CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

March 21, 2022

Fred Arfman, P.E
Isaacson & Arfman, Inc.
128 Monroe St. NE
Albuquerque, NM 87108

RE: Luminaria Senior Community
10600 Central Ave. SE
Permanent C.O. - Approved
Engineer's Certification Date: 3/11/22
Engineer's Stamp Date: 10/1/20
Hydrology File: ~~A11D011H~~ L21D045C

Dear Mr. Arfman:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based on the revised certification received 3/21/22 and a site visit on 3/17/21, this certification is approved for Permanent Certificate of Occupancy by Hydrology.

If you have any questions, please contact me at 924-3986 or earmijo@cabq.gov.

Sincerely,

Ernest Armijo, P.E.
Principal Engineer, Planning Dept.
Development Review Services

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Luminaria Senior Community Building Permit #:_____ Hydrology File #: L-21D023

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

Legal Description: Tract 'C' Video Addition, Albuquerque, Bernalillo County, New Mexico

City Address: _____

Applicant: Isaacson & Arfman, Inc. Contact: Fred C. Arfman or Bryan J. Bobrick

Address: 128 Monroe Street NE - Albuquerque, NM 87108

Phone#: (505) 268-8828 Fax#: _____ E-mail: freda@iacivil.com bryanb@iacivil.com

Owner: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL: ____ PLAT (__# OF LOTS) ____ RESIDENCE ____ DRB SITE X ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes X No

DEPARTMENT: ____ TRAFFIC/ TRANSPORTATION X HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- X ENGINEER/ARCHITECT CERTIFICATION
- ____ PAD CERTIFICATION
- ____ CONCEPTUAL G & D PLAN
- ____ GRADING PLAN
- ____ DRAINAGE MASTER PLAN
- ____ DRAINAGE REPORT
- ____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ____ ELEVATION CERTIFICATE
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ TRAFFIC IMPACT STUDY (TIS)
- ____ OTHER (SPECIFY) _____
- ____ PRE-DESIGN MEETING?

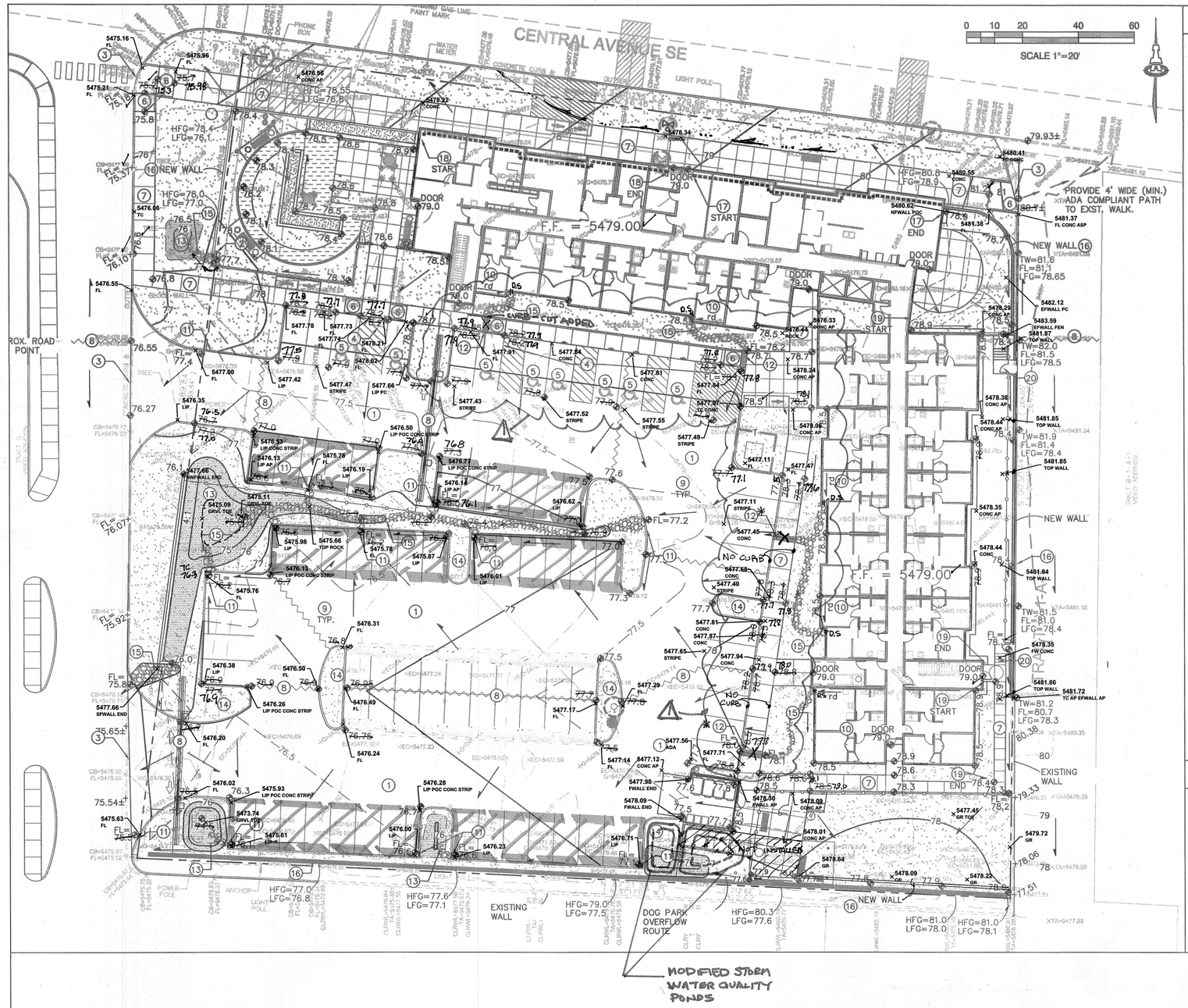
TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ____ BUILDING PERMIT APPROVAL
- X 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
- ____ FLOODPLAIN DEVELOPMENT PERMIT
- ____ OTHER (SPECIFY) _____

DATE SUBMITTED: March 11, 2022 By: Fred C. Arfman

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED:_____

FEE PAID:_____



KEYED NOTES

1. NEW PAVING AT ELEVATIONS SHOWN. SEE PAVING PLAN FOR MATERIAL, EXTENTS, JOINTS AND PAVING SECTIONS.
2. TWO 1' WIDE X 6" HIGH WALL OPENINGS AT FLOWLINE ELEVATION SHOWN.
3. PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT.
4. TOP OF ASPHALT TO BE FLUSH WITH TOP OF CONCRETE WALK THIS AREA FOR ADA ACCESS.
5. ADA COMPLIANT PARKING AREA.
6. CONSTRUCT ADA COMPLIANT 1:12 MAX. SLOPE ADA COMPLIANT ACCESS RAMP.
7. CONSTRUCT ADA COMPLIANT PEDESTRIAN WALK AT ELEVATIONS SHOWN.
8. HIGH POINT / GRADE BREAK LOCATION.
9. 0.5' DESIGN CONTOURS ARE SHOWN DASHED WHERE NECESSARY TO CLARIFY GRADING CONCEPT.
10. CONCENTRATED ROOF DISCHARGE DIRECTION.
11. PROVIDE 24" WIDE OPENING IN CURB TO PASS FLOW.
12. CONSTRUCT 18" WIDE COVERED CONCRETE SIDEWALK CULVERT PER COA STD. DWG. 2236.
13. CONSTRUCT 18" MAX. DEPTH STORMWATER QUALITY RETENTION POND AT ELEVATIONS SHOWN. STORMWATER QUALITY PONDING VOLUMES MAY BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
14. DEPRESS LANDSCAPING IN FOR GENERAL WATER HARVESTING. NOTE: NO WATER HARVESTING SHALL OCCUR WITHIN 10'OF ANY BUILDING.
15. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED.
16. CONSTRUCT GARDEN RETAINING WALL(S) (RETAINING < 36') TO ACHIEVE GRADE DIFFERENCE SHOWN. HFG = GRADE ON HIGH SIDE OF WALL; LFG = GRADE ON LOW SIDE OF WALL. STRUCTURAL DESIGN TO BE PROVIDED BY WALL CONTRACTOR.
17. BUILDING RETAINING STEMWALL REQUIRED TO ACHIEVE GRADES SHOWN. SEE ARCHITECTURAL / STRUCTURAL PLANS.
18. BUILDING EXTENDED STEMWALL REQUIRED TO ACHIEVE GRADES SHOWN. SEE ARCHITECTURAL / STRUCTURAL PLANS.
19. CONSTRUCT CONCRETE APRON PER DETAIL ON CG-501.
20. METAL FIRE ACCESS STEPS - OPEN BELOW FOR DRAINAGE. SEE ARCHITECTURAL.

22 CRUSHER FINES INSTALLED INSTEAD OF THE LIGHT-DUTY HOT MIX ASPHALT

LEGEND

- EXISTING CONTOUR
- 5478.2' EXISTING SPOT ELEVATION
- 77 PROPOSED 1.0' CONTOUR
- 77.5 PROPOSED 0.5' CONTOUR
- 77.0 PROPOSED SPOT ELEVATION
- FLOW DIRECTION
- FF = 5479.00 FINISH FLOOR ELEVATION
- rd ROOF DISCHARGE DIRECTION
- HIGH POINT / GRADE BREAK

* NOT INSTALLED DUE TO RUSH ADA WALK

NOTE: AS-BUILT SURVEY SHOTS SHOWN IN THE SMALLER, FULL TONE FONT.

DRAINAGE CERTIFICATION

I, Fred C. Arfman, NMPE 7322, of the firm Isaacson & Arfman, Inc., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan (M10/D021dated 10/01/2020. The record information edited onto the original design document has been obtained by Russ Hugg, NMLS 9750, of the firm Surv-Tek, Inc. I further certify that I have personally visited the project site on 03-07-2022 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certificate of Occupancy.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

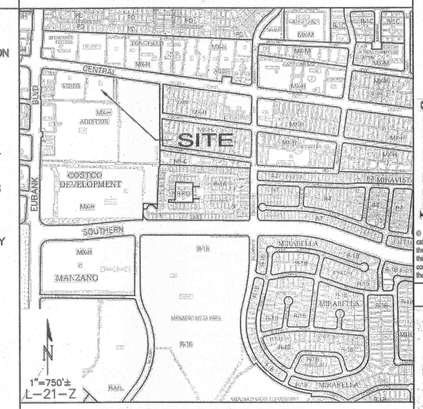
Fred C. Arfman, PE NMPE 7322

03-11-2022
Date

FRED C. ARFMAN NEW MEXICO 7322 LICENSED PROFESSIONAL ENGINEER 03-11-22

⚠ CLOUDED AREA MODIFIED FROM ORIGINAL DESIGN TO ADD ADDITIONAL A.D.A. PARKING SPACES. DID NOT AFFECT DRAINAGE CHARACTERISTICS.

VICINITY MAP L-21



PROJECT DATA

PROPERTY: THE SITE IS FULLY DEVELOPED COMMERCIAL PROPERTY LOCATED WITHIN COA VICINITY MAP B-13. THE SITE IS BOUND TO THE EAST, SOUTH AND WEST BY COMMERCIAL PROPERTY (HOME DEPOT), AND TO THE NORTH BY CENTRAL AVE. NE.

PROPOSED IMPROVEMENTS: THE PROPERTY WAS PREVIOUSLY A MOBILE HOME PARK WITH COMMUNITY CENTER, PAVED PARKING AND ASSOCIATED SITE IMPROVEMENTS. THE PROPOSED IMPROVEMENTS INCLUDE CONSTRUCTION OF MULTI-FAMILY HOUSING WITH ASSOCIATED ASPHALT PAVED ACCESS, PARKING, AND LANDSCAPING.

LEGAL: TRACT "C" VIDEO ADDITION, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

BENCHMARK: ELEVATIONS ARE BASED ON CITY OF ALBUQUERUQUE STATION No. 5-K20", HAVING AN ELEVATION OF 5429.99, NAVD 1988.

OFF-SITE: MINOR OFF-SITE DRAINAGE FROM THE EAST DRIVE WILL BE REDIRECTED SOUTH.

FLOOD HAZARD: PER F.E.M.A. FLOOD MAP #35001C0359G, EFF: 9/26/2008, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

DRAINAGE PLAN CONCEPT:

THIS PROPERTY IS INCLUDED AS 'PHASE III' IN THE APPROVED HOME DEPOT DRAINAGE REPORT DATED APRIL 28, 1994 (L21/D45) PREPARED BY TIERRA WEST. THE TRACT FALLS WITHIN DRAINAGE BASIN B DESIGNATED TO DRAIN TO THE EXISTING HOME DEPOT PARKING LOT DETENTION POND #1 WITH ORIFICE CONTROLLED DISCHARGE TO THE PUBLIC STORM DRAIN SYSTEM IN EUBANK BLVD. THE TOTAL PROPERTY (16.38 ACRES) HAS A FULLY DEVELOPED RUNOFF OF 78.16 CFS OR 4.77 CFS/ACRE.

TRACT C IS 1.879 ACRES * 4.77 CFS/ACRE = 9.0 CFS ALLOWABLE DISCHARGE. BASED ON CONCEPTUAL CALCULATIONS, THE PROPERTY WITH ANTICIPATED LAND TREATMENT RATIO OF 0%A,10%B,10%C,80%D WILL GENERATE 8.7 CFS DURING THE 100-YEAR 6-HOUR DESIGN STORM < 9.0 CFS ALLOWABLE.

POND #1 WATER SURFACE ELEVATION = 5467.75 (1929 DATUM) = APPROX. 5470.45 BASED ON 2.7' ADJUSTMENT TO 1988 DATUM.

THE PLAT INCLUDES THE FOLLOWING REGARDING CROSS-LOT DRAINAGE: "THE OWNER OF TRACT B1 AND THE OWNER OF TRACTS C AND D EACH GRANT TO THE OTHER RECIPROCAL EASEMENTS FOR STORM DRAINAGE FLOWS ON AND OVER TRACT B1 FOR THE BENEFIT OF TRACTS C AND D AND ON AND OVER TRACTS C AND D FOR THE BENEFIT OF TRACT B1."

SURVEYOR: ANTHONY L. HARRIS, N.M.P.S.#11463
THE SURVEY OFFICE, LLC
333 LOMAS BOULEVARD N.E.
ALBUQUERQUE, NM, 87102
(505) 998-0303

ENGINEER: FRED C. ARFMAN, N.M.P.E. #7322
ISAACSON & ARFMAN, INC.
128 MONROE N.E.
ALBUQUERQUE, NM, 87108
(505) 268-8828

ADA COMPLIANCE

SIDEWALK(S) AND RAMP(S): TARGET CROSS SLOPE = 1% TO 1.5%. CROSS SLOPE SHALL NOT EXCEED 2%

ACCESSIBLE RAMP(S): TARGET LONGITUDINAL SLOPE = 7% LONGITUDINAL SLOPE SHALL NOT EXCEED 12:1 (8.3%).

ACCESSIBLE PARKING: TARGET SLOPE = 1% TO 1.5%. SLOPE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

2374.CG-101
10/1/2020

FRED C. ARFMAN NEW MEXICO 7322 REGISTERED PROFESSIONAL ENGINEER 10-01-20
Engineer

LUMINARIA SENIOR COMMUNITY
10600 CENTRAL AVE SE
ALBUQUERQUE, NM 87123

100% CONSTRUCTION DOCUMENTS

PROJECT STATUS:	90% CONSTRUCTION DOCUMENTS
PROJECT NUMBER:	19-0058
IA PROJECT NUMBER:	2374
DRAWN BY:	BJB
CHECKED BY:	FCA
DATE:	10/1/2020

REVISIONS

No	Date

SHEET TITLE
Grading & Drainage Plan

SHEET NUMBER
CG-101

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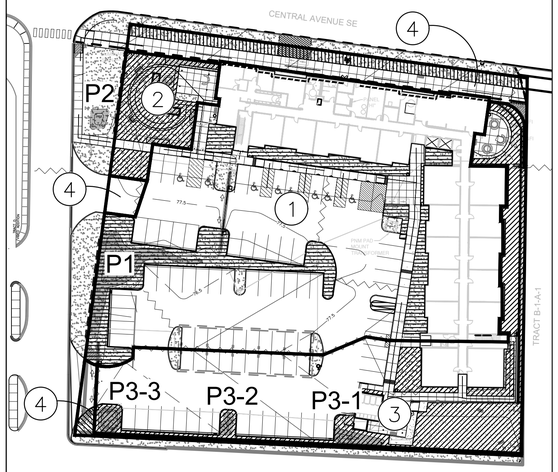
DRAINAGE BASIN & LANDSCAPE AREAS



CALCULATIONS: Luminaria Senior Living : 23-Sep-2020

Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020

100-YEAR, 6-HOUR CALCULATIONS

AREA OF SITE: 81829 SF = 1.8785 ACRE

100-year, 6-hour

HISTORIC FLOWS:	Treatment SF	%	DEVELOPED FLOWS:	Treatment SF	%	EXCESS PRECIP: Precip. Zone 3
Area A =	0	0%	Area A =	0	0%	E_A = 0.67
Area B =	4091	5%	Area B =	16366	20%	E_B = 0.86
Area C =	45006	55%	Area C =	0	0%	E_C = 1.09
Area D =	32732	40%	Area D =	65463	80%	E_D = 2.58
Total Area =	81829	100%	Total Area =	81829	100%	

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted $E = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$

Historic E = 1.67 in.	Developed E = 2.24 in.

On-Site Volume of Runoff: V360 = E*A / 12

Historic V_{360} = 11419 CF	Developed V_{360} = 15247 CF

On-Site Peak Discharge Rate: $Qp = Q_{pA}A_A + Q_{pB}A_B + Q_{pC}A_C + Q_{pD}A_D / 43{,}560$

For Precipitation Zone 3

Q_{pA} =	1.84	Q_{pC} =	3.17
Q_{pB} =	2.49	Q_{pD} =	4.49
Historic Q_p = 6.9 CFS		Developed Q_p = 7.7 CFS	

BASIN NO. 1	DESCRIPTION	Drains to SQ Pond P1
Area of basin flows = 47350 SF	=	1.09 Ac.
The following calculations are based on Treatment %'s as shown in table to the right		LAND TREATMENT
Sub-basin Weighted Excess Precipitation:		A = 0%
Weighted E = 2.33 in.		B = 14.7%
Sub-basin Volume of Runoff:		C = 0%
V_{360} = 9180 CF		D = 85.3%
Sub-basin Peak Discharge Rate:		Stormwater Quality Volume
Q_P = 4.6 cfs		875 CF

BASIN NO. 2	DESCRIPTION	Drains to SQ Pond P2
Area of basin flows = 4399 SF	=	0.10 Ac.
The following calculatic 23		LAND TREATMENT
Sub-basin Weighted Excess Precipitation:		A = 0%
Weighted E = 1.05 in.		B = 89%
Sub-basin Volume of Runoff:		C = 0%
V_{360} = 385 CF		D = 11%
Sub-basin Peak Discharge Rate:		Stormwater Quality Volume
Q_P = 0.3 cfs		10 CF

BASIN NO. 3	DESCRIPTION	Drains to SQ Pond P3
Area of basin flows = 23081 SF	=	0.53 Ac.
The following calculations are based on Treatment %'s as shown in table to the right		LAND TREATMENT
Sub-basin Weighted Excess Precipitation:		A = 0%
Weighted E = 2.04 in.		B = 31.4%
Sub-basin Volume of Runoff:		C = 0%
V_{360} = 3924 CF		D = 68.6%
Sub-basin Peak Discharge Rate:		Stormwater Quality Volume
Q_P = 2.0 cfs		343 CF

BASIN NO. 4	DESCRIPTION	Free Discharge - No SQ Pond
Area of basin flows = 6999 SF	=	0.16 Ac.
The following calculations are based on Treatment %'s as shown in table to the right		LAND TREATMENT
Sub-basin Weighted Excess Precipitation:		A = 0%
Weighted E = 1.87 in.		B = 41.4%
Sub-basin Volume of Runoff:		C = 0%
V_{360} = 1089 CF		D = 59%
Sub-basin Peak Discharge Rate:		Stormwater Quality Volume
Q_P = 0.6 cfs		89 CF

STORMWATER QUALITY

STORMWATER QUALITY (SQ) CONTROL MEASURES ARE REQUIRED TO PROVIDE MANAGEMENT OF 'FIRST FLUSH'.

BECAUSE THIS PROPERTY WAS PREVIOUSLY FULLY DEVELOPED, THE REQUIRED FIRST FLUSH RETENTION VOLUME = 0.26" * TYPE 'D' AREA: 0.26/12 * (60,799 SF) = 1,317 CF. .

THE BASIN CALCULATIONS AT LEFT PROVIDE THE IMPERVIOUS AREA, REQUIRED STORMWATER QUALITY (SQ) VOLUME TO BE PONDED AS FOLLOWS:

BASIN 1 875 CF REQUIRED – DRAINS TO POND P1
937 CF PROVIDED

BASIN 2 10 CF REQUIRED – DRAINS TO POND P2
50 CF PROVIDED

BASIN 3 343 CF REQUIRED – DRAINS TO PONDS P3–1, P3–2, P3–3
443 CF PROVIDED

BASIN 4 89 CF REQUIRED – REQUEST IN–LIEU–OF PAYMENT

A DRAINAGE COVENANT WILL BE REQUIRED FOR THE STORMWATER QUALITY FIRST FLUSH PONDS PRIOR TO CERTIFICATE OF OCCUPANCY APPROVAL.

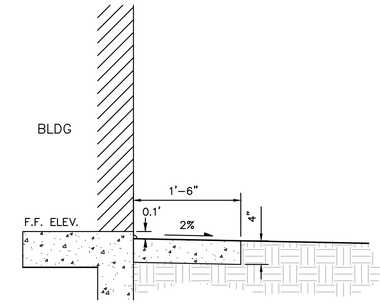
STORMWATER QUALITY P1		
Contour	Area	Volume
5476.0	1393	
5475.0	480	937 CF
POND VOLUME =		**937** CF

STORMWATER QUALITY P3-1		
Contour	Area	Volume
5377.1	220	
5376.0	45	146 CF
POND VOLUME =		**146** CF

STORMWATER QUALITY P2		
Contour	Area	Volume
5476.5	160	
5476.0	40	50 CF
POND VOLUME =		**50** CF

STORMWATER QUALITY P3-2		
Contour	Area	Volume
5476.5	120	
5476.0	9	32 CF
POND VOLUME =		**32** CF

STORMWATER QUALITY P3-3		
Contour	Area	Volume
5476.0	240	
5474.5	100	255 CF
POND VOLUME =		**255** CF

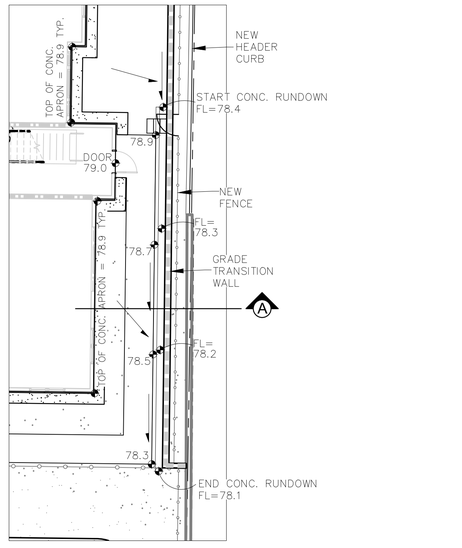


GENERAL NOTES

1. SEALED CONTRACTION / CONTROL JOINTS @ 6' MAX.
2. 1/2" SEALED EXPANSION JOINTS 36' O.C.
3. 3/8" RADII AT ALL EXPOSED EDGES.
4. PROVIDE 1" EXPANSION JOINT MATERIAL (FULL DEPTH) WITH SEALANT AT SURFACE BETWEEN BLDG. AND CONCRETE APRON.

CONCRETE APRON AT BUILDING

SCALE: N.T.S.



1. SEALED CONTRACTION / CONTROL JOINTS @ 6' MAX.
2. 1/2" SEALED EXPANSION JOINTS 36' O.C.
3. 3/8" RADII AT ALL EXPOSED EDGES.
4. PROVIDE 1" EXPANSION JOINT MATERIAL (FULL DEPTH) WITH SEALANT ALONG WALL AND CURB..

CONCRETE RUNDOWN

SCALE: N.T.S.

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2374.CG-101
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10-27-20

Engineer

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REVISIONS		
No	Date	
1	10/23/2020	ADDENDUM 001

SHEET TITLE

Grading & Drainage Details & Calculations

SHEET NUMBER

CG-501

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