CONTACT:
BTU LINE DESIGN (979) 821-5770
SUDDENLINK / ALTICE COMMUNICATIONS 979-204-8263
DAN AUGSBURGER (DAN.AUGSBURGER@ALTICETECHSERVICESUSA.COM)
FRONTIER COMMUNICATIONS 972-365-9198
MAC ORTIZ (MAC.ORTIZ@FTR.COM)

LOT 2A-1, BLOCK 2
BOONVILLE TOWN CENTER
VOL. 1384, PG. 97
D.R.B.C.T.

PRESENT OWNERSHIP:
WOODSPRING SUITES ONE LLC

28 L.F. FULL-DEPTH SAWCUT AND CONNECT TO EXISTING PAVEMENT WITH CONSTRUCTION JOINT.

EX. RIPRAP TO BE REMOVED

VLH DISTANCE NORTH ROUTE FROM PROP. FH AT AUSTIN'S COLONY IS 207'

PROPOSED LUMINAIRE PER ARCHITECTURAL PLANS

PROPOSED LUMINAIRE PER ARCHITECTURAL PLANS (TYP.)

PROP. 15' UTILITY EASEMENT BY PLAT

PROP. TRANSFORMER PAD

S 51°14'43"E 372.75'

5' SIDE SETBACK

EX. VAULT TO REMAIN

METRONET VAULT

N 04°08'03"E 131.16'

CONNECT TO EX. SIDEWALK

CONSTRUCT BFR PER CITY STDS., SHEET C8.05

PROP. 20'x20' VISIBILITY TRIANGLE

41.2 DRIVEWAY WIDTH

EX. CONCRETE PAVEMENT

101 L.F. FULL-DEPTH SAWCUT AND CONNECT TO EXISTING PAVEMENT WITH CONSTRUCTION JOINT. INSTALL COMMERCIAL DRIVE APPROACH PER CITY STANDARDS & SPECIFICATIONS.

AUSTIN'S COLONY PARKWAY
(VARIABLE WIDTH - 70' MIN)

PROP. FIRE HYDRANT

PROP. CRUSHED ROCK CONSTRUCTION ENTRANCE

CONSTRUCT BFR PER CITY STDS., SHEET C8.05

PROP. 1" IRR. METER

PROP. 1" DOM. METER

CONNECT TO EX. SIDEWALK

PROP. SANITARY SEWER MANHOLE

LOT 2, BLOCK 1
BOONVILLE TOWN CENTER
VOL. 8534, PG. 33
D.R.B.C.T.

24" RCP
FL=311.34

24" RCP
FL=311.37

EX. CURB INLET TO REMAIN

EX. 24" RCP TO REMAIN

PROP. POLE SIGN

EX. 12" WATER TO REMAIN

EX. 6" SANITARY SEWER TO REMAIN

Δ=14°51'40"
R=830.00'
L=215.28'
CH=S 11°31'43"W 214.68'

CONNECT TO EX. SIDEWALK

PROP. 24' ACCESS EASEMENT BY PLAT
CONSTRUCT BFR PER CITY STDS., SHEET C8.05

EX. STOP SIGN TO REMAIN

PROP. 20'x20' VISIBILITY TRIANGLE

143 L.F. FULL-DEPTH SAWCUT AND CONNECT TO EXISTING PAVEMENT WITH CONSTRUCTION JOINT.

EX. FH

PROP. GRATE INLET

PROP. DE

PROP. STORM TRENCH DRAIN

PROP. STORM SAFETY END TREATMENT

PROP. BOLLARDS

PROP. RETAINING WALL

PROP. FDC

PROP. BOLLARDS

PROP. 4" SANITARY SEWER

PROP. STORM DRAIN

PROP. 15' DRAINAGE EASEMENT BY PLAT

PROP. 10' CURB INLET

30" CMP
FL=310.76

24" RCP
FL=310.75

15' UTILITY EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

15' UTILITY EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

LOT 2A-2, BLOCK 2
BOONVILLE TOWN CENTER
VOL. 8534, PG. 33
D.R.B.C.T.

FF LAY DISTANCE NORTH ROUTE IS 202'

FF LAY DISTANCE SOUTH ROUTE IS 288'

S 22°36'59"W 311.13'

5' REAR SETBACK

EX. DRAINAGE EASEMENT TO BE ABANDONED BY PLAT

EX. 30" CMP STORM DRAIN TO BE REMOVED

30" CPP
FL=307.32

2'X2' BOX
FL=307.10

36" CPP
FL=302.50

INLET BOX

10' WIDE UTILITY EASEMENT VOL. 8534, PG.33 D.R.B.C.T.

EX. STORM HEADWALL TO BE REMOVED

EX. STORM DRAIN TO REMAIN

36" CPP
FL=302.35

NORTHERN TOOL
+ EQUIPMENT
22,496 SF
FFE=318.00

FIVE AGS INVESTMENT, LLC
VOL. 8534, PG. 33
D.R.B.C.T.

PROP. FENCE, REFER TO ARCHITECTURAL PLANS FOR DETAILS

PROPOSED LUMINAIRE PER ARCHITECTURAL PLANS (TYP.)

TRAILER DISPLAY AREA

SWALE

PROP. HOSE LAY

PROP. 6' TALL MASONRY SCREEN WALL

5' SIDE SETBACK

CONC. WALL

DUMPSTER PAD

ELECTRIC TRANSFORMER

EX. ELECTRIC TRANSFORMER

N 51°14'32"W 286.48'

VLH DISTANCE SOUTH ROUTE FROM EX. FH AT AUSTIN'S COLONY IS 118'

SV

SLT

20' UTILITY EASEMENT CENTERED ON PROP. LINE
VOL. 8534, PG. 33
D.R.B.C.T.

LOT 2B, BLOCK 2
BOONVILLE TOWN CENTER
VOL. 10937, PG. 146
D.R.B.C.T.

PRESENT OWNERSHIP:
KRISHIV BSW LLC

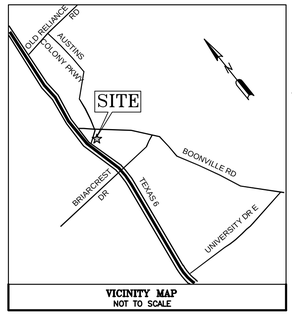
PRIVATE ACCESS EASEMENT VOL. 10937, PG. 146 D.R.B.C.T.

10' UTILITY EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

30' ACCESS EASEMENT VOL. 10937, PG. 146 D.R.B.C.T.

NOTES:
1. WHERE ELECTRIC FACILITIES ARE INSTALLED, BTU HAS THE RIGHT TO INSTALL, OPERATE, RELOCATE, CONSTRUCT, RECONSTRUCT, ADD TO, MAINTAIN, INSPECT, PATROL, ENLARGE, REPAIR, REMOVE AND REPLACE SAID FACILITIES UPON, OVER, UNDER, AND ACROSS THE PROPERTY INCLUDED IN THE PUE, AND RIGHT OF INGRESS AND EGRESS ON PROPERTY ADJACENT TO THE PUE TO ACCESS ELECTRIC FACILITIES.

2. BACK FLOW ASSEMBLIES MUST BE TESTED BY A CITY OF BRYAN-PERMITTED TESTER UPON INSTALLATION (FDC AND IRRIGATION). CONTACT MARK JURICA - (979-209-5932 OR MJURICA@BRYANTX.GOV) IF A LIST OF PERMITTED TESTERS IS NEEDED.



VICINITY MAP
NOT TO SCALE

CONSTRUCTION SCHEDULE

1	HANDICAP RAMPS
2	HANDICAP SYMBOL
3	HANDICAP SIGN
4	5' SIDEWALK PER DETAIL
5	4" WHITE TRAFFIC STRIPING
6	WHEEL STOP
7	DUMPSTER WITH 6' MASONRY ENCLOSURE PER DETAILS ON ARCHITECTURAL ELEVATIONS.

LEGEND

- EXISTING CURB
- PROPOSED CURB
- FL — PROPOSED FIRE LANE
- 9 — PARKING SPACES IN A ROW
- PROPOSED 3500 PSI 7" REINFORCED, HEAVY DUTY CONCRETE PAVEMENT
- PROPOSED 3,500 PSI 6" REINFORCED, MEDIUM DUTY CONCRETE PAVEMENT
- PROPOSED 3,500 PSI 5" REINFORCED, LIGHT DUTY CONCRETE PAVEMENT
- PROPOSED SIDEWALK PAVEMENT
- PROPOSED LIGHT FIXTURE (REFER TO MEP PLAN FOR EXACT LOCATION, TYPE, AND SPECIFICATIONS

SITE DATA

ZONING	C-2 - RETAIL DISTRICT
PROPOSED LAND USE	RETAIL
LOT AREA	2.20 ACRES (95,696.43 SQ FT)
TOTAL BUILDING AREA	22,496 SQUARE FEET
FLOOR AREA RATIO	22,496 / 95,696.43 : 23%
OPEN SPACE	18,781.11 / 95,696.43 : 20%
TOTAL IMPERVIOUS AREA	76,915.62 / 95,696.43 : 80%
REQUIRED PARKING (1/400 RETAIL)	55 SPACES
PARKING PROVIDED	81 SPACES
PARKING PROVIDED (ACCESSIBLE)	4 SPACES
BUILDING HEIGHT	1 STORY, 28'-10" TOTAL HEIGHT

NOTE:
1. ALL DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, OR PROPERTY LINE UNLESS NOTED OTHERWISE.

0 10 20 40
(IN FEET)
1 INCH = 20 FT

PREPARED BY:

CARRILLO ENGINEERING, LLC
TEXAS BOARD OF PROFESSIONAL ENGINEERS
REGISTRATION NO. F-15893
9001 AIRPORT FREEWAY, SUITE 700
NORTH RICHLAND HILLS, TEXAS 76180
PHONE NO.: 817-697-4996
CONTACT: ANNA L. CARRILLO, P.E.

OWNER / DEVELOPER:
HORTON TX, LLC
3815 LISBON STREET, SUITE 201
FORT WORTH, TEXAS 76107
PHONE: 817-247-0429
CONTACT: ROBERT HORTON

ARCHITECT:
FRANZ ARCHITECTS
4055 INTERNATIONAL PLAZA, SUITE 100
FORT WORTH, TEXAS
PHONE: (817) 737-9922
EMAIL: JFRANZ@FRANZARCHITECTS.COM
CONTACT: JOHN FRANZ

Carrillo Engineering, LLC
9001 Airport Freeway, Ste 700
North Richland Hills, Texas 76180
Phone 817-697-4996 - Firm Registration #F-15893

STATE OF TEXAS
ANNA L. CARRILLO
97350
LICENSED
PROFESSIONAL ENGINEER
10-26-2023

NORTHERN TOOL
1921 AUSTIN'S COLONY PKWY
BRYAN, TX 77808

SITE PLAN

Issue Dates:
-

Date
Revisions

Scale:
Drawn By:
Checked By:

Sheet
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FOR CONSTRUCTION

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NOTES

1. ALL SPOT ELEVATIONS ARE TO TOP OF PAVING UNLESS OTHERWISE NOTED.

2. EXISTING UTILITIES WERE OBTAINED FROM RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THIS PLAN.

3. MAXIMUM SLOPE IN LANDSCAPE AREAS ARE NOT TO EXCEED 4:1.

4. ALL CURB HEIGHTS ARE 6-INCHES UNLESS NOTED OTHERWISE.

5. REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS REGARDING FILL COMPACTION AND MOISTURE CONTENT.

6. REF. STRUCTURAL PLANS, SPECIFICATIONS, AND GEOTECHNICAL REPORT FOR ALL BUILDING PAD PREPARATION CRITERIA.

7. THE CONTRACTOR SHALL CONSTRUCT ALL BARRIER FREE RAMPS PER CITY OF BRYAN AND ADA STANDARDS.

8. GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO ADA STANDARDS. SLOPES SHALL NOT EXCEED 5% LONGITUDINAL SLOPE OR 2% CROSS SLOPE. SLOPE OF ALL H/C SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION. SIDEWALKS ACCESS TO EXTERNAL BUILDING DOORS SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET AT ANY LOCATION.

9. GRADING OF ALL HANDICAPPED SPACES AND ROUTES ARE TO CONFORM TO LOCAL, STATE, AND FEDERAL GUIDELINES.

10. CONTRACTOR SHALL ADJUST EXISTING VALVES, MANHOLE RIMS, ETC. AS NECESSARY TO MATCH FINISHED GRADE.

11. THE SITE IS NOT LOCATED IN OR ADJACENT TO THE FLOOD PLAIN.

LEGEND

— · · —	PROPOSED SWALE
↘	DIRECTION OF FLOW
- - 311 - -	EXISTING CONTOUR
— 315 —	PROPOSED CONTOUR
×325.50	TOP OF GROUND OR PROPOSED GRADE
FFE	FINISHED FLOOR
TG	TOP OF GRATE
ME	MATCH EXISTING
TW	TOP OF WALL
BW	BOTTOM OF WALL
TS	TOP OF STEP
BS	BOTTOM OF STEP
— R —	RIDGE LINE

NORTHERN TOOL + EQUIPMENT
22,496 SF
FFE=318.00
FIVE AGS INVESTMENT, LLC
VOL. 8534, PG. 33
D.R.B.C.T.

TRAILER DISPLAY AREA

LOT 2A-2, BLOCK 2
BOONVILLE TOWN CENTER
VOL. 8534, PG. 33
D.R.B.C.T.

AUSTIN'S COLONY PARKWAY
(VARIABLE RIGHT-OF-WAY)

EX. CONCRETE PAVEMENT

ACCESS EASEMENT
VOL. 13845, PG. 97
D.R.B.C.T.

5' SIDE SETBACK

25' FRONT SETBACK

15' UTILITY EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

20' UTILITY EASEMENT CENTERED ON PROP. LINE
VOL. 8534, PG. 33
D.R.B.C.T.

PRIVATE ACCESS EASEMENT VOL. 10937, PG. 146 D.R.B.C.T.

10' UTILITY EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

1.34 ACRE COMMON AREA & PRIVATE DETENTION EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

10' WIDE UTILITY EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

TRANSITION CURB FROM 6" TO 0"

EX. CURB INLET TO REMAIN

EX. 24" RCP TO REMAIN

24" RCP FL=311.34

24" RCP FL=311.37

30" CMP FL=310.18

24" RCP FL=310.75

30" CPP FL=307.10

36" CPP FL=302.50

36" CPP FL=302.35

2'x2' BOX FL=307.10

INLET BOX

DUMPSTER PAD

ELECTRIC TRANSFORMER

METRONET VAULT

WAREHOUSE

SWALE

SLT

SV

STOP SIGN

320.64±ME
320.64
320.58±ME
320.58
320.10
319.65
319.65±ME
319.65±ME
319.10
318.98
318.88±ME
318.88±ME
319.00
318.71
318.55
318.50
318.78
318.89
318.30
318.82
317.92
317.79
317.69
317.57
TW=316.50
BW=316.40
TG=317.20
TW=316.50
BW=316.60
316.50±ME
317.05
TW=318.00
BW=314.00
TG=313.80
317.98
FL 36"=309.29
BW=314.00
TW=318.00
317.89
317.89
317.89
317.79
BW=315.20
TW=317.25
317.09
317.16
317.28
317.75
317.21
317.06
317.79
317.98
BW=316.40
TW=316.50
317.73
317.42
316.51
316.50
317.02
316.59
316.50
316.61
316.25
316.53
316.90
317.07
316.84
317.73
317.13
317.82±ME
317.82±ME
317.04±ME
317.04±ME
317.04
315.01
314.52
314.38
314.36
314.28
314.30
317.28
317.24
317.24
317.24
317.56
317.76
317.76
317.98
317.76
317.44
317.98
317.57
317.44
317.40
317.21
317.28
317.11
315.98
317.15
317.79
315.21
316.07
315.91
316.80
317.57
317.19
315.62
315.56
315.54
317.19
317.00
316.98
317.20
315.00
314.84
314.92
315.00
315.44
315.07
315.16
315.22
315.09
315.48
315.13
314.59±ME
314.48±ME
314.06
315.43
315.49
315.18
312.81±ME
312.81
312.81±ME
314.49
314.29
313.90
313.59
314.25
313.22
312.39±ME
312.39±ME
312.80
312.95
312.67±ME
313.00
311.67
312.00±ME
311.67±ME
315.60
312.00
310.60±ME
314.50±ME
313.50±ME
317.79
317.79
317.79
317.19

CAUTION!!
CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS.

STOP!
CALL BEFORE YOU DIG
CITY OF BRYAN PUBLIC WORKS
1-979-209-5900
(at least 72 hours prior to digging)

PROJECT BENCHMARK:

TBM #1 – "X" WITH BOX SET ON BACK OF CURB.
NORTHING: 10229806.72
EASTING: 3553802.63
ELEV=313.35

BM #2 – "X" WITH BOX SET ON BACK OF CURB
NORTHING: 10230147.05
EASTING: 3553822.41
ELEV=321.15

0 10 20 40
(IN FEET)
1 INCH = 20 FT

Carrillo Engineering, LLC
9001 Airport Freeway, Ste 700
North Richland Hills, Texas 76180
Phone 817-697-4996 - Firm Registration #F-15893
Carrillo Engineering

STATE OF TEXAS
ANNA L. CARRILLO
97350
LICENSED
PROFESSIONAL ENGINEER
10-26-2023

NORTHERN TOOL
1921 AUSTIN'S COLONY PKWY
BRYAN, TX 77808

GRADING PLAN

Issue Dates:
-

Date
Revisions

Scale:
Drawn By:
Checked By:

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EX.10' UTILITY EASEMENT

EX.26' ACCESS EASEMENT

EX. GRATE INLET

HOTEL OFFSITE AREA USED IN CALCULATIONS IS PER EXHIBIT A OF THE BOONVILLE TOWN CENTER HOTEL DRAINAGE CALCULATIONS BY CEC DATED 2/8/2017.

DAAC1 0.532 AC.

DAAC2 0.532 AC.

OS-1 0.05

OS-2 0.15

OS-3 0.08

B-1 0.21

DAA1 3.823 AC.

METRONET VAULT

EX. CONCRETE PAVEMENT

AUSTINS COLONY PARKWAY (PUBLIC ROADWAY)

EX. 30" CMP TO BE RELOCATED

EX. UTILITY EASEMENT TO BE ABANDONED

C-1 0.60

A-1 1.09

15' UTILITY EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

15' UTILITY EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

DESIGN POINT -4

EXISTING UPPER DETENTION POND

EX. 36" CPP

EXISTING LOWER DETENTION POND

SANITARY SEWER MANHOLE

EX. 24" RCP

EX. CURB INLET

EX. SANITARY LINE

DESIGN POINT -1

DESIGN POINT -2

DESIGN POINT -3

D-1 0.29

TOP SIGN

EX.10' UTILITY EASEMENT

EX.20' ACCESS EASEMENT

EXISTING CURB

EX.20' ACCESS EASEMENT

DAAC3 0.366AC.

DAAC4 0.381 AC.

EX. FLUME EX.RIP RAP

DAA3 3.177AC.

DA4a 1.07

DA4b 0.50

EX. 5' CURB INLET

EX. STORM DRAIN

EX. CURB INLET

EX. 24" RCP

EX. 30" RCP

PROJECT BENCHMARK:

TBM #1 – "X" WITH BOX SET ON BACK OF CURB.
NORTHING: 10229806.72
EASTING: 3553802.63
ELEV=313.35

BM #2 – "X" WITH BOX SET ON BACK OF CURB
NORTHING: 10230147.05
EASTING: 3553822.41
ELEV=321.15

0 15 30 60

(IN FEET)
1 INCH = 30 FT

LEGEND

- A-X / X XX Ac — DRAINAGE AREA LABELS
- DIRECTION OF FLOW
- DRAINAGE AREA BOUNDARY
- 325 — EXISTING CONTOURS

NOTES:

1. RECORD DRAWINGS " BOONVILLE TOWN CENTER DRAINAGE REPORT DATED AUGUST 2007" WAS USED IN PREPARATION OF THE DRAINAGE AREA MAPS.

2. OFFSITE DRAINAGE AREA DAA1,DAAC1, DAAC2,DAAC3,DAAC4,DA4 ARE PULLED FROM "BOONVILLE TOWN CENTER DRAINAGE REPORT DATED AUGUST 2007".

3. THE STORM SEWER AND CONNECTION TO THE DETENTION POND IS TO BE CONSTRUCTED AND IN PROPER WORKING ORDER PRIOR TO ANY OTHER CONSTRUCTION ACTIVITIES ON-SITE.

Carrillo Engineering, LLC
9001 Airport Freeway, Ste 700
North Richland Hills, Texas 76180
Phone 817-697-4996 - Firm Registration #F-15893

Carrillo Engineering

STATE OF TEXAS
ANNA L. CARRILLO
97350
LICENSED
PROFESSIONAL ENGINEER
10-26-2023

NORTHERN TOOL
1921 AUSTIN'S COLONY PKWY
BRYAN, TX 77808

EXISTING DRAINAGE AREA MAP

Issue Dates:
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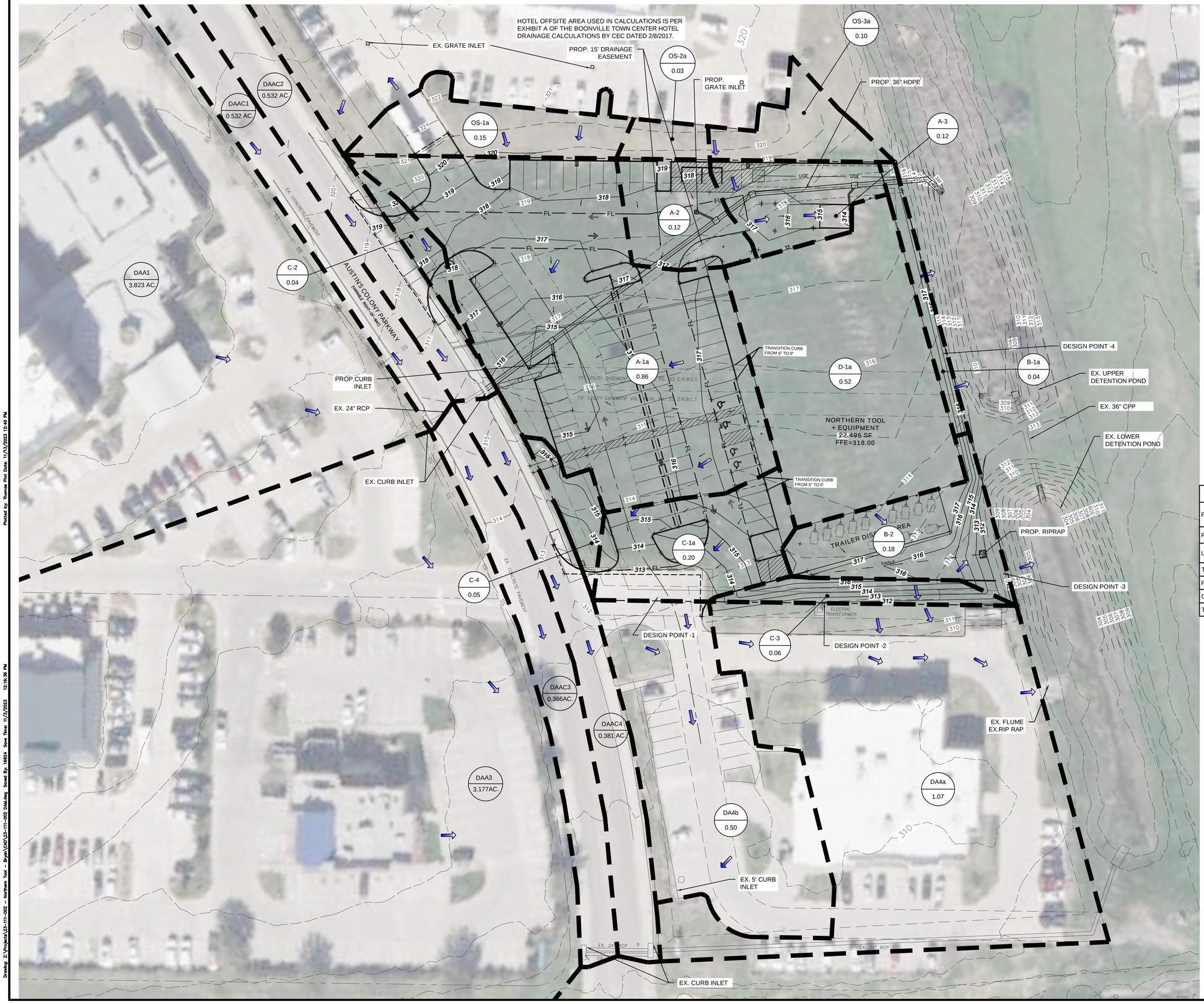

0 15 30 60

(IN FEET)
1 INCH = 30 FT

LEGEND

- A-X / X XX Ac — DRAINAGE AREA LABELS
- DIRECTION OF FLOW
- DRAINAGE AREA BOUNDARY
- 325 — EXISTING CONTOURS

NOTES:

1. RECORD DRAWINGS " BOONVILLE TOWN CENTER DRAINAGE REPORT DATED AUGUST 2007" WAS USED IN PREPARATION OF THE DRAINAGE AREA MAPS.

2. OFFSITE DRAINAGE AREA DAA1,DAAC1, DAAC2,DAAC3,DAAC4,DAA4 ARE PULLED FROM "BOONVILLE TOWN CENTER DRAINAGE REPORT DATED AUGUST 2007".

3. THE STORM SEWER AND CONNECTION TO THE DETENTION POND IS TO BE CONSTRUCTED AND IN PROPER WORKING ORDER PRIOR TO ANY OTHER CONSTRUCTION ACTIVITIES ON-SITE.

4. DA DA4b LIMITS WERE BASED ON THE CONSTRUCTION PLANS FOR BAYLOR SCOTT & WHITE SITE DATED AUGUST 2012 .

SITE DATA	
PROPOSED ZONING	C-2 COMMUNITY COMMERCIAL/C-3 GENERAL COMMERCIAL
PROPOSED LAND USE	RETAIL
LOT AREA	2.20 ACRES (95,696.43 SQ FT)
TOTAL BUILDING AREA	22,496 SQUARE FEET
FLOOR AREA RATIO	22,496 / 135,105 : 16%
OPEN SPACE	18,781.11 / 95,696.43 : 20%
TOTAL IMPERVIOUS AREA	76,915.62 / 95,696.43 : 80%

Proposed Weighted Runoff Coefficient Calculation (SITE)			
Total Area		2.20	(A)
Pervious Site Area		0.43	(G)
Pervious Area Runoff Coefficient		0.35	(H)
Impervious Site Area		1.25	(I)
Impervious Area Runoff Coefficient		0.95	(J)
Impervious Site Area-Roof		0.52	(K)
Runoff Coefficient		0.98	(L)
Weighted Runoff Coefficient	$\frac{(G \times H) + (I \times J) + (K \times L)}{(A)}$	**0.84**	

Boonville Town Center Drainage Report by Mitchell & Morgan Engineers & Constructors, dated August 2007 allows for 85% impervious cover.

Carrillo Engineering, LLC
9001 Airport Freeway, Ste 700
North Richland Hills, Texas 76180
Phone 817-697-4996 - Firm Registration #F-15893

Carrillo Engineering
Carrillo Engineering LLC

STATE OF TEXAS
ANNA L. CARRILLO
97350
LICENSED
PROFESSIONAL ENGINEER
10-26-2023

NORTHERN TOOL
1921 AUSTIN'S COLONY PKWY
BRYAN, TX 77808

PROPOSED DRAINAGE AREA MAP

Issue Dates:
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Date
Revisions

Scale:
Drawn By:
Checked By:

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C4.01

FOR CONSTRUCTION

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Existing Conditions Drainage Area Calculations- (in accordance with City of Bryan Stormwater Design Guidelines)

Drainage Area	Area (Ac)	Runoff Coefficient C	Minimum Inlet Time (min)	5-Year Intensity (in/hr)	5-Year Flow (cfs)	10-Year Intensity (in/hr)	10-Year Flow (cfs)	25-Year Intensity (in/hr)	25-Year Flow (cfs)	100-Year Intensity (in/hr)	100-Year Flow (cfs)	Description
A-1	1.09	0.35	15.00	5.16	1.97	5.89	2.25	6.85	2.61	8.24	3.14	Drains to existing lower detention pond
B-1	0.21	0.35	15.00	5.16	0.38	5.89	0.43	6.85	0.50	8.24	0.61	Drains to existing upper detention pond
C-1	0.60	0.39	15.00	5.16	1.21	5.89	1.38	6.85	1.60	8.24	1.93	Drains to existing upper detention pond
D-1	0.29	0.35	15.00	5.16	0.52	5.89	0.60	6.85	0.70	8.24	0.84	Drains to existing upper detention pond
OS-1	0.05	0.63	15.00	5.16	0.16	5.89	0.19	6.85	0.22	8.24	0.26	Drains to DA A-1 then to existing lower Pond
OS-2 **	0.15	0.35	15.00	5.16	0.27	5.89	0.31	6.85	0.36	8.24	0.43	Drains to DA B-1 then to existing upper Pond
OS-3 **	0.08	0.35	15.00	5.16	0.14	5.89	0.16	6.85	0.19	8.24	0.23	Drains to DA B-1 then to existing upper Pond
Total	**2.47**				**4.66**		**5.32**		**6.18**		**7.44**	

* Note: Rainfall Intensities Were Based on NOAA Atlas 14 Texas (Using Exact Project Location).

** Northern Limits Per Exhibit A of The Boonville Town Center Hotel Drainage Calculations BY CEC Dated 2/8/2017.

Proposed Conditions Drainage Area Calculations- (in accordance with City of Bryan Stormwater Design Guidelines)

Drainage Area	Area (Ac)	Runoff Coefficient C	Minimum Inlet Time (min)	5-Year Intensity (in/hr)	5-Year Flow (cfs)	10-Year Intensity (in/hr)	10-Year Flow (cfs)	25-Year Intensity (in/hr)	25-Year Flow (cfs)	100-Year Intensity (in/hr)	100-Year Flow (cfs)	Description
A-1a	0.86	0.87	10.00	6.18	4.62	7.07	5.29	8.26	6.18	9.99	7.47	Drains to proposed curb inlet
A-2	0.12	0.95	10.00	6.18	0.70	7.07	0.81	8.26	0.94	9.99	1.14	Drains to proposed grate inlet
A-3	0.12	0.95	10.00	6.18	0.70	7.07	0.81	8.26	0.94	9.99	1.14	Drains to proposed trench drain then to existing detention pond
B-1a	0.04	0.35	10.00	6.18	0.09	7.07	0.10	8.26	0.12	9.99	0.14	Drains to proposed swale then to existing detention pond
B-2	0.18	0.62	10.00	6.18	0.69	7.07	0.79	8.26	0.92	9.99	1.11	Drains to proposed swale then to existing detention pond
C-1a	0.20	0.90	10.00	6.18	1.11	7.07	1.27	8.26	1.49	9.99	1.80	Drains to Austin's Colony Parkway then to existing curb inlet
C-2	0.04	0.62	10.00	6.18	0.15	7.07	0.18	8.26	0.20	9.99	0.25	Drains to Austin's Colony Parkway then to existing curb inlet
C-3	0.06	0.35	10.00	6.18	0.13	7.07	0.15	8.26	0.17	9.99	0.21	Drains to South
C-4	0.05	0.35	10.00	6.18	0.11	7.07	0.12	8.26	0.14	9.99	0.17	Drains to Austin's Colony Parkway then to existing curb inlet
D-1a	0.52	0.98	10.00	6.18	3.15	7.07	3.60	8.26	4.21	9.99	5.09	Drains to DA B-1 then to existing detention pond
OS-1a	0.15	0.44	10.00	6.18	0.41	7.07	0.47	8.26	0.55	9.99	0.66	Drains to DA A-1 then to proposed curb inlet then to ex. deletion pond
OS-2a	0.03	0.35	10.00	6.18	0.06	7.07	0.07	8.26	0.09	9.99	0.10	Drains to DA A-3 then to proposed trench inlet then to ex. deletion pond
OS-3	0.10	0.35	10.00	6.18	0.22	7.07	0.25	8.26	0.29	9.99	0.35	Drains to DA A-2 then to proposed grate inlet then to ex. deletion pond
Total	**2.47**				**12.15**		**13.90**		**16.24**		**19.64**	

** Note: Rainfall Intensities Were Based on NOAA Atlas 14 Texas (Using Exact Project Location).

Design Point Chart

	Pre-Development			Comments	Post-Development			*Allowable/Designed Q	Comments
Design Point	**Drainage Area**	**Area(acre)**	**Q_100 (cfs)**		**Drainage Area**	**Area(acre)**	**Q_100 (cfs)**	**(cfs)**	
1	C-1,OS-1	0.65	2.19	Area draining to lower pond through Baylor Scott & White site.	C-1a	0.90	1.80	-	Area draining to lower pond through Baylor Scott & White site.
2	A-1,OS-2	1.24	3.58	Areas draining to Existing Flume behind Baylor Scott & White site then to lower Pond.	C-3	0.35	0.21	-	Area draining to Existing Flume behind Baylor Scott & White site then to lower Pond.
1&2	**Design Point-1, Design Point 2**	**1.89**	**5.76**	**Areas draining to lower pond through Baylor Scott & White site.**	**Design Point-1, Design Point 2**	**1.25**	**2.01**	-	**There is a decrease of 3.76 cfs of flows going to the lower pond through the Baylor Scott & White Site.**
3	D-1	0.29	0.84	-	B-2	0.62	1.11	-	Area draining directly to lower pond
DA4a	DA4a, DA4b	1.57	13.33	-	DA4a, DA4b	1.57	13.33	-	Area draining to lower pond
Lower Pond	**Design Point-1,Design Point-2,Design Point-3, DA4a**	**3.75**	**19.93**	-	**Design Point-1,Design Point-2,Design Point-3, DA4a**	**5.01**	**16.45**	**20.70**	**DP-1, DP-2, DP-3, DA4a and DA4b drain to the lower pond. Lower Pond was designed to Receive 20.70 cfs (DA4) per the Boonville Town Center Drainage Report.**
Boonville Town Center Hotel	Boonville Town Center Hotel area	2.33	20.48	Per Exhibit A of The Boonville Town Center Hotel Drainage Calculations BY CEC Dated 2/8/2017.	Boonville Town Center Hotel area	2.33	20.48	-	Per Exhibit A of The Boonville Town Center Hotel Drainage Calculations BY CEC Dated 2/8/2017.
4	B-1,OS-3	0.29	0.84	-	B-1a,OS3a	0.70	0.49	-	Areas draining to upper pond.
Upper Pond	**Boonville Town Center Hotel, B-1,OS-3**	**2.62**	**21.32**	-	**Boonville Town Center Hotel, B-1a,OS3a**	**3.03**	**20.97**	**41.13**	**DP-4 and Hotel Area drain to upper Pond (Per Boonville Town Center Hotel Drainage Calculations BY CEC Dated 2/8/2017.). Upper Pond was designed to Receive 41.13 cfs (DA2) per the Boonville Town Center Drainage Report.**

Note:

* Lower Pond was designed to Receive 20.70 cfs (DA4) from the Site adjacent to the pond (which is southern portion of the Northern Tool Site and Baylor Scott & White site) per the Boonville Town Center Drainage Report.

* Upper Pond was designed to Receive 41.13 cfs (DA2) from the Site adjacent to the pond (which is the hotel area and northern portion of the Northern Tool site) per the Boonville Town Center Drainage Report.

* This analysis does not include offsite flows from (DAA1, DAAC1, DAAC2, DAA3, DAAC3, DAAC4) draining via storm drain. It is merely a comparison of existing to proposed conditions to demonstrate no adverse impact from the proposed development.

Existing Curb Inlet Calculations (Ex. 5' Curb Inlet Baylor Scott&White site)

Inlet Type	Inlet Size	Length (L) (Ft)	Depth (Y) (Feet)	Q Capacity (CFS)	10% for potential clogging	Q Inlet Capacity (CFS)	Q 100 (CFS)
Curb Inlet	5' curb inlet	5.00	0.58	6.68	0.67	6.01	5.96
Note: Areas draining to the inlet are DA4b & C-1a							

NOTES:
DA DA4b LIMITS WERE BASED ON THE CONSTRUCTION PLANS FOR BAYLOR SCOTT & WHITE SITE DATED AUGUST 2012

Existing Conditions

Existing Weighted Runoff Coefficient Calculation DA C-1		
Total Area	0.60	(A)
Pervious Area	0.56	(G)
Pervious Area Runoff Coefficient	0.35	(H)
Impervious Area	0.04	(I)
impervious Area Runoff Coefficient	0.95	(J)
Existing Area Runoff Coefficient $\frac{(G \times H)+(I \times J)}{(A)}$	**0.39**	

Existing Weighted Runoff Coefficient Calculation DA OS-1		
Total Area	0.05	(A)
Pervious Area	0.03	(G)
Pervious Area Runoff Coefficient	0.35	(H)
Impervious Area	0.02	(I)
impervious Area Runoff Coefficient	0.95	(J)
Existing Area Runoff Coefficient $\frac{(G \times H)+(I \times J)}{(A)}$	**0.63**	

Proposed Conditions

Proposed Weighted Runoff Coefficient Calculation DA A-1a		
Total Area	0.86	(A)
Pervious Area	0.11	(G)
Pervious Area Runoff Coefficient	0.35	(H)
Impervious Area	0.75	(I)
impervious Area Runoff Coefficient	0.95	(J)
Area Runoff Coefficient $\frac{(G \times H)+(I \times J)}{(A)}$	**0.87**	

Proposed Weighted Runoff Coefficient Calculation DA B-2		
Total Area	0.18	(A)
Pervious Area	0.100	(G)
Pervious Area Runoff Coefficient	0.35	(H)
Impervious Area	0.08	(I)
impervious Area Runoff Coefficient	0.95	(J)
Area Runoff Coefficient $\frac{(G \times H)+(I \times J)}{(A)}$	**0.62**	

Proposed Weighted Runoff Coefficient Calculation DA C-1a		
Total Area	0.39	(A)
Pervious Area	0.033	(G)
Pervious Area Runoff Coefficient	0.35	(H)
Impervious Area	0.36	(I)
impervious Area Runoff Coefficient	0.95	(J)
Area Runoff Coefficient $\frac{(G \times H)+(I \times J)}{(A)}$	**0.90**	

Proposed Weighted Runoff Coefficient Calculation DA C-2		
Total Area	0.04	(A)
Pervious Area	0.022	(G)
Pervious Area Runoff Coefficient	0.35	(H)
Impervious Area	0.02	(I)
impervious Area Runoff Coefficient	0.95	(J)
Area Runoff Coefficient $\frac{(G \times H)+(I \times J)}{(A)}$	**0.62**	

Proposed Weighted Runoff Coefficient Calculation DA OS-1a		
Total Area	0.15	(A)
Pervious Area	0.127	(G)
Pervious Area Runoff Coefficient	0.35	(H)
Impervious Area	0.02	(I)
impervious Area Runoff Coefficient	0.95	(J)
Area Runoff Coefficient $\frac{(G \times H)+(I \times J)}{(A)}$	**0.44**	

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10-26-2023

NORTHERN TOOL
1921 AUSTIN'S COLONY PKWY
BRYAN, TX 77808

DRAINAGE AREA MAP CALCULATIONS

Issue Dates:
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Date

Revisions

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FOR CONSTRUCTION

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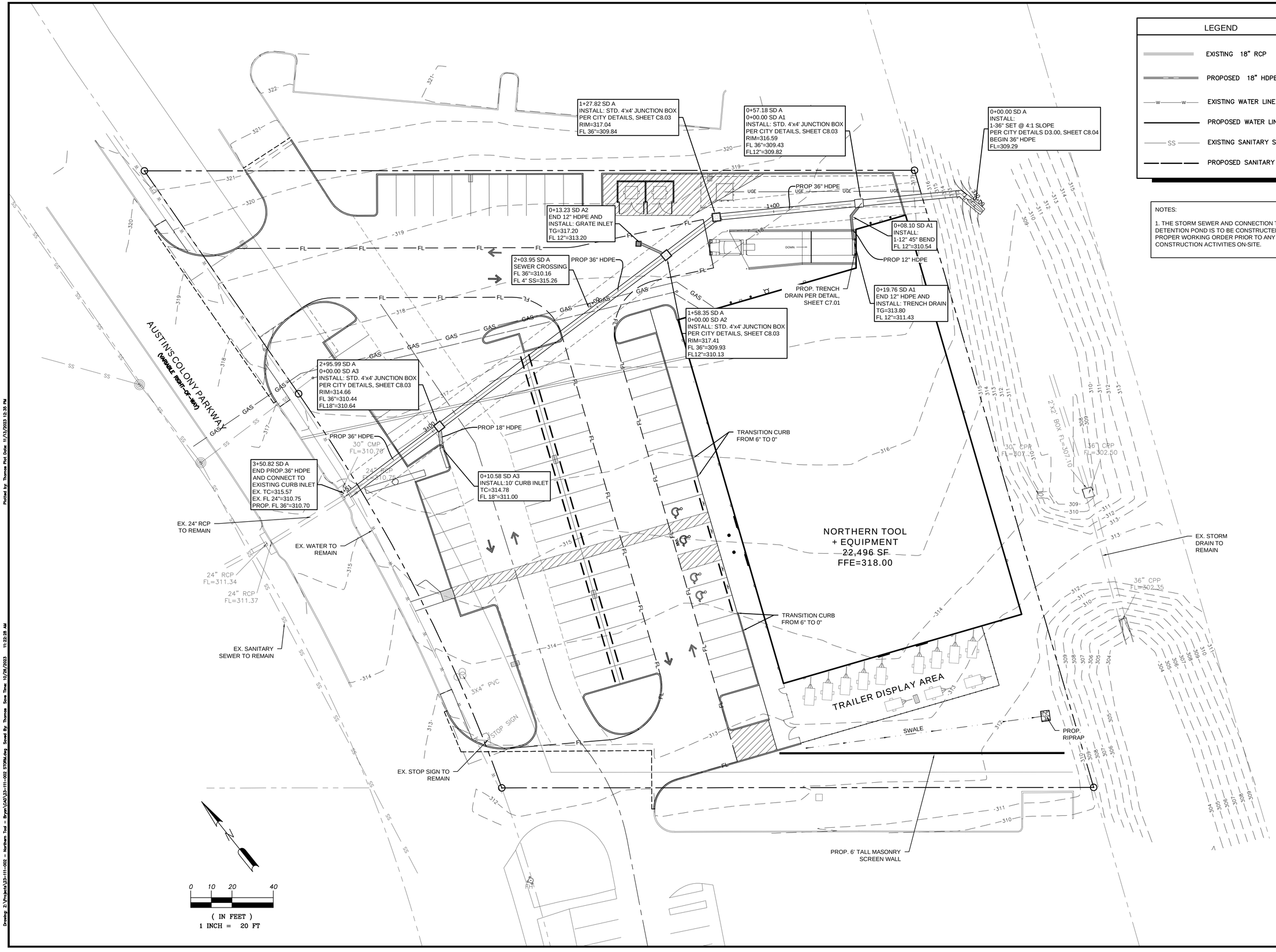

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STORM DRAIN PLAN

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FOR CONSTRUCTION

NOTES:

1. CONTRACTOR SHALL COORDINATE WITH FRANCHISE UTILITY COMPANIES AND IRRIGATION PLANS TO DETERMINE QUANTITY, SIZE, AND LOCATION FOR ALL CONDUIT AND SLEEVING REQUIRED TO SERVE BUILDING AND SITE. ALL CONDUIT AND SLEEVES SHALL BE INSTALLED PRIOR TO SUBGRADE PREPARATION AND PAVING.
2. CONTRACTOR TO VERIFY SIZE AND EXACT LOCATION OF EXISTING UTILITIES AS LIMITED INFORMATION AVAILABLE.

FRANCHISE UTILITY NOTES:

1. THE GAS, ELECTRIC, AND TELEPHONE INFORMATION SHOWN ON THIS PLAN IS BASED UPON THE LATEST INFORMATION AVAILABLE FROM THE RESPECTIVE FRANCHISE UTILITY COMPANIES. IT IS INTENDED FOR PURPOSES OF GENERAL BIDDING AND BASIC CLARITY. SPECIFIC JOB SITE CONDITIONS SHALL BE FIELD VERIFIED PER NOTES 2 THROUGH 3 BELOW. THE FRANCHISE UTILITY CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR SAID FIELD CONDITIONS AND ASSOCIATED REVISIONS REQUIRED BY THE RESPECTIVE UTILITY COMPANIES INVOLVED.
2. THE FRANCHISE UTILITY CONTRACTOR SHALL CONTACT THE RESPECTIVE FRANCHISE UTILITY COMPANIES, VERIFY ALL REQUIREMENTS AND EQUIPMENT, AND FURNISH AND INSTALL, INCLUDING BUT NOT LIMITED TO ALL METERS, TRANSFORMERS, CONDUIT, CONCRETE PADS, TRENCHING, AND BACKFILL NECESSARY FOR PROPER INSTALLATION. FRANCHISE UTILITY CONTRACTOR SHALL ALSO PAY ALL FEES AND CHARGES INCURRED AND COORDINATE WITH OTHER FRANCHISE UTILITY COMPANIES.
3. THE FRANCHISE UTILITY CONTRACTOR SHALL FIELD VERIFY, IN THE PRESENCE OF THE RESPECTIVE UTILITY COMPANIES
4. PRIVATE HYDRANTS SHALL BE PAINTED RED.

LEGEND

- PROPOSED 12" HDPE
- PROPOSED 12" HDPE
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER LINE
- PROPOSED SANITARY SEWER LINE

CONTROL POINT "T-2"
"X" WITH BOX SET ON BACK OF CURB
NORTHING: 10230147.05100
EASTING: 3553822.41300
ELEVATION: 321.15

WATER VALVE TOP=321.23 O/NUT=318.71

WATER VALVE TOP=321.02 O/NUT=319.13

METRONET VAULT

VLH DISTANCE NORTH ROUTE FROM PROP. FH AT AUSTIN'S COLONY IS 207'

INSTALL: 1-1 1/2" 45° BEND

PROP. 15' UTILITY EASEMENT BY PLAT

PROP. STORM SAFETY END TREATMENT

5' SIDE SETBACK

PROP. GRATE INLET

PIPE CROSSING FL 4" SS=315.26 FL 36" HDPE=310.26

1+79 SS-1 CONSTRUCT 45° BEND AND CLEANOUT FL 4"=312.82

INSTALL: 1-6" 45° BEND

PROP. 1 1/2" DOM. SERVICE

PROP. STORM TRENCH DRAIN

END PROP. 1 1/2" DOMESTIC REFERENCE MEP PLANS FOR CONTINUATION AND CONNECTION AT BUILDING

INSTALL: 1-6"x6" TEE 1-6" GATE VALVE 1-FIRE HYDRANT ASSEMBLY NOTE: FIRE HYDRANT TO BE PLACED 3' BEHIND BACK OF CURB. NO EXTENSIONS ALLOWED.

EX. CONCRETE PAVEMENT

ACCESS EASEMENT VOL. 13845, PG. 97 D.R.B.C.T.

INSTALL: 1-6" GATE VALVE WITH LOCKING LID

PROP. 6" FIRE. SERVICE

PROP. FDC

END PROP. 6" FIRE WATER. REFERENCE MEP PLANS FOR CONTINUATION AND CONNECTION AT BUILDING

INSTALL: 1-6" 45° BEND

PROP. FH

AUSTIN'S COLONY PARKWAY (VARIABLE RIGHT-OF-WAY)

PROP. 1" IRR. METER

PROP. 1" IRR. SERVICE

PROP. 27.5'x27' WATER ESMT.

PROP. 1 1/2 " DOM. METER

1+05.45 SS-1 END PROP. 4" SANITARY SEWER REFERENCE MEP PLANS FOR CONTINUATION AND CONNECTION AT BUILDING. INSTALL CLEANOUT FL 4"=315.72

FF LAY DISTANCE NORTH ROUTE IS 202'

FF LAY DISTANCE SOUTH ROUTE IS 288'

5' REAR SETBACK

2-3" PVC CONDUITS FOR FIBER INTERNET/TELECOM SERVICES

LOT 2A-2, BLOCK 2 BOONVILLE TOWN CENTER VOL. 8534, PG. 33 D.R.B.C.T.

30" CPP FL=307.32

36" CPP FL=302.50

2'x2' BOX FL=307.10

INLET BOX

10' WIDE UTILITY EASEMENT VOL. 8534, PG.33 D.R.B.C.T.

SANITARY SEWER MANHOLE RIM=319.26 FL/IN 6"=313.16 (N) FL/IN 6"=310.81 (NW) FL/IN 6"=313.16 (NW) FL/OUT 6"=310.76

INSTALL: 1-12"x6" CUT-IN TEE & VALVE

PROP. 5' CURB INLET

PROP. 26' ACCESS EASEMENT BY PLAT

18" CMP =310.76

24" RCP FL=310.75

15' UTILITY EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

EX. STORM DRAIN TO BE REMOVED

EX. UTILITY EASEMENT TO BE REMOVED BY PLAT

EX. CURB INLET TO REMAIN

EX. 24" RCP TO REMAIN

EX. 12" WATER TO REMAIN

NORTHERN TOOL + EQUIPMENT 22,496 SF FFE=318.00

FIVE AGS INVESTMENT, LLC VOL. 8534, PG. 33 D.R.B.C.T.

SANITARY SEWER MANHOLE RIM=317.67 FL/IN 6"=308.99 (N) FL/IN 6"=311.64 (E) FL/IN 6"=313.87 (E) FL/OUT 6"=307.72

INSTALL: 1-1" TAP WITH SERVICE SADDLE 1-1 1/2 " DOM. METER WITH BACKFLOW PREVENTER 1-1" IRR. METER WITH BACKFLOW PREVENTER

0+00 SS-1 CONSTRUCT SANITARY SEWER CLEANOUT AND BEGIN 4" SANITARY SEWER. CONTRACTOR TO VERIFY FLOWLINES AND BEGIN WORK AT DOWNSTREAM END EX. FL 6" (OUT)=312.00± FL 4" (IN)=312.10

24" RCP FL=311.34

24" RCP FL=311.37

EX. 6" SANITARY SEWER TO REMAIN

WATER VALVE TOP=313.71 O/NUT=311.54

WATER VALVE TOP=313.81 O/NUT=311.35

CATV BOX

3X4 PVC

STOP SIGN

TRAILER DISPLAY AREA

SWALE

PROP. HOSE LAY

1.34 ACRE COMMON AREA & PRIVATE DETENTION EASEMENT VOL. 8534, PG. 33 D.R.B.C.T.

10' UTILITY EASEMENT VOL. 8534, PG.33 D.R.B.C.T.

5' SIDE SETBACK

CONC. WALL

ELECTRIC TRANSFORMER

DUMPSTER PAD

SV

SLT

VLH DISTANCE SOUTH ROUTE FROM EX. FH AT AUSTIN'S COLONY IS 118'

20' UTILITY EASEMENT CENTERED ON PROP. LINE VOL. 8534, PG. 33 D.R.B.C.T.

PRIVATE ACCESS EASEMENT VOL. 10937, PG. 146 D.R.B.C.T.

20' ACCESS EASEMENT VOL. 10937, PG. 146 D.R.B.C.T.

10' UTILITY EASEMENT VOL. 8534, PG.33 D.R.B.C.T.

CONTROL POINT "T-1"
"X" WITH BOX SET ON BACK OF CURB
NORTHING: 10229806.71600
EASTING: 3553802.63400
ELEVATION: 313.35

CAUTION!!
CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS.

STOP!
CALL BEFORE YOU DIG
CITY OF BRYAN PUBLIC WORKS
1-979-209-5900
(at least 72 hours prior to digging)

PROJECT BENCHMARK:

TBM #1 – "X" WITH BOX SET ON BACK OF CURB.
NORTHING: 10229806.72
EASTING: 3553802.63
ELEV=313.35

BM #2 – "X" WITH BOX SET ON BACK OF CURB
NORTHING: 10230147.05
EASTING: 3553822.41
ELEV=321.15

0 10 20 40
(IN FEET)
1 INCH = 20 FT

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Carrillo Engineering

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10-26-2023

NORTHERN TOOL
1921 AUSTIN'S COLONY PKWY
BRYAN, TX 77808

UTILITY PLAN

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CONCRETE

1. All concrete shall:
   (a) Have a minimum ultimate compressive strength (f'c) as follows:
   i. Panels & Posts: 5000 psi at 28 days
   ii. Pier Foundations: 2500 psi @ 28 days
   (b) Be proportioned per ACI 318 Chapter 5 requirement
   (c) Have a W/C ratio of 0.50 or less for all walls and columns, and 0.60 or less for all foundations.
   (d) a normal dry-weight density (UNO)
   (e) Have a slump of 4" ± 1" and shall conform to ASTM C 150.
2. All aggregates shall conform to ASTM C33.
3. Testing of materials if requested shall be performed in accordance with the governing building standards.
4. The Contractor shall remove and replace any concrete which fails to attain specified 28 day compressive strength if required by the Engineer. Any cost for the removal and replacement of concrete, or any modification of the Engineer and/or Architect or non-hardened concrete shall be replaced at the Contractor's expense.
5. Where not specifically detailed, the minimum concrete cover on reinforcing steel shall be:
   i. Cast against earth: 3"
   ii. Precast against forms - Panels: 3/4", Posts: 1 1/2"
6. Minimum lap splice length for all reinforcing steel is hot tie #3 bar diameter unless specifically noted otherwise on the structural plans and/or details. All lap splices to be staggered.
7. All reinforcing steel and any other hardware to be cast in concrete shall be well secured in position prior to placement of concrete. Tie wire shall be bent away from exposed concrete surfaces. Refer to Architectural and structural plans for locations of embedded items.
8. All surfaces to receive fresh concrete shall be maintained continuously wet at least three (3) hours in advance of concrete placement.
9. The Contractor shall obtain approval from the Architect and the Engineer prior to placing sleeves, pipes, ducts, conduits, or other openings through concrete members not shown on the plans. Such openings shall not be specifically detailed or noted on the plans. All slots or conduits passing through concrete members shall be sleeved with standard steel pipe sections.
10. All concrete (except slabs-on-grade 6" or less) shall be placed by steel hammer, vibrating tools or mechanically vibrator until concrete is thoroughly compact and without void.
11. Concrete shall be maintained in a moist condition for a minimum of five (5) days after placement.
12. Concrete shall not be permitted to free fall more than six (6) feet. For heights greater than six (6) feet, use tremie, pump or other method consistent with applicable standards.
13. When specified ultimate compressive strength is greater than 2500 psi, Contractor shall submit mix designs to Engineer for review prior to placement. Mix designs for 2500 psi or less concrete shall be prepared by an approved testing laboratory. Submittal shall include concrete mix ingredients.
14. All exposed concrete, whether for piers extending above finished grade or machinery pads, should contain air entrainment agents to produce an air content of at least 6% at the time of placement.

REINFORCEMENT

1. Reinforcing steel shall be deformed, clean, free of rust, grease or any other material likely to impair concrete bond.
2. All bars shall conform to ASTM A615, Grade 60 minimum (340 ksi structural plans). All weld wire fabric (WWF) shall conform to ASTM A185.
3. Reinforcing steel that is to be welded shall conform to ASTM A706. All welding of reinforcement shall be subject to inspection by Engineer.
4. Contractor shall take necessary steps (standard ties, anchorage devices, etc.) to secure all reinforcing steel in their true position and prevent displacement during concrete placement.
5. Fabrication, placement and installation of reinforcing steel shall conform to:
   (a) Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice
   (b) ACI 315 Detailing Manual
7. Heating of reinforcing steel to aid in bending and straying of bars is not permitted. All bends in reinforcing steel are to be made cold. All bend radii shall conform to CRSI Manual of Standard Practice

FOUNDATIONS

1. All Pier Foundations shall be located in undisturbed Soil.
2. Unexpected Soil Conditions: Allowable values and subsequent foundation designs are based on soil conditions which are typical for the area. Any unexpected conditions which deviate appreciably from that shown in the test borings shall be reported to the Engineer immediately.
3. All compaction, fill, backfilling and site preparation shall be performed in accordance with the Governing Building Code Chapter 18.
4. Excavate to required depths into natural soil (as indicated in the drawings) or as verified by building official or soils engineer. Remove all loose, soft, wet or unsuitable material. Concrete shall be placed against undisturbed soil or well around high elevation. If footing excavations are made deeper than intended, only concrete shall be used for fill.
5. Foundations shall be poured in neat excavations.
6. All foundations shall be inspected and approved by the appropriate building official and/or a representative of the soils engineer prior to forming and placement of reinforcing or concrete.
7. Foundations shall not be poured until all required reinforcing steel, framing hardware, sleeves, inserts, conduits, pipes, etc. are in place and the concrete placed and mixed in the field as per the Specifications.
8. The area around footings shall be properly compacted and backfilled to the ground surface immediately. Concretely, de-water footings as required to remove standing water and to maintain optimum working conditions.
9. The Contractor shall be solely responsible for all excavation procedures including lagging, shoring, and the protection of adjacent property, structures, streets, and utilities in accordance with all federal, state and local safety ordinances. The Contractor shall provide for the design and installation of all shoring, bracing and decking required.

PRODUCT DATA

1. Manufacturer
   Hilltop Concrete
   18271 FM 2463
   Flint, TX 75762
   (903) 534-1465
   hilltopconcrete@att.com
2. Product Description:
   Screening Panels are Intended for Residential, Commercial and Industrial Exterior Fencing, Screening Walls and Noise Barriers.
3. Composition and Materials:
   Concrete: Minimum Strength Portland Cement meeting for exceeding the requirements of ASTM C150, natural aggregates, and Hot Oxide colors placed and cast within factory molds, cured and packaged for shipment
4. Sizes:
   Screening fence columns are typically placed at 60 inches on center with tri-screen fence panels being 12 inches in height and approximately 2 inches in thickness. Overall heights are 6 or 8 foot dependent on local wind and soil conditions. Contact manufacturer for engineering for thousand (1) wave specifications.
5. Limitations:
   Should not be used as a retaining wall for the support of soils or other structural elements, unless specifically designed and construction are done and approved by the manufacturer.
6. Interior side and rear drainage:
   Each screen fence is designed to meet the local building codes as they apply. Wind loading and surcharge loads as they occur, will be applied to the panels, columns and foundation components.
7. Installation:
   The posts are positioned and erected by site casting the column or post into a drilled pier. The pier size, depth and reinforcement is constructed as specified on the specific engineered drawings. After the posts are positioned and plumbed, the panels are installed. Panels are not to be used to support any load other than their own strength. With the posts erected the panels are manually slid into place. Post caps and panel caps are placed. Panels are not to be cut on site. Panels are manufactured to fit the post to post spacing. The posts spacing must be idea first 00 inches. The panels are sized to a length as required to fit.
8. Drainage:
   Panels can be arranged to allow for continuous or intermittent drainage beneath the fence where applicable.

THE CONTRACTOR/OWNER IS RESPONSIBLE FOR HIRING A GEOTECHNICAL ENGINEER TO DETERMINE IF LOCAL SOIL CONDITIONS MEET OR EXCEED MINIMUM SOIL PROPERTIES SHOWN ON THIS PLAN.

THIS FOUNDATION HAS BEEN DESIGNED BASED ON MINIMUM SOIL PROPERTIES SET FORTH BY THE 2018 INTERNATIONAL BUILDING CODE.

PIER INSTALLATION MAY ENCOUNTER AREAS OF GRANULAR, COLLAPSING SOILS THAT MAY CONTAIN PERCHED GROUNDWATER. PIERS MUST BE EXTENDED THROUGH SOFT AND ORGANIC DEPOSITS TO PROVIDE ADEQUATE LATERAL AND VERTICAL SUPPORT. TEMPORARY CASING MAY BE NECESSARY TO MAINTAIN A DRY HOLE PRIOR INSTALLATION OPERATIONS TO MAINTAIN THE DRILLED SHAFT OPEN THROUGH FUTURE GROUNDWATER FLOW.

IF THE CONTRACTOR FINDS ANY DISCREPANCIES BETWEEN THE SITE AND THESE PLANS, HE SHALL NOTIFY THE ENGINEER IMMEDIATELY.

POST SHEAR STEEL DIAGRAM

STACKEDSTONE® PANEL CAP

8' Wall Schedule

POST TYPE	POST SIZE	POST* REINF.	PIER DEPTH ** (B = 12" Dia.)	PIER DEPTH ** (B = 18" Dia.)	PIER*** REINF.
END POST	5"	(2) #5	5'-9"	5'-0"	(4) #4
LINE POST	5"	(2) #5	5'-6"	4'-9"	-
CORNER POST	5"	(2) #4	4'-6"	3'-9"	-

* Half of number of bars on each face of column.
** Based on Type 5 - Lean Clay (CL) soils
*** Reinforcement required at End Post piers only.

TYP. CONCRETE FOUNDATION

ELEVATION - SCREENING WALL AND PIERS

Product:	STACKEDSTONE
Fence Height:	8 ft
Governing Code:	2018 IBC
Wind Load:	105 MPH
Exposure:	C
R_{TU}:	0.145
Site Class:	D
Lateral Passive:	100 pcf

POST DESIGNATION:	DEFINITION
END POST	FIRST THREE (3) POSTS AT END OF WALL or FIRST (3) TWO POSTS IMMEDIATELY ADJACENT TO CORNER POST
LINE POST	TYP. POST AFTER & BETWEEN END POSTS
CORNER POST	POST AT WALL INTERSECTION

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Engineer of Record

Signature 3/31/2022 Date

Texas Registered Engineering Firm F-10052

STACKEDSTONE WALL HILLTOP CPONCRETE

18271 FM 2463
Flint, TX 75762
(903) 535-1465
hilltopconcrete@att.com

Revisions

Date: 31 Mar. 2022 Scale: N/TS

Job No.: 181463 - 9920

SHEET 1 OF 1

DO NOT SCALE THESE DRAWINGS. Refer to dimensioned plans for all dimensions

2 TRASH ENCLOSURE PLAN
SCALE: 1/4" = 1'-0"

3 H.C. SIGN DETAIL
SCALE: 1/2" = 1'-0"

1 ACCESSIBLE PARKING DETAIL
SCALE: 1/4" = 1'-0"

8 SECTION
SCALE: 1/2" = 1'-0"

9 GATE POST
SCALE: 1/2" = 1'-0"

10 BOLLARD DETAIL
SCALE: 1/2" = 1'-0"

11 SPIRAL BOLLARD DETAIL @ ENTRY
SCALE: 3/4" = 1'-0"

6 TRASH ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"

7 NOT USED
SCALE: 1/4" = 1'-0"

12 COLUMN ELEVATION @ FENCE
SCALE: 1/2" = 1'-0"

13 WROUGHT IRON FENCE DETAIL
SCALE: 1/2" = 1'-0"

14 CMU COLUMN @ FENCE
SCALE: 1 1/2" = 1'-0"

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NORTHERN TOOL + EQUIPMENT
1921 AUSTIN COLONY PARKWAY
BRYAN, TEXAS 77802

Revisions
△ 1 VERSION 1 // 05-21-21 // AD
△ 2 11" x 17" Color // 04-04-23

Project No. 23104
Drawn By: DTH/CS
Date: 07/10/23
Checked By: JM

SHEET A0.2
ARCHITECTURAL SHEET NO.

FOR CONSTRUCTION

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PROFESSIONAL ENGINEER
10-26-2023

NORTHERN TOOL
1921 AUSTIN'S COLONY PKWY
BRYAN, TX 77808

DETAILS

Issue Dates:
-

Revisions | Date

Scale:
Drawn By:
Checked By:

Sheet
C8.05

FOR CONSTRUCTION