

**DEKKER
PERICH
SABATINI**

7601 JEFFERSON NE, SUITE 100
ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ARCHITECT



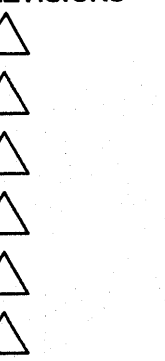
ENGINEER

**ISSUED FOR
PERMIT**

PROJECT

YEAROUT MECHANICAL
8433 Washington Place NE
Albuquerque, New Mexico 87113

REVISIONS



DRAWN BY

REVIEWED BY

DATE

PROJECT NO.

DRAWING NAME

**GRADING AND
DRAINAGE
PLAN**

RECEIVED

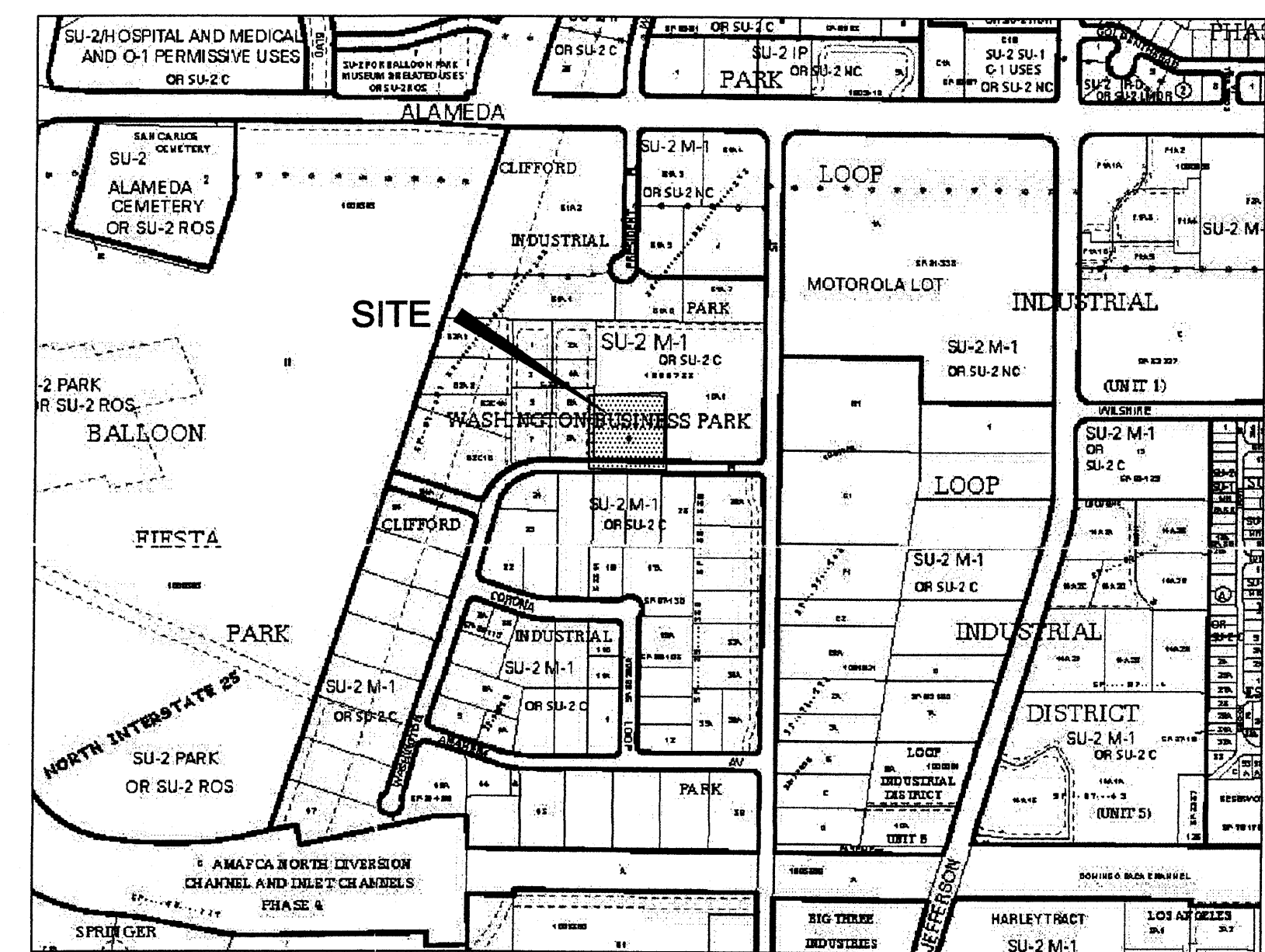
NOV 12 2014

LAND DEVELOPMENT SECTION

SHEET NO.

C-100

Bohannon & Huston
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VICINITY MAP
COA ZONE MAP C-17

BENCHMARK

- ON-SITE SET CONTROL STATION DATA
MONUMENT "B" 15-176-10" (PK NAIL W/WASHER)
NEW MEXICO STATE PLAN COORDINATES
CENTRAL ZONE (NAD 83)
N=1,521,886.686 E=1,537,114.655
ELEVATION= 5,095.695 (NAVD88)
- ON-SITE SET CONTROL STATION DATA
MONUMENT "B" 15-176-11" (PK NAIL W/WASHER)
NEW MEXICO STATE PLAN COORDINATES
CENTRAL ZONE (NAD 83)
N=1,522,192.553 E=1,537,069.223
ELEVATION= 5,093.772 (NAVD88)

LEGEND

- APPROXIMATE PROPERTY LINE
- EXISTING CONTOURS
- EXISTING GROUND SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- TO-TOP OF CURB, FL=FLOW LINE
- FG=FINISHED GRADE LOW, FGH=FINISHED GRADE HIGH, EX=EXISTING, TO=TOP OF GRADE
- PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- PROPOSED RETAINING WALL
- PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED LIGHTING

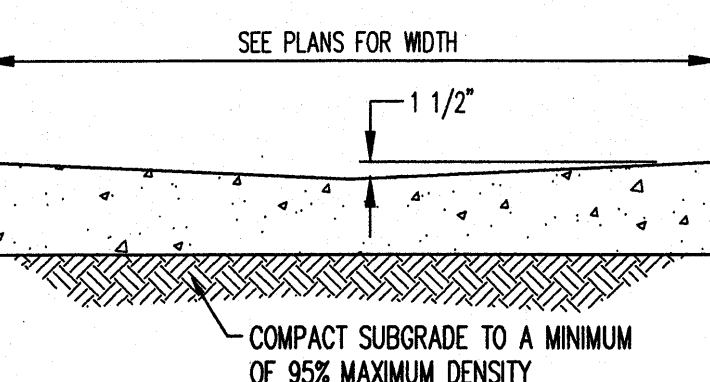
GENERAL NOTES

- 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., BARRICADING, 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 BARRICADE 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.

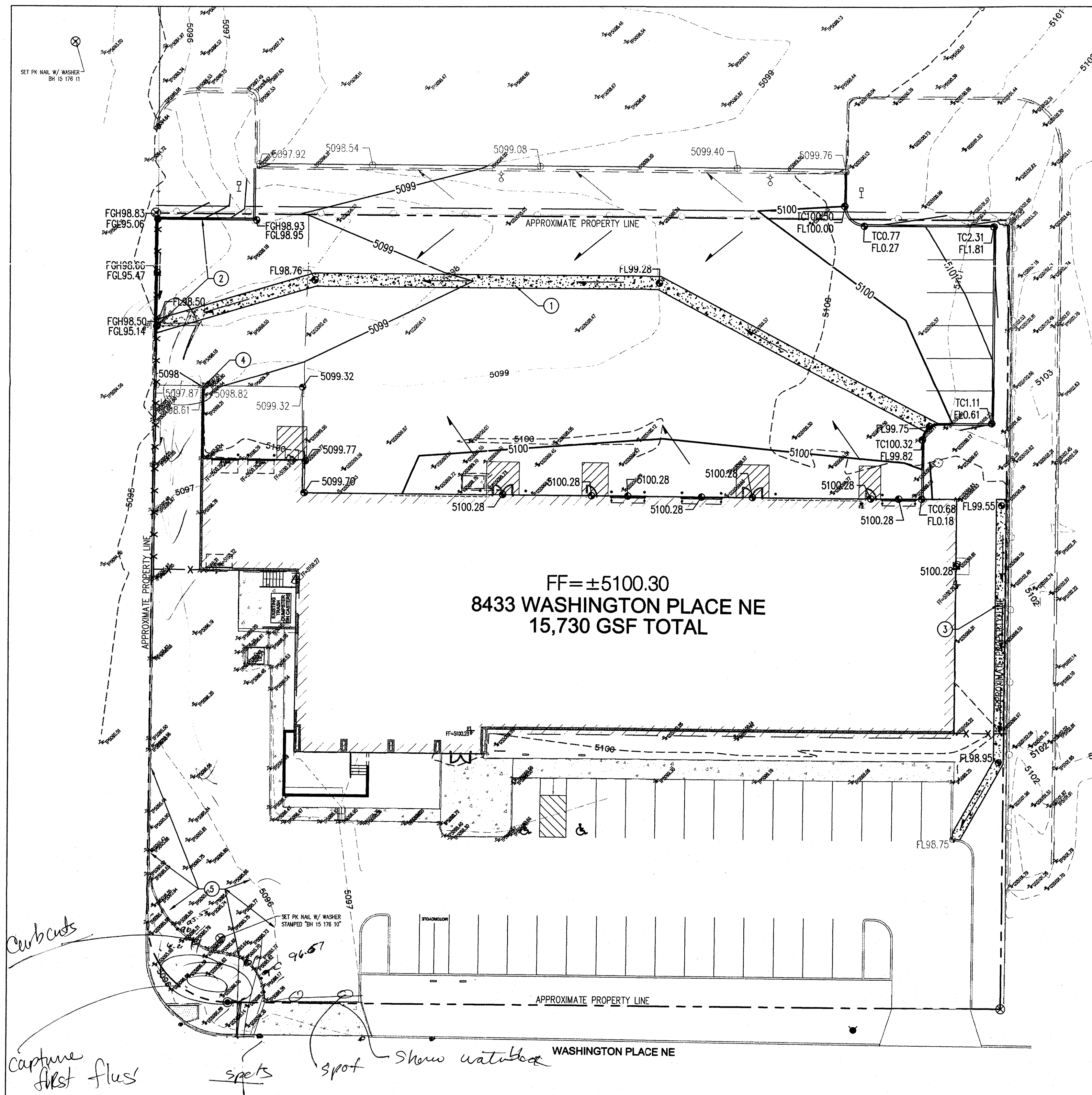
GRADING NOTES

- 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/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 HAIL 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 MEDANS AND ISLANDS.
- VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION.

NOTE: CONCRETE FOR ALL VALLEY GUTTERS WILL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI IN 24 HOURS.

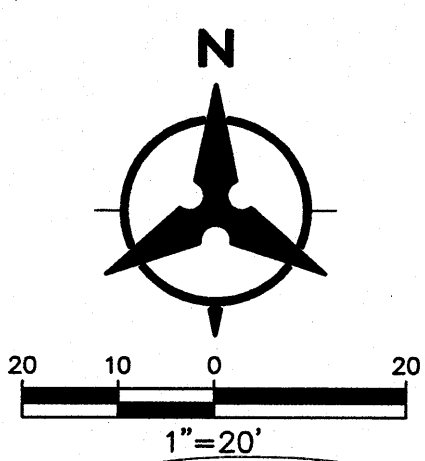


1 CONCRETE VALLEY GUTTER
NTS

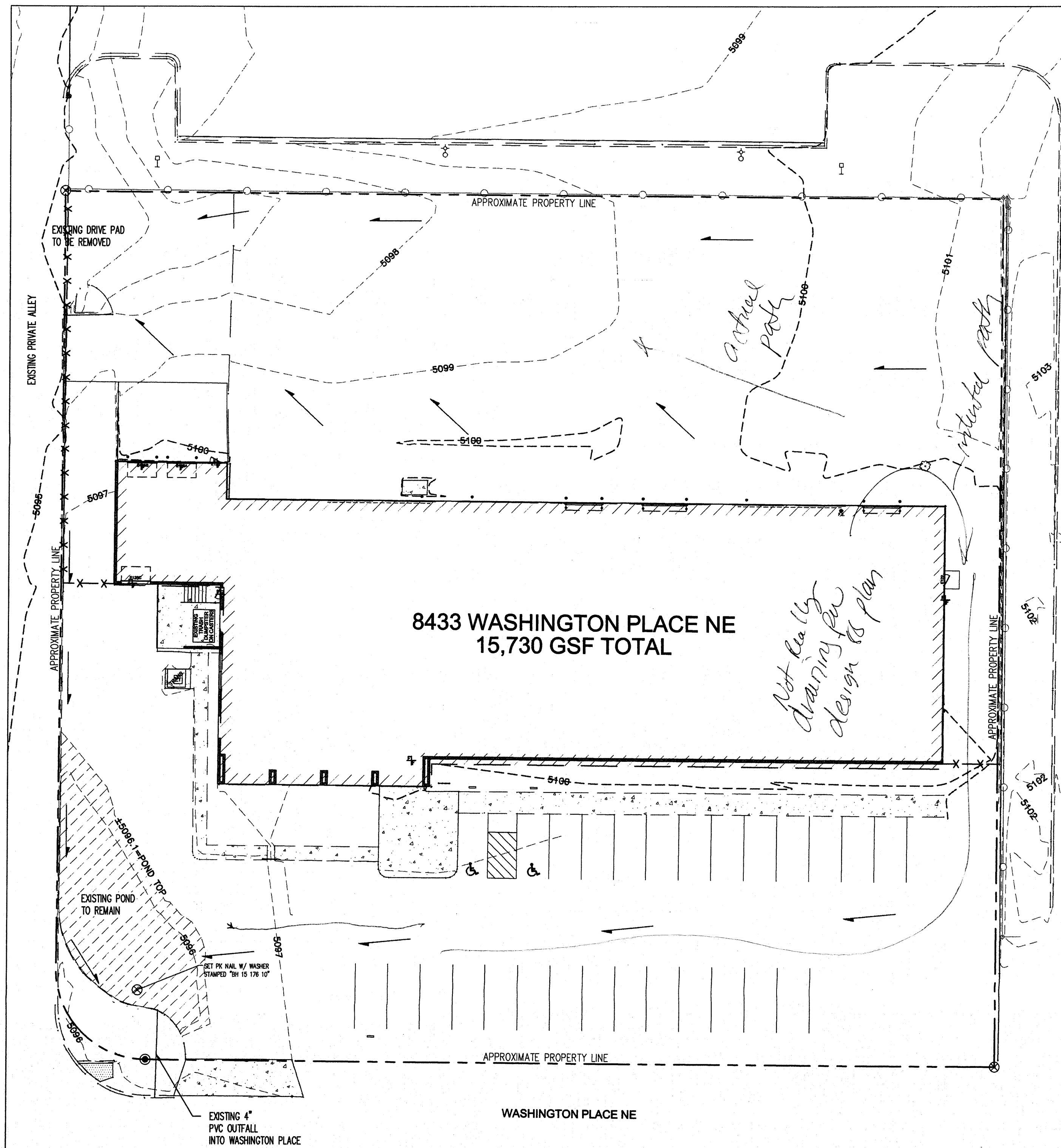


KEYED NOTES

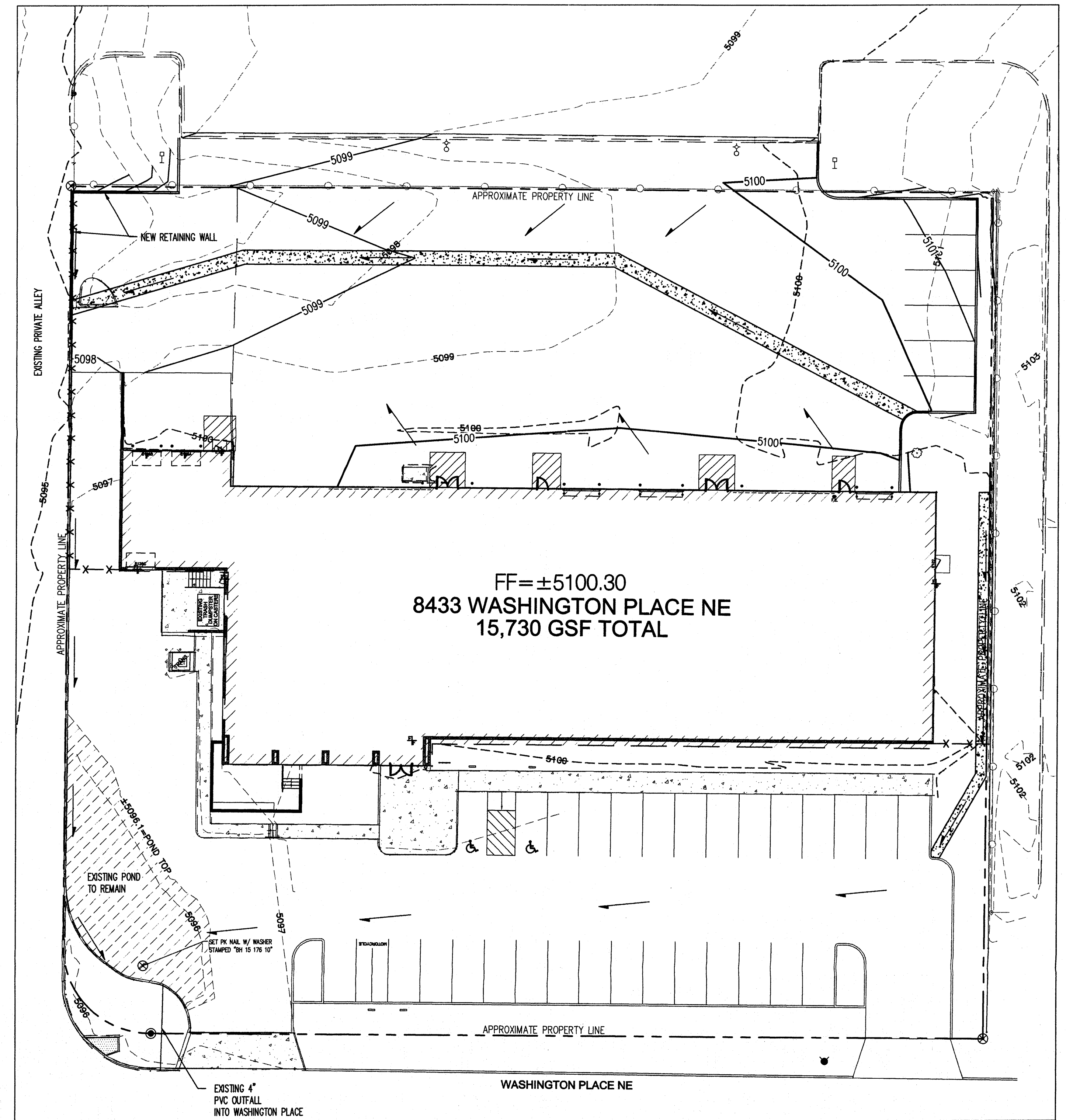
- INSTALL NEW 4" WIDE VALLEY GUTTER PER DETAIL 1 THIS SHEET.
- EXTEND EXISTING RETAINING WALL. SEE STRUCTURAL FOR DETAILS.
- INSTALL NEW 2" WIDE VALLEY GUTTER PER DETAIL 1 THIS SHEET.
- WARP NEW PAVEMENT AROUND EXISTING RETAINING WALL.
- EXISTING PONDING AREA AND OUTFALL DESIGNED FOR DEVELOPED CONDITIONS OF ENTIRE SITE UNDER ORIGINAL GRADING AND DRAINAGE PLAN DATED 07/05/88. EXISTING OUTFALL SHALL BE CLEARED OF ALL DEBRIS TO ALLOW FOR CLEAR PASSAGE OF DRAINAGE INTO WASHINGTON PLACE.



Put concrete factor 2.93



EXISTING CONDITIONS



PROPOSED CONDITIONS

DRAINAGE MANAGEMENT PLAN

INTRODUCTION:
THE PURPOSE OF THIS SUBMITTAL IS TO PROVIDE A GRADING AND DRAINAGE PLAN FOR THE PAVING OF THE EXTERIOR IMPROVEMENTS OF THE SITE LOCATED AT 8433 WASHINGTON PLACE NE IN SUPPORT OF GRADING PERMIT, PAVING PERMIT AND BUILDING PERMIT APPROVAL.

THE EXISTING SITE INCLUDES A BUILDING, EXISTING PARKING, LANDSCAPED AREA AND A DIRT LOT NORTH OF THE BUILDING. THIS SUBMITTAL IS SPECIFIC TO IMPROVEMENTS ASSOCIATED WITH PAVING AT THE NORTHERN HALF OF THIS SITE. A PREVIOUSLY APPROVED BUILDING PERMIT SUBMITTED FOR THE EXISTING BUILDING EXISTS WITHIN THE COA RECORDS (COA HYDRO FILE # C-17/0105), DATED JULY 5TH, 1988 AND NOTES THE ULTIMATE OUTFALL FOR THE SITE IS INTO WASHINGTON PLACE, WITH AN ALLOWABLE DISCHARGE RATE OF 4.6 CFS.

EXISTING CONDITIONS:
THE SOUTHERN HALF OF THE SITE IS CONSISTENT WITH THE APPROVED GRADING AND DRAINAGE AND OUTFALLS TO THE SOUTHWEST CORNER INTO A DETENTION POND CONTROLLED BY A 4" PVC PIPE WHICH DAYLIGHTS WITHIN THE CURB OF WASHINGTON PLACE. THE NORTHERN HALF (INCLUDING THE ROOF) CURRENTLY DRAINS FROM EAST TO WEST VIA SURFACE FLOW INTO AN EXISTING DRIVE PAD ALONG THE WEST PROPERTY LINE INTO AN EXISTING PRIVATE ALLEY WHICH SERVES A NUMBER OF ADJACENT PROPERTIES. THIS IS A DEVIATION FROM THE ORIGINAL PLAN SUBMITTED FOR THE BUILDING THAT NOTES THIS ENTIRE SITE WILL OUTFALL TO THE SOUTHWEST CORNER.

PER FEMA MAP NUMBER 35001001360, THIS SITE IS NOT WITHIN A DESIGNATED FEMA FLOOD ZONE.

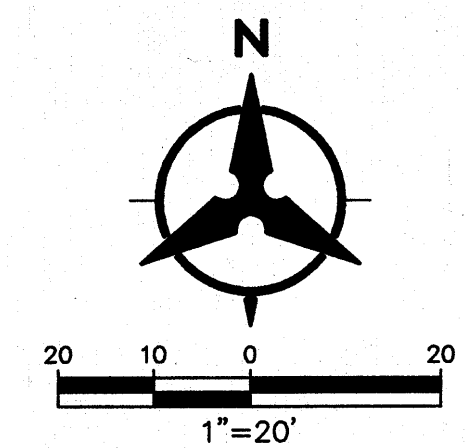
PROPOSED CONDITIONS:
THIS CONSTRUCTION PROPOSES TO PAVE THE AREA NORTH OF THE EXISTING BUILDING, BLOCK OFF THE EXISTING DRIVEWAY BY EXTENDING THE EXISTING RETAINING WALL AT THE WEST END OF THE SITE AND DIVERSIFY DRAINAGE FROM THE NORTH HALF OF THE SITE VIA SURFACE FLOW TOWARD THE SOUTHWEST CORNER AS INTENDED IN THE ORIGINAL GRADING AND DRAINAGE PLAN DATED 7/5/1988. THE EXISTING DRAINAGE TO THE SOUTH WILL CONTINUE TO OUTFALL TO THE WEST INTO THE EXISTING DETENTION POND. THE AREA NORTH OF THE BUILDING WILL BE FULLY PAVED WITH THESE IMPROVEMENTS AND THE GRADING WITHIN THIS AREA WILL BE OVERTO TO THE SOUTHWEST CORNER OF THE FACILITY AS ORIGINALLY DESIGNED IN 1988. THE EXISTING POND HAS ALREADY BEEN DESIGNED TO ACCEPT THE FULLY DEVELOPED FLOWS FOR THIS SITE (5.3 CFS) TO REDUCE TO 3.0 CFS WHICH IS LESS THEN THE ALLOWABLE 4.6 CFS NOTED WITHIN THE DRAINAGE REPORT FOR THE WASHINGTON BUSINESS PARK.

CONCLUSION:
THIS DRAINAGE MANAGEMENT PLAN AND GRADING PLAN DEMONSTRATE THAT THE DRAINAGE ELEMENTS PROPOSED WITH THE PROJECT ARE CAPABLE OF SAFELY CONVEYING THE 100 YEAR, 6 HOUR STORM EVENT IN ACCORDANCE WITH THE DEVELOPMENT PROCESS MANUAL, THE PREVIOUSLY APPROVED GRADING AND DRAINAGE PLAN FOR THE SITE AND THE WASHINGTON BUSINESS PARK DRAINAGE REPORT. WITH THIS SUBMITTAL WE ARE REQUESTING GRADING AND DRAINAGE APPROVAL FOR GRADING APPROVAL, PAVING APPROVAL AND BUILDING PERMIT APPROVAL.

based on fully developed if Building where new parking lot proposed

should increase slightly from master plan

first flush



LEGEND

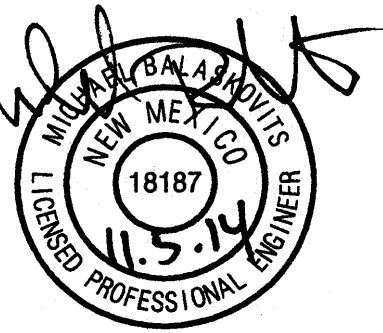
- APPROXIMATE PROPERTY LINE
- - - - - EXISTING CONTOURS
- 5301.15 EXISTING GROUND SPOT ELEVATION
- 65.23 PROPOSED SPOT ELEVATION
- TO=TOP OF CURB, EL=FLOW LINE
- FG=FINISHED GRADE LOW, FGH=FINISHED GRADE HIGH, EX=EXISTING, TO=TOP OF GRADE
- PROPOSED DIRECTION OF FLOW
- ~~~~~ WATER BLOCK
- PROPOSED RETAINING WALL
- PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS

ARCHITECTURE / DESIGN / INSPIRATION

**DEKKER
PERICH
SABATINI**

7601 JEFFERSON NE, SUITE 100
ALBUQUERQUE, NM 87109
505.761.9700 / DPSDESIGN.ORG

ARCHITECT



ENGINEER

**ISSUED FOR
PERMIT**

PROJECT

YEAROUT MECHANICAL
8433 Washington Place NE
Albuquerque, New Mexico 87113

REVISIONS

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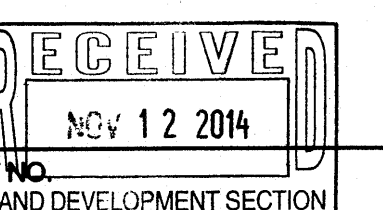
REVIEWED BY

DATE 11/5/2014

PROJECT NO. 14-0051.001

DRAWING NAME

**DRAINAGE
MANAGEMENT
PLAN**

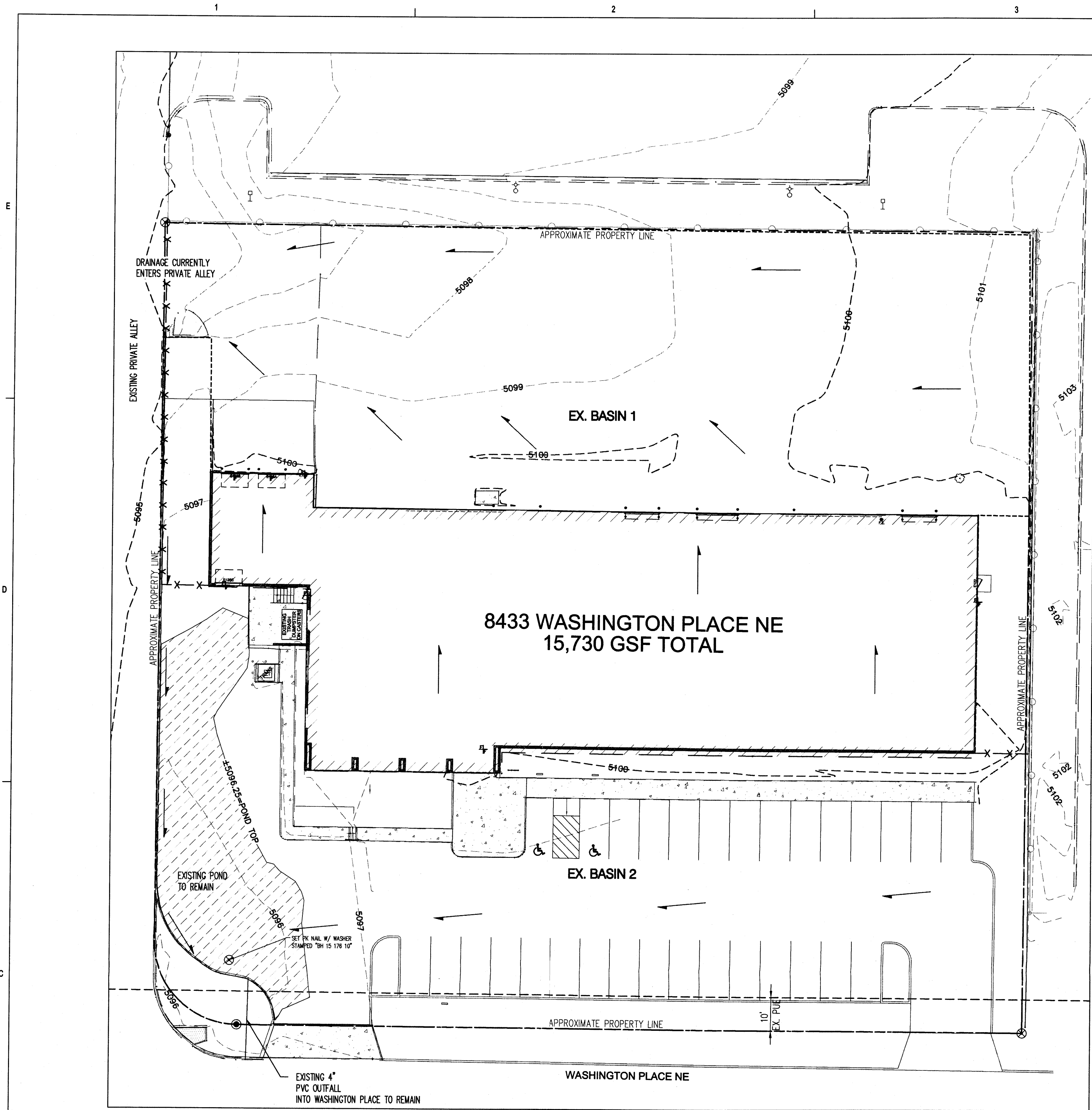


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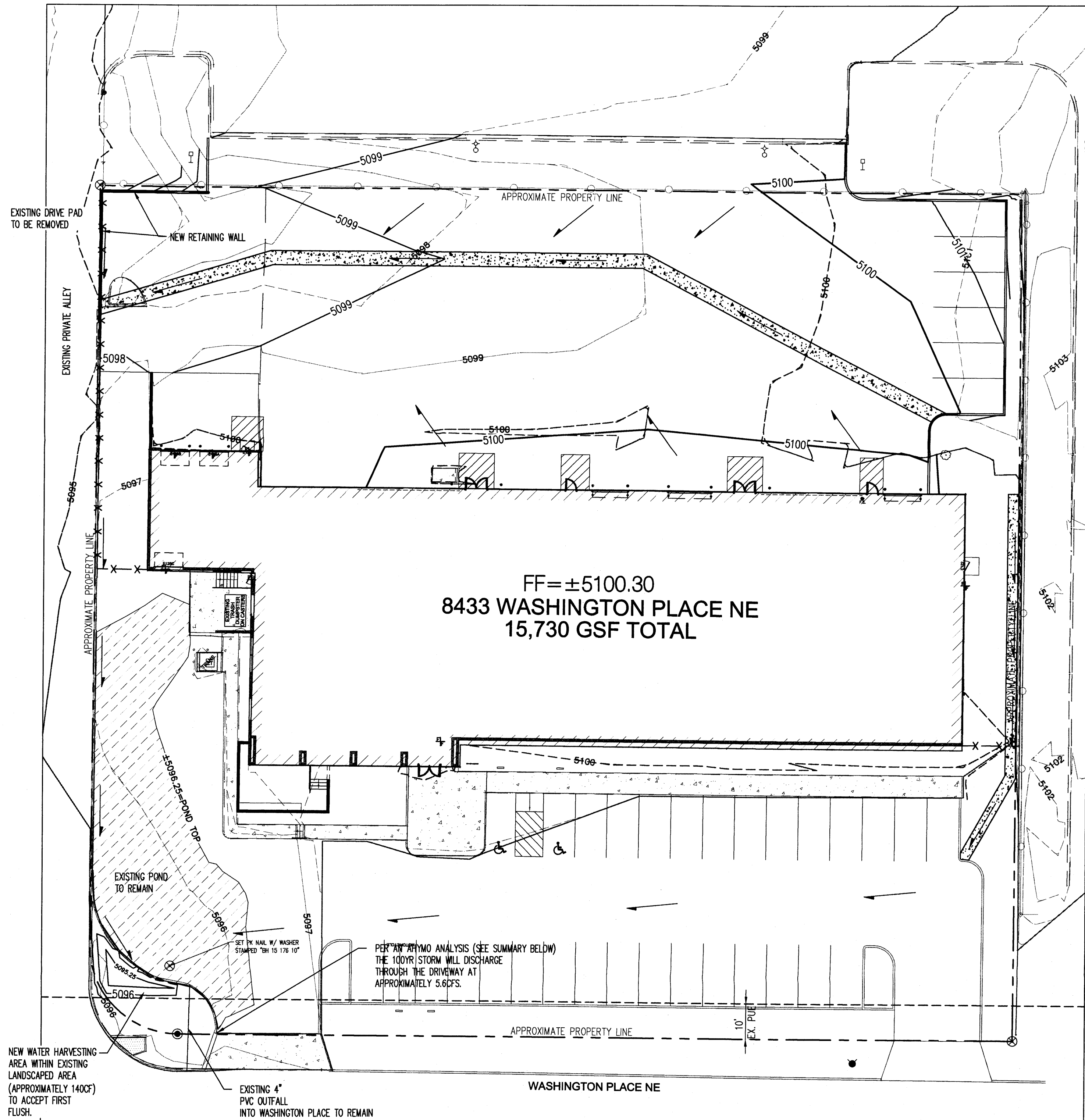
LAND DEVELOPMENT SECTION

C-001

Bohannon & Huston
www.bhinc.com 800.877.5332



EXISTING CONDITIONS
SCALE 1"=20'



PROPOSED CONDITIONS
SCALE 1"=20'

NOTE: DATUM CONVERSION
BETWEEN THE 1988 AND THIS
PLAN IS APPROXIMATELY 2.8 FT.

DRAINAGE MANAGEMENT PLAN

INTRODUCTION:
THE PURPOSE OF THIS SUBMITTAL IS TO PROVIDE A GRADING AND DRAINAGE PLAN FOR THE PAVING OF THE EXTERIOR IMPROVEMENTS OF THE SITE LOCATED AT 8433 WASHINGTON PLACE NE IN SUPPORT OF GRADING PERMIT, PAVING PERMIT AND BUILDING PERMIT APPROVAL.

THE EXISTING SITE INCLUDES A BUILDING, EXISTING PARKING, LANDSCAPED AREA AND A DIRT LOT NORTH OF THE BUILDING. THIS SUBMITTAL IS SPECIFIC TO IMPROVEMENTS ASSOCIATED WITH PAVING AT THE NORTHERN HALF OF THIS SITE. A PREVIOUSLY APPROVED BUILDING PERMIT SUBMITTED FOR THE EXISTING BUILDING EXISTS WITHIN THE COA RECORDS (COA HYDRO FILE # C-17/DIUS), DATED JULY 5TH, 1988 AND NOTES THE ULTIMATE OUTFALL FOR THE SITE IS INTO WASHINGTON PLACE, WITH AN ALLOWABLE DISCHARGE RATE OF 4.6 CFS.

EXISTING CONDITIONS:
THE SOUTHERN HALF OF THE SITE (EX. BASIN 2) IS CONSISTENT WITH THE APPROVED GRADING AND DRAINAGE AND OUTFALLS TO THE SOUTHWEST CORNER INTO A DETENTION POND CONTROLLED BY A 4" PVC PIPE WHICH DAYLIGHTS WITHIN THE CURB OF WASHINGTON PLACE. THE ORIGINAL PLAN NOTES THAT DURING THE LARGER STORM EVENTS, DRAINAGE WILL EXIT VIA SURFACE FLOW OUT OF THE EXISTING DRIVEWAY. THE NORTHERN HALF, INCLUDING THE ROOF (EX. BASIN 1) CURRENTLY DRAINING FROM EAST TO WEST VIA SURFACE FLOW INTO AN EXISTING DRIVE PAD ALONG THE WEST PROPERTY LINE INTO AN EXISTING PRIVATE ALLEY WHICH SERVICES A NUMBER OF ADJACENT PROPERTIES. THIS IS A DEVIATION FROM THE ORIGINAL PLAN SUBMITTED FOR THE BUILDING THAT NOTES THIS ENTIRE SITE WILL OUTFALL TO THE SOUTHWEST CORNER INTO WASHINGTON PLACE. IT HAS BEEN NOTED THAT THERE HAVE BEEN DRAINAGE ISSUES ASSOCIATED WITH THE ULTIMATE OUTFALL IN THIS AREA.

PER FEMA MAP NUMBER 35001C01366, THIS SITE IS NOT WITHIN A DESIGNATED FEMA FLOOD ZONE.

PROPOSED CONDITIONS:
THIS CONSTRUCTION PROPOSES TO PAVE THE AREA NORTH OF THE EXISTING BUILDING, BLOCK OFF THE EXISTING DRIVEWAY BY EXTENDING THE EXISTING RETAINING WALL ALONG THE WEST END OF THE SITE, AND DIVERT DRAINAGE FROM THE NORTH HALF OF THE SITE VIA SURFACE FLOW TOWARD THE SOUTHWEST CORNER AS INTENDED IN THE ORIGINAL GRADING AND DRAINAGE PLAN DATED 7/5/1988. THE EXISTING DRAINAGE TO THE SOUTH WILL NOT BE TOUCHED AND CONTINUE TO OUTFALL TO THE WEST INTO THE EXISTING DETENTION POND. THE EXISTING POND WAS DESIGNED IN 1988 WITH A VOLUME PROVIDED = 1,300CF; HOWEVER THE SURVEY PROVIDED WAS LESS THAN THAT WHICH IS NOTED AS VOLUME ACTUAL = 1,000 WITH A MAXIMUM WATER SURFACE ELEVATIONS OF 5096.25. ADDITIONAL PONDING HAS BEEN PROVIDED WITHIN THE EXISTING LANDSCAPE AREA AND A NEW AHYMO ANALYSIS WAS PERFORMED. THIS ANALYSIS PROVIDED THAT THE DEVELOPED OUTFALL INTO WASHINGTON PLACE, AFTER THE IMPROVEMENTS WILL BE MADE, WILL BE 5.63CFS (SEE AHYMO SUMMARY). THIS EXCEEDS THE ALLOWABLE 4.6 CFS HOWEVER IN DIVERTING THE DRAINAGE TO THE SOUTH VERSES INTO THE ADJACENT ALLEY WAY, THIS REDUCES THE ADVERSE EFFECTS TO THE DOWNSTREAM PROPERTIES UNDER EXISTING CONDITIONS AND DIRECTS THE DRAINAGE FOR THE SITE TO ITS ULTIMATE CONDITION. THE ADDITIONAL 1.0 CFS IS NEGLIGIBLE WHEN CONSIDERING THE ULTIMATE OUTFALL.

IN ADDITION, THE PONDING PROVIDED IN THE EXISTING LANDSCAPE AREA IS APPROXIMATELY 140CF AND WILL ALLOW THE TREATMENT OF THE FIRST FLUSH. THE AREA ALLOTTED FOR THIS PONDING IS MINIMAL DUE TO AN EXISTING 10' PUE ALONG THE SOUTHERN PROPERTY LINE AND THE GRADING AND DRAINAGE HAS WORKED TO MAXIMIZE THIS POND VOLUME. DRAINAGE WILL ENTER THIS LANDSCAPE AREA VIA CURB CUTS. THE EXISTING 4" PIPE WILL SERVE TO DRAIN SMALLER STORM EVENTS DIRECTLY TO WASHINGTON PLACE WHERE AS DURING THE 100 YR STORM DRAINAGE WILL EXIT THE SITE VIA THE EXISTING DRIVE PAD AS ORIGINALLY PROPOSED WITHIN THE PLAN DATED 1988.

CONCLUSION:
THIS DRAINAGE MANAGEMENT PLAN AND GRADING PLAN DEMONSTRATE THAT THE DRAINAGE ELEMENTS PROPOSED WITH THE PROJECT ARE CAPABLE OF SAFELY CONVEYING THE 100 YEAR, 6 HOUR STORM EVENT IN ACCORDANCE WITH THE DEVELOPMENT PROCESS MANUAL. WITH THIS SUBMITTAL WE ARE REQUESTING GRADING AND DRAINAGE APPROVAL FOR PAVING APPROVAL AND BUILDING PERMIT APPROVAL.

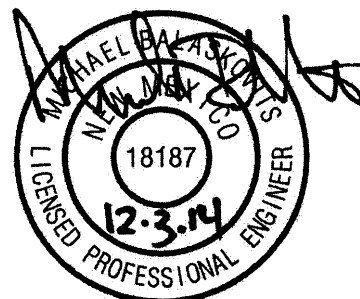
YEAROUT EXPANSION											
Drainage Conditions Basin Data Table											
This table is based on the DPM Section 22.2, Zone: 2											
Basin	Area	Area	Land Treatment Percentages				Q(100yr)	Q(100yr-6hr)	WT E	V(100yr-6hr)	V(100yr-10day)
ID	(SQ. FT)	(AC.)	A	B	C	D	(cfs/ac.)	(CFS)	(inches)	(CF)	CF
EXISTING											
EX. BASIN 1	36829	0.84	0.0%	50.0%	0.0%	50.0%	3.49	2.93	1.45	4426	6868
EX. BASIN 2	25636	0.59	34.0%	0.0%	0.0%	66.0%	3.63	2.14	1.58	3374	5630
PROPOSED											
ENTIRE SITE	62265	1.43	0.0%	7.5%	7.5%	85.0%	4.40	6.29	1.95	10093	17150

AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4)											
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USER NO. = AHYMO_Temp_User:20122010											
PAGE = 1											
COMMAND	HYDROGRAPH IDENTIFICATION NO.	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PER NOTATION	
*S AHYMO FILE FOR YEAROUT MECHANICAL - ALBUQUERQUE, NM PROJ # 20150176											
*S 100 YEAR - 6 HOUR STORM											
*S INPUT FILE --- P:\20150176\CDP\HYDRO\AHYMO\100YR2HYM											
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START LOCATION	ALBUQUERQUE								TIME=	0.00	
RAINFALL TYPE=	1									RAIN=	2.350
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**DEKKER
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SABATINI**

7601 JEFFERSON NE, SUITE 100
ALBUQUERQUE, NM 87109
505.761.9700 / DPSDESIGN.ORG

ARCHITECT



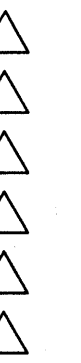
ENGINEER

**ISSUED FOR
PERMIT**

PROJECT

YEAROUT MECHANICAL
8433 Washington Place NE
Albuquerque, New Mexico 87113

REVISIONS



DRAWN BY

REVIEWED BY

DATE 11/5/2014

PROJECT NO. 14-0051.001

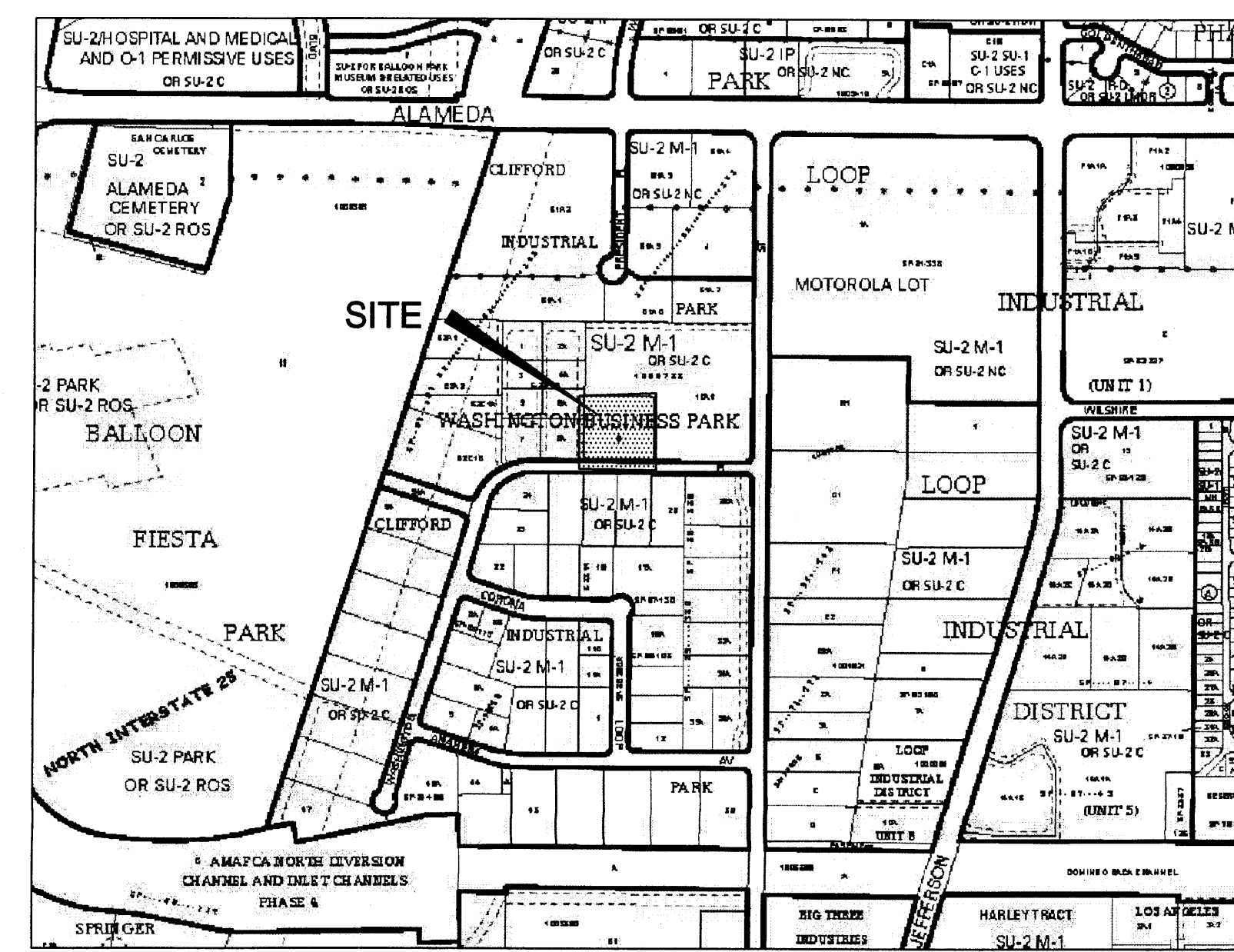
DRAWING NAME

**GRADING AND
DRAINAGE
PLAN**

SHEET NO.

C-100

Bohannan & Huston
www.bhinc.com 800.877.5332



VICINITY MAP
COA ZONE MAP C-17

BENCHMARK

- ON-SITE SET CONTROL STATION DATA
MONUMENT "BH 15-176-10" (PK NAIL W/WASHER)
NEW MEXICO STATE PLAN COORDINATES
CENTRAL ZONE (NAD 83)
N=1,521,888.686 E=1,537,114.655
ELEVATION= 5,085.695 (NAVD88)
- ON-SITE SET CONTROL STATION DATA
MONUMENT "BH 15-176-11" (PK NAIL W/WASHER)
NEW MEXICO STATE PLAN COORDINATES
CENTRAL ZONE (NAD 83)
N=1,522,158.553 E=1,537,069.223
ELEVATION= 5,083.772 (NAVD88)

LEGEND

- APPROXIMATE PROPERTY LINE
- - - - - EXISTING CONTOURS
- X 5301.15 EXISTING GROUND SPOT ELEVATION
- 65.23 PROPOSED SPOT ELEVATION
- TO=TOP OF CURB, FL=FLOW LINE, FCB=FINISHED GRADE LOW, FCB=FINISHED GRADE HIGH, EX=EXISTING, TO=TOP OF GRADE, PB=POND BOTTOM, PT=POND TOP, CUT=EXISTING FLOWING, EX=EXISTING TOP OF CURB, TH=TOP OF WALL
- S=2.0% PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- PROPOSED RETAINING WALL
- - - - - EXISTING INDEX CONTOURS
- - - - - PROPOSED INTER CONTOURS
- WATER HARVESTING AREA LIMITS OF GRADING

GENERAL NOTES

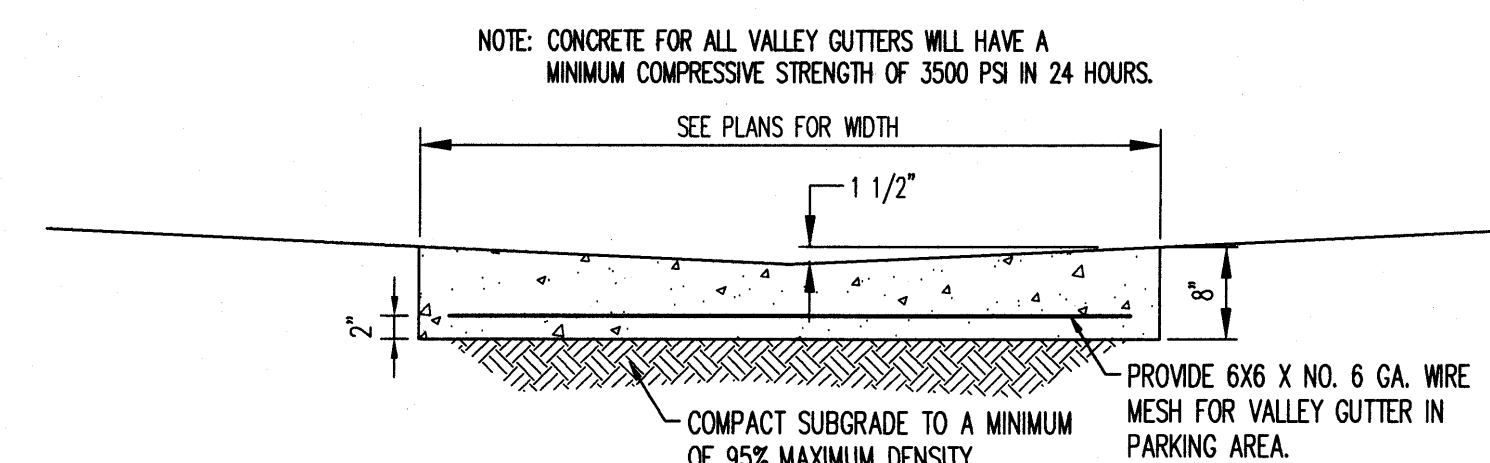
- ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT, WHERE APPLICABLE, CITY OF ALBUQUERQUE PUBLIC WORKS STANDARDS SHALL APPLY.
- THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND 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 LINES. 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., BARRICADES, 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 BARRICADES 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.

GRADING NOTES

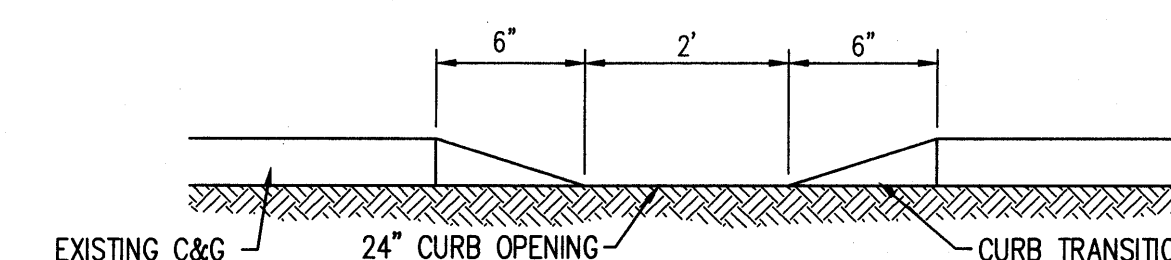
- EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
- THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
- ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, 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.

KEYED NOTES

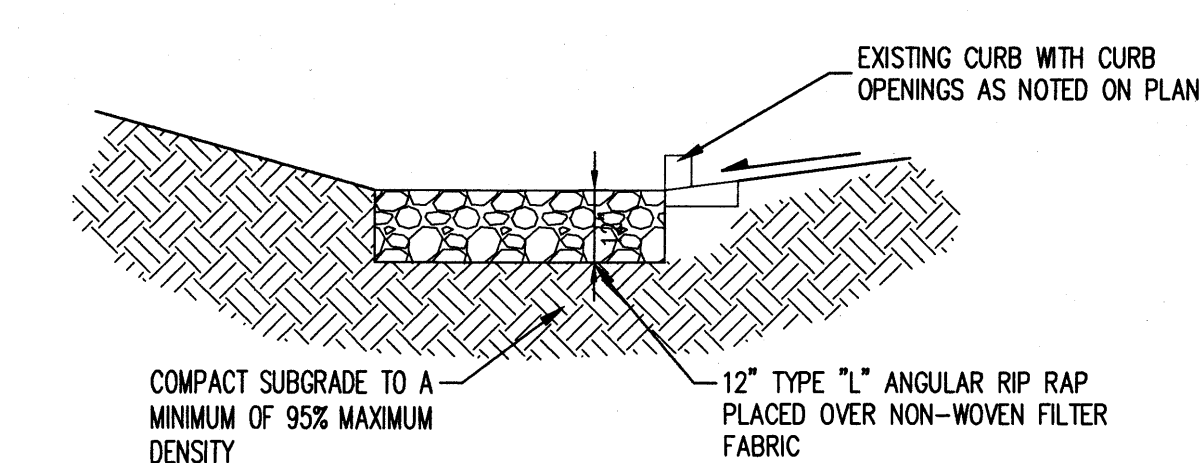
- INSTALL NEW 4" WIDE VALLEY GUTTER PER DETAIL 1 THIS SHEET.
- EXTEND EXISTING RETAINING WALL. SEE STRUCTURAL FOR DETAILS
- INSTALL NEW 2" WIDE VALLEY GUTTER PER DETAIL 1 THIS SHEET.
- WARP NEW PAVEMENT AROUND EXISTING RETAINING WALL.
- EXISTING PONDING AREA AND OUTFALL DESIGNED FOR DEVELOPED CONDITIONS OF ENTIRE SITE UNDER ORIGINAL GRADING AND DRAINAGE PLAN DATED 07/05/08. EXISTING OUTFALL SHALL BE CLEARED OF ALL DEBRIS TO ALLOW FOR CLEAR PASSAGE OF DRAINAGE INTO WASHINGTON PLACE.
- CUT 2" WIDE CURB OPENINGS PER DETAIL 2 THIS SHEET.
- LIMITS OF NEW WATER HARVESTING AREA. REMOVE EXISTING LANDSCAPING AS NECESSARY. ENSURE SURROUNDING GRADES TO THE WEST AND SOUTH, WITHIN THE GRADING LIMITS ARE SET TO 5096.25.
- EXISTING DRAINAGE PIPE SHALL REMAIN IN PLACE UNDISTURBED.
- PROVIDE RIP RAP BLANKET WITHIN LIMITS OF WATER HARVESTING AREA PER DETAIL 3, THIS SHEET.
- MATCH EXISTING GRADE, CONTRACTOR SHALL VERIFY EXISTING GRADE AND CONTACT ENGINEER WITH ANY DISCREPANCIES.



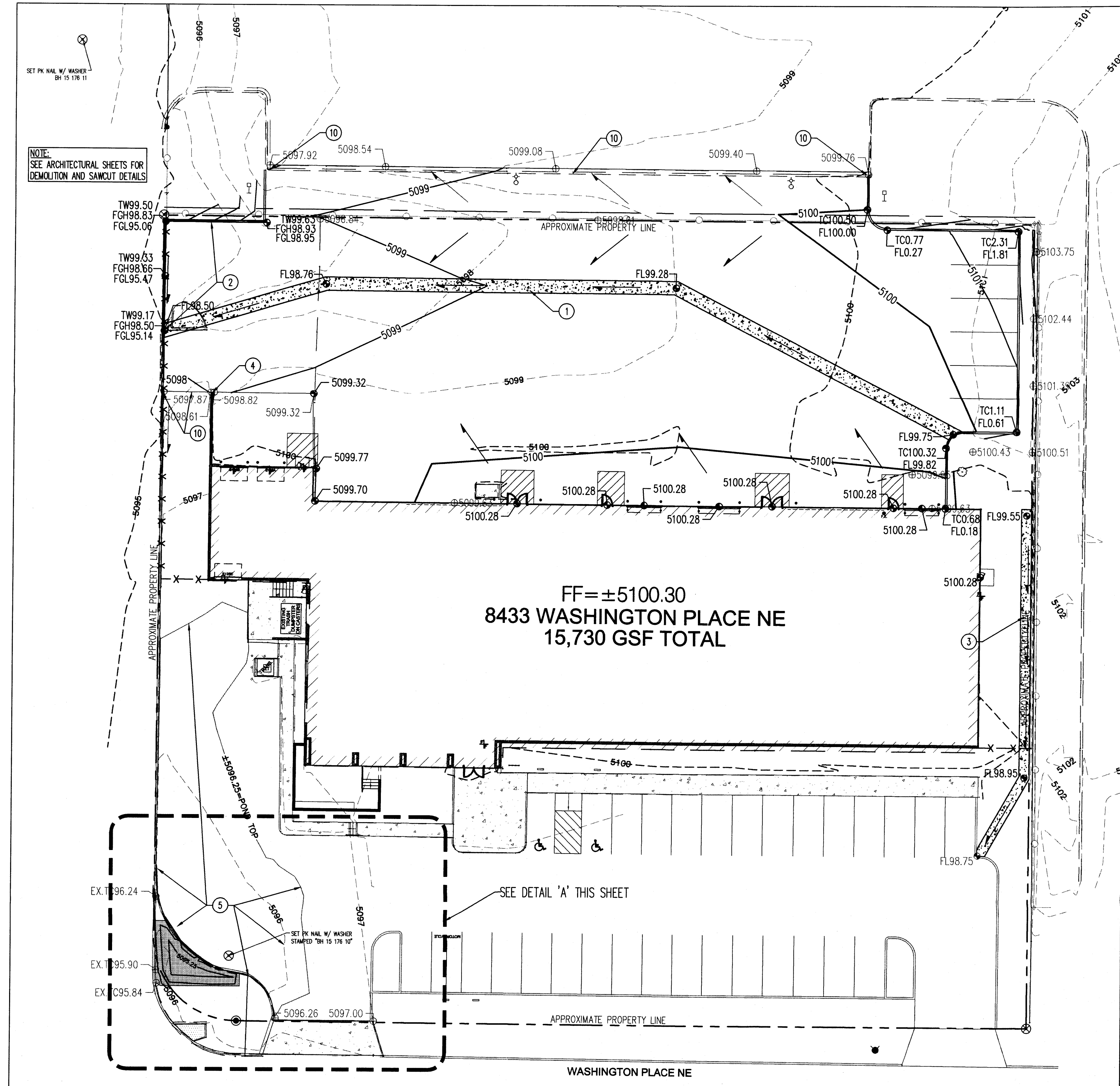
1 CONCRETE VALLEY GUTTER
NTS



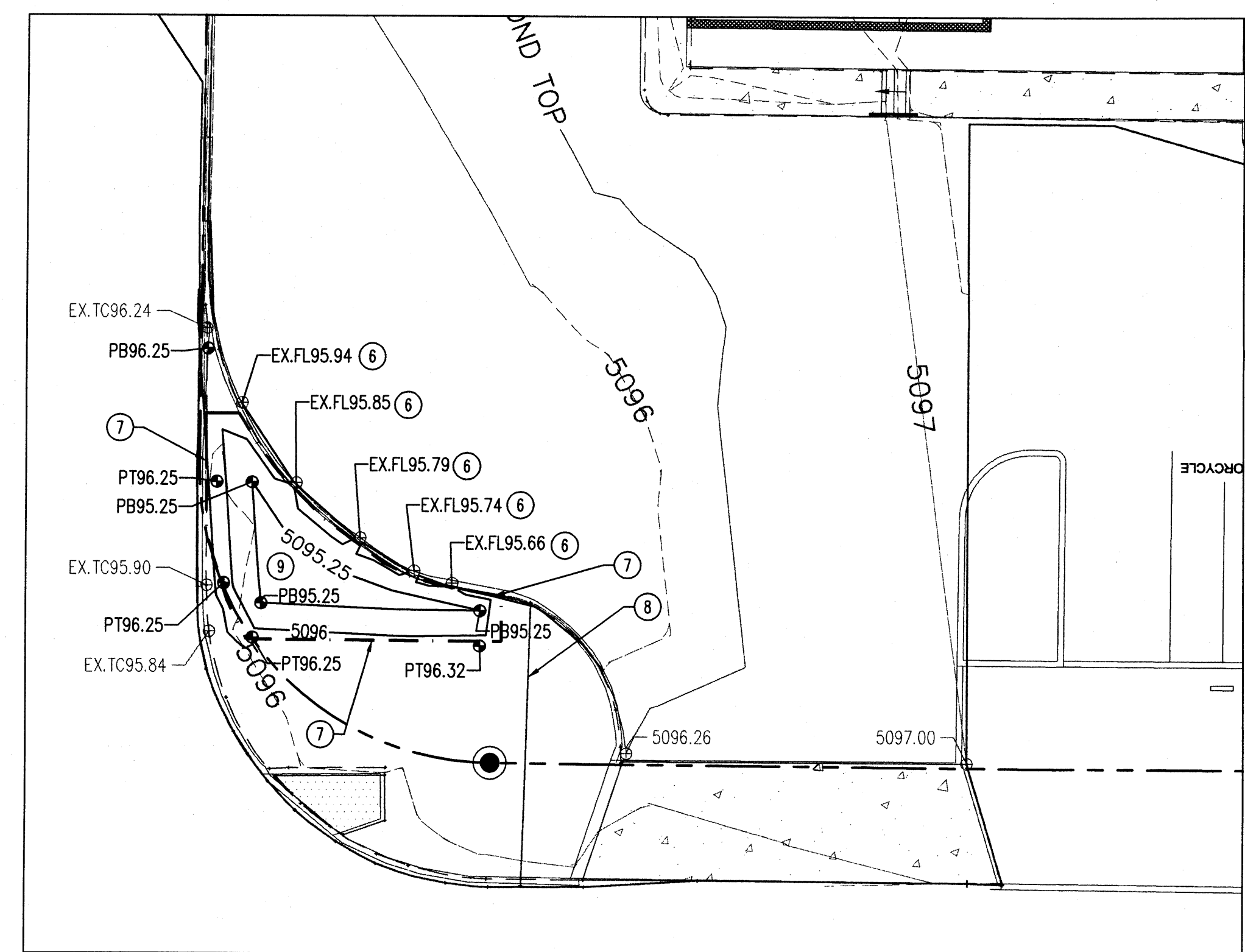
2 TYPICAL CURB CUT
NTS



3 RIP RAP BLANKET
NTS



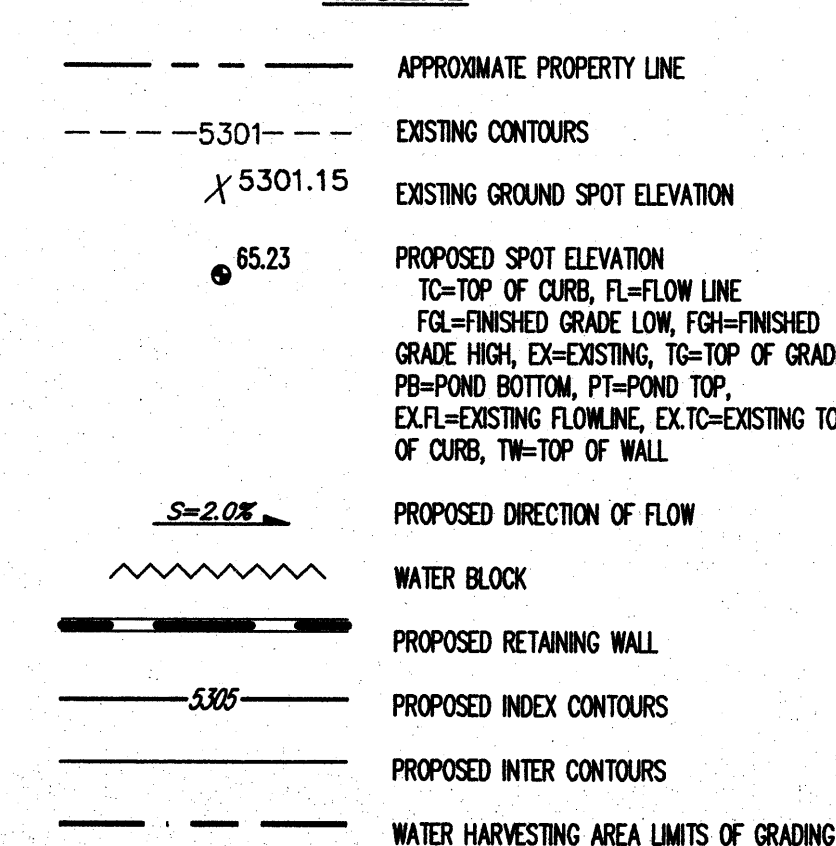
OVERALL SITE GRADING PLAN
SCALE 1"=20'



DETAIL 'A'
SCALE 1"=10'



A horizontal number line with tick marks at every integer from 0 to 10. The number 4 is labeled below the tick mark.



NOTE: CONCRETE FOR ALL VALLEY GUTTERS WILL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI IN 24 HOURS.

SEE PLANS FOR WIDTH

1 1/2"

COMPACT SUBGRADE TO A MINIMUM OF 95% MAXIMUM DENSITY

PROVIDE 6X6 X NO. 6 GA. WIRE MESH FOR VALLEY GUTTER IN PARKING AREA.

EXISTING CURB WITH CURB OPENINGS AS NOTED ON PLANS

12" TYPE 1" ANGULAR RIP RAP PLACED OVER NON-WOVEN FILTER FABRIC

COMPACT SUBGRADE TO A MINIMUM OF 95% MAXIMUM DENSITY

1 CONCRETE VALLEY GUTTER

3 RIP RAP BLANKET



C-100