The contractor shall not install items as shown on the plans when it is obvious that field conditions are different than shown in the design. Such conditions should be brought to the attention of the Engineer. In the event the contractor does not notify the Engineer, the contractor assumes full responsibility and expense for any revisions necessary.
- Existing site improvements which are damaged or displaced by the contractor shall be removed and replaced by the contractor.
- Existing fencing that is not designated for removal shall not be disturbed. Any fencing that is disturbed or altered by the contractor shall be restored to its original condition at the contractor's expense. If the contractor would like to remove fencing to facilitate construction operations, this may be done with the owner's permission, and the contractor shall restore the fence to its original condition prior to the close of the project. Contractor is responsible for security of the site until the fence is replaced.
- The contractor shall refer to the project specifications for site specifications. Any work within the City easements or ROW shall follow GJA Specifications for Public Infrastructure.
- All existing mainline utilities are to remain in place and are to be protected during demolition and construction.
- Neither the owner, nor the Architect or Engineer of record will enforce any safety measure or regulation. The contractor shall design, construct and maintain all safety devices, including traffic control, shoring and shall be solely responsible for conforming to all local, state and federal safety and health standards, laws and regulations.
- Contractor will be responsible for any monumentation and/or benchmark which will be disturbed or destroyed by construction. Such points shall be referenced and replaced with appropriate monumentation by a licensed land surveyor.
- Any work done without inspection or testing is subject to removal or correction.
- The engineer of record shall not be responsible for the contractor's failure to carry out the construction work in accordance with the contract documents, nor shall he be required to supervise the conduct of the work or the construction procedures and safety procedures followed by the contractor or the subcontractor or their respective employees or by any other person at the job site other than that of the Engineer's employees.
- Contractor agrees that he shall assume sole and complete responsibility for the job site conditions during the course of construction of this project, including safety of all persons and property that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify and hold the owner and engineer harmless of any and all liability, real or alleged, in connection with the performance of work on this project, excepting liability arising from the sole negligence of the owner or the Engineer.
- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied upon as being exact or complete. The contractor must call the appropriate utility company at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.
- Contractor is responsible for obtaining all permits to construct facilities within City easements or ROW.
- All existing topo, existing boundary, existing easement information, & existing utilities shown on the design drawings were obtained from Harris Surveying Co. and Cartesian Surveyors. GJA, LLC is not responsible for any discrepancies or redesign of any and all infrastructure due to the inaccuracy of the surveys.
- The contractor shall reference the boundary and topographic survey prepared by Harris Surveying for all easements, existing infrastructure and elevations. In June 2014, supplemented by Cartesian Surveyors who provided interior grading, easements and the actual location of the house pad after the contractor added the request for a 12' x 30' swimming pool and had built the pad 4' higher than the approved plan. Adjustments were made to the approved plan dated/signed February March 19, 2014.
- The contractor shall contact Harris Surveying or Cartesian Surveyors for surveying control, construction staking and final asbuilts with mark-ups provided by GJA, LLC.

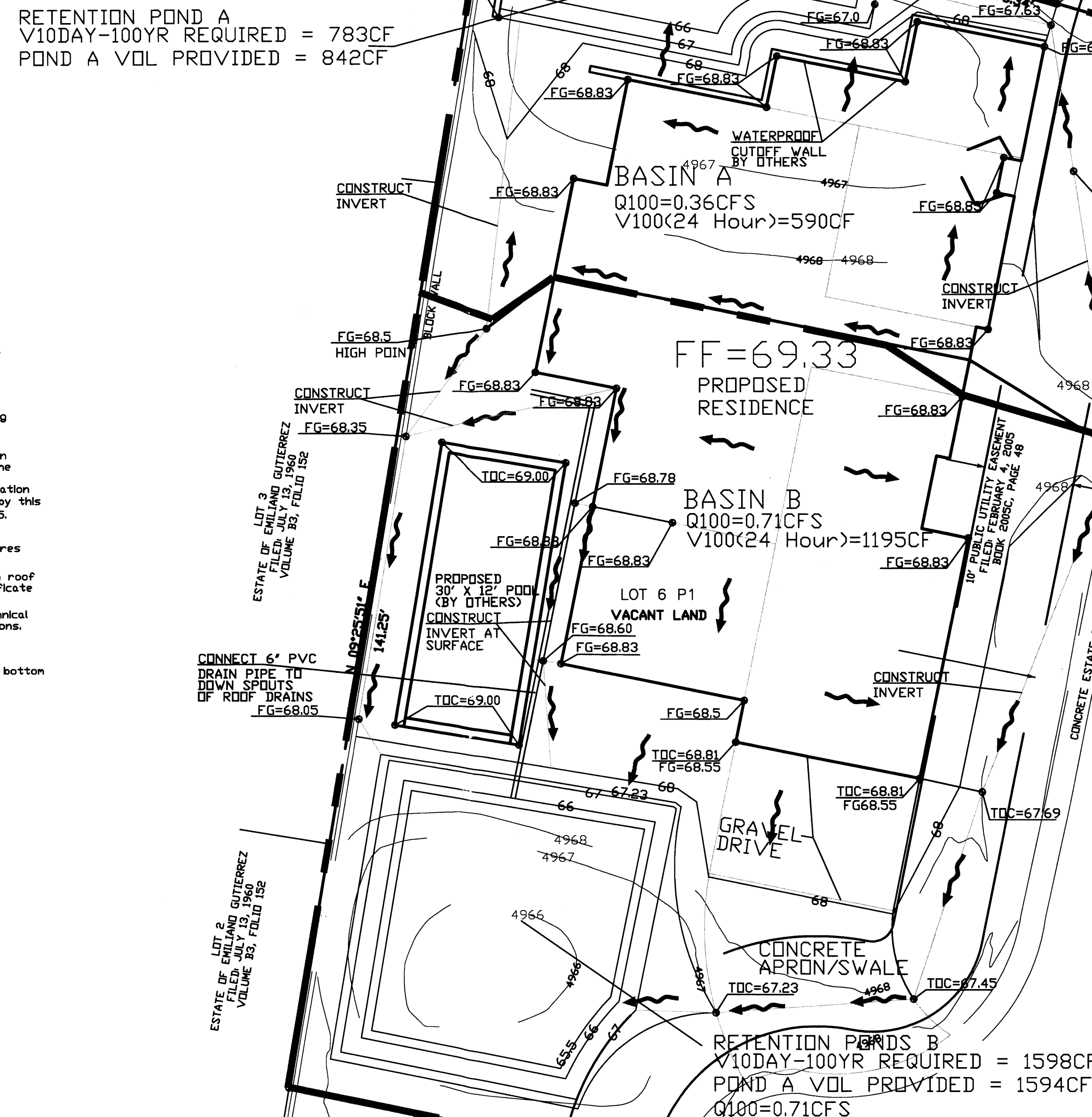
B. GRADING & DRAINAGE NOTES

- The contractor shall excavate the existing soils in the pond areas to a depth recommended by the geotechnical report and supplemental letters provided by Earthworks Engineering Group, LLC. Free draining material with gradation and classification provided by Earthworks Engineering Group shall then be placed once verified by the contractor w/ the concurrence of the geotechnical engineer.
- The contractor shall install 3' to 8' diameter cobbles in the retention ponds per the recommendations of Earthworks Engineering Group, LLC.
- With exception of the north pond, which is 4' from the structure, the location of south retention pond shown on this plan was placed 5' from the proposed residence similar to that shown on the certified record drawings prepared by Richard Lovato, PE dated 11/27/05. This grading plan does not address existing soil types nor treatment of soils for the potential saturation of soils adjacent to structures. The contractor shall obtain supplemental recommendations from Earthworks Engineering Group, LLC for treatment of the pond soils to prevent saturation of structure foundations by the use of waterproof cutoff/foundation walls.
- Once grading is constructed and approved, the owner shall maintain all drainage paths, retention ponds, drain pipe and areas not to receive impervious treatment.
- The contractor shall follow earthwork recommendations per the geotechnical report and supplemental letters provided by Earthworks Engineering Group, LLC.
- The contractor shall obtain and follow earthwork recommendations per the geotechnical engineer and the contractor's structural engineer for the design and construction of the retention pond wall. This is shown to be placed at the north property line of lot 6.
- The retention pond wall shall be designed for the hydrostatic and soil saturation conditions resulting from the retention of the storm water runoff indicated by this plan and the certified grading plan prepared by Richard Lovato dated 11-27-05.
- The contractor shall provide copies of this revised grading plan to obtain recommendations from the geotechnical engineer for waterproofing of structures adjacent to the drainages and retention ponds.
- The contractor shall provide adjusted roof drain plan to GJA, LLC that match roof drain and site drainage patterns established by this plan prior to final Certificate of Occupancy request.
- The contractor shall follow the waterproofing recommendations of the geotechnical engineer for the exterior and cutoff walls for the protection of the foundations.
- The contractor is responsible for all necessary shoring for overexcavating required for the installation of the swimming pool to be installed by others.
- The contractor is responsible to notify Earthworks Engineering to verify the bottom of the overexcavation limits for assurance of required free-draining material.

C. EROSION CONTROL, ENVIRONMENTAL PROTECTION, AND STORM WATER, POLLUTION PREVENTION PLAN

- The contractor shall conform to all City, County, State, and Federal dust and erosion control regulations. The contractor shall prepare and obtain any necessary dust or erosion control permits from regulatory agencies.
- The contractor shall secure an excavation and dirt moving permit from the appropriate County Environmental Health Division prior to beginning construction if required.
- The contractor shall promptly remove any material excavated within the public Right-Of-Way to keep it from washing off the project site.
- The contractor shall ensure that no soil erodes from the site onto other property by constructing temporary erosion control berms or installing silt fences at the property lines and wetting the soil to keep it from blowing.
- Watering, as required for construction and dust control, shall be considered incidental to construction and no measurement or payment shall be made there of. Construction areas shall be watered for dust control in compliance with government ordinances. The contractor shall be responsible for locating and supplying water as required.
- Any areas disturbed by construction and not covered by landscaping or an impervious surface shall be revegetated with reclamation seeding.
- The contractor shall properly handle and dispose of all asphalt removed on the project by hauling to an approved landfill in accordance with the requirements of the State of New Mexico.
- All waste products from the construction site, including items designed for removal, construction waste, construction equipment waste products (oil, gas, tires, etc.), garbage, grubbing, excess cut material, vegetative debris, etc. shall be appropriately disposed of off-site at no additional cost to the owner. It shall be the contractor's responsibility to obtain any permits required for haul or disposal of waste products. It shall be the contractor's responsibility to ensure that the waste disposal site complies with government regulations regarding the environment, endangered species, and archaeological resources.
- The contractor shall be responsible for the clean-up and reporting of spills of hazardous materials associated with the construction site. Hazardous materials include gasoline, diesel fuel, motor oil, solvents, chemicals, paint, etc. which may be a threat to the environment. The contractor shall report the discovery of past or present spills to the appropriate County Environmental Department.
- The contractor shall comply with all applicable regulations concerning surface and groundwater water. Contact with surface water by construction and personnel shall be minimized. Equipment maintenance and refueling operations shall be performed in an environmentally safe manner in compliance with government regulations.
- The air pollution control regulations of the appropriate county environmental services dept., county air quality control board limit the emission of particulates and the use of cutback asphalt. The contractor shall apprise himself of these regulations prior to bidding and performing the work.
- The contractor shall comply with all applicable regulations concerning construction noise and hours of operations.
- The contractor shall conform to all City, County, State & Federal storm water pollution prevention requirements established under the National Pollutant Discharge Elimination System (NPDES). The contractor shall prepare & obtain all NPDES permits for storm water point source discharges. A Storm Water Pollution Prevention Plan shall be provided by the contractor. The contractor shall maintain the site and keep all applicable records to maintain to the SWPPP.

RETENTION POND A
V10DAY-100YR REQUIRED = 783CF
POND A VOL PROVIDED = 842CF



LEGAL DESCRIPTION:

LOT 6 P1, RANCHO DE CANDELARIA SUBDIVISION
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

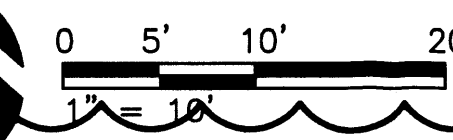
SURVEY NOTES:

- CONTOUR INTERVAL IS ONE (1) FOOT.
- ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. "10-G13A", HAVING AN ELEVATION OF 4970.872 NAVD 1988
- UTILITIES SHOWN HEREON ARE IN THEIR APPROXIMATE LOCATION BASED ONLY ON ABOVE GROUND EVIDENCE FOUND IN THE FIELD AND AS-BUILT INFORMATION PROVIDED BY THE CLIENT. UTILITIES SHOWN HEREON, WHETHER INDICATED AS ABANDONED OR NOT, SHALL BE VERIFIED BY OTHERS FOR EXACT LOCATION AND/ OR DEPTH PRIOR TO EXCAVATION OR DESIGN CONSIDERATIONS.
- THIS IS NOT A BOUNDARY SURVEY. BEARINGS AND DISTANCES SHOWN HEREON ARE FOR REFERENCE ONLY.

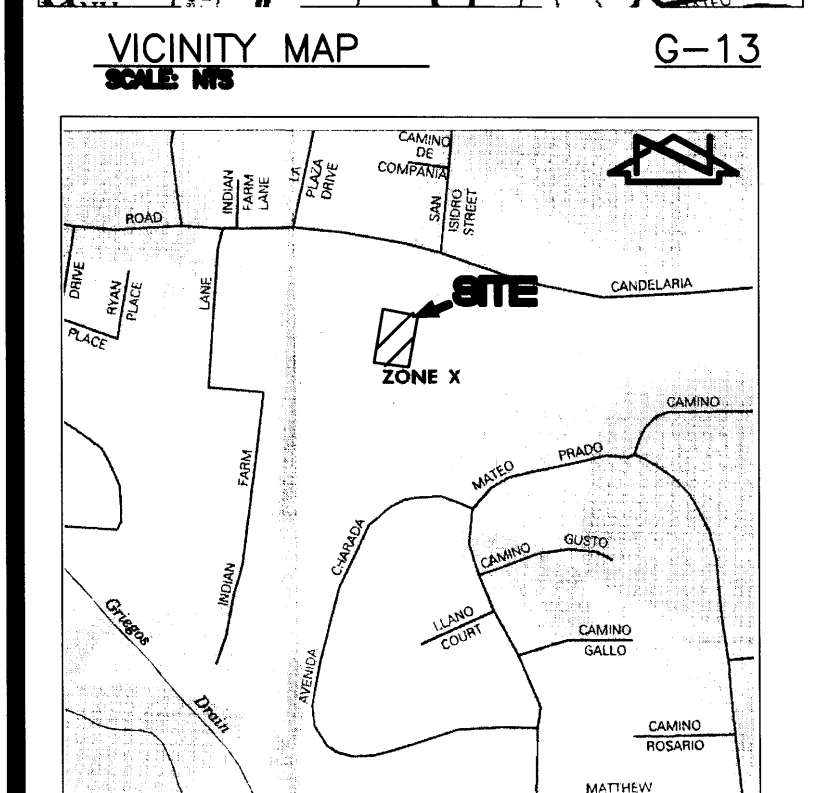
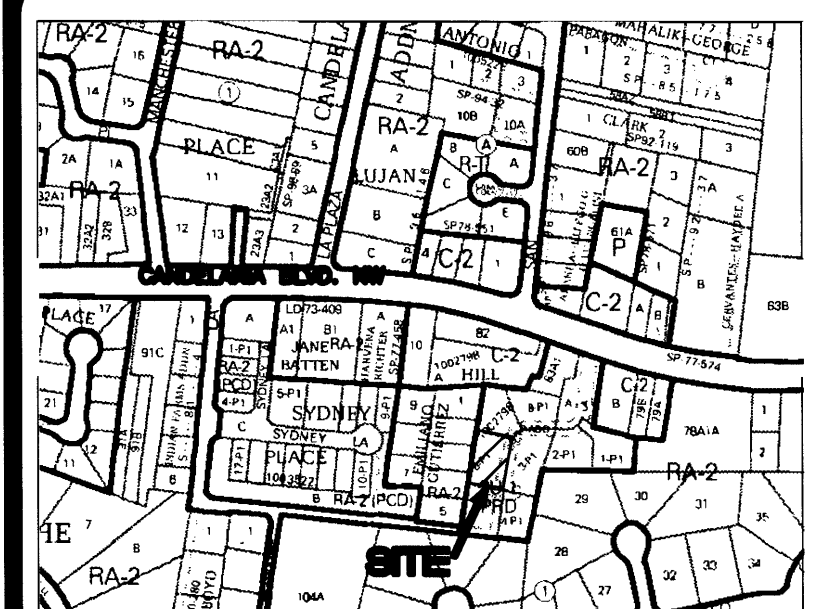
SURVEY LEGEND

- EC = EDGE OF CONCRETE
- CLM = CENTERLINE MONUMENT
- CLR = CENTERLINE OF ROAD
- NRSASHM = NORTH RIM OF SANITARY SEWER MANHOLE
- WM = WATER METER
- PHB = PHONE BOX
- EBX = ELECTRIC BOX
- CATV = CABLE BOX
- SSM = SEWER STUB MARK
- INV = INVERT
- G = GROUND

GRADING & DRAINAGE PLAN



GUY JACKSON
AND ASSOCIATES, LLC
CIVIL ENGINEERING



F.I.R.M. PANEL 331 of 825
SCALE: 1"=40' DATE: 06-28-2008

FEDERAL EMERGENCY
MANAGEMENT AGENCY

LEGEND		
	DIRECTION OF FLOW	
	PROPOSED BASIN BOUNDARY	
	PROPOSED SPOT ELEVATION	
	EXISTING CONTOUR	
	PROPOSED CONTOUR	

REV.	DESCRIPTION	DATE
1	GRADING REVISIONS	JULY 2014

	ENGINEER
	ARCHITECT

Lot 6, Conrado Ct. NW
Albuquerque, NM

PROJECT NO. DATE
MARCH 2014

GRADING & DRAINAGE PLAN

DRAWING NO.

C-2.1



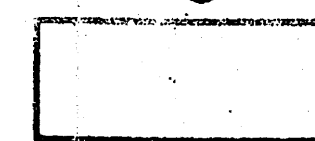
VICINITY MAP
ZONE ATLAS PAGE
G-13-Z
NTS



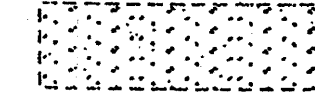
FLOOD MAP 35001C0331 E
NOVEMBER 19, 2003
NTS

LEGEND

- EXISTING CONTOURS 0.25'
- EXISTING CONTOURS 1'
- FINISHED GRADE COUNTOUR
- PROPERTY LINE
- PROPOSED GARDEN WALL
- EXISTING CMU WALL
- PROPERTY CORNER (PLATED)
- FOUND REBAR

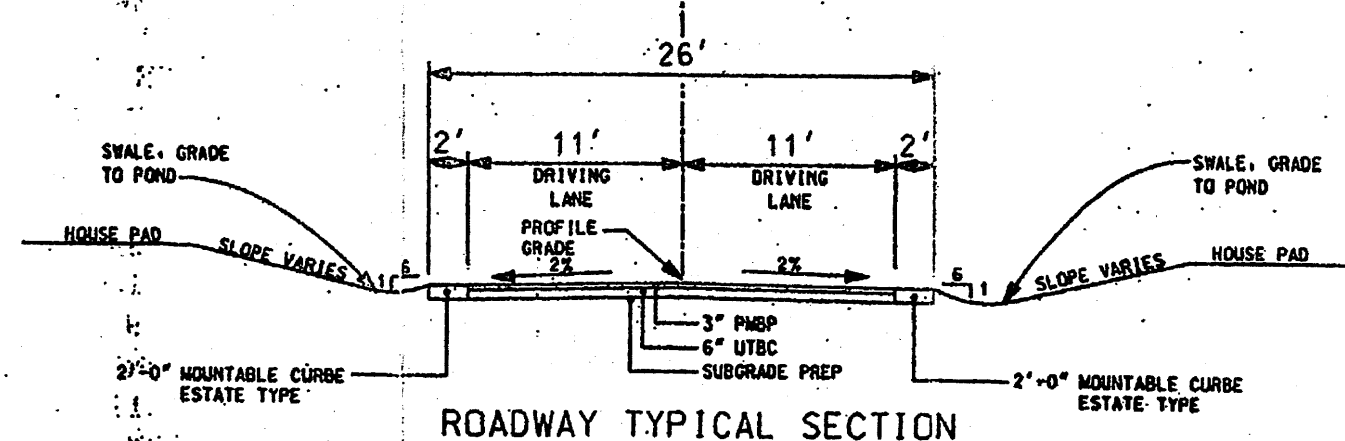


BUILDING PAD WITH MAX AREA & ELEVATIONS SHOWN



CONCRETE DRIVE

RETENTION POND AREAS
RETENTION POND
TOP EL. - XXX.XX AREA - XXXXX sq ft
BTM EL. - XXX.XX AREA - XXXXX sq ft
VOL. - XXXX cu ft

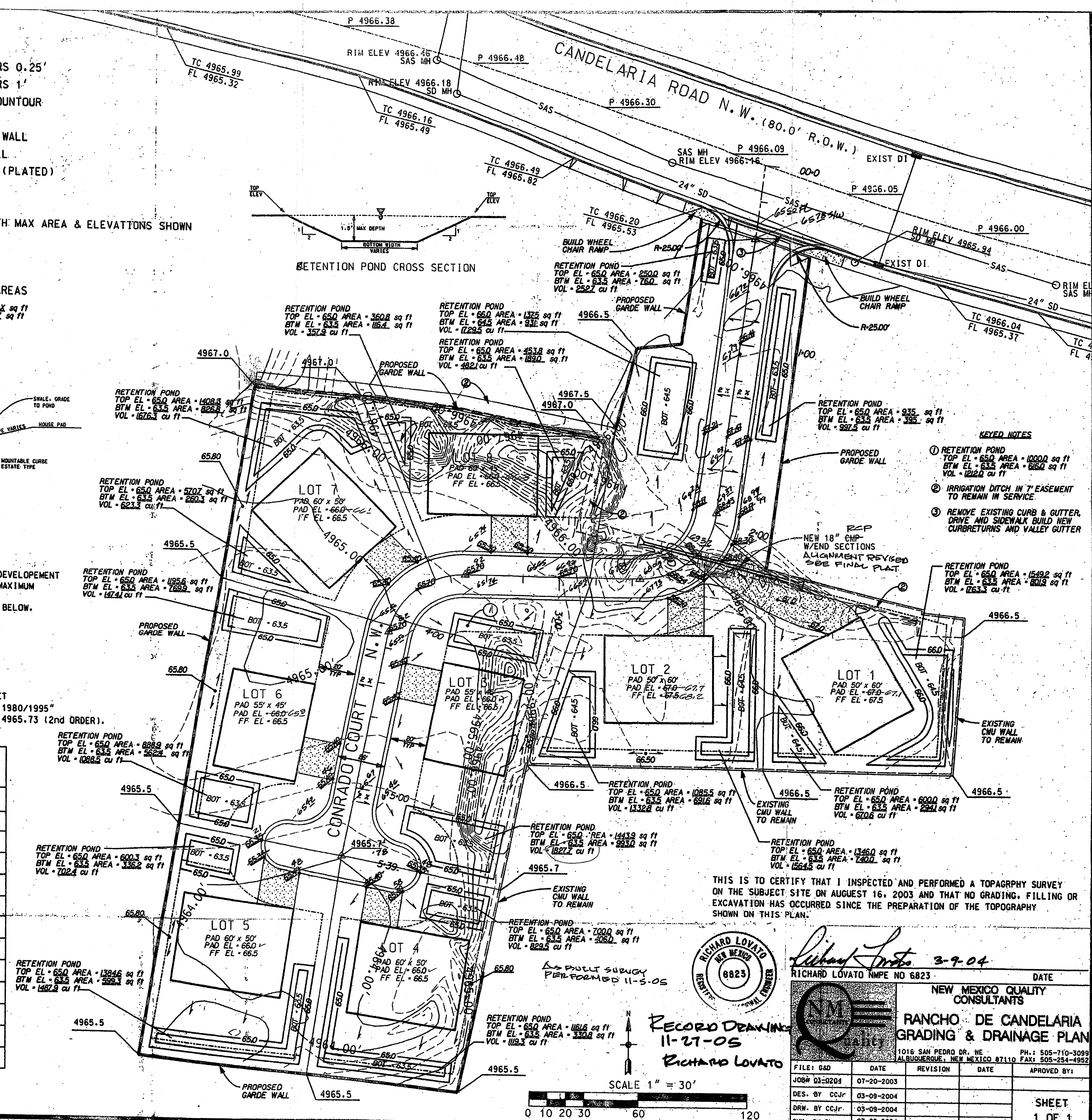


DRAINAGE NOTES

- RUNOFF GENERATED ON SITE WILL BE RETAINED ON SITE IN INDIVIDUAL LOT RETENTION PONDS.
- PONDING VOLUMES WERE CALCULATED USING COA DPM CHAPTER 22 METHODS FOR ZONE 2.
- THE FLAT GRADING SCHEME AS DEFINED IN THE DPM IS BEING USED FOR THIS DEVELOPMENT.
- SEE ATTACHED CALCULATIONS FOR MAXIMUM ALLOWABLE IMPERVIOUS AREAS AND MAXIMUM ALLOWABLE HOUSE PAD AREAS.
- INDIVIDUAL LOTS TO BE GRADED TO PROVIDE PONDING VOLUMES SHOWN IN TABLE BELOW.
- REQUIRED PONDING VOLUMES ARE 100 YR 10 DAY STORM VOLUMES.
- HOUSE PADS SHOWN ARE ONLY APPROXIMATE. GRADES SHOWN ESTABLISH STREET GRADES. BUILDING PAD ELEVATIONS AND GRADING AROUND PADS.
- NO CROSS LOT DRAINAGE OR PONDING WILL BE ALLOWED.
- THERE IS NO OFF-SITE DRAINAGE AFFECTING THIS SITE.
- THIS SITE IS IN ZONE X ACCORDING TO FEMA MAP.
- TOPO SURVEY WAS PERFORMED BY NMOC ON AUGUST 16, 2003.
- ELEVATIONS AND CONTOURS SHOWN ARE BASED ON CONTROL STATION 6-G13A RESET THE STATION MARK IS A STANDARD ACS ALUMINUM CAP STAMPED "6-G13A RESET 1980/1995" SET FLUSH WITH THE TOP OF CURB SPIRIT LEVEL ELEVATION (SLD 1929) FEET 4965.73 (2nd ORDER).

DESCRIPTION	LAND USE					RUNOFF VOLUME 6HR-100YR	RUNOFF VOLUME 24HR-100YR	PONDING VOLUME TODAY-100YR	MAX IMPERVIOUS AREA @ 45%	MAX BUILDING AREA	REMARKS
EXCESS PRECIPITATION (INCHES) ZONE 2	A	B	C	D	TOTAL						
LOT	0.80	1.08	1.46	2.64							
1	—	—	0.1586 AC	0.1161 AC	0.2747 AC	1.544 ft ³	1.713 ft ³	2.218 ft ³	5.384.76ft ²	3.000 ft ²	
2	—	—	0.1672 AC	0.1076 AC	0.2747 AC	1.514 ft ³	1.670 ft ³	2.139 ft ³	5.385.09ft ²	3.000 ft ²	
3	—	—	0.1998 AC	0.1624 AC	0.3622 AC	2.063 ft ³	2.299 ft ³	3.006 ft ³	7.100.02ft ²	2.475 ft ²	
4	—	—	0.1339 AC	0.1010 AC	0.2350 AC	1.326 ft ³	1.473 ft ³	1.913 ft ³	4.605.75ft ²	3.000 ft ²	
5	—	—	0.1641 AC	0.1013 AC	0.2654 AC	1.543 ft ³	1.600 ft ³	2.041 ft ³	5.202.77ft ²	3.000 ft ²	
6	—	—	0.1625 AC	0.1275 AC	0.2900 AC	1.641 ft ³	1.826 ft ³	2.381 ft ³	5.683.95ft ²	2.475 ft ²	
7	—	—	0.1490 AC	0.1010 AC	0.2500 AC	1.388 ft ³	1.535 ft ³	1.975 ft ³	4.898.78ft ²	3.000 ft ²	
8	—	—	0.1419 AC	0.1081 AC	0.2500 AC	1.395 ft ³	1.545 ft ³	1.993 ft ³	4.900.50ft ²	2.700 ft ²	
TRACT A	—	—	0.1531 AC	0.0735 AC	0.2266 AC	1.194 ft ³	1.300 ft ³	1.621 ft ³	4.442.70ft ²	0 ft ²	
TRACT B	—	—	0.0685 AC	0.0520 AC	0.1205 AC	681 ft ³	757 ft ³	983 ft ³	2.363.07ft ²	0 ft ²	
TOTAL AREAS	—	—	1.4986 AC	1.0505 AC	2.5491 AC						

NOTE:
LAND USE C COMPACTED SOIL AREA
LAND USE D BUILDING AREA/PAVEMENT
* REQUIRED PONDING VOLUME



KEYED NOTES

- RETENTION POND
TOP EL. - 650.00 AREA - 10000 sq ft
BTM EL. - 635.00 AREA - 6160 sq ft
VOL. - 18222 cu ft
- IRRIGATION DITCH IN 7' EASEMENT TO REMAIN IN SERVICE
- REMOVE EXISTING CURB & GUTTER, DRIVE AND SIDEWALK BUILD NEW CURB RETURNS AND VALLEY GUTTER

THIS IS TO CERTIFY THAT I INSPECTED AND PERFORMED A TOPOGRAPHY SURVEY ON THE SUBJECT SITE ON AUGUST 16, 2003 AND THAT NO GRADING, FILLING OR EXCAVATION HAS OCCURRED SINCE THE PREPARATION OF THE TOPOGRAPHY SHOWN ON THIS PLAN.



Richard Lovato 3-9-04
RICHARD LOVATO NMPE NO 6823 DATE

RECORD DRAWING
11-27-05
RICHARD LOVATO

