CITY OF ALBUQUERQUE

Planning Department Brennon Williams, Director



Mayor Timothy M. Keller

October 1, 2019

Holden Rennaker Short Elliot Hendrickson Inc. 934 Main Avenue, Unit C Durango, CO 81301

RE: Monterey Place Apts 2306-2320 Central SW Grading and Drainage Plan Stamp Date: none Hydrology File: J12D030

Dear Mr. Rennaker,

NM 87103

www.cabq.gov

Based on the submittal received on 9/25/19 the above-referenced Grading and Drainage Plan cannot be approved until the following corrections are made:

Prior to Building Permit & Work Order:

Albuquerque 1. Remove all "Conceptual/Not for Construction" markings and stamp, sign and date the plan.

2. All drainage calculations and findings, to include those presented in the response letter, need to be provided in a bound report, stamped/signed by the engineer.

- 3. As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.
 - 4. Payment of the Fee in Lieu (Amount = 635CF x \$8/CF = \$5080, per sheet C-102) of onsite management of the SWQV must be made. Include a copy of the paid receipt when resubmitting.

Prior to Certificate of Occupancy (For Information):

- 5. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.
- 6. A Bernalillo County Recorded <u>Private Facility Drainage Covenant</u> is required for the storm water quality ponds. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee (\$25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del

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Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) regarding the routing and recording process for covenants. The routing and recording process for covenants can take a month or longer; Hydrology recommends beginning this process as soon as possible as to not delay approval for certificate of occupancy.

7. City acceptance and close-out of the public Work Order will be required, unless a financial guarantee has been posted.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana M. Peterson Senior Engineer, Planning Dept. Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department Development & Building Services Division DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title:	Building	g Permit #: Hydrology File #:
DRB#:	EPC#:	Work Order#:
Legal Description:		
City Address:		
Applicant:		Contact:
Address:		
		E-mail:
Owner:		Contact:
Address:		
Phone#:	Fax#:	E-mail:
TYPE OF SUBMITTAL: PLAT (# OF LOTS)	RESIDENCE DRB SITE ADMIN SITE
IS THIS A RESUBMITTAL?:	Yes	No
DEPARTMENT: TRAFFIC/ TRA	ANSPORTATION	HYDROLOGY/ DRAINAGE
Check all that Apply:		TYPE OF APPROVAL/ACCEPTANCE SOUGHT:
TYPE OF SUBMITTAL:		BUILDING PERMIT APPROVAL
ENGINEER/ARCHITECT CERTIF	ICATION	CERTIFICATE OF OCCUPANCY
CONCEPTUAL G & D PLAN		PRELIMINARY PLAT APPROVAL
GRADING PLAN		SITE PLAN FOR SUB'D APPROVAL
DRAINAGE MASTER PLAN		SITE PLAN FOR BLDG. PERMIT APPROVAL
DRAINAGE REPORT		FINAL PLAT APPROVAL SIA/ RELEASE OF FINANCIAL GUARANTEE
FLOODPLAIN DEVELOPMENT PI	ERMIT APPLIC	FOUNDATION PERMIT APPROVAL
ELEVATION CERTIFICATE		GRADING PERMIT APPROVAL
CLOMR/LOMR		OKADING PERMIT APPROVAL
TRAFFIC CIRCULATION LAYOU	JT (TCL)	PAVING PERMIT APPROVAL
TRAFFIC IMPACT STUDY (TIS)		GRADING/ PAD CERTIFICATION
OTHER (SPECIFY)		WORK ORDER APPROVAL
PRE-DESIGN MEETING?		CLOMR/LOMR
		FLOODPLAIN DEVELOPMENT PERMIT
		OTHER (SPECIFY)
DATE SUBMITTED:	Bv	

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED:

FEE PAID:



TREASURY DIVISION DAILY DEPOSIT

Transmittals for: PROJECTS Only

Payment In-Lieu for Storm Water Quality Volume Requirement

CASH COUNT	AMOUNT	ACCOUNT NUMBER	FUND NUMBER	BUSINESS UNIT	PROJECT ID	ACTIVITY ID	AMOUNT
TOTAL CHECKS	\$ 5080.00	461615	305	PCDMD	24_MS4	7547210	\$ 5080.00
TOTAL AMOUNT						TOTAL DEPOSIT	\$5080.00

Hydrology#:	Payment In-Lieu For Storm Water Quality	Name:	Monterey Place Apts, 29310sf imp.
	Volume Requirement		
Address/Lega	al Description: 2306-2320 Central SW Lots 2-6, Blk 6, Traction Park	< and City E	lectric Addn
DEPARTME	ENT NAME: Planning Department/Develop	ment Revie	w Services, Hydrology
PREPARED	BY Dana Peterson	PHONE	924-3695
BUSINESS	DATE 10/1/19		
DUAL VERI	FICATION OF DEPOSIT	ATURE	
AND BY	EMPLOYEE SIGNATURE		
Remitter:			
BANK: CHECK #:	DATE ON CHECK:		
			600 2 nd St NW/ Bring three copies of this

The Payment-in-Lieu can be paid at the Plaza del Sol Treasury, 600 2nd St. NW. **Bring three copies of this invoice to the Treasury** and provide a copy of the receipt to Hydrology, Suite 201, 600 2nd St. NW, or e-mail with the Hydrology submittal to PLNDRS@cabq.gov.



September 25th, 2019

Development Review Services – Hydrology Section City of Albuquerque PO Box 1293 Albuquerque, NM 87103

RE: Monterey Place Drainage Submittal for Building Permit (Hydrology File: J12D030)

To Whom It May Concern,

The attached Grading and Drainage Plan and following letter are for Grading and Drainage Certification for the Monterey Place project (PR-2019-002331). A Conceptual Grading and Drainage Plan stamped 5/16/2019 was approved for DRB approval at the hearing on July 24, 2019. Please note that the Conceptual Grading and Drainage Plan was completed by Russell Planning and Engineering who has since merged with Short Elliott Hendrickson, Inc (SEH).

The attached Grading and Drainage Plan highlights both the existing and proposed conditions, and flow calculations for each basin. The following sections detail some of the changes from the Conceptual Grading and Drainage Plan as the design has advanced, as well as provide more detail into certain design elements of the drainage scheme.

Water Quality

Water Quality was designed to be provided on-site to the maximum extent possible but was constrained by the density of the development as well as geotechnical considerations. The geotechnical report prohibits ponding adjacent to the building and the bioswale shown on the Conceptual Grading and Drainage Plan as providing 233-cf of water quality volume had to be removed from the plan.

As the design advanced on Ponds A and B, the amount of water quality provided by each was reduced from what was shown on the Conceptual Plan in order to provide adequate conveyance.

The developer is requesting to pay a fee in lieu of providing water quality and that this fee be recalculated based on the advancements made in the design.

The following tables for Ponds A and B describe the volume calculations between the pond bottom and outlet structure rim elevation – representing the water quality volume provided by each pond. Volumes were calculated using the conical method for contour areas.

Pond A:

Stage (ft)	Contour Area (sq. ft)	Incremental Volume (cf)	Cumulative Volume (cf)
0.00	50	0	0
0.25	77	16	16
0.75	145	54	70
1.05	196	51	121

Pond B:

Stage (ft)	Contour Area (sq. ft)	Incremental Volume (cf)	Cumulative Volume (cf)
0.00	20	0	0
0.25	46	8	8
0.75	119	40	48

Stormwater Conveyance

The development was designed to utilize a series of curb cuts, inlets and storm drain to convey flow from the site to existing inlets in Central Ave. The following sub-sections detail the sizing calculations of each component.

Curb Cuts

The *Hydraflow Express Extension for AutoCad Civil3D* 2018 was used to model the proposed curb cuts to determine their capacity. The curbs were modelled as a 2-ft wide rectangular channel with a 0.5% slope, the minimum slope into the ponds. *Express* output is attached and shows that the capacity of these curb cuts is 3.9 cfs – larger than the 100-year of any single basin on the project.

Nyoplast Inlets

Each pond will have a 24-in diameter Nyoplast inlet with a Dome Grate. The Nyoplast 24" Dome Grate Inlet Capacity Chart was used to determine the head on the 100-year storm. To model 50% clogging, the Capacity modelled was twice the flow from the 100-year storm as calculated on the Drainage Plan.

The rims of each inlet were set to contain the 100-year water surface elevation to not extend outside of the proposed limits of Ponds A and B.

Storm Drain Lines A and B

Development Review Services – Hydrology Section Monterey Place September 25th, 2019

Two separate 12-in PVC storm drain lines were designed to convey flow from Ponds A and B to the existing inlets in Central Avenue. The *Hydraflow Storm Sewer Extension for AutoCad Civil3D 2018* was used to model each of the proposed storm drain lines and calculate the Hydraulic Grade Line of each system during the 100-year storm.

Storm Sewer output is attached and demonstrates the HGL remains in the pipe during the 100-year storm.

Proposed Alley Improvements

A condition of project approval in DRB was the requirement to pave the existing dirt alley from the project's eastern boundary to Clayton St. Several residents in the area have expressed drainage concerns in this alley as the alley is very flat and generally flows towards the property owners to the south.

Based on discussions with the City Hydrology Department the alley was graded to hold grade at all property lines and drain to a gutter pan at the center of the alley. The majority of the alley will slope east towards Clayton St. while a western portion will be conveyed to Pond B.

It should be noted that although this alley was designed to help alleviate several drainage problems in this area, there will be no grading on the lots of adjacent homeowners. If low points exist on neighboring properties, they will continue to exist. Flows from the alley will be conveyed to a center gutter pan instead of to the properties on the south which is largely the case presently.

A detailed alley grading plan is included in this submittal.

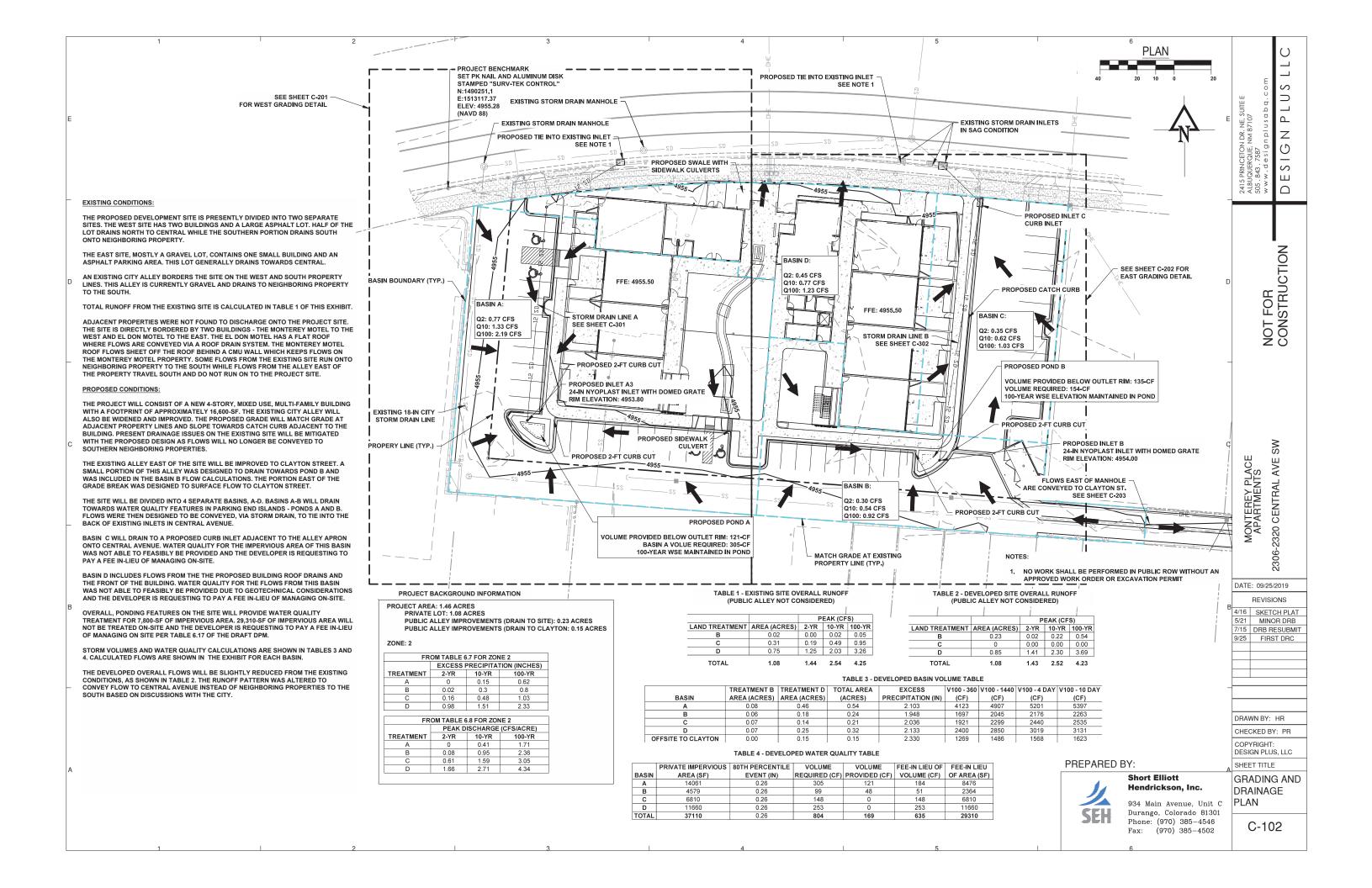
It is anticipated that the Hydrology Department will have comments regarding this plan and that DRC will also have comments on other design features of this project. A stamped "For Construction Plan" will be submitted that addresses these comments in the future.

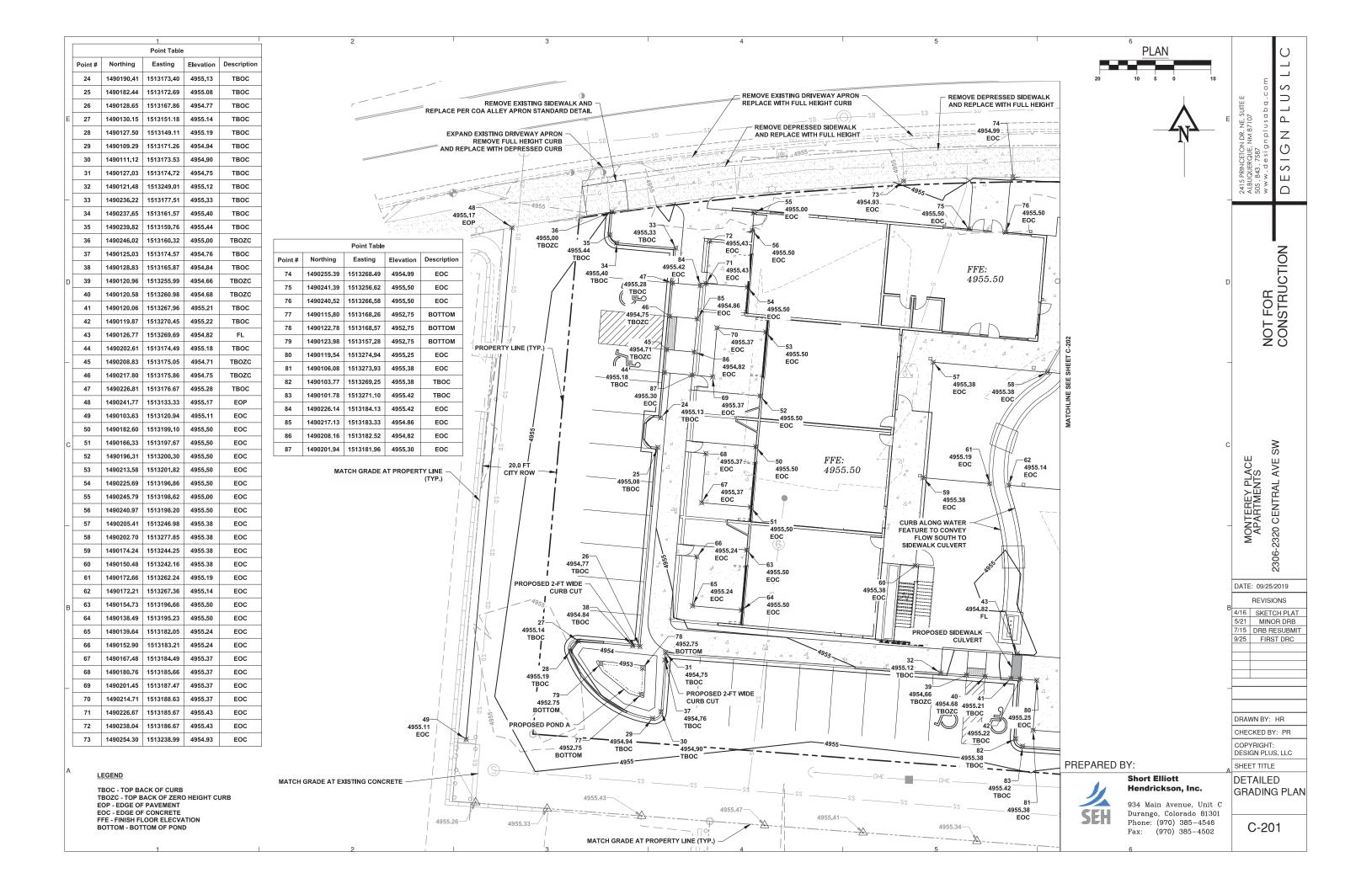
Sincerely,

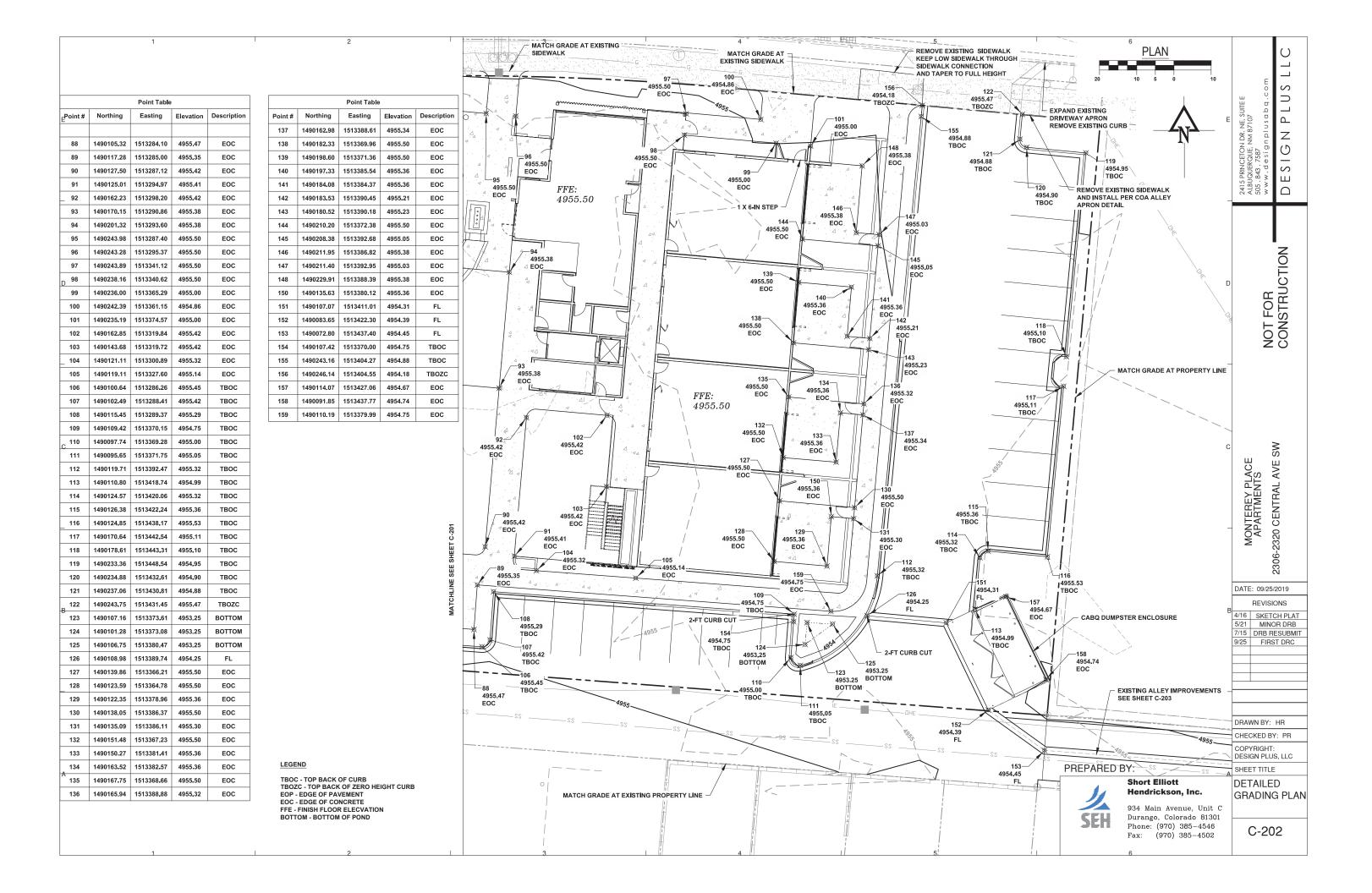
Holden Rennaker, PE (CO, NM, OR) Short Ellliot Hendrickson Inc. Email: <u>hrennaker@sehinc.com</u> Phone: 970-459-9012

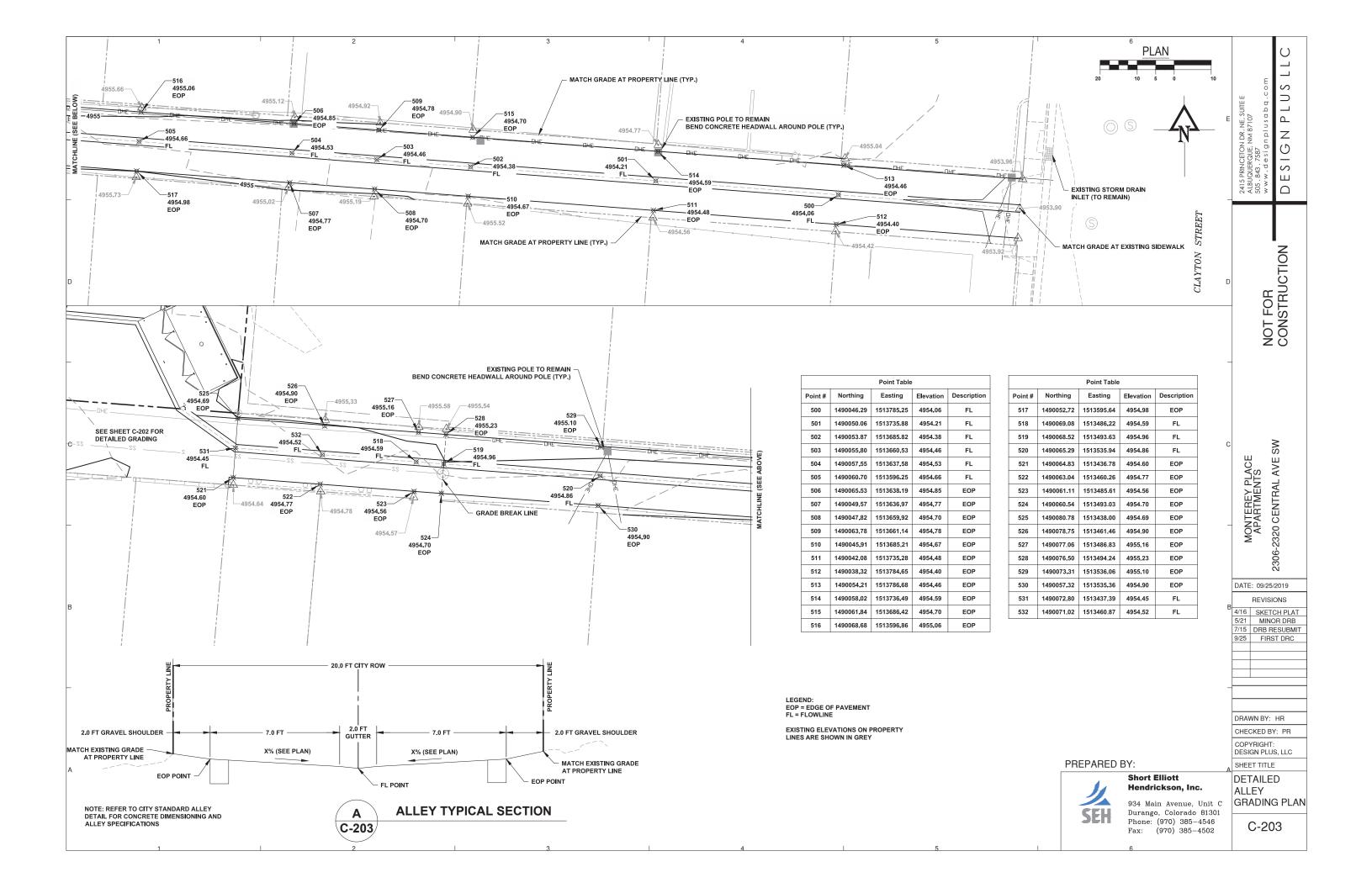
Attachments:

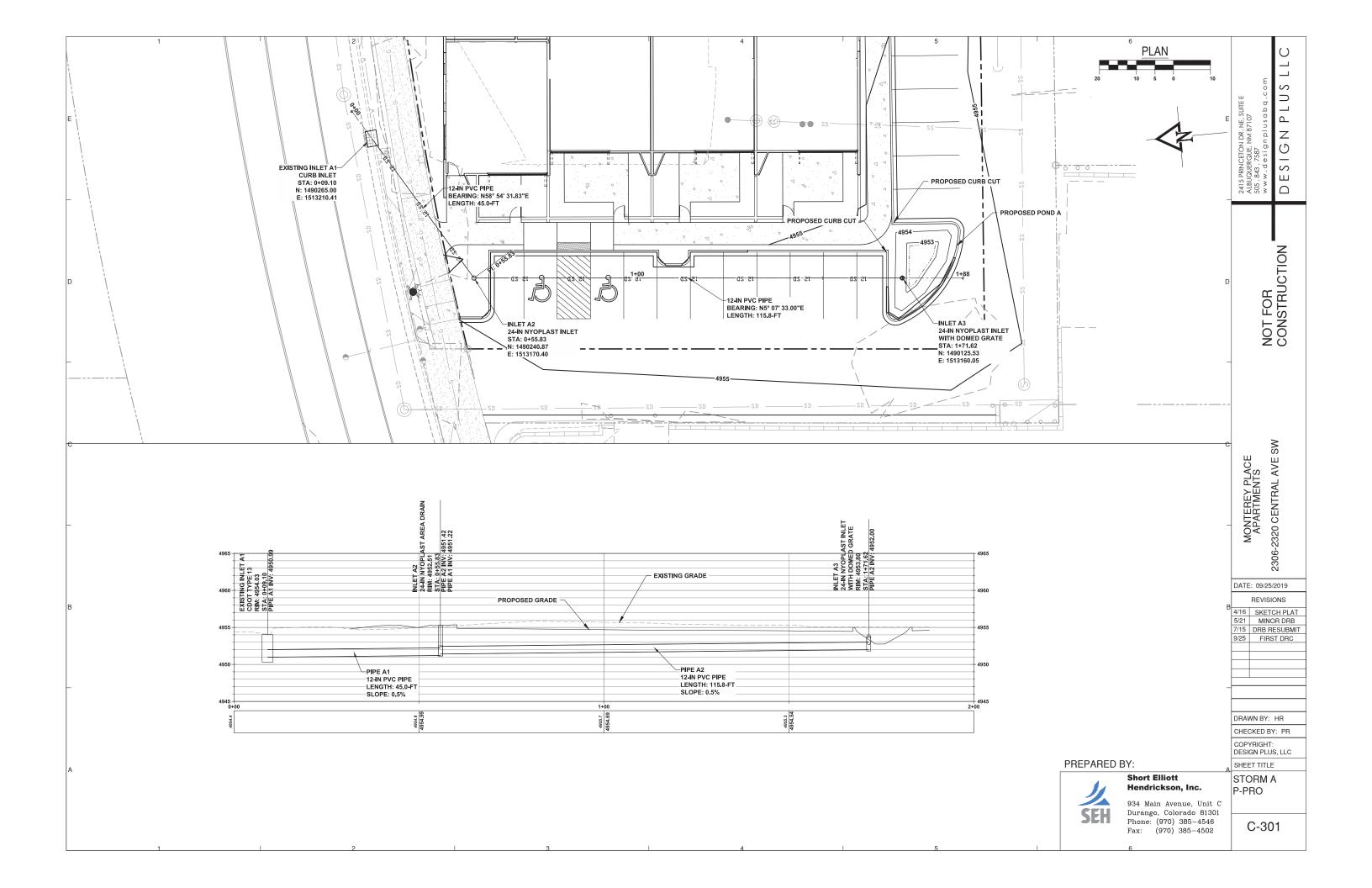
- Grading and Drainage Plan
- Detailed Site Grading Plans
- Alley Grading Plan
- Storm Drain Plan and Profile Sheets
- Output from Hydraflow Express Extension for Civil 3D (Curb Cut Capacity)
- Nyoplast 24" Dome Grate Inlet Capacity Charts
- Output from Hydraflow Storm Sewer Extension for Civil 3D (Storm Drain Lines A-B)

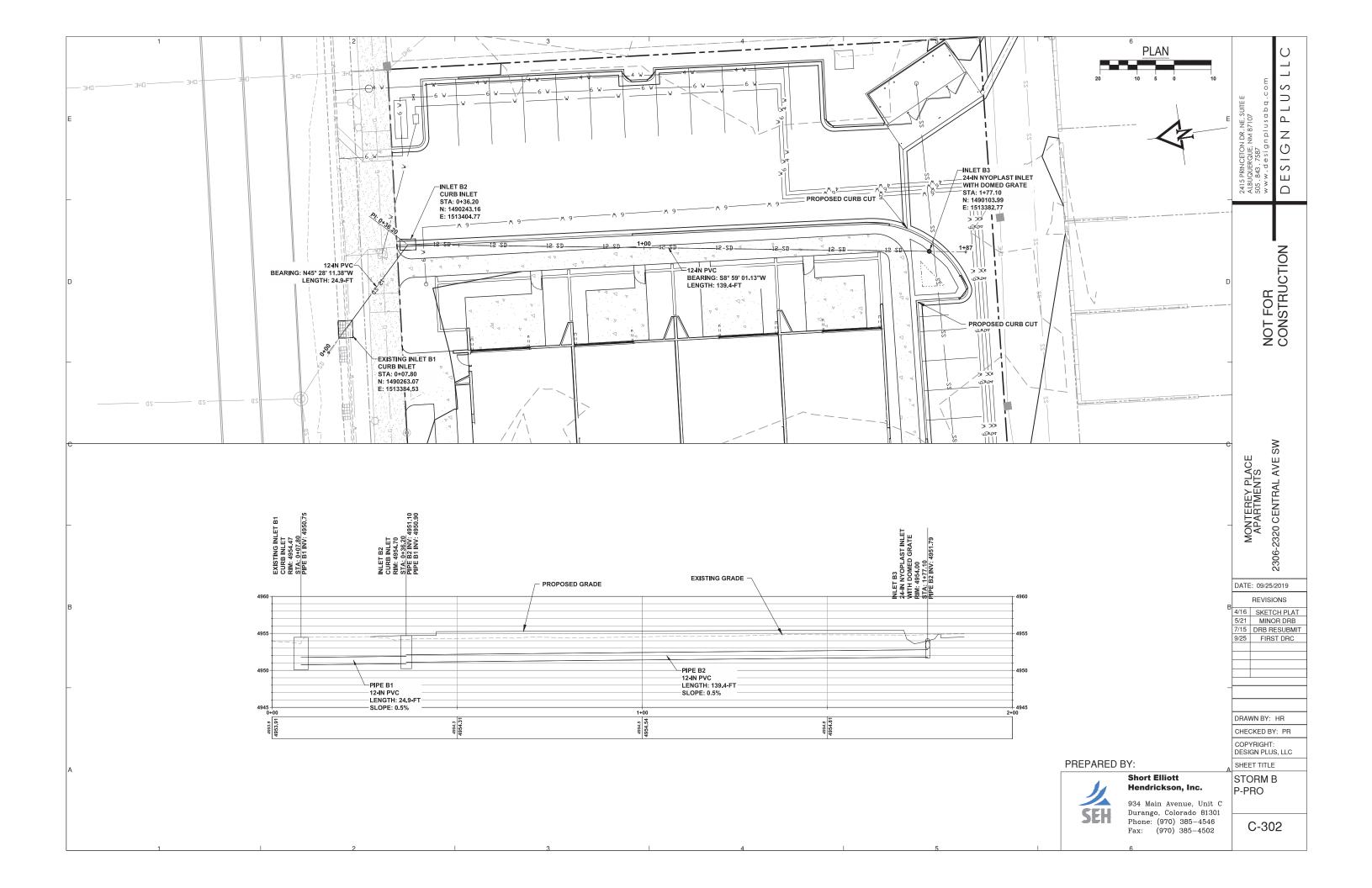












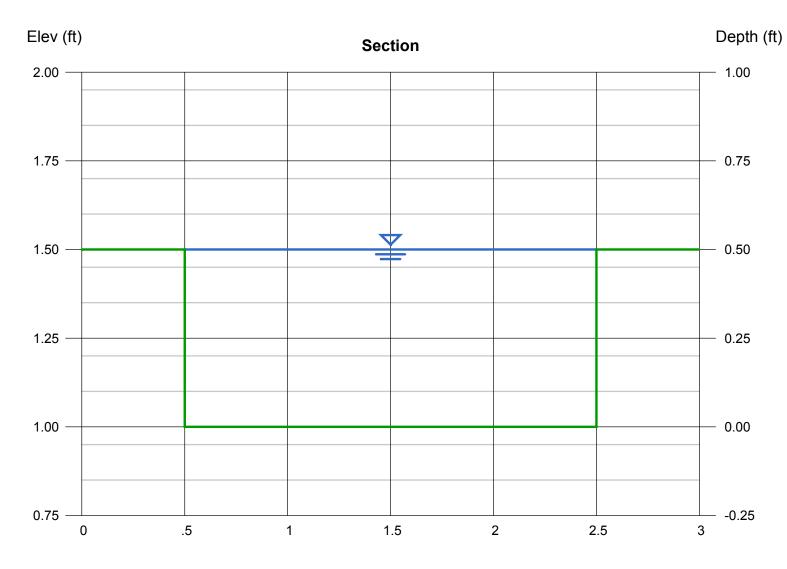
Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Tuesday, Sep 24 2019

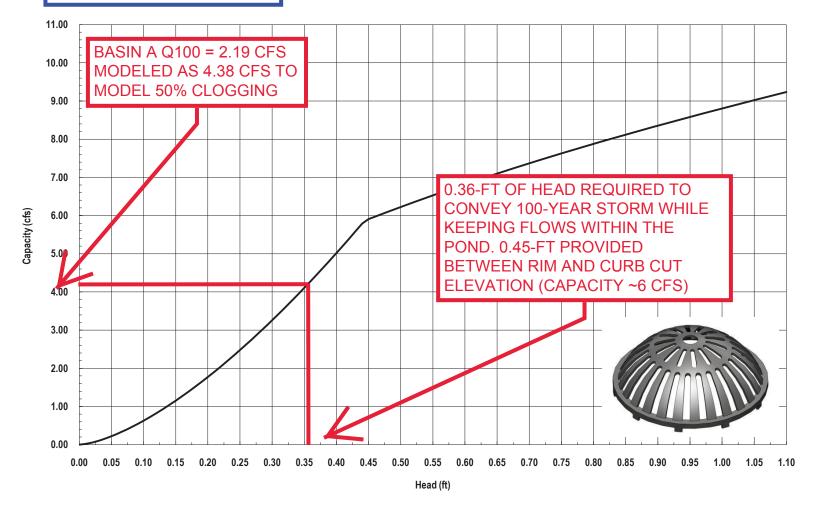
Monterey Place Curb Cut

Rectangular		Highlighted	
Bottom Width (ft)	= 2.00	Depth (ft) =	0.50
Total Depth (ft)	= 0.50	Q (cfs)	3.884
		Area (sqft) =	1.00
Invert Elev (ft)	= 1.00	Velocity (ft/s) =	3.88
Slope (%)	= 0.50	Wetted Perim (ft) =	3.00
N-Value	= 0.013	Crit Depth, Yc (ft) =	0.49
		Top Width (ft) =	2.00
Calculations		EGL (ft) =	0.73
Compute by:	Known Depth		
Known Depth (ft)	= 0.50		



MONTEREY PLACE INLET A3

Nyloplast 24" Dome Grate Inlet Capacity Chart

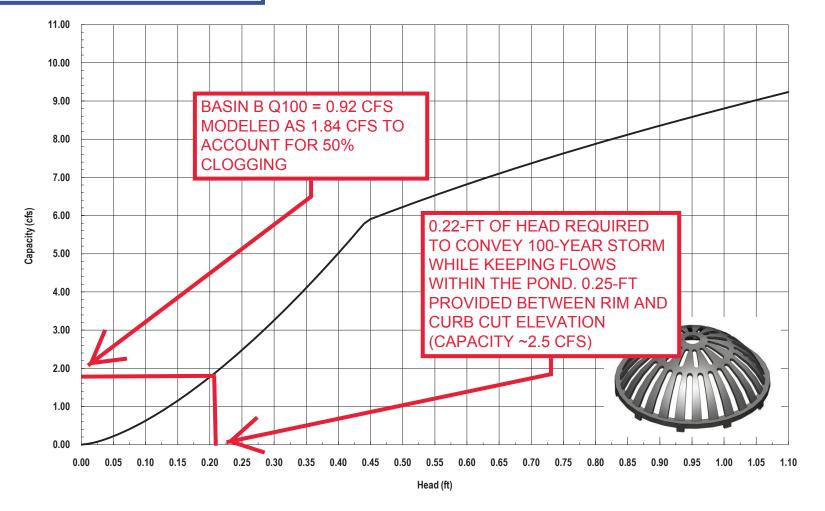




3130 Verona Avenue • Buford, GA 30518 (866) 888-8479 / (770) 932-2443 • Fax: (770) 932-2490 © Nyloplast Inlet Capacity Charts June 2012

MONTEREY PLACE INLET B3

Nyloplast 24" Dome Grate Inlet Capacity Chart





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Storm Sewer Profile

