

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

August 1, 2018

John Jacquez, E.I.
Miller Engineering Consultants, Inc
3500 Comanche NE Bldg. F
Albuquerque, NM, 87107

**RE: Bernell Charter School
2821 4th Street NW
Grading and Drainage Plan
Engineer's Stamp Date: 07/26/18
Hydrology File: H14D107**

Dear Mr. Jacquez:

PO Box 1293

Based upon the information provided in your resubmittal received 07/26/2018, the Grading and Drainage Plan is approved for Building Permit and SO-19 Permit.

Albuquerque

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

NM 87103

Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required and a formal Elevation Certificate needs to be submitted to Hydrology.

www.cabq.gov

Please provide a Private Facility Drainage Covenant per Chapter 17 of the DPM for first flush pond prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A \$25 fee will be required.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Bernell Charter School Building Permit #: _____ City Drainage #: _____
DR#: _____ EPC#: _____
Legal Description: Tr A1 & A2 of White City - Glenhaven Addition
City Address: 2821 4th St. Albuquerque, NM 87107
Engineering Firm: Miller Engineering Consultants Contact: Verlyn Miller
Address: 3500 Comanche Rd NE Albuquerque, NM 87107
Phone#: (505) 888 7500 Fax#: (505) 888 6380 E-mail: vmiller@mechm.com
Owner: David J. Pacheco Architect Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____
Architect: Rachel Matthew Development Contact: Steve Nqkaymva
Address: 4500 Sundy Rd. NE, Rio Rancho, NM 87124
Phone#: (505) 792-4663 Fax#: (505) 896-4664 E-mail: steve@rachelmatthew.com
Other Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

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

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY

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) _____

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

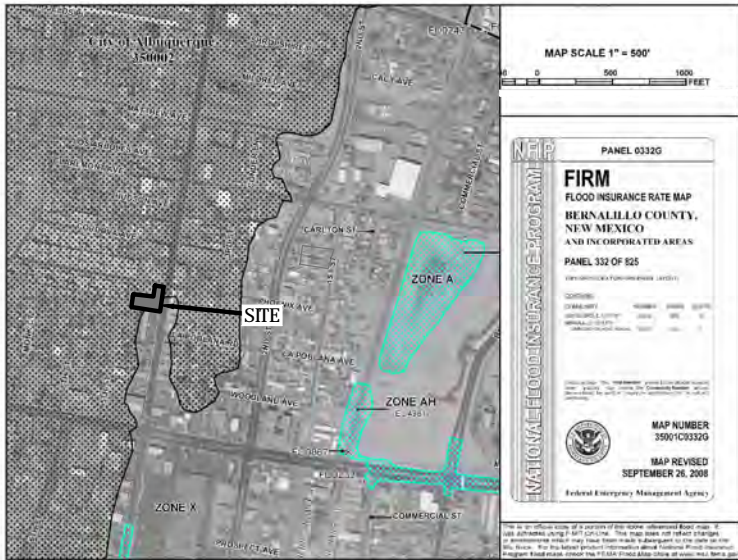
PRE-DESIGN MEETING

OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: Yes ☒ No ☐

DATE SUBMITTED: _____ By: _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



THE PROPOSED LAND TREATMENTS AND ANTICIPATED RUNOFF FROM THIS SITE WHEN DEVELOP IS LESS THAN THAT SPECIFIED IN THE APPROVED WATER PLAN. THE FIRST FLUSH REQUIREMENT FOR THIS DEVELOPMENT IS ESTIMATED AT 775 CUBIC FEET. THE EXISTING WATER HARVEST AREA LOCATED WEST OF THE SITE AND THE PROPOSED WATER HARVEST AREA LOCATED NORTH OF THE BUILDING WILL PROVIDE ADEQUATE STORAGE TO SATISFY THE FIRST FLUSH REQUIREMENT AND TO ALLEVATE IMPACTS TO DOWNSTREAM PROPERTIES. THE WEST WATER HARVEST AREA IS DESIGNED FOR THE 100-YEAR, 10-DAY VOLUME WHILE THE NORTH WATER HARVEST AREA IS DESIGNED FOR THE 100-YEAR, 24 HOUR VOLUME. THE WEST WATER HARVEST AREA WATER HARVEST AREA IS LOCATED AT 0.420 ACRE FEET. THE VOLUME PROVIDED FOR THE NORTH WATER HARVEST AREAS IS ESTIMATED AT 0.069 ACRE FEET.

11. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.

12. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A WATERWAY, WITH COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN.
13. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.
14. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
15. SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.
16. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
17. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLOWTACK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%. ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
18. ALL SIDEWALKS AND CONCRETE FLOWTACK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLOWTACK WHICH DO NOT MEET THIS REQUIREMENT.
19. THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
20. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS (UPDATE 8, AMENDMENT 1)
21. ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.

SPECIAL ORDER 19
DRAINAGE FACILITIES WITHIN THE CITY
RIGHT-OF-WAY NOTICE TO CONTRACTOR

- 1) AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- 2) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7 AMENDMENT 1.
- 3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 260-1990, FOR LOCATION OF EXISTING UTILITIES.
- 4) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS, SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL BE RESPONSIBLE THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- 5) BACK FILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
- 6) MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
- 7) ALL CONSTRUCTION SHALL BE PERFORMED ON A 24 - HOUR BASIS.
- 8) CONTRACTOR MUST CONTACT JASON RODRIGUEZ AT 235-8016 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE AN INSPECTION

Precipitation Zone 2 - 100-year Storm		P(360) = 2.33 in		P(1440) = 2.75 in							
Basin	Basin Area (Ac)	Land Treatment Factors				Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)	V(100-10 day) (af)	
		A	B (Acres)	C	D						
Existing Conditions											
Site	1.029	0.000	0.000	1.029	0.000	1.130	0.097	0.097	3.231	0.097	
Total	1.029							0.097	3.231	0.097	
Proposed Conditions											
A	0.560	0.000	0.000	0.120	0.440	1.91	0.089	0.104	2.445	0.148	
B	0.440	0.000	0.000	0.240	0.200	1.58	0.058	0.065	1.694	0.085	
C	0.029	0.000	0.000	0.018	0.011	1.51	0.004	0.004	0.108	0.005	
Total	1.029							0.172	4.247	0.237	
D	0.470	0.000	0.000	0.045	0.425	2.03	0.079	0.093	2.139	0.136	

Precipitation Zone 2 - 10-year Storm		P(360) = 152 in				P(1440) = 18 in			
Basin	Basin Area (Ac)	Land Treatment Factors				Ew (in)	V(10-6) (af)	V(10-24) (af)	Q(10) (cfs)
		A	B (Acres)	C	D				
Existing Conditions									
Site	1.029	0.000	0.000	1.029	0.000	1.130	0.097	0.097	3.231
Total	1.029							0.097	3.231
Proposed Conditions									
A	0.560	0.000	0.000	0.120	0.440	1.164	0.054	0.064	1.587
B	0.440	0.000	0.000	0.240	0.200	0.893	0.033	0.037	1.038
C	0.029	0.000	0.000	0.018	0.111	0.831	0.002	0.002	0.065
Total	1.029							0.104	2.691
D	0.470	0.000	0.000	0.045	0.425	1.261	0.049	0.059	1.411

WATER HARVEST AREA 2 proposed				
Pond Rating Table				
Side Slope	3:1			
Depth (ft)	Area (sq.ft)	(ac)	Volume (ac-ft)	Cum Volume (ac-ft)
66.5	5767	0.132	0.000	0.000
67	6230	0.143	0.089	0.089
67.5	6710	0.154	0.074	0.143

spillway
top of pond

Designed	JAN	E18-026	3500 COMMANCHE NW BLDG F ALBUQUERQUE, NM 87107
Drawn	MEC	File GAD Report.DWG	(505) 868-7500
Specified			(505) 868-7500 (FAX)
			(505) 868-7500



XICO

BERNELL CHARTER SCHOOL

ALBUQUERQUE, NEW MEXICO

DRAINAGE REPORTS AND VICINITY MAPS

[illegible]

Sheet

C-100

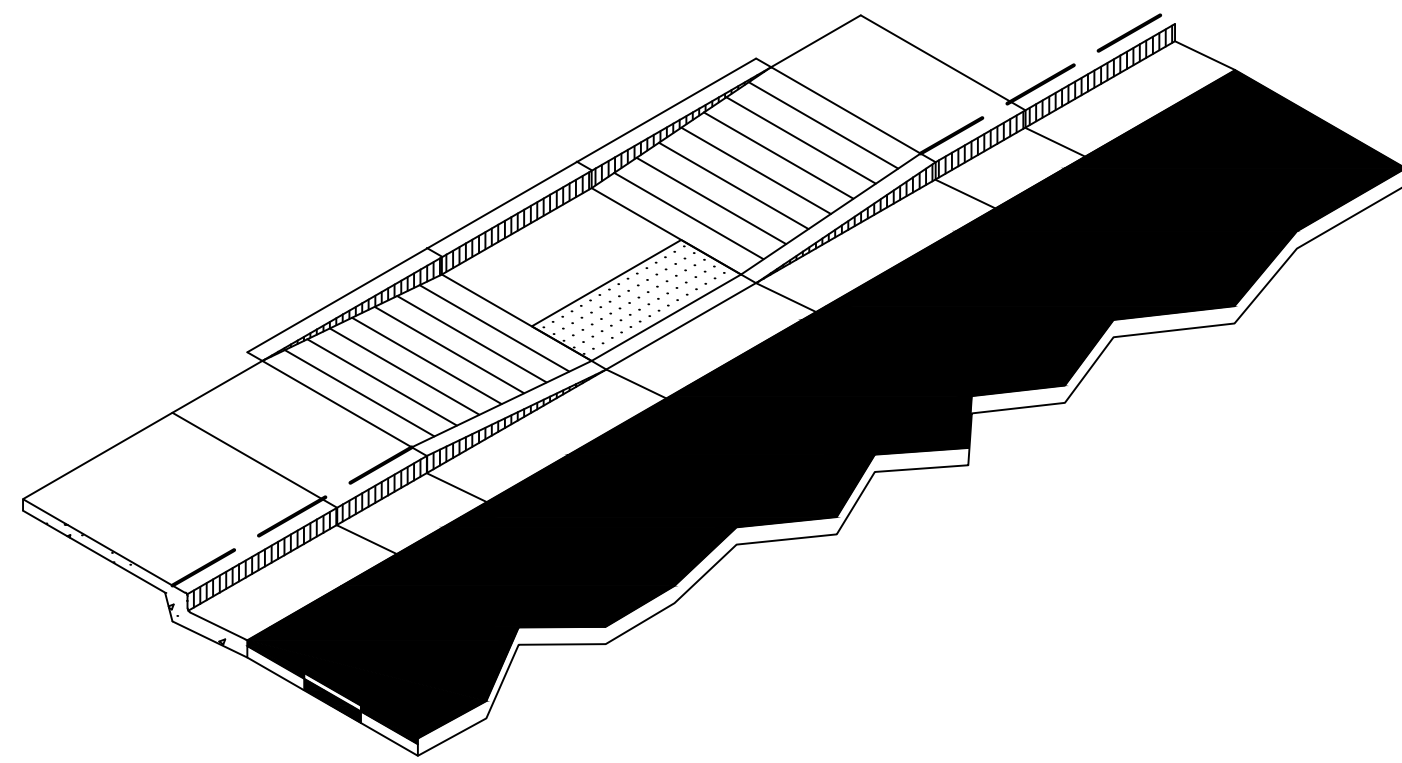
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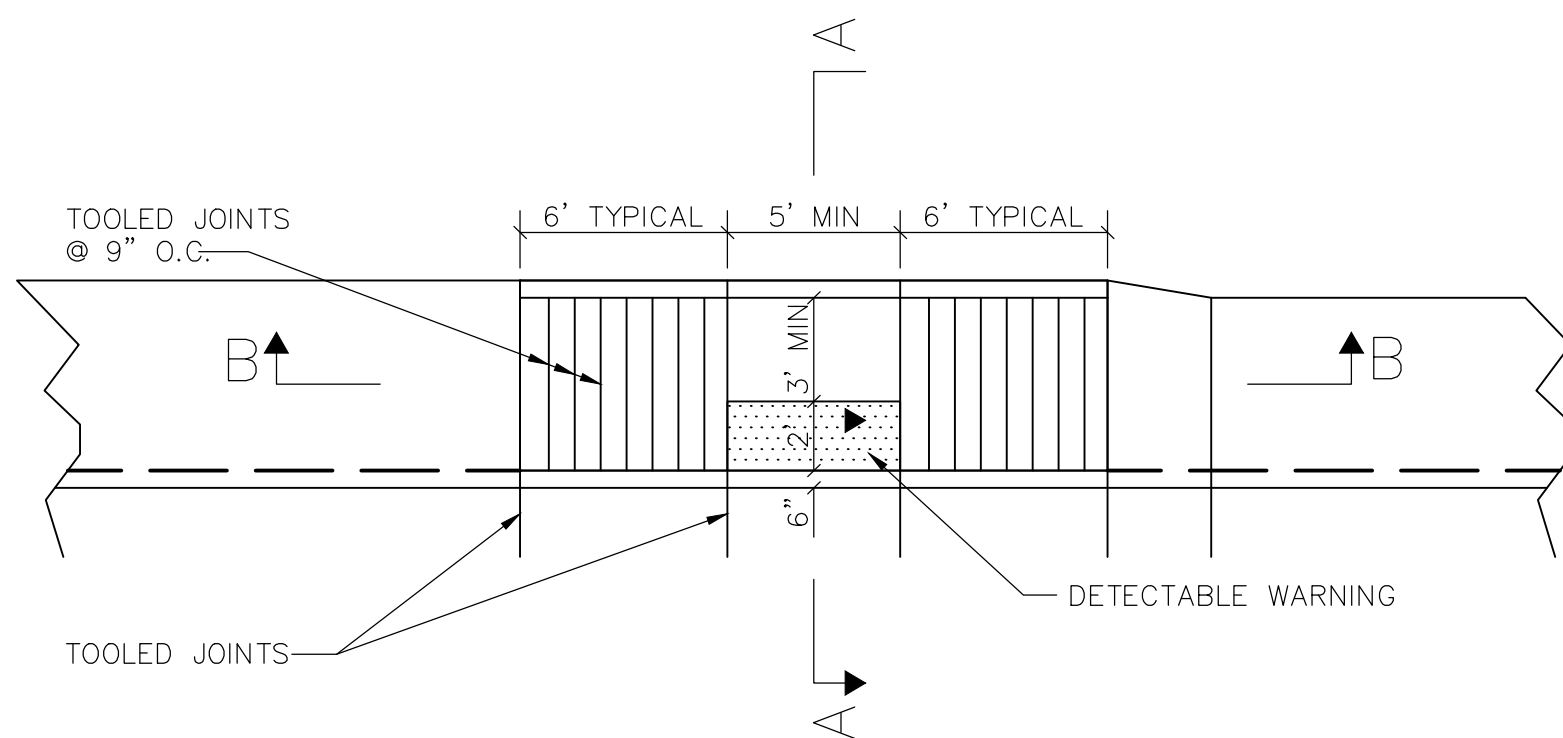
LEGEND:	
• 38.00 F6	PROPOSED SPOT ELEVATIONS (FINISHED GRADE)
• MATCH (95.19)	MATCH EXISTING ELEVATIONS
TCON	TOP OF CONCRETE
FL	FLOW LINE, CURB
INV	INVERT
FG	FINISH GRADE
TBC	TOP OF BASE COURSE
TC	TOP OF CURB
TG	TOP OF GRATE
TA	TOP OF ASPHALT
BP	BOTTOM OF POND
TP	TOP OF POND
→	FLOW ARROW
==	GRADE BREAK—HIGH POINT
---	SWALE
SD	STORM DRAIN LINE
—5895—	PROPOSED MAJOR CONTOUR
---5895---	PROPOSED MINOR CONTOUR
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
(A)	DRAINAGE BASIN DESIGNATION

- KEYED NOTES:**
- COBBLE SWALE, SEE LANDSCAPE PLANS.
 - EXISTING SIDEWALK TO REMAIN.
 - 15'X45' AREA OF EXISTING PAVEMENT TO BE REMOVED AND REPLACED AS REQUIRED TO ACHIEVE GRADING AT NEW CONCRETE VALLEY GUTTER. SEE DETAIL SHEET C-501 FOR HEAVY DUTY HOT MIX ASPHALT SECTION.
 - REMOVE EXISTING CURB AND GUTTER AND REPLACE WITH NEW 36" VALLEY GUTTER. MATCH ELEVATION OF EXISTING PAVEMENT ALONG SOUTH SIDE. SEE DETAIL SHEET C-501.
 - NEW PERIMETER WALL SEE ARCHITECTURAL PLANS.
 - CONNECT NEW CONCRETE VALLEY GUTTER TO EXISTING RUNDOWN AT POND.
 - NEW 4' WIDE RIP RAP RUNDOWN. SEE DETAIL SHEET C-501.
 - TRASH ENCLOSURE. SEE ARCHITECTURAL PLANS FOR DETAILS.
 - NEW STANDARD CURB AND GUTTER. SEE DETAIL SHEET C-501.
 - NEW HOT MIX ASPHALT (HMA) PAVING. ALL PARKING SPACES WILL CONSIST OF LIGHT DUTY HOT MIX ASPHALT PAVING. ALL OTHER AREAS SHALL CONSIST OF HEAVY DUTY HOT MIX ASPHALT PAVING. SEE DETAIL SHEET C-501 FOR PAVING SECTIONS.
 - NEW TYPE A HANDICAP RAMP, SEE SHEET C-501 FOR DETAILS.
 - NEW THICKENED EDGE ON CONCRETE SIDEWALK. SEE ARCHITECTURAL PLANS FOR DETAIL.
 - NEW BUILDING. SEE ARCHITECTURAL PLANS FOR DETAILS.
 - LANDSCAPE AREA. SEE LANDSCAPE ARCHITECTURE PLANS FOR DETAILS.
 - ROOF DRAIN TO SPLASH BLOCK W/COBBLE SWALE TO RIP RAP RUNDOWN.
 - NEW CONCRETE SIDEWALK/FLATWORK. SEE ARCHITECTURAL PLANS FOR DETAILS.
 - PROPOSED HARVEST AREA. TOP=67.5, INV=66.5 REQUIRED. VOL=0.06 AF. PROVIDED VOL. @ 67=0.069 AF. SIDE SLOPE 3:1.
 - EXISTING HARVEST AREA. TOP=66.5, INV=60.5 REQUIRED. VOL=0.285 AF. PROVIDED VOL. @ 64.5=0.314 AF. MAX WSEL=64.20. SEE DETAIL SHEET C-501.
 - NEW EMERGENCY SPILLWAY TOP=67.5. CREST OF SPILLWAY =67.0. NEW 48" WIDE CONCRETE CHANNEL. SEE DETAIL SHEET C-501. PENETRATE NEW PERIMETER WALL AS REQUIRED FOR CONCRETE SPILLWAY.
 - MATCH EXISTING CURB AND GUTTER ELEVATION, AND SECTION, WITH NEW CURB AND GUTTER.
 - NEW DOUBLE 24" WIDE SIDEWALK CULVERT AS PER C.O.A. DETAIL DRAWING NO. 2236. INV. (IN) = 66.75, INV (OUT) = 66.53 (EXISTING)
 - 5' TRANSITION FROM 48" WIDE TO 57" WIDE CONCRETE CHANNEL AT DOUBLE SIDEWALK CULVERT.
 - NEW HANDICAPPED PARKING SPACE 2% MINIMUM SLOPE IN EACH DIRECTION.
 - WALL PENETRATION ALLOWING ROOF DRAINAGE. SEE ARCHITECTURAL PLANS FOR DETAIL.
 - NEW SIDEWALK. MATCH EXISTING TOP BACK OF CURB WITH NEW SIDEWALK AND SLOPE @ 2.0%. SEE SHEET C-501 FOR SIDEWALK DETAILS.
 - NEW STANDARD CURB AND GUTTER AS PER C.O.A. STD. DWG. 2415A. CONTRACTOR WILL ENSURE THE ASPHALT HAS A SMOOTH, UNIFORM EDGE WHEN REMOVING AND REPLACING CURB AND GUTTER. IF THE ASPHALT EDGE IS NOT SMOOTH AND UNIFORM, CONTRACTOR WILL SAW CUT AND REPLACE A ONE-FOOT STRIP OF ASPHALT ALONG THE FULL SECTION BEING REPLACE; REFER TO C.O.A. STD. DWG. #2465 WITH THE APPROPRIATE PAVING SECTION BASED ON ROADWAY CLASSIFICATION.
 - SAWCUT EXISTING CURB AND GUTTER OR VALLEY GUTTER TO CLEAN STRAIGHT EDGE AND MATCH EXISTING FLOW LINE AND TOP OF CURB ELEVATION WITH NEW CURB AND GUTTER.
 - NEW HANDICAP RAMP SEE C.O.A. STD. DWG. 2418B.
 - NEW HANDICAP RAMP TYPE B SEE SHEET C-501 FOR DETAILS.

MILLER ENGINEERING CONSULTANTS Engineers • Planners		3500 COMANCHE NE BLDG F ALBUQUERQUE, NM 87107 (505)888-2500 (505)888-3800 (FAX)	
Designed	Job #	E18-026	Date
Drawn	JAL	MEC	7-7-2018
Checked	VAM		
Engineers Stamp			
NEW MEXICO		BERNELL CHARTER SCHOOL	
BERNALILLO COUNTY		ALBUQUERQUE, NEW MEXICO	
		GRADING AND DRAINAGE PLAN	
		Revision	Description
		Date	
		Mark	
Sheet		C-101	

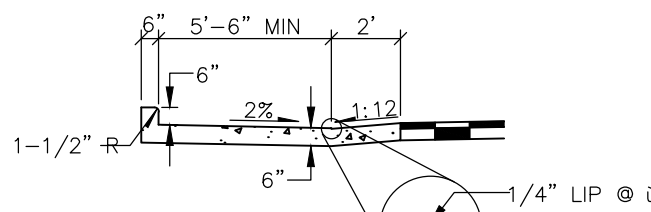


ISOMETRIC VIEW

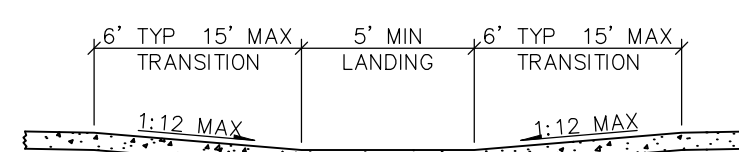


GENERAL NOTES

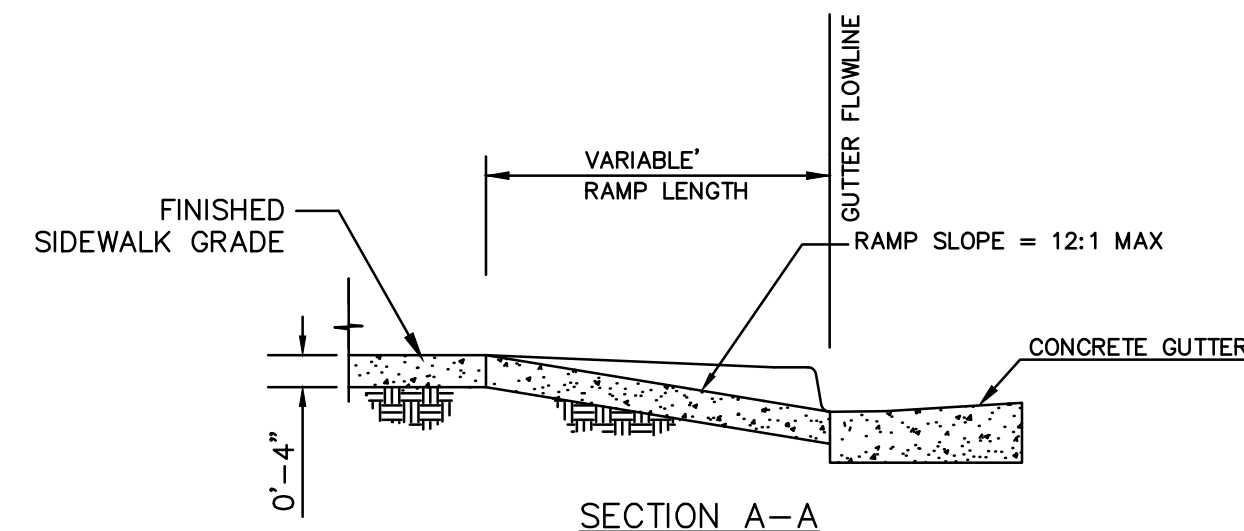
1. AVOID PLACING DRAINAGE STRUCTURES, TRAFFIC SIGNAL EQUIPMENT, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
2. RAMP SLOPES SHALL NOT BE STEEPER THAN 2%. THE TRANSITIONS SHALL HAVE A MAXIMUM SLOPE OF 1:12.
3. DETECTABLE WARNINGS SHALL BE ARMOR-TILE TACTILE SYSTEMS, CAST-IN-PLACE SYSTEMS, BRICK RED OR APPROVED EQUAL. INSTALLATION SHALL BE DONE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



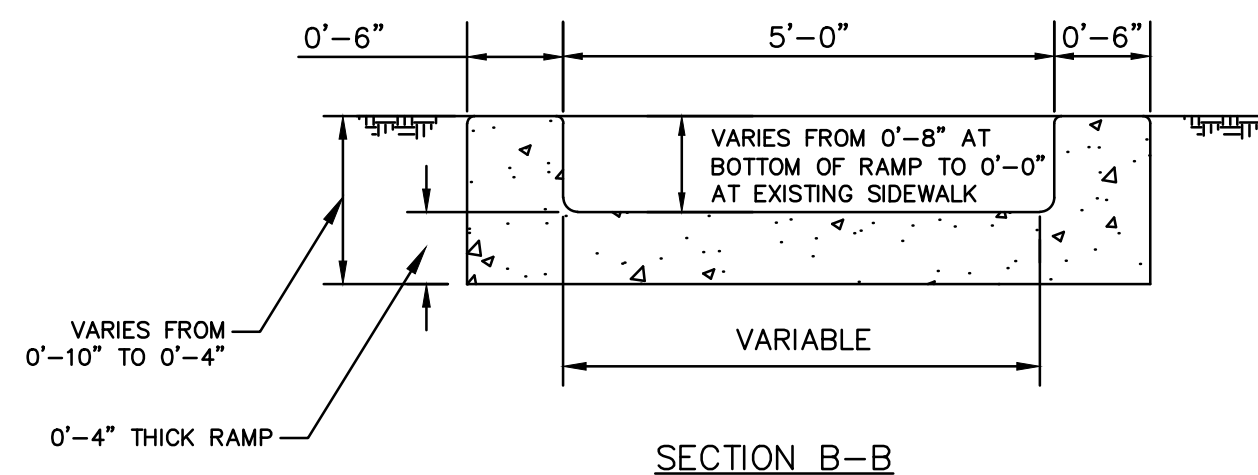
SECTION A-A



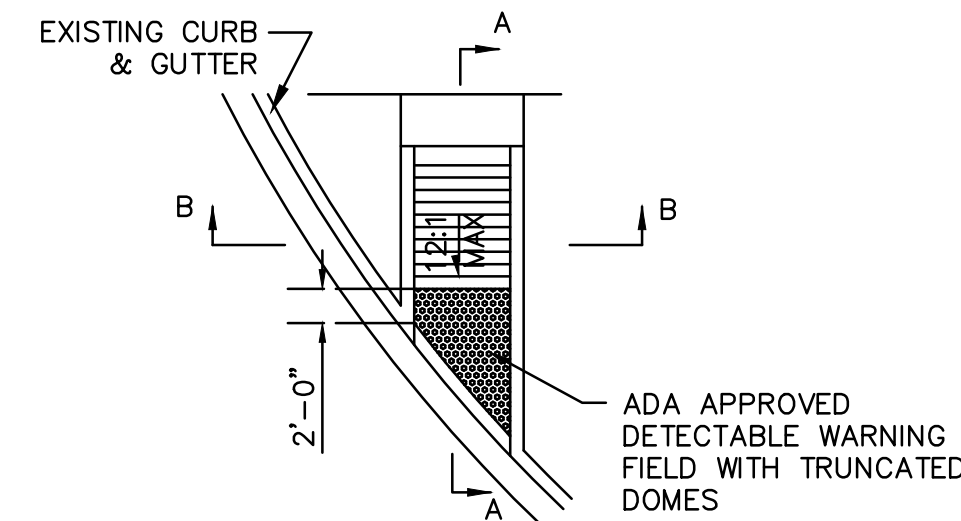
SECTION B-B



SECTION A-A



SECTION B-B



C1 TYPE A HANDICAP RAMP DETAIL

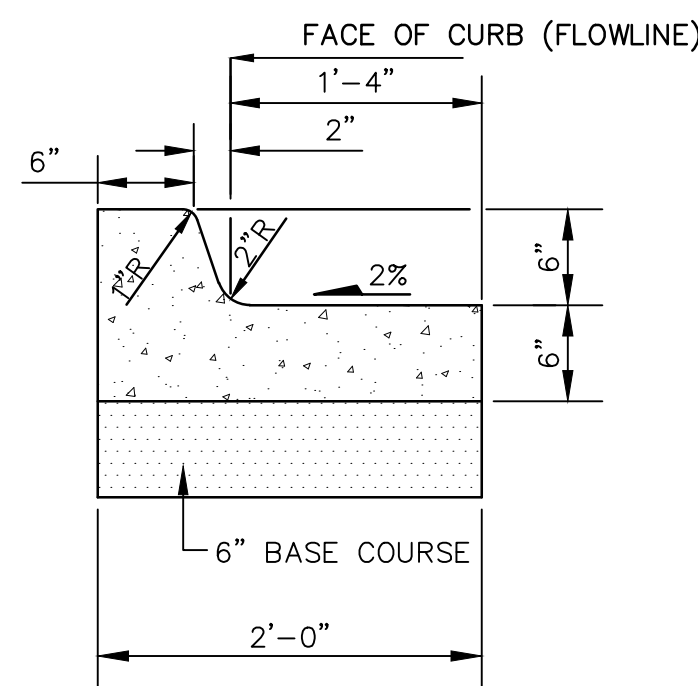
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C4 TYPE B HANDICAP RAMP DETAIL

SCALE: NOT TO SCALE

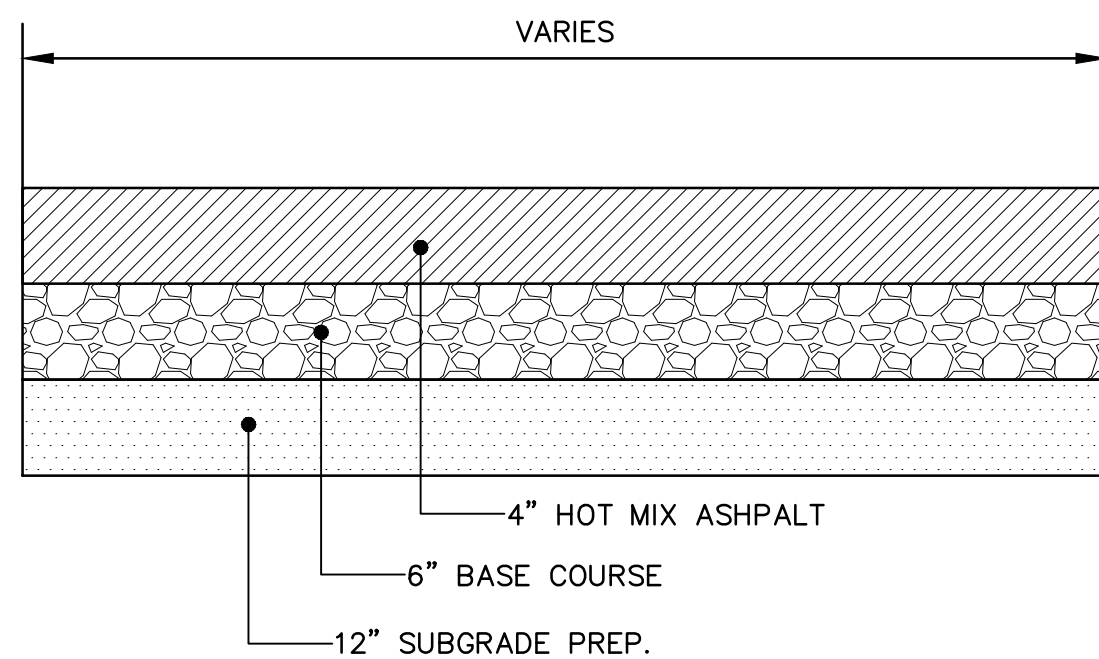
B1 TYPICAL CURB AND GUTTER

SCALE: NOT TO SCALE



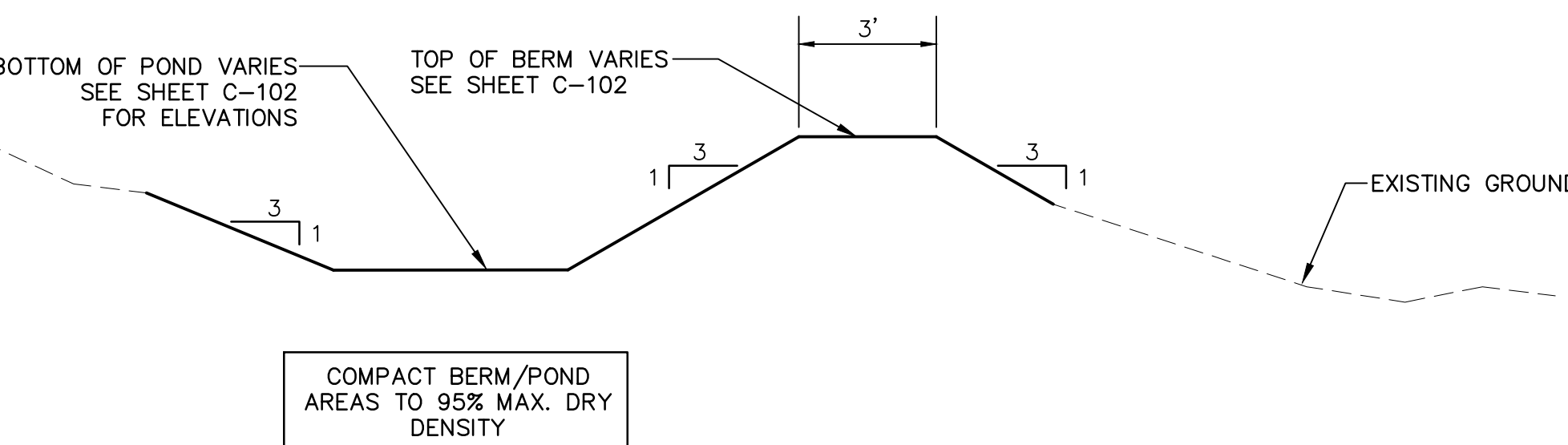
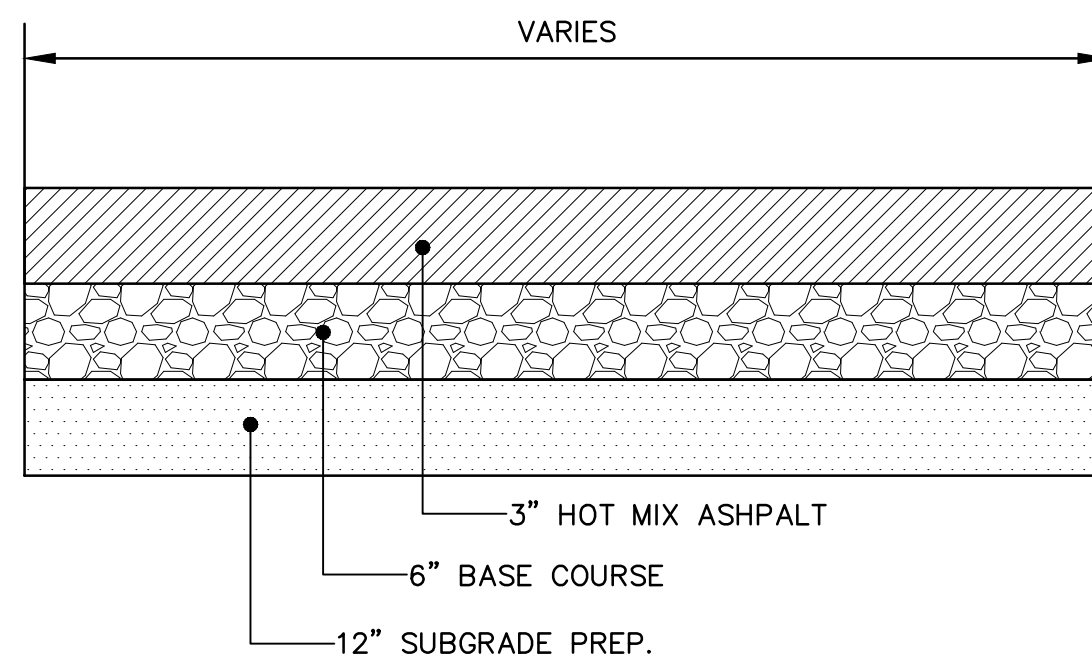
C1 HEAVY DUTY HOT MIX ASPHALT PAVING SECTION

SCALE: NOT TO SCALE



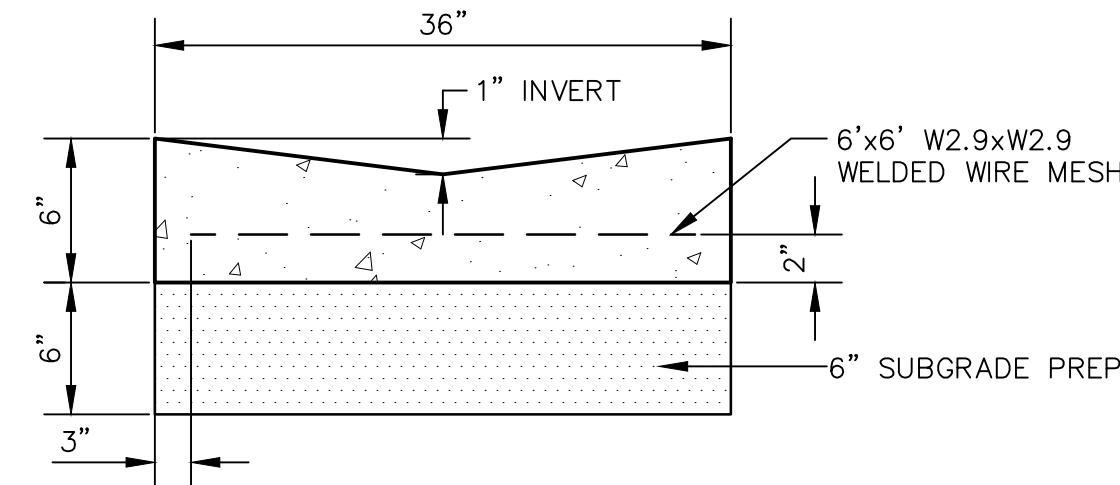
C2 LIGHT DUTY HOT MIX ASPHALT PAVING SECTION

SCALE: NOT TO SCALE



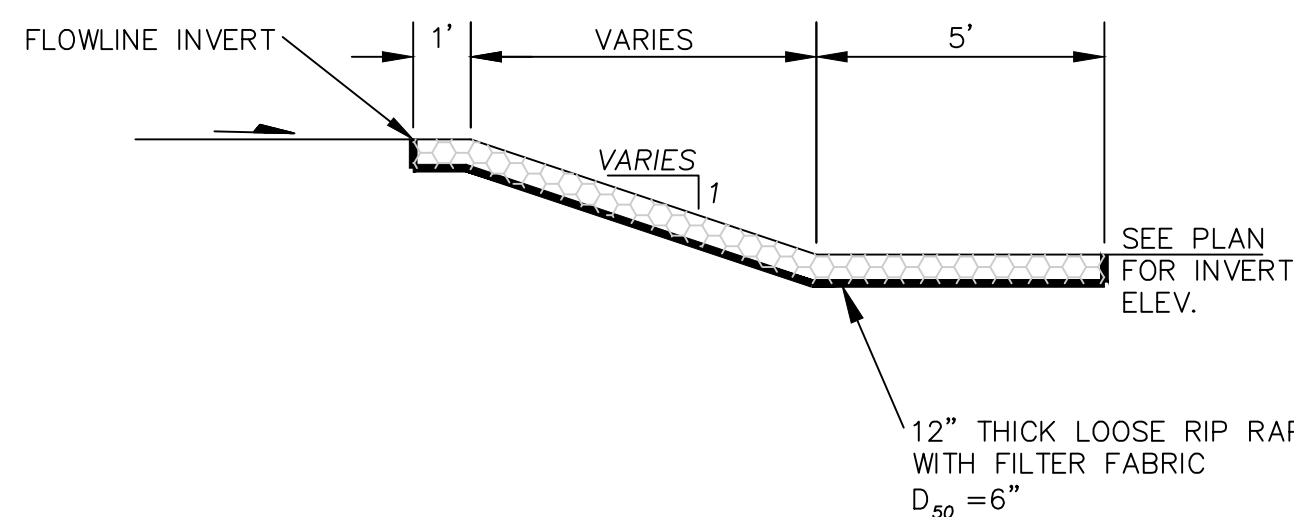
B3 TYPICAL WATER HARVEST AREA DETAIL

SCALE: NOT TO SCALE

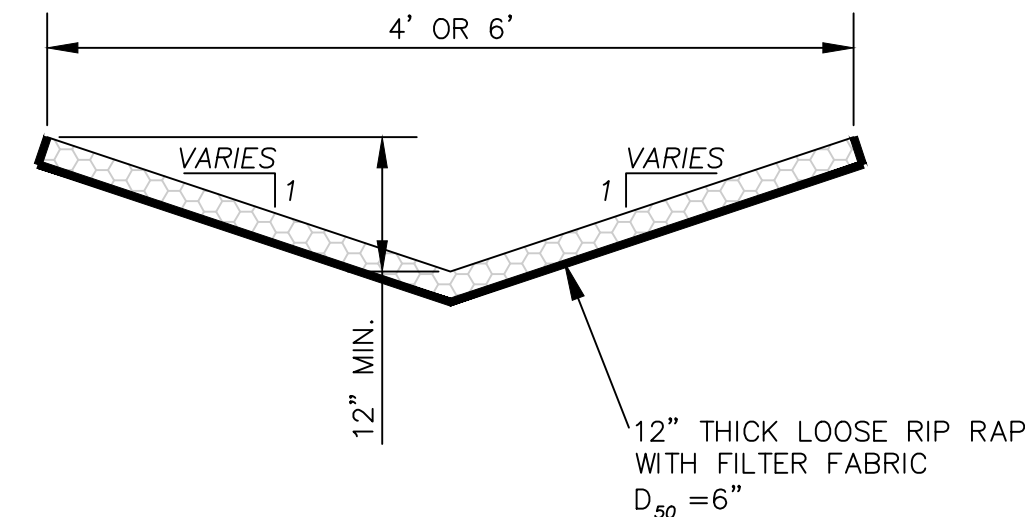


B2 CONCRETE VALLEY GUTTER DETAIL

SCALE: NOT TO SCALE



PROFILE



SECTION

A1 RIP RAP RUNDOWN DETAIL TYPE "A"

SCALE: NOT TO SCALE