

CITY OF ALBUQUERQUE



September 22, 2016

Richard J. Berry, Mayor

Mike Balaskovits, P.E.
Bohannon Huston, Inc.
7500 Jefferson St NE Courtyard 1
Albuquerque, NM, 87109

RE: **Innovate ABQ**
Grading and Drainage Plan
Stamp Date 8-8-2016 (File:K14D108)

Dear Mr. Balaskovits:

Based upon the information provided in your submittal received 8-12-2016, the above referenced Grading and Drainage Plan is approved for Building Permit, ESC Grading Permit, and Paving Permit.

PO Box 1293

Please attach a copy of this approved plan in the construction sets when submitting for a building permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

Albuquerque

An approved ESC Grading Permit (which is contingent on an approved ESC Plan) will need to be in place before construction (beyond rough grading and foundation).

New Mexico 87103

If you have any questions, you can contact me at 924-3986.

Sincerely,

www.cabq.gov

Abiel Carrillo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

Orig: Drainage file



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: _____ **Building Permit #:** _____ **City Drainage #:** _____

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

Legal Description: _____

City Address: _____

Engineering Firm: _____ **Contact:** _____

Address: _____

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

Owner: _____ **Contact:** _____

Address: _____

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

Architect: _____ **Contact:** _____

Address: _____

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

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) _____

CHECK 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: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



REVISIONS	
△	
△	
△	
△	
△	
△	

DRAWN BY	MHS
REVIEWED BY	MJB
DATE	8/8/2016
PROJECT NO.	16-0044
DRAWING NAME	

PROPOSED DRAINAGE NARRATIVE

SITE INTRODUCTION:

THE FIRST PHASE OF INNOVATE ABO IS LOCATED ON THE EXISTING FIRST BAPTIST CHURCH PROPERTY ON THE NORTHWEST CORNER OF THE INTERSECTION OF CENTRAL AVENUE AND BROADWAY BOULEVARD. THIS PORTION OF INNOVATE ABO IS CALLED THE LOBO RAINFOREST BUILDING. THE TRACT THAT THIS BUILDING SITS ON IS APPROXIMATELY 3.14 ACRES AND IS CURRENTLY FULLY DEVELOPED. THE PROPOSED DEVELOPMENT WILL CONTINUE TO DRAIN AT THE HISTORIC FLOW RATES TO THE WEST INTO THE EXISTING 15" STORM DRAIN WHICH DRAINS TO THE EAST ACROSS THE RAILROAD TRACTS.

PER FEMA MAP PANEL #35001C0334G (THIS SHEET), THE SITE IS NOT LOCATED WITHIN A KNOWN FLOOD ZONE.

METHODOLOGY:

THE SITE IS LOCATED IN THE CITY OF ALBUQUERQUE. THEREFORE, THE DEVELOPMENT PROCESS MANUAL SECTION 22.2 WAS USED TO ANALYZE THE SITE'S PROPOSED DRAINAGE. PRECIPITATION ZONE 2 WAS USED DUE TO THE SITE LYING EAST OF THE RIO GRANDE AND WEST OF SAN MATEO. PER SECTION 22.2, THE ONSITE STORM DRAINS WERE SIZED BASED OFF OF MANNING'S EQUATION. THE ONSITE INLETS WERE SIZED WITH THE INLETS IN SUMP CONDITION AND USING MANUFACTURER PROVIDED NOMOGRAPHS.

PROPOSED CONDITIONS:

THE CONSTRUCTION OF THE LOBO RAINFOREST BUILDING WILL CONSIST OF A NEW MULTISTORY BUILDING AND COURTYARD IMPROVEMENTS BETWEEN THE EXISTING FIRST BAPTIST CHURCH AND THE NEW BUILDING. THE WORK WILL BE CONFINED ONLY TO THE AREA TO THE NORTH OF THE EXISTING CHURCH AND NOT IMPACT THE SURROUNDING PARKING. THE NORTHERN WING OF THE EXISTING CHURCH WILL BE DEMOLISHED TO MAKE ROOM FOR THE NEW BUILDING. RUNOFF GENERATED BY THE NEW DEVELOPMENT WILL COMPLETELY DISCHARGE INTO THE EXISTING 15" STORM DRAIN ON THE WESTERN PORTION OF THE SITE.

BASED ON THE PROPOSED GRADING, THE SITE WILL BE DIVIDED INTO 7 ONSITE DRAINAGE BASINS. THE PROPOSED ONSITE BASINS ARE ALLOWED FREE DISCHARGE INTO THE EXISTING 15" STORM DRAIN SYSTEM. A PROPOSED PUBLIC PONDING AND PUBLIC STORM DRAIN SYSTEM IS CURRENTLY BEING DESIGNED AT THE CITY'S DIRECTION TO HELP ALLEVIATE OFFSITE DRAINAGE ISSUES. THIS INNOVATE ABO SITE HAS BEEN ALLOWED TO DISCHARGE DIRECTLY TO THIS FUTURE INFRASTRUCTURE WITH FREE DISCHARGE. IN ADDITION, THE PROPOSED PUBLIC IMPROVEMENTS WILL PROVIDE THE FIRST FLUSH REQUIREMENTS NECESSARY FOR THIS ENTIRE DEVELOPMENT AND NO ADDITIONAL PONDING WILL BE NEEDED.

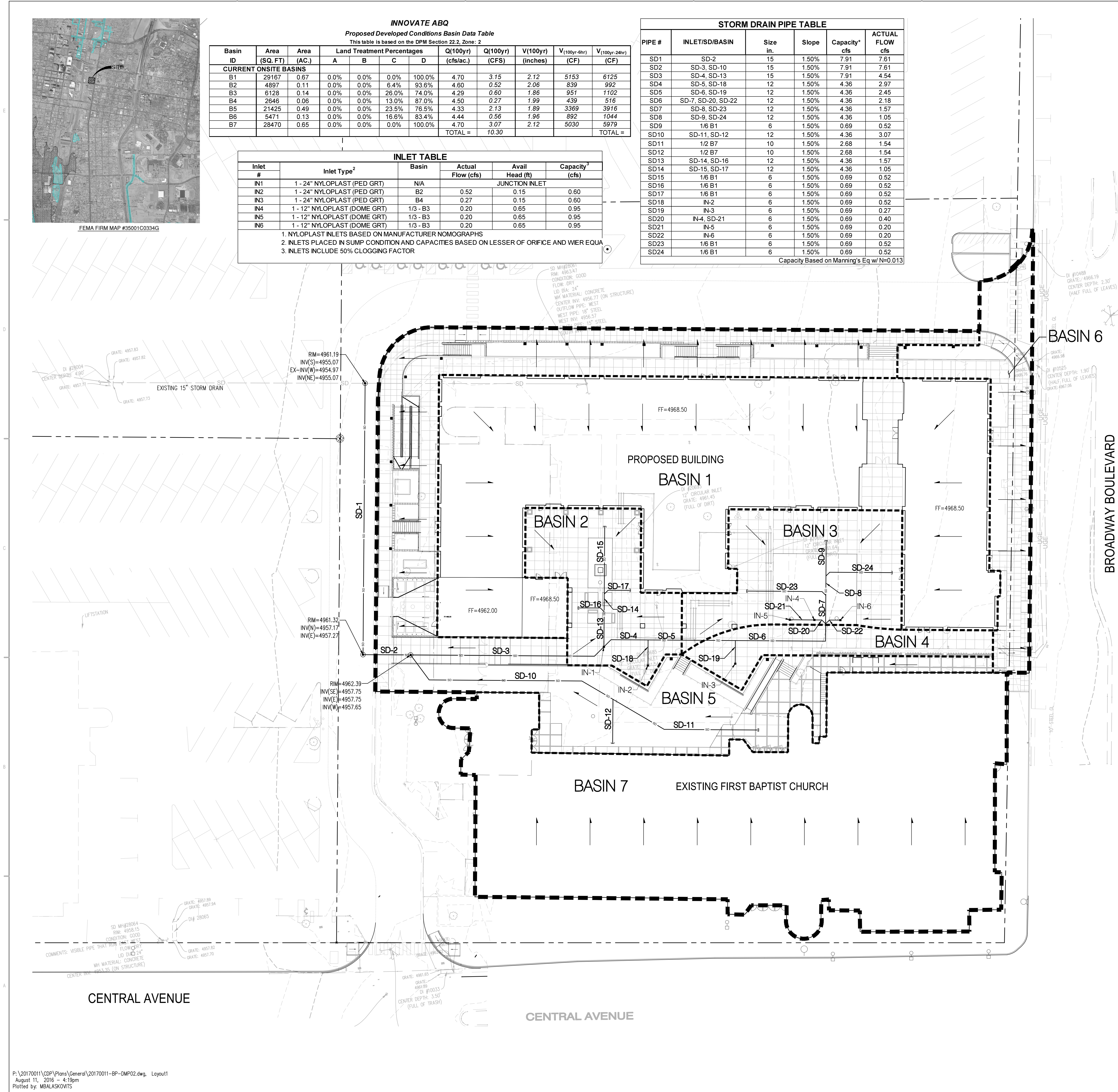
BASIN 6 MOSTLY CONSISTS OF LAND WITHIN THE RIGHT OF WAY. THEREFORE THE BASIN WAS DESIGNED TO DISCHARGE EAST INTO BROADWAY BLVD. THIS IS APPROXIMATELY 0.50 CFS. BASIN 7 IS THE REMAINDER OF THE EXISTING FIRST BAPTIST CHURCH. THIS BASIN'S RUNOFF WILL BE PIPED UNDERGROUND (AS EXISTING) AND IS ACCOUNTED FOR IN THE ONSITE STORM DRAIN ANALYSIS. BASIN 5 CONSISTS OF THE LOWER COURTYARD WHICH FLOWS TO THE WEST BEFORE DISCHARGING INTO THE EXISTING PARKING LOT. BASIN 1 IS THE PROPOSED BUILDING. THE BUILDING WILL BE PIPED INTO THE UNDERGROUND STORM DRAIN SYSTEM. BASINS 2 AND 3 ARE LOCATED IN THE NORTHERN COURTYARD. THESE BASINS WILL DISCHARGE INTO THE PROPOSED AREA INLETS AND CONTINUE INTO THE ONSITE SYSTEM. SURROUNDING GRADES ADJACENT TO THE BUILDING ARE SET LOW ENOUGH TO ENSURE THAT IF THE ONSITE INLETS BECOME CLOGGED, DRAINAGE WILL DISCHARGE DIRECTLY TO THE STREET OR THE PARKING LOT PRIOR TO ENTERING THE BUILDINGS.

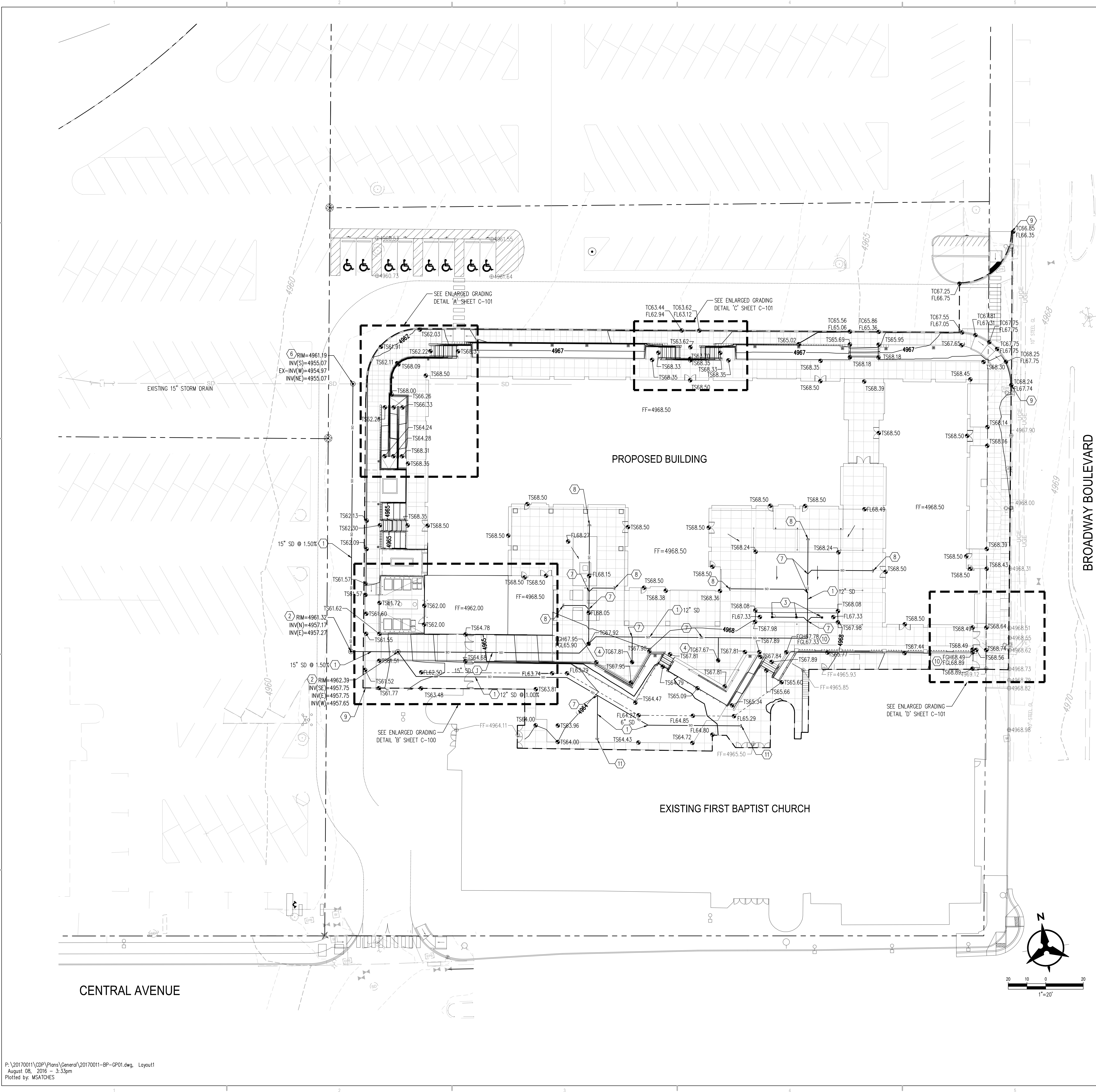
PEAK DISCHARGE OF DEVELOPED CONDITIONS WILL BE APPROXIMATELY 10.30 CFS. THIS IS AN INCREASE OF APPROXIMATELY 1.0 CFS FROM EXISTING CONDITIONS. THE 0.5 CFS FROM BASIN 6 WILL ALSO CONTINUE ON ITS HISTORIC PATH AND WILL NOT INCREASE FLOWS TO THE EXISTING STORM DRAIN SYSTEM.

GIVEN THE ABOVE INFORMATION, WE ARE REQUESTING CITY HYDROLOGY APPROVAL FOR BUILDING PERMIT APPROVAL.

GRADING LEGEND

PROPERTY LINE	PROPOSED CURB & GUTTER
PROJECT LIMITS OF GRADING	DIRECTION OF FLOW
EXISTING INDEX CONTOUR	WATER BLOCK/GRADE BREAK
EXISTING INTERMEDIATE CONTOUR	PROPOSED STORM DRAIN LINE
EXISTING GROUND SPOT ELEVATION	PROPOSED STORM DRAIN MANHOLE
PROPOSED INDEX CONTOUR	PROPOSED STORM DRAIN INLETS
PROPOSED INTERMEDIATE CONTOUR	PROPOSED RETAINING WALL
PROPOSED FLOW LINE	EASEMENT
PROPOSED FINISHED GRADE SPOT ELEVATION	PROPOSED WATER HARVESTING AREAS (FIRST FLUSH REQUIREMENT)
TO=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK, TG=TOP OF GRADE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW	





- ### GRADING KEYNOTES
- HDPE (N12 WT, OR APPROVED EQUAL) STORM DRAIN PIPE.
 - STORM DRAIN MANHOLE PER COA STD DWG 2102.
 - NEW 12" NYLOPLAST DOME GRATE INLET. TG=67.75
 - NEW 24" NYLOPLAST INLET OR APPROVED EQUAL. CONTRACTOR TO PROVIDE PEDESTRIAN RATED GRATE.
 - NOT USED
 - CONSTRUCT NEW MANHOLE PER COA STANDARD DRAWING 2102. TO CONNECT EXISTING SD TO NEW 15" LINE
 - STORM DRAIN FITTING PER MANUFACTURES RECOMMENDATIONS.
 - ROOF DRAIN, STUB TO WITHIN 5' OF BUILDING. SEE STRUCTURAL AND PLUMBING PLANS FOR INVERT AND SIZE.
 - MATCH EXISTING.
 - RETAINING WALL. SEE STRUCTURAL SHEETS FOR ADDITIONAL DETAILS
 - CONNECT TO EXISTING ROOF DRAIN. CONTRACTOR TO FIELD VERIFY INVERT AND NOTIFY ENGINEER OF ANY DISCREPANCIES

- ### GENERAL NOTES
- 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.
 - 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.
 - 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.
 - TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.
 - 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.
 - 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 CONSTRUCTION OBSERVER.
 - 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.
 - 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.
 - THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E. BARRICADEING, TOPSOIL DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.).
 - 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.
 - 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.
 - 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.
 - THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADEING AT THE END AND BEGINNING OF EACH DAY.
 - THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.
 - EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
 - THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
 - 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).
 - EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
 - 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.
 - THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY.
 - A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING 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.
 - PAVING AND ROADWAY GRADES SHALL BE +/- 0.1' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.
 - ALL PROPOSED CONTOURS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR MEDIAN AND ISLANDS.
 - VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION.

GRADING LEGEND

--- PROPERTY LINE	--- PROPOSED CURB & GUTTER
--- PROJECT LIMITS OF GRADING	--- DIRECTION OF FLOW
--- EXISTING INDEX CONTOUR	--- WATER BLOCK/GRADE BREAK
--- EXISTING INTERMEDIATE CONTOUR	--- PROPOSED STORM DRAIN LINE
--- EXISTING GROUND SPOT ELEVATION	--- PROPOSED STORM DRAIN MANHOLE
--- PROPOSED INDEX CONTOUR	--- PROPOSED STORM DRAIN INLETS
--- PROPOSED INTERMEDIATE CONTOUR	--- PROPOSED RETAINING WALL
--- PROPOSED FLOW LINE	--- EASEMENT
--- PROPOSED FINISHED GRADE SPOT ELEVATION	--- PROPOSED WATER HARVESTING AREAS (FIRST FLUSH REQUIREMENT)
--- TC=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK	
--- TG=TOP OF GRATE, FGL=FINISH GROUND HIGH, FGL=FINISH GROUND LOW	

ARCHITECTURE / DESIGN / INSPIRATION

DEKKER PERICH SABATINI

7601 JEFFERSON NE, SUITE 100
ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ARCHITECT

BUILDING PERMIT SET

ENGINEER

PROJECT

LOBO RAINFOREST

101 Broadway Blvd. NE
ALBUQUERQUE, NM 87102

BASE BUILDING - ISSUED FOR PERMIT

REVISIONS

DRAWN BY	MHS
REVIEWED BY	MJB
DATE	8/8/2016
PROJECT NO.	16-0044
DRAWING NAME	GRADING PLAN

SHEET NO. **C100** OF

DEKKER
PERICH
SABATINI

7601 JEFFERSON NE, SUITE 100
ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ARCHITECT

BUILDING
PERMIT SET

ENGINEER

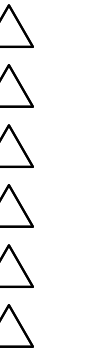


PROJECT

LOBO RAINFOREST
101 Broadway Blvd. NE
ALBUQUERQUE, NM 87102

BASE BUILDING -
ISSUED FOR
PERMIT

REVISIONS

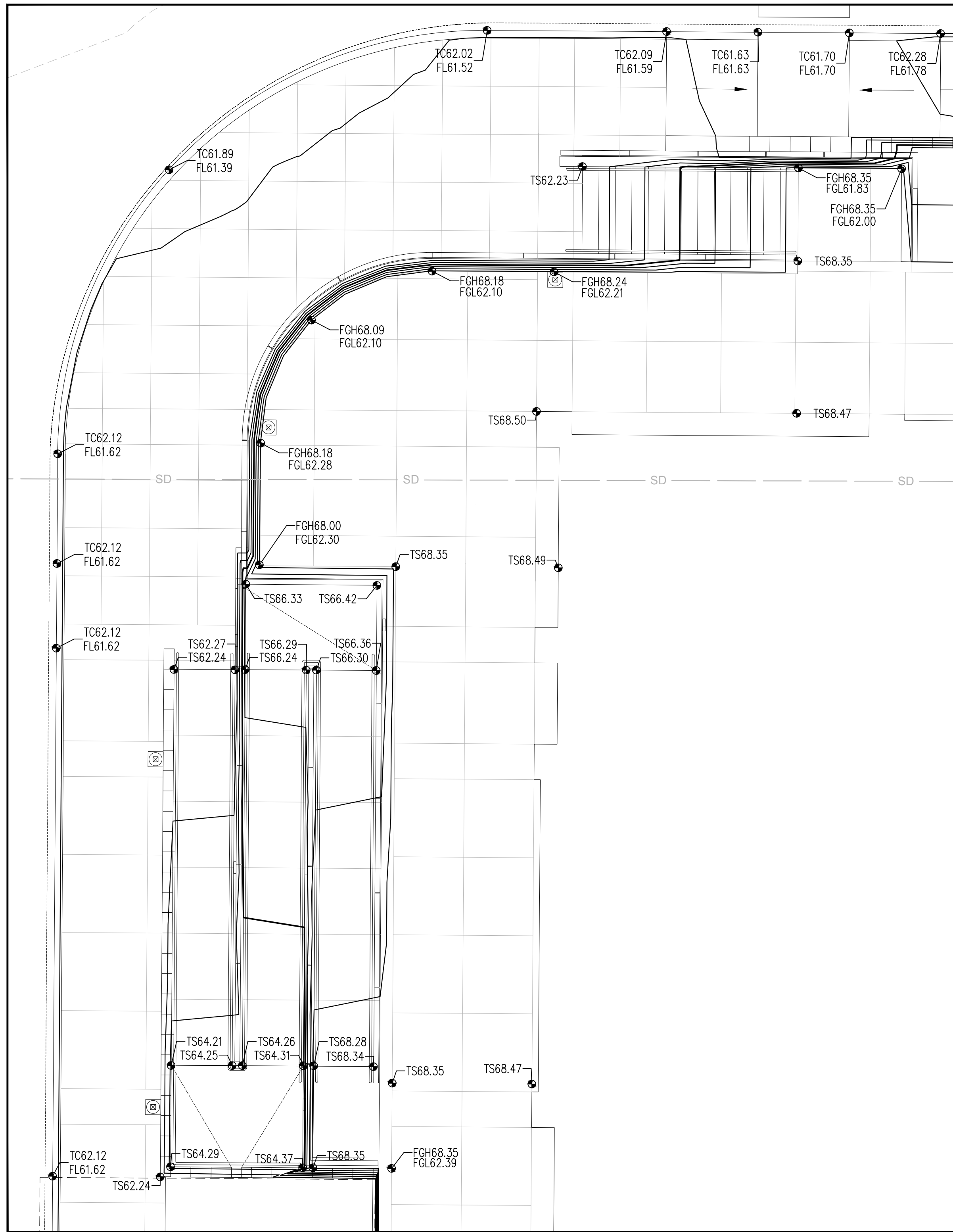


DRAWN BY MHS
REVIEWED BY MJB
DATE 8/8/2016
PROJECT NO. 16-0044
DRAWING NAME

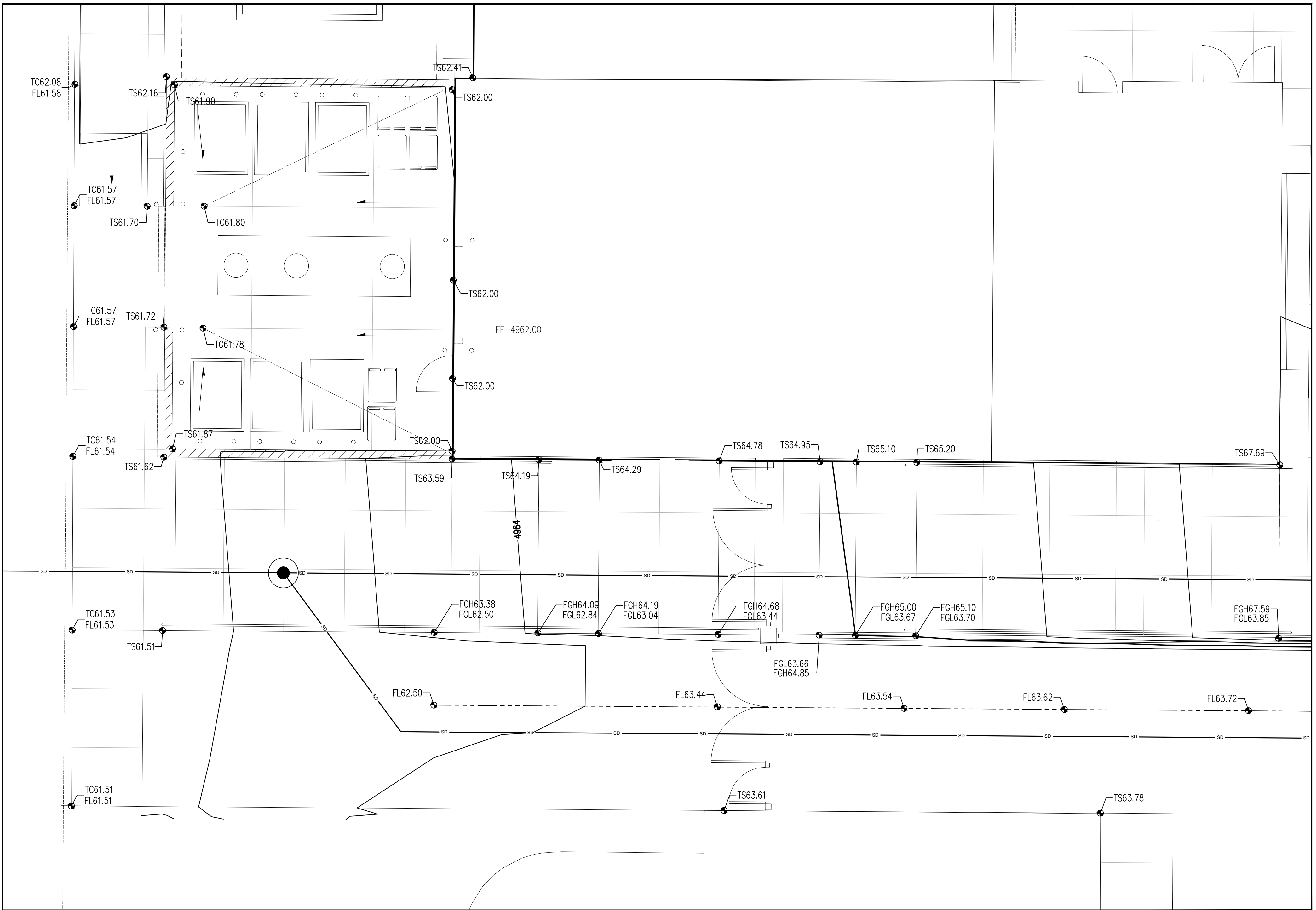
ENLARGED GRADING
DETAILS

SHEET NO.

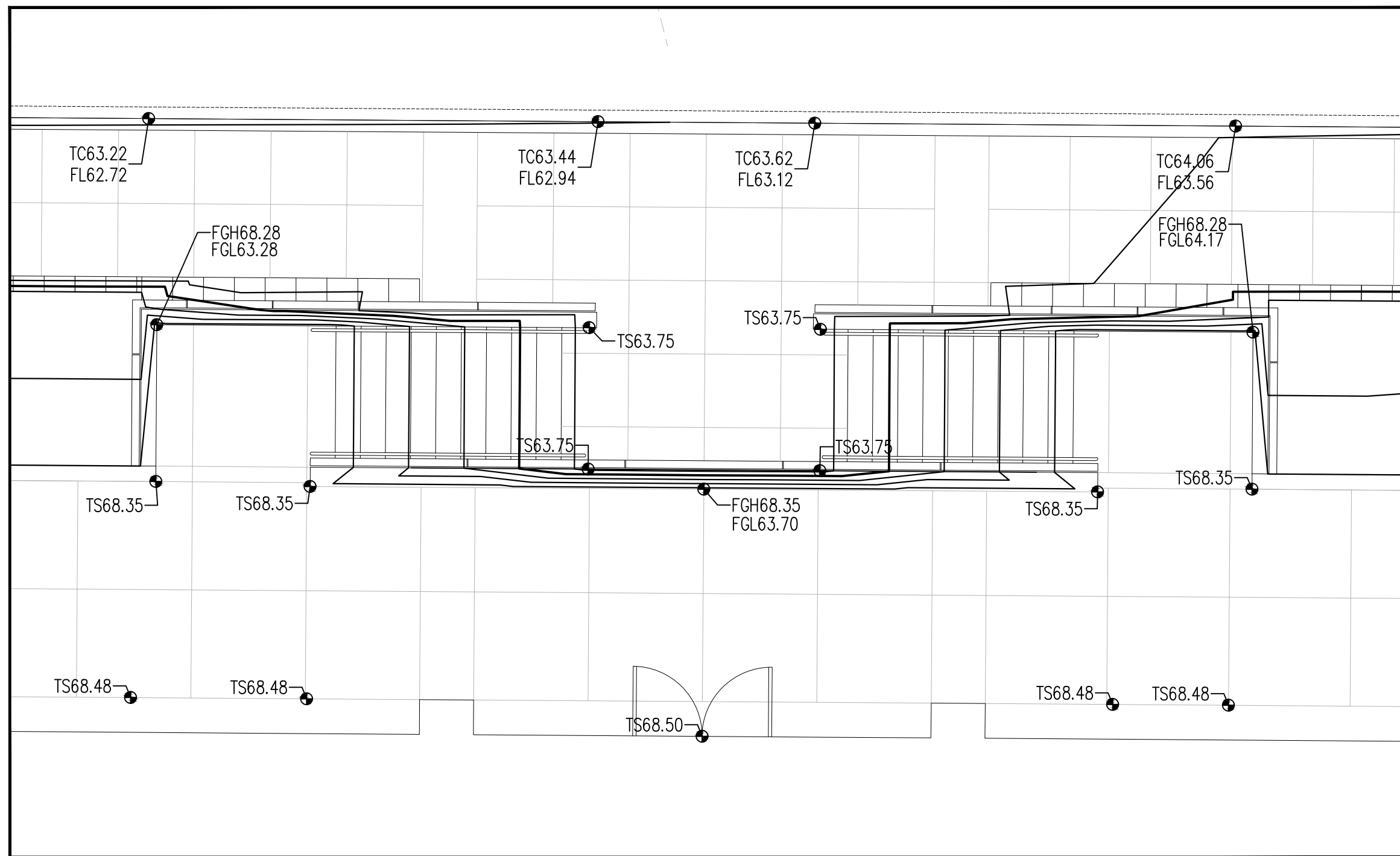
C101
OF



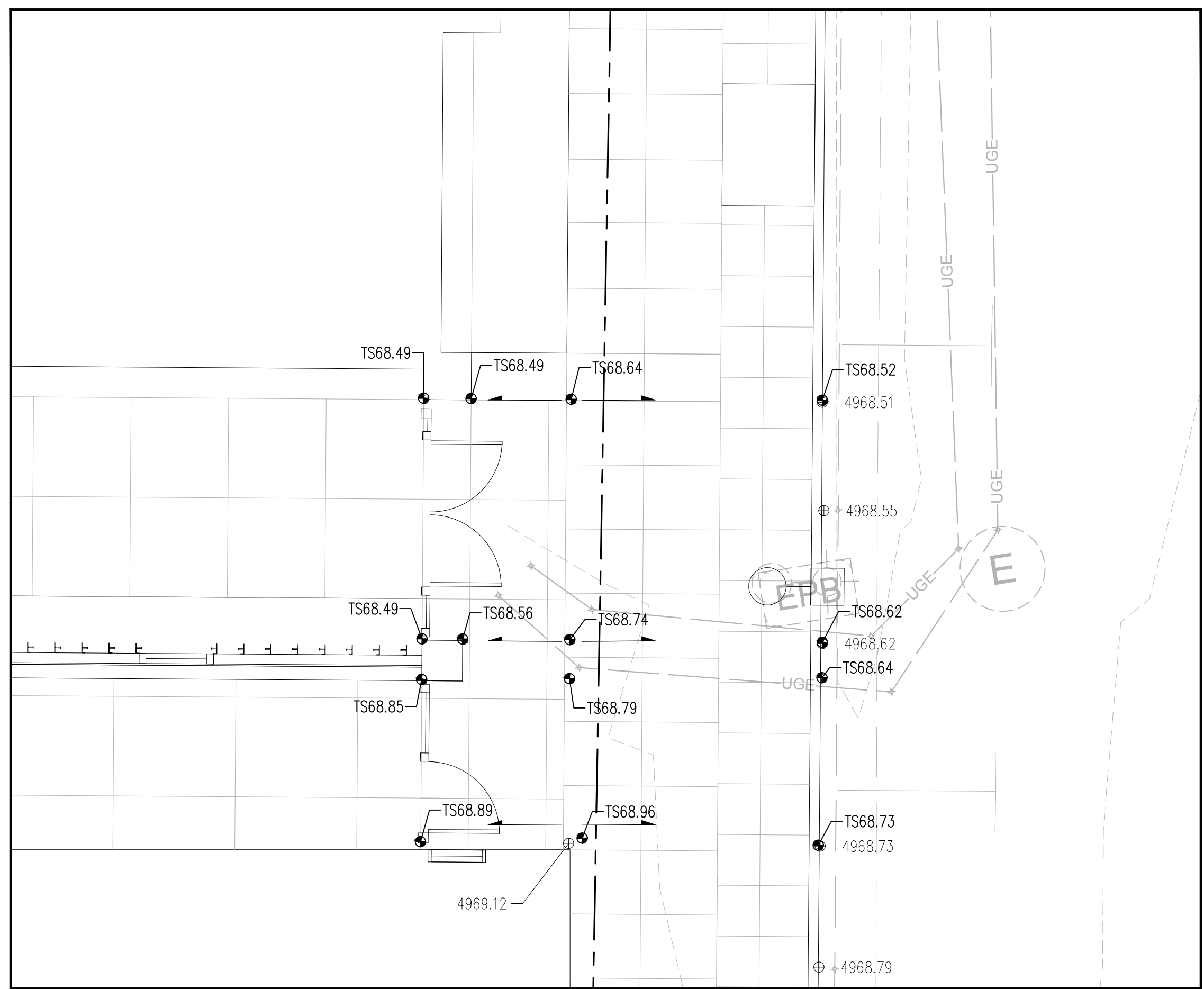
A ENLARGED GRADING DETAIL
SCALE: 1"=5'



B ENLARGED GRADING DETAIL
SCALE: 1"=5'



C ENLARGED GRADING DETAIL
SCALE: 1"=5'



D ENLARGED GRADING DETAIL
SCALE: 1"=5'



GRADING LEGEND

--- PROPERTY LINE	--- PROPOSED CURB & GUTTER
--- PROJECT LIMITS OF GRADING	--- DIRECTION OF FLOW
--- EXISTING INDEX CONTOUR	--- WATER BLOCK/GRADE BREAK
--- EXISTING INTERMEDIATE CONTOUR	--- PROPOSED STORM DRAIN LINE
--- EXISTING GROUND SPOT ELEVATION	--- PROPOSED STORM DRAIN MANHOLE
--- PROPOSED INDEX CONTOUR	--- PROPOSED STORM DRAIN INLETS
--- PROPOSED INTERMEDIATE CONTOUR	--- PROPOSED RETAINING WALL
--- PROPOSED FLOW LINE	--- EASEMENT
--- PROPOSED FINISHED GRADE SPOT ELEVATION	--- PROPOSED WATER HARVESTING AREAS (FIRST FLUSH REQUIREMENT)
--- TC=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK, TG=TOP OF GRADE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW	

Bohannon & Huston
www.bhinc.com 800.877.5332