

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Interim Director



Mayor Timothy M. Keller

January 24, 2022

Jeremy Shell, P.E.
Respec
5971 Jefferson St. NE
Albuquerque, NM 8710

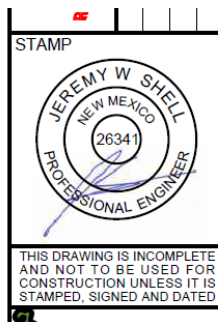
**RE: The Peaks by Markana
Grading & Drainage Plans
Engineer's Stamp Date: 01/05/22
Hydrology File: C18D088**

Dear Mr. Shell:

Based upon the information provided in your submittal received 01/05/2022, the Grading & Drainage Plan is approved for **Foundation Permit only**. Please attach a copy of this letter in the construction sets for Foundation Permit processing.

PRIOR TO BUILDING PERMIT & WORK ORDER APPROVAL:

1. General Comment. Please have the Project Name on all sheets as, "**The Peaks by Markana**".
2. General Comment. Please provide a date to the engineer's stamp.



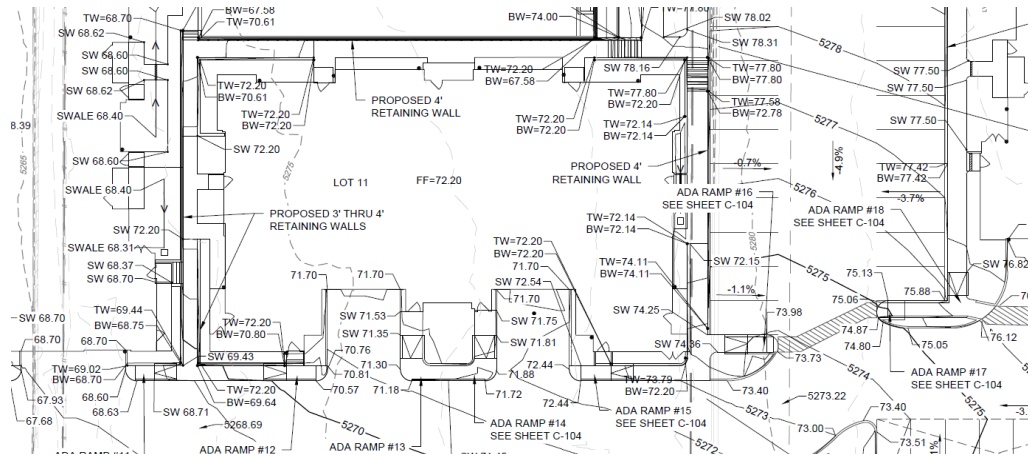
3. General Comment. Overall the Grading & Drainage Plan seems to lack clarity and is very busy. Also, there are line work missing such as the top of curb along the parking areas (currently it looks like there will be no curbing and it is just an edge of pavement).

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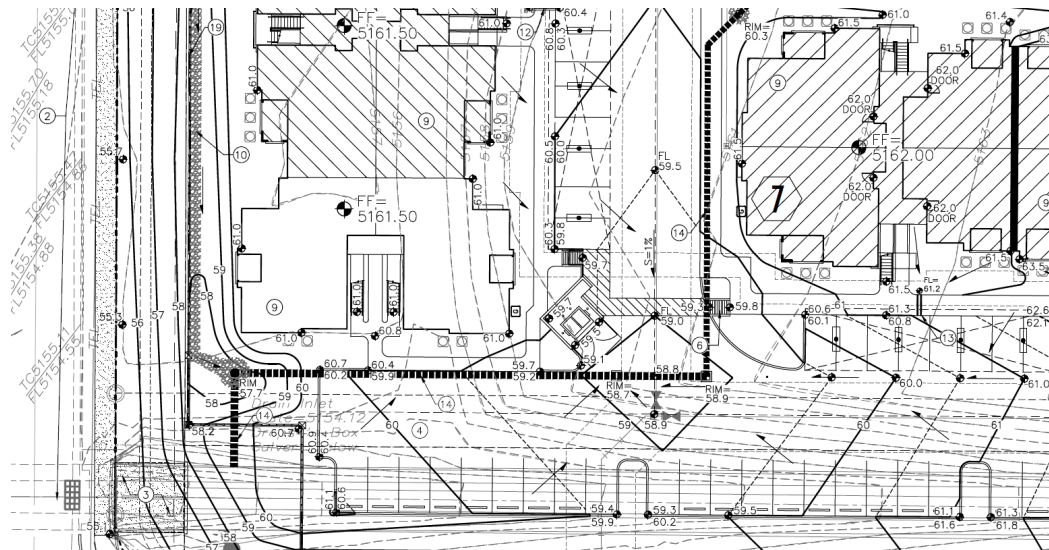
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Here is an example of a similar project that has minimal spot elevation to get the job done.



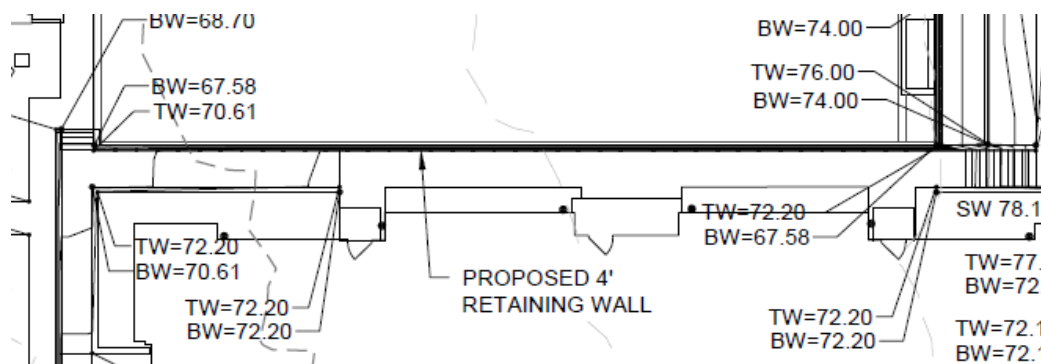
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NM 87103

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4. General Comment. Please place the retaining walls as a line type in the Legend. There seems to be different line work for retaining walls. Also, there are double lines (from the Architect?) that needs to be turned off.

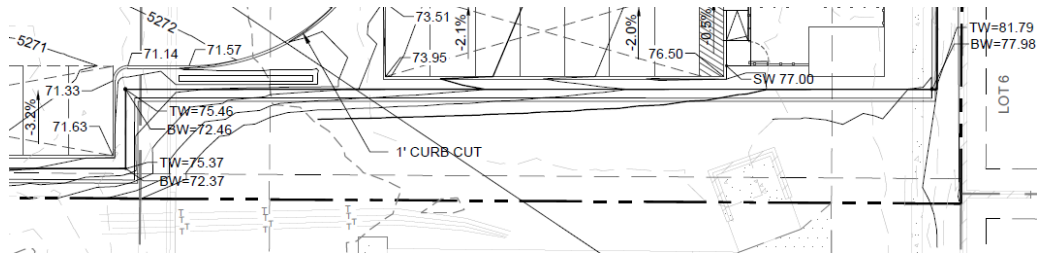


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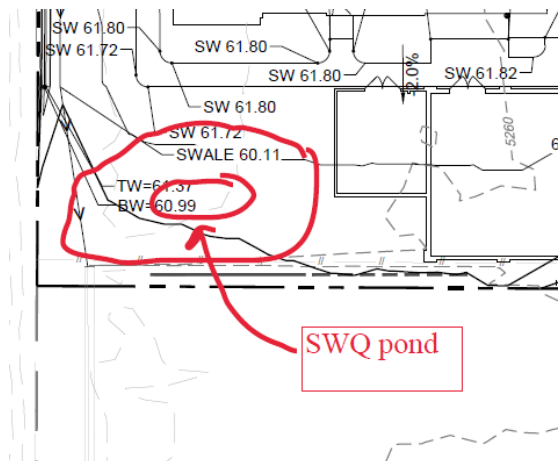
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5. General. There seems to be opportunity to provide for some stormwater quality ponds. Please revisit the grading and see if you can gain some volume.



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6. Sheet C101. Per the DPM, the following must be on the Grading Plan.
 - a. Please provide a Vicinity Map.
 - b. Please provide the Benchmark information (location, description and elevation) for the survey contour information provided.
 - c. Please provide the FIRM Map and flood plain note with effective date.
 - d. Please provide a legal Description of the property.
7. Sheet C100. Please show and calculate the amount of stormwater quality pond volume that was able to provide. Please use the attached Waiver form for the remainder of the volume.

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.

CITY OF ALBUQUERQUE

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Alan Varela, Interim Director



Mayor Timothy M. Keller

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

Sincerely,

Renée C. Brissette

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

PO Box 1293

Albuquerque

NM 87103

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City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: The Peaks by Markana **Building Permit #:** _____ **Hydrology File #:** C18D088
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Lots 8-A, 11, and 12, Block 26, North Albuquerque Acres, Tract A, Unit B
City Address: _____

Applicant: Legacy Development **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: RESPEC **Contact:** Jeremy Shell
Address: 5971 Jefferson Street NE, Suite 101, Albuquerque NM 87109
Phone#: 505.918.1053 **Fax#:** _____ **E-mail:** jeremy.shell@respec.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE ☒ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes ☒ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

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

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
☐ FLOODPLAIN DEVELOPMENT PERMIT
☐ OTHER (SPECIFY) _____

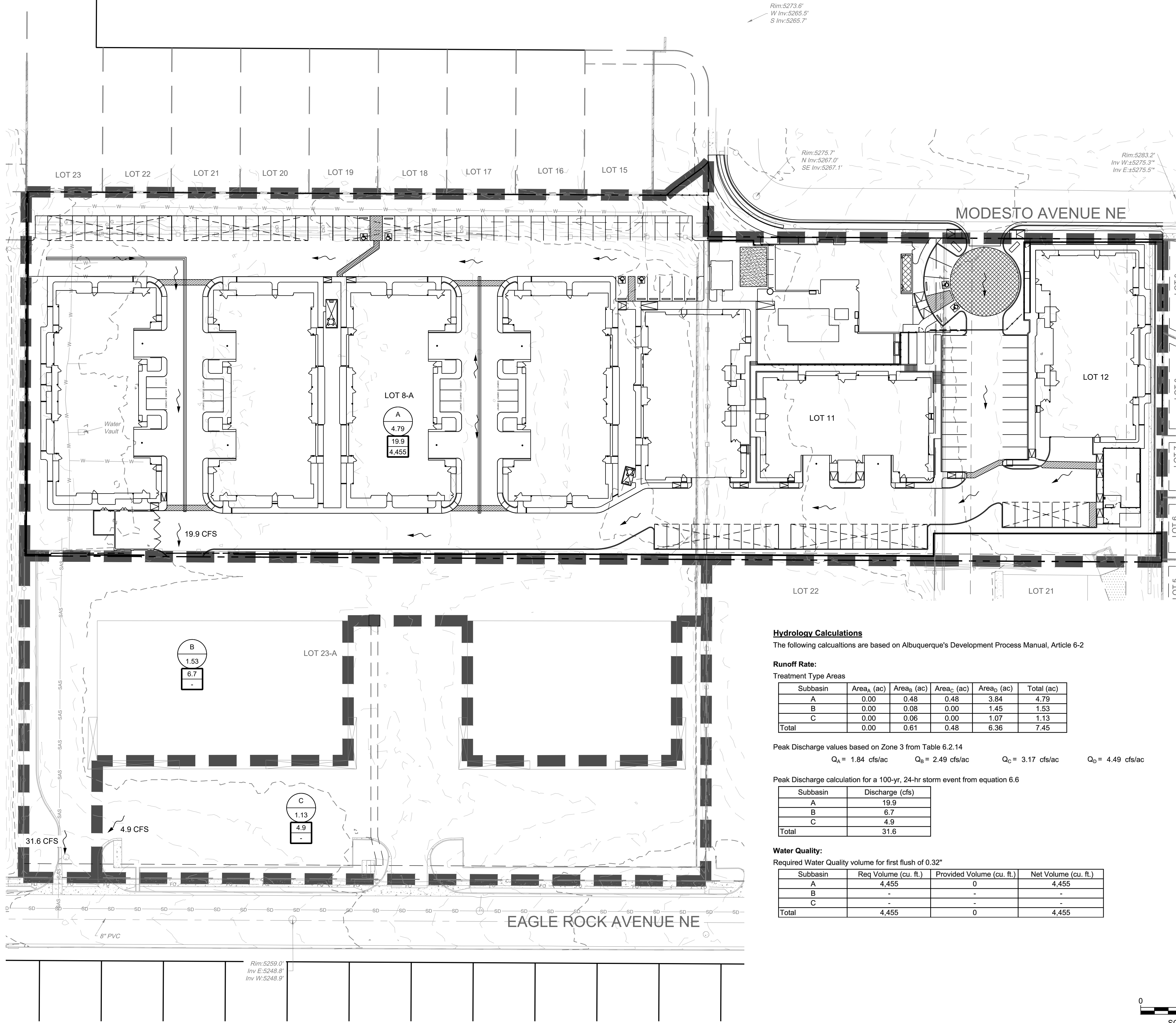
DATE SUBMITTED: 1/5/22 **By:** Jeremy Shell

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

NAME: N:\Projects\03711 Legacy Modesto3.DWG\Streets\03711 Modesto Drainage.dwg PLOT DATE: Jan 05, 2022 12:51pm



Hydrology Calculations

The following calculations are based on Albuquerque's Development Process Manual, Article 6-2

Runoff Rate:

Treatment Type Areas

Subbasin	Area _A (ac)	Area _B (ac)	Area _C (ac)	Area _D (ac)	Total (ac)
A	0.00	0.48	0.48	3.84	4.79
B	0.00	0.08	0.00	1.45	1.53
C	0.00	0.06	0.00	1.07	1.13
Total	0.00	0.61	0.48	6.36	7.45

Peak Discharge values based on Zone 3 from Table 6.2.14

$$Q_A = 1.84 \text{ cfs/ac} \quad Q_B = 2.49 \text{ cfs/ac} \quad Q_C = 3.17 \text{ cfs/ac} \quad Q_D = 4.49 \text{ cfs/ac}$$

Peak Discharge calculation for a 100-yr, 24-hr storm event from equation 6.6

Subbasin	Discharge (cfs)
A	19.9
B	6.7
C	4.9
Total	31.6

Water Quality:

Required Water Quality volume for first flush of 0.32"

Subbasin	Req Volume (cu. ft.)	Provided Volume (cu. ft.)	Net Volume (cu. ft.)
A	4,455	0	4,455
B	-	-	-
C	-	-	-
Total	4,455	0	4,455

BACKGROUND

LOTS 8-A, 11, AND 12, BLOCK 26 NORTH ALBUQUERQUE ACRES, TRACT A, UNIT B IS APPROXIMATELY 4.8 ACRES IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO. THE PROPERTY IS LOCATED SOUTH OF MODESTO AVENUE AND NORTH OF THE EXISTING EAGLE ROCK BUSINESS CENTER. LOT 8-A WAS PREVIOUSLY DEVELOPED AS A HARLEY DAVIDSON TRAINING AREA. LOTS 11 AND 12 ARE PRIMARILY UNDEVELOPED WITH TWO EXISTING DRIVE AISLES THAT SERVE LOT 21. THE PROPOSED PROJECT IS A 120 UNIT APARTMENT COMPLEX. EXISTING SITE FEATURES WILL BE REMOVED. THE DRAINAGE REPORT FOR EAGLE ROCK BUSINESS CENTER BY MARK GOODWIN & ASSOCIATES 2008 SHOULD BE REFERENCED FOR BACKGROUND RELATED TO THE EAGLE ROCK BUSINESS CENTER. THERE IS NO DESIGNATED 100-YEAR FLOODPLAIN SHOWN ON THE SITE.

METHODOLOGY

HYDROLOGY CALCULATIONS FOR THE SITE ARE PERFORMED IN ACCORDANCE WITH THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) ARTICLE 6.2 USING THE RATIONAL METHOD TO CALCULATE PEAK FLOW RATES TO ENSURE ALL FLOW PATHS ARE SUFFICIENT TO CARRY FLOWS. THE REQUIRED WATER QUALITY VOLUME WAS CALCULATED BY MULTIPLYING THE IMPERVIOUS AREA BY THE FIRST FLUSH RUNOFF VALUE OF 0.32". THIS IS A WEIGHTED VALUE BASED ON THE AMOUNT OF AREA THAT IS CONSIDERED REDEVELOPMENT AND AREA THAT IS NEW DEVELOPMENT. ALL HYDROLOGIC AND HYDRAULIC CALCULATIONS CAN BE FOUND ON THIS SHEET.

EXISTING CONDITIONS

THE SITE, IN GENERAL, SLOPES FROM EAST TO WEST AT A SLOPE OF APPROXIMATELY 2% - 3%. STORM WATER RUNOFF GENERATED BY THE SITE DRAINS SOUTH THROUGH THE EAGLE ROCK BUSINESS CENTER AND ULTIMATELY DISCHARGES TO EAGLE ROCK AVENUE.

DEVELOPED CONDITIONS

THE DRAINAGE INTENTION OF THE DEVELOPED CONDITIONS IS TO MATCH THE EXISTING DRAINAGE PATTERN AND NOT TO EXCEED THE AMOUNT DISCHARGING TO EAGLE ROCK AVENUE UNDER EXISTING CONDITIONS.

SUB-BASIN A IS THE NEW APARTMENT DEVELOPMENT. IT CONTAINS 4.79 ACRES AND GENERATES 19.9 CFS. SIMILAR TO EXISTING CONDITIONS, THIS SUB-BASIN DISCHARGES TO THE EAGLE ROCK BUSINESS CENTER (SUB-BASIN B) AND EVENTUALLY OUT INTO EAGLE ROCK AVENUE.

SUB-BASIN B IS THE NORTHERN AND WESTERN PORTIONS OF THE EAGLE ROCK BUSINESS CENTER. IT IS 1.53 ACRES AND GENERATES 6.7 CFS. THIS SUB-BASIN DISCHARGES DIRECTLY TO EAGLE ROCK AVENUE AT THE SOUTHWEST CORNER OF THE EAGLE ROCK BUSINESS CENTER SITE.

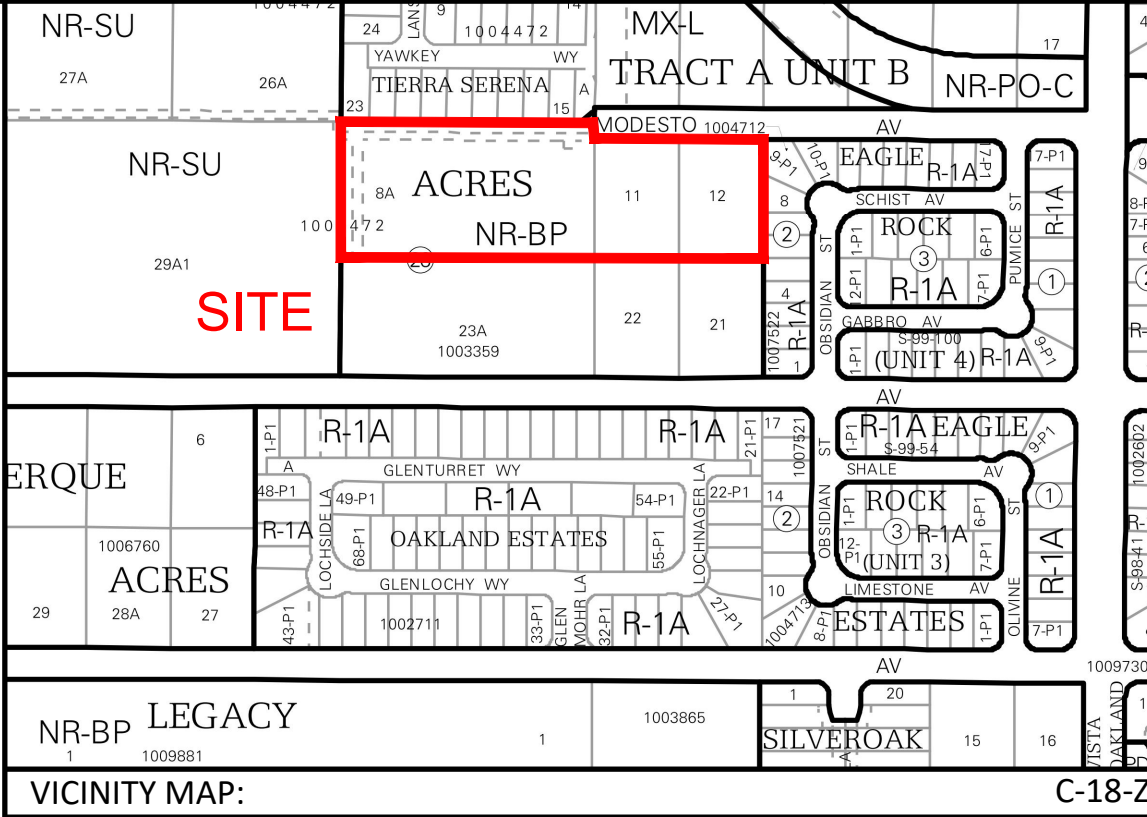
SUB-BASIN C IS THE SOUTHERN PORTION OF THE EAGLE ROCK BUSINESS CENTER. IT IS 1.13 ACRES AND GENERATES 4.9 CFS. THIS SUB-BASIN DISCHARGES INTO SUB-BASIN B AT THE SOUTHWEST CORNER OF THE EAGLE ROCK BUSINESS CENTER SITE.

THE TOTAL FLOW RATE DISCHARGING TO EAGLE ROCK AVENUE UNDER DEVELOPED CONDITIONS IS 31.6 CFS. PER THE DRAINAGE REPORT FOR EAGLE ROCK BUSINESS CENTER, THE TOTAL FLOW RATE DISCHARGING TO EAGLE ROCK IS 32.26 CFS. THEREFORE, THE DEVELOPED CONDITIONS FLOW RATE IS LESS THAN THE ALLOWABLE RATE.

THE WATER QUALITY TABLE ON THIS SHEET UNDER "HYDROLOGY CALCULATIONS" SUMMARIZES THE WATER QUALITY VOLUMES REQUIRED FOR DEVELOPED CONDITIONS. THE OWNER HAS ELECTED TO PAY THE FEE-IN-LIEU OF STORM WATER QUALITY PONDING REQUIREMENTS. THE TOTAL VOLUME REQUIRED IS 4,455 CUBIC FEET. THEREFORE, THE PAYMENT AMOUNT IS 4,455 CF X \$8/CF = \$35,640.

LEGEND:

- XX BASIN DESIGNATION
- XX BASIN AREA, ACRES
- XX 100 YEAR STORM, CFS
- XX REQUIRED WATER QUALITY VOLUME
- SUB-BASIN BOUNDARY
- FLOW ARROW



DESIGNED JS
DRAWN JS
CHECKED JS
DATE 1.05.2022

RESPEC
COMMUNITY DESIGN SOLUTIONS
5971 JEFFERSON STREET SUITE 101
ALBUQUERQUE, NM 87113
WWW.RESPEC.COM PHONE (505) 253-9718

RESPEC

STAMP
JEREMY W. SHELL
NEW MEXICO
26341
PROFESSIONAL ENGINEER
1/5/22

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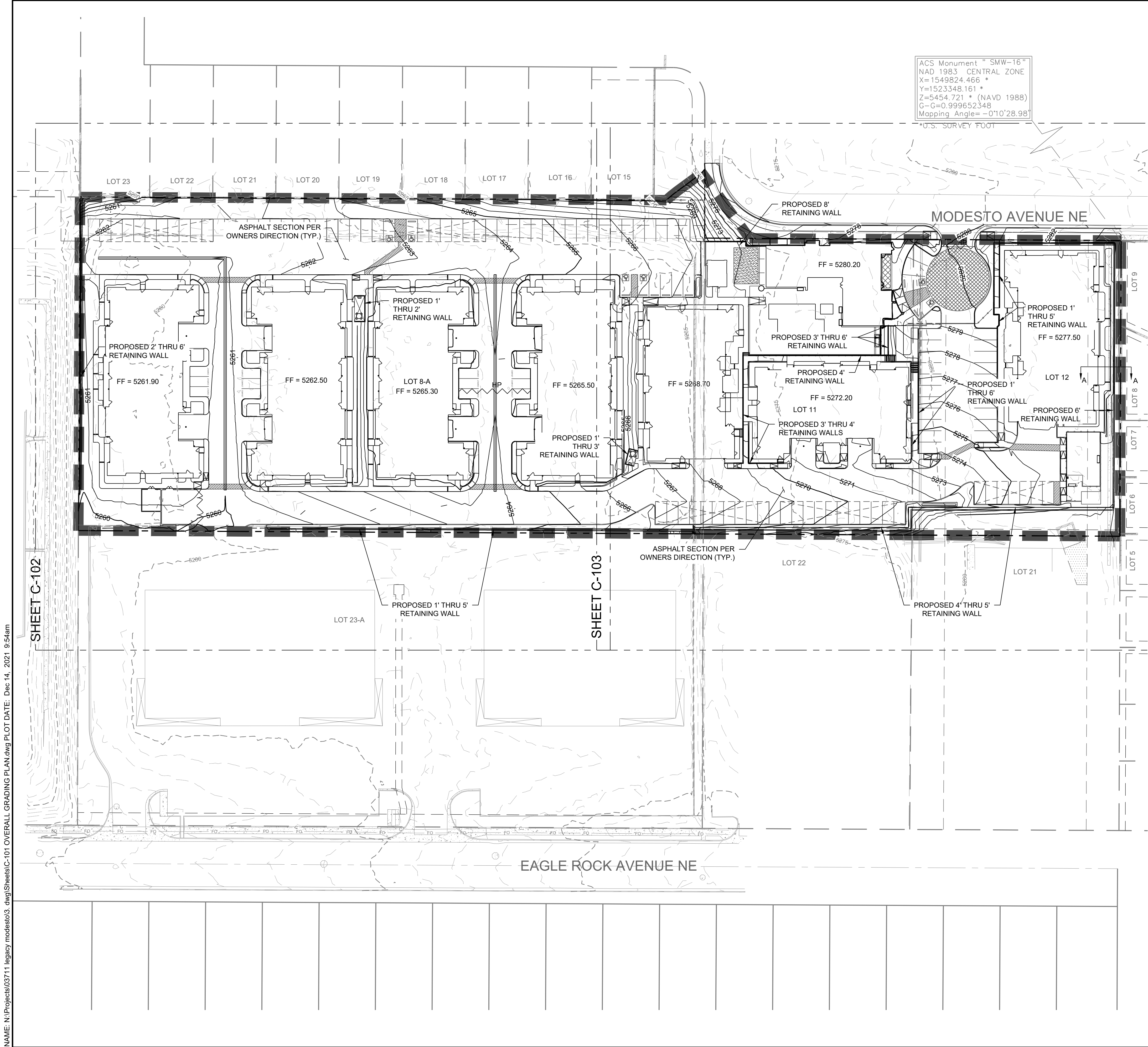
nm811
Know what's below.
Call before you dig.

PROJECT NAME:
LEGACY MODESTO

SHEET TITLE:
DRAINAGE PLAN

SHEET NUMBER:
C-100

NAME: N:\Projects\03711 legacy modesto\3_dwg\Sheets\C-101 OVERALL GRADING PLAN.dwg PLOT DATE: Dec 14, 2021 9:54am



ACS Monument "SMW-16"
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X=1549824.466 *
Y=1523348.161 *
Z=5454.721 * (NAVD 1988)
G=0.999652348
Mapping Angle= -0°10'28.98"
*U.S. SURVEY FOOT

NOTE:

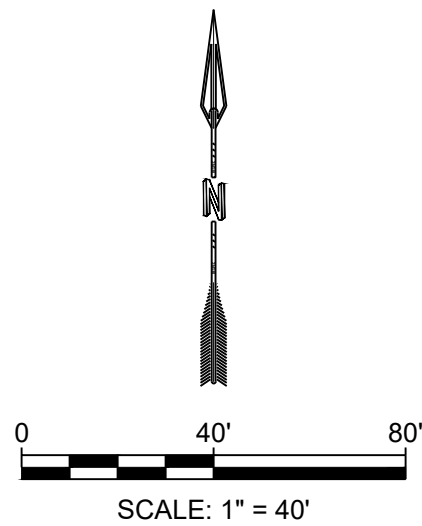
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GRADING NOTES

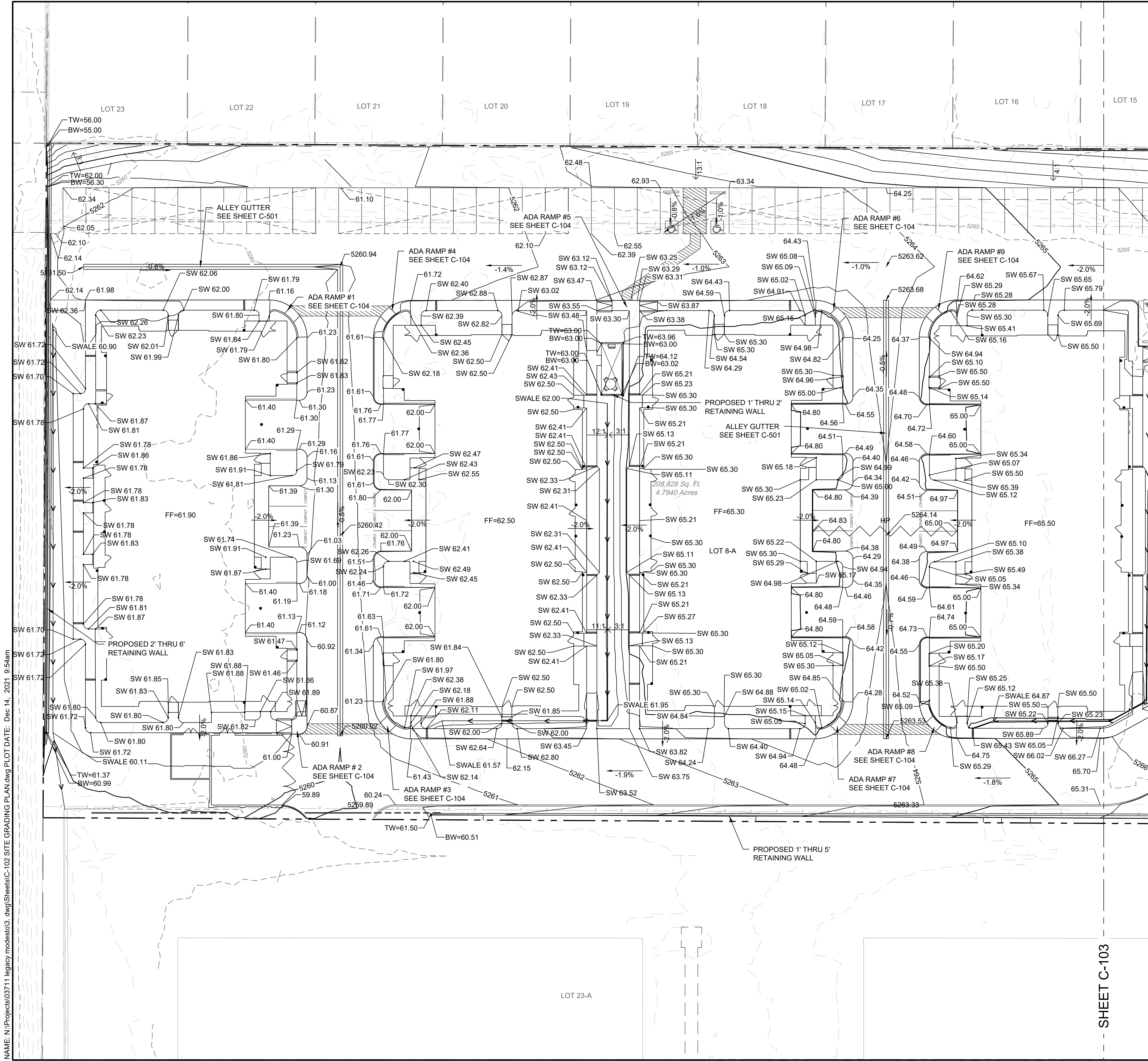
1. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING DRY AND WET UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES. UTILITY RELOCATION MAY BE REQUIRED.
2. FINISH GRADE OF SOIL EDGES ALONG PAVEMENT TO BE 1/2" BELOW EDGE OF PAVEMENT.
3. STRIP AND STOCKPILE TOPSOIL FROM GRADING AREAS. USE STOCKPILED TOPSOIL AND IMPORTED TOPSOIL AS NECESSARY FOR SURFACE RESTORATION.
4. GRADES SHOWN ARE FINAL SURFACE GRADES AFTER COMPLETION OF SURFACE IMPROVEMENTS AND PLACEMENT OF TOPSOIL.
5. GRADE AREAS AT SITE PERIMETER TO MATCH GRADES OF ADJACENT PARCELS.
6. REMOVE EXCESS SOIL FROM SITE AND DISPOSE OF PROPERLY IN ACCORDANCE WITH APPLICABLE REGULATIONS.
7. PROVIDE TEMPORARY GRADING FEATURES SUCH AS BERMS, SWALES, SUMPS AND BASINS TO MANAGE INTERIM STORM WATER RUNOFF DURING CONSTRUCTION PROCESS. STORM WATER RUNOFF LEAVING THE SITE SHALL MEET ALL FEDERAL, STATE AND LOCAL QUALITY REQUIREMENTS.
8. REFER TO GEOTECHNICAL EVALUATION REPORT 3220JJ138 BY WESTERN TECHNOLOGIES, INC. DATED JANUARY 12, 2021.
9. ALL DISTURBED AREA TO BE RE-SEED OR LANDSCAPED PER LANDSCAPE PLAN BY OTHERS.
10. ALL INFRASTRUCTURE CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE BUILT WITH PUBLIC WORK ORDER PLANS.
11. FINAL GRADES FOR ADJACENT ROADWAYS TO BE ESTABLISHED WITH WORK ORDER PLANS.
12. GRADING SHALL NOT ENCROACH ONTO ADJACENT PROPERTIES.

LEGEND:

- PROPERTY BOUNDARY
- 5270— PROPOSED MAJOR CONTOUR
- 5272— PROPOSED MINOR CONTOUR
- - -5270- - - EXISTING MAJOR CONTOUR
- - - EXISTING MINOR CONTOUR
- ~ ~ ~ PROPOSED HIGH POINT
- - - MATCHLINE
- GRADING LIMITS

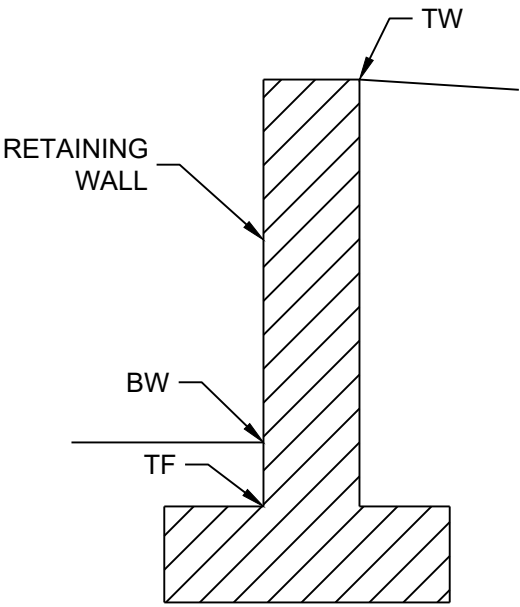


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DRAWN JS	JR	CHECKED JS	
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STAMP JEREMY W. SHELL NEW MEXICO 26341 PROFESSIONAL ENGINEER			
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nm811 Know what's below. Call before you dig.			
PROJECT NAME: LEGACY MODESTO			
SHEET TITLE: OVERALL GRADING PLAN			
SUBMITTED FOR: CONSTRUCTION			
SHEET NUMBER: C-101			



NOTE:
1. THE EXISTING SITE FEATURES WILL BE DEMOLISHED UNLESS OTHERWISE SPECIFIED ON THIS PLAN.

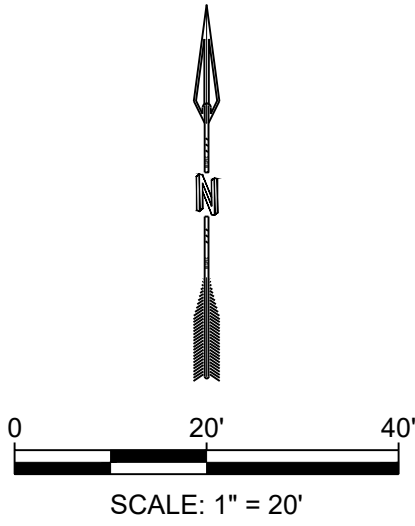
- SPOT ELEVATION SYMBOLS**
- 1. ALL SPOT ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE NOTED IN THE PLANS.
 - 20.00 FLOWLINE
 - 20.00± MATCH EX. GRADE ELEV. (APPROXIMATE)
 - BW 20.00 BOTTOM WALL
 - TW 20.00 TOP WALL
 - SW 20.00 SIDEWALK
 - FG 20.00 FINISHED GROUND
 - BS 20.00 BOTTOM STEP
 - TS 20.00 TOP STEP



WALL SPOT LEGEND

- LEGEND:**
- PROPERTY BOUNDARY
 - 5270 PROPOSED MAJOR CONTOUR
 - 5270 PROPOSED MINOR CONTOUR
 - 5270 --- EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - PROPOSED HIGH POINT
 - SWALE
 - ROOF DRAIN LOCATION
 - SIDEWALK CULVERT

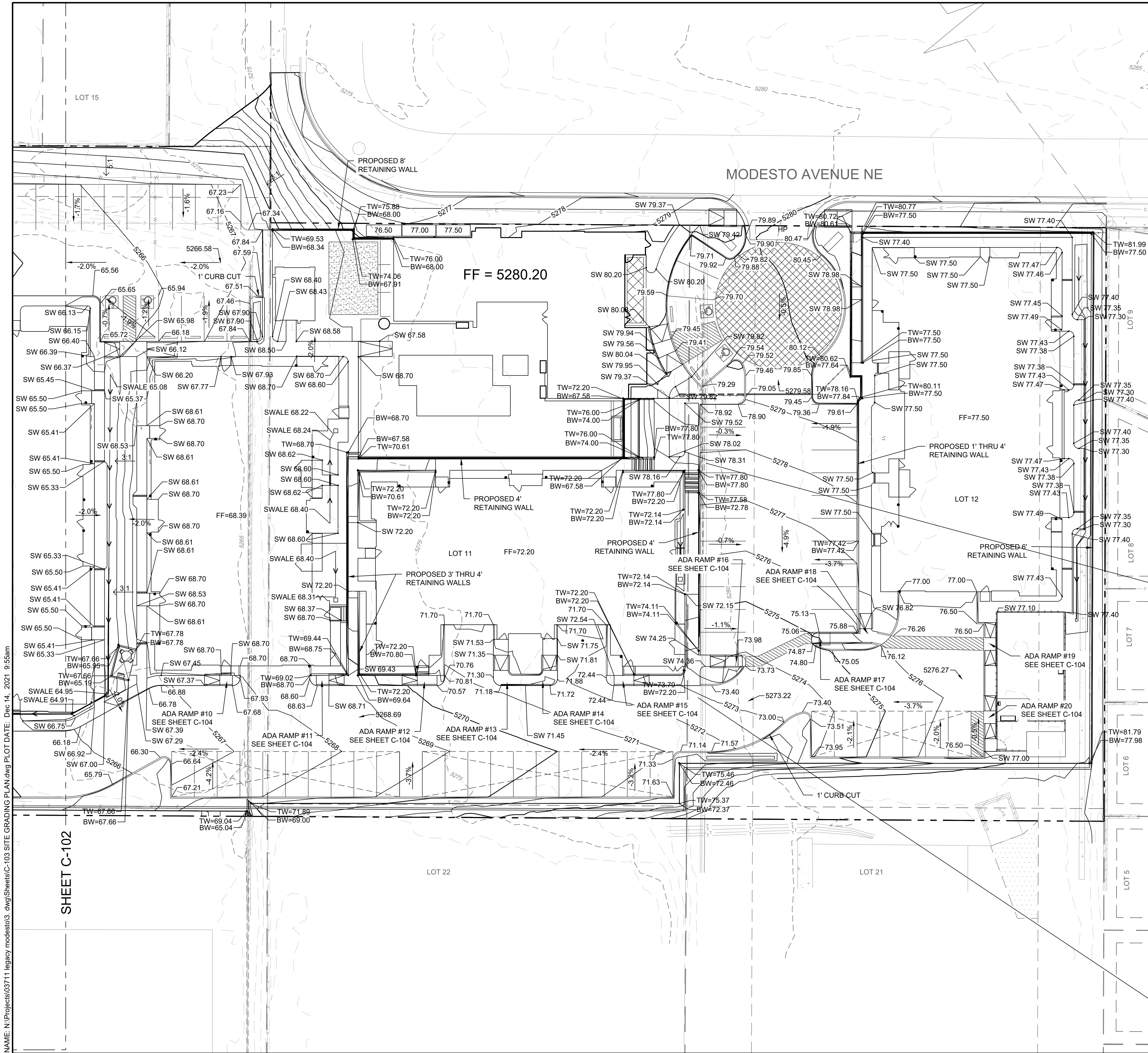
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NAD 1983 CENTRAL ZONE
X=1549824.466 *
Y=1523348.161 *
Z=5454.721 * (NAVD 1988)
G-G=0.999652348
Mapping Angle= -0°10'28.98"
*U.S. SURVEY FOOT



NAME: N:\Projects\03711 legacy modesto\3.dwg\Sheets\C-102 SITE GRADING PLAN.dwg PLOT DATE: Dec 14, 2021 9:54am

SHEET C-103

DESIGNED JS DRAWN JS CHECKED JS DATE 12.14.2021		REVISION <table border="1"><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>										
RESPEC COMMUNITY DESIGN SOLUTIONS 5971 JEFFERSON STREET SUITE 101 NEWPORT NEWS, VA 23606 WWW.RESPEC.COM PHONE (805) 253-9718												
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PROJECT NAME: LEGACY MODESTO												
SHEET TITLE: SITE GRADING PLAN												
SUBMITTED FOR: DRB SITE PLAN												
SHEET NUMBER: C-102												



NOTE:

1. THE EXISTING SITE FEATURES WILL BE DEMOLISHED UNLESS OTHERWISE SPECIFIED ON THIS PLAN.

- SPOT ELEVATION SYMBOLS**
1. ALL SPOT ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE NOTED IN THE PLANS.
- 20.00 FLOWLINE
 - 20.00± MATCH EX. GRADE ELEV. (APPROXIMATE)
 - BW 20.00 BOTTOM WALL
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 - BS 20.00 BOTTOM STEP
 - TS 20.00 TOP STEP

LEGEND:

- PROPERTY BOUNDARY
- 5270 PROPOSED MAJOR CONTOUR
- 5270 PROPOSED MINOR CONTOUR
- 5270- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED HIGH POINT
- SWALE
- ROOF DRAIN LOCATION
- SIDEWALK CULVERT

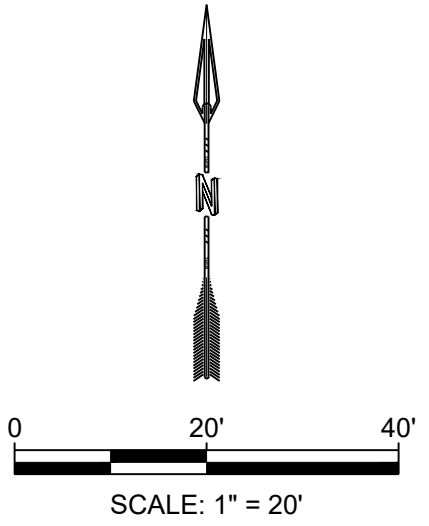
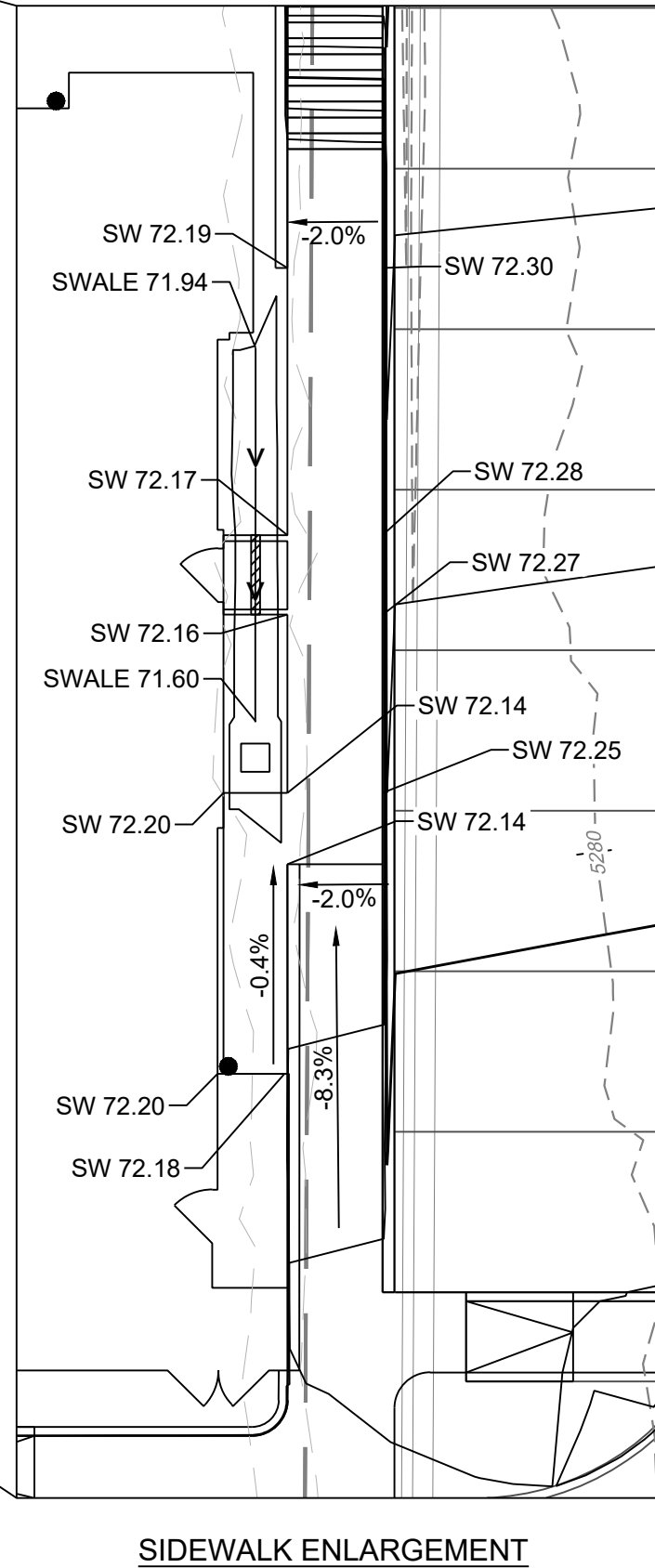
WALL SPOT LEGEND

RETAINING WALL

BW

TF

ACS Monument " SMW-16"
NAD 1983 CENTRAL ZONE
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Y=1523348.161 *
Z=5454.721 * (NAVD 1988)
G-G=0.999652348
Mapping Angle= -0°10'28.98"
*U.S. SURVEY FOOT



NAME: N:\Projects\03711 legacy modesto\3.dwg\Sheets\C-103 SITE GRADING PLAN.dwg PLOT DATE: Dec 14, 2021 9:55am

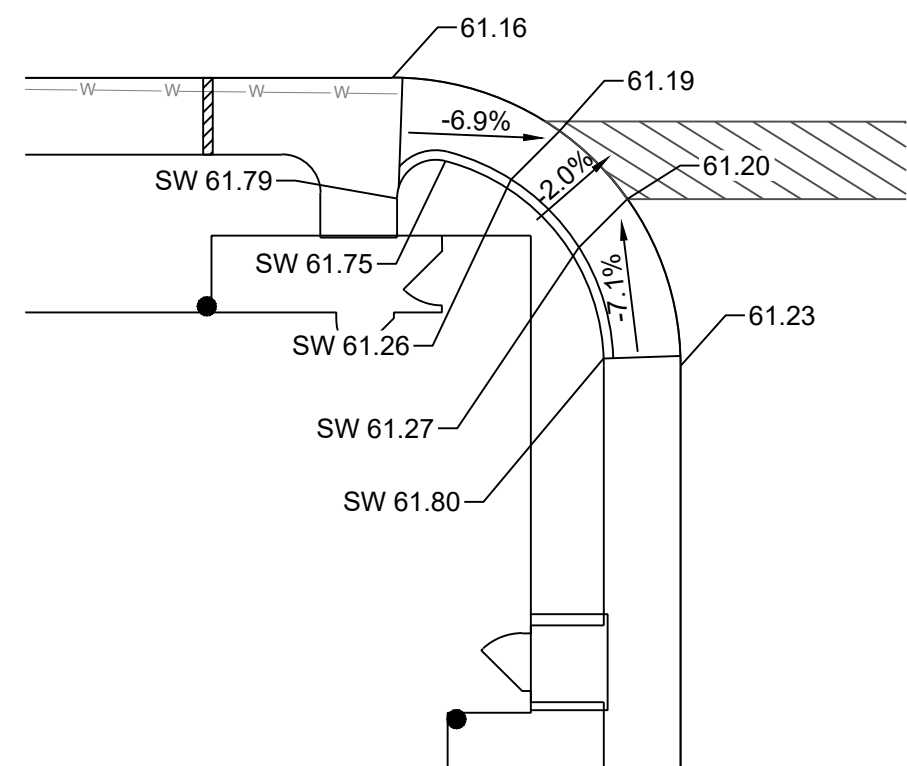
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LOT 22

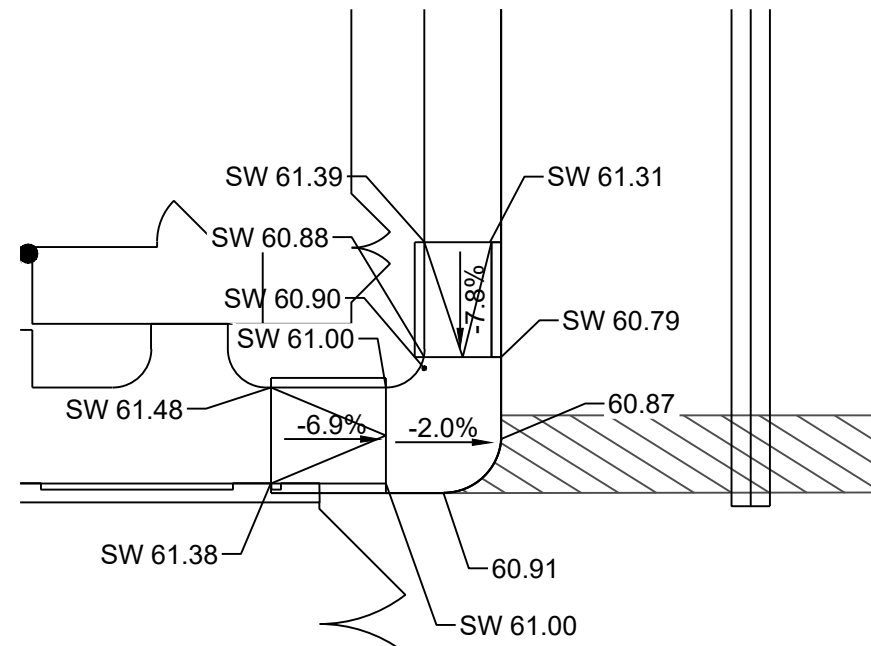
LOT 21

DESIGNED JS	DRAWN JS	CHECKED JS	DATE 12.14.2021
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STAMP 			
THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED.			
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SHEET TITLE: SITE GRADING PLAN			
SUBMITTED FOR: DRB SITE PLAN			
SHEET NUMBER: C-103			

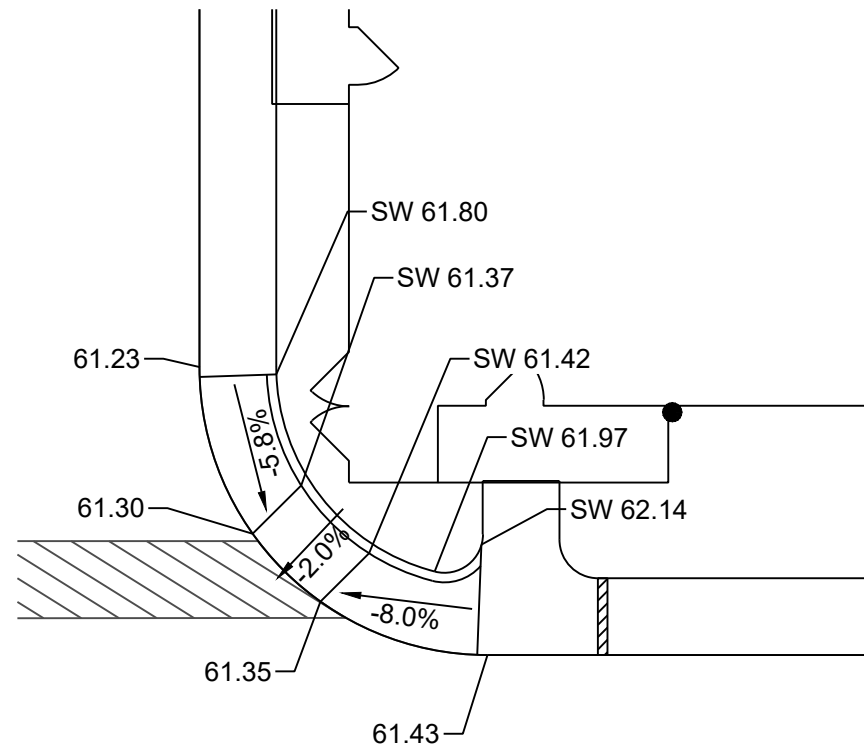
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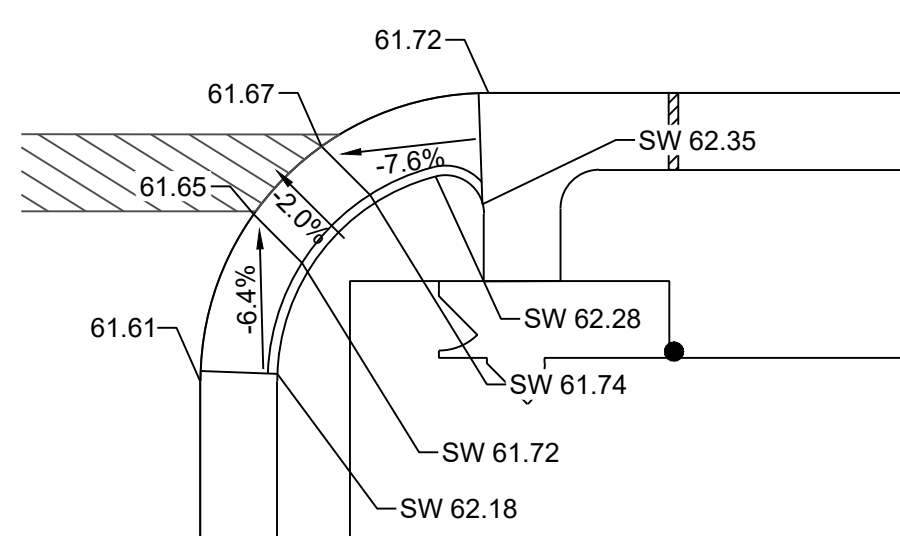
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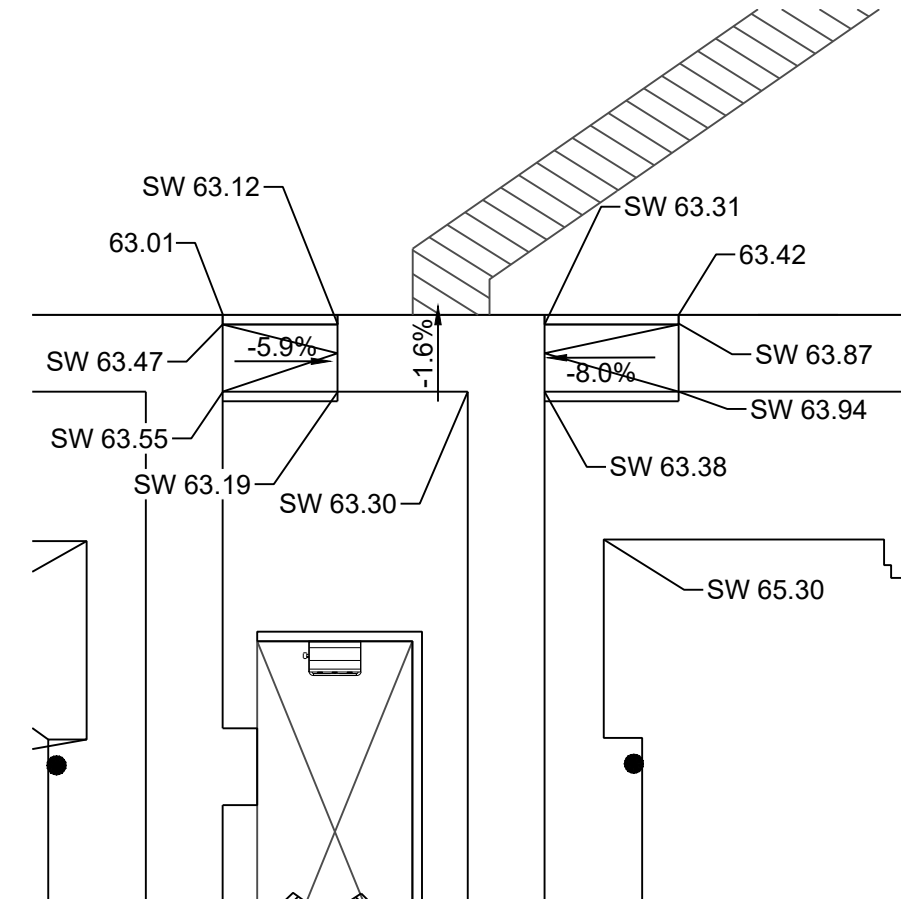
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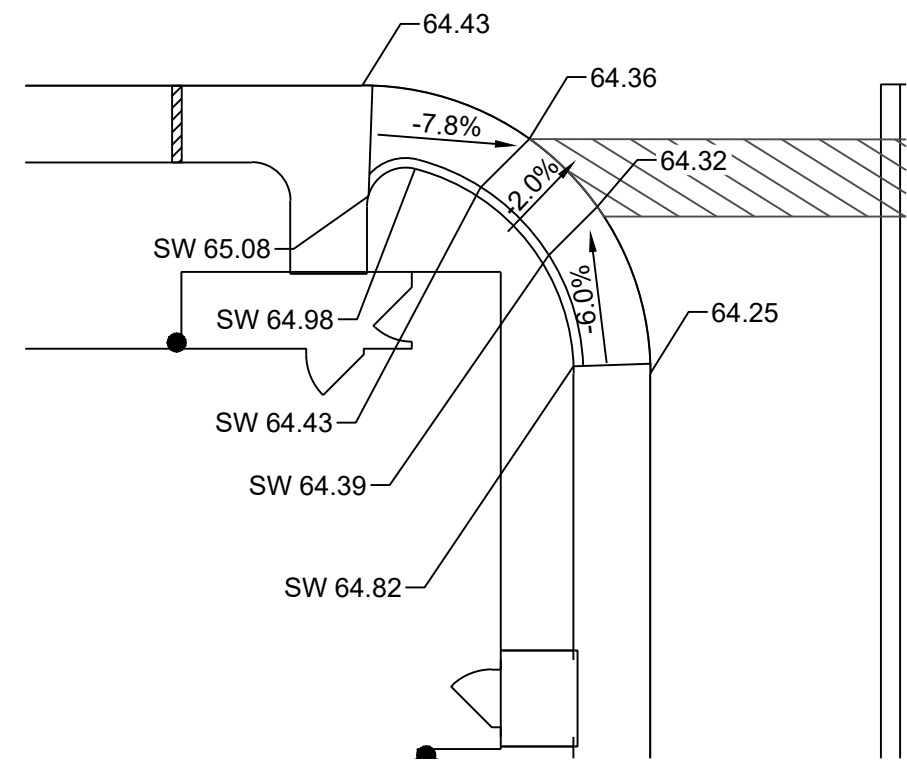
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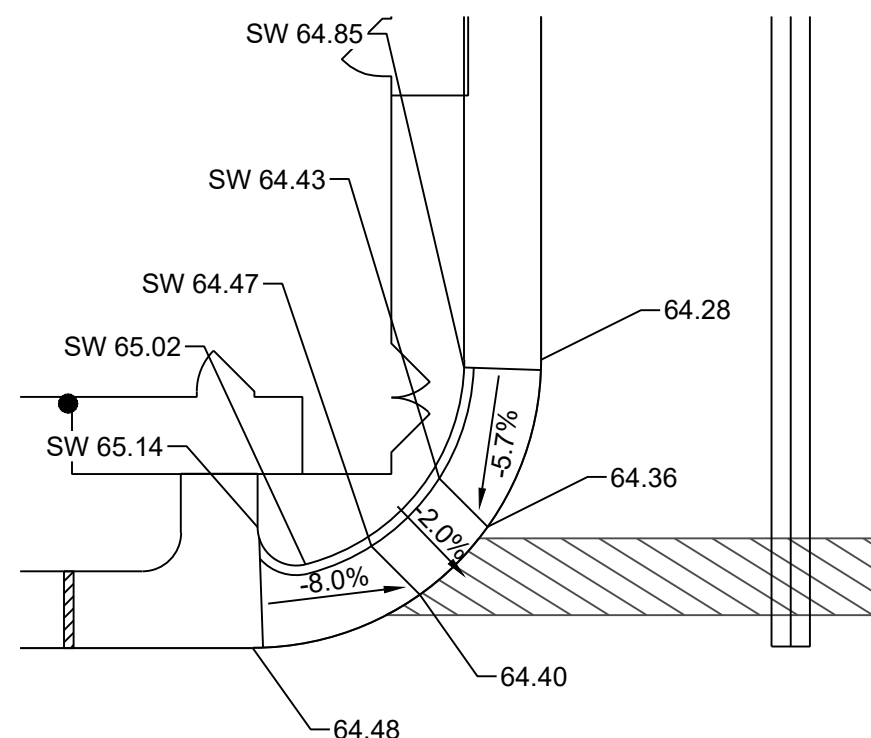
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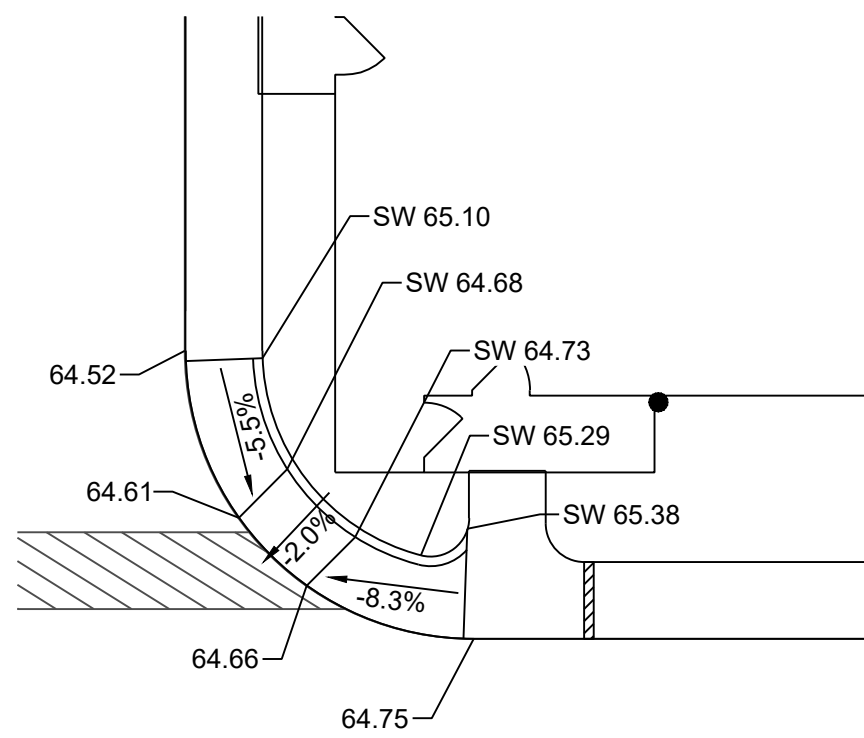
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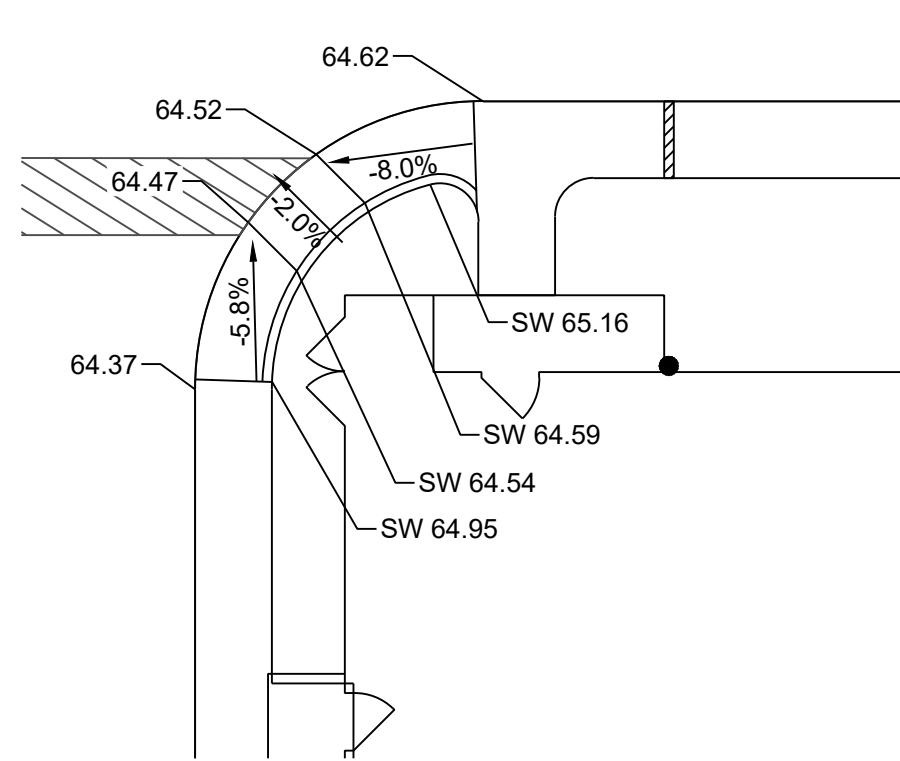
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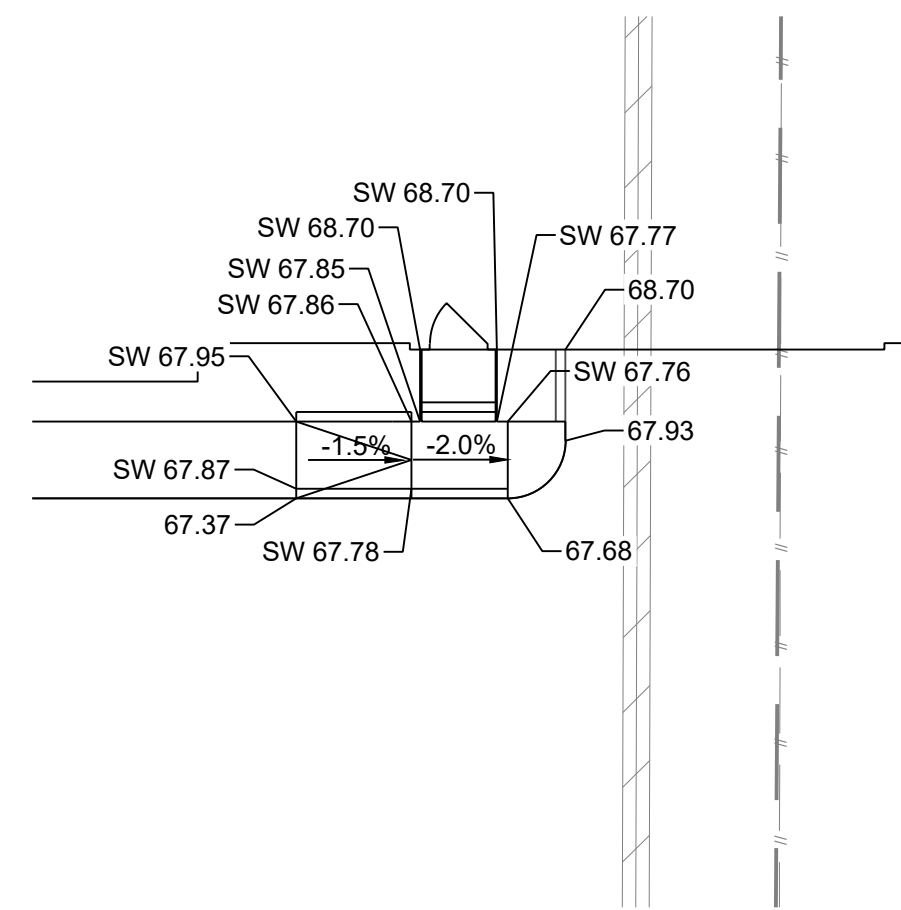
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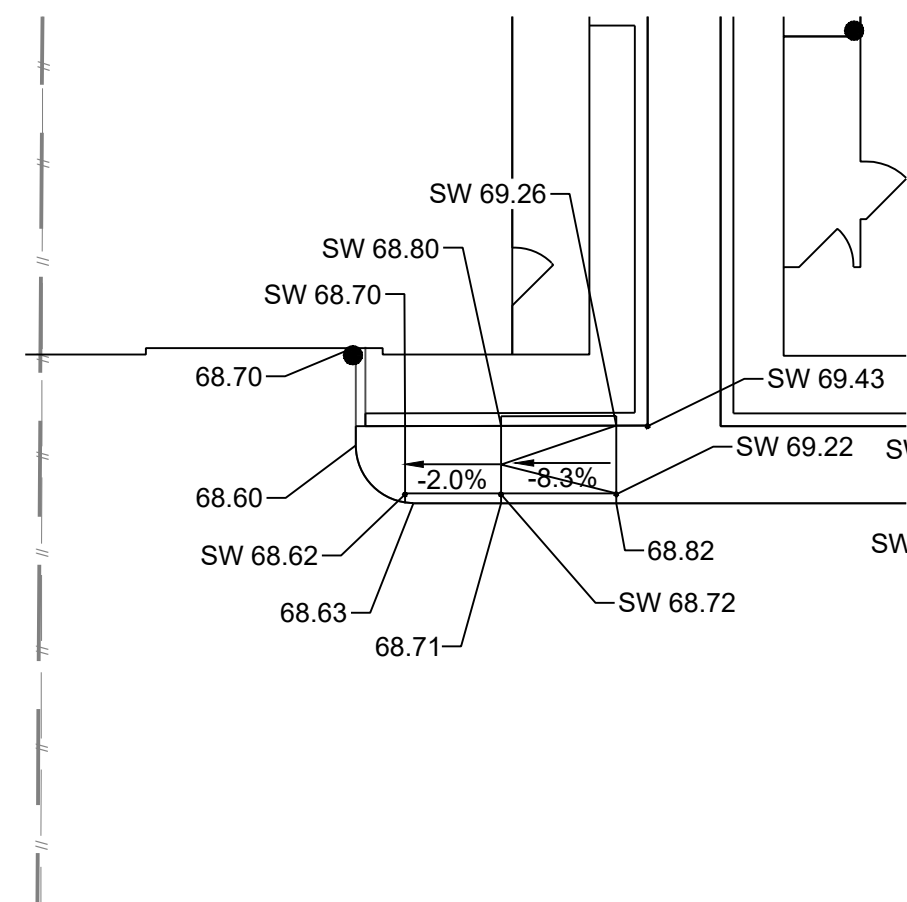
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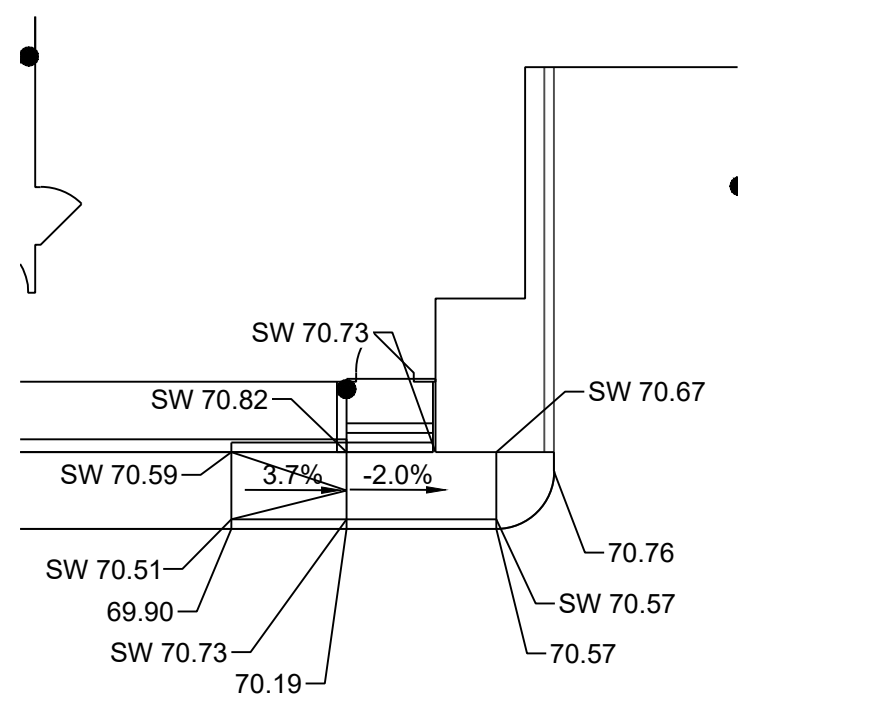
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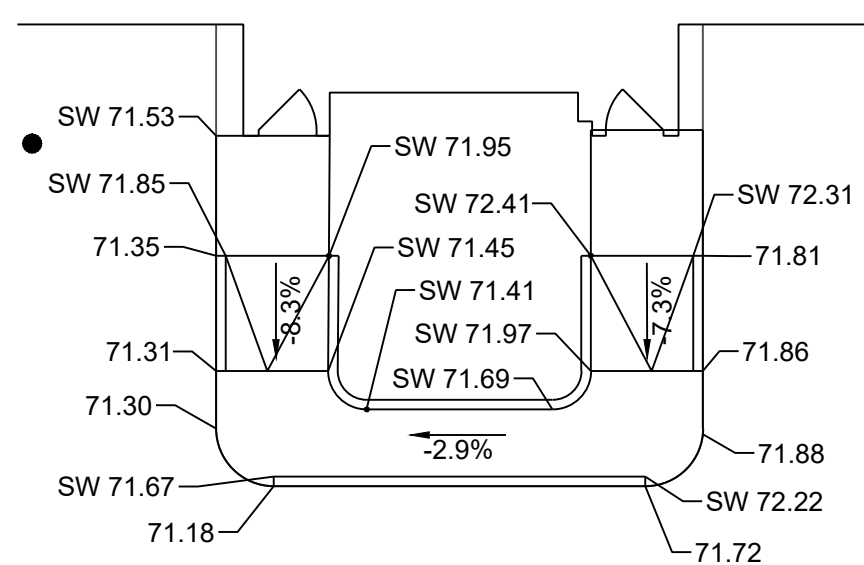
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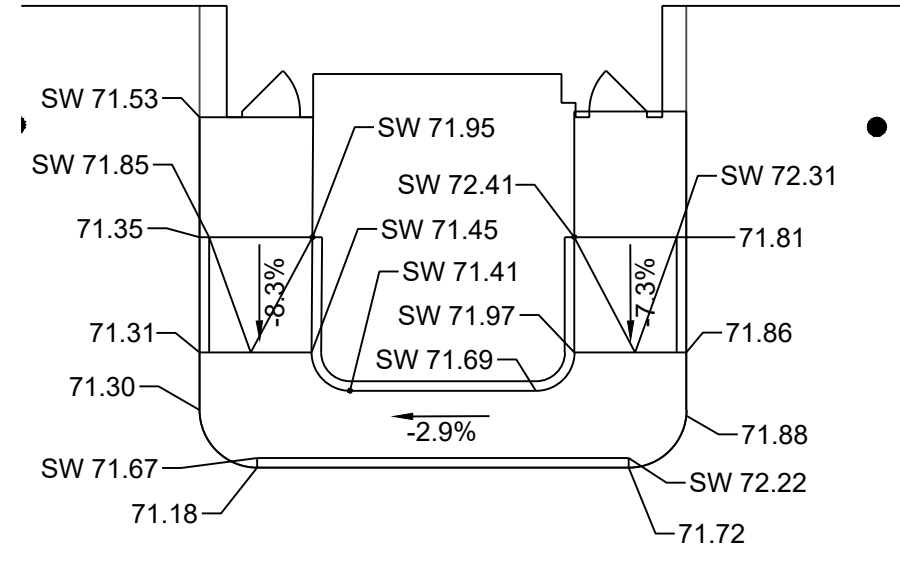
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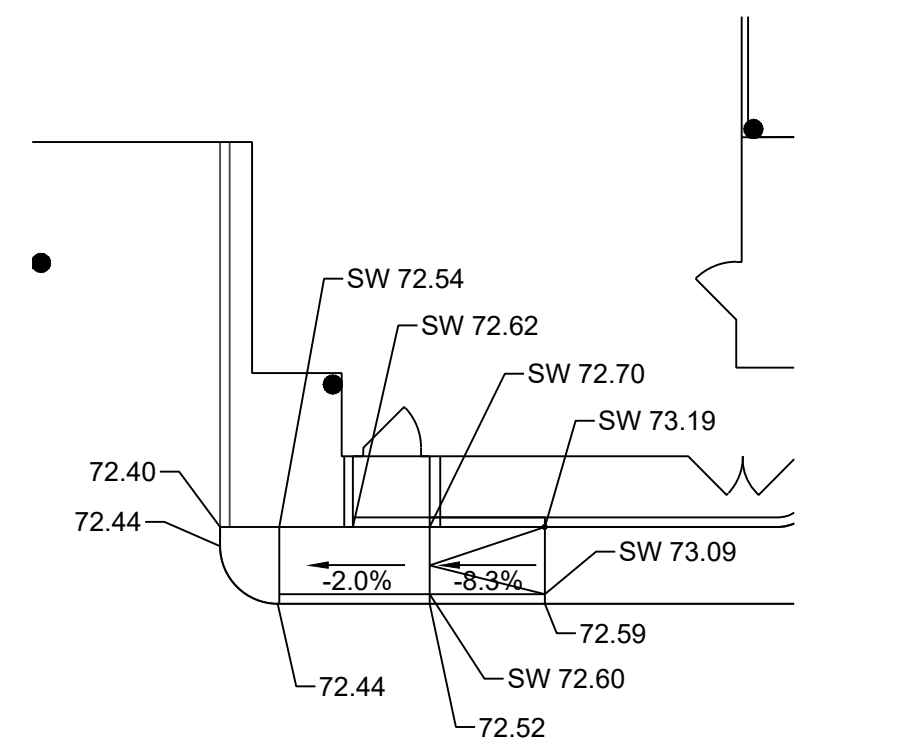
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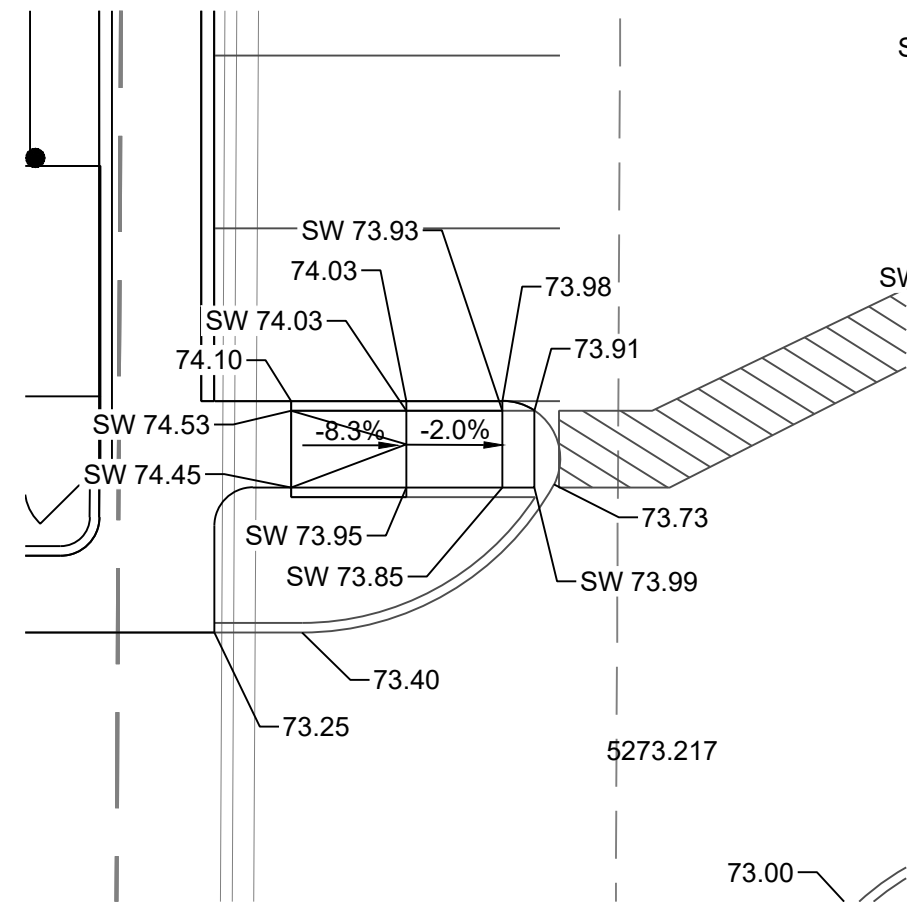
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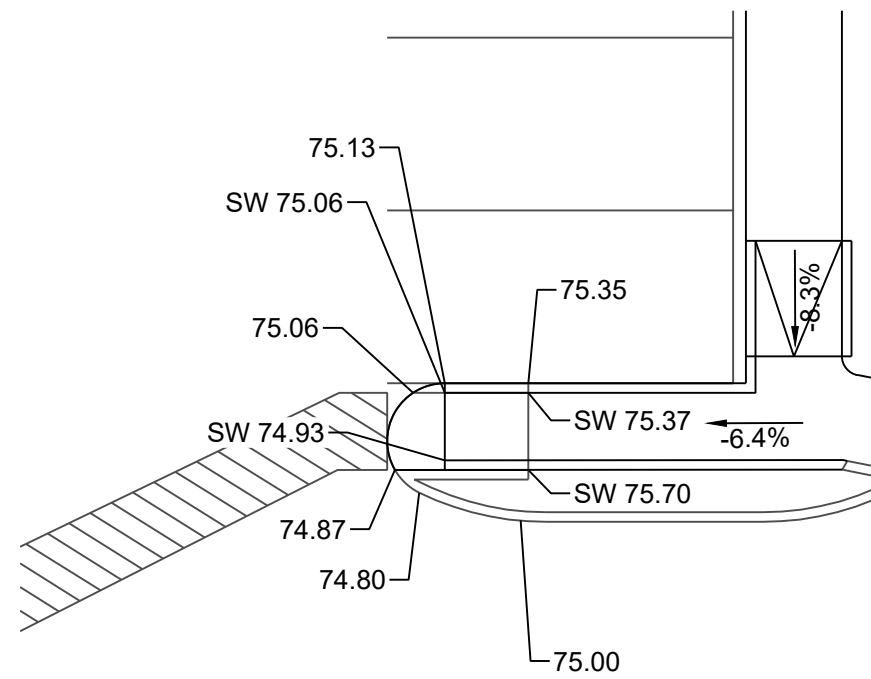
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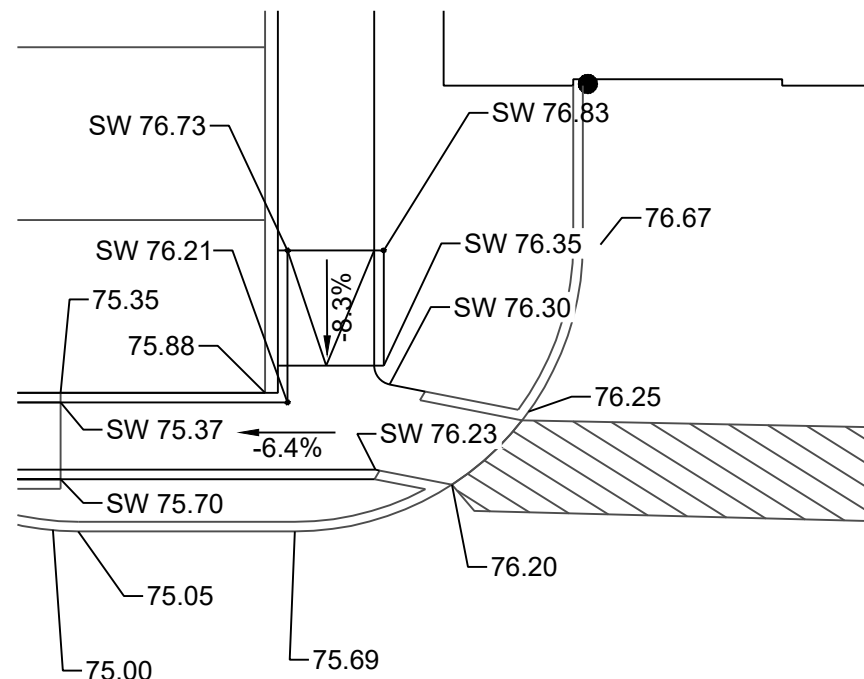
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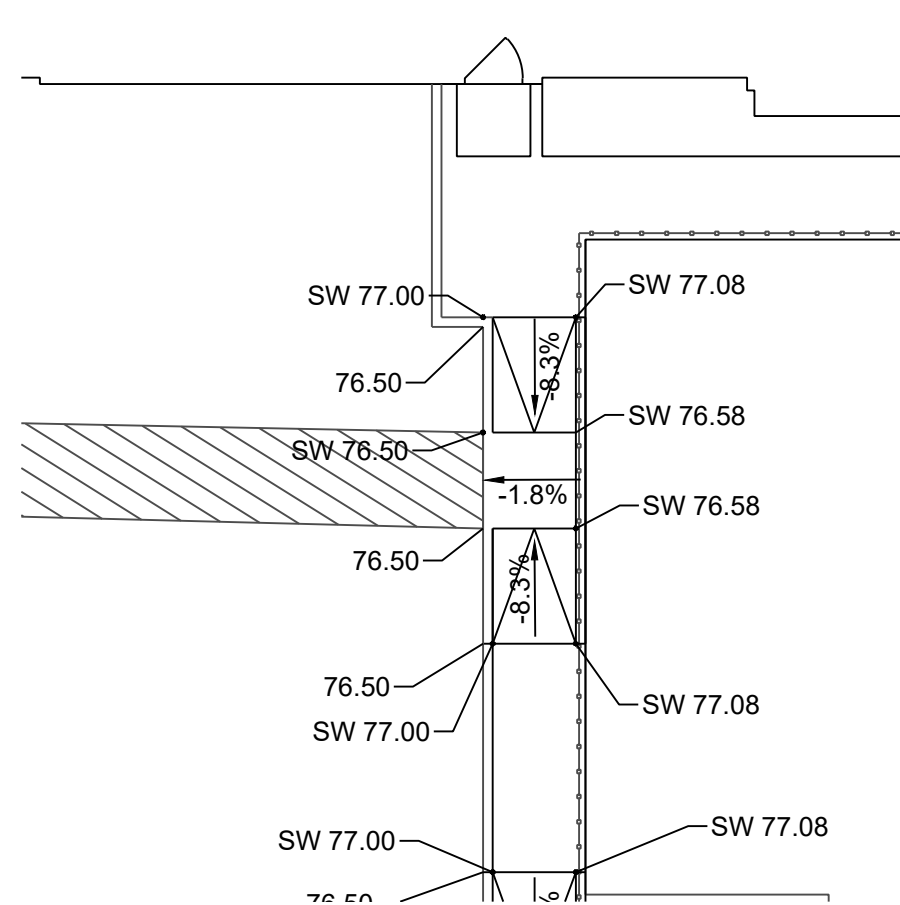
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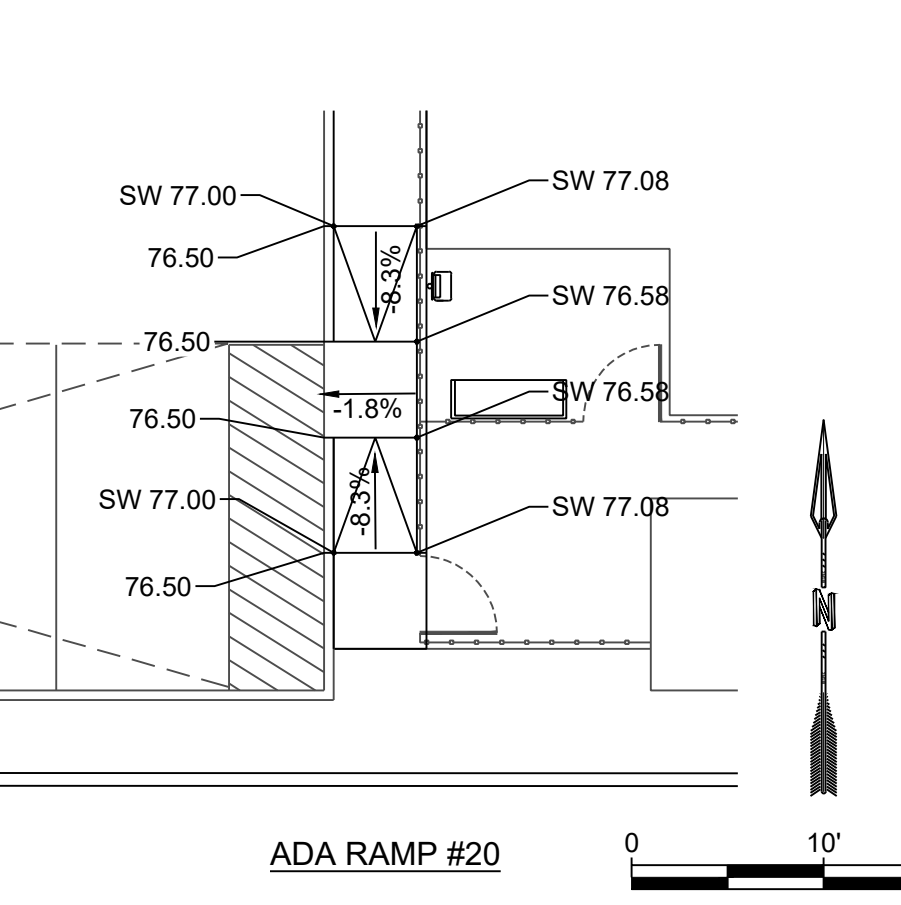
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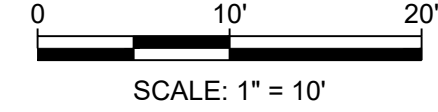
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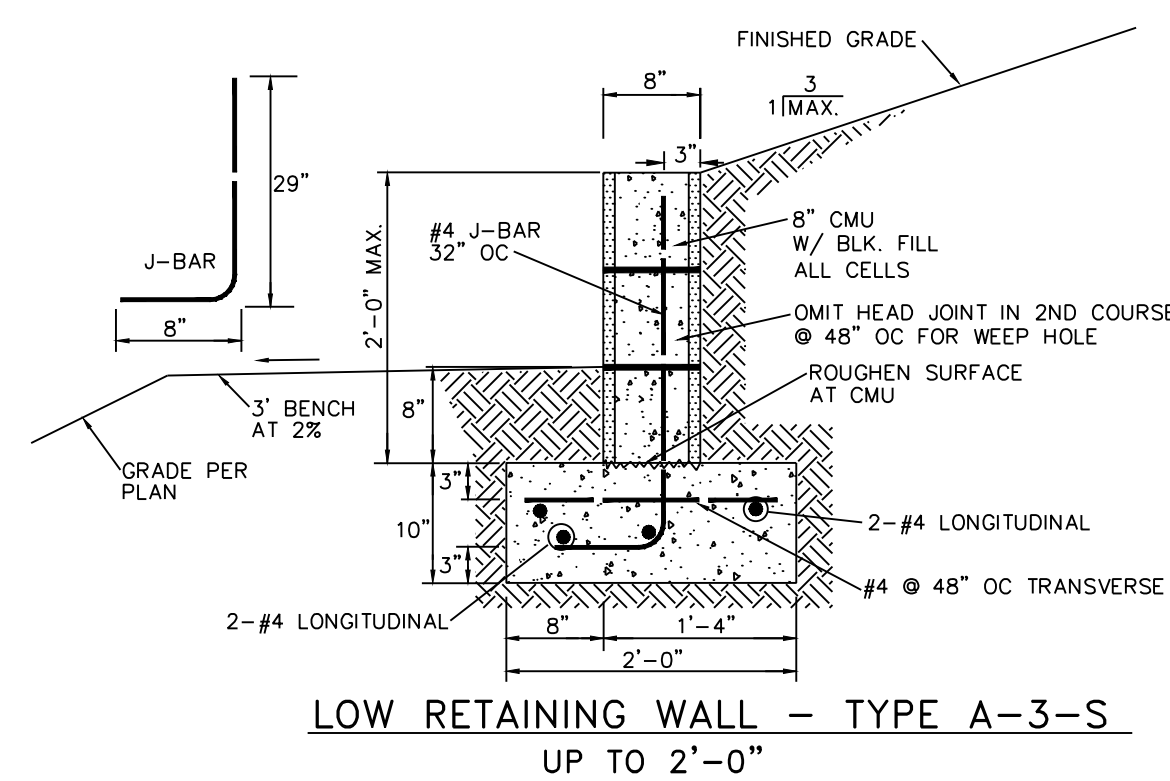
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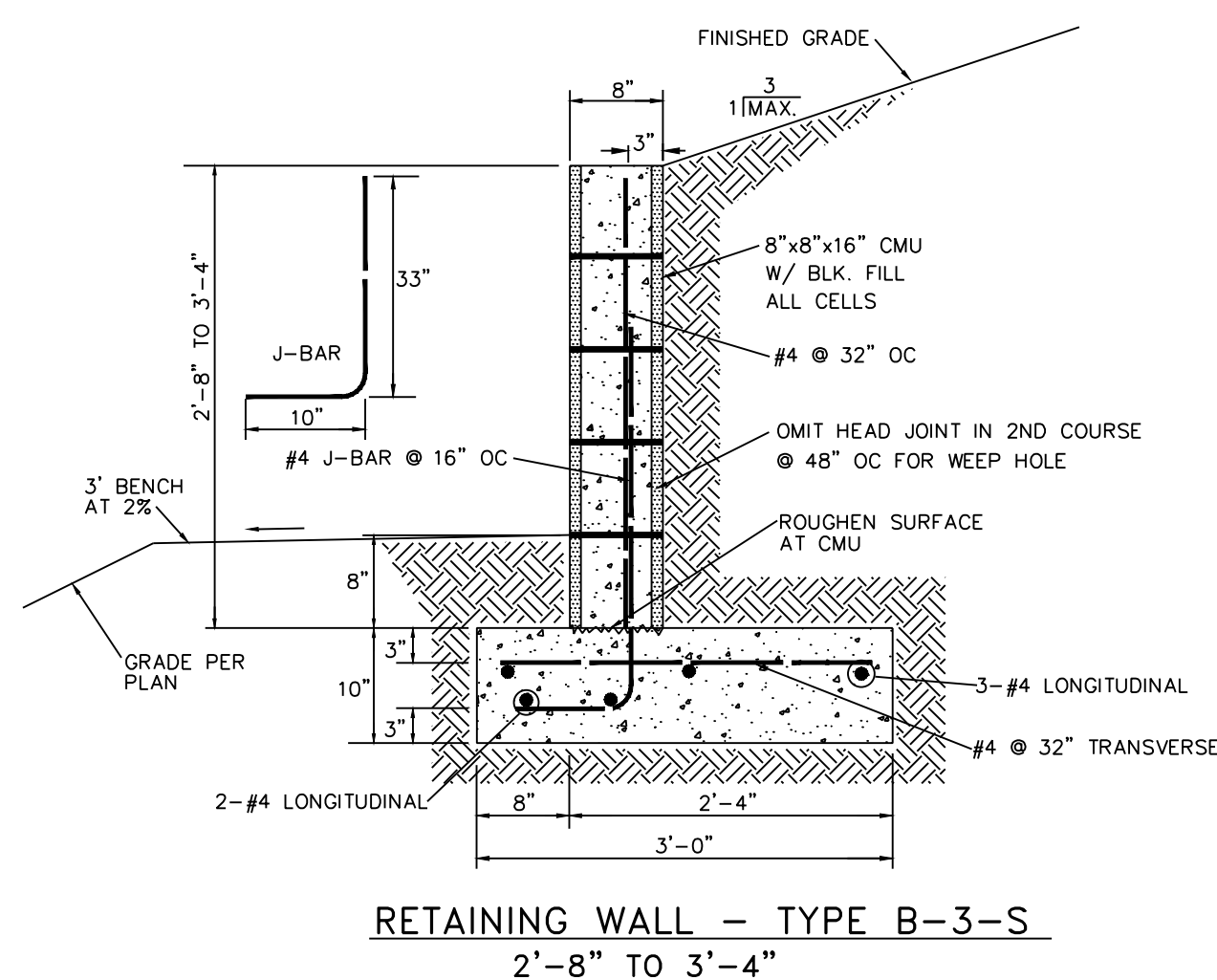
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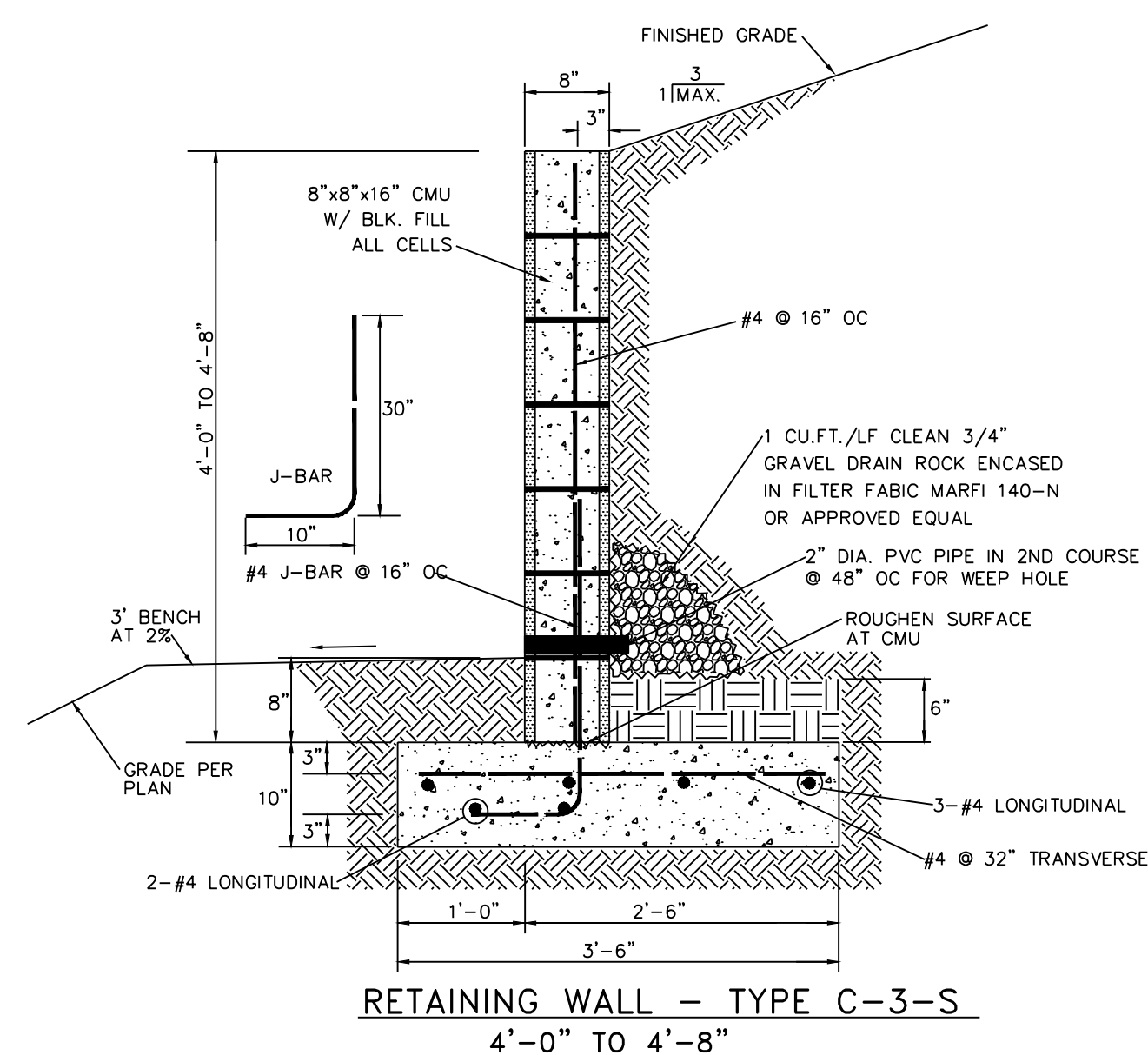
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RESPEC COMMUNITY DESIGN SOLUTIONS 5971 JEFFERSON STREET SUITE 101 NEW MEXICO 87113 WWW.RESPEC.COM PHONE (505) 253-9718										
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PROJECT NAME: LEGACY MODESTO										
SHEET TITLE: ADA RAMPS										
SUBMITTED FOR: DRB SITE PLAN										
SHEET NUMBER: C-104										



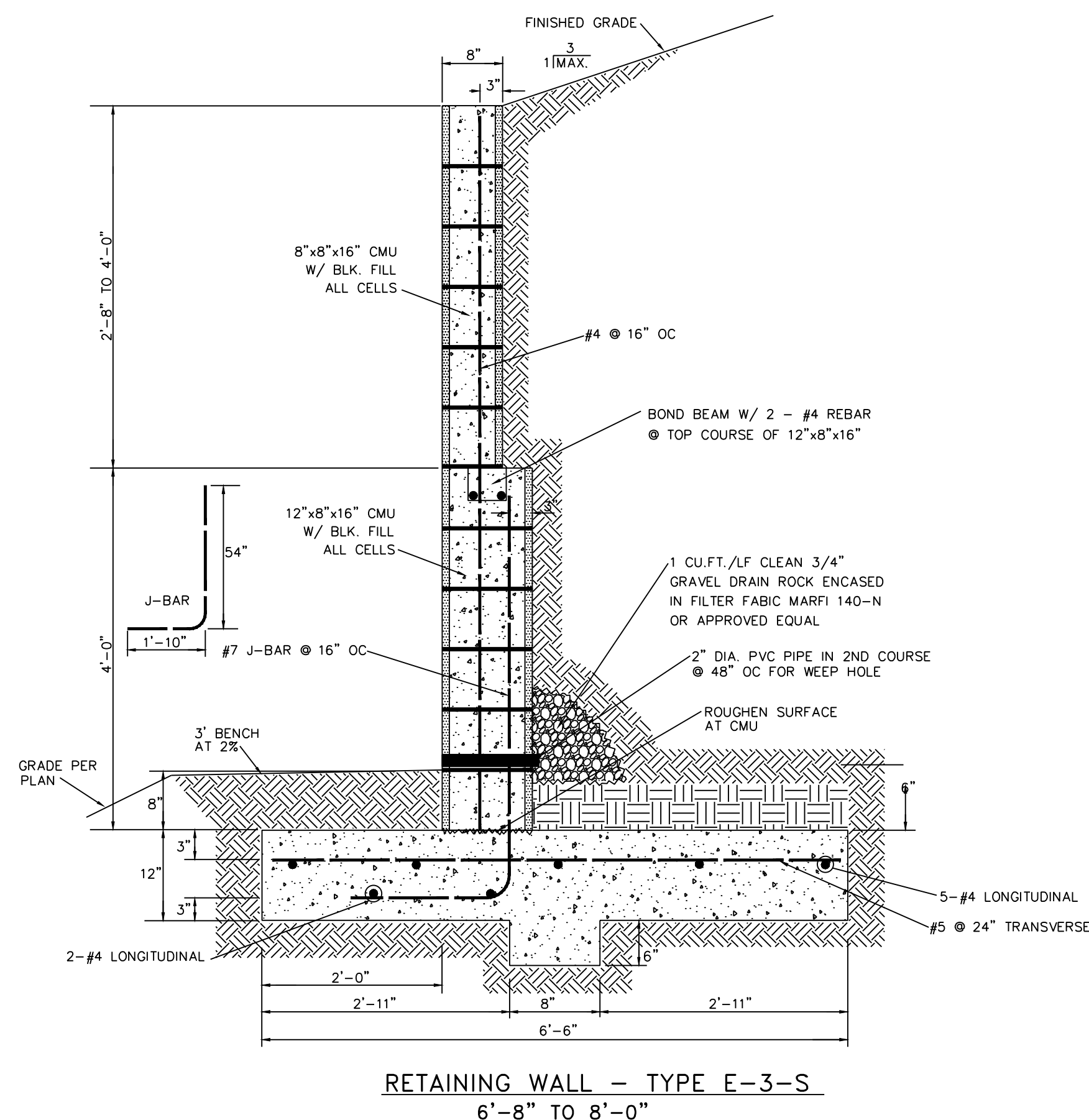
NOTE:
MAXIMUM SLOPE OF FINAL GRADE SHALL BE 3:1 WITHIN AN AREA FROM FACE OF WALL TO A DISTANCE EQUAL TO THE RETAINED EARTH HEIGHT. OR FINISHED GRADE WITHIN THIS AREA MAY BE LEVEL WITH OR BELOW TOP OF RETAINING PORTION OF WALL AND AN ADDITIONAL LOADING OF 100 PSF MAX. MAY BE APPLIED.



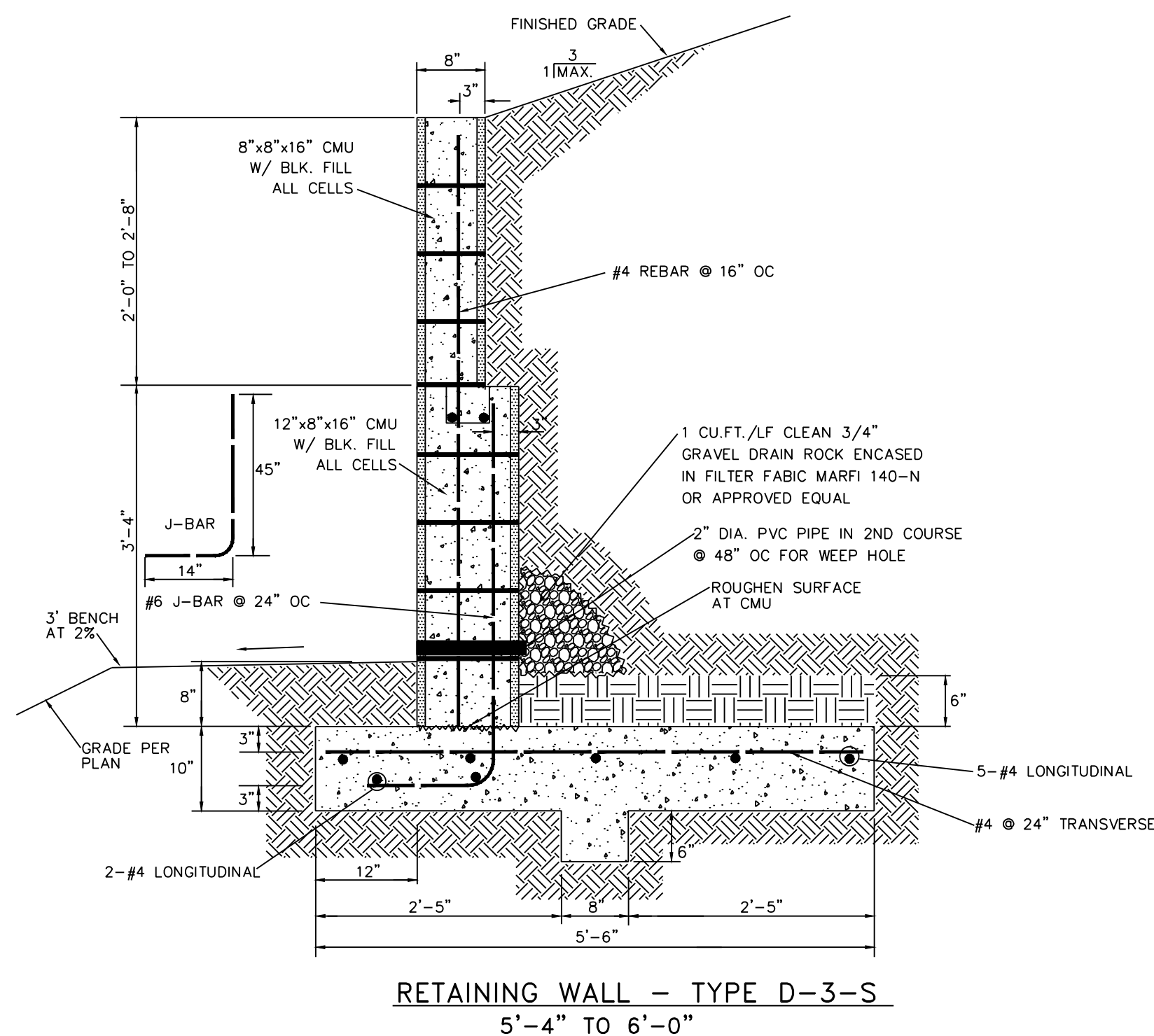
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AREA FROM FACE OF WALL TO A DISTANCE EQUAL TO THE RETAINED
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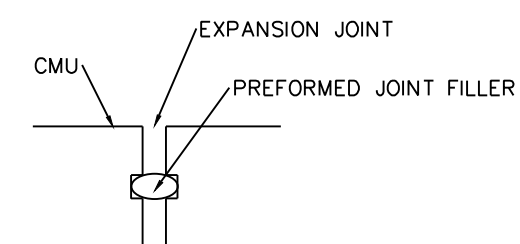
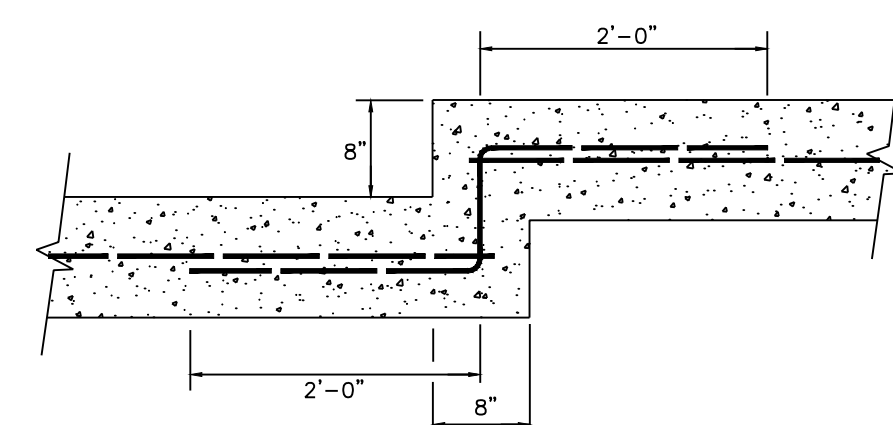
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RETAINING WALL GENERAL NOTES

1. COMPACT SUBGRADE TO 95% MIN. RELATIVE DENSITY (12" MIN. DEPTH) PER ASTM D1557. IF CLAY OR LOOSE SAND IS ENCOUNTERED, CONTACT THE ENGINEER BEFORE PROCEEDING.
2. COMPACT BACKFILL TO 90% MIN. RELATIVE DENSITY PER ASTM D1557. CONTRACTOR IS RESPONSIBLE FOR THE METHOD OF PLACEMENT AND QUANTITY OF BACKFILL MATERIAL TO ENSURE THAT LOADS SUFFICIENT TO CAUSE DAMAGE TO WALL ARE NOT EXCEEDED.
3. MAINTAIN 2" MINIMUM CLEARANCE BETWEEN ALL REINFORCING BARS AND OUTSIDE SURFACE OF FORMED CONCRETE, 3" BETWEEN BARS AND OUTSIDE SURFACE OF CONCRETE POURED AGAINST EARTH.
4. ALL BLOCKS ARE TO BE GROUTED SOLD WITH CONCRETE BLOCK FILL.
5. CONCRETE FOR FOOTINGS AND FILLING OF CELLS SHALL MEET OR EXCEED 3,000 P.S.I. AT 28 DAYS, WITH 3/4" MAXIMUM SIZE AGGREGATE, AND A MAXIMUM SLUMP OF 5".
6. MASONRY MORTAR SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM C 270, TYPE M.
7. WALL BLOCKS ARE TO BE STANDARD MASONRY UNITS (8"x8"x16" OR AS OTHERWISE INDICATED).
8. INSTALL 9 GA. GALV. DORN-0-WAL (OR APPROVED EQUIVALENT) EVERY OTHER COURSE (16" OC), OR BOND BEAM WITH 2-#4 REBAR EVERY THIRD COURSE (24" OC, MAX.).
9. REINFORCING STEEL SPLICES SHALL HAVE 24" MIN. LAPs.
10. THE TOP OF BLOCK SHALL USE 2" SOLID MASONRY UNITS AS CAPS, UNLESS A 6" CMU PARTY WALL IS TO BE INSTALLED ON TOP OF A RETAINING WALL.
11. DRAIN BLOCKS FOR PARTY WALLS SHALL CONSIST OF STANDARD MASONRY UNITS WITH ONE FACE DOWN. THEY SHALL BE INSTALLED THROUGH THE 6" PARTY WALL ~~AND ABOVE THE~~ RETAINING WALL SECTION AFTER THE RETAINING WALL SECTION IS COMPLETE AND BACKFILLED, AND AT LOCATIONS SPECIFIED BY THE OWNER.
12. ALL WALLS FACING PUBLIC ROW MUST BE SPRAYED WITH ANTI-GRAFFITI COATING. USE PROSCOCO DEFACTOR ERASER OR APPROVED EQUAL. (AT OWNERS DIRECTION).
13. IF WALL IS TO BE CONSTRUCTED WITH PILASTERS (TO BE SPECIFIED BY OWNER), THE CONSTRUCT PILASTERS AT 16' ON CENTERS (MAXIMUM), AND AS APPROPRIATE FOR CORNERS, JUNCTIONS, ANGLE POINTS AND ENDS. PILASTER BLOCKS ARE TO BE SIZED APPROPRIATELY FOR THE INTENDED APPLICATION. THE TOP OF PILASTERS SHALL HAVE 2" SOLID MASONRY UNITS OF APPROPRIATE SIZE UNLESS CMU PARTY WALL IS TO BE INSTALLED ON TOP OF RETAINING WALL.
14. ALL CMU AND MORTAR COLOR SHALL BE AT THE OWNERS DIRECTION.
15. IF NO PILASTERS ARE TO BE CONSTRUCTED THE APPROPRIATE EXPANSION / CONTRACTION JOINTS SHALL BE PROVIDED AT 16' O.C. MAXIMUM SPACING.
16. ALL WALLS SHOWN HERE ON HAVE BEEN DESIGNED TO ACCEPT A 6' (MAX.) CMU PARTY WALL.
17. EXTEND #4 BARS AT 48" O.C. WITH MINIMUM INBEDMENT OF 16" IN RETENTION WALL FOR LOCATIONS TO INCLUDE CMU PARTY WALLS.
18. WATERPROOFING SHALL BE HYDROCLIC LIQUID MEMBRANE HLM 5000 OR APPROVED EQUAL, AND SHALL BE APPLIED FROM FINISHED GRADE TO TOP OF FOUNDATION.
19. PARTY WALL DETAILS NOT INCLUDED, TO BE PROVIDED BY OWNER.

RETAINING WALLS WITH PILASTERS

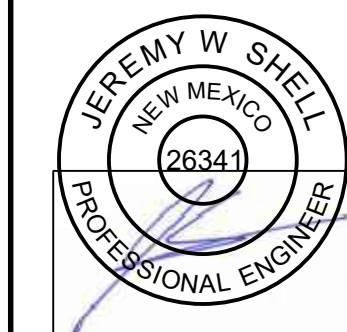
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2. THE TOP OF PILASTERS SHALL HAVE 2" SOLID MASONRY UNITS OF APPROPRIATE SIZE UNLESS CMU PARTY WALL IS TO BE INSTALLED ON TOP OF RETAINING WALL.
3. ALL PILASTER CELLS ARE TO BE GROUTED SOLID WITH CONCRETE.
4. PROVIDE ONE J-BAR OF SPECIFIC SIZE FOR EACH.
5. PROVIDE ADDITIONAL BAR(S) AS SPECIFIED FOR WALL AT EACH PILASTER IF NORMAL OPENING DOES NOT DO SO.
6. PROVIDE 2-#4 BARS AT EACH PILASTER WITH MINIMUM INBEDMENT OF 16" IN RETAINING WALL FOR LOCATIONS TO INCLUDE CMU PARTY WALL.

DESIGNED	JS
DRAWN	JS
CHECKED	JS
DATE	12.1.14

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PROJECT NAME:

LEGACY MODESTO

SHEET TITLE:

RETAINING WALLS DETAILS

SUBMITTED FOR:

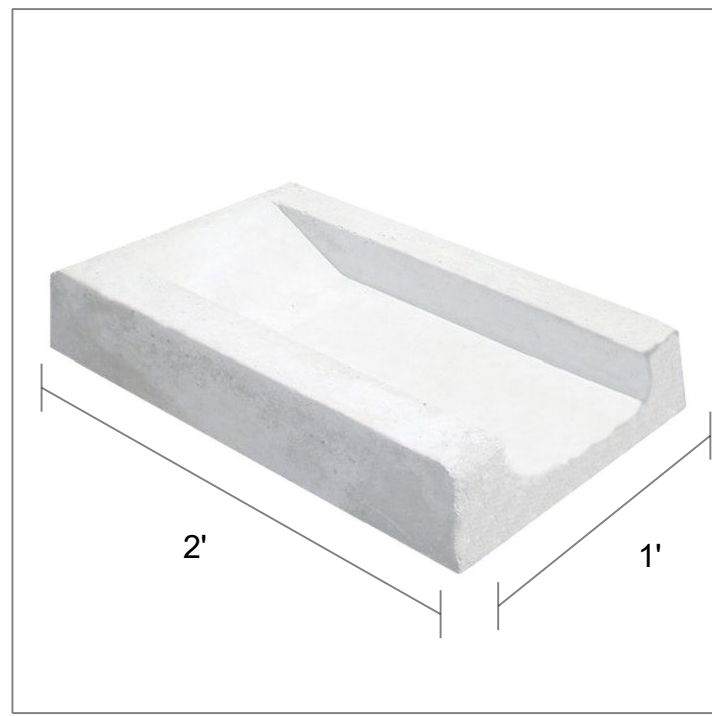
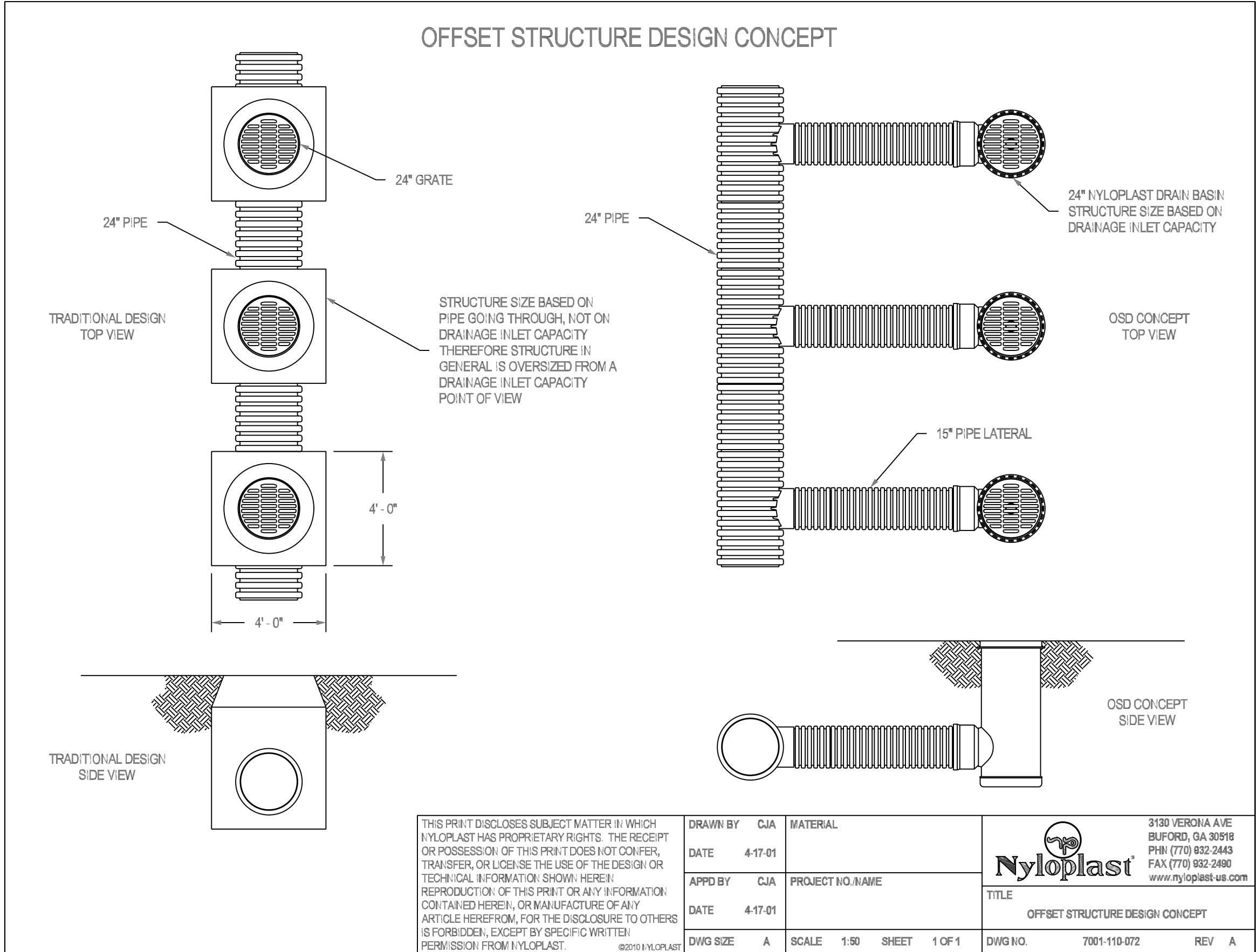
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SHEET NUMBER:

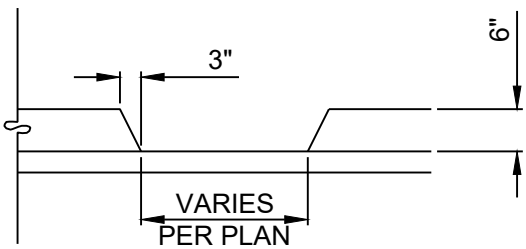
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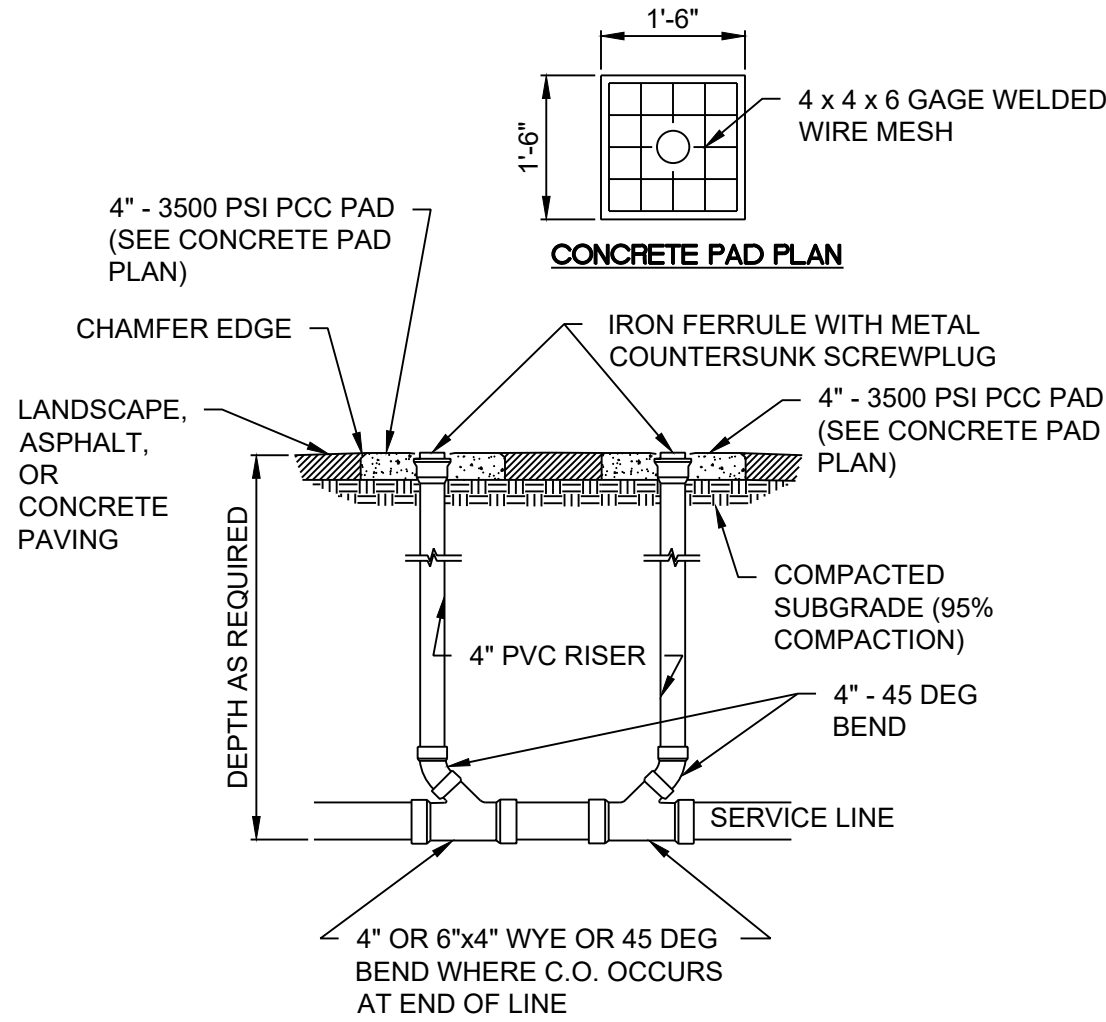
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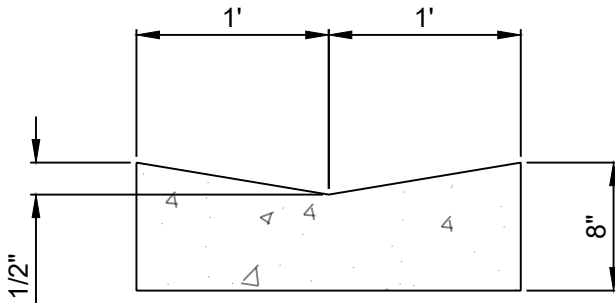
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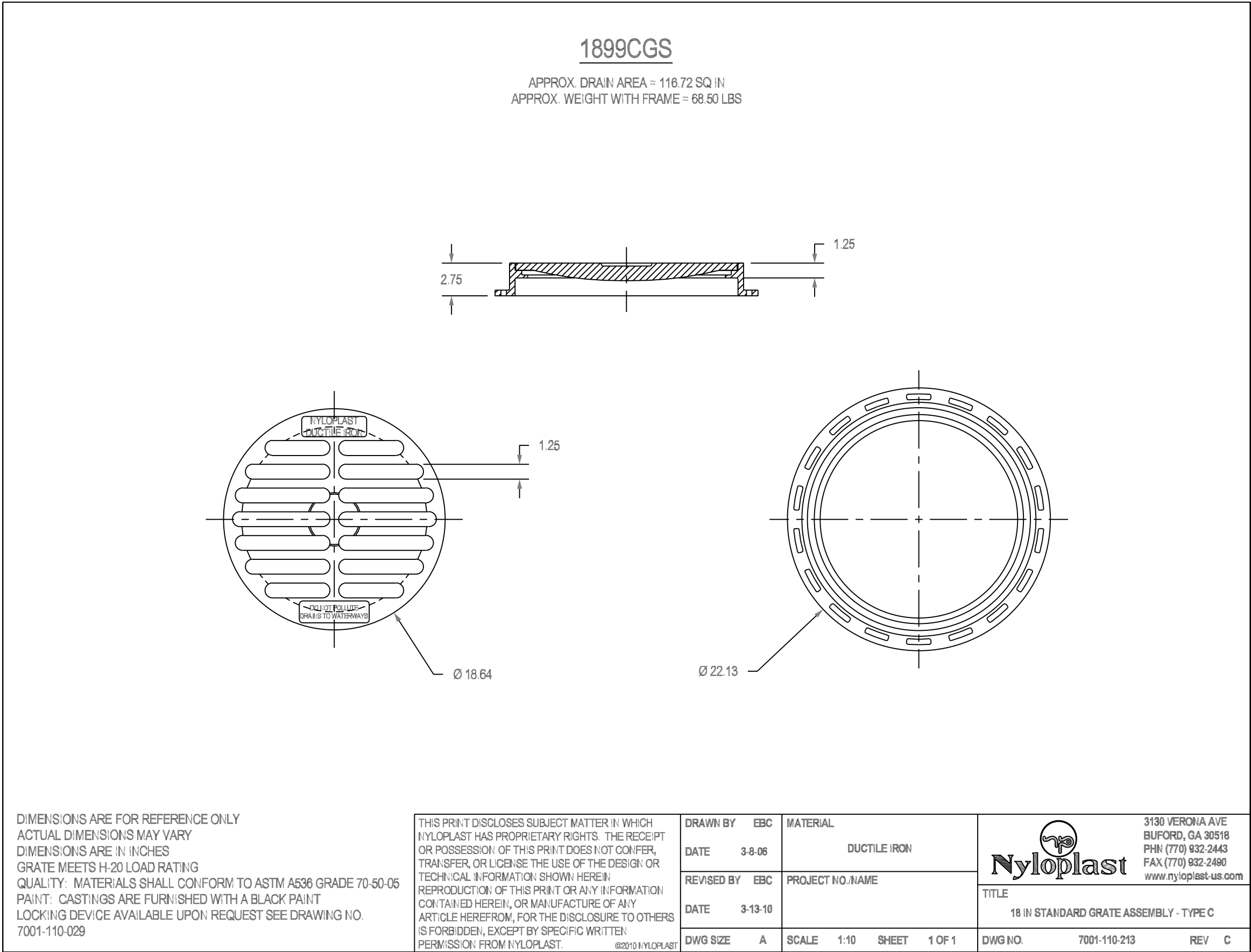
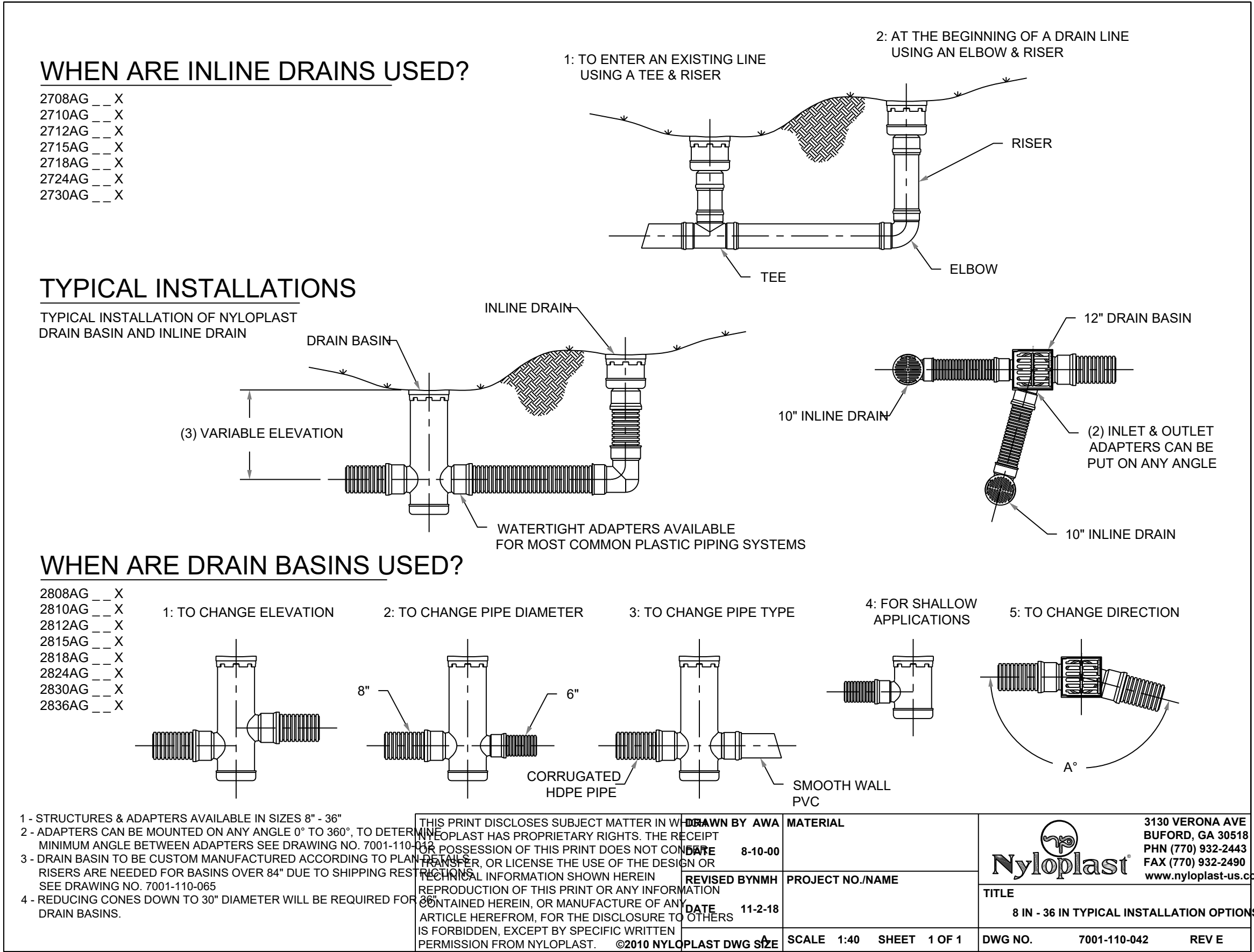
CURB CUT DETAIL
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SEWER DOUBLE CLEAN OUT DETAIL
NOT TO SCALE



ALLEY GUTTER DETAIL
NOT TO SCALE



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SHEET TITLE: DETAILS			
SUBMITTED FOR: DRB SITE PLAN			
SHEET NUMBER: C-501			