

CITY OF ALBUQUERQUE



May 12, 2016

Glen Broughton, PE
Bohannon Huston, Inc.
7500 Jefferson NE, Courtyard I
Albuquerque, NM 87109

**Re: Pat Hurley Community Center
Grading and Drainage Plan
Engineer's Stamp Date 5/9/2016 (J11/D012)**

Dear Mr. Broughton,

PO Box 1293

Based upon the information provided in your submittal received 5-9-2016, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Albuquerque

This project requires a National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge for disturbing one acre or more and a Topsoil Disturbance Permit for disturbing $\frac{3}{4}$ of an acre or more.

New Mexico 87103

If you have any questions, you can contact me at 924-3999.

www.cabq.gov

Sincerely,

Shahab Biazar, P.E.
City Engineer, Planning Dept.
Development Review Services

C: e-mail



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 10/2015)

Project Title: Pat Hurley Community Center Building Permit #: _____ Hydrology File #: _____

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Pat Hurley Park & Lots 216 Through 222 & Westerly Portion of Lot 223 Glendale Garden Addition

City Address: 3828 Rincon Rd. NW Albuquerque, NM 87105

Applicant: BohannonHuston Contact: Glenn Broughton

Address: 7500 Jefferson NE Albuquerque, NM 87109

Phone#: 505-823-1000 Fax#: _____ E-mail: gbrought@bhinc.com

Other Contact: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

- ☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
☐ OTHER (SPECIFY) _____

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

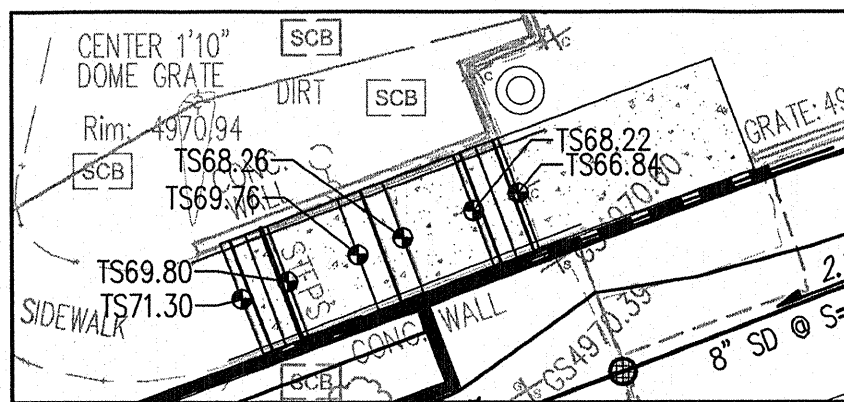
- ☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY
☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR

PRE-DESIGN MEETING?

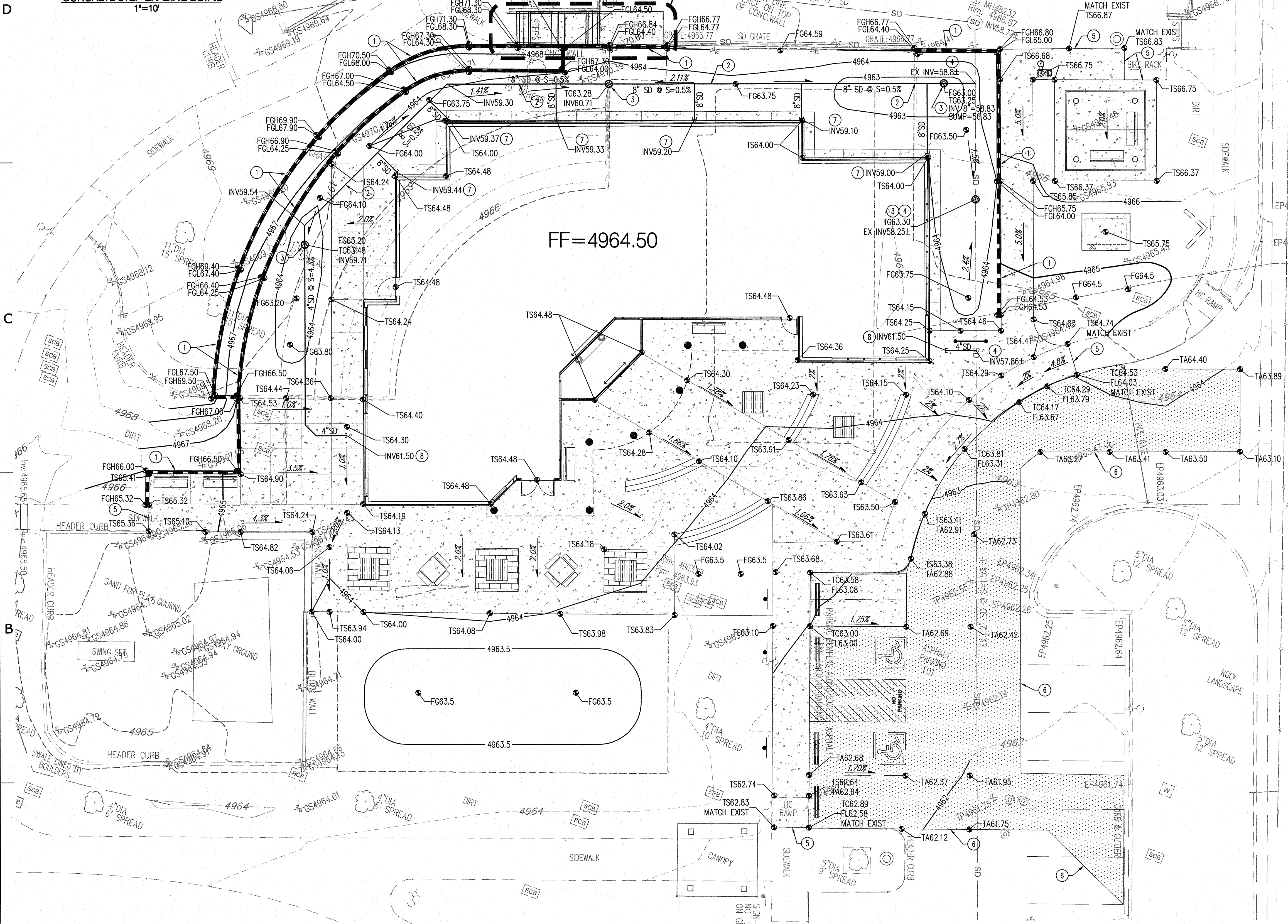
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☒ Yes ☐ No

DATE SUBMITTED: 5/10/16 By: Glenn Broughton



CONCRETE STEP GRADING DETAIL
1' = 10'



FF=4964.50

PROJECT BENCHMARK

COA SURVEY CONTROL MONUMENT "20-J11 1989"
3 1/4 INCH ALUMINUM DISC SET FLUSH IN TOP OF CURB
LOCATED NORTH OF ATRISCO ROAD AND VISTA GRANDE DRIVE
ELEVATION = 5093.60 (NAVD 88)
(THERE WAS AN OBSERVED DIFFERENCE IN THE PUBLISHED
VERSUS OBSERVED VALUES FOR THE MONUMENT)

KEYED NOTES

1. NEW RETAINING WALL, SEE STRUCTURAL PLANS.
2. INSTALL STORM DRAIN PIPE. SEE PLAN FOR SIZE & SLOPE.
3. INSTALL 12" NYLOPLAST DRAIN BASIN WITH 2' DEEP SUMP, DOME GRATE & "FLEXSTORM" INLET FILTER.
4. CONNECT TO EXISTING 12" STORM DRAIN PIPE.
5. MATCH EXISTING SIDEWALK HORIZONTALLY & VERTICALLY.
6. MATCH EXISTING ASPHALT PAVEMENT.
7. CONNECT DOWN SPOUT TO UNDERGROUND STORM DRAIN PER DETAIL 3/C301.
8. EXTEND STORM DRAIN TO WITHIN 5' OF BUILDING. SEE PLUMBING PLANS FOR CONTINUATION.

GENERAL NOTES

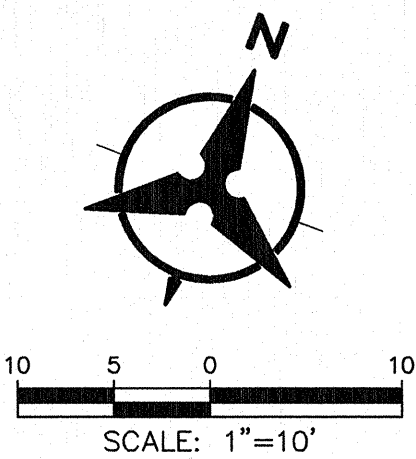
1. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT. WHERE APPLICABLE, CITY OF ALBUQUERQUE PUBLIC WORKS STANDARDS SHALL APPLY.
2. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS INCLUDING ALL UNDERGROUND UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OBSERVER OR ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
4. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.
5. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE ARCHITECT/ENGINEER AND/OR THE CITY PROJECT MANAGER.
7. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
8. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.
9. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E., BARRICADING, TOPSOIL DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.).
10. ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.
11. THE CONTRACTOR SHALL PREPARE A CONSTRUCTION TRAFFIC CONTROL AND SIGNING PLAN AND OBTAIN APPROVAL OF SUCH PLAN FROM THE CITY OF ALBUQUERQUE, TRAFFIC ENGINEERING DEPARTMENT, PRIOR TO BEGINNING ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.
12. ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), US DEPARTMENT OF TRANSPORTATION, LATEST EDITION.
13. THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADES AT THE END AND BEGINNING OF EACH DAY.
14. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.

GRADING NOTES

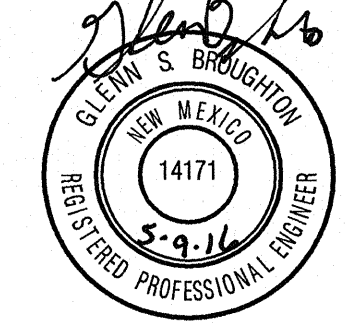
1. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
2. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
3. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION". ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).
4. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
5. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.
6. THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY.
7. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE FOR ANY & ALL ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
8. PAVING AND ROADWAY GRADES SHALL BE +/- 0.1' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.
9. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION.

LEGEND

- REMOVE & REPLACE EXISTING ASPHALT PAVEMENT SEE 4/C301 FOR PAVEMENT SECTION
- EXISTING CONTOURS
- EXISTING GROUND SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- PROPOSED DIRECTION OF FLOW
- PROPOSED RETAINING WALL
- PROPOSED INTER CONTOURS
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET



THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED BELOW



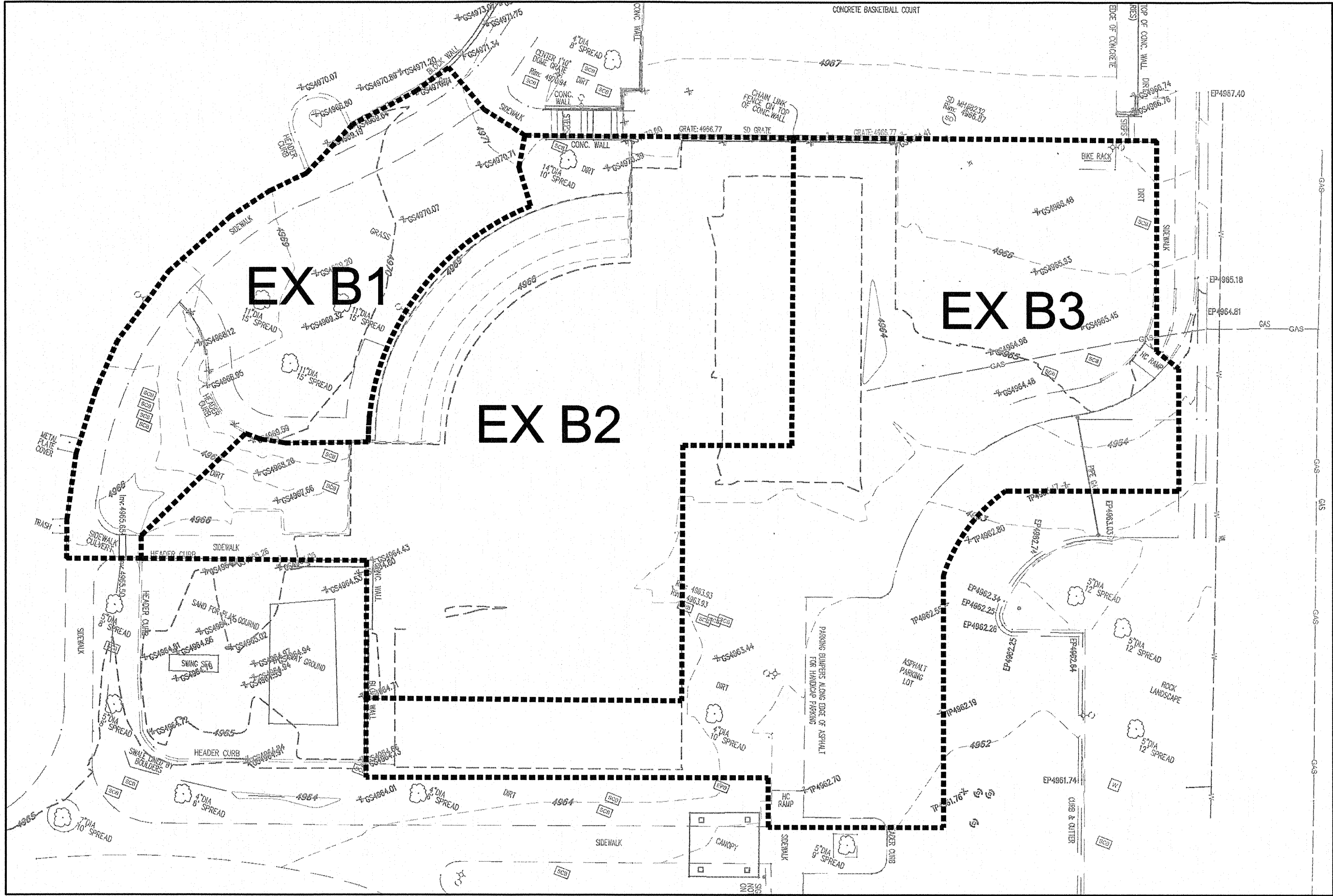
PAT HURLEY COMMUNITY CENTER
CITY OF ALBUQUERQUE DMD
3828 RINCON ROAD, NW ALBUQUERQUE, NM 87102

PROJECT NO: 5239.01
DRAWN BY: BO
CHECKED BY: GSB
GREER STAFFORD/SICF ARCHITECTURE
SHEET TITLE
GRADING PLAN

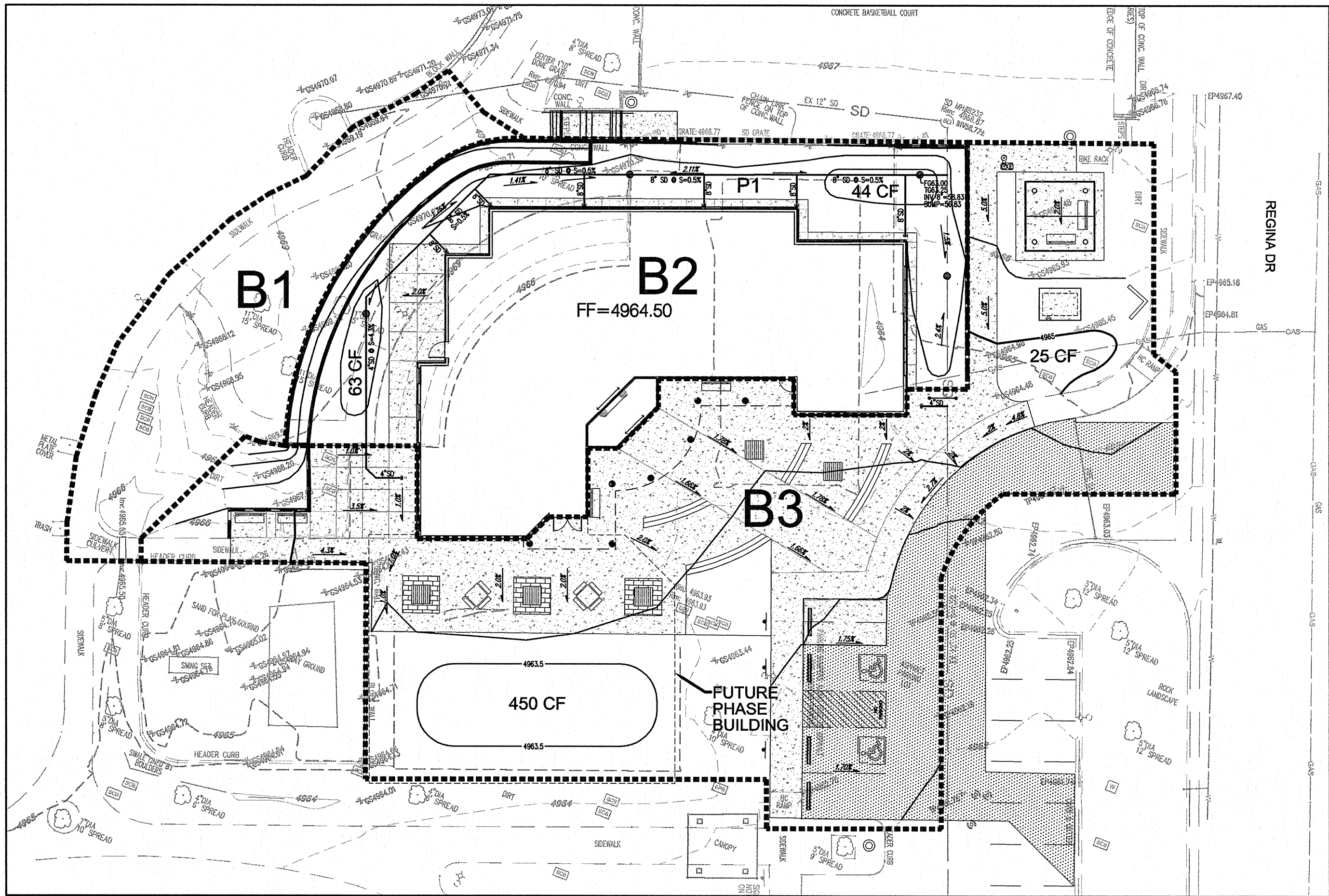
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SHEET TITLE
GRADING PLAN

DRAWING SHEET

C101



EXISTING DRAINAGE MANAGEMENT PLAN



PROPOSED DRAINAGE MANAGEMENT PLAN

INTRODUCTION:

THE PROJECT IS LOCATED ON THE EASTERN SIDE OF PAT HURLEY PARK, NEAR THE INTERSECTION OF REGINA DR. NW AND BLUEWATER RD. NW. THIS SITE IS NOT WITHIN A DEFINED FLOOD ZONE AS SHOWN ON FIRM MAP NUMBER 35001C0329H (THIS SHEET). THE PURPOSE OF THIS SUBMITTAL IS TO PROVIDE A DRAINAGE MANAGEMENT PLAN FOR THE DEVELOPMENT OF A REPLACEMENT BUILDING FOR THE PAT HURLEY COMMUNITY CENTER AND REQUEST BUILDING PERMIT APPROVAL.

EXISTING CONDITIONS:

THE 0.60 ACRE SITE IS CURRENTLY DEVELOPED WITH TWO MODULAR BUILDINGS WHICH SERVE AS THE CURRENT COMMUNITY CENTER. THESE BUILDINGS WILL BE REMOVED AND A NEW PERMANENT COMMUNITY CENTER BUILDING WILL BE CONSTRUCTED. THE SITE SLOPES TO THE SOUTH / SOUTHEAST WHERE THE RUNOFF FREE DISCHARGES INTO THE PARK DRAINAGE SYSTEM AND ULTIMATELY REGINA DR.

METHODOLOGY:

THE HYDROLOGIC ANALYSIS PROVIDED WITH THIS DRAINAGE MANAGEMENT PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 22.2 OF THE DPM. THE SITE IS LOCATED WEST OF THE RIO GRANDE WITHIN PRECIPITATION ZONE 1. LAND TREATMENT PERCENTAGES WERE CALCULATED BASED ON THE EXISTING AND PROPOSED CONDITIONS IN EACH ONSITE BASIN. THIS IS SUMMARIZED IN THE EXISTING AND PROPOSED BASIN DATA TABLES (THIS SHEET).

PROPOSED CONDITIONS:

THIS DRAINAGE MANAGEMENT PLAN WAS BASED ON A FULLY DEVELOPED SITE. IT WAS DETERMINED THAT THE MAXIMUM PEAK DISCHARGE FROM THE SITE IS APPROXIMATELY 2.2 CFS.

THE SITE IS DIVIDED INTO THREE SMALL DRAINAGE BASINS. BASIN 1 FLOWS SOUTH INTO A TURF AREA OF THE PARK. BASIN 2 IS INTERCEPTED BY A NEW 8" STORM DRAIN WHICH CONNECTS TO AN EXISTING 12" STORM DRAIN. THIS STORM DRAIN FLOWS SOUTH AND DISCHARGES INTO A TURF AREA IN THE PARK. BASIN 3 SURFACE DRAINS INTO THE EXISTING PARKING LOT AND ULTIMATELY REGINA DR. THE TURF AREA MENTIONED ABOVE ALSO DISCHARGES TO REGINA DR.

THE EXISTING AND PROPOSED LAND TREATMENTS ARE NEARLY IDENTICAL AND THE PROPOSED DISCHARGE FLOW RATE IS THE SAME AS THE CURRENT CONDITION.

FIRST FLUSH CALCULATIONS:

STORM RUNOFF FROM THE SITE IS CONVEYED TO SHALLOW DEPRESSED AREAS IN THE LANDSCAPE. THESE WATER HARVESTING AREAS RETAIN RUNOFF FROM THE "FIRST FLUSH" STORM. BASIN B1 IS PRIMARILY LANDSCAPE WITH CONCRETE SIDEWALKS. THIS BASIN AREA IS SLIGHTLY REDUCED, BUT ESSENTIALLY UNCHANGED WITH THE REDEVELOPMENT OF THIS SITE. BASIN B2 IS PRIMARILY ROOF RUNOFF. TWO SMALL WATER HARVESTING AREAS INTERCEPT ROOF RUNOFF. DUE TO PROXIMITY TO THE BUILDING AND RETAINING WALL FOUNDATIONS AREA AVAILABLE TO RETAIN STORM WATER RUNOFF WAS LIMITED. THE TOTAL VOLUME PROVIDED IS ESTIMATED TO BE 107 CUBIC FEET AND THE REQUIRED VOLUME IS 163 CUBIC FEET. A WATER QUALITY INLET WILL BE INSTALLED TO ADD ADDITIONAL TREATMENT OF STORM WATER RUNOFF FROM THIS BASIN. BASIN B3 IS COMPRISED OF SIDEWALKS AND LANDSCAPING. TWO SMALL WATER HARVESTING AREAS ARE PROVIDED WHICH INTERCEPT RUNOFF FROM THIS BASIN. THE TOTAL RETENTION VOLUME PROVIDED IS 475 CUBIC FEET AND THE REQUIRED VOLUME IS 259 CUBIC FEET. THE LARGER RETENTION AREA IS LOCATED WITHIN THE BUILDING FOOT PRINT OF A FUTURE BUILDING ADDITION. WITH THE FUTURE BUILDING ADDITION THE RETENTION AREA WILL NEED TO BE MODIFIED. ONSITE RETENTION VOLUME PROVIDED IS SLIGHTLY LESS THAN THE REQUIRED VOLUME, BUT DUE TO SITE CONSTRAINTS THE VOLUME PROVIDED WAS MAXIMIZED TO THE EXTENT TECHNICALLY FEASIBLE.

CONCLUSION:

THE PEAK DISCHARGE FROM THE SITE IS 2.2 CFS WHICH IS THE SAME AS THE EXISTING CONDITION. STORM WATER FROM THE FIRST FLUSH IS PASSIVELY TREATED WITHIN THE EXISTING LANDSCAPE AREAS. THE DESIGN INTENT IS IN CONFORMANCE WITH CITY OF ALBUQUERQUE HYDROLOGY REQUIREMENTS AND WE REQUEST BUILDING PERMIT APPROVAL.

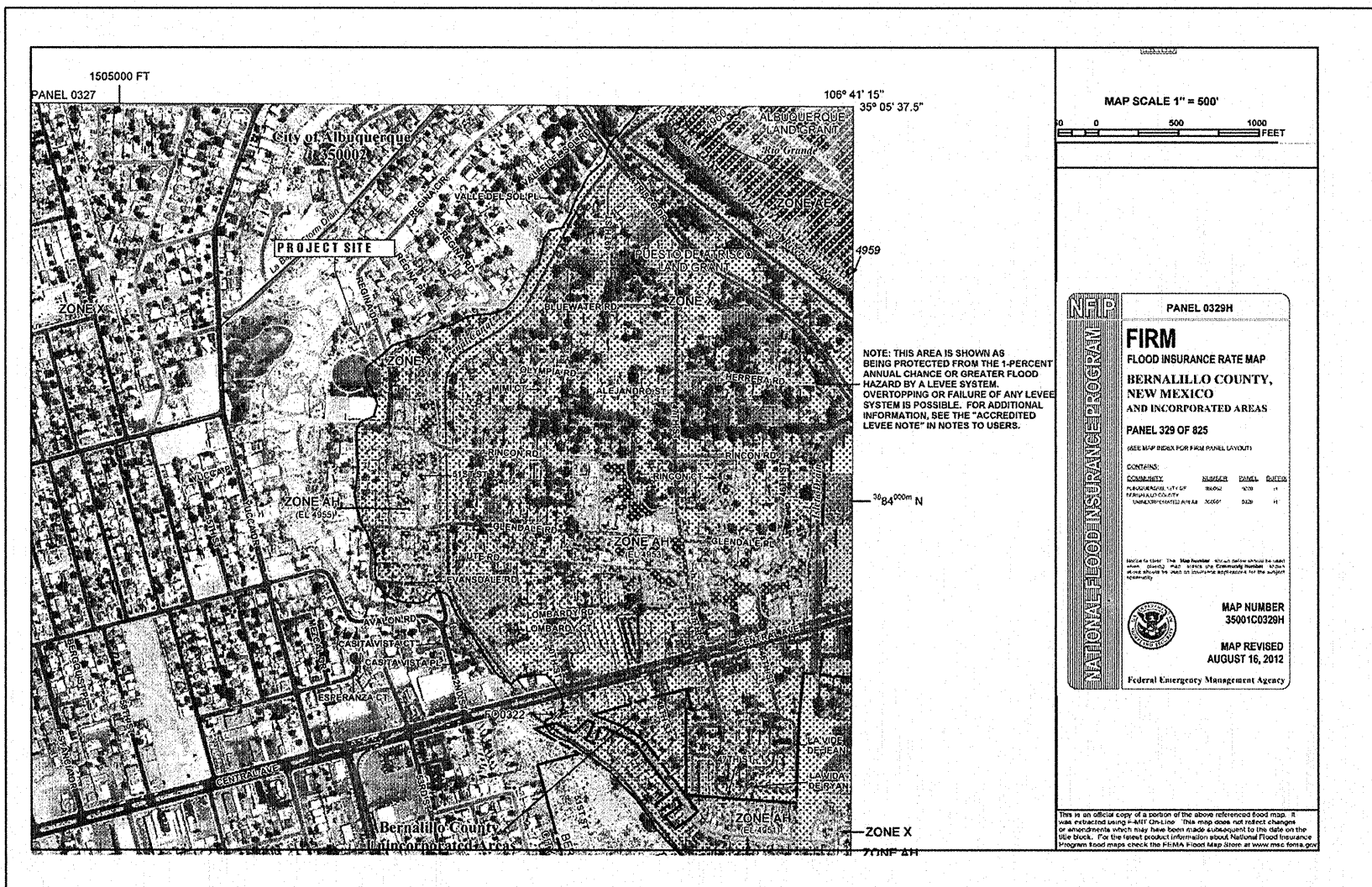
PAT HURLEY COMMUNITY CENTER										
Existing Conditions Basin Data Table										
This table is based on the DPM Section 22.2, Zone: 1										
Basin ID	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WT E (inches)	V(100-24hr) CF
EXB1	4599	0.11	0.0%	52.0%	22.0%	26.0%	2.82	0.3	1.08	459
EXB2	9872	0.23	0.0%	0.0%	17.0%	83.0%	4.12	0.9	1.80	1798
EXB3	11488	0.26	0.0%	13.0%	25.0%	62.0%	3.69	1.0	1.56	1763

PAT HURLEY COMMUNITY CENTER										
Proposed Conditions Basin Data Table										
This table is based on the DPM Section 22.2, Zone: 1										
Basin ID	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WT E (inches)	V(100-24hr) CF
B1	3251	0.07	0.0%	35.0%	27.0%	38.0%	3.15	0.2	1.25	386
B2	8853	0.20	0.0%	0.0%	35.0%	65.0%	3.85	0.8	1.63	1421
B3	13855	0.32	0.0%	0.0%	34.0%	66.0%	3.88	1.2	1.64	2240

* "First Flush" volume is based on a precipitation depth of 0.34" which allows for a 0.1" initial abstraction. Volume calculation is based on impervious area only.

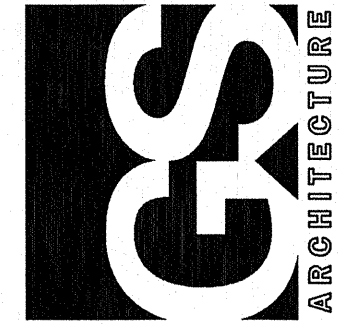
PAT HURLEY COMMUNITY CENTER							
STORM DRAIN PIPE TABLE							
PIPE #	Contributing Basins & Pipes	Size in.	Slope	Capacity* cfs	ACTUAL FLOW cfs	PIPE LENGTH ft	INVERT OUT IN
STORM DRAIN PIPE							
P1	B2	8	0.50%	0.9	0.8	148.0	58.80

*CAPACITY IS BASED ON GRAVITY FLOW, USING MANNING'S EQUATION WITH n=0.013

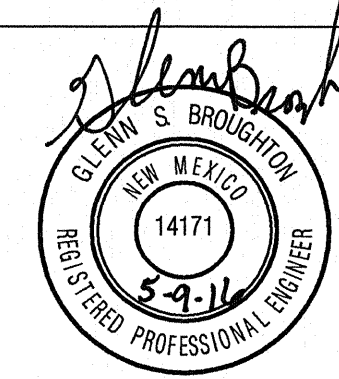


LEGEND

----- DRAINAGE BASIN BOUNDARY



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