MODULUS
ARCHITECTS

DRB Chair, Planning Department
Development Review Board Members
City of Albuquerque
600 Plaza del Sol, 600 2nd NW, Albuquerque, NM 87102

December 12, 2019

RE: MARRIOT HOTEL AT WINROCK MALL – DRB SUBMITTAL FOR SITE PLAN FOR BUILDING PERMIT

DRB PROJECT NUMBER: PR –2018-001579
APPLICATION NUMBER: PS-2019-00105 – Sketch Plat
SI-2019-00355 – Site Plan Amendment
SI-2019-00354 – Site Plan

Members of the Development Review Board,

Subsequent to comments provided at the DRB Hearing on November 20, 2019 we have the following written responses as well as the accompanying revised documents and drawings. We look forward to reviewing with you at out next scheduled hearing on December 18, 2019.

TRANSPORTATION DEVELOPMENT

1. All infrastructure that was recommended in the approved Traffic Impact Study for the Winrock Masterplan Redevelopment shall be placed onto an Infrastructure List. The Transportation Department is still awaiting a phasing plan to show when certain infrastructure is going to be built with different phases of development.
    a. Addressed:
        i. A meeting was held with staff regarding the TIS improvements. An agreement on the phasing of said improvements was agreed upon with staff.
2. Clarify where new construction ties to existing on all sides of the building.
    a. Addressed:
        i. See SP-1A2: Line Type Legend
3. Clarify parking requirements for surrounding sites due to impact of adding the hotel.
    a. Addressed:
        i. The hotel parcel parks independently on its own parcel, being created by this

platting action, prior to this he Winrock Town Center was well overpark with a newly constructed underground parking structure with 987 parking spaces which to-date is greatly underutilized but was constructed in anticipation of future growth.

4. The “Typical Street Sidewalk” should be a minimum of 6 inches in thickness, and follow the COA Standard Specifications to support vehicular traffic.
    a. Addressed:
        i. See A1.1 Site Details: Note 7
5. Provide a street cross-section for the street east of the hotel development with any reconstruction, and provide a copy of the final plat. (Generally, any roads built within public roadway easements or right-of-way dedication to the City of Albuquerque require a work order.)

6. Label all on-site concrete walkways, curb and label the asphalt parking lot on the site plan as well as the signs such as the motorcycle parking signs and handicapped space signs.
    a. Addressed:
        i. See Sheet SP-1A2
7. The concrete sidewalk detail should show a maximum 2% cross-slope.
    a. Addressed:
        i. See Sheet A1.1 - Site Details: Note 17
8. Obtain Fire Marshall approval for the site plan.
    a. Addressed:
        i. See attached Exhibit 1 – Hotel- Fire One Plan
9. Please add the clear sight triangle to each parking lot entrance. Add the following note as well: “Landscaping, fencing and signing will not interfere with clear sight requirements. Therefore, signs, walls, trees, and shrubbery between 3 and 8 feet tall (as measured from the gutter pan) will not be acceptable in the clear sight triangle.”
10. The ADA access aisle shall have the words **"NO PARKING"** in capital letters, each of which shall be at least one foot high and at least two inches wide, placed at the rear of the parking space so as to be close to where an adjacent vehicle's rear tire would be placed. (66-1-4.1.B NMSA 1978)
    a. Addressed:
        i. See Sheet A1.2 - Site Details: Note 5 & 9

11. The ADA accessible parking sign must have the required language per 66-7-352.4C NMSA 1978 **"Violators Are Subject to a Fine and/or Towing."** If that language is present it is not visible in the detail.
    a. Addressed:
        i. See Sheet A1.2 – Site Details : Note 6

HYDROLOGY

1. An approved Conceptual Grading and Drainage Plan is required.
    a. Addressed:
        i. See Sheet C100 – Drainage Plan
        ii. See Sheet C102 – Grading Plan for DRB Plan

PLANNING DEPARTMENT

1. The project number and application number are not listed on Sheet SP-1A2.
    a. Addressed:
        i. See Sheet SP-1A2
2. On Sheet SP-1A2, the zoning designation needs to be fixed to MX-H.
    a. Addressed:
        i. See Sheet SP-1A2: Site Data Table

3. 5-5(E.)(1.) of the IDO requires two bicycle spaces + one bicycle space/6,000 square feet GFA of conference, restaurant, bar, and banquet space. In the table on Sheet SP-1A2, it states that ten bicycle spaces are provided and six spaces are required. The applicant does not specify the GFA mixture of the hotel.
    a. Addressed:
        i. A floor plan has not been proposed the GFA mixture shall not exceed IDO requirements

4. The table on Sheet SP-1A2 states that there are ten handicapped spaces provided, but only six handicapped spaces are depicted on that sheet.
    a. Addressed:
        i. Sheet SP-1A2: Site Data Table
        ii.
5. Per 5-8(D.)(7.), the maximum height of light poles in a mixed zone district is restricted to 20 feet in height, but the height of the light poles in the plans is 25 feet in height, which is five feet higher than the maximum allowed.

a. Addressed:
    i. Sheet SP-1A2: Key Note 2

6. Make sure that 5-11(E.)(2.) of the IDO regarding façade design is being met.
    a. Addressed:
        i. Per the ruling from James Aranda, Deputy Director/Planning Department:

        "Upon review of all available pertinent application information and the applicable provisions of the Integrated Development Ordinance, it is my interpretation that the provisions of IDO §5-11 (E)(2) are not applicable to the proposed project, also referred to as the Winrock Hotel (DRB PR-2019-001579). "

        ii. See Exhibit 2 for full ruling

WATER UTILITY AUTHORITY

1. **SI-2019-00354** – SITE PLAN
    a. Availability statement #190915 has been issued and provides the conditions for service.
    b. Remove references to the "ABCWUA Easement" in both locations. Are these proposed or existing? Public waterline easements are not to be provided for the proposed private fire line and private fire hydrants.
    c. A public waterline easement is required for the proposed water meter.

We greatly appreciate the time and consideration. Please contact me if you have any questions.

Best Regards,

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Albuquerque, NM 87109
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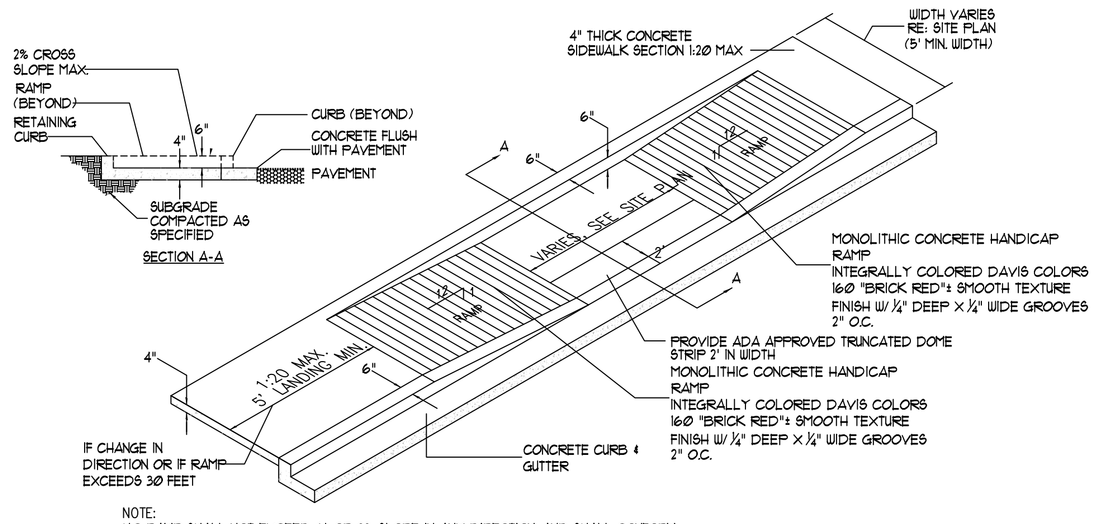
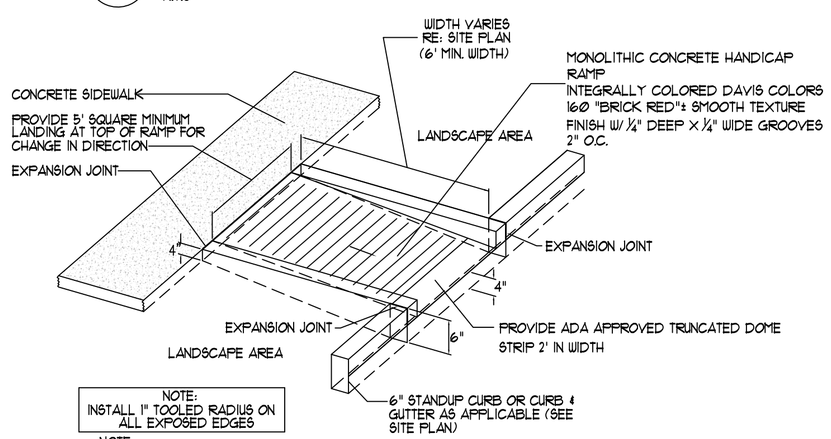
awilliamson@modulusarchitects.com



NOTE:
H.C RAMP SHALL NOT EXCEED 6', OR 8% SLOPE IN ANY DIRECTION, AND SHALL CONFORM W/ ALL APPLICABLE ANSI REQ'S. G.C SHALL VERIFY CONFORMANCE W/ ALL APPLICABLE ANSI REQ'S

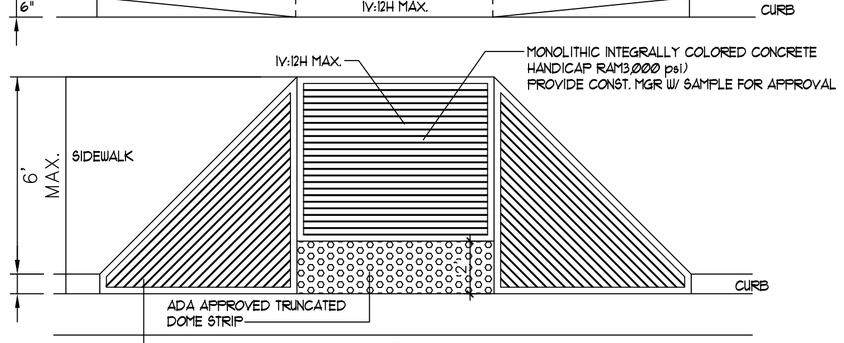
17 TAPERED H.C RAMP
N.T.S



NOTE:
INSTALL ½" TOOLED RADIUS ON ALL EXPOSED EDGES

NOTE:
H.C RAMP SHALL NOT EXCEED 6', OR 8% SLOPE IN ANY DIRECTION, AND SHALL CONFORM W/ ALL APPLICABLE ANSI REQ'S. G.C SHALL VERIFY CONFORMANCE W/ ALL APPLICABLE ANSI REQ'S

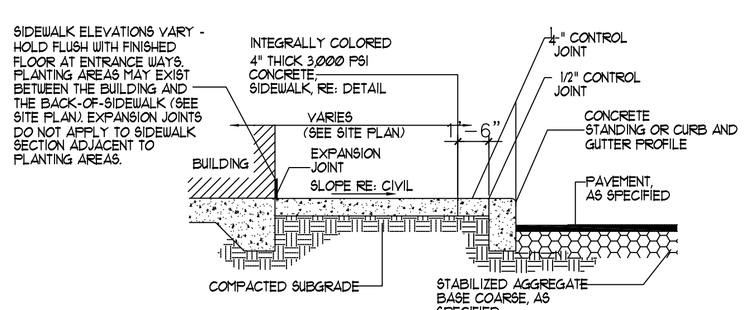
16 CURBED H.C RAMP
N.T.S



NOTE:
INSTALL ½" TOOLED RADIUS ON ALL EXPOSED EDGES

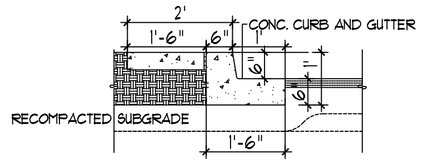
NOTE:
H.C RAMP SHALL NOT EXCEED 6', OR 8% SLOPE IN ANY DIRECTION, AND SHALL CONFORM W/ ALL APPLICABLE ANSI REQ'S. G.C SHALL VERIFY CONFORMANCE W/ ALL APPLICABLE ANSI REQ'S

15 FLARED H.C RAMP
N.T.S



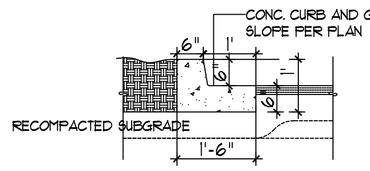
NOTE:
CONTRACTION JOINTS AT 5'-0" O.C. TOOLED WHICHEVER IS GREATER. EXPANSION JOINTS AT 20' MAX. & ALL P.C.s, UNLESS APPROVED OR INDICATED OTHERWISE ON PLAN VIEW JOINT PATTERN.
NOTE:
ALIGN CURB AND SIDEWALK JOINTS AT ALL TIMES

14 SIDEWALK W/ TURNDOWN CURB SECTION
N.T.S



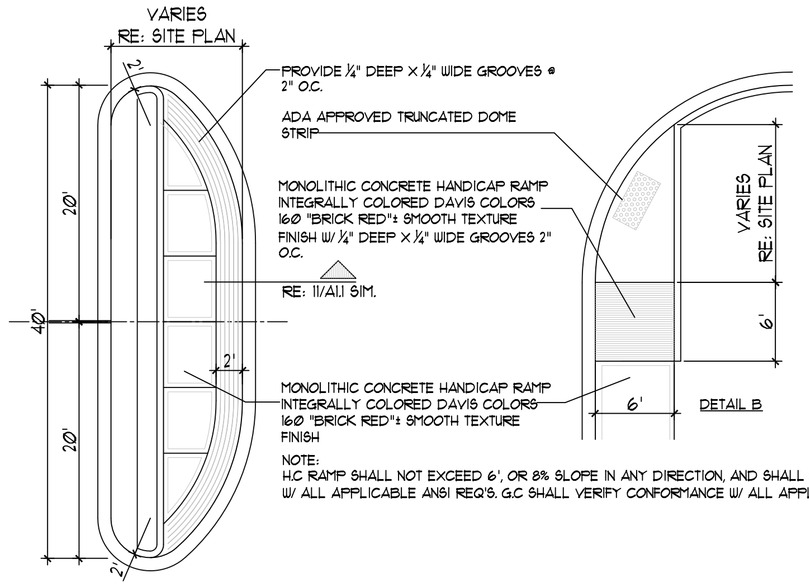
NOTE:
RE: SITEPLAN FOR LOCATIONS OF PAVEMENT SECTION DESIGN PER THE GEOTECHNICAL INVESTIGATION

19 ISLAND CURB DETAIL
N.T.S



NOTE:
RE: SITEPLAN FOR LOCATIONS OF PAVEMENT SECTION DESIGN PER THE GEOTECHNICAL INVESTIGATION

18 TYPICAL CURB DETAIL
N.T.S



NOTE:
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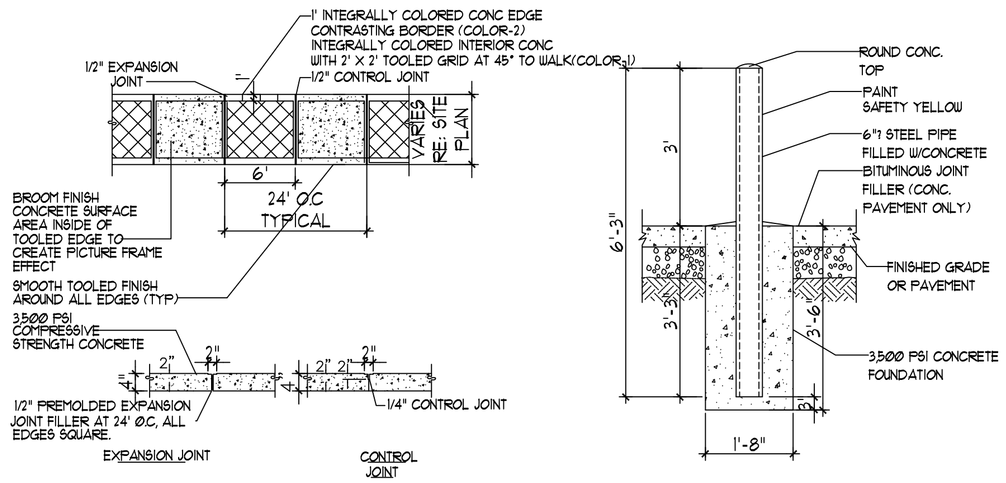
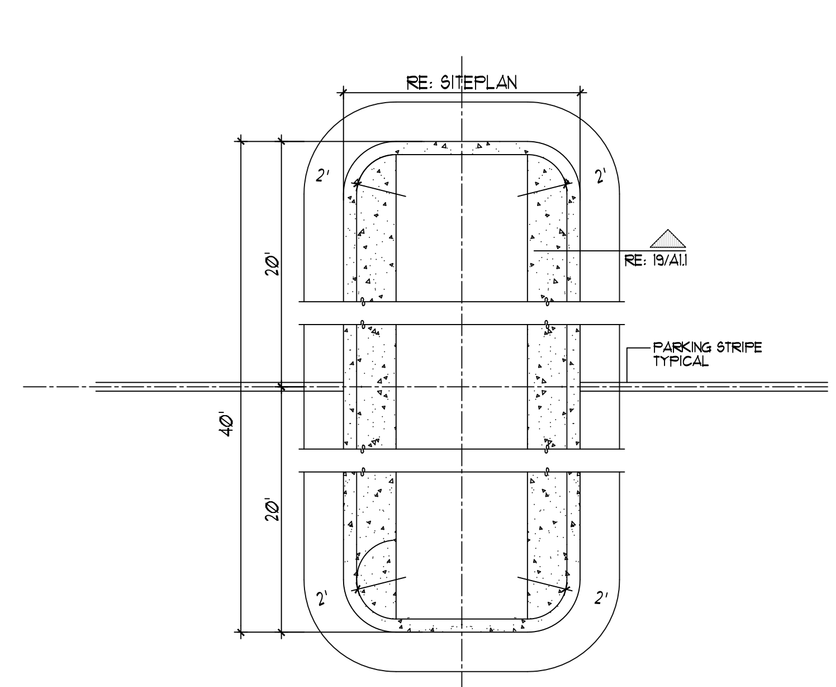
DETAIL A

12 TYP. END ISLAND W/ WALK
N.T.S

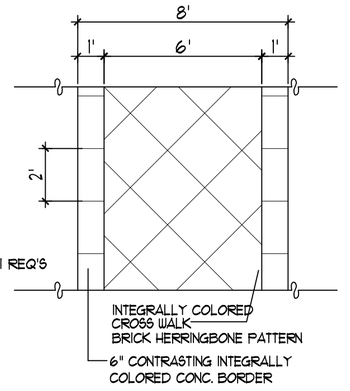


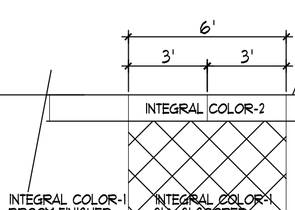
11 TYPICAL SIDEWALK
N.T.S

10 BOLLARD DETAIL
N.T.S



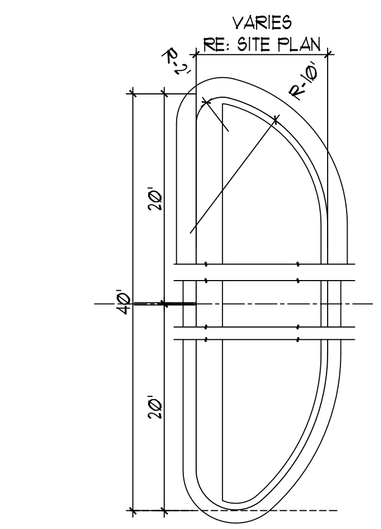
8 ISLAND DETAIL
N.T.S



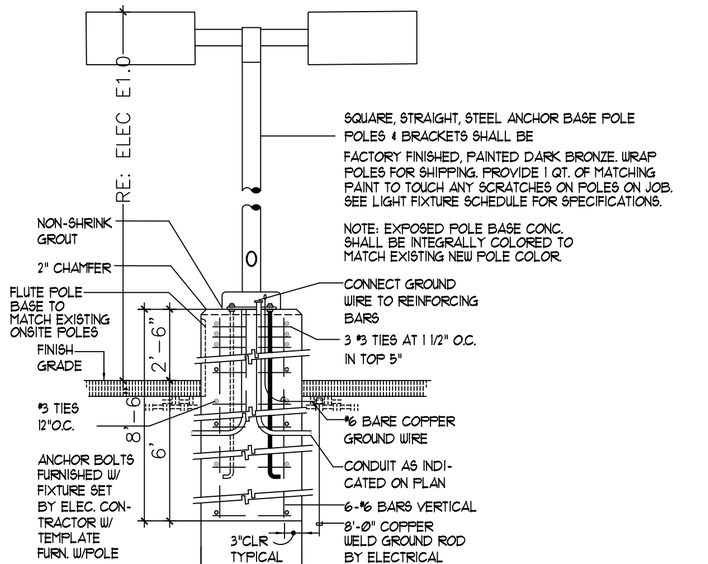


7 CONC. CROSSWALK
N.T.S

2 TYPICAL STREET SIDEWALK
N.T.S

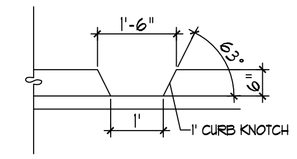


4 END ISLAND DETAIL
N.T.S



NOTE:
1. MANUFACTURER SHALL WARRANT THAT THE COMPLETE ASSEMBLY, FIXTURES, POLE, BASE, SHALL WITH STAND MIN 90 MPH SUSTAINED WIND LOAD OR AS REQUIRED BY LOCAL AGENCY, WHICH EVER IS GREATER.
2. CONTRACTOR SHALL VERIFY THAT ALL CONTRACTOR INSTALLED LIGHTS COMPLY WITH LOCAL CODE REQUIREMENTS
3. SHOULD EXISTING POLE HEIGHT TO BE MATCHED EXCEED 22'
GENERAL CONTRACTOR SHALL VERIFY W/ ARCHITECT ADEQUACY OF DESIGN SHOWN PRIOR TO INSTALL

3 LIGHT POLE DETAIL
N.T.S



NOTE:
RE: SITEPLAN FOR LOCATIONS OF PASSIVE WATER HARVESTING CURB KNOTCH

1 CURB NOTCH
N.T.S

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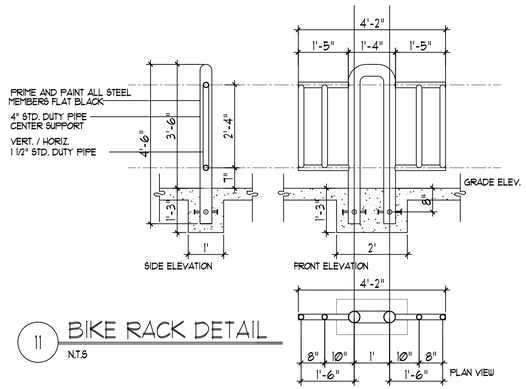
MODULUS ARCHITECTS
220 COPPER AVE. N.W. SUITE 350
ALBUQUERQUE, NEW MEXICO 87102
PHONE (505) 338-1499 FAX (505) 338-1498

PROJECT TITLE: HOTEL SITE DETAILS
WINROCK TOWN CENTER
ALBUQUERQUE NEW MEXICO

JOB NO. WIN-BJ
DRAWN BY: S-J
PROJECT MANAGER: STEPHEN DUNBAR, AIA
SHEET TITLE: SITE DETAILS

DATE: 10/25/2019
SCALE: AS NOTED
sheet- A1.1 of-



11 BIKE RACK DETAIL
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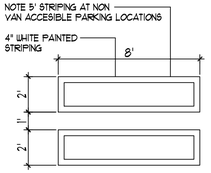
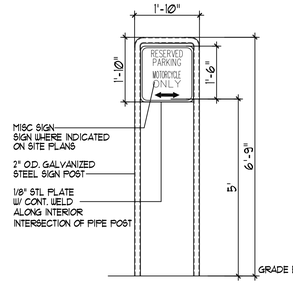


10 H.C PARKING-WALK PAINT DETAIL
N.T.S



7 MISC. SIGNAGE
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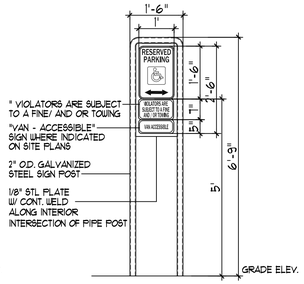

6 H.C. SIGNAGE
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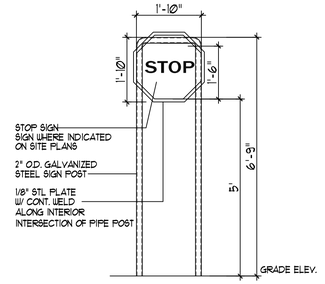

3A STOP SIGNAGE
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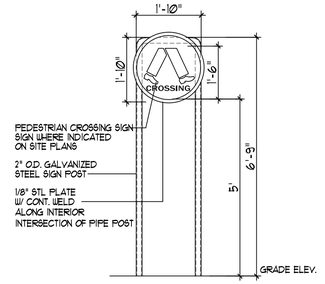

3 PEDESTRIAN SIGNAGE
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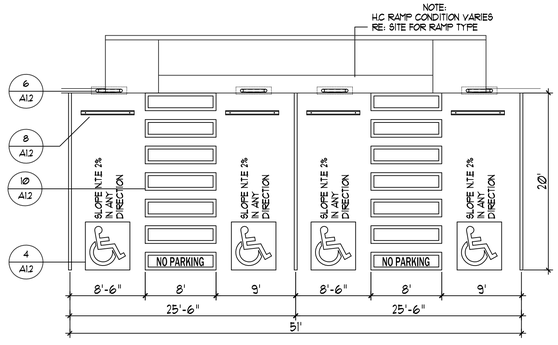
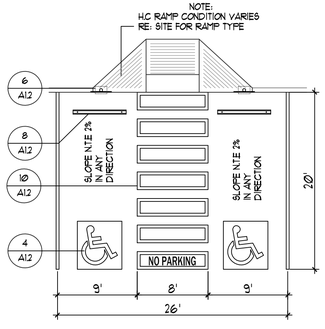
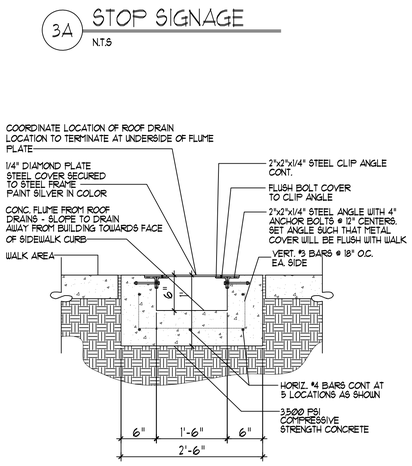


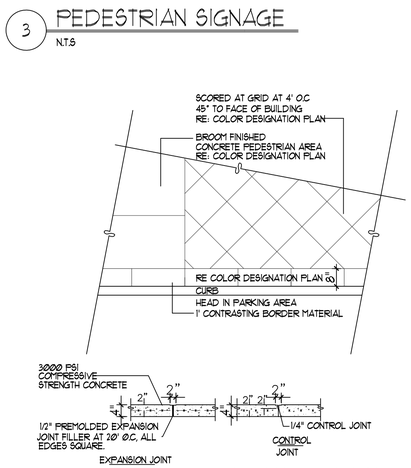
9 H.C PARKING (DUAL CONFIGURATION)
N.T.S



5 H.C PARKING
N.T.S



12 CONC. FLUME DETAIL
N.T.S



2 TYPICAL EDGE WALK DETAIL
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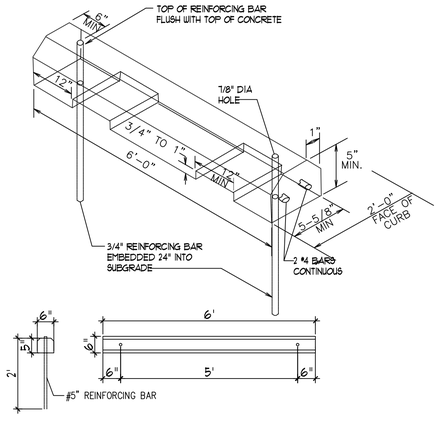
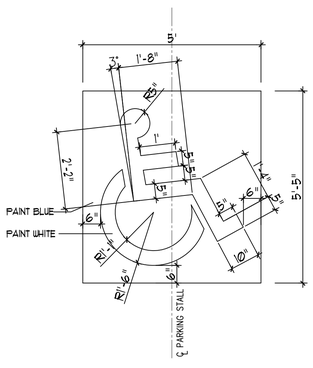
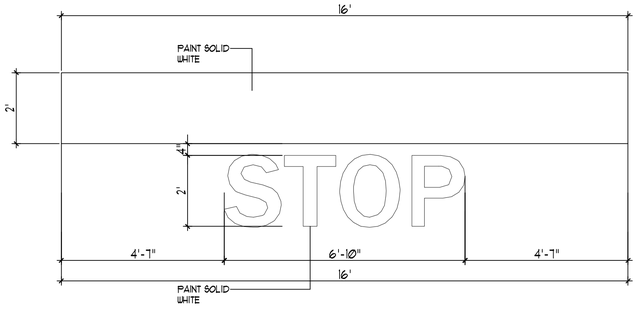


8 H.C WHEELSTOP
1/2"=1'-0"



4 H.C SIGNAGE
1/2"=1'-0"



1 STOP BAR DETAIL
N.T.S

REV	DATE	BY	REVISION
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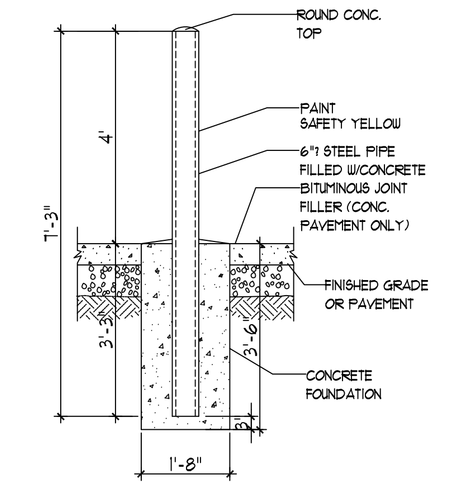
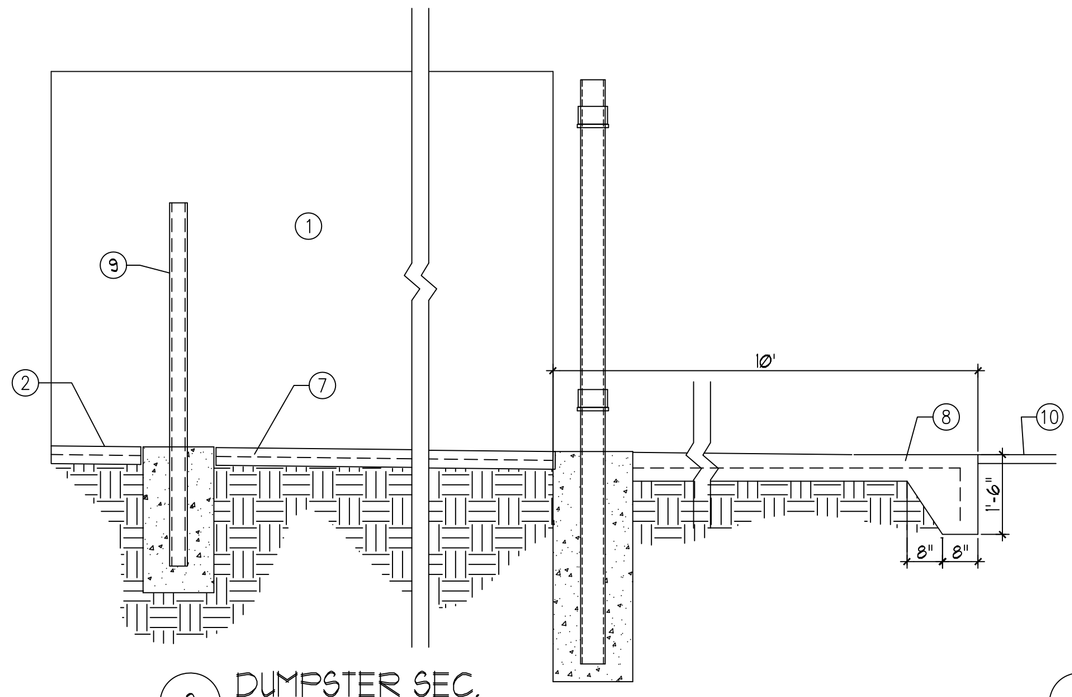
PHONE (505) 338-1499 FAX (505) 338-1498

PROJECT TITLE: HOTEL SITE DETAILS
WINROCK TOWN CENTER
ALBUQUERQUE NEW MEXICO
PROJECT MANAGER: STEPHEN DUNBAR, AIA
JOB NO.: WIN-BU
DRAWN BY: S-J
SHEET TITLE: SITE DETAILS

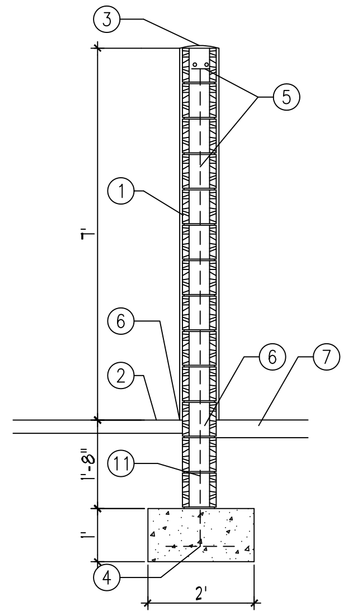
DATE: 10/25/2019
SCALE: AS NOTED
sheet- A1.2 of-



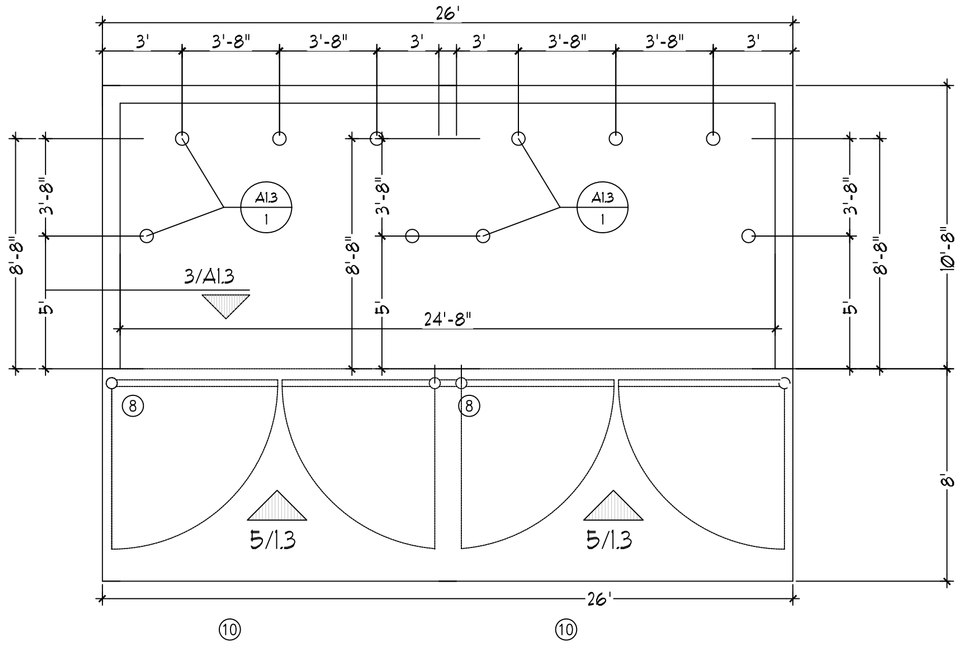
1 BOLLARD DETAIL
N.T.S



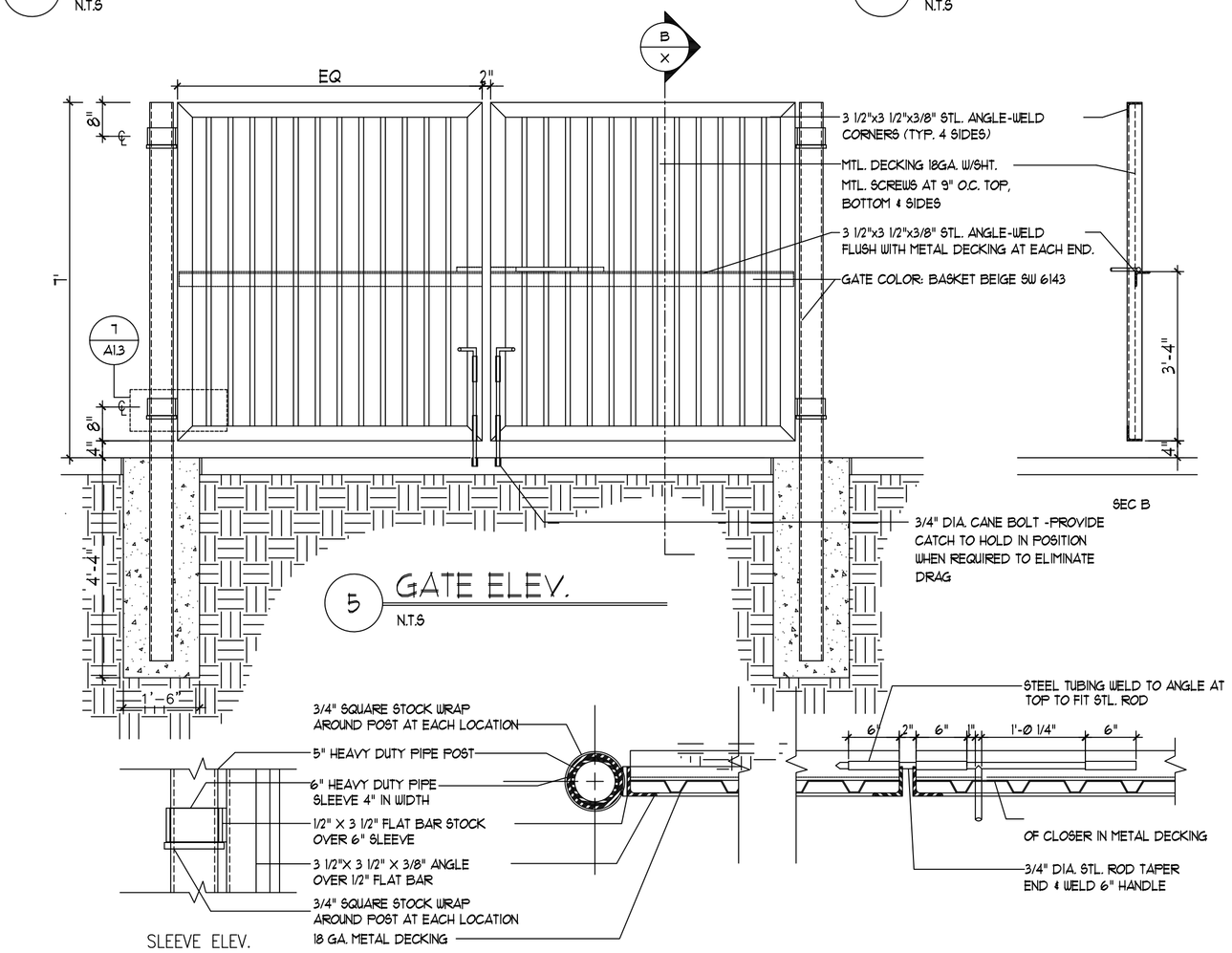
2 DUMPSTER SEC.
N.T.S



3 DUMPSTER SEC.
N.T.S



4 DUMPSTER PLAN
N.T.S



5 GATE ELEV.
N.T.S

7 GATE POST/SLIDE BOLT DETAIL
N.T.S

KEYED NOTES

1. 8" CMU WALL WITH 2 COAT SYN. STUCCO SYSTEM. COLOR:TO MATCH BLDG. BASE
2. FINISH GRADE.
3. SLOPE STUCCO CAP.
4. 4-#4 BARS CONT. @ BOTTOM OF FOOTING #4 @ 16" O.C. ACROSS BOTTOM OF FOOTING.
5. 2-#5 BARS @ TOP KNOCK-OUT BLOCK BOND BEAM, CONTINUOUS. #5 BARS @ 32" O.C. VERTICAL. GROUT REIN-FORCED CELLS, DURAWALL @ 16" O.C. HORIZONTAL.
6. 1/2" EXPANSION JOINT MATERIAL
7. 4" CONCRETE SLAB 4000 PSI 3/4" AGGREGATE WITH 6X6 - 10X10 WLM.
8. 6" CONCRETE APRON 4000 PSI 3/4" AGGREGATE WITH 6X6 - 10X10 WLM W/ TURNDOWN EDGE.
9. 6" CONCRETE FILLED PIPE IN 16" DIA. X 2'-6" DEEP CONC. FOOTING, PAINT TO MATCH STUCCO FINISH.
10. ASPHALT PAVING
11. GROUT ALL CELLS SOLID BELOW GRADE, TYPICAL.
12. 2" VENT TO +6" ABOVE TOP OF ENCLOSURE WALL. PROVIDE BREATHABLE VENT CAP
13. CLEAN OUT RE: DET 17/A1.3 FOR INFO
14. CATCH BASIN ZURN Z-887 6" X 20", SANI-FLO CATCH BASIN FABRICATED #6 GAGE TYPE 304 STAINLESS STEEL BASIN WITH BOLTED FLANGED CONNECTION COMPLETE WITH FLANGE GASKET, PROVIDE SPECIAL DUTY, CLASS "E" Z-882-DSE, DUCTILE IRON SLOTTED GRATE, AND SEDIMENT BASKET.

6 ENCLOSURE NOTES
N.T.S

REV	DATE	BY	REVISION
6			
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HOTEL SITE DETAILS
WINROCK TOWN CENTER
ALBUQUERQUE NEW MEXICO

PROJECT MANAGER
STEPHEN DUNBAR, AIA

JOB NO.
WIN-BJ

DRAWN BY:
S-J

SHEET TITLE
SITE DETAILS

DATE:
10/25/2018

SCALE:
AS NOTED

sheet-
A1.3
of-

HYDROLOGY

DRAINAGE AREA 100

AREA = 112,650 sf
AREA = 2.59 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.60 in.
1140 = 3.10 in.
10day = 4.90 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.66 in.	1.87 cfs/ac.
TREATMENT B	0.92 in.	2.60 cfs/ac.
TREATMENT C	1.29 in.	3.45 cfs/ac.
TREATMENT D	2.36 in.	5.02 cfs/ac.

	EXISTING CONDITIONS: %	AREA	PROPOSED CONDITIONS: %	AREA
TREATMENT A	0%	0.00 ac.	0%	0.00 ac.
TREATMENT B	0%	0.00 ac.	3%	0.08 ac.
TREATMENT C	5%	0.13 ac.	6%	0.16 ac.
TREATMENT D	95%	2.46 ac.	91%	2.35 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.13)+(2.36)x(2.46)/ 2.59 ac.
= 2.31 in.
V100-360 = (2.31)x(2.59)/ 12 = 0.497068 ac-ft = 21652 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.13)+(5.02)x(2.46)= 12.78 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.08)+(1.29)x(0.16)+(2.36)x(2.35)/ 2.59 ac.
= 2.25 in.
V100-360 = (2.25)x(2.59)/ 12.0 = 0.485452 ac-ft = 21146 cf

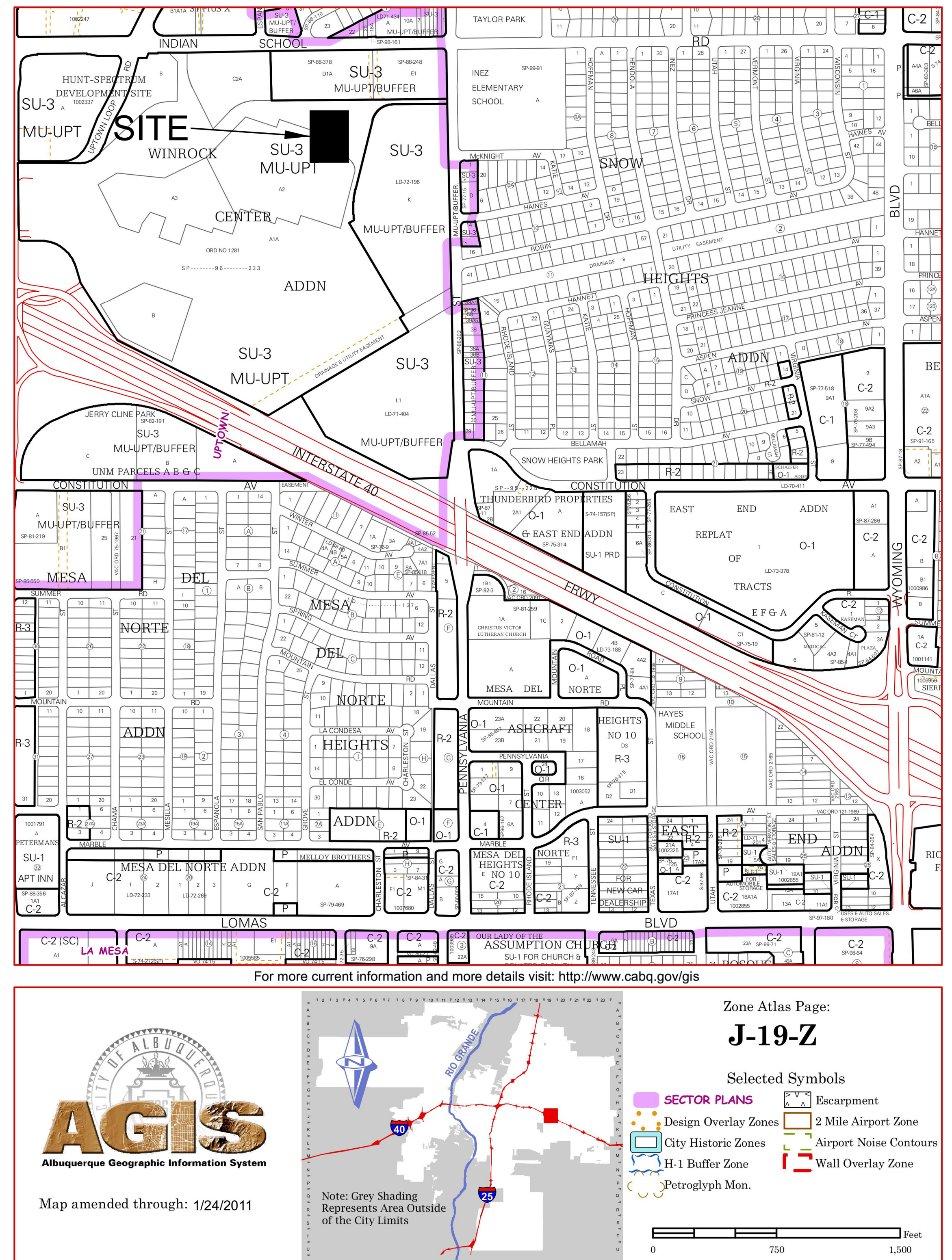
V100-1440 = (0.49)+(2.35)x(3.10 - 2.60)/ 12 = 0.583508 ac-ft = 25418 cf

V100-10day = (0.49)+(2.35)x(4.90 - 2.60)/ 12 = 0.936509 ac-ft = 40794 cf

PROPOSED PEAK DISCHARGE:

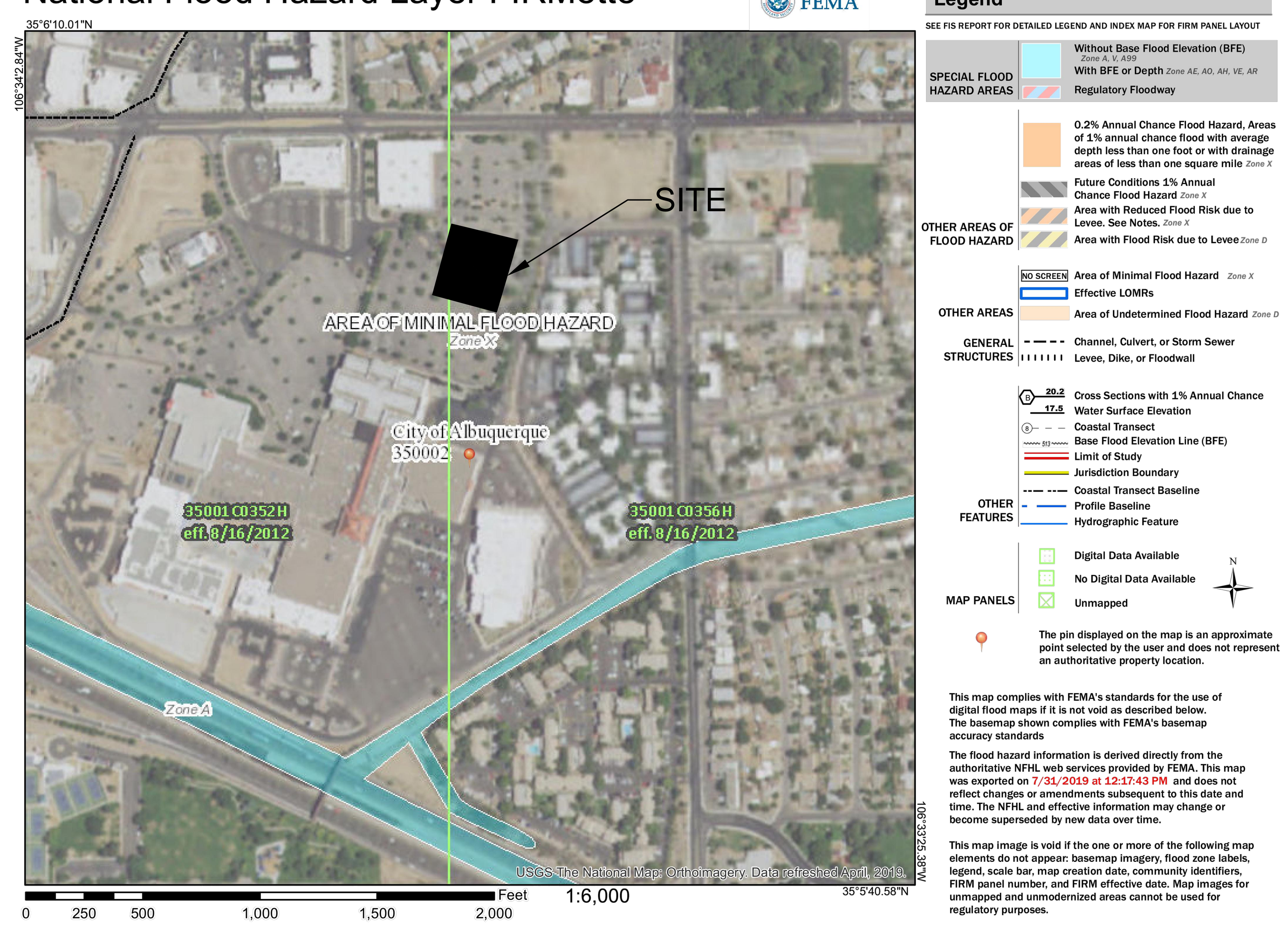
Q100 = (1.87)x(0.00)+(2.60)x(0.08)+(3.45)x(0.16)+(5.02)x(2.35)= 12.55 cfs

FIRST FLUSH VOLUME: CAPTURE AND MANAGE 0.26" OF RAINFALL
V = 2,441 cf



ZONE ATLAS PAGE J-19-Z

National Flood Hazard Layer FIRMette



FIRM PANEL 35001C0356H

EXISTING DRAINAGE CONDITIONS

THIS PORTION OF WINROCK IS CURRENTLY A PARKING FIELD AND OUTER LOOP ROAD. THIS PORTION OF WINROCK DISCHARGES TO INDIAN SCHOOL AT G PER THE APPROVED DRAINAGE IMPLEMENTATION PLAN PREPARED BY HUITT-ZOLLARS, INC DATED JULY 15, 2019.

FLOOD ZONE

PER THE FEMA MAP NUMBER 35001 C0356H DATED AUGUST 16, 2012 SHOWS THE SITE IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE AREA.

MASTER DRAINAGE PLAN

SITE DRAINAGE IS IN ACCORDANCE WITH THE APPROVED WINROCK TOWN CENTER MASTER DRAINAGE IMPLEMENTATION PLAN. THIS PROJECT IS WITHIN BASIN 200 WHICH DISCHARGES TO INDIAN SCHOOL WITH AN APPROVED FLOW RATE OF 81.1 CFS.

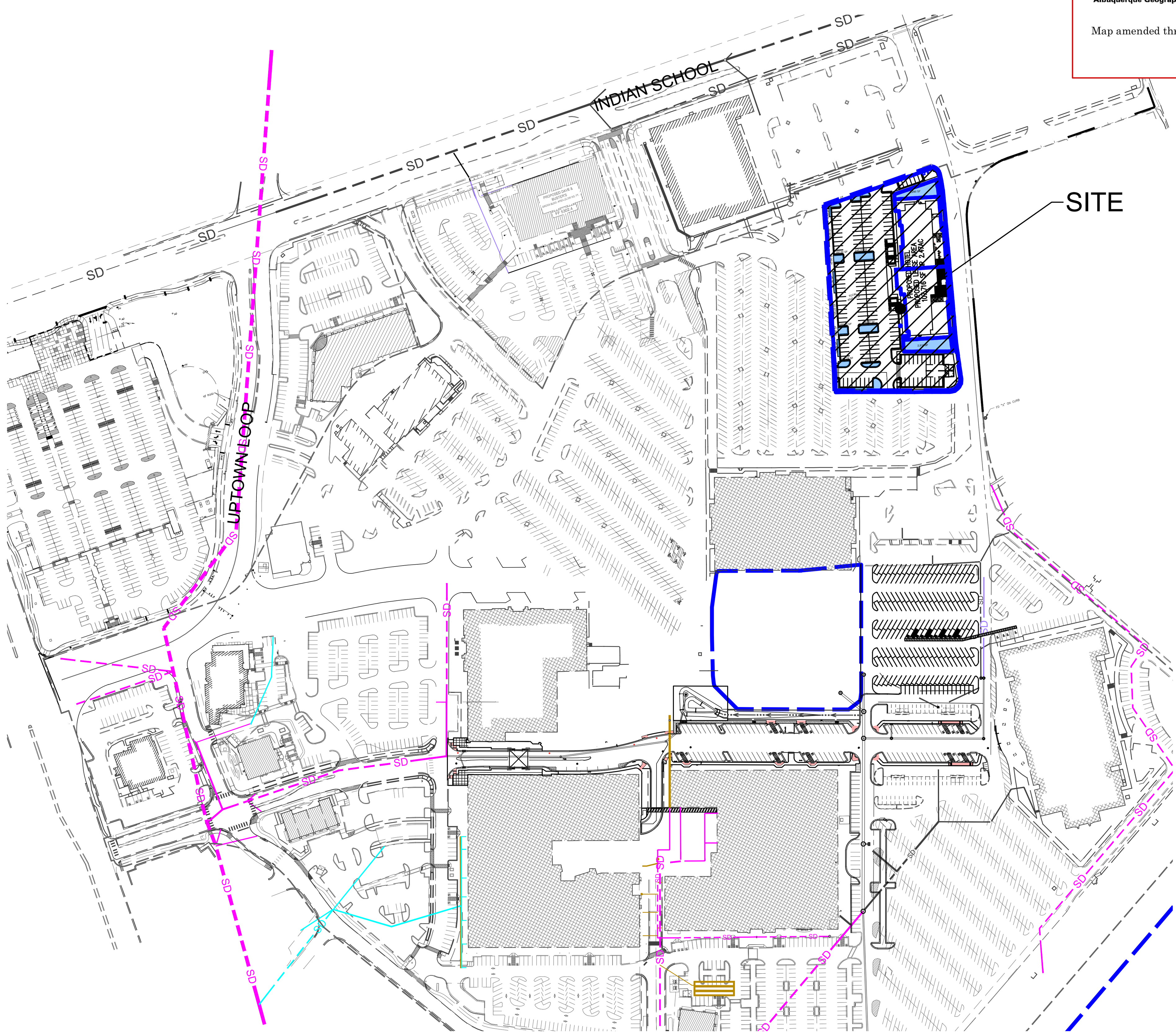
PROPOSED DRAINAGE CONDITIONS

DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE APPROVED DRAINAGE IMPLEMENTATION MASTER PLAN FOR WINROCK TOWN CENTER.

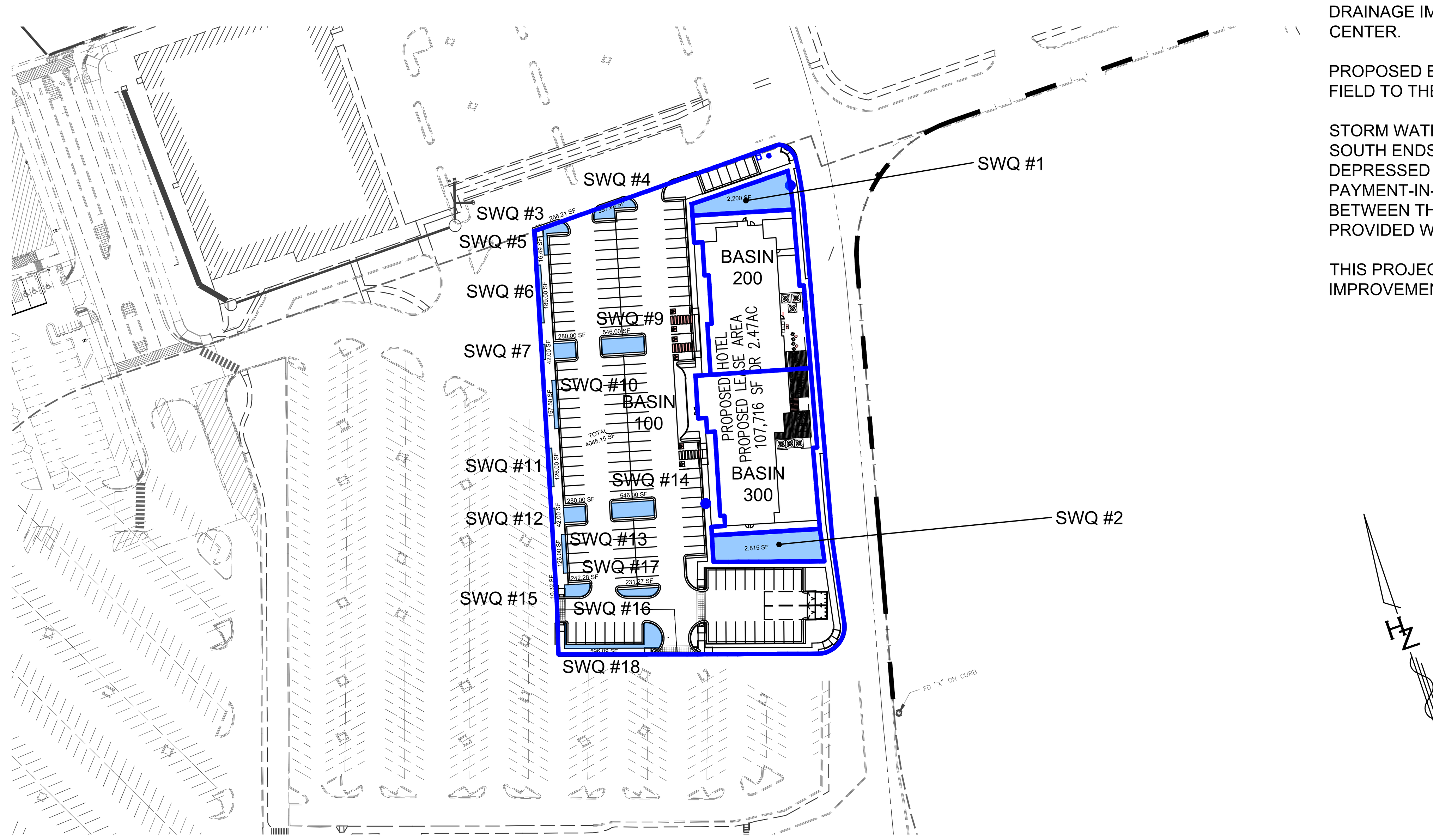
PROPOSED BASIN 100 MARRIOT DISCHARGES TO THE EXISTING PARKING FIELD TO THE WEST AND MAINTAINS EXISTING DRAINAGE PATTERNS.

STORM WATER QUALITY PONDS ARE LOCATED ON THE NORTH AND SOUTH ENDS OF THE HOTEL PLUS PARKING ISLANDS SHALL BE DEPRESSED TO PROVIDE ADDITIONAL WATER QUALITY CAPACITY. PAYMENT-IN-LIEU SHALL BE MADE TO THE CITY FOR THE DIFFERENCE BETWEEN THE REQUIRED WATER QUALITY POND CAPACITY AND THE PROVIDED WATER QUALITY POND CAPACITY.

THIS PROJECT DOES NOT REQUIRE ANY PUBLIC INFRASTRUCTURE IMPROVEMENTS.



VICINITY MAP
SCALE: 1" = 200'



BASIN MAP
SCALE: 1" = 100'

CONCEPTUAL-NOT-FOR-CONSTRUCTION

AS BUILT INFORMATION	
CONTRACTOR	DATE
WORK STAKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS

FOUND MONUMENT "1_H19A"
A CITY OF ALBUQUERQUE BRASS DISK SET IN A CONCRETE POST
0.1 FEET BELOWGROUND LEVEL AND IS STAMPED "1-H19A, 1969".
X = 1548358.44
Y = 1493076.47
ELEVATION IS 5326.611 (NAVD 1988)

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
ROBERT J. DEMENIE III
12/10/19

NO.	DATE	BY	REVISIONS REMARKS
			DESIGN

DESIGNED BY: NV DATE: DEC 2019
DRAWN BY: LT DATE: DEC 2019
DWG NAME: C100.dwg
CHECKED BY: SE DATE: DEC 2019

Designed By:
HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Parkway NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

MARRIOT SUITES @
WINROCK TOWN CENTER
ALBUQUERQUE, NM

TITLE: DRAINAGE PLAN

Design Review Committee	City Engineer	Mo./Day/Yr.	Mo./Day/Yr.

Last Update

City Project No. XXXX.XX
Zone Map No. J-19
Sheet C100 Of
SHEET ______

HYDROLOGY - BASIN 100

DRAINAGE AREA 100

AREA = 112,650 sf
AREA = 2.59 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.60 in.; 1140 = 3.10 in.; 10day = 4.90 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.66 in.	1.87 cfs/ac.
TREATMENT B	0.92 in.	2.60 cfs/ac.
TREATMENT C	1.29 in.	3.45 cfs/ac.
TREATMENT D	2.36 in.	5.02 cfs/ac.

	EXISTING CONDITIONS: %	AREA	PROPOSED CONDITIONS: %	AREA
TREATMENT A	0%	0.00 ac.	0%	0.00 ac.
TREATMENT B	0%	0.00 ac.	3%	0.08 ac.
TREATMENT C	5%	0.13 ac.	6%	0.16 ac.
TREATMENT D	95%	2.46 ac.	91%	2.35 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.13)+(2.36)x(2.46)/ 2.59 ac.
= 2.31 in.
V100-360 = (2.31)x(2.59)/ 12 = 0.497068 ac-ft = 21652 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.13)+(5.02)x(2.46)= 12.78 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.08)+(1.29)x(0.16)+(2.36)x(2.35)/ 2.59 ac.
= 2.25 in.
V100-360 = (2.25)x(2.59)/ 12.0 = 0.485452 ac-ft = 21146 cf
V100-1440 = (0.49)+(2.35)x(3.10 - 2.60)/ 12 = 0.583508 ac-ft = 25418 cf
V100-10day = (0.49)+(2.35)x(4.90 - 2.60)/ 12 = 0.936509 ac-ft = 40794 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.08)+(3.45)x(0.16)+(5.02)x(2.35)= 12.55 cfs

FIRST FLUSH VOLUME: CAPTURE AND MANAGE 0.26" OF RAINFALL
V = 2,441 cf

HYDROLOGY - SWQ #1

DRAINAGE AREA SWQ #1

AREA = 2,204 sf
AREA = 0.05 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.60 in.; 1140 = 3.10 in.; 10day = 4.90 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.66 in.	1.87 cfs/ac.
TREATMENT B	0.92 in.	2.60 cfs/ac.
TREATMENT C	1.29 in.	3.45 cfs/ac.
TREATMENT D	2.36 in.	5.02 cfs/ac.

	EXISTING CONDITIONS: %	AREA	PROPOSED CONDITIONS: %	AREA
TREATMENT A	0%	0.00 ac.	0%	0.00 ac.
TREATMENT B	0%	0.00 ac.	0%	0.00 ac.
TREATMENT C	0%	0.00 ac.	100%	0.05 ac.
TREATMENT D	100%	0.05 ac.	0%	0.00 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.00)+(2.36)x(0.05)/ 0.05 ac.
= 2.36 in.
V100-360 = (2.36)x(0.05)/ 12 = 0.009951 ac-ft = 433 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.00)+(5.02)x(0.05)= 0.25 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.05)+(2.36)x(0.00)/ 0.05 ac.
= 1.29 in.
V100-360 = (1.29)x(0.05)/ 12.0 = 0.005439 ac-ft = 237 cf
V100-1440 = (0.01)+(0.00)x(3.10 - 2.60)/ 12 = 0.005439 ac-ft = 237 cf
V100-10day = (0.01)+(0.00)x(4.90 - 2.60)/ 12 = 0.005439 ac-ft = 237 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.05)+(5.02)x(0.00)= 0.17 cfs

HYDROLOGY - SUB-BASIN 100A

DRAINAGE SUB-BASIN 100A

AREA = 13,399 sf
AREA = 0.31 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.60 in.; 1140 = 3.10 in.; 10day = 4.90 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.66 in.	1.87 cfs/ac.
TREATMENT B	0.92 in.	2.60 cfs/ac.
TREATMENT C	1.29 in.	3.45 cfs/ac.
TREATMENT D	2.36 in.	5.02 cfs/ac.

	EXISTING CONDITIONS: %	AREA	PROPOSED CONDITIONS: %	AREA
TREATMENT A	0%	0.00 ac.	0%	0.00 ac.
TREATMENT B	0%	0.00 ac.	0%	0.00 ac.
TREATMENT C	5%	0.02 ac.	0%	0.00 ac.
TREATMENT D	95%	0.29 ac.	100%	0.31 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.02)+(2.36)x(0.29)/ 0.31 ac.
= 2.31 in.
V100-360 = (2.31)x(0.31)/ 12 = 0.059123 ac-ft = 2575 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.02)+(5.02)x(0.29)= 1.52 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.00)+(2.36)x(0.31)/ 0.31 ac.
= 2.36 in.
V100-360 = (2.36)x(0.31)/ 12.0 = 0.060494 ac-ft = 2635 cf
V100-1440 = (0.06)+(0.31)x(3.10 - 2.60)/ 12 = 0.073311 ac-ft = 3193 cf
V100-10day = (0.06)+(0.31)x(4.90 - 2.60)/ 12 = 0.119451 ac-ft = 5203 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.00)+(5.02)x(0.31)= 1.54 cfs

HYDROLOGY - SWQ #2

DRAINAGE AREA SWQ #2

AREA = 2,819 sf
AREA = 0.06 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.60 in.; 1140 = 3.10 in.; 10day = 4.90 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.66 in.	1.87 cfs/ac.
TREATMENT B	0.92 in.	2.60 cfs/ac.
TREATMENT C	1.29 in.	3.45 cfs/ac.
TREATMENT D	2.36 in.	5.02 cfs/ac.

	EXISTING CONDITIONS: %	AREA	PROPOSED CONDITIONS: %	AREA
TREATMENT A	0%	0.00 ac.	0%	0.00 ac.
TREATMENT B	0%	0.00 ac.	0%	0.00 ac.
TREATMENT C	0%	0.00 ac.	100%	0.06 ac.
TREATMENT D	100%	0.06 ac.	0%	0.00 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.00)+(2.36)x(0.06)/ 0.06 ac.
= 2.36 in.
V100-360 = (2.36)x(0.06)/ 12 = 0.012727 ac-ft = 554 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.00)+(5.02)x(0.06)= 0.32 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.06)+(2.36)x(0.00)/ 0.06 ac.
= 1.29 in.
V100-360 = (1.29)x(0.06)/ 12.0 = 0.006957 ac-ft = 303 cf
V100-1440 = (0.01)+(0.00)x(3.10 - 2.60)/ 12 = 0.006957 ac-ft = 303 cf
V100-10day = (0.01)+(0.00)x(4.90 - 2.60)/ 12 = 0.006957 ac-ft = 303 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.06)+(5.02)x(0.00)= 0.22 cfs

HYDROLOGY - SUB-BASIN 100B

DRAINAGE SUB-BASIN 100B

AREA = 14,536 sf
AREA = 0.33 ac.

DRAINAGE ZONE 3
PRECIPITATION: 360 = 2.60 in.; 1140 = 3.10 in.; 10day = 4.90 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE:
TREATMENT A	0.66 in.	1.87 cfs/ac.
TREATMENT B	0.92 in.	2.60 cfs/ac.
TREATMENT C	1.29 in.	3.45 cfs/ac.
TREATMENT D	2.36 in.	5.02 cfs/ac.

	EXISTING CONDITIONS: %	AREA	PROPOSED CONDITIONS: %	AREA
TREATMENT A	0%	0.00 ac.	0%	0.00 ac.
TREATMENT B	0%	0.00 ac.	0%	0.00 ac.
TREATMENT C	0%	0.00 ac.	0%	0.00 ac.
TREATMENT D	100%	0.33 ac.	100%	0.33 ac.

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.00)+(2.36)x(0.33)/ 0.33 ac.
= 2.36 in.
V100-360 = (2.36)x(0.33)/ 12 = 0.065628 ac-ft = 2859 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.00)+(5.02)x(0.33)= 1.68 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.66)x(0.00)+(0.92)x(0.00)+(1.29)x(0.00)+(2.36)x(0.33)/ 0.33 ac.
= 2.36 in.
V100-360 = (2.36)x(0.33)/ 12.0 = 0.065628 ac-ft = 2859 cf
V100-1440 = (0.07)+(0.33)x(3.10 - 2.60)/ 12 = 0.079532 ac-ft = 3464 cf
V100-10day = (0.07)+(0.33)x(4.90 - 2.60)/ 12 = 0.129587 ac-ft = 5645 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.87)x(0.00)+(2.60)x(0.00)+(3.45)x(0.00)+(5.02)x(0.33)= 1.68 cfs

SWQ #1 POND RATING

Proposed Pond Rating Curve SWQ #1

November 2019

Depth	Area		Volume	Cum. Volume	Cum. Volume	Outlet Pipe	Pond Inlet
(ft)	(sq ft)	(ac)	(ac-ft)	(ac-ft)	(CF)	(CFS)	(CFS)
5310.0	471	0.011	0	0	0	0.0	1.5
5311.0	1153	0.026	0.019	0.019	812	0.0	1.5
5312.0	2005	0.046	0.036	0.055	2391	0.0	1.5
5312.2	2190	0.050	0.010	0.065	2810	0.0	1.5
5312.3	2237	0.051	0.003	0.067	2921	0.0	0

Top of Pond = 5312.3
Bottom of Pond = 5310.0
Maximum Water Surface Elevation = 5312.2
Required Pond Volume: 2,635 CF
Provided Pond Volume = 2,921 CF

SWQ #2 POND RATING

Proposed Pond Rating Curve SWQ #2

November 2019

Depth	Area		Volume	Cum. Volume	Cum. Volume	Outlet Pipe	Pond Inlet
(ft)	(sq ft)	(ac)	(ac-ft)	(ac-ft)	(CF)	(CFS)	(CFS)
5310.0	807	0.019	0	0	0	0.0	1.7
5311.0	1621	0.037	0.028	0.028	1214	0.0	1.7
5311.9	2438	0.056	0.040	0.067	2939	0.0	1.7
5312.0	2563	0.059	0.009	0.076	3314	0.0	1.7
5312.2	2819	0.065	0.012	0.088	3852	0.0	

Top of Pond = 5312.2
Bottom of Pond = 5310.0
Maximum Water Surface Elevation = 5311.9
Required Pond Volume: 2,859 CF
Provided Pond Volume = 3,852 CF

CONCEPTUAL-NOT-FOR-CONSTRUCTION

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTOR'S ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS
FOUND MONUMENT "1_H19A"
A CITY OF ALBUQUERQUE BRASS DISK SET IN A CONCRETE POST
0.1 FEET BELOWGROUND LEVEL AND IS STAMPED "1-H19A, 1969".
X = 1548358.44
Y = 1493076.47
ELEVATION IS 5326.611 (NAVD 1988)

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
12/10/19

REVISIONS
NO. | DATE | REMARKS | BY
DESIGN
DESIGNED BY: NV — DATE: DEC 2019
DRAWN BY: LT — DATE: DEC 2019
DWG NAME: C100.dwg
CHECKED BY: SE — DATE: DEC 2019

Designed By:
HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Parkway NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

MARRIOT SUITES @
WINROCK TOWN CENTER
ALBUQUERQUE, NM

TITLE: HYDROLOGY

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. XXXX.XX
Zone Map No. J-19
Sheet C101 Of

SHEET ______

GRADING PLAN

CONSTRUCTION NOTES

1. CONSTRUCT 6" ASPHALT CURB PER COA STD. DWG. 2415
2. CONSTRUCT 3" SP-C ASPHALT PARKING LOT.
3. STORM WATER QUALITY POND
4. CURB CUT
5. ROOF DRAIN

LEGEND

- DISCHARGE LOCATION
- FLOW DIRECTION
- LIMITS OF DISTURBANCE
- HIGH POINT

EARTHWORK SUMMARY

CUT: 1,00 CUBIC YARDS
FILL: 1,600 CUBIC YARDS
NET: 500 CUBIC YARDS (FILL)

SCALE: 1" = 30'

AS BUILT INFORMATION

CONTRACTOR	DATE
WORK STAKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE

MICRO-FILM INFORMATION

RECORDED BY	DATE
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SURVEY INFORMATION

FIELD NOTES		
NO.	BY	DATE

ENGINEER'S SEAL

ROBERT J. DEMENIE III — 12/10/19

REVISIONS

NO.	DATE	REMARKS	BY

DESIGN

DESIGNED BY: NV — DATE: DEC 2019
DRAWN BY: LT — DATE: DEC 2019
DWG NAME: C101.dwg
CHECKED BY: SE — DATE: DEC 2019

Designed By:
HUITT-ZOLLARS
Huitt-Zollars, Inc. Albuquerque
6501 Americas Parkway NE, Suite 550
Albuquerque, New Mexico 87110
Phone (505) 883-8114 Fax (505) 883-5022

MARRIOT SUITES @
WINROCK TOWN CENTER
ALBUQUERQUE, NM

TITLE: GRADING PLAN FOR DRB SITE PLAN

Design Review Committee	City Engineer	Last Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
XXXX.XX	J-19	C102	

SHEET ________

CONCEPTUAL-NOT-FOR-CONSTRUCTION