

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

November 19, 2020

Paul Cragun, P.E.
Cumulus Design
2080 N. Highway 360, Suite 240
Grand Prairie, TX 75050

**RE: Chase Bank – Indian School Rd.
6670 Indian School Rd. NE
Grading and Drainage Plans
Engineer's Stamp Date: 11/09/20
Hydrology File: J18D001C**

Dear Mr. Cragun:

Based upon the information provided in your submittal received 11/09/2020, the Grading and Drainage Plans are approved for Building Permit and action by the DRB on Site Plan for Building Permit.

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

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.

The Payment in Lieu payment of **\$2,028.80** must be paid prior to Permanent Release of Occupancy approval. Please use the attached City of Albuquerque Treasury Deposit form. Once the Owner paid the fee, please provide Hydrology with a copy of the receipt.

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

Sincerely,

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



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Chase Bank -Indian School Rd **Building Permit #:** BP-2020-40424 **Hydrology File #:** J18D001C
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: TRACT 1-D-1A1 PARK SQUARE ADDITION
City Address: 6670 INDIAN SCHOOL ROAD NE ALBUQUERQUE, NEW MEXICO 87110

Applicant: Cumulus Design **Contact:** Carlos Iglesias
Address: 2080 N. Highway 360 #240, Grand Prairie, Texas 750
Phone#: 214-235-0367 **Fax#:** _____ **E-mail:** carlos@cumulusdesign.net
Owner: JP Morgan Chase Bank **Contact:** Sunil Dubey
Address: 7301 North Federal Blvd. Westminster, Colorado 80030
Phone#: 720-275-0480 **Fax#:** _____ **E-mail:** _____

TYPE OF SUBMITTAL: _____ PLAT (_____ # OF LOTS) _____ RESIDENCE ☒ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL?: ☒ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION ☒ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

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

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

_____ BUILDING PERMIT APPROVAL
_____ 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: November 05, 2020 **By:** Carlos Iglesias

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

Review Comments

Chase Bank – Indian School Rd.

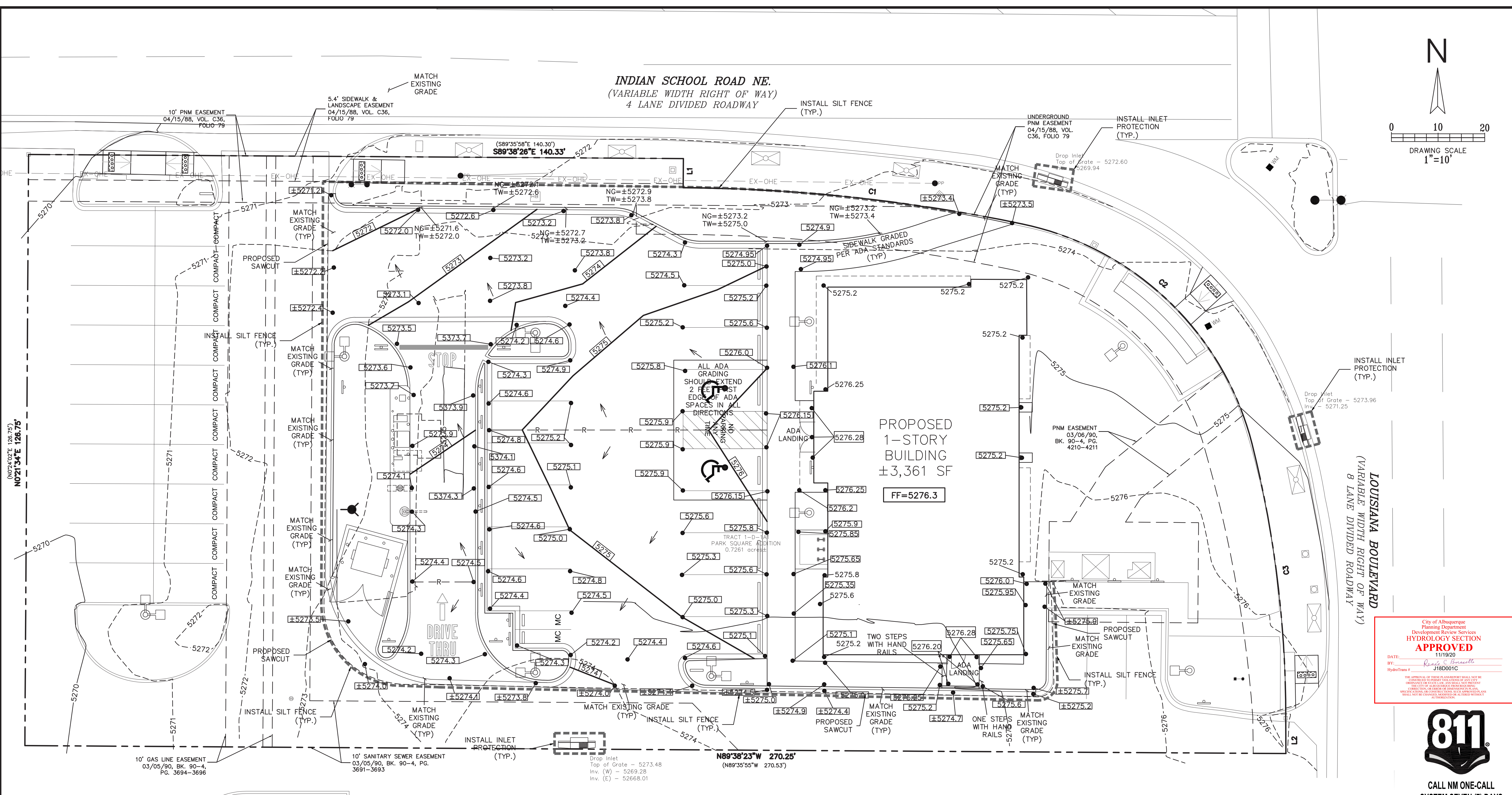
6670 Indian School Rd. NE

Grading and Drainage Plan

Engineer's Stamp Date: 10/08/20

Hydrology File: J18D001C

1. Please use the procedure for 40 acre and smaller basins as outlined in Development Process Manual (DPM) (signed 06/08/20) Article 6-2(a). Please provide both the existing conditions and proposed conditions for the 100-year 6-hour storm event.
Response: Noted. Used the 100-year 6-hour storm event.
2. Provide management onsite for the Stormwater Quality Volume (SWQV) in accordance with the new drainage ordinance, § 14-5-2-6 (H) enacted 10/2/18 (Council Bill C/S O-18-2) and as outlined in DPM (signed 06/08/20) Article 6-12 Stormwater Quality and Low-Impact Development for the sizing calculations. Since this site is a redevelopment the SWQ pond volume will be $0.26 * \text{new impervious area (sf)} * 1/12$. Please show the top and bottom of the ponds along with the volume for each pond. The onsite drainage should be directed to these ponds prior to either being collected in the existing inlet or leaving the site for the public drainage system.
Response: Stormwater Quality Volume calculated. Request Payment-In-Lieu for Public Off-Site Mitigation.
3. Please show the edge of saw cut of the existing pavement and label along this, "Match existing grades". It is currently unclear where the area of construction is starting/stopping.
Response: Saw cut and label added to sheet C5.01.
4. On the Grading Plan, please shade back the existing survey points. It is hard to read what is being proposed.
Response: Existing Survey spot shots removed.
5. 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.
Response: Noted. The area of disturbance is less than one-acre.



GRADING NOTES:

- ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THESE PLANS, CITY STANDARDS, SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL MAKE CERTAIN THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL RESPONSIBLE PARTIES OF THE PERMITTING AUTHORITIES.
- BARRICADING, TRAFFIC CONTROL, AND PROJECT SIGNS SHALL CONFORM TO NEW MEXICO DEPARTMENT OF TRANSPORTATION RULES AND SPECIFICATIONS.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL AND SOLE RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES IS TO BE REPAIRED AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL VERIFY ALL EXISTING INVERTS AND RIM ELEVATIONS PRIOR TO CONSTRUCTION. IF CONFLICTS EXIST, THE CONTRACTOR IS TO CONTACT ENGINEER.
- BENCHMARKS HAVE BEEN PROVIDED AS A REFERENCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, VERIFY, AND/OR ESTABLISH A BENCHMARKS PRIOR TO CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SURVEY STAKES AND MARKERS FOR THE DURATION OF THE PROJECT. IF ANY CONSTRUCTION STAKES OR MARKERS ARE LOST OR DISTURBED AND ARE NEEDED TO BE REPLACED, SUCH REPLACEMENT SHALL BE BY THE SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

7. EROSION CONTROLS SHALL BE IN PLACE PRIOR TO THE DISTURBANCE OF ANY EXISTING SURFACE.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY STANDARDS, NEW MEXICO STATE LAW, AND O.S.H.A. STANDARDS FOR ALL EXCAVATION.

9. ALL EARTHWORK OPERATIONS SHALL CONFORM TO THE RECOMMENDATIONS PER THE GEOTECHNICAL REPORT.

10. DRAINAGE SHOULD BE MAINTAINED AWAY FROM THE FOUNDATIONS, BOTH DURING AND AFTER CONSTRUCTION.

11. ALL SIDEWALKS AND ACCESSIBLE ROUTE (INCLUDING HATCHED AREA ACROSS DRIVES) SHALL MAINTAIN A 2% MAXIMUM CROSS SLOPE AND A MAXIMUM 5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

12. SLOPE IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2% IN ANY DIRECTION.

13. PROVIDE "FLAT" LANDINGS AT TOP AND BOTTOM OF ALL RAMPS. THESE "FLAT" AREAS SHALL BE 5' LONG AND THE SLOPE SHALL NOT EXCEED 2% IN ANY DIRECTION.

14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND PARKING AT ALL TIMES.

15. SITE GRADING SHALL BE PERFORMED IN A MANNER TO DIRECT WATER AS INDICATED. SURFACE WATER SHALL NOT BE RELEASED ONTO ADJACENT PRIVATE PROPERTY.

THE EXISTING SITE TOPOGRAPHY WITHIN THE PROPERTY HAS A VERY GENTLE SLOPE. THE GROUND SLOPES DOWN TOWARDS THE NORTH, SOUTH AND WEST. THE PARKING LOT LOCATED IN THE WESTERN PORTION OF THE PROPERTY SLOPES DOWN TO THE NORTH-WEST AND WEST-SOUTHWEST. THE NORTHERN PORTION OF THE SITE HAS A VERY GENTLE SLOPE AS THE GROUND ELEVATION DECREASES BY APPROXIMATELY TWO FEET TO MATCH THE EXISTING ELEVATION ON INDIAN SCHOOL ROAD. THE REMAINING PROPERTY HAS THE SAME GENTLE SLOPE AS THE EXISTING PAVEMENT SLOPES TOWARDS THE WEST-SOUTHWEST. 100 FEET WEST OF THE PROPERTY ALONG INDIAN SCHOOL ROAD, THE GROUND SLOPES TOWARDS TO THE WEST. TO THE EAST OF THE SITE, LOUISIANA BOULEVARD RUNS NORTH/SOUTH. 100 FEET SOUTH OF THE SITE ALONG LOUISIANA BLVD., THE GROUND SLOPES TO THE SOUTH. THE PROPOSED CHASE BANK WILL NOT MAKE CHANGES TO THE EXISTING GENERAL TOPOGRAPHY OF THE SITE OR THE AREA.

LEGEND

	EXISTING CURB
	PROPOSED CURB
	EXISTING SPOT ELEVATION
	PROPOSED SPOT ELEVATION
	PROPOSED NATURAL GROUND SPOT ELEVATION
	PROPOSED CONTOUR
	LIMITS OF CONSTRUCTION
	PROPOSED RIDGE
	SILT FENCE
	INLET PROTECTION
	DIRECTIONAL FLOW ARROW
	PROPOSED SAWCUT
	NATURAL GROUND
	TOP OF WALL/CURB

THE BENCHMARKS ARE PROVIDED BASED ON THE ELEVATIONS PROVIDED BY SURVTEK CONSULTING SURVEYORS

BENCHMARK

ALBUQUERQUE MONUMENT "11-G19" N=1498464.315 E=1545105.455 CF=0.999660292 DELTA ALPHA = - 00'11'00.07" NMSP, CENTRAL ZONE, NAD 27 ELEVATION=5309.898 NAVD88

ALBUQUERQUE MONUMENT "20-H18" N=1493154.978 E=1545048.21 CF=0.999661580 DELTA ALPHA = - 00'11'00.11" NMSP, CENTRAL ZONE, NAD 27 ELEVATION=5383.222 NAVD88

CONTRACTOR SHALL COORDINATE WITH SURVEYOR FOR BENCHMARKS AND ELEVATIONS PRIOR TO CONSTRUCTION. ENGINEER NOT RESPONSIBLE FOR PROVIDING BENCHMARKS AND BEARINGS.

!!! CAUTION !!!

UNDERGROUND UTILITIES

EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION SUPPLIED BY VARIOUS PARTIES. THE ENGINEER DOES NOT ASSUME THE RESPONSIBILITY FOR THE UTILITY LOCATIONS SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO VERIFY THE HORIZONTALLY AND VERTICALLY LOCATION OF ALL UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED AND NOTIFY THE ENGINEER OF ALL CONFLICTS OF THE WORK WITH EXISTING FACILITIES. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE BY THE CONTRACTOR TO UTILITIES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THEIR OWN EXPENSE.

CALL: NEW MEXICO ONE CALL @ NM 811 AT LEAST 7 DAYS PRIOR TO CONSTRUCTION.

Cumulus Design

2080 N. Highway 360, Suite 240
Grand Prairie, Texas 75050
Tel. 214.235.0367

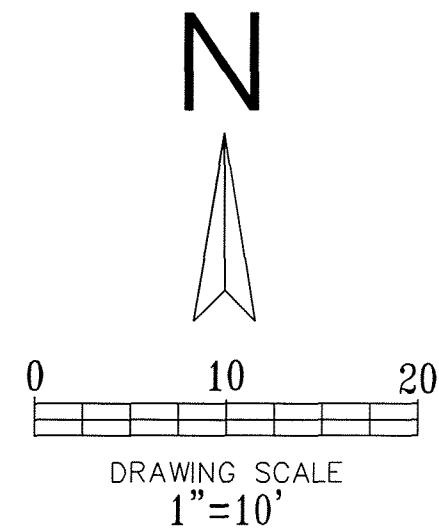
GRADING PLAN

6670 INDIAN SCHOOL ROAD
CITY OF ALBUQUERQUE, NEW MEXICO
BERNALILLO COUNTY

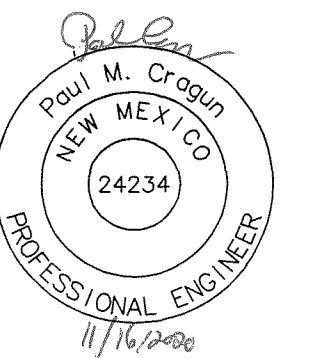
CHASE

PLOT DATE
11/05/20
DRAWING SCALE
1" = 10'
PROJECT NUMBER
CDC20013
SHEET NUMBER
C5.01

INDIAN SCHOOL ROAD NE.
(VARIABLE WIDTH RIGHT OF WAY)
4 LANE DIVIDED ROADWAY



Cumulus Design
2080 N. Highway 360, Suite 240
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Tel. 214.235.0367



DRAINAGE AREA MAP
6670 INDIAN SCHOOL ROAD
CITY OF ALBUQUERQUE, NEW MEXICO
BERNALILLO COUNTY

LOUISIANA BOULEVARD
(VARIABLE WIDTH RIGHT OF WAY)
8 LANE DIVIDED ROADWAY



LEGEND

- EXISTING CURB
- PROPOSED CURB
- EXISTING CONTOUR ELEVATION
- PROPOSED CONTOUR
- DRAINAGE AREA DIVIDE
- AREA DESCRIPTION
- FLOW ARROW
- PROPOSED VALLEY
- PROPOSED RIDGE

THE BENCHMARKS ARE PROVIDED BASED ON THE ELEVATIONS PROVIDED BY SURVEX CONSULTING SURVEYORS

BENCHMARK

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CALL: NEW MEXICO ONE CALL • NM 811 AT LEAST 7 DAYS PRIOR TO CONSTRUCTION.

REQUEST PAYMENT-IN-LIEU FOR PUBLIC OFF-SITE MITIGATION

CHASE

PLOT DATE
11/16/20
DRAWING SCALE
1" = 10'
PROJECT NUMBER
CDC20013
SHEET NUMBER
C8.01

(N024°02'E 126.75'
N021°34'E 126.75'

10' GAS LINE EASEMENT
03/05/90, BK. 90-4,
PG. 3694-3696

10' SANITARY SEWER EASEMENT
03/05/90, BK. 90-4, PG.
3691-3693

N89°38'23"W 270.25'
(N89°35'55"W 270.53')

(OS1)

(S89°35'58"E 140.30')
S89°38'26"E 140.33'

TRACT 1-D-1A
PARK SQUARE LOTION
0.7261 acres

PROPOSED
1-STORY BUILDING
±3,361 SF
FF=5276.3

PNM EASEMENT
03/06/90,
BK. 90-4, PG.
4210-4211

UNDERGROUND
PNM EASEMENT
04/15/88, VOL.
C36, FOLIO 79

5.4' SIDEWALK &
LANDSCAPE EASEMENT
04/15/88, VOL. C36,
FOLIO 79

10' PNM EASEMENT
04/15/88, VOL. C36,
FOLIO 79

DRAINAGE CRITERIA
ZONE 3
Q=C*I*A
I2=1.94 in/hr
I10=3.12 in/hr
I100=4.96 in/hr
tc=12 min.

PROPOSED DRAINAGE DATA CHART													
DRAINAGE ID	AREA (SQ. FT.)	AREA (AC.)	C2	C10	C100	Tc (min)	I2 (in/hr)	I10 (in/hr)	I100 (in/hr)	Q2 (cfs)	Q10 (cfs)	Q100 (cfs)	COMMENT
A	3361.09	0.08	0.89	0.54	0.91	5.0	1.94	3.12	4.96	0.13	0.13	0.35	ROOF DRAINS TO AREA "C" THEN TO INLET #1
B	17024.66	0.39	0.74	0.50	0.83	5.0	1.94	3.12	4.96	0.56	0.61	1.61	DRAINS TO INDIAN SCHOOL RD THEN TO INLET #2
C	7906.67	0.18	0.81	0.52	0.87	5.0	1.94	3.12	4.96	0.29	0.29	0.78	DRAINS TO INLET #1
D	3335.81	0.08	0.16	0.36	0.54	5.0	1.94	3.12	4.96	0.02	0.09	0.21	DRAINS TO LOUISIANA BLVD THEN TO INLET #3
OS1	7709.17	0.18	0.16	0.36	0.54	5.0	1.94	3.12	4.96	0.05	0.20	0.47	DRAINS TO AREA "C"
TOTAL	31628.23	0.73								1.06	1.32	3.42	

CALCULATIONS ARE BASED ON THE RATIONAL METHOD FROM CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL CHAPTER 6 – DRAINAGE, FLOOD CONTROL AND EROSION CONTROL. DATED 06/08/2020

COMPOSITE ANALYSIS FOR RUNOFF COEFFICIENT											
DRAINAGE ID	PERCENT IMPERVIOUS	PERCENT PERVIOUS	C IMPERVIOUS (2 year)	C PERVIOUS (2 year)	C IMPERVIOUS (10 year)	C PERVIOUS (10 year)	C IMPERVIOUS (100 year)	C PERVIOUS (100 year)	COMPOSITE C (2 year)	COMPOSITE C (10 year)	COMPOSITE C (100 year)
A	100.0	0.0	0.89	0.08	0.54	0.34	0.91	.50	0.89	0.54	0.91
B	81.2	18.8	0.89	0.08	0.54	0.34	0.91	.50	0.74	0.50	0.83
C	90.6	9.4	0.89	0.08	0.54	0.34	0.91	.50	0.81	0.52	0.87
D	9.5	90.5	0.89	0.08	0.54	0.34	0.91	.50	0.16	0.36	0.54
OS1	9.9	90.1	0.89	0.08	0.54	0.34	0.91	.50	0.16	0.36	0.54

80TH PERCENTILE STORMWATER QUALITY VOLUME TABLE			
DRAINAGE ID	NEW IMPERVIOUS AREA (SQ. FT.)	REDEVELOPMENT SITE FACTOR	80TH PERCENTILE STORM VOLUME (CFS)
A	3362.0	0.26	72.8
B	4980.0	0.26	107.9
C	3362.0	0.26	72.8
D	0.0	0.26	0.0
			253.6

REQUEST PAYMENT–IN–LIEU FOR PUBLIC OFF–SITE MITIGATION

WEIGHTED ANALYSIS FOR 6–HOUR EXCESS PRECIPITATION, 'E'						
DRAINAGE ID	LAND TREATMENT B	LAND TREATMENT D	AREA LAND TREATMENT B	AREA LAND TREATMENT D	WEIGHTED E (100 year) (IN)	VOLUME (100 year) (ACRE–FT)
A	0.86	2.58	0.000	0.080	2.580	0.045
B	0.86	2.58	0.073	0.317	2.257	0.008
C	0.86	2.58	0.017	0.163	2.418	0.056
D	0.86	2.58	0.008	0.0724	2.417	0.016
				TOTAL VOLUME		0.125



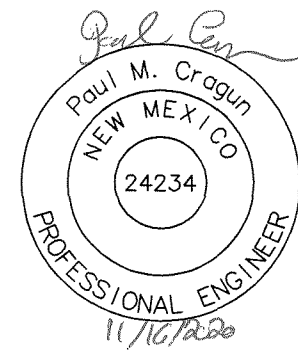
CALL NM ONE-CALL
SYSTEM SEVEN (7) DAYS
PRIOR TO ANY EXCAVATION

THE BENCHMARKS ARE PROVIDED BASED ON THE ELEVATIONS PROVIDED BY SURVETEK CONSULTING SURVEYORS

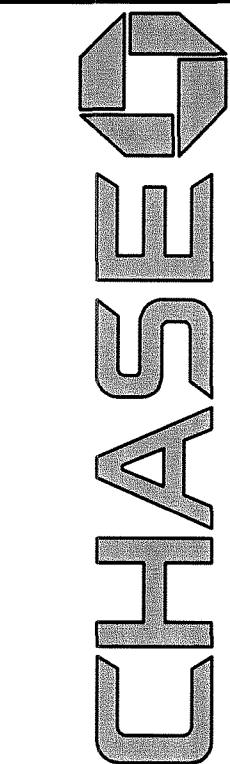
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CONTRACTOR SHALL COORDINATE WITH SURVEYOR FOR BENCHMARKS AND ELEVATIONS PRIOR TO CONSTRUCTION. ENGINEER NOT RESPONSIBLE FOR PROVIDING BENCHMARKS AND BEARINGS.

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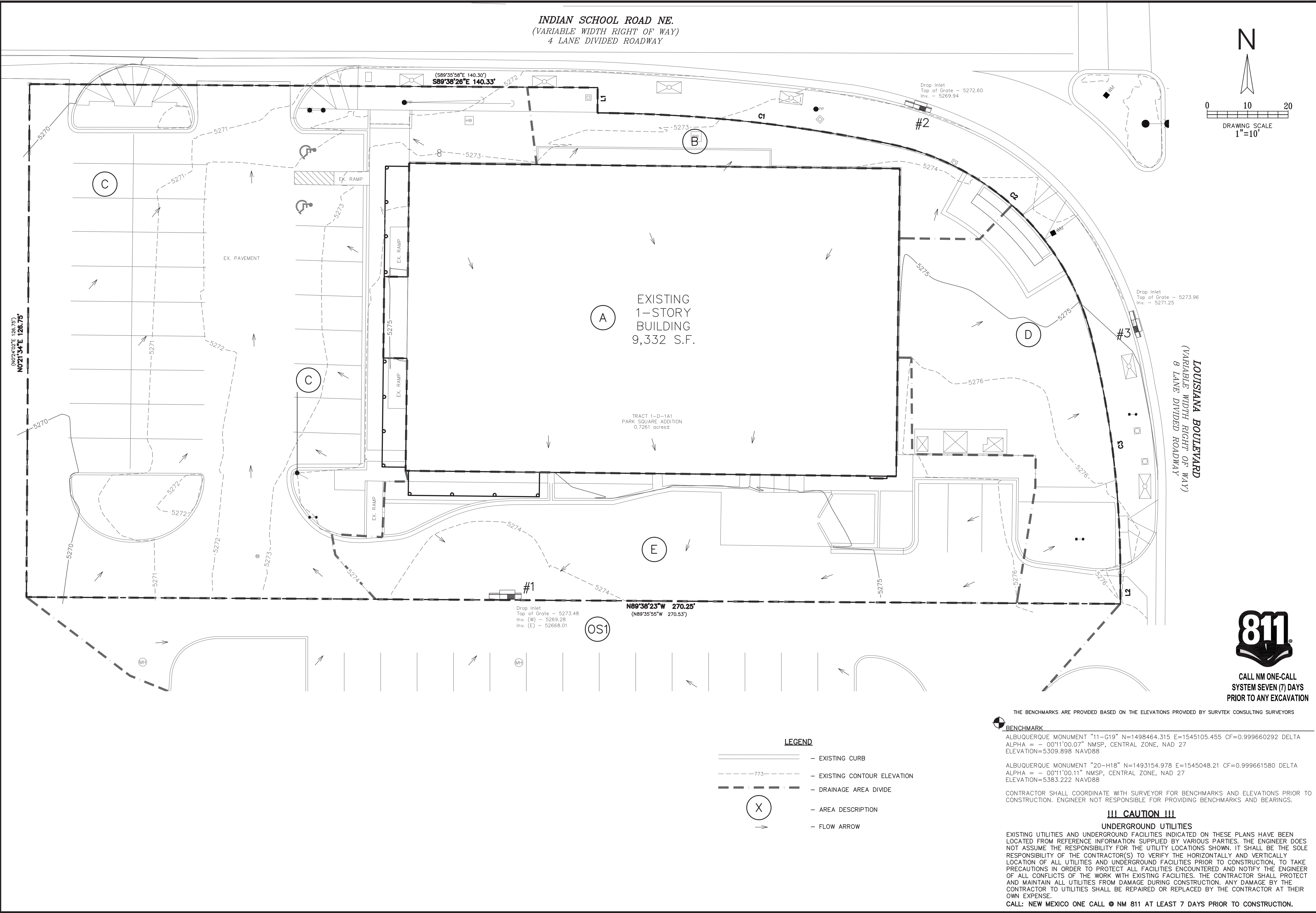


DRAINAGE AREA MAP
6670 INDIAN SCHOOL ROAD
CITY OF ALBUQUERQUE, NEW MEXICO
BERNALILLO COUNTY



PLOT DATE
11/16/20
DRAWING SCALE
PROJECT NUMBER
CDC20013
SHEET NUMBER
C8.02

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Cumulus Design
2080 N. Highway 360, Suite 240
Grand Prairie, Texas 75050
Tel. 214.235.0367

Paul M. Cragin
NEW MEXICO
24234
PROFESSIONAL ENGINEER
11/11/2024

EX. DRAINAGE AREA MAP

6670 INDIAN SCHOOL ROAD
CITY OF ALBUQUERQUE, NEW MEXICO

BERNALILLO COUNTY

CHASE

PLOT DATE
11/05/20
DRAWING SCALE
1" = 10'
PROJECT NUMBER
CDC20013
SHEET NUMBER
C7.01

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DRAINAGE CRITERIA
ZONE 3
Q=C*I*A
I2=1.94 in/hr
I10=3.12 in/hr
I100=4.96 in/hr
tc=12 min.

COMPOSITE ANALYSIS FOR RUNOFF COEFFICIENT											
DRAINAGE ID	PERCENT IMPERVIOUS	PERCENT PERVIOUS	C IMPERVIOUS (2 year)	C PERVIOUS (2 year)	C IMPERVIOUS (10 year)	C PERVIOUS (10 year)	C IMPERVIOUS (100 year)	C PERVIOUS (100 year)	COMPOSITE C (2 year)	COMPOSITE C (10 year)	COMPOSITE C (100 year)
A	100.0	0.0	0.89	0.08	0.54	0.34	0.91	.50	0.89	0.54	0.91
B	6.6	93.4	0.89	0.08	0.54	0.34	0.91	.50	0.13	0.35	0.53
C	89.5	10.5	0.89	0.08	0.54	0.34	0.91	.50	0.80	0.52	0.87
D	9.5	90.5	0.89	0.08	0.54	0.34	0.91	.50	0.16	0.36	0.54
E	89.5	10.5	0.89	0.08	0.54	0.34	0.91	.50	0.80	0.52	0.87
OS1	9.9	90.1	0.89	0.08	0.54	0.34	0.91	.50	0.16	0.36	0.54

EXISTING DRAINAGE DATA CHART													COMMENT
DRAINAGE ID	AREA (SQ. FT.)	AREA (AC.)	C2	C10	C100	Tc (min)	I2 (in/hr)	I10 (in/hr)	I100 (in/hr)	Q2 (cfs)	Q10 (cfs)	Q100 (cfs)	
A	9334.46	0.21	0.89	0.54	0.91	12.0	1.94	3.12	4.96	0.37	0.36	0.97	ROOF DRAINS TO AREA "E" THEN TO INLET #1
B	1540.23	0.04	0.13	0.35	0.53	12.0	1.94	3.12	4.96	0.01	0.04	0.09	DRAINS TO INDIAN SCHOOL RD THEN TO INLET #2
C	12041.98	0.28	0.80	0.52	0.87	12.0	1.94	3.12	4.96	0.43	0.45	1.19	DRAINS TO INDIAN SCHOOL RD THEN TO INLET #2
D	3329.78	0.08	0.16	0.36	0.54	12.0	1.94	3.12	4.96	0.02	0.09	0.20	DRAINS TO LOUISIANA BLVD THEN TO INLET #3
E	5381.77	0.12	0.80	0.52	0.87	12.0	1.94	3.12	4.96	0.19	0.20	0.53	DRAINS TO INLET #1
OS1	7709.17	0.18	0.16	0.36	0.54	12.0	1.94	3.12	4.96	0.05	0.20	0.47	DRAINS TO AREA "E"
TOTAL	31628.23	0.73								1.08	1.33	3.46	

CALCULATIONS ARE BASED ON THE RATIONAL METHOD FROM CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL CHAPTER 6 – DRAINAGE, FLOOD CONTROL AND EROSION CONTROL. DATED 06/08/2020

WEIGHTED ANALYSIS FOR 6–HOUR EXCESS PRECIPITATION, 'E'						
DRAINAGE ID	LAND TREATMENT B	LAND TREATMENT D	AREA LAND TREATMENT B	AREA LAND TREATMENT D	WEIGHTED E (100 year) (IN)	VOLUME (100 year) (ACRE–FT)
A	0.86	2.58	0.000	0.210	2.580	0.045
B	0.86	2.58	0.037	0.003	0.989	0.003
C	0.86	2.58	0.030	0.250	2.396	0.056
D	0.86	2.58	0.072	0.0080	1.032	0.007
E	0.86	2.58	0.013	0.107	2.394	0.036
				TOTAL VOLUME		0.147



CALL NM ONE-CALL
SYSTEM SEVEN (7) DAYS
PRIOR TO ANY EXCAVATION

THE BENCHMARKS ARE PROVIDED BASED ON THE ELEVATIONS PROVIDED BY SURVTEK CONSULTING SURVEYORS

BENCHMARK

ALBUQUERQUE MONUMENT "11–G19" N=1498464.315 E=1545105.455 CF=0.999660292 DELTA ALPHA = – 00°11'00.07" NMSP, CENTRAL ZONE, NAD 27 ELEVATION=5309.898 NAVD88

ALBUQUERQUE MONUMENT "20–H18" N=1493154.978 E=1545048.21 CF=0.999661580 DELTA ALPHA = – 00°11'00.11" NMSP, CENTRAL ZONE, NAD 27 ELEVATION=5383.222 NAVD88

CONTRACTOR SHALL COORDINATE WITH SURVEYOR FOR BENCHMARKS AND ELEVATIONS PRIOR TO CONSTRUCTION. ENGINEER NOT RESPONSIBLE FOR PROVIDING BENCHMARKS AND BEARINGS.

!!! CAUTION !!!

UNDERGROUND UTILITIES

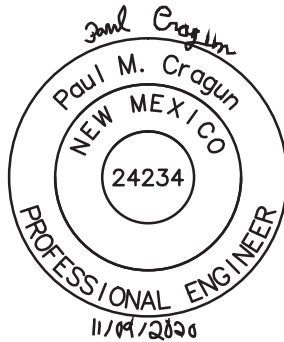
EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION SUPPLIED BY VARIOUS PARTIES. THE ENGINEER DOES NOT ASSUME THE RESPONSIBILITY FOR THE UTILITY LOCATIONS SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO VERIFY THE HORIZONTALLY AND VERTICALLY LOCATION OF ALL UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED AND NOTIFY THE ENGINEER OF ALL CONFLICTS OF THE WORK WITH EXISTING FACILITIES. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE BY THE CONTRACTOR TO UTILITIES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THEIR OWN EXPENSE.

CALL: NEW MEXICO ONE CALL ☎ NM 811 AT LEAST 7 DAYS PRIOR TO CONSTRUCTION.



Cumulus Design

2080 N. Highway 360, Suite 240
Grand Prairie, Texas 75050
Tel. 214.235.0367



EX. DRAINAGE AREA MAP

6670 INDIAN SCHOOL ROAD

CITY OF ALBUQUERQUE, NEW MEXICO

BERNALILLO COUNTY



PLOT DATE

11/05/20

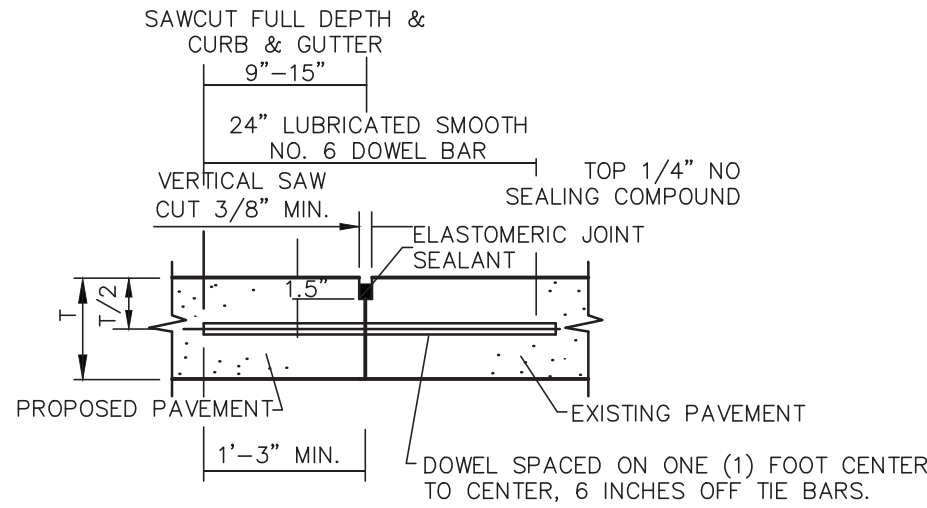
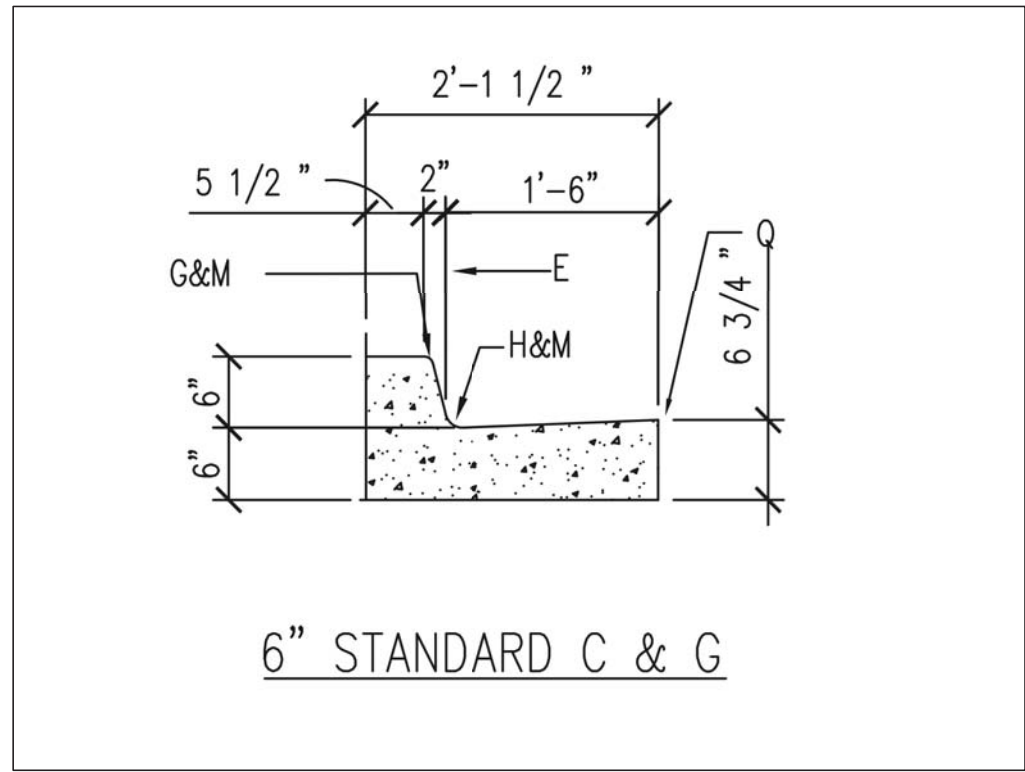
DRAWING SCALE

PROJECT NUMBER

CDC20013

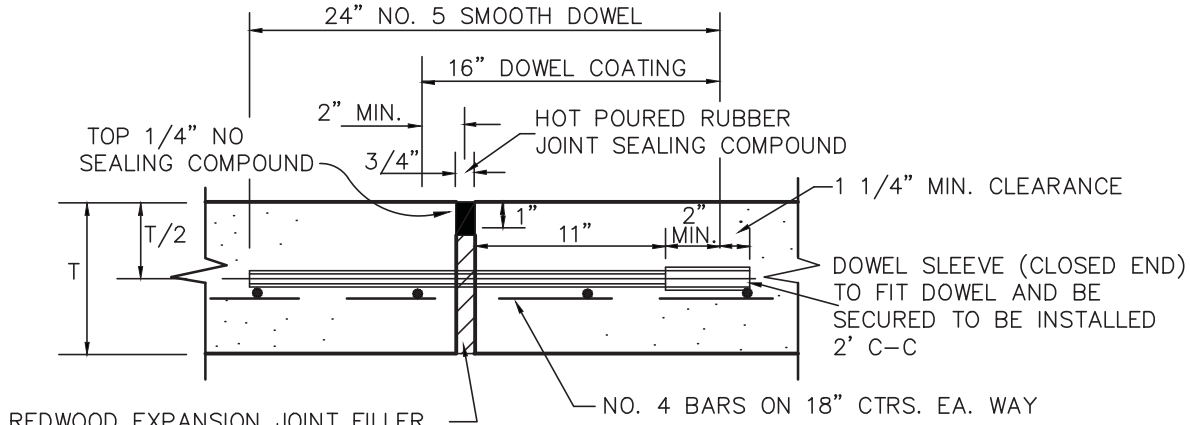
SHEET NUMBER

C7.02



NOTE:
DOWELS AND REINFORCING BARS SHALL BE PERPENDICULAR CONCRETE CURBS AND SHALL MATCH SIDEWALK JOINTS WHERE APPLICABLE.

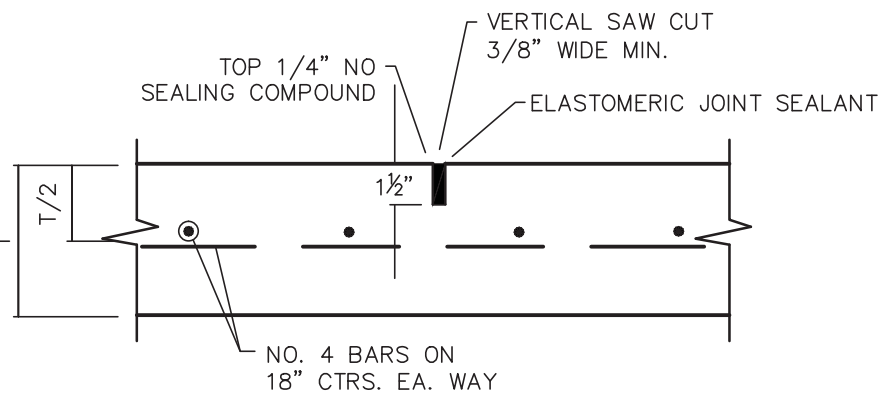
- NOTES:
- NO. 5 SMOOTH DOWEL BAR MAY BE USED IN 5 INCH AND 6 INCH PAVEMENT THICKNESS.
 - LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
 - DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
 - DRILLED BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO GREEN CONCRETE NOT ACCEPTABLE.



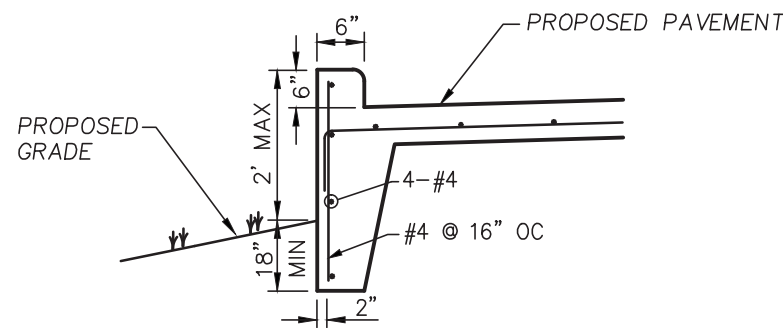
NOTE:
DOWELS AND REINFORCING BARS SHALL BE SUPPORTED BY AN APPROVED DEVICE. LOCATED AS INDICATED OR AS NEEDED. JOINTS TO BE ON MAXIMUM OF 75" SPACING AND LOCATED AT POINTS OF INFLECTION AND MINIMUM CONCRETE WIDTH WHERE POSSIBLE.

T=THICKNESS OF PAVEMENT

EXPANSION JOINT
N.T.S.

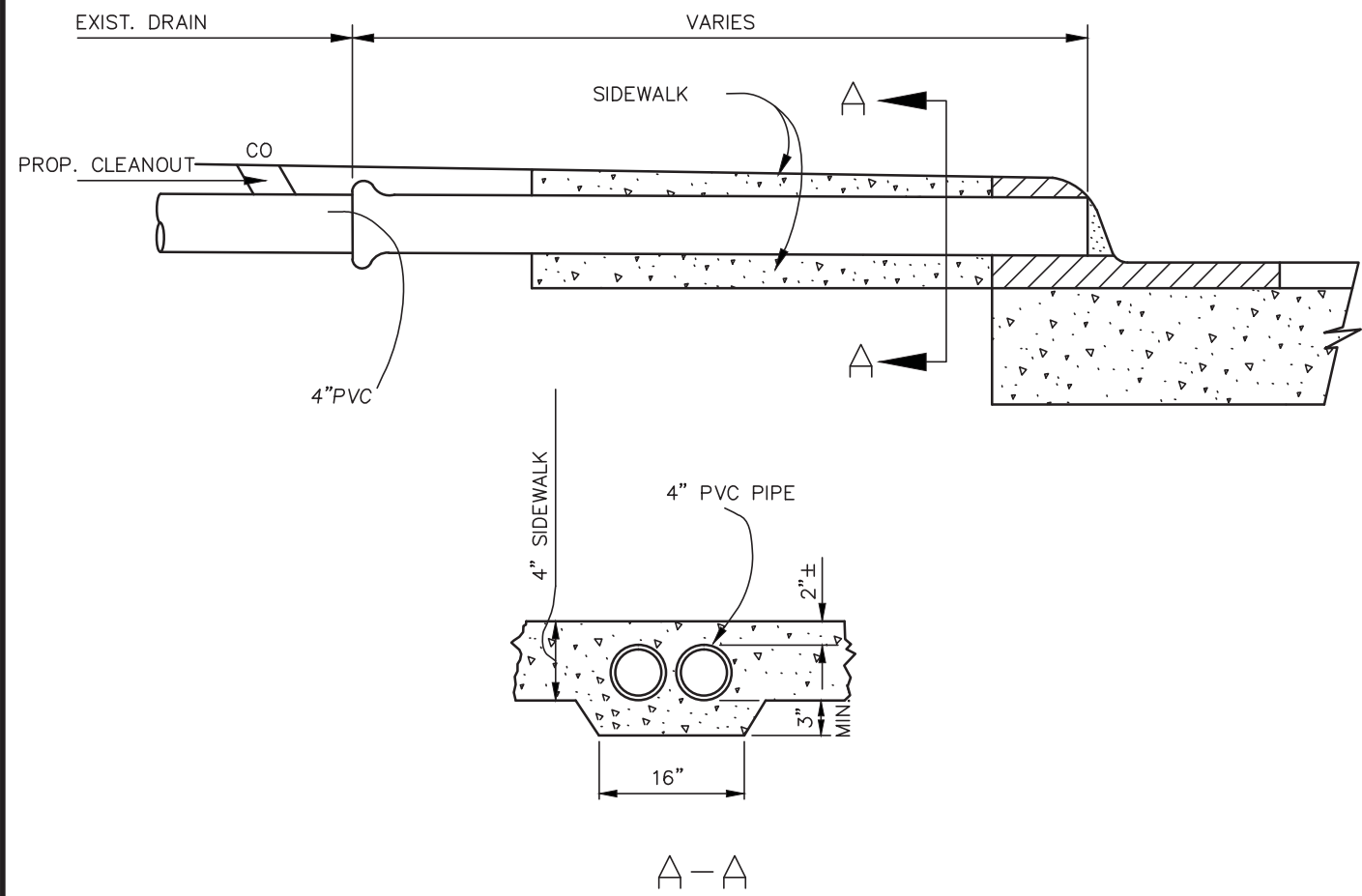


SAWED DUMMY (CONTROL) JOINT
N.T.S.

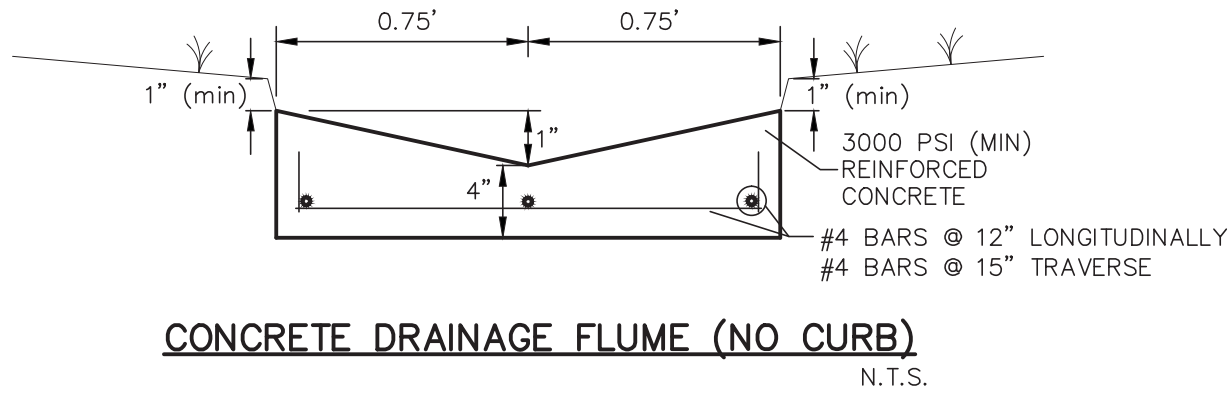


TURN DOWN CURB DETAIL
N.T.S.

PAVEMENT DETAILS

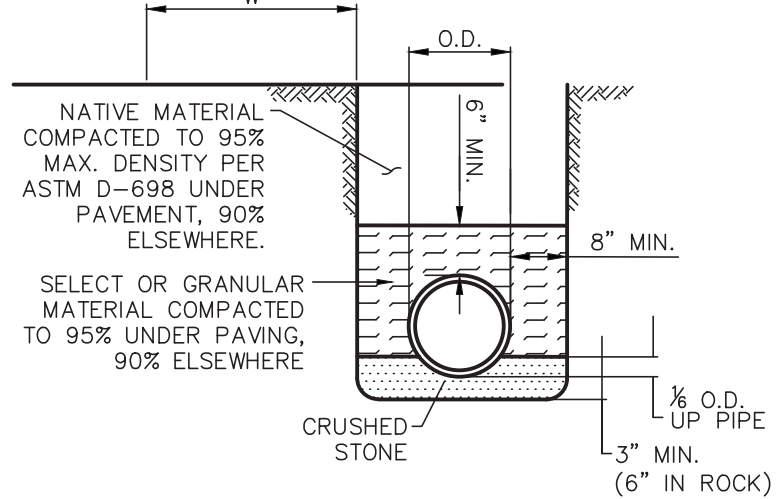


ROOF DRAIN THROUGH CURB
N.T.S.



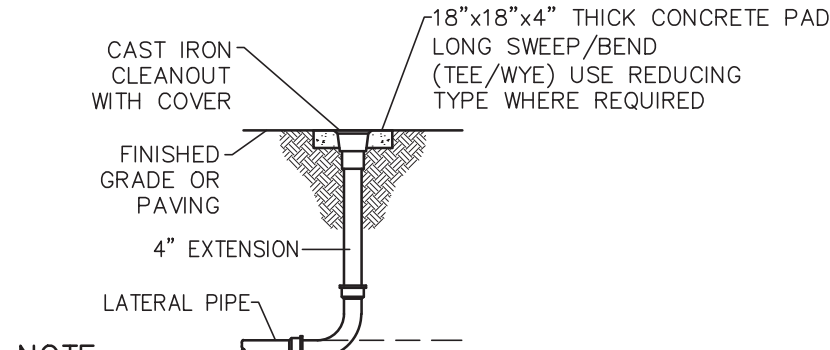
CONCRETE DRAINAGE FLUME (NO CURB)
N.T.S.

DRAINAGE DETAILS



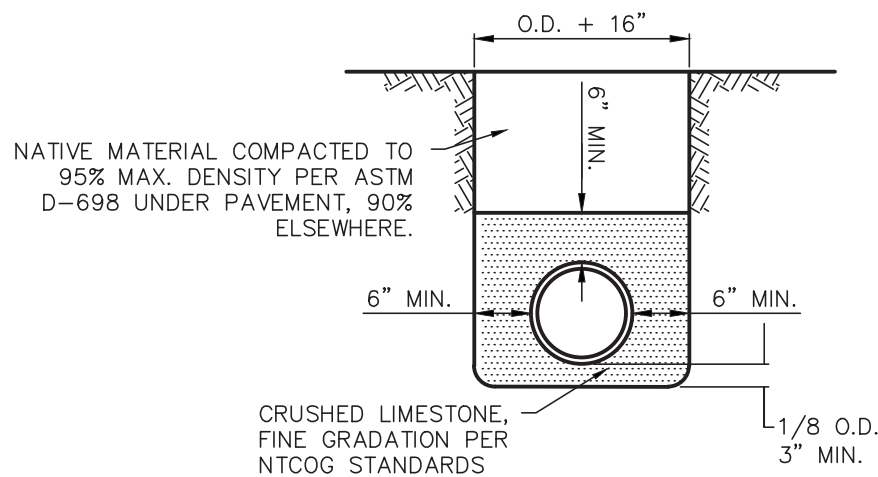
NOTE:
THESE ARE EMBEDMENTS FOR PRIVATE LINES. FOR PUBLIC LINES, CITY STANDARD DETAILS CONTROL.

RCP, DUCTILE IRON & PVC
WATER PIPE EMBEDMENT
N.T.S.



NOTE:
THESE ARE EMBEDMENTS FOR PRIVATE LINES. FOR PUBLIC LINES, CITY STANDARD DETAILS CONTROL.

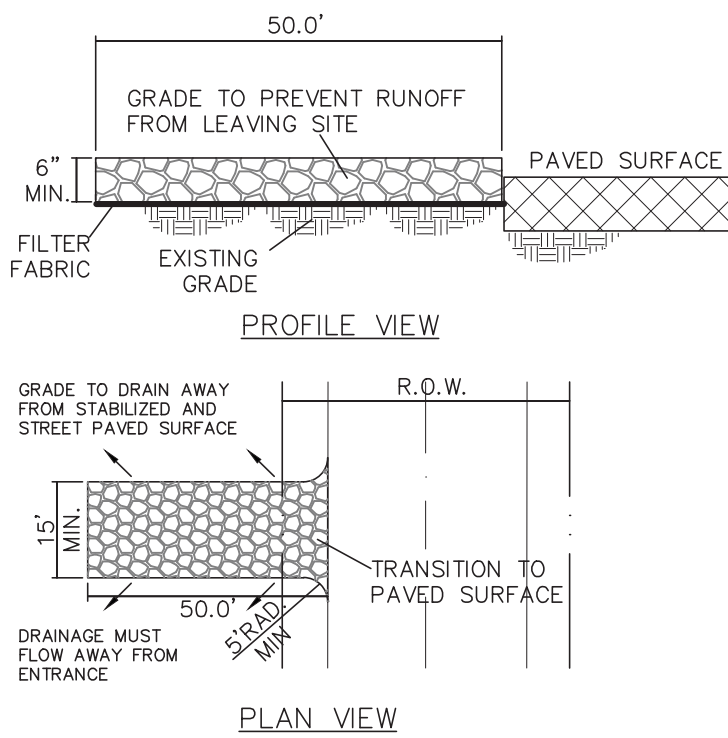
STORM OR SANITARY
CLEANOUT DETAIL
N.T.S.



NOTE:
THESE ARE EMBEDMENTS FOR PRIVATE LINES. FOR PUBLIC LINES, CITY STANDARD DETAILS CONTROL.

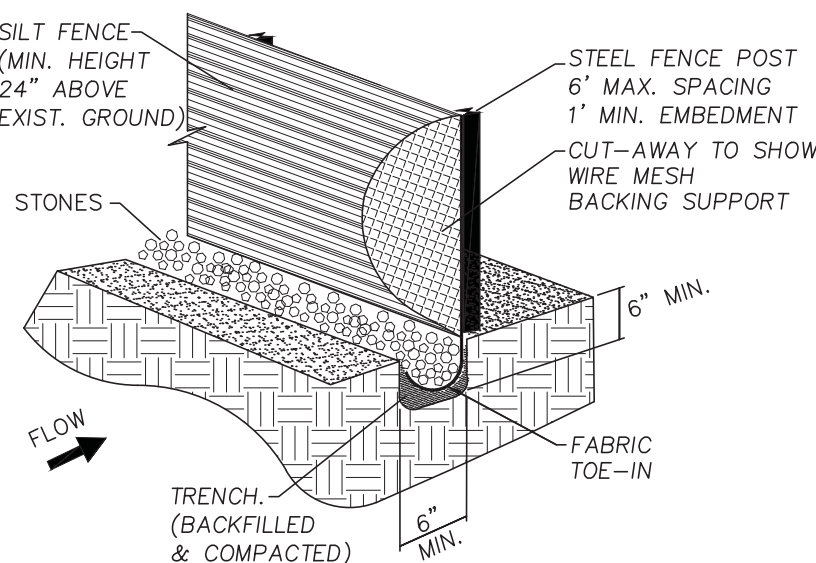
STORM AND SANITARY SEWER PIPE
EMBEDMENT-PVC AND POLYETHYLENE
N.T.S.

UTILITY DETAILS



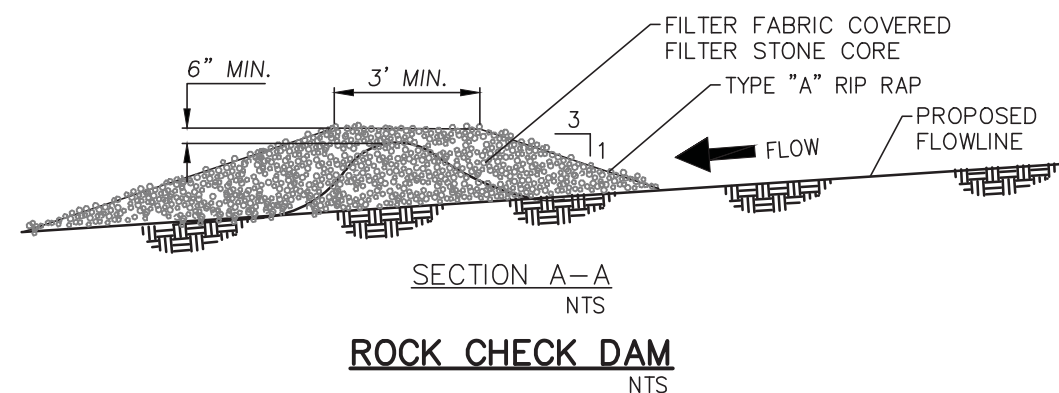
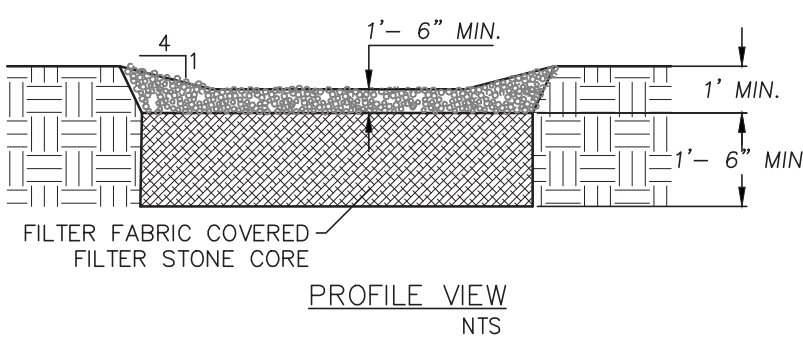
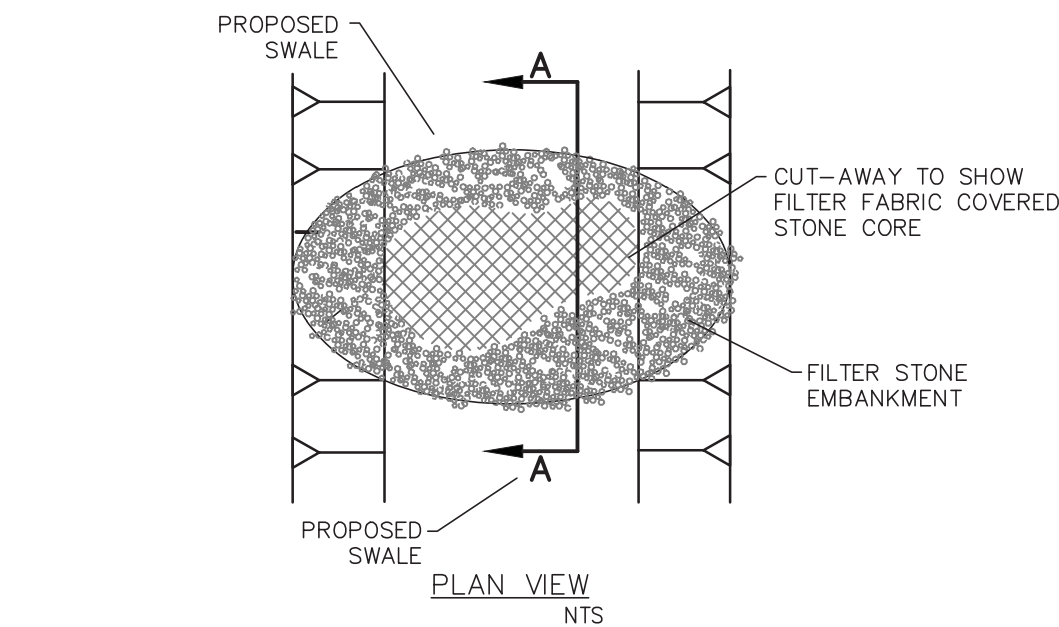
- NOTES:
- STONE SHALL BE 3 TO 5 INCH DIAMETER CRUSHED ROCK OR ACCEPTABLE CRUSHED PORTLAND CEMENT CONCRETE.
 - WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FORM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
 - THE ENTRANCE SHALL MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE A CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED SURFACES, MUST BE REMOVED IMMEDIATELY.
 - THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



- NOTES:
- STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE.THE POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
 - THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW, WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT), WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON THE UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
 - THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
 - SILT FENCE SHALL BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL SUPPORT POST.THERE SHALL BE A 6 INCH DOUBLE OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
 - INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL.REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
 - ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHED A DEPTH OF 6 INCHES.THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

SILT FENCE
N.T.S.



ROCK CHECK DAM
N.T.S.

EROSION CONTROL

NOTE
DETAILS ON THIS SHEET ARE PRIVATE. ALL WORK WITHIN PUBLIC EASEMENTS OR RIGHT-OF-WAY SHALL BE PER CITY (OR STATE, IF APPLICABLE) STANDARD DETAILS. THE CONTRACTOR IS REQUIRED TO HAVE ON-SITE, AT ALL TIMES, A COPY OF THE CITY'S CONSTRUCTION DETAILS.