

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

February 21, 2017

David Aube, P.E.
Design Group
120 Vassar SE, Suite 100
Albuquerque, NM, 87106

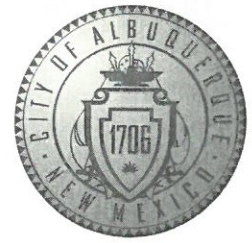
RE: **GAHP Silver Downtown**
800 Silver SW
Grading Plan Engineer's Stamp Date: 1/30/2017
Hydrology File: K13D013

Dear Mr. Aube:

Based upon the information provided in your submittal received 2/10/17, the Grading Plan is not approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. The drainage sheets still state conceptual and do not appear to be part of the construction plans. Remove conceptual references to include as part of the submittal.
2. The SO-19 notes need to be included in construction set, either C101 or C201. Reference standard drawing 2235 and include standard SO-19 notice language.
3. There is a reference to a constrictor plate for the draining the parking lot to the ally, but none is shown on the construction plans. Provide location and details for this.
4. It was agreed during the review for SPBP that the wide buffer between the back of curb and the edge of sidewalk would be used to help mitigate nuisance ponding on Silver and 9th Street, by including new curb cuts on the ex. curb. This would help the site achieve the capture of the first flush volume. It needs to be shown on the plan.
5. The 2" depression in the sidewalk buffer does not account for the running slope along top of curb and along the sidewalk. This means the depression will not retain a uniform 2" deep pool. This area needs to be supplemented with a 5:1 gravel filled swale and curb cuts with shallow ponding to allow in flows from Silver and 9th Street.
6. The ponding volume for the parking area does not account for the running slope across the parking lot toward the ally. This means the gravel areas will not retain a uniformly deep 2" of water.

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7. There is a grate elevation shown in area A5. Is there an interior storm drain network or is this to plumb the trash area into the sanitary sewer?

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

Sincerely,

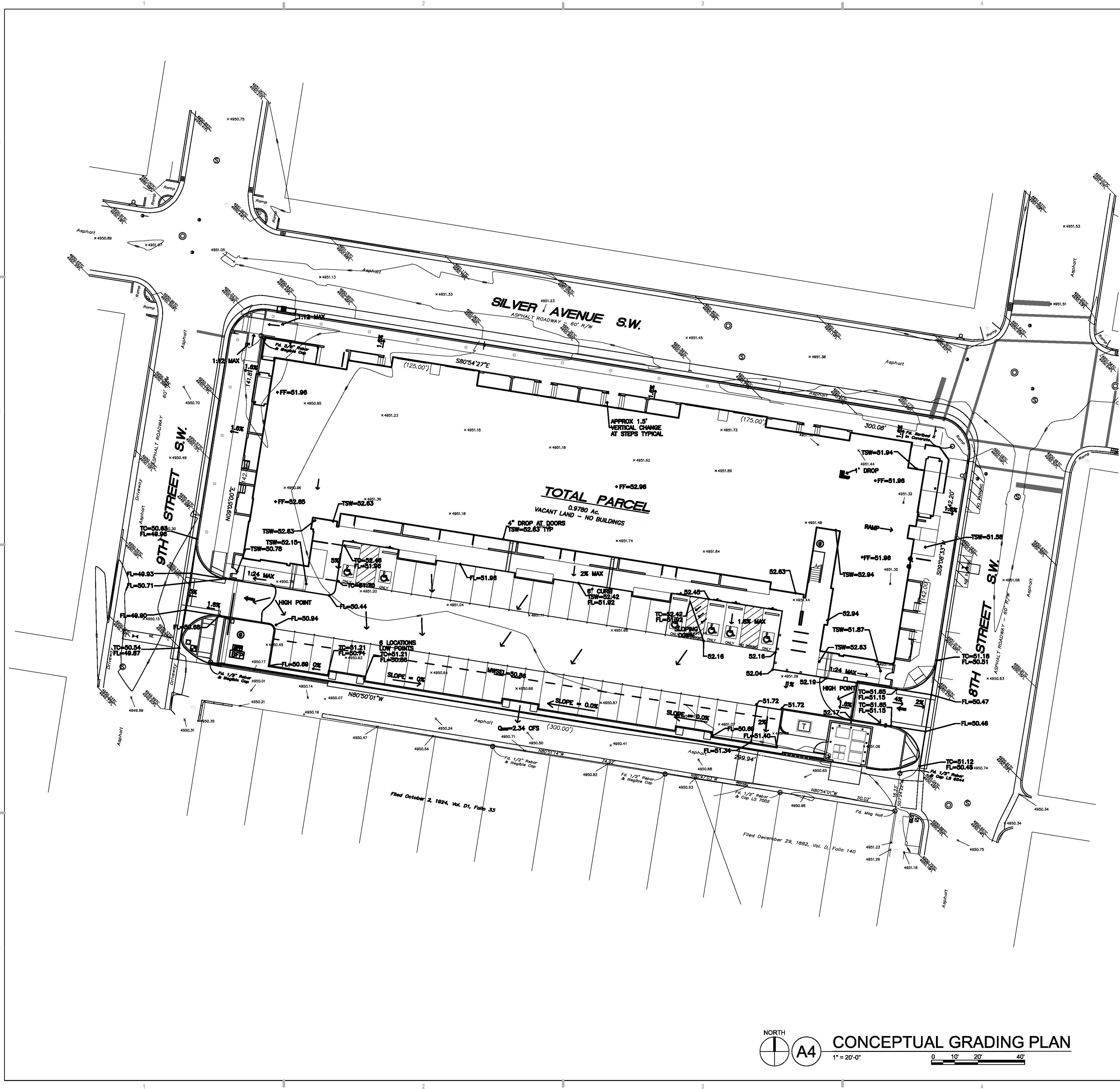
Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov



SITE INFORMATION

LEGAL DESCRIPTION
0.90N M T ADD LOTS 1 AND 2, 18NMT3 X 4 BLK 60 FRACTIONAL OF LOT 3 X 4 BLK 18 RAYNOLDS ADDITION, LOTS 5 & 6 BLK 60 NEW MEXICO TOWN CO ORIGINAL TOWNSITE & LOTS 5 & 6 BLK 18, 018 RAYNOLDS LOTS 7X8XPORT LT7 BLK 60 NMT ADDITION, 009 018 RAYNOLDS X LOT 10, 011 018 RAYNOLDS N PORT L11 L12, 018 RAYNOLDS ADDITION SO PORT OF LOTS 11X12

GROSS BUILDING AREA (GBA):
BUILDING (GROUND FLOOR) = 20,413 SF
TOTAL (ALL FLOORS) = 80,435 SF

TOTAL SITE AREA: 42,613 SF = .98 AC

GENERAL SHEET NOTES

- SEE CIVIL PLANS FOR ADDITIONAL GRADING, DRAINAGE AND UTILITY INFORMATION.
- REFER TO CIVIL DRAWINGS FOR ON-SITE BUILDING LOCATION, CURBS AND GUTTERS DIMENSIONS, AND OTHER DIMENSIONS NOT SHOWN ON THIS SHEET.
- ALL FIXTURES AND DESIGN SHALL COMPLY WITH THE NEW MEXICO NIGHT SKY PROTECTION ACT AND THE COA ZONING CODE, SECTION 14-18-3-9 AREA LIGHTING REGULATIONS.
- LIGHTING WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE SUBJECT TO THE STANDARDS AND REVIEW OF PNM, UNLESS MAINTENANCE FOR THE RIGHT-OF-WAY LIGHTING IS THE FULL RESPONSIBILITY OF OTHER PARTIES.
- STANDARD PARKING SPACE IS 8'-6" W X 20'-0" L.
- COMPACT PARKING SPACE IS 8'-0" W X 15'-0" L.

SHEET KEYED NOTES

ARCHITECTURE / DESIGN / INSPIRATION

DEKKER
PERICH
SABATINI

7601 JEFFERSON NE, SUITE 100
ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ARCHITECT

ENGINEER

DAVID A. AUBREY
STATE OF
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
1-30-17

PROJECT

STERLING | DOWNTOWN

800 Silver Avenue SW
Albuquerque, NM 87102

REVISIONS

1/30/2017 DRT COMMENTS

DRAWN BY

DAA

REVIEWED BY

DAA

DATE

Nov. 18, 2016

PROJECT NO.

16-0078

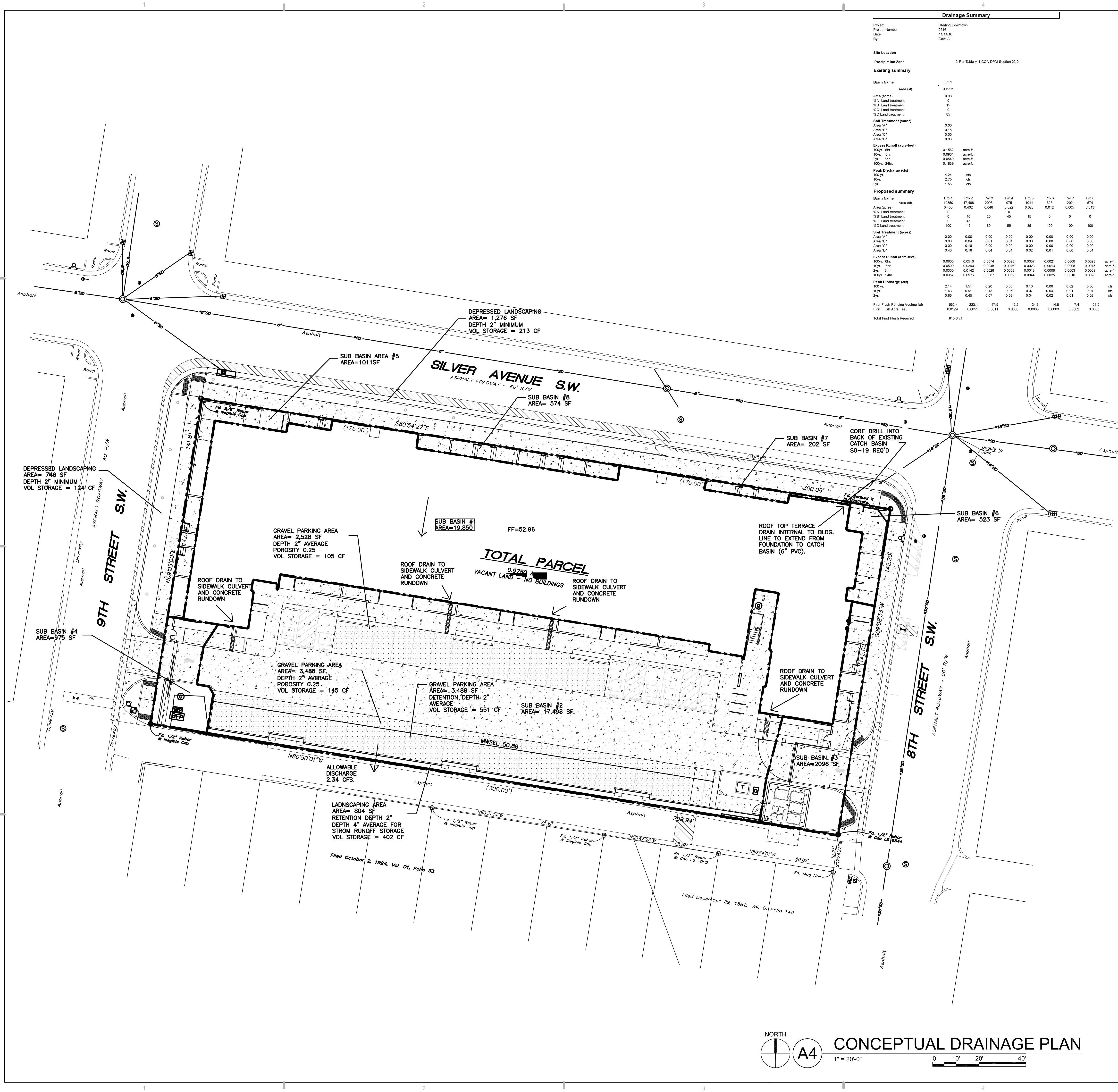
DRAWING NAME

CONCEPTUAL
GRADING
PLAN

SHEET NO.

SDP-3.1R1

OF



Drainage Summary									
Project:	Sterling Downtown								
Project Number:	2016								
Date:	11/11/16								
By:	DAA								
Site Location:	2 Per Table A-1 CDA DPM Section 22.2								
Precipitation Zone									
Existing summary									
Basin Name	Ex-1								
Area (sf)	41953								
Area (acres)	0.98								
%A Land treatment	0								
%B Land treatment	15								
%C Land treatment	0								
%D Land treatment	85								
Soil Treatment (acres)	0.00								
Area "A"	0.00								
Area "B"	0.15								
Area "C"	0.00								
Area "D"	0.83								
Excess Runoff (acre-feet)	0.1962 acre-ft								
100yr 6hr	0.0961 acre-ft								
2yr 6hr	0.0549 acre-ft								
100yr 24hr	0.1839 acre-ft								
Peak Discharge (cfs)	4.24 cfs								
100 yr	2.75 cfs								
2yr	1.96 cfs								
Proposed summary									
Basin Name	Bas-1	Bas-2	Bas-3	Bas-4	Bas-5	Bas-6	Bas-7	Bas-8	
Area (sf)	18803	17498	2086	975	1011	523	202	574	
Area (acres)	0.456	0.402	0.048	0.022	0.023	0.012	0.005	0.013	
%A Land treatment	0	0	0	0	0	0	0	0	
%B Land treatment	0	10	20	45	15	0	0	0	
%C Land treatment	0	45	85	55	85	100	100	100	
%D Land treatment	100	45	15	45	15	0	0	0	
Soil Treatment (acres)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Area "A"	0.00	0.04	0.01	0.01	0.00	0.00	0.00	0.00	
Area "B"	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	
Area "C"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Area "D"	0.46	0.18	0.04	0.01	0.02	0.01	0.00	0.01	
Excess Runoff (acre-feet)	0.0005	0.0595	0.0074	0.0028	0.0037	0.0021	0.0009	0.0023	
100yr 6hr	0.0005	0.0595	0.0074	0.0028	0.0037	0.0021	0.0009	0.0023	
2yr 6hr	0.0003	0.0396	0.0049	0.0016	0.0023	0.0013	0.0005	0.0015	
100yr 24hr	0.0007	0.0576	0.0087	0.0032	0.0044	0.0025	0.0010	0.0028	
Peak Discharge (cfs)	0.0005	0.0595	0.0074	0.0028	0.0037	0.0021	0.0009	0.0023	
100 yr	2.14	1.51	0.20	0.08	0.10	0.06	0.02	0.06	
2yr	1.43	0.91	0.13	0.05	0.07	0.04	0.01	0.04	
100yr 24hr	0.85	0.45	0.07	0.02	0.04	0.02	0.01	0.02	
First Flush Ponding Volume (cf)	952.4	223.1	47.1	15.2	24.3	14.8	7.4	21.0	
First Flush Area (sq-ft)	0.0129	0.0051	0.0011	0.0003	0.0008	0.0006	0.0003	0.0003	
Total First Flush Required	915.8 cf								

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GROSS BUILDING AREA (GBA):

BUILDING (GROUND FLOOR) = 20,413 SF
TOTAL (ALL FLOORS) = 80,435 SF

TOTAL SITE AREA: 42,613 SF = .98 AC

DRAINAGE MANAGEMENT

The project site is located just west of downtown Albuquerque between 8th and 9th Streets SW and between Silver Avenue SW and the alley to the south. The site is currently utilized as a parking lot. A small portion of the site (approximately 15%) is exposed soil with the remainder being asphalt pavement.

The site is approximately 0.98 acres and generally drains from north east to the south west. Currently no formal storm management facilities exist on the site. The excess runoff flows directly out into the surrounding streets and alley to the south.

This area has a restricted runoff rate to reduce drainage problems in the surround neighborhood. The allowable runoff is 2.75 cfs/acre. The 0.98 acre site is allowed a peak runoff rate of 2.70 cfs.

The sub-basins for defining runoff rates have been established similar to the previously approved Conceptual Drainage Plans prepared in 2013. The building and a majority of the parking lot will drain toward the southern property line along the public alley. These two basins generate a peak runoff of 3.85 cfs. Runoff from the building will be directed toward two gravel surfaced parking areas. The parking area closest to the building will have a storage volume of 105 cubic feet of water within the gravel surface. This was computed based on the area of the parking lot, average depth of water that will be contained by the concrete driveway up the center and a porosity of 0.25. The second gravel parking area is located south of the center driveway and has a capacity of 145 cubic feet of water without any water above the gravel surface itself. Once the gravel parking surface material is filled, the water will back up within the parking areas approximately 2 additional inches during the 100 year storm event. This will provide 583 cubic feet of water storage above the parking lot surface.

Sub-basins 3 through 8 will generate a combined peak runoff rate of 0.52 cfs. Basins 3, 4, 6 and 7 will flow directly into the public street and create 0.36 cfs. The remaining basins 5, and 8 (0.16 cfs) will flow into a depressed landscaping area between the sidewalk and curb. These depressed areas have a available volume of 337 cubic feet and would fully contain any runoff from these basins into the public street. This volume will be used in conjunction with the First Flush volumes.

The allowable discharge for the site is limited to 2.70 cfs total. After removing the 0.36 cfs identified above, the allowable discharge from the pond is 2.70 - 0.36 = 2.34 cfs. This discharge rate will be controlled by a restrictor plate at a small concrete wall (tall header curb) along the north edge of the alley.

There is a narrow landscaping strip between the back of curb and the alley. This landscaping strip will be lowered a few inches to harvest the first flush water when available from storm events. The area of this landscaping strip is 804 sf and will be recessed 4" from the surrounding alley and parking. This will provide 402 cubic feet of retention and will reduce excess runoff. For the purpose of these calculations the landscaping strip has been omitted. This area is sloping and until the plan is finalized, we would prefer to plan on ponding within the parking lot area in lieu of relying on being able to depress the landscaping.

The total peak runoff for this site is 4.17 cfs and generates an excess runoff volume of 5755 cubic feet 0.1321 ac-ft. Once the 0.36 that drains directly into the street is removed the peak runoff entering the gravel parking areas and eventually the landscaping strip is 3.65 cfs. Once the runoff is routed through the parking area and allowed to be released at 2.34 cfs, a detention volume of 1540 cubic feet. First we need to remove the First Flush Volume of 989 cubic feet throughout the site. This leaves 551 cf of additional runoff that needs to be detained in the parking lot area. With a surface area of 218x18' the ponding water would be an average of 2" deep. Part of this water would be contained within the gravel section as described above, but surface ponding would be required during the 100 year 6 hour storm event.

The MWSEL will be 50.86 (FL at curb is 50.69 plus 2" of depth for ponding water in parking area) and will provide the required 1540 cubic feet total (989 First Flush retention and 551 cubic feet detention in parking area) of storm water management volume available on site.

The restrictor plate will be installed to reduce the flow rate into the alley as identified above. This restrictor plate may be installed at the parking lot curb, or at a header curb between the landscaping and alley.

In summary, the first flush and landscaping strip along the southern property line will provide the required storage to reduce the peak runoff rate to below the 2.75 cfs per acre.

VICINITY MAP



DEKKER
PERICH
SABATINI

7601 JEFFERSON NE, SUITE 100
ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ARCHITECT

ENGINEER

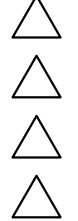


PROJECT

STERLING | DOWNTOWN

800 Silver Avenue SW
Albuquerque, NM 87102

REVISIONS

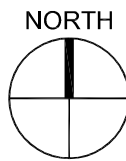


DRAWN BY: DAA
REVIEWED BY: DAA
DATE: Nov. 18, 2016
PROJECT NO.: 16-0078
DRAWING NAME:

CONCEPTUAL
DRAINAGE
PLAN

SHEET NO.

SDP-3.2
OF



A4

CONCEPTUAL DRAINAGE PLAN

1" = 20'-0"

0 10' 20' 40'



REVISIONS	
△	
△	
△	
△	Addendum #2 2-1-17
△	Addendum #1 12-12-16

DRAWN BY DAA
REVIEWED BY DAA
DATE November 18, 2016
PROJECT NO. 16-0078
DRAWING NAME

OVERALL
GRADING PLAN

SITE INFORMATION

LEGAL DESCRIPTION
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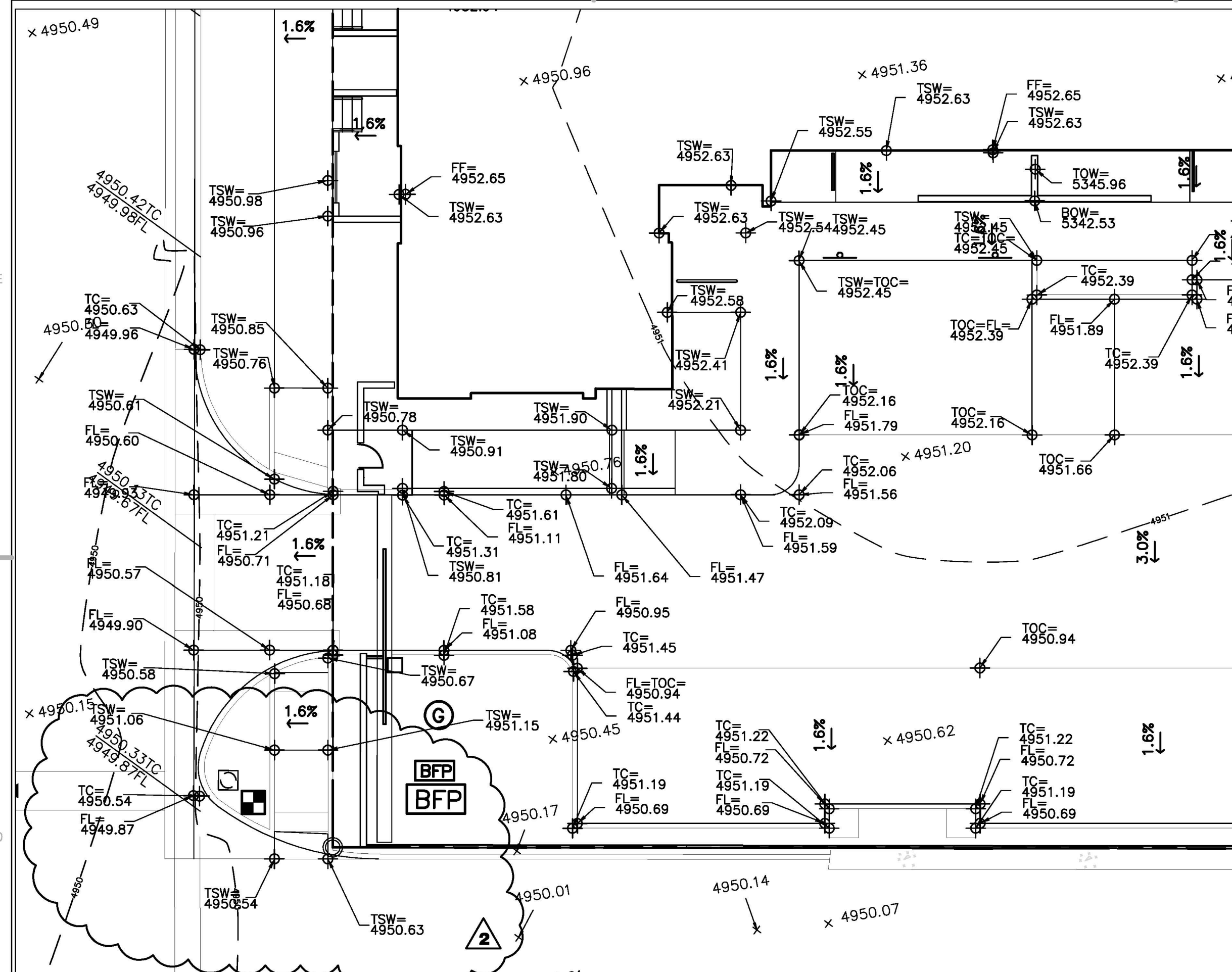
SURVEY CONTROL MONUMENT DATA
Albuquerque Control Survey Monument "17_J14"
New Mexico State Plane Coordinates, Central Zone (NAD83) as published:
Y= 1,488,866.76
X= 1,519,419.32
Ground to grid factor= 0.999683611
Delta Alpha= -00°13'59"
Elevation= 4957.484 (NAVD88)

GENERAL SHEET NOTES

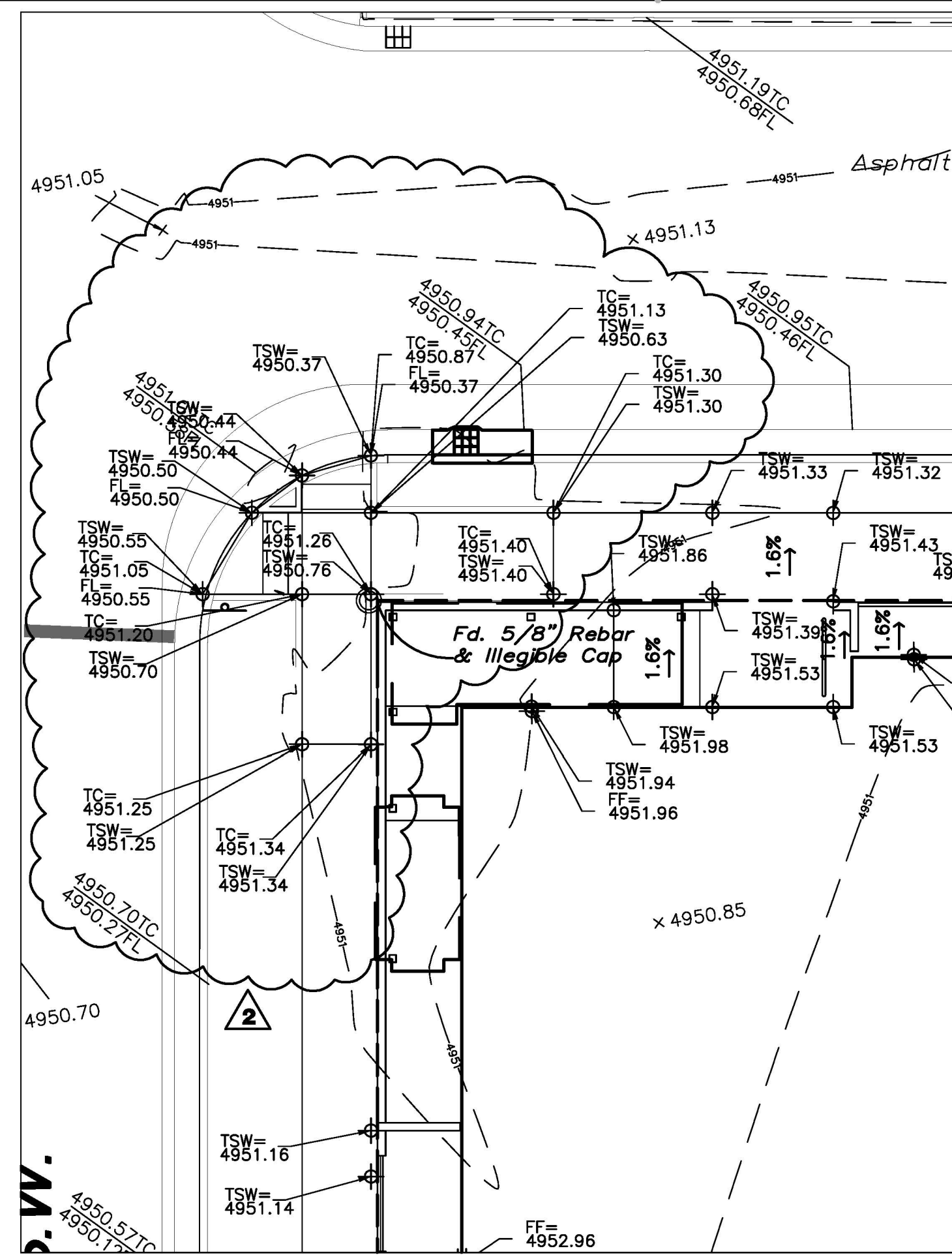
1. REFER TO CIVIL PAVING DRAWINGS FOR ON-SITE BUILDING LOCATION, CURBS AND GUTTERS DIMENSIONS, AND OTHER DIMENSIONS NOT SHOWN ON THIS SHEET.

Stair	Number	Top Elev	Bot Elev	Riser
A*	3	4952.54	4950.98	0.52
B*	3	4952.86	4951.14	0.57
C	2	4952.63	4951.56	0.53
D	2	4952.63	4951.63	0.50
E	2	4952.63	4951.64	0.49
F	2	4952.63	4951.81	0.41
G	2	4952.63	4951.83	0.40
H	2	4952.63	4951.91	0.36
J	2	4952.63	4951.93	0.35
K	2	4952.63	4951.72	0.45
L	2	4952.63	4951.74	0.45
M	2	4952.63	4951.61	0.51
N	2	4952.63	4951.58	0.53
O*	1	4951.81	4951.31	0.50
P*	2	4952.53	4951.42	0.55
Q*	2	4952.53	4951.40	0.57

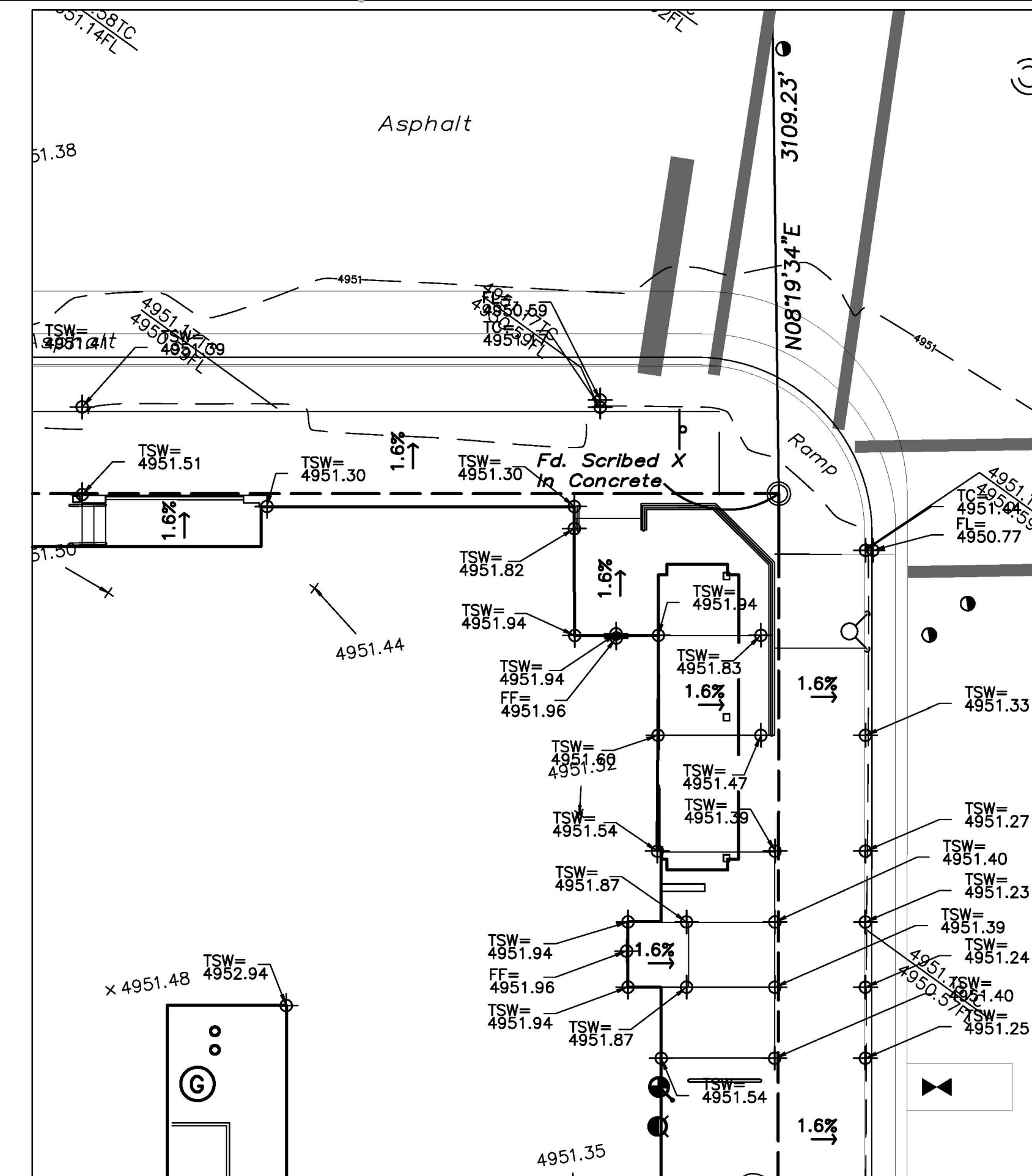
Notes:
1. Typical stair treads follow the slope of the lower sidewalk slope toward street of 1.6%.
2. Stairs with "*" have level treads.



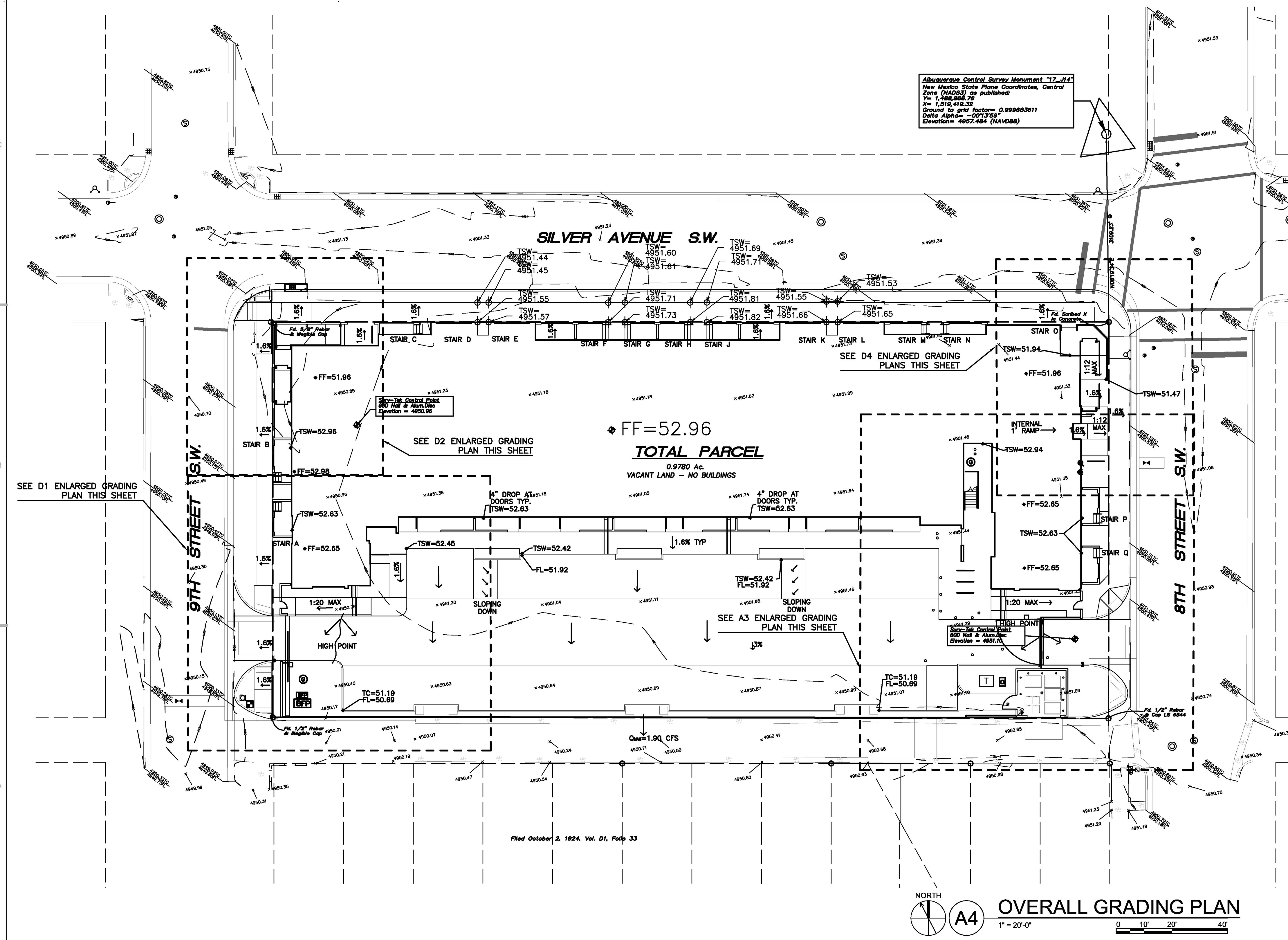
D1 ENLARGED GRADING PLAN
1" = 10'-0"



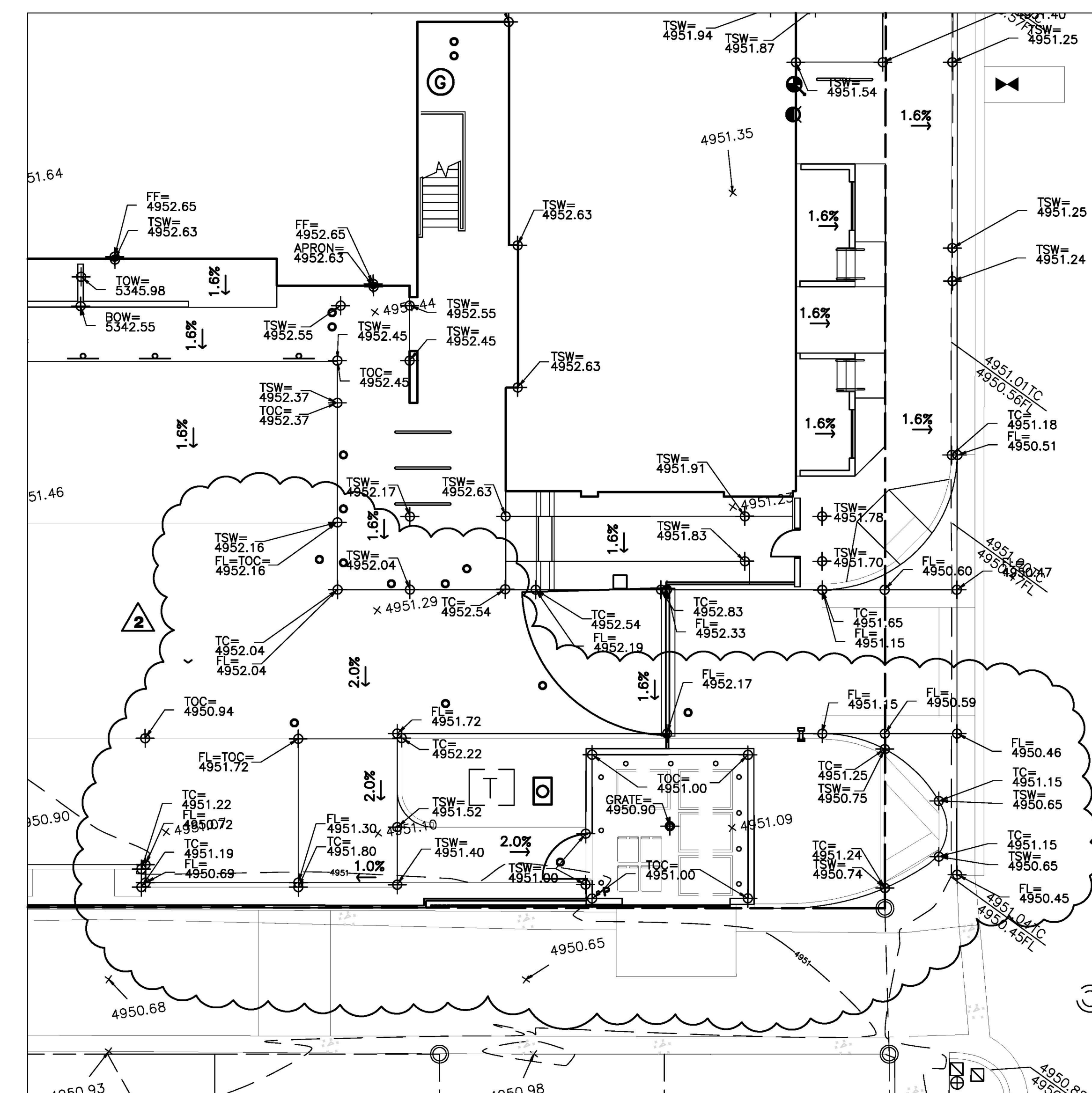
D2 ENLARGED GRADING PLAN
1" = 10'-0"



D4 ENLARGED GRADING PLAN
1" = 10'-0"



A4 OVERALL GRADING PLAN
1" = 20'-0"



A5 ENLARGED GRADING PLAN
1" = 10'-0"