CITY OF HIGH POINT
AGENDA ITEM

Title: Construction Manager At Risk (CMAR) Professional Services
Garney Companies, Inc. DBA Garney Construction
Catalyst Project – Appling Way
Change Order 4

From: Terry Houk – Public Services Director
Derrick Boone – Public Services Asst. Director
Robby Stone – Public Services Asst. Director

Meeting Date: August 19, 2019

Public Hearing: N/A

Advertising Date: N/A
Advertised By: N/A

Attachments: Attachment A – Change Order Documents
Attachment B- Sketch- Appling Way

PURPOSE:
To approve Change Order No. 4 to the Garney Company, Inc. contract for the construction of Appling Way.

BACKGROUND:
On February 5, 2018, City Council awarded a contract to Garney Company, Inc. as the Construction Manager at Risk (CMAR) to provide support to the Public Services Department in upgrading and/or replacing infrastructure that would be impacted by the Catalyst Project.

The Public Services Department is now requesting approval of Change Order 4 to construct Appling Way. The project will include the construction of a new public road that will connect N. Elm Street and Pine Street. The roadway project will include the construction of sidewalk, streetscaping, curb and gutter, water/sewer utility lines, and storm drainage system.

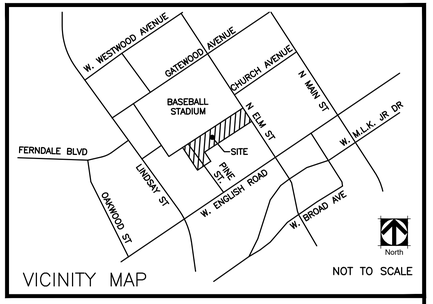
BUDGET IMPACT:
Funds for this change order are available in the 2019-2020 budget.

RECOMMENDATION / ACTION REQUESTED:
Public Services is recommending that Council approve Change Order 4 to Garney Companies, Inc. in the amount of $2,584,160.20.

APPLING WAY

HIGH POINT, NORTH CAROLINA

CONSTRUCTION DOCUMENTS



VICINITY MAP

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

PROJECT #:

18-330

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

CIVIL ENGINEER:

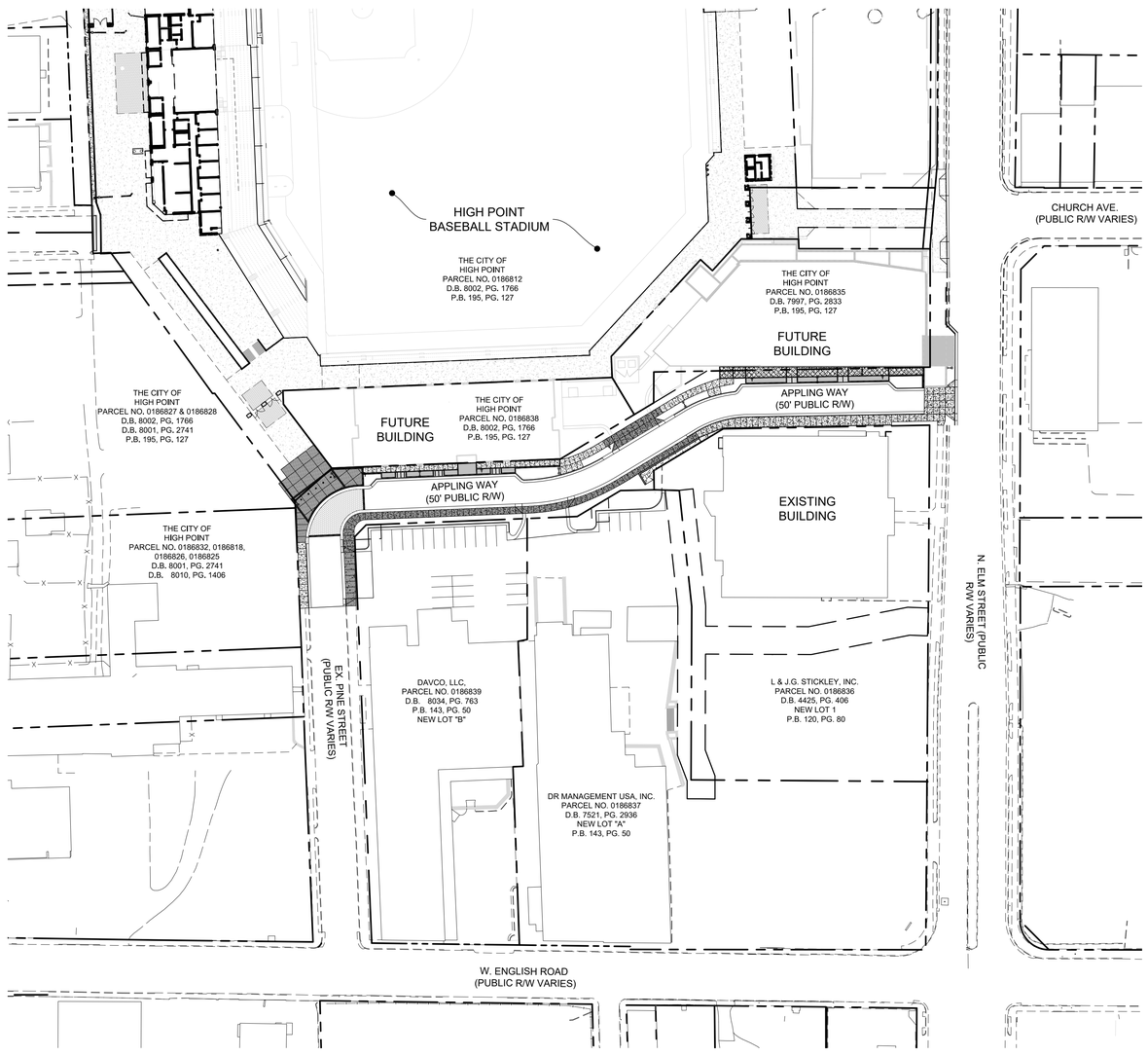
Stimmel Associates, PA
Stimmel
Landscape Architecture
Civil Engineering
Land Planning

601 N. Trade Street
Suite 200
Winston Salem, NC
27101-2916

P: 336.723.1067
F: 336.723.1069

DRAWING INDEX:

C-0.00	Cover
C-0.01	Project Notes
C-0.02	Project Notes
C-0.03	Legend Sheet
C-1.00	Demolition Plan
C-2.00	Overall Site Plan
C-2.01	Hardscape Enlargement Plans
C-3.00	Erosion Control Plan - Stage 1
C-3.01	Erosion Control Plan - Stage 2
C-3.20	Grading & Drainage Plan
C-4.00	Overall Utility Plan
C-4.01	Appling Way Plan & Profile
C-4.02	Sanitary and Storm Sewer Profiles
C-6.00	Erosion Control Details
C-6.01	Erosion Control Details
C-6.02	Erosion Control Details
C-6.03	Erosion Control Details
C-6.10	Storm Drainage Details
C-6.11	Storm Drainage Details
C-6.20	Utility Details
C-6.30	Site Details
C-6.31	Site Details
C-6.32	Site Details
C-6.33	Site Details
C-6.40	Typical Sections
L-1.00	Overall Landscape Plan
L-2.00	Landscape Notes, Specs & Details



ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT

811

BEFORE YOU DIG!
CALL 811 N.C. ONE-CALL CENTER
IT'S THE LAW!

SURVEY DISCLAIMER:

THE BOUNDARY AND TOPOGRAPHIC INFORMATION HEREIN IS FROM SURVEY INFORMATION SUPPLIED BY:
DAVIS, MARTIN, POWELL
6415 OLD PLANK ROAD
HIGH POINT, NC 27265
(336) 886-4821
ELEVATION DATUM IS NAVD88

(G) OWNER'S/DEVELOPER'S CERTIFICATE OF COMPLIANCE:
I _____, ACCEPT THIS SUBMISSION AS MY PLAN OF DEVELOPMENT AND AGREE TO INSTALL ALL REQUIRED IMPROVEMENTS AND COMPLY WITH THE CONDITIONS OF APPROVAL

OWNER/DEVELOPER Date

(J) TECHNICAL REVIEW COMMITTEE ENDORSEMENT BLOCK FOR SITE PLANS:
APPROVED BY THE TECHNICAL REVIEW COMMITTEE FOR 18 MONTHS (DEV. # SP-17-0093) SUBJECT TO THE APPROVAL OF ANY REQUIRED STREET AND UTILITY PLANS AND PROFILES AND APPROVAL OF A SEPARATE LAND-DISTURBING PERMIT AND/OR EROSION CONTROL PLAN.

Director of Planning and Development Date

APPLING WAY
HIGH POINT, NC

CLIENT:
CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:
COVER

SCALE: 1" = 60'
SHEET NO.:
C-0.00

F:\18-330\Drawings\CD\18-330 C-0.00 COVER.dwg : C-0.00 06/24/19 2:53pm

Hazen and Sawyer
4011 WestChase Boulevard, Suite 500 • Raleigh, NC 27607

August 8, 2019

Mr. Terry Houk
Public Services Director
City of High Point
211 S. Hamilton Street
High Point, NC 27261

Re: Change Order No. 4
City of High Point Mixed Use Development - CMAR
City of High Point, North Carolina
CHP Contract 29-012418
Hazen No.: 32140-010

Dear Mr. Houk,

Please find a digital copy of Change Order No. 4 for the City of High Point Downtown Mixed Use Project - Utility Improvements enclosed. This change order is to cover the additional Guaranteed Maximum Price to complete the construction of the road, waterline, sanitary sewer line, and storm drain for the new Appling Way.

The total amount for Change Order #4 is $2,584,160.20. A breakdown of the changes is presented in the table on the next page.

Contract Task No.	**Amount**	**Calendar Days**
Original Contract Value	**$89,131.00**	**-**
Change Order # 1 (Approved August 28, 2018)	**$3,265,862.13**	**170**
Change Order # 2 (Approved May 14, 2019)	**$3,867,682.18**	**342**
Change Order #3 (Approved August 5, 2019)	**$723,972.91**	**0**
Change Order #4		
Appling Way GMP	$2,584,160.20	0
Subtotal for Change Order #4	**$2,584,160.20**	**0**
Revised Total Contract Amount	**$10,530,808.42**	**513**

Hazen

The backup to the Contractor's GMP is attached. Please contact me at (336) 478-3372 if you shall have any questions or require additional information.

Regards,

Christy Nelson

Christy Nelson, PE
Principal Engineer

Enclosures
Cc: Terry Houk, City of High Point, North Carolina
Aaron Babson, P.E., Hazen and Sawyer

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

Change Order No. 4

Date of Issuance:	August 8, 2019	Effective Date:	
Owner:	City of High Point, NC	Owner's Contract No.:	29-012418
Contractor:	Garney Companies, Inc., DBA Garney Construction	Contractor's Project No.:	2264
Engineer:	Hazen and Sawyer	Engineer's Project No.:	32140-010
Project:	Downtown Mixed Use Project – Utilities Improvements	Contract Name:	Appling GMP

The Contract is modified as follows upon execution of this Change Order:

Description: Contractor will provide the services outlined in the attached documents to construct the water, sewer, and storm improvements inside the designated project area per the contract documents for Lindsay Place and English Rd. This change order also captures the additional costs and days required to address additional cost items for Elm St Construction and CMAR management and admin fees to install approximately 650 ft of sanitary sewer on Lindsay St.

Attachments:
Appendix A: Change Order Support Documentation and Terms;
Appendix B: Garney Construction Guaranteed Maximum Price;
Appendix C: Contract Documents;
Appendix D: Payment and Performance Bonds

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES
Original Contract Price: $ 89,131.00	Original Contract Times: Substantial Completion: NA Ready for Final Payment: NA days or dates
Increase from previously approved Change Order No. 1-3: $ 7,857,517.22	Increase from previously approved Change Order No. 1-3: Substantial Completion: January 10, 2020 Ready for Final Payment: January 23, 2020
Contract Price prior to this Change Order: $ 7,946,648.22	Contract Times prior to this Change Order: Substantial Completion: January 10, 2020 Ready for Final Payment: January 23, 2020
Increase of this Change Order: $ 2,584,160.20	Increase of this Change Order: Substantial Completion: 343 days Ready for Final Payment: 343 days days or dates
Contract Price incorporating this Change Order: $ 10,530,808.42	Contract Times with all approved Change Orders: Substantial Completion: January 23, 2020 Ready for Final Payment: January 23, 2020

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: Christy Nelson	By:	By:
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: Principal Engineer	Title	Title
Date: 8-8-19	Date	Date

Approved by Funding Agency (if applicable)

By: _____ Date:

Title: _____

APPENDIX A
CHANGE ORDER NO. 4 SUPPORT DOCUMENTATION AND TERMS

DOWNTOWN MIXED USE PROJECT CONSTRUCTION MANAGER AT RISK AGREEMENT

APPLING WAY CONSTRUCTION PHASE SERVICES

City of High Point Contract Number 29-012418

PROJECT: Change Order No. 4 is for the construction phase services for the utility improvements along the new Appling Way in the project area and is the fourth phase of the previously designated Project generally described as "Downtown Mixed Use Project" ("the Project").

CHANGE ORDER DOCUMENTS:

a. Determination of Change Order Costs and Backup Documentation
b. Determination of Change Order Schedule
c. Determination of Contingencies
d. Appendix B: CMAR (Garney Construction) Appling Way GMP
e. Appendix C: Project Drawings and Specifications for Appling Way as incorporated with Change Order No. 4.
f. Appendix D: Payment Bond and Performance Bond.

CMAR'S WORK ON THE PROJECT: The CMAR's work shall consist of Construction Phase Services ("the CMAR's Work") as described in the Original Agreement and amended herein.

CONSTRUCTION PHASE SERVICES: The requirements of the CMAR during Construction Phase Services are outlined in the Agreement and supplemented with the information included in this document.

CMAR'S GUARANTEED MAXIMUM PRICE: The CMAR will provide the services included in the Agreement and this Change Order as summarized below and detailed in the proposal from the CMAR found in Appendix B.

Appling Way GMP	
CMAR Labor /Management Fees:	$302,413.21
General Conditions (G&A):	$60,830.99
Subcontractor Cost:	$1,673,560.00
Subcontractor Markup:	$167,356.00
CMAR Contingency:	$380,000.00
Appling Way Guaranteed Maximum Price	**$2,584,160.20**
Change Order No. 4 Total	**$2,584,160.20**

CONTINGENCIES: Contingencies shall be as described in the Agreement.

a. CMAR CONTINGENCY SHARE: If contingency funds are remaining in the CMAR Contingency at the completion of the project, the remaining funds shall be shared between the Owner and CMAR at a 75% - 25% split, respectively.
   i. Total CMAR Contingency Summary To Date

1. Change Order No. 1 – N. Elm St.	$200,000
2. Change Order No. 2 – Lindsay and English	$350,000
3. Change Order No. 3 – Pine St.	$100,000
4. Change Order No, 4 – Appling Way	$380,000

CONTRACT DOCUMENTS: The Documents include the contract drawings for the addition of Appling Way in Appendix C. The project manual with technical specifications from Change Order No. 1 will be incorporated by reference.

CMAR'S PERFORMANCE: The CMAR will perform the CMAR's Work in a timely fashion in accordance with the requirements of the Contract Documents. The CMAR's Work includes the proper and timely completion of its responsibilities with respect to the construction of the Project through the employment of best construction management practices.

CMAR'S SCHEDULE: The CMAR will deliver a project at a final completion time no later than January 23, 2020. Time extensions include 0 calendar days for Appling Way construction.

CMAR'S CONSTRUCTION PHASE SERVICES COMPENSATION. Payments for the Construction Phase services shall be proposed as follows.

a. The CMAR may submit a partial payment application at a frequency no more than once per calendar month during the project and according to the procedures included in the Original Agreement.

b. Labor/Management Fees shall be monthly at a frequency of six (6) equal installments in the first six (6) months of the project. If the Contractor finishes prior to the sixth partial payment, the Contractor may invoice for the remainder of the L/M Fees.

c. General and Administrative Fees shall be monthly at equal installments. If the

Contractor finishes prior to the final partial payment, the Contractor may invoice for the remainder of the G&A Fees.

d. Subcontractor Costs shall be included monthly in the partial payment request and submitted in the Schedule of Values acceptable to the C/A and Owner, and paid in accordance with actual completed work.

e. Subcontractor Markup shall be charged in accordance with Item "d" at the negotiated markup rate of 10%.

f. Contingencies: Contingencies will be accessed by completed Work Change Directives indicating which project contingency is accessed and shall be paid in accordance with the actual work completed.

PAYMENT BOND AND PERFORMANCE BOND: Upon acceptance by the City of the CMAR's GMP for the Construction Phase Services, the CMAR will provide a payment bond and a performance bond, each in the amount of the GMP, for the CMAR's Construction Phase Services in the form set forth in this Agreement. These payment bonds and performance bonds are required to ensure the CMAR's full and proper performance of the CMAR's Work and the CMAR's full and prompt payment of all subcontractors and suppliers providing labor or materials relating to the Project. The surety on the payment bonds and performance bonds, by providing these bonds, agrees to be bound by the terms of the Agreement, and agrees to perform any action and make any payment required under the Agreement that the CMAR fails to perform or make.

City of High Point Project Number _29-012418_
("the Project")

Change Order No. 4

APPENDIX B

- **Garney Construction Guaranteed Maximum Price Proposal for Appling Way**

Garney CONSTRUCTION
ADVANCING WATER

City of High Point

Downtown Mixed-Use Project

CMAR Construction Services

	Project Management						Cost Estimator(s)			Superintendents		Other		
6/21/2018	PIC	Pcon Mgr	Sr. PM	PM	Asst PM	Proj Eng	Chief Est.	Safety Prof.	Estimator	Assistant Super	Super	Admin	Total Hours	Total Labor Costs
Hourly rate	$204.00	$124.67	$161.70	$129.80	$107.80	$90.20	$136.40	$107.80	$79.20	$121.00	$135.30	$52.80		
Scope of Services														
A. Labor Costs														
Lindsay Street														
bid phase	2		12	30		40	15				15	10	124	$ 14,453.89
Const month 1 (January covered in English)	8		16	24		40							88	$ 10,942.36
Feb	8		16	40		100					200	10	374	$ 46,019.16
March	8		16	40		100					200	10	374	$ 46,019.16
April	8		16	40		100					200	10	374	$ 46,019.16
May	8		16	40		100					200	10	374	$ 46,019.16
June	8		16	40		100					200	10	374	$ 46,019.16
July	8		16	40		110					200	10	384	$ 46,921.16
													-	$ -
													-	$ -
Subtotal - Hours / Position	**58**	**-**	**124**	**294**	**-**	**690**	**15**	**-**	**-**	**-**	**1,215**	**70**	**2,466**	**$ 302,413.21**
Section A. Total	**57**	**-**	**118**	**279**	**-**	**670**	**8**	**-**	**-**	**-**	**1,208**	**65**	**2,404**	**$ 302,413.21**

City of High Point

Downtown Mixed-Use Project

CMAR Construction Services

	Project Management						Cost Estimator(s)			Superintendents		Other		
6/21/2018	PIC	Pcon Mgr	Sr. PM	PM	Asst PM	Proj Eng	Chief Est.	Safety Prof.	Estimator	Assistant Super	Super	Admin	Total Hours	Total Labor Costs
B. General Conditions	**Total Cost**													
G&A - 5% Total Labor Costs	$15,120.66													
Bonds (2%) & Insurance (0.5%) = 2.5%	$7,560.33													
Vehicles	$ 13,800.00													
Fuel	$ 8,400.00													
Management travel - $1000/month	$ 5,000.00													
Regional Safety / Safety Equipment / Trair	$ 3,500.00													
Office / Document Expense	$ 7,200.00													
Ovenight Mail Expense	$ 250.00													
Section B. Total	**$ 60,830.99**													
Total A + B	**$ 363,244.20**													
C. Subcontract Expense														
Appling cost	$ 1,673,560.00													
Section C. Total	**$ 1,673,560.00**													
Total A + B + C	**$2,036,804.20**													
Fee = 10% on Subcontract Expense	**$167,356.00**													
Revised Total	**$2,204,160.20**													
Project Contingency	**$380,000.00**													
Owner's Contingency	**$0.00**													
Project GMP	***$2,584,160.20***													

SIZE	DESCRIPTION	Contract Amount		UNIT PRICE	Total Amount
	WATER LINE				
	8" Restrained DIP Water line	595.00	LF	$ 100.00	59,500.00
	8" Gate Valve with box	2.00	EA	$ 3,500.00	7,000.00
	8" Fitting w/ Accessories	13.00	EA	$ 1,500.00	19,500.00
	6" DIP	50.00	LF	$ 80.00	4,000.00
	6" Gate valve with box	3.00	EA	$ 3,000.00	9,000.00
	6" Cap w/Accessories	3.00	EA	$ 1,000.00	3,000.00
	4" DIP	16.00	LF	$ 80.00	1,280.00
	4" Gate Valve with Box	1.00	EA	$ 2,500.00	2,500.00
	4" Cap w/ Accessories	1.00	EA	$ 1,000.00	1,000.00
					0.00
	1.5" Irrigation service (include tap, copper pipe, curb stop, coorperation and other associated items)	1.00	EA	$ 3,500.00	3,500.00
	FH (tee, valve, and other bid items)	1.00	EA	$ 7,000.00	7,000.00
	Reinstall Existing FH (tee, valve, and other bid items)	1.00	EA	$ 6,000.00	6,000.00
	Removal of 6 inch Meter Vault "Stickleys"	1.00	LS	$ 2500.00	2,500.00
	Adjust Existing Water Meter to Finished Grade	1.00	EA	$ 1,000.00	1,000.00
	SEWER				
	8" DIP Sanitary Sewer	308.00	LF	$ 95.00	29,260.00
	4' dia manhole	4.00	EA	$ 3,800.00	15,200.00
	Core Ex. Manhole	1.00	EA	$ 2,000.00	2,000.00
	Rotate existing MH cone & lid outside of propoesed curv and adjust rim to finished grade	1.00	EA	$ 3,300.00	3,300.00
	Tie in Existing Service to Stickley	1.00	EA	$ 2,000.00	2,000.00
	STORM DRAIN				
	Convert existing Double Inlet to SDMH	1.00	EA	$ 5,500.00	5,500.00
	30" RCP Pipe	27.00	LF	$ 80.00	2,160.00
	24" RCP Pipe	257.00	LF	$ 75.00	19,275.00

	15" RCP Pipe	375.00	LF	$ 65.00	24,375.00
	5' Diameter MH	1.00	EA	$ 5,000.00	5,000.00
	Double Catch Basin	1.00	EA	$ 9,000.00	9,000.00
	Standard Catch Basin	11.00	EA	$ 4,000.00	44,000.00
	NCDOT Drop Inlet	1.00	EA	$ 4,000.00	4,000.00
	DEMO / MISC				
	Grading and 12" of suitable fill under roadway	1.00	LS	$ 55,000.00	55,000.00
	Retaining Wall Removal	1.00	LS	$ 25,000.00	25,000.00
	Construction Entrance	2.00	EA	$ 3,500.00	7,000.00
	Concrete/Asphalt Removals	1.00	LS	$ 20,000.00	20,000.00
	Misc Removal (includes items not covered curb, sidewalk, asphalt removals)	1.00	LS	$ 15,000.00	15,000.00
	Bollard Removal	1.00	LS	$ 1,200.00	1,200.00
	Bollard Installation	5.00	EA	$ 1,000.00	5,000.00
	Erosion Control	1.00	LS	$ 25,000.00	25,000.00
	Restoration including matting and seeding	1500.00	SY	$ 4.00	6,000.00
	Temp Seeding	2.00	Acre	$ 500.00	1,000.00
	Driveway Apron (Includes proper depth of concrete 4500psi and 6" ABC Base)	4.00	Ea	$ 3500.00	14,000.00
	Curb & Gutter Install	1000.00	LF	$ 58.00	58,000.00
	Valley Curb & Gutter Install	575.00	LF	$ 52.00	29,900.00
	Concrete Side Walk Install (concrete for Driveway apron not inculded in this bid item) 4" 3000 PSI concrete	1290.00	SY	$ 65.00	83,850.00
	Concrete Side Walk Install (concrete for Driveway apron not inculded in this bid item) 5" 4500 PSI concrete with 6" ABC base	590.00	SY	$ 67.00	39,530.00
	Concrete Side Walk Install (concrete for Driveway apron not inculded in this bid item) 6" 4500 PSI concrete with 6" ABC base	395.00	SY	$ 72.00	28,440.00
	Stamped Asphalt	250.00	SY	$ 140.00	35,000.00
	Brick Paving (vehicular traffic rated) includes 4" thick concrete base, 1" sand bedding (or mortar for single and double row border) and weep holes through concrete 24" OC	200.00	SY	$ 1,450.00	290,000.00
	Pavement Striping (Thermo Striping)	1.00	LS	$ 12,000.00	12,000.00
	Asphalt Base Pavement	620.00	TN	$ 153.00	94,860.00
	Asphalt Intermediate Pavement	420.00	TN	$ 160.00	67,200.00
	Asphalt Surface Pavement	320.00	TN	$ 170.00	54,400.00
	Mill and overlay	200.00	SY	$ 90.00	18,000.00
	Concrete Paved Ditch	80.00	LF	$ 125.00	10,000.00

	Traffic Control	1.00	LS	$ 6,000.00	6,000.00
	GIS Survey of Final Project	1.00	LS	$ 10,000.00	10,000.00
	ADA Trench Drain	20.00	LF	$ 500.00	10,000.00
	15" Nyloplast drain basin	1.00	Ea	$ 1500.00	1,500.00
	15" Inch HDPE	20.00	LF	$ 100.00	2,000.00
	Unsuitable Material (pipe trench)	1439.00	CY	$ 70.00	100,730.00
	Concrete Swale	1.00	Ea	$ 8,000.00	8,000.00
	ADA Ramp	2.00	EA	$ 2,500.00	5,000.00
	10" Sch 40 Roof Leader (includes tie into storm drain, and fittings)	15.00	LF	$ 90.00	1,350.00
	10" Nyloplast Drain Basin for Roof Leader	1.00	Ea	$ 1500.00	1,500.00
	Tree pit Drainage	125.00	LF	$ 90.00	11,250.00
	Construction Staking	1.00	LS	$ 27,000.00	27,000.00
	Planting (includes go to detail)	1.00	LS	$ 140,000.00	140,000.00
	Mobilization	1.00	LS	$ 62,000.00	62,000.00
				Total Contract Amount	1,673,560.00

Assumption log

STRUCTURE	STRU #	DIV #	Bid Assumptions	Answer
General Conditions	GC		1.5 Irrigation service line will be copper	
			cut and fill calcultated off of needing 12 inches of fill below asphalt totaling 2 ft from bottom of fill dirt to top of proposed asphalt.	
			contractor to have 8 months time to complete once utilites relocated	
			Trench Drains priced per measurments from drawings	
			roof drain and tree pit drain priced per measurments from drawings	
			Garny has not included any management fees for weather days over the average. assuming rain days from table attached. A rain day includes any day more than .1" of rain or any day that site conditions are determined too muddy for the work going on by site inspector.	
			meter vaults and meters installed by others. Install pipe and cap	
			permits already obtained	
			all easements obtained	
			retaining wall and design excluded	
			no coordination work with utility owners included	
			all conflicting utilities including overhead power moved before contractor on site.	
			no overlay of existing parking lot.	
			Pedestiran and stadium traffic excluded	
			Traffic plans if required by others	
			Exclude adjusting monitoring well to finished grade	
			Working through ball games	
			Gas and Communication is by others and not included in this pricing	
			Striping of existing parking lot is not included in this pricing	
			Striping is based on Thermo for the Center line only. No other striping included	
			light poles and removing existing light poles are not included in this pricing	
			duct bank will be installed prior to any concrete curb/sidewalk/etc… or we have the drawing of where to be installed so as not to delay our work	
			no warranty on vegitation included	
			no watering of vegitation included	
			only anticipating crossing underground utilities shown on drawings in pricing	
			Excluding all coordination with any existing utilities.	
			existing vault at Elm st waterline assume removing top and filling back in after tie in	
			compaction testing by others	
			excluding all site lighting and conduit for site lighting	
			all permits and easements in hand by start of constrcution (October 1, 2019)	
			paving priced by Detail 6 (Asphalt Paving) on Sheet C-6.40	
			excluding working around any other contractors or work in the area. No other contractors or construction to be within construction limits while we are working	
			assuming that the chain link fence that is currently allong the proposed Appling way stays in place	
			Plan start date of January 2020	
			Tree Pits with and without Grates included in the Planting	
			Engineering/Geotechnical Report for Road stabilization design by others	
			Value Engineering ideas	Rough estimated saving
			Make sewer PVC	$ 7,000.00
			change brick work to stamped concrete	$ 200,000.00
			delete valve at Elm (already have one in street)	$ 4,000.00
			Dirt savings in tree wells if change spec to get from closer to High Point	$ 2,000.00
			reduce paving thickness if undercut required	TBD based on how thick needed
			Remove stone under concrete	$ 10,000.00
			changing waterline from restrained joint to push joint	$ 10,000.00

RISK REGISTER

ID #	DESCRIPTION OF RISK (INCLUDING ANY IDEN TIFIED TRIGGERS)	IMPACT ON PROJECT (IDENTIFY CONSEQUENCES)	ASSESSMENT OF LIKELIHOOD (1-5)	ASSESSMENT OF SERIOUSNESS (1-5)	SEVERITY (1-25)	MITIGATION ACTIONS (PREVENTATIVE OR CONTINGENCY)	Contingency Owner	Project	Owner	FINAL RESULT
1	Utilities not shown on drawings	Downtime with crew	5	5	25	pre job locates		$ 25,000.00		
		conflict with new lines (relocate)	2	4	15	Soft Digs		$ 2,500.00		
2	Geo tech info	ground water	4	2	15	Maybe at Pine		$ 5,000.00		potholes show minor.
		plan changes	1	1	25			$ 25,000.00		can we dump in sanitary if required
		bad material	3	1	2	unsuitable bid item for project --how much is contaminated		$ 55,000.00		adder for contaminated material
		undercut and add bedding	1	2	8	add stone cost and labor -- wet material		$ 20,000.00		
		Rock	1	1	1	change spec in project desc. To unclassified Exc		$ -		no rock on report
		Geofabric and suitable fill	5	5	24	if geofabric needed - dig down place fabric, haul off, haul in good material		$ 250,000.00		
4										
5								$ -		
21		TOTAL						$ 382,500.00	$ -	

City of High Point Project Number _29-012418_
("the Project")

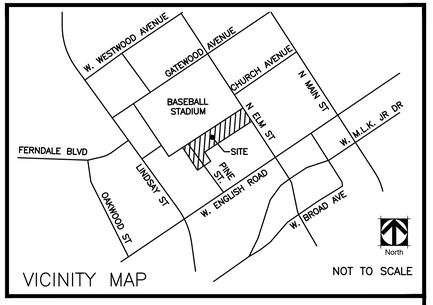
Change Order No. 4

APPENDIX C
Contract Documents

APPLING WAY

HIGH POINT, NORTH CAROLINA

CONSTRUCTION DOCUMENTS



VICINITY MAP

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

PROJECT #:

18-330

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

CIVIL ENGINEER:

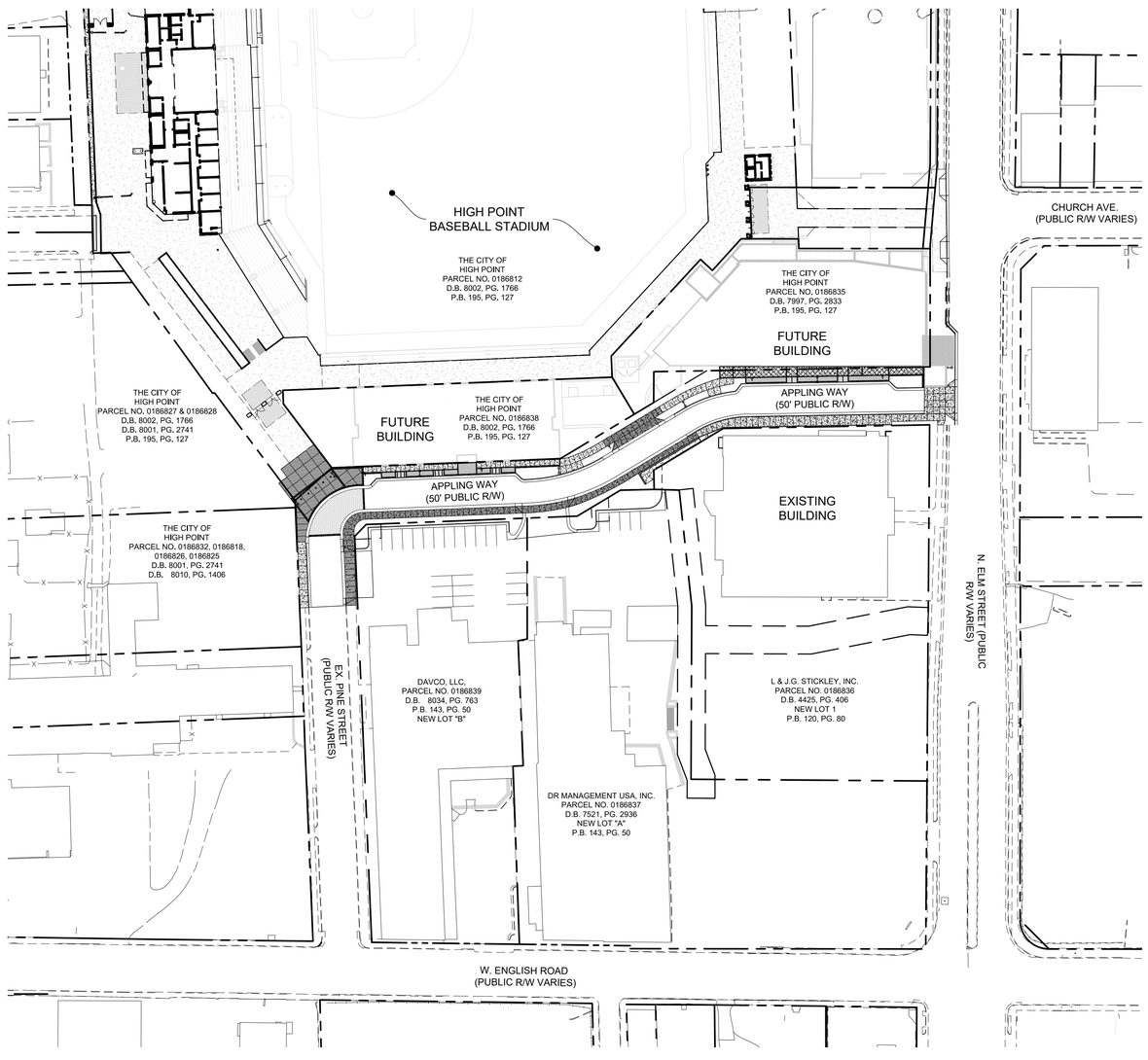
Stimmel Associates, PA
Stimmel
Landscape Architecture
Civil Engineering
Land Planning

601 N. Trade Street
Suite 200
Winston Salem, NC
27101-2916

P: 336.723.1067
F: 336.723.1069

DRAWING INDEX:

C-0.00	Cover
C-0.01	Project Notes
C-0.02	Project Notes
C-0.03	Legend Sheet
C-1.00	Demolition Plan
C-2.00	Overall Site Plan
C-2.01	Hardscape Enlargement Plans
C-3.00	Erosion Control Plan - Stage 1
C-3.01	Erosion Control Plan - Stage 2
C-3.20	Grading & Drainage Plan
C-4.00	Overall Utility Plan
C-4.01	Appling Way Plan & Profile
C-4.02	Sanitary and Storm Sewer Profiles
C-6.00	Erosion Control Details
C-6.01	Erosion Control Details
C-6.02	Erosion Control Details
C-6.03	Erosion Control Details
C-6.10	Storm Drainage Details
C-6.11	Storm Drainage Details
C-6.20	Utility Details
C-6.30	Site Details
C-6.31	Site Details
C-6.32	Site Details
C-6.33	Site Details
C-6.40	Typical Sections
L-1.00	Overall Landscape Plan
L-2.00	Landscape Notes, Specs & Details



ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT

811

BEFORE YOU DIG!
CALL 811 N.C. ONE-CALL CENTER
IT'S THE LAW!

SURVEY DISCLAIMER:

THE BOUNDARY AND TOPOGRAPHIC INFORMATION HEREIN IS FROM SURVEY INFORMATION SUPPLIED BY:
DAVIS, MARTIN, POWELL
6415 OLD PLANK ROAD
HIGH POINT, NC 27265
(336) 886-4821
ELEVATION DATUM IS NAVD88

(G) OWNER'S/DEVELOPER'S CERTIFICATE OF COMPLIANCE:
I _____, ACCEPT THIS SUBMISSION AS MY PLAN OF DEVELOPMENT AND AGREE TO INSTALL ALL REQUIRED IMPROVEMENTS AND COMPLY WITH THE CONDITIONS OF APPROVAL

OWNER/DEVELOPER Date

(J) TECHNICAL REVIEW COMMITTEE ENDORSEMENT BLOCK FOR SITE PLANS:
APPROVED BY THE TECHNICAL REVIEW COMMITTEE FOR 18 MONTHS (DEV. # SP-17-0093) SUBJECT TO THE APPROVAL OF ANY REQUIRED STREET AND UTILITY PLANS AND PROFILES AND APPROVAL OF A SEPARATE LAND-DISTURBING PERMIT AND/OR EROSION CONTROL PLAN.

Director of Planning and Development Date

APPLING WAY
HIGH POINT, NC

CLIENT:
CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:
COVER

SCALE: 1" = 60'
SHEET NO.:
C-0.00

F:\18-330\Drawings\CD\18-330 C-0.00 COVER.dwg : C-0.00 06/24/19 2:53pm

GENERAL NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE TO INFORM AND SATISFY HIMSELF OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCY BETWEEN THE SITE AND THOSE CONDITIONS REPRESENTED ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND THE ENGINEER IMMEDIATELY.

2. ALL DIMENSIONS, RADII, AND NORTHING & EASTING COORDINATES ARE TO FACE OF CURB, CENTER OF STRUCTURES SUCH AS INLETS, MANHOLES, ETC., OR END OF PIPE RUNS AS APPLICABLE UNLESS NOTED OTHERWISE ON THE PLANS.

3. ALL EXISTING UTILITIES OR STRUCTURES INDICATED ON THE DRAWINGS ARE BASED ON AVAILABLE INFORMATION OF RECORD. THE CONTRACTOR IS RE□UIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT EXISTING BUILDINGS/ STRUCTURES AND UTILITY LINES SHOWN HEREON AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ARRANGEMENTS FOR THE PROTECTION, RELOCATION OR REMOVAL OF CONFLICTING EXISTING UTILITIES AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES RESULTING FROM HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. BEFORE STARTING WORK THE CONTRACTOR SHALL CONTACT NC 811 TO HAVE ALL EXISTING UTILITIES LOCATED.

4. LOCATION AND ELEVATIONS OF IMPROVEMENTS, TO BE MET OR CROSSED BY WORK, SHALL BE CONFIRMED BY FIELD MEASUREMENT, SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS, IF REVISIONS ARE NECESSARY DUE TO ACTUAL LOCATION OF EXISTING UTILITIES.

5. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS RE□UIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

6. THE CONTRACTOR SHALL VERIFY THAT ALL RE□UIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED FROM THE APPROPRIATE AUTHORITIES BEFORE BEGINNING WORK ON THE PROJECT.

7. ALL CONSTRUCTION, MATERIALS, AND WORKMANSHIP SHALL CONFORM TO THE FOLLOWING:

   EROSION CONTROL - NCDE□ - LAND □UALITY SECTION'S "EROSION AND SEDIMENTATION CONTROL PLANNING AND DESIGN MANUAL", CITY OF HIGH POINT EROSION CONTROL STANDARDS

   STORM DRAINAGE - NCDOT STANDARDS AND SPECIFICATIONS□CITY OF HIGH POINT STANDARD DRAWINGS

   WATER AND SANITARY SEWER - CITY OF HIGH POINT STANDARDS & SPECIFICATIONS

   ASPHALT PAVEMENT, CURB & GUTTER - NCDOT STANDARDS AND SPECIFICATIONS

   IN THE EVENT OF A CONFLICT BETWEEN THE DRAWINGS AND THESE STANDARDS, THE MORE STRINGENT RE□UIREMENT SHALL APPLY AS DETERMINED BY THE ENGINEER.

8. THE SITEWORK CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF OTHER CONTRACTORS ON THE PROJECT TO AVOID CONFLICT.

9. CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION WORK INCLUDING, BUT NOT LIMITED TO, THE DESIGN, INSTALLATION AND MAINTENANCE OF SHEETING, SHORING AND BRACING□PROTECTION OF SLOPES□UNDERPINNING□AND DEWATERING IN ACCORDANCE WITH ALL LOCAL, STATE, FEDERAL AND OSHA STANDARDS. THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A □UALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA TO DESIGN THE TEMPORARY SHEETING, SHORING AND BRACING IF RE□UIRED FOR THE EXECUTION OF THE PROPOSED WORK.

SITE NOTES:

1. ALL RETAINING WALLS RE□UIRE BUILDING PERMITS.

2. PATCH / REPAIR CURB & GUTTER, ASPHALT PAVING, CONCRETE SIDEWALKS AND OTHER SURFACES IMMEDIATELY AFTER COMPLETION OF UTILITY INSTALLATIONS AND OTHER SITE WORK.

MAINTENANCE & PROTECTION OF TRAFFIC:

CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND MAINTENANCE OF TEMPORARY TRAFFIC MANAGEMENT ASSOCIATED WITH DEMOLITION AND CONSTRUCTION. DESIGN SHALL BE BASED ON THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) - PART 6 TEMPORARY TRAFFIC CONTROLS AND IN ACCORDANCE WITH NCDOT RE□UIREMENTS. CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL DEVICES.

SPECIFICATIONS:

1. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND RE□UIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS.

CONSTRUCTION STAKING & AS-BUILT NOTES:

1. CONSTRUCTION STAKING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. STAKING SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR. CONTRACTORS WITH GPS E□UIPMENT AND THE CAPABILITY TO SELF-PERFORM CONSTRUCTION STAKING MAY DO SO, HOWEVER CONTRACTOR SHALL ENGAGE THE SERVICES OF A PROFESSIONAL LAND SURVEYOR TO ESTABLISH HORI□ONTAL AND VERTICAL CONTROL POINTS FOR THE PROJECT. THESE CONTROL POINTS SHALL BE USED TO CONFIRM THE ACCURACY OF THE GPS E□UIPMENT. CHECKS SHALL BE PERFORMED ON THE E□UIPMENT PERIODICALLY THROUGHOUT THE CONSTRUCTION PROCESS.

2. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY OF THE WATER, SANITARY SEWER, AND STORMWATER CONVEYANCE SYSTEM TO THE ENGINEER UPON COMPLETION OF CONSTRUCTION OF THOSE SYSTEMS. AS-BUILT SURVEY SIGNED & SEALED BY A PROFESSIONAL LAND SURVEYOR SHALL BE SUBMITTED TO THE ENGINEER IN PDF & CAD FORMAT WITHIN 30 DAYS OF COMPLETION OF UTILITY WORK. AS-BUILT SURVEY MAY BE RE□UIRED SOONER TO ALLOW ADDITIONAL TIME FOR RECORD DRAWING PREPARATION BY ENGINEERING & APPROVAL BY REGULATING AGENCY AND PENDING TIME FRAMES FOR CO/TCO (CONTRACTOR TO PLAN ACCORDINGLY).

3. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY ELEVATIONS OF WATER LINES AT CROSSINGS WITH SANITARY SEWER AND STORMWATER PIPE TO THE ENGINEER DOCUMENTING THAT ALLOWABLE SEPARATION IS PROVIDED. SEE UTILITY NOTES FOR MINIMUM VERTICAL SEPARATION RE□UIREMENTS.

STORM DRAINAGE NOTES:

1. ALL STORM DRAINAGE CONSTRUCTION SHALL CONFORM TO NCDOT STANDARDS AND SPECIFICATIONS.

2. ALL STORM DRAINAGE STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH NCDOT 840.46 (TRAFFIC BEARING PRECAST). STRUCTURES SHALL HAVE SOLID WALLS. WAFFLE WALL STRUCTURES WILL NOT BE ACCEPTED. STRUCTURES 10 FEET OR MORE IN DEPTH SHALL BE 4'□4' MINIMUM INSIDE DIMENSIONS REGARDLESS OF PIPE SI□E. ALL PIPE OPENINGS SHALL BE CAST OR CORED.

3. CURB INLET STRUCTURES (DENOTED AS CI # ON PLANS) SHALL CONFORM DIMENSIONALLY TO NCDOT STANDARD 840.02. FRAMES AND GRATES SHALL BE U.S. FOUNDRY - MODEL 5181. TYPE "E, F, AND G" GRATES SHALL BE PROVIDED AS APPLICABLE.

4. GRATE INLET STRUCTURES (DENOTED AS DI # ON PLANS) SHALL CONFORM TO NCDOT STANDARDS 840.14 OR 840.15 WITH NCDOT STANDARD 840.16 FRAME AND GRATE.

5. STORM DRAINAGE MANHOLES SHALL BE PRECAST CONCRETE CONFORMING TO NCDOT STANDARD 840.52. MANHOLES SHALL ALSO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478, ASTM A-615, ASTM A-185 AND ASTM C-990. MANHOLE CASTINGS SHALL BE PROVIDED IN ACCORDANCE WITH THE SPECIFICATIONS.

6. THE INVERTS OF ALL STORM DRAINAGE STRUCTURES SHALL BE GROUTED TO COMPLETELY DRAIN AND NOT HOLD WATER.

7. DUAL WALL HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH SOIL TIGHT JOINTS (ST) SHALL CONFORM WITH THE FOLLOWING:

   A. PIPE SPECIFICATION - SOIL TIGHT INTEGRAL BELL PIPE SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. 4- THROUGH10-INCH SHALL MEET AASHTO M252, TYPE S OR SP. 12- THROUGH 60-INCH SHALL MEET AASHTO M294, TYPE S OR SP OR ASTM F2306.

   B. JOINT PERFORMANCE - PIPE SHALL BE JOINED USING A BELL & SPIGOT JOINT MEETING AASHTO M252, AASHTO M294 OR ASTM F2306. THE JOINT SHALL BE SOIL-TIGHT AND GASKETS, WHEN APPLICABLE, SHALL MEET THE RE□UIREMENTS OF ASTM F477. GASKETS SHALL BE INSTALLED BY THE PIPE MANUFACTURER AND COVERED WITH A REMOVABLE WRAP TO ENSURE THE GASKET IS FREE FROM DEBRIS. A JOINT LUBRICANT SUPPLIED BY THE MANUFACTURER SHALL BE USED ON THE GASKET AND BELL DURING ASSEMBLY.

   C. FITTINGS - FITTINGS SHALL CONFORM TO AASHTO M252, AASHTO M294, OR ASTM F2306. BELL AND SPIGOT CONNECTIONS SHALL UTILI□E A SPUN-ON OR WELDED BELL AND VALLEY OR SADDLE GASKET MEETING THE SOIL-TIGHT JOINT PERFORMANCE RE□UIREMENTS OF AASHTO M252, AASHTO M294 OR ASTM F2306.

UTILITY NOTES:

SEWER SER□ICES□

1. ALL SANITARY SEWER SERVICE CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF THE NORTH CAROLINA BUILDING CODE - PLUMBING CODE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A PLUMBING PERMIT FROM HIGH POINT BUILDING INSPECTIONS

WATER □SEWER □STORM SEPARATION □ERIFICATION□

2. SEE AS-BUILT NOTES ON THIS SHEET FOR RE□UIRED UTILITY AS-BUILT INFO DURING & POST-CONSTRUCTION. RE□UIRED SEPARATIONS ARE AS FOLLOWS (UNLESS OTHERWISE NOTED:

   MINIMUM VERTICAL SEPARATION RE□UIREMENTS:
   SANITARY - STORM: 24"
   SANITARY - WATER: 18"
   SANITARY - OTHER UTILITIES: 24"
   WATER - STORM: 18"

CITY OF HIGH POINT RE□UIREMENTS□

3. CONTACT THE CITY OF HIGH POINT ENGINEERING SERVICES DEPARTMENT, CONSTRUCTION INSPECTIONS DIVISION (336) 883-3194, AND THE ENGINEER FOR A PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING INSTALLATION OF WATER AND SEWER MAINS, WATER AND SEWER SERVICE TAPS, STORM DRAINAGE, SIDEWALKS, DRIVEWAYS, AND ROADWAY IMPROVEMENTS.

4. ALL EXISTING SEWER MANHOLE MODIFICATIONS SHALL BE COORDINATED AND INSPECTED BY THE CITY ENGINEERING SERVICES DEPARTMENT INSPECTOR.

5. UPON COMPLETION OF THE PROJECT, AS-BUILT DRAWINGS OF THE WATER, SEWER, ROADWAY AND STORM DRAINAGE SYSTEMS SHALL BE SUBMITTED TO THE CITY ENGINEERING SERVICES DEPARTMENT. AS-BUILTS SHALL INCLUDE WATER METER AND SEWER CLEANOUT LOCATIONS. SEE UTILITY SHEETS FOR AS-BUILT RE□UIREMENTS.

6. FIRE MAINS AND FIRE HYDRANTS SHALL BE INSTALLED, TESTED AND FUNCTIONAL BEFORE COMBUSTIBLE BUILDING MATERIALS ARE BROUGHT TO THE SITE PER FIRE CODE SECTION 1412.1.

OTHER RE□UIREMENTS□

7. CLEAN-OUTS, VAULTS, METERS, BACKFLOW PREVENTERS AND ALL OTHER UTILITY STRUCTURES INSTALLED IN PAVED AREAS SHALL BE TRAFFIC RATED.

8. CONTRACTOR TO PROVIDE CONDUIT FOR SITE LIGHTING IN ACCORDANCE WITH CITY OF HIGH OF HIGH POINT STANDARDS. CONTRACTOR TO COORDINATE DIRECTLY WITH THE CITY OF HIGH POINT FOR LOCATION AND ROUTING OF CONDUIT.

9. CONTRACTOR SHALL COORDINATE DIRECTLY WITH THE CITY OF HIGH POINT AND ELECTRICAL ENGINEER PRIOR TO CONSTRUCTION FOR FINAL ELECTRICAL CONDUIT ROUTING□# & SI□E OF CONDUITS□AND PULL BOX LOCATIONS.

RETAINING WALL APPEARANCE SPECIFICATIONS:

1. RETAINING WALLS SHALL BE DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA. RETAINING WALLS ARE INDICATED ON THESE PLANS FOR GENERAL LAYOUT AND SITE GRADING PURPOSES ONLY. FINAL DESIGN BY OTHERS.

2. RETAINING WALL SHALL BE DESIGNED, FURNISHED, AND CONSTRUCTED IN ACCORDANCE WITH THE MANUFACTURES SPECIFICATIONS.

3. CONTRACTOR SHALL SUBMIT CUT SHEETS, SHOP DRAWINGS, COLOR OPTIONS, AND CAP OPTIONS TO THE OWNER AND CIVIL ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIALS.

4. RETAINING WALL UNIT APPEARANCE
   4.1. FACE COLOR SHALL BE NATURAL OR TAN.
   4.2. FACE FINISH SHALL BE OF STRAIGHT FACE CONFIGURATION WITH MINIMUM CHISELING.
   4.3. WALL BATTER SHALL BE MINIMUM AS DIRECTED BY THE WALL DESIGNER.
   4.4. UNIT SI□E SHALL HAVE A MAXIMUM DEPTH OF 12-INCHES DUE TO HORI□ONTAL SITE CONSTRAINTS.

SUBMITTALS:

SUBMITTALS ARE RE□UIRED FOR THE FOLLOWING AREAS OF WORK PRIOR TO ORDERING ANY MATERIALS

STORM DRAINAGE
- PIPE
- DRAINAGE STRUCTURES
- FRAMES, GRATES AND COVERS

SANITARY SEWER
- PIPE
- MANHOLES

WATER DISTRIBUTION
- PIPE
- FITTINGS
- VAULTS
- RESTRAINT SYSTEMS

PAVING
- MIX DESIGN FOR CONCRETE PAVING
- MIX DESIGN FOR CONCRETE SIDEWALK
- MIX DESIGN FOR CONCRETE CURB & GUTTER
- MIX DESIGN FOR ALL GRADES OF ASPHALT PAVING

RETAINING WALL
- CUT SHEETS
- SHOP DRAWINGS
- COLOR OPTIONS
- CAP OPTIONS

LIGHTING

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY
HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

PROJECT NOTES

SCALE:

SHEET NO.:

C-0.01

CLEARING, EROSION & SEDIMENT CONTROL NOTES:

1. SEE EROSION CONTROL PLAN FOR DISTURBED AREA.
2. A GRADING PERMIT SHALL BE OBTAINED FROM NCDE□ PRIOR TO ANY LAND DISTURBING ACTIVITY ON THE SITE.
3. CLEARING LIMITS SHALL BE CLEARLY DEFINED PRIOR TO BEGINNING CLEARING OPERATIONS. CLEARING DEBRIS SHALL BE PROPERLY DISPOSED OF OFFSITE IN A PERMITTED LANDFILL FACILITY, OR BY OTHER PERMITTED METHODS. TREES OUTSIDE THE CLEARING LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. BURNING IS NOT ALLOWED ON THE SITE.
4. THE EROSION AND SEDIMENTATION CONTROL PLAN IS INTENDED AS A GUIDE TO INDICATE MINIMUM MEASURES TO BE TAKEN. AFTER GRADING BEGINS, ADDITIONAL MEASURES MAY BE NECESSARY TO CONTROL SEDIMENTATION AND EROSION ONSITE. IF SO, ADDITIONAL MEASURES SHALL BE INSTALLED AS DIRECTED BY NCDE□ EROSION CONTROL INSPECTOR.
5. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE NCDE□ - LAND □UALITY SECTION'S EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
6. THE NORTH CAROLINA SEDIMENTATION POLLUTION CONTROL PROGRAM RE□UIRES GROUND COVER TO BE PROVIDED WITHIN VARYING TIME FRAMES BASED ON COMPLETION OF PHASES OF GRADING OR TOTAL PROJECT COMPLETION. GROUND STABILI□ATION RE□UIREMENTS ARE AS FOLLOWS:
   - PERIMETER DIKES, SWALES, DITCHES AND SLOPES SHALL BE STABILI□ED WITHIN 7 DAYS OF COMPLETION.
   - SLOPES STEEPER THAN 3:1 SHALL BE STABILI□ED WITHIN 7 DAYS. IF SLOPES ARE 10' OR LESS IN LENGTH AND NOT STEEPER THAN 2:1, STABILI□ATION IS RE□UIRED WITHIN 14 DAYS.
   - SLOPES 3:1 OR FLATTER SHALL BE STABILI□ED WITHIN 14 DAYS. IF SLOPES EXCEEDS 50' IN LENGTH, STABILI□ATION IS RE□UIRED WITHIN 7 DAYS.
   - ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1 SHALL BE STABILI□ED WITHIN 14 DAYS.
7. ALL SLOPE SURFACES SHALL BE ROUGHENED USING TRACKED E□UIPMENT TO MINIMI□E EROSION UNTIL SEEDING IS DONE.
8. CONTRACTOR IS RESPONSIBLE FOR ALL EROSION CONTROL PRACTICES RE□UIRED TO MINIMI□E EFFECTS ON ADJACENT PROPERTIES DURING CONSTRUCTION. EROSION CONTROL PRACTICES SHALL BE CONSTUCTED IN ACCORDANCE WITH DETAILS AND ARE TO BE MAINTAINED UNTIL CONTRIBUTING AREAS ARE STABLE.
9. PROPERTY OWNER IS RESPONSIBLE FOR ALL PERMANENT MEASURES AFTER CONSTRUCTION IS COMPLETE AND CONTRACTOR IS RELEASED.
10. ALL DISTURBED AREAS NOT OTHERWISE DELINEATED FOR BUILDING, PAVING, SOD, STONE, OR RIPRAP SHALL BE PERMANENTLY SEEDED AS SOON AS POSSIBLE IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS SHOWN ON THE PLANS.
11. INSPECT AND REPAIR ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND INSPECT AND REPAIR IMMEDIATELY FOLLOWING ANY RAINFALL.
12. ANY RE□UIRED BORROW FILL MATERIAL SHALL COME FROM A SITE THAT IS COVERED UNDER AN ACTIVE EROSION CONTROL PERMIT. ANY EXCESS SOIL MATERIAL TO BE WASTED OFF-SITE SHALL BE WASTED ON A SITE THAT IS COVERED UNDER AN ACTIVE EROSION CONTROL PERMIT. THE CONTRACTOR SHALL PROVIDE THE PERMIT NUMBER OF ALL BORROW AND WASTE SITES TO BE USED TO THE OWNER & EROSION CONTROL INSPECTOR.
13. ANY SOIL STOCKPILE AREAS SHALL BE GRADED TO DRAIN AND COMPACTED TO PREVENT SOIL FROM BECOMING SATURATED AND SHALL BE LOCATED ON SITE SUCH THAT THEY DRAIN TO AN APPROVED EROSION CONTROL MEASURE.
14. NO CLEARING OR GRADING WORK SHALL COMMENCE UNTIL SEDIMENTATION AND EROSION CONTROL PLAN APPROVAL AND GRADING PERMIT HAS BEEN ISSUED. INITIAL CLEARING SHALL BE LIMITED TO WHAT IS NECESSARY TO INSTALL THE EROSION CONTROL MEASURES. AFTER ALL EROSION CONTROL MEASURES ARE IN PLACE AND FUNCTIONING, THE REMAINING SITE AREAS MAY BE CLEARED AND GRUBBED.
15. THE DISPOSAL OF DEBRIS IS NOT ALLOWED ON SITE
16. PROTECTION OF EXISTING TREES AND COMMON AREAS TO BE ACCOMPLISHED WITH TREE PROTECTION FENCE AS SHOWN ON THE PLANS & DETAILS. THE ENCROACHMENT PROTECTION MEASURES SHALL BE PROPERLY MAINTAINED DURING SITE DEVELOPMENT AND SHALL NOT BE REMOVED PRIOR TO FINAL LANDSCAPING.
17. ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE REMOVED AT THE END OF CONSTRUCTION AND WHEN APPROVED BY THE EROSION CONTROL INSPECTOR UNLESS SPECIFICALLY NOTED TO REMAIN AS PERMANENT. REMOVAL SHALL INCLUDE REMOVAL AND DISPOSAL OF SEDIMENT, ALL NECESSARY FILLING, GRADING, REMOVING MATERIALS, FERTILI□ATION, SEEDING AND MULCHING, AND ESTABLISHING VEGETATION.

GENERAL SE□UENCE OF CONSTRUCTION

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL AND PERMIT FROM NCDE□.
2. CONTRACTOR SHALL CONTACT EROSION CONTROL INSPECTOR TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE. IN ADDITION, CONTRACTOR MUST PERFORM SELF INSPECTIONS IN ACCORDANCE WITH THE "SELF INSPECTION RE□UIREMENTS" ON THESE PLANS.
3. CLEAR SITE ONLY AS NECESSARY TO INSTALL INITIAL EROSION CONTROL MEASURES AS FOLLOWS:
   a. TEMPORARY CONSTRUCTION ENTRANCE/EXIT
   □ TEMPORARY SEDIMENT BASINS. FOR SITES OVER ONE (1) ACRE, OUTLET STRUCTURES .SKIMMERS□THAT ONLY WITHDRAW WATER FROM THE SURFACE OF THE BASIN, SHALL BE UTILI□ED. NO SEDIMENT TRAPS OR ROCK DAMS ALLOWED.
   c. TEMPORARY DIVERSION BERMS
   d. TEMPORARY SILT FENCING. SEED EMBANKMENTS AND DISTURBED AREAS OF DEVICES (INCLUDING "CLEAN" WATER DIVERSION) UPON COMPLETION OF CONSTRUCTION. SEE GROUND STABILI□ATION CRITERIA BELOW FOR MORE INFORMATION.
4. BEGIN CLEARING, GRUBBING AND STRIPPING OF SITE AS RE□UIRED. MATERIAL STOCKPILES, AREAS DEDICATED FOR MANAGEMENT OF LAND CLEARING AND DEMOLITION DEBRIS, AND CONSTRUCTION WASTE SHALL BE LOCATED AT LEAST 50 FEET FROM STORM DRAIN INLETS AND SURFACE WATERS (UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE), AND WITHIN AREAS PROTECTED BY EROSION CONTROL MEASURES.
5. BEGIN SITE GRADING. MAINTAIN EROSION CONTROL DEVICES IN ACCORDANCE WITH THE MAINTENANCE PLAN. INSTALL ADDITIONAL EROSION CONTROL MEASURES AS RE□UIRED.
6. INSTALL STORM DRAINAGE SYSTEM AND UTILITIES. STORM PIPING SHALL BE INSTALLED TO THE POINT WHERE IT ENTERS EACH DEVICE. COMPLETION OF PIPING WILL ONLY BE ALLOWED ONCE THE SITE HAS BEEN DEEMED STABLE BY THE EROSION CONTROL INSPECTOR. INSTALL PROTECTION AROUND ALL INLETS AS STORM DRAIN SYSTEM IS INSTALLED.
7. CONTINUE TO MAINTAIN EROSION CONTROL MEASURES UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED OVER ALL DISTURBED AREAS AND SITE HAS BEEN STABILI□ED. REMOVE EROSION CONTROL MEASURES ONLY AFTER FINAL INSPECTION AND APPROVAL BY INSPECTOR.
8. SEE EROSION CONTROL PLAN DRAWINGS FOR STAGE SPECIFIC SE□UENCE OF CONSTRUCTION AND NOTES.

MAINTENANCE PLAN:

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY RE□UIRE PERIODIC TOPDRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

TEMPORARY SEEDING
RESEED AND MULCH AREAS WHERE SEEDLING EMERGENCE IS POOR, OR WHERE EROSION OCCURS, AS SOON AS POSSIBLE. DO NOT MOW, PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE.

TEMPORARY DIVERSIONS
INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE PROTECTED AREA IS PERMANENTLY STABILI□ED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILI□E IT.

TEMPORARY SLOPE DRAINS
INSPECT THE SLOPE DRAIN AND SUPPORTING DIVERSION AFTER EVERY RAINFALL AND PROMPTLY MAKE NECESSARY REPAIRS. WHEN THE PROTECTED AREA HAS BEEN PERMANENTLY STABILI□ED, TEMPORARY MEASURES MAY BE REMOVED, MATERIALS DISPOSED OF PROPERLY, AND ALL DISTURBED AREAS STABILI□ED APPROPRIATELY.

RIP RAP OUTLET PROTECTION
INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

SEDIMENT BASINS
CHECK SEDIMENT BASINS AFTER PERIODS OF SIGNIFICANT RUNOFF. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE BAFFLE HEIGHT OF THE FIRST BAFFLE. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.

SKIMMER BASINS
INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.

REPAIR THE BAFFLES IF THEY ARE DAMAGED, RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.

IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED□IF SO REMOVE THE DEBRIS.

IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE TO REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.

CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY RE□UIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOL AREAS.

FREE□ING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

SILT FENCE
INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY RE□UIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REPLACE BURLAP EVERY 60 DAYS. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADE□UATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILI□E IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILI□ED.

PERMANENT GROUND COVER
THE OWNER OR RESPONSIBLE PARTY IS RESPONSIBLE FOR THE LONG-TERM MAINTENANCE OF THE GROUNDCOVER ON THE PROPERTY. GROUNDCOVER MUST BE MAINTAINED TO A DEGREE THAT PREVENTS SOIL EROSION AND SEDIMENTATION AT ALL TIMES. NCDENR HAS THE AUTHORITY TO RE□UIRE CHANGES IN THE OWNER'S GROUNDCOVER MAINTENANCE PLAN IN ORDER TO STOP SOIL EROSION AND SEDIMENTATION AT ANY TIME.

NPDES STORMWATER NOTES:

THIS PROJECT IS SUBJECT TO THE RE□UIREMENTS OUTLINED IN NORTH CAROLINA GENERAL STATUTE 143-215.1 GENERAL STORMWATER PERMIT

THIS GENERAL PERMIT IS APPLICABLE TO POINT SOURCE DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES DISTURBING ONE OR MORE ACRES OF LAND. THE SUBMISSION OF A PROPOSED EROSION AND SEDIMENTATION CONTROL PLAN TO THE DIVISION OF LAND RESOURCES OR DELEGATED LOCAL PROGRAM SHALL BE CONSIDERED TO TAKE THE PLACE OF A NOTICE OF INTENT FOR COVERAGE UNDER THIS GENERAL PERMIT FOR THOSE PROJECTS RE□UIRING THIS PERMIT COVERAGE. COVERAGE UNDER THIS GENERAL PERMIT SHALL BECOME EFFECTIVE UPON ISSUANCE OF AN APPROVAL FOR THE EROSION AND SEDIMENTATION CONTROL PLAN BY THE LAND □UALITY SECTION OF THE DIVISION OF LAND RESOURCES OR DELEGATED LOCAL PROGRAM. APPROVAL OF THE EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE OBTAINED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND LAND DISTURBING ACTIVITIES.

ALL EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL BE INSPECTED BY OR UNDER THE DIRECTION OF THE PERMITTEE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS (AT LEAST TWICE EVERY SEVEN DAYS FOR THOSE FACILITIES DISCHARGING TO WATERS OF THE STATE LISTED ON THE LATEST EPA APPROVED 303(D) LIST FOR CONSTRUCTION RELATED INDICATORS OF IMPAIRMENT SUCH AS TURBIDITY OR SEDIMENTATION) AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAT 0.5 INCHES OF RAIN PER 24 HOUR PERIOD. A RAIN GAUGE SHALL BE MAINTAINED ON THE SITE AND A RECORD OF THE RAINFALL AMOUNTS AND DATES SHALL BE KEPT BY THE PERMITTEE. REFER TO THE GENERAL STORMWATER PERMIT FOR A COMPLETE LIST OF INSPECTION AND REPORTING RE□UIREMENTS.

A COPY OF THIS PERMIT IS ATTACHED TO THE APPROVED PERMIT OR IT CAN BE DOWNLOADED FROM NCDENR'S WEBSITE.

SELF INSPECTION RE□UIREMENTS

THIS PROJECT IS SUBJECT TO THE RE□UIREMENTS OUTLINED IN NORTH CAROLINA GENERAL STATUTE 113A-54.1(E) AND IN THE NC ADMINISTRATIVE CODE 15A NCAC 04B .0131, SELF-INSPECTIONS.

THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS SHOULD BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

THE CONTRACTOR SHALL PERFORM THE RE□UIRED SELF-INSPECTIONS AT THE COMPLETION OF EACH PHASE OF CONSTRUCTION AND COMPLETE THE STANDARD NCDE□ SELF INSPECTION FORMS INCLUDED IN THE GRADING PERMIT APPROVAL. THE PHASES ARE AS FOLLOWS:
1. INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL MEASURES.
2. CLEARING AND GRUBBING OF EXISTING GROUND COVER.
3. COMPLETION OF ANY PHASE OF GRADING OF SLOPES OR FILLS.
4. INSTALLATION OF STORM DRAINAGE FACILITIES.
5. COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
6. ESTABLISHMENT OF PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION.

THE INSPECTION SHALL VERIFY THAT ALL OF THE INSTALLED EROSION AND SEDIMENTATION CONTROL MEASURES, PRACTICES AND DEVICES ARE CONSISTENT WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN AND ALL PREVIOUSLY CONSTRUCTED EROSION CONTROL MEASURES HAVE BEEN MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE.

IN ANY SIGNIFICANT DEVIATIONS FROM THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN ARE FOUND, THEN THE CONTRACTOR SHALL TAKE THE NECESSARY CORRECTIVE ACTIONS TO CORRECT THE DEVIATIONS. A SIGNIFICANT DEVIATION MEANS AN OMISSION, ALTERATION OR RELOCATION OF AN EROSION OR SEDIMENTATION CONTROL MEASURE THAT PREVENTS THE MEASURE FROM PERFORMING AS INTENDED.

STREET CLEANING:

ROADS SHALL BE KEPT CLEAN OF MUD, SEDIMENT AND OTHER CONSTRUCTION RELATED DEBRIS AT ALL TIMES DURING CONSTRUCTION OF THIS PROJECT. THIS MAY RE□UIRE STREET SWEEPING AND ROUTINE WASHING AND SHALL BE INCLUDED IN THE CONTRACTOR'S BID. CONTRACTOR TO PROVIDE MEANS TO PERFORM WHEEL WASHING.

DUST CONTROL:

DUST CAN BE A SIGNIFICANT SOURCE OF AIR POLLUTION ON LARGE CONSTRUCTION SITES. DUST CONTROL MAY BECOME NECESSARY DURING THE PROJECT. SEVERAL METHODS ARE EFFECTIVE IN CONTROLLING DUST, HOWEVER THE MOST COMMON IS SPRINKLING ACCESS ROADS WITH WATER. ANOTHER IS USING STONE TO STABILI□E ACCESS ROADS. PROVIDE DUST CONTROL ON AN AS NEEDED BASIS.

USE OF FLOCCULANTS:

FLOCCULANTS ARE AN EFFECTIVE METHOD OF ENHANCING SETTLEMENT OF SUSPENDED SEDIMENT. PRODUCTS USING A CHEMICAL KNOWN AS POLYACRYLAMIDE (PAM) ARE SPECIFIED FOR THIS PROJECT. THESE PRODUCTS SHALL BE USED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL CONFIRM WITH THE VENDOR THAT PAM'S USED ON THE SITE COMPLY WITH THE CHRONIC TOXICITY TESTING RE□UIREMENTS ESTABLISHED BY THE NC DIVISION OF WATER □UALITY. DO NOT APPLY PAM'S DIRECTLY TO 'SURFACE WATERS OF THE STATE'. SURFACE WATERS OF THE STATE INCLUDE STREAMS, PONDS AND OTHER WATER FEATURES THAT ARE OUTSIDE OF THE DISTURBED LIMITS OF THE SITE.

TEMPORARY SEEDING:

SEEDING SPECIFICATIONS
APPLY 4000 LBS. AGRICULTURAL LIMESTONE PER ACRE.
APPLY 1000 LBS. 10-10-10- FERTILI□ER PER ACRE FOR GRASS SEEDING.
LIME AND FERTILI□ER ARE TO BE DISKED INTO THE SOIL SURFACE TO A MINIMUM DEPTH OF 4 INCHES.

FOR LATE WINTER/EARLY SPRING
SEEDING MIXTURE

SPECIES:	RATE (LB/ACRE):
RYE (GRAIN)	120
ANNUAL LESPEDE□A (KOBE IN PIEDMONT & COASTAL PLAIN, KOREAN IN MOUNTAINS)	50

SEEDING DATES
MOUNTAINS--FEB. 1 - MAY 1
PIEDMONT--JAN. 1 - MAY 1
COASTAL PLAIN--DEC. 1 - APR. 15

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILI□ER.

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
REFERTILI□E IF GROWTH IS NOT FULLY ADE□UATE. RESEED, REFERTILI□E AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

FOR SUMMER
SEEDING MIXTURE

SPECIES:	RATE (LB/ACRE):
GERMAN MILLET	40

IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDAN GRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB/ACRE.

SEEDING DATES
MOUNTAINS--MAY 15 - AUG. 15
PIEDMONT--MAY 1 - AUG. 15
COASTAL PLAIN--APR. 15 - AUG. 15

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILI□ER.

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
REFERTILI□E IF GROWTH IS NOT FULLY ADE□UATE. RESEED, REFERTILI□E AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

FOR FALL
SEEDING MIXTURE

SPECIES:	RATE (LB/ACRE):
RYE (GRAIN)	120

SEEDING DATES
MOUNTAINS--AUG. 15 - DEC. 15
PIEDMONT AND COASTAL PLAIN--AUG. 15 - DEC. 30

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILI□ER.

MULCH
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE
REPAIR AND REFERTILI□E DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBE (PIEDMONT AND COASTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDE□A IN LATE FEBRUARY OR EARLY MARCH.

SEEDBED PREPARATION
1. RIP AREA TO BE SEEDED TO A MINIMUM DEPTH OF 4-6 INCHES.
2. REMOVE ALL LOOSE ROCKS, ROOTS, ETC. LEAVING SURFACE SMOOTH AND UNIFORM.
3. APPLY SEED, AGRICULTURAL LIME, FERTILI□ER AND SUPER PHOSPHATE UNIFORMLY AND MIX WITH THE SOIL.
4. SEED ON A FRESHLY PREPARED SEEDBED AND COVER THE SEED LIGHTLY WITH SEEDING E□UIPMENT OR CULTIPACK AFTER SEEDING.
5. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.

AFTER SEEDING, THE AREA IS TO BE ROLLED OR CULTIPACKED TO INSURE THAT THE SEED IS PRESSED INTO CONTACT WITH SOIL SURFACE. ALL SEEDED AREAS ARE TO BE MULCHED WITH STRAW MULCH AT THE RATE OF 3000 LBS. PER ACRE. (APPX. 100 BALES PER ACRE.)

THE ABOVE SEEDING RECOMMENDATIONS AND RATES HAVE BEEN PREPARED FOR SELECTION OF A VEGETATIVE COVER SUITABLE FOR SOIL EROSION CONTROL IN THE DAVIE COUNTY AREA.

AREA SOIL TYPES, CLIMATIC CONDITIONS, SEED AVAILABILITY AND INDIVIDUAL PLANT CHARACTERISTICS ARE ALL TAKEN INTO ACCOUNT IN THE ABOVE RECOMMENDATIONS. DUE TO DENSITY, UNIFORMITY AND TEXTURAL □UALITY REASONS, THE ABOVE SELECTIONS ARE NOT RECOMMENDED FOR LAWN AREA USE.

PERMANENT SEEDING:

Planting Type	Planting Rates/ Acres	Planting Dates □
Blend of two t□rf-type tall fesc□es (90□) and two or more improved Kent□c□y □□egrass varieties (10□) high maintenance	200-250 □s.	A□g. 15 -Oct. 15 Fe□. 15 -May 1

□ CONTRACTOR SHALL FOLLOW TEMPORARY SEEDING SPECIFICATIONS WHEN PERMANENT SEEDING IS RE□UIRED OUTSIDE OF THE PERMANENT SEEDING PLANTING DATES

PURPOSE
TO PERMANENTLY STABILI□E DISTURBED AREAS CREATED BY CONSTRUCTION ACTIVITIES AND MINIMI□E SOIL EROSION.

PRACTICAL APPLICATIONS
WHERE BARE SOIL ON CONSTRUCTION ACTIVITIES IS NOT COVERED BY STRUCTURES OR OTHER EROSION CONTROL MEASURES.

PREPARATION
PREPARE SEEDBED BY RIPPING, CHISELING, HARROWING, OR PLOWING TO A DEPTH OF 6" THAT PRODUCES A LOOSE, FRIABLE SURFACE. REMOVE ALL STONES, BOULDERS, STUMPS, OR DEBRIS FROM THE SURFACE WHICH WOULD PROHIBIT GERMINATION OR PLANT GROWTH.

INCORPORATE INTO THE SOIL 800-1000 IBS. OF 10-10-10 FERTILI□ER PLUS 500 IBS. OF 20□ SUPERPHOSPHATE PER ACRE AND 2 TONS OF DOLOMITIC LIME PER ACRE UNLESS SOIL TESTS INDICATE THAT A LOWER RATE OF LIME CAN BE USED.

MULCH AFTER SEEDING WITH 1.5 TONS OF GRAIN STRAW PER ACRE AND CRIMP STRAW INTO THE SOIL OR TACK WITH LI□UID ASPHALT AT 400 GALLONS PER ACRE OR EMULSIFIED ASPHALT AT 300 GALLONS PER ACRE.

ENVIRONMENTAL NOTES

1. REFER TO THE ENVIRONMENTAL MANAGEMENT PLAN PREPARED BY ECS, LTD FOR RE□UIREMENTS RELATED TO THE CONSTRUCTION ACTIVITIES AND THE ONSITE CONTAMINATION.

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY
HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN: BWC
DATE: 5/20/19
REVISIONS:

JOB. NO: 18-330
SHEET TITLE:
PROJECT NOTES

SCALE:
SHEET NO.:
C-0.0□

STIMMEL:

- PARKING NUMBER
- DETAIL BUBBLE

SITE:

- HANDICAP SPACE
- HANDICAP SIGN
- CURB STOP
- BOLLARD
- SITE LIGHTING

DEMO:

- CURBING TO BE REMOVED
- ASPHALT SAW CUT LINE
- FENCING TO BE REMOVED
- EXISTING BUILDING TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING ASPHALT TO BE REMOVED

HATCHES:

- WETLANDS
- PROPOSED CONCRETE PAVING
- PROPOSED LIGHT DUTY ASPHALT PAVING
- PROPOSED HEAVY DUTY ASPHALT PAVING

EXISTING GRADING & EC:

- EXISTING DRAINAGE MANHOLE
- EXISTING CURB INLET
- EXISTING GRATE INLET
- EXISTING YARD INLET
- EXISTING FLARED END STATION

PROPOSED GRADING & EC:

- PROPOSED DRAINAGE MANHOLE
- PROPOSED CURB INLET 'TYPE E'
- PROPOSED GRATE INLET
- PROPOSED YARD INLET
- PROPOSED SURFACE DRAIN INLET
- PROPOSED TRENCH DRAIN
- PROPOSED FLARED END SECTION
- PROPOSED CHECK DAM
- PROPOSED TERRA TUBE
- PROPOSED SILT FENCE STONE OUTLET
- PROPOSED SILT FENCE TERRA TUBE OUTLET
- PROPOSED FLOC LOG
- PROPOSED WIRE & GRAVEL INLET PROTECTION
- PROPOSED STONE DOUGHNUT INLET PROTECTION
- PROPOSED SLOPE DRAIN
- PROPOSED SKIMMER OUTLET
- PROPOSED RIPRAP OUTLET PAD

EXISTING WATER & SEWER:

- EXISTING GATE VALVE
- EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER MANHOLE
- EXISTING CLEANOUT

PROPOSED WATER & SEWER:

- PROPOSED 22.5° BEND
- PROPOSED 45° BEND
- PROPOSED 90° BEND
- PROPOSED CROSS
- PROPOSED FDC
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED PLUG
- PROPOSED REDUCER
- PROPOSED TAPPING SLEEVE
- PROPOSED TEE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY CLEANOUT

SITE:

- PROPERTY BOUNDARY
- PROPOSED BUILDING
- RIGHT OF WAY
- PROPOSED CENTERLINE
- PROPOSED CURB AND GUTTER
- PROPOSED FENCE
- PROPOSED TREE LINE/CLEARING LIMITS
- GUARDRAIL
- CONDUIT
- EXISTING CURB & GUTTER
- EXISTING CENTERLINE
- EXISTING ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING CABLE TV LINE
- EXISTING FIBER OPTIC CABLE
- EXISTING TREE LINE

GRADING & EROSION CONTROL:

- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROPOSED STORM DRAINAGE LINE
- PROPOSED ROOF LEADER
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- EXISTING STORM DRAINAGE LINE
- DIVERSION BERM
- FLOW / SWALE LINE
- LIMITS OF DISTURBANCE
- SILT FENCE
- TREE PROTECTION FENCE
- ENCROACHMENT FENCE

WATER & SEWER:

- PROPOSED WATERMAIN
- PROPOSED WATERLINE
- PROPOSED IRRIGATION WATERLINE
- EXISTING WATERMAIN
- EXISTING WATERLINE
- PROPOSED SANITARY SEWER MAIN
- PROPOSED SANITARY SEWER SERVICE
- EXISTING SANITARY SEWER LINE

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

LEGEND SHEET

SCALE:

SHEET NO.:

C-0.0

DEMOLITION KEY NOTES:

1. COORDINATE RELOCATION OF UTILITY POLES AND OVERHEAD & UNDERGROUND UTILITY LINES WITH APPROPRIATE UTILITY PROVIDERS.
2. EXISTING 6" VCP SANITARY SEWER SERVICE LATERAL (NOT SURVEYED) ASSUMED TO SERVE STICKLEY INC. PROPERTY (PARCEL ID: 0186836). FIELD INVESTIGATE AND NOTIFY ENGINEER FOR FURTHER DIRECTION.
3. EXISTING 8" VCP SANITARY SEWER SERVICE LATERAL (NOT SURVEYED). FIELD INVESTIGATE AND DETERMINE IF ACTIVE AND NOTIFY ENGINEER FOR FURTHER DIRECTION.

DEMOLITION NOTES

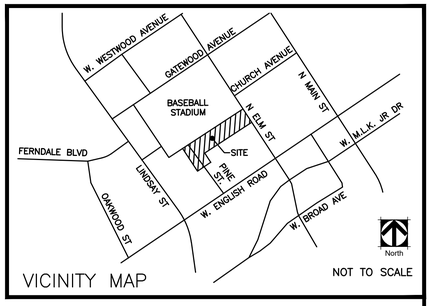
1. GENERAL CONTRACTOR TO USE HIGHEST LEVEL OF SAFETY DURING ALL PHASES OF CONSTRUCTION.
2. ADDITIONAL DEMOLITION MAY BE SHOWN ON SUBSE□UENT DRAWINGS.
3. VISIT SITE TO FIELD-VERIFY EXISTING CONDITIONS. BRING TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE ANY DISCREPANCIES OR ANY DEMOLITION ITEMS TO BE DELETED OR ADDED.
4. COORDINATE WITH ALL CITY, STATE AND PRIVATE UTILITIES. G.C. RESPONSIBLE FOR COORDINATION WITH N.C. 811 FOR VERIFICATION OF ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO CONSTRUCTION. (GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT ALL EXISTING UTILITIES HAVE PROPER COVER IN AREAS OF CUT OR FILL. ALSO TO INSURE THAT UTILITY MAINS ARE NOT DISTURBED.) BRING TO THE ATTENTION OF THE ENGINEER ANY UTILITIES THAT ARE NOT SHOWN AND CONFLICT WITH ANY PART OF CONSTRUCTION PROCESS AS DESIGNED IN THESE PLANS.
5. ALL ITEMS INDICATED FOR REMOVAL SHALL BE COMPLETELY REMOVED UNLESS OTHERWISE NOTED. DISPOSE IN AN APPROPRIATE PERMITTED LANDFILL. ADDITIONAL DEMOLITION MAY BE SHOWN ON OTHER DRAWINGS.
6. ALL UNDERGROUND PIPING INDICATED FOR REMOVAL SHALL BE COMPLETELY REMOVED□THIS INCLUDES BUT IS NOT LIMITED TO STORM DRAINAGE, SANITARY SEWER, WATER, ETC.
7. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RE□UIRED DEMOLITION PERMITS.
8. GENERAL CONTRACTOR IS RESPONSIBLE FOR ENSURING NO INTERRUPTION OF UTILITY SERVICE TO THE ADJACENT PROPERTIES.
9. GENERAL CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE EROSION CONTROL PLAN.
10. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROTECTING ADJACENT STRUCTURES, CURB, AND PAVEMENT FROM DAMAGE. PATCH/REPAIR ANY EXISTING ITEMS DAMAGED DURING THE PROJECT.
11. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION AND/OR TERMINATION OF ALL UTILITIES WITH THE RESPECTIVE UTILITY COMPANIES.
12. SPRINKLE DEBRIS WITH WATER AS NECESSARY TO LIMIT DUST TO THE LOWEST PRACTICAL LEVEL. DO NOT SPRINKLE TO THE EXTENT TO CAUSE FLOODING, CONTAMINATED RUNOFF OR ICING.
13. ALL STRUCTURES TO REMAIN WITHIN THE DEMOLITION LIMITS SHALL BE ADJUSTED TO FINISHED GRADE.
14. SAW CUT EDGE OF ALL ASPHALT, CURB AND SIDEWALK REMOVAL AREAS.
15. REMOVALS AND RELOCATIONS OF EXISTING ELECTRICAL AND TELECOM UTILITIES, INCLUDING POLES AND AERIAL UTILITIES, BY UTILITY SERVICE PROVIDER. CONTRACTOR TO COORDINATE REMOVALS WITH UTILITY SERVICE PROVIDER AND OWNER.
16. SEE EROSION CONTROL PLAN FOR TREE PROTECTION FENCING TO BE INSTALLED PRIOR TO SITE DEMOLITION WORK.

DEMOLITION HATCH LEGEND:

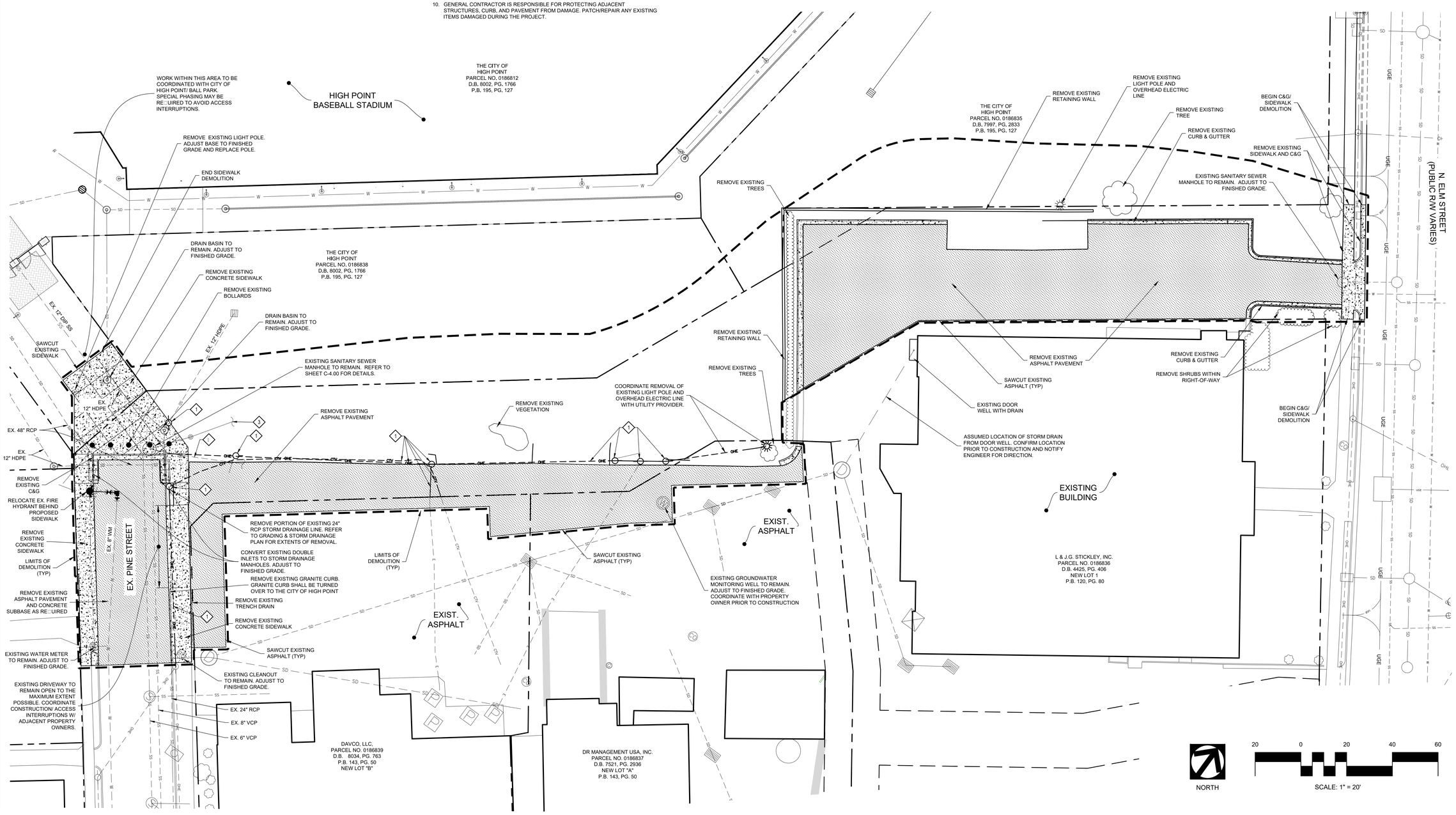
- CURBING TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING PAVEMENT TO BE REMOVED

SURVEY DISCLAIMER INFORMATION:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION HEREIN IS FROM SURVEY INFORMATION SUPPLIED BY:
   DAVIS, MARTIN, POWELL
   6415 OLD PLANK ROAD
   HIGH POINT, NC 27265
   (336) 886-4821
   ELEVATION DATUM IS NAVD88



VICINITY MAP



stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

DEMOLITION PLAN

SCALE:

SHEET NO.:

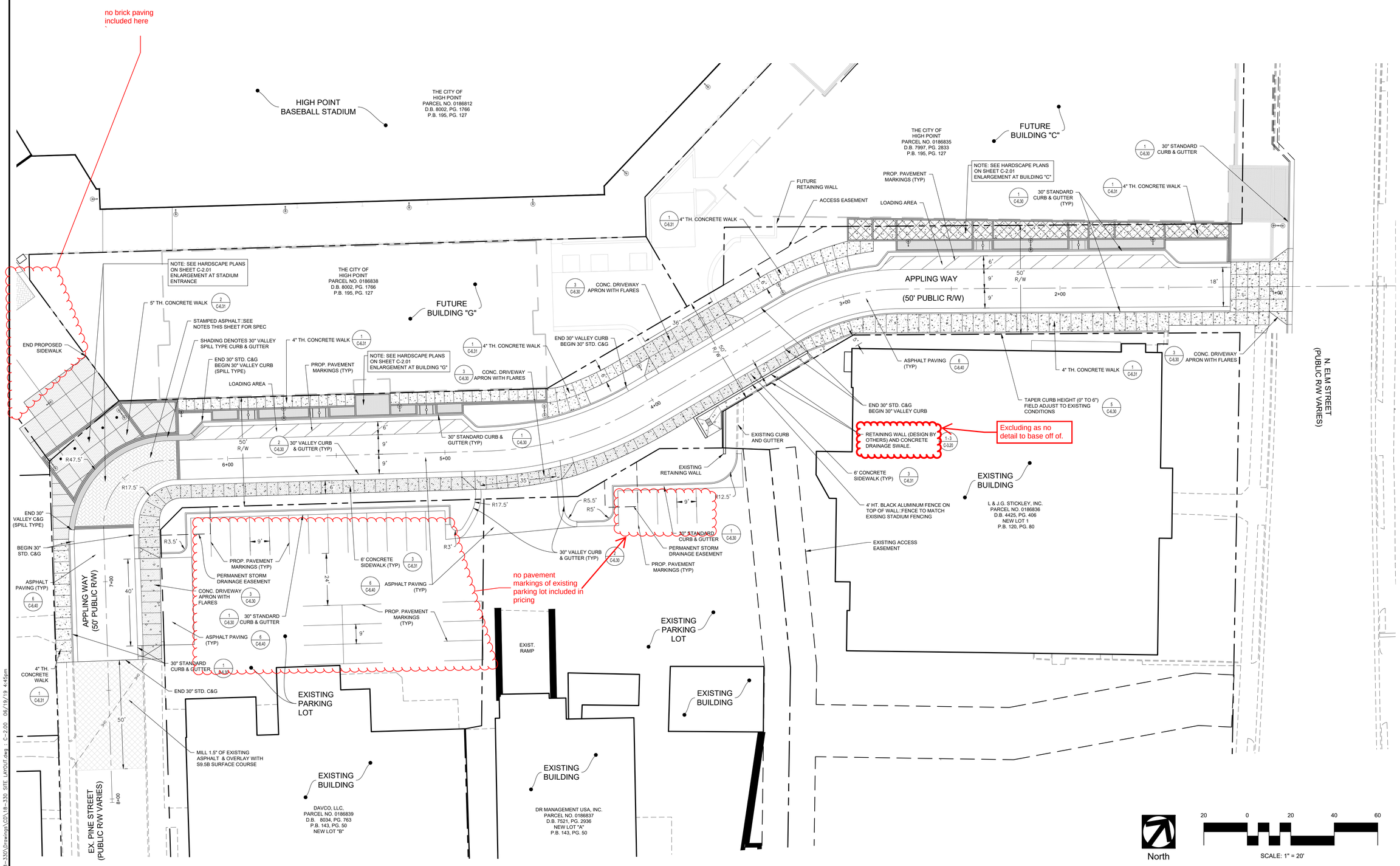
C-1.00

PAVING SCHEDULE

- 4" THICK 3,000 PSI CONCRETE SIDEWALK
- 5" THICK 4,500 PSI CONCRETE 6" ABC
- 6" THICK 4,500 PSI CONCRETE 6" ABC
- STAMPED ASPHALT IN APPLING WAY, SEE SPECS IN NOTES
- MILL 1.5" OF EXISTING ASPHALT & OVERLAY WITH S9.5B SURFACE COURSE
- BRICK PAVING::SEE C-2.01 ENLARGEMENTS

NOTES:

1. SEE SHEETS C-0.01 AND C-0.02 FOR SITE, GENERAL, AND OTHER RELATED NOTES.
2. SEE SHEETS C-6.30, C-6.31 & C-6.40 FOR SITE DETAILS AND TYPICAL ROADWAY SECTIONS.
3. STAMPED ASPHALT TO BE BY PAVEWAY SYSTEMS, INC TO CURRENT CITY OF HIGH POINT STANDARDS. CONTACT TIFFANY ALBRIGHT, (317) 441-4981::PATTERN TO BE HERRINGBONE W/ DOUBLE SOLDIER COURSE BORDER::MATCH BRICK PAVER COLOR AND PATTERN ELSEWHERE IN HARDSCAPE DESIGN::DESIGN BY PAVEWAY SYSTEMS TO BE APPROVED BY LANDSCAPE ARCHITECT



stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC/JMT
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

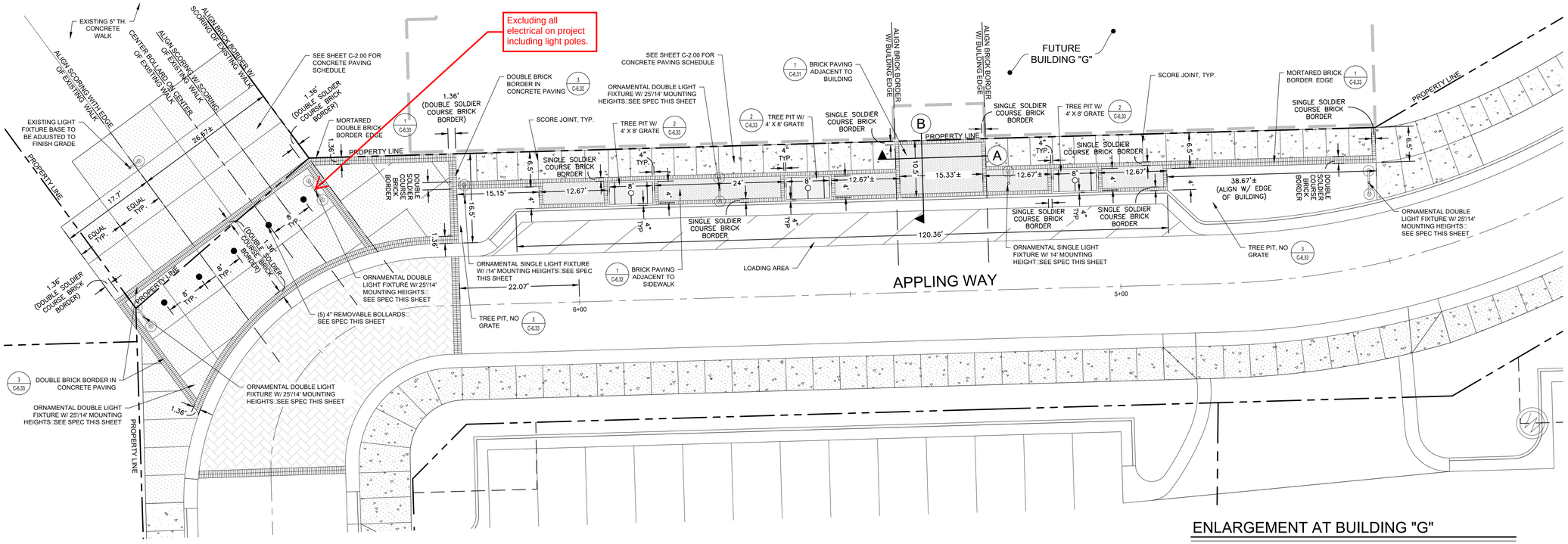
OVERALL SITE PLAN

SCALE:

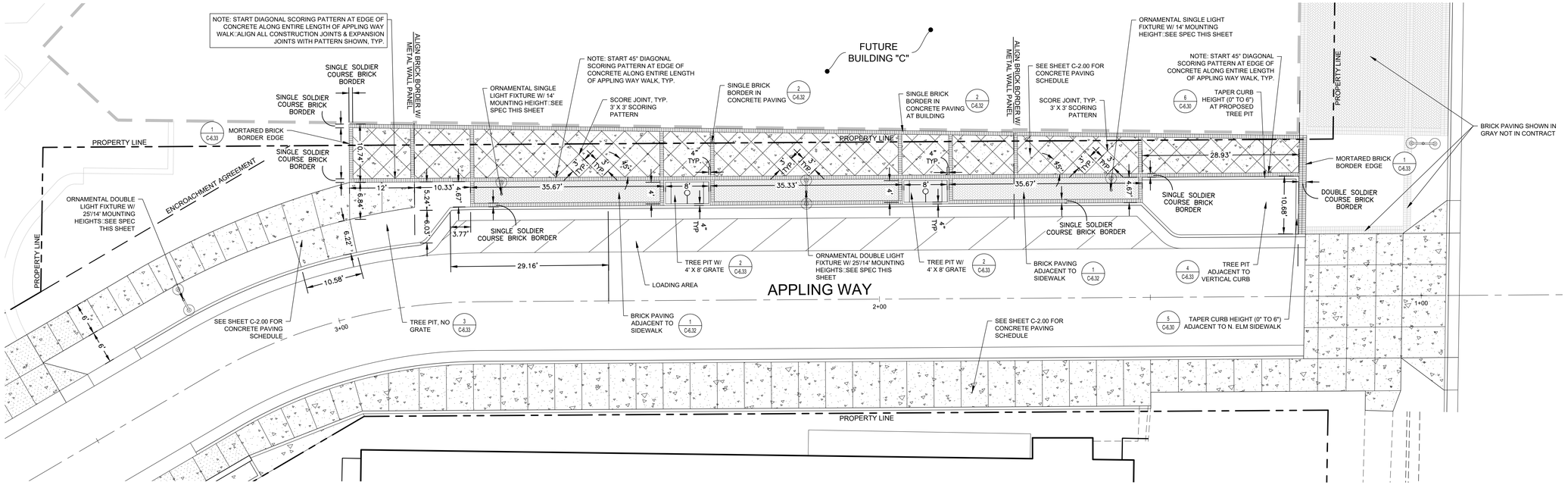
SHEET NO.:

C-□.00

F:\18--330\Drawings\CD\18--330 SITE LAYOUT.dwg : C-2.00 06/19/19 4:45pm



ENLARGEMENT AT BUILDING "G"



ENLARGEMENT AT BUILDING "C"

SYMBOL LEGEND

ORNAMENTAL SINGLE LIGHT FIXTURE W/ /14' MOUNTING HEIGHTS

ORNAMENTAL DOUBLE LIGHT FIXTURE W/ 25'/14' MOUNTING HEIGHTS

4" X 36" FLAT TOP STEEL BOLLARD REMOVABLE BOLLARD
MODEL: B-02140-80-3006 (OR APPROVED E□UAL) BY TOURNELSOL SITEWORKS
COLOR: SEMIGLOSS BLACK

NOTES:
-RECEIVERS TO BE INSTALLED IN ORIGINAL CONCRETE PAVING POUR□
COORDINATE RECEIVER ORDER WITH BOLLARD MANUFACTURER PRIOR TO POURING CONCRETE
-PROVIDE REFLECTIVE WHITE TAPE AT TOP OF BOLLARD

North

SCALE: 1" = 10'

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC/JMT
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

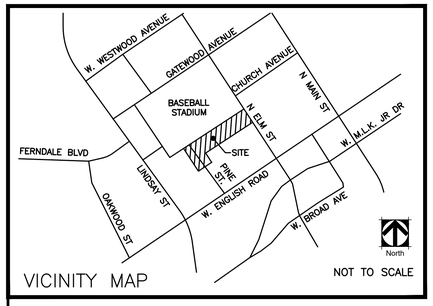
HARDSCAPE ENLARGEMENT PLANS

SCALE:

SHEET NO.:

C-□.01

F:\18-330\Drawings\CD\18-330 SITE LAYOUT.dwg : C-2.01 06/19/19 4:46pm



VICINITY MAP

NOTES:

1. SEE SHEETS C-0.01 AND C-0.02 FOR GRADING, EROSION CONTROL, AND OTHER RELATED NOTES.
2. SEE SHEET C-3.20 FOR ADDITIONAL STORM DRAINAGE INFORMATION AND CHAPTER 6 FOR EROSION CONTROL DETAILS.

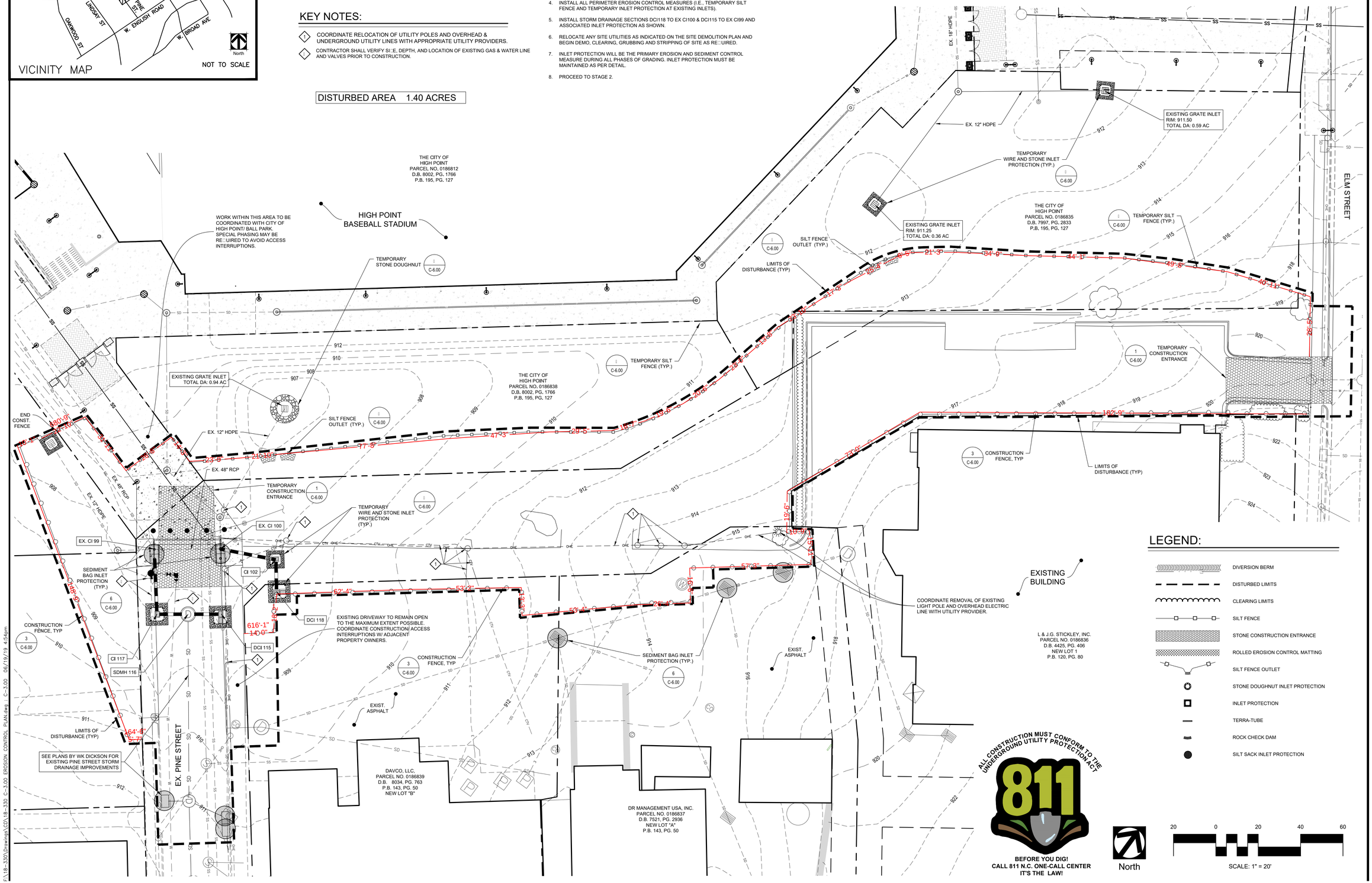
KEY NOTES:

1. COORDINATE RELOCATION OF UTILITY POLES AND OVERHEAD & UNDERGROUND UTILITY LINES WITH APPROPRIATE UTILITY PROVIDERS.
2. CONTRACTOR SHALL VERIFY SI□E, DEPTH, AND LOCATION OF EXISTING GAS & WATER LINE AND VALVES PRIOR TO CONSTRUCTION.

DISTURBED AREA 1.40 ACRES

STAGE 1 SE□UENCE OF CONSTRUCTION:

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL AND PERMIT FROM NCDENR.
2. CONTACT EROSION CONTROL INSPECTOR AND HIGH POINT TO ESTABLISH A PRE-CONSTRUCTION CONFERENCE AND INSPECTION SCHEDULE.
3. INSTALL TEMPORARY CONSTRUCTION ENTRANCES.
4. INSTALL ALL PERIMETER EROSION CONTROL MEASURES (I.E., TEMPORARY SILT FENCE AND TEMPORARY INLET PROTECTION AT EXISTING INLETS).
5. INSTALL STORM DRAINAGE SECTIONS DCI118 TO EX CI100 & DCI115 TO EX CI99 AND ASSOCIATED INLET PROTECTION AS SHOWN.
6. RELOCATE ANY SITE UTILITIES AS INDICATED ON THE SITE DEMOLITION PLAN AND BEGIN DEMO, CLEARING, GRUBBING AND STRIPPING OF SITE AS RE□UIRED.
7. INLET PROTECTION WILL BE THE PRIMARY EROSION AND SEDIMENT CONTROL MEASURE DURING ALL PHASES OF GRADING. INLET PROTECTION MUST BE MAINTAINED AS PER DETAIL.
8. PROCEED TO STAGE 2.



LEGEND:

- DIVERSION BERM
- DISTURBED LIMITS
- CLEARING LIMITS
- SILT FENCE
- STONE CONSTRUCTION ENTRANCE
- ROLLED EROSION CONTROL MATTING
- SILT FENCE OUTLET
- STONE DOUGHNUT INLET PROTECTION
- INLET PROTECTION
- TERRA-TUBE
- ROCK CHECK DAM
- SILT SACK INLET PROTECTION

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

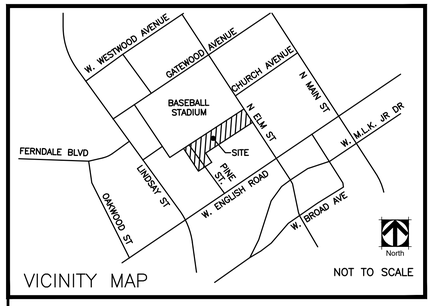
OVERALL STAGE 1 EROSION CONTROL PLAN

SCALE: 1" = 20'

SHEET NO.:

C-□.00

F:\18-330\Drawings\CD\18-330 C-3.00 EROSION CONTROL PLAN.dwg : C-3.00 06/19/19 4:54pm



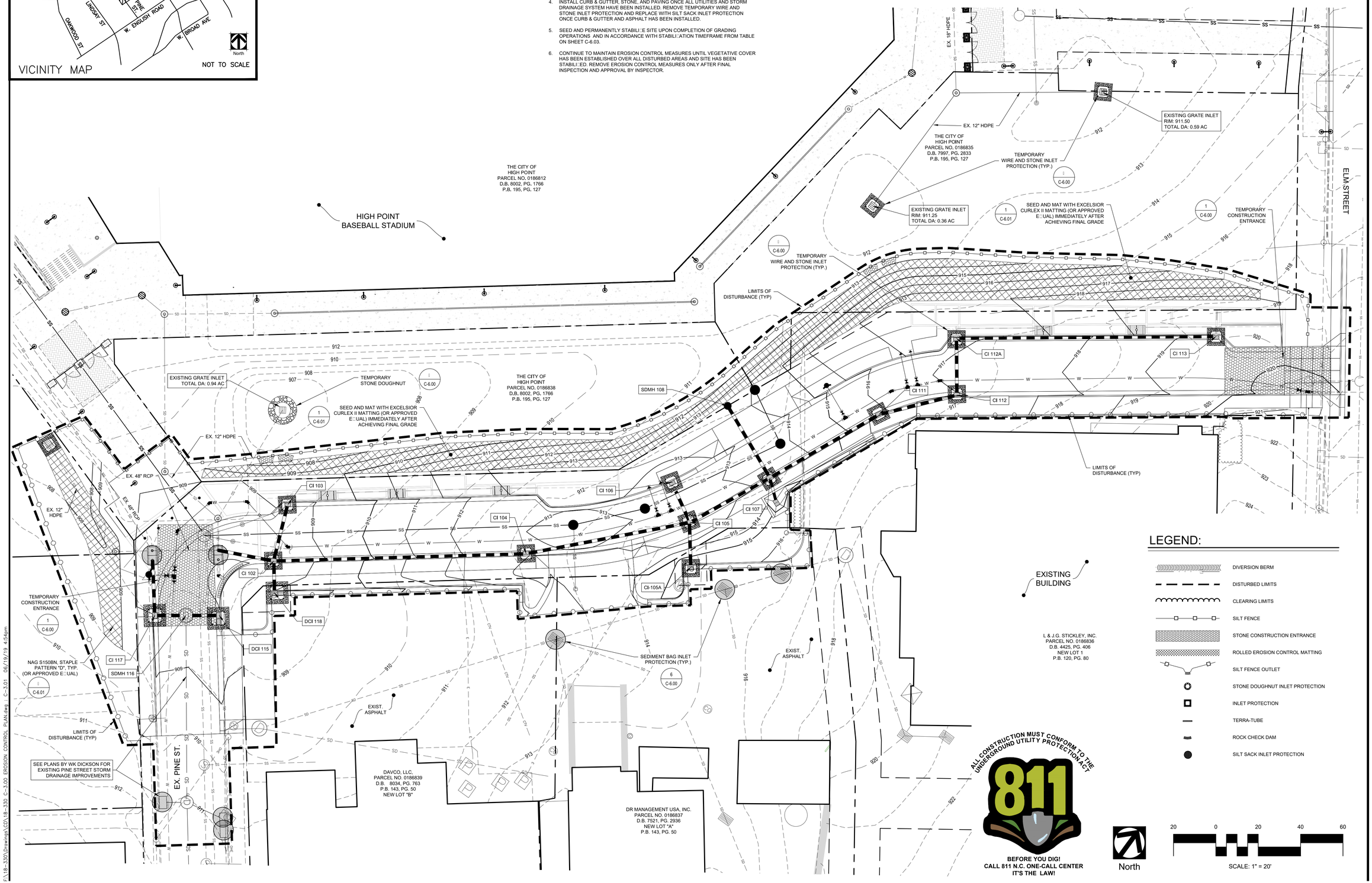
VICINITY MAP

NOTES:

1. SEE SHEETS C-0.01 AND C-0.02 FOR GRADING, EROSION CONTROL, AND OTHER RELATED NOTES.
2. SEE SHEET C-3.20 FOR ADDITIONAL STORM DRAINAGE INFORMATION AND CHAPTER 6 FOR EROSION CONTROL DETAILS.

STAGE 2 SE□UENCE OF CONSTRUCTION:

1. BEGIN GRADING OPERATIONS. GRADE ROADWAY TO SUBGRADE ELEVATION.
2. INSTALL STORM DRAINAGE, WATER, AND SANITARY SEWER ON APPLING WAY/ PINE STREET AS SHOWN ON THIS PLAN. INSTALL INLET PROTECTION AS STORM DRAINAGE STRUCTURES BECOME OPERATIONAL.
3. INSTALL REMAINING UTILITIES.
4. INSTALL CURB & GUTTER, STONE, AND PAVING ONCE ALL UTILITIES AND STORM DRAINAGE SYSTEM HAVE BEEN INSTALLED. REMOVE TEMPORARY WIRE AND STONE INLET PROTECTION AND REPLACE WITH SILT SACK INLET PROTECTION ONCE CURB & GUTTER AND ASPHALT HAS BEEN INSTALLED.
5. SEED AND PERMANENTLY STABILI□E SITE UPON COMPLETION OF GRADING OPERATIONS AND IN ACCORDANCE WITH STABILI□ATION TIMEFRAME FROM TABLE ON SHEET C-6.03.
6. CONTINUE TO MAINTAIN EROSION CONTROL MEASURES UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED OVER ALL DISTURBED AREAS AND SITE HAS BEEN STABILI□ED. REMOVE EROSION CONTROL MEASURES ONLY AFTER FINAL INSPECTION AND APPROVAL BY INSPECTOR.



LEGEND:

- DIVERSION BERM
- DISTURBED LIMITS
- CLEARING LIMITS
- SILT FENCE
- STONE CONSTRUCTION ENTRANCE
- ROLLED EROSION CONTROL MATTING
- SILT FENCE OUTLET
- STONE DOUGHNUT INLET PROTECTION
- INLET PROTECTION
- TERRA-TUBE
- ROCK CHECK DAM
- SILT SACK INLET PROTECTION

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

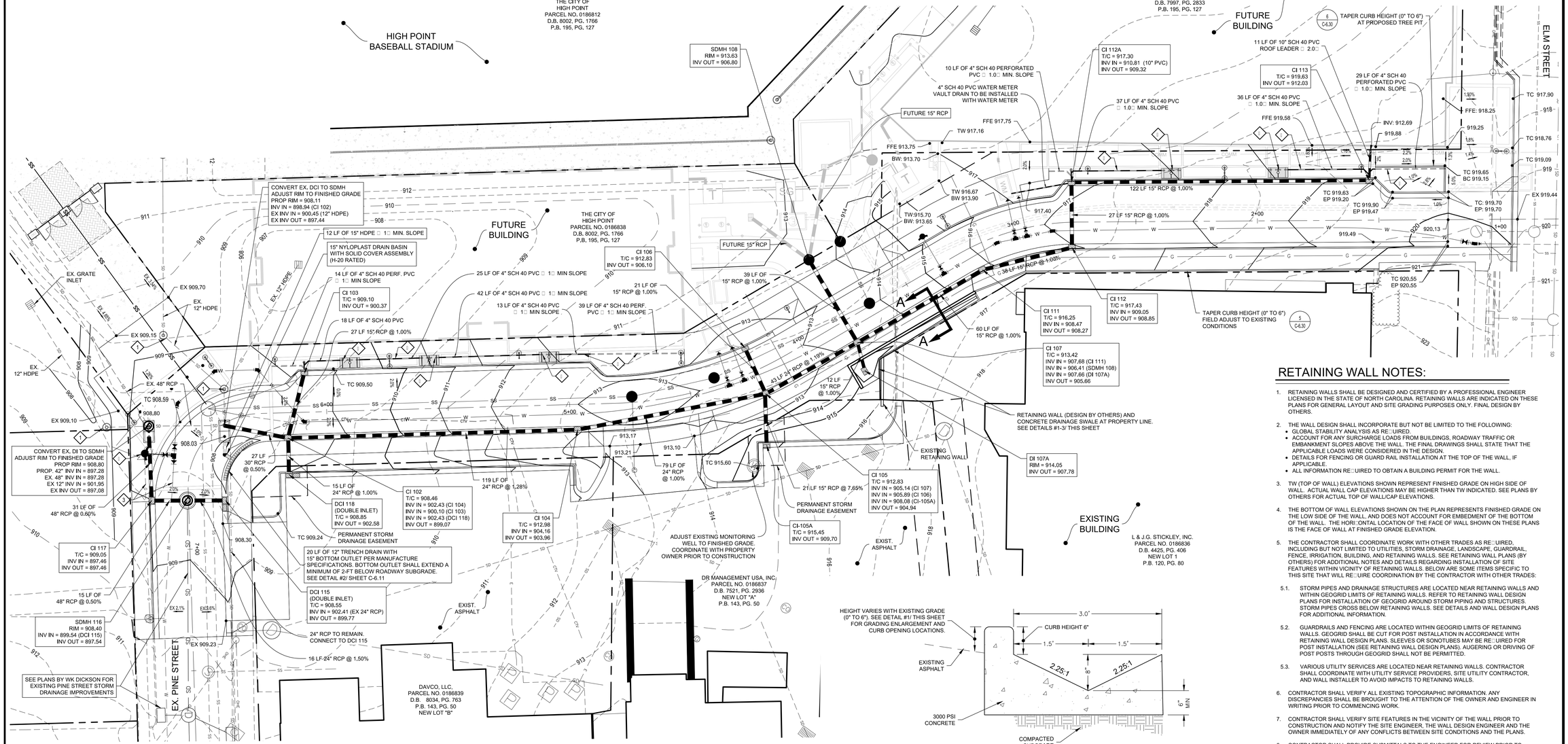
OVERALL STAGE 2 EROSION CONTROL PLAN

SCALE: 1" = 20'

SHEET NO.:

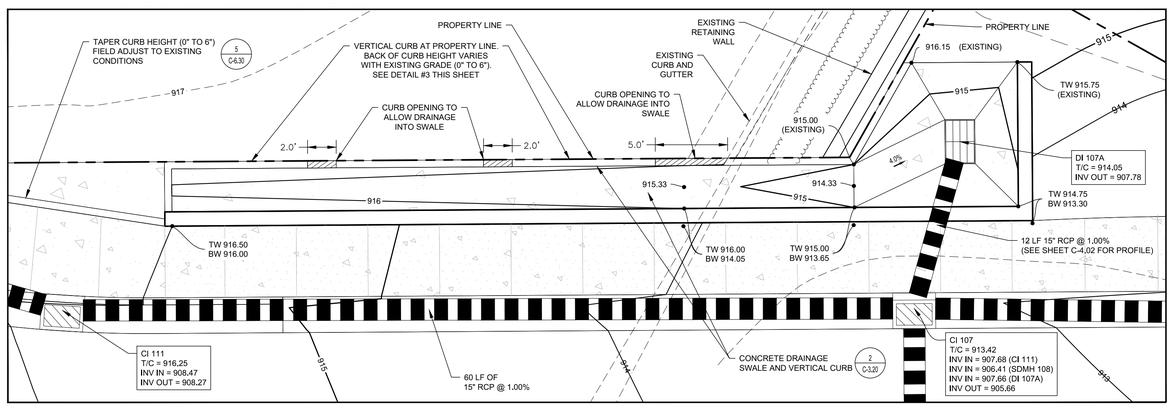
C-□.01

F:\18-330\Drawings\CD\18-330 C-3.00 EROSION CONTROL PLAN.dwg : C-3.01 06/19/19 4:54pm



RETAINING WALL NOTES:

1. RETAINING WALLS SHALL BE DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NORTH CAROLINA. RETAINING WALLS ARE INDICATED ON THESE PLANS FOR GENERAL LAYOUT AND SITE GRADING PURPOSES ONLY. FINAL DESIGN BY OTHERS.
2. THE WALL DESIGN SHALL INCORPORATE BUT NOT BE LIMITED TO THE FOLLOWING:
   - GLOBAL STABILITY ANALYSIS AS RE□UIRED.
   - ACCOUNT FOR ANY SURCHARGE LOADS FROM BUILDINGS, ROADWAY TRAFFIC OR EMBANKMENT SLOPES ABOVE THE WALL. THE FINAL DRAWINGS SHALL STATE THAT THE APPLICABLE LOADS WERE CONSIDERED IN THE DESIGN.
   - DETAILS FOR FENCING OR GUARD RAIL INSTALLATION AT THE TOP OF THE WALL, IF APPLICABLE.
   - ALL INFORMATION RE□UIRED TO OBTAIN A BUILDING PERMIT FOR THE WALL.
3. TW (TOP OF WALL) ELEVATIONS SHOWN REPRESENT FINISHED GRADE ON HIGH SIDE OF WALL. ACTUAL WALL CAP ELEVATIONS MAY BE HIGHER THAN TW INDICATED. SEE PLANS BY OTHERS FOR ACTUAL TOP OF WALL/CAP ELEVATIONS.
4. THE BOTTOM OF WALL ELEVATIONS SHOWN ON THE PLAN REPRESENTS FINISHED GRADE ON THE LOW SIDE OF THE WALL, AND DOES NOT ACCOUNT FOR EMBEDMENT OF THE BOTTOM OF THE WALL. THE HORI□ONTAL LOCATION OF THE FACE OF WALL SHOWN ON THESE PLANS IS THE FACE OF WALL AT FINISHED GRADE ELEVATION.
5. THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AS RE□UIRED, INCLUDING BUT NOT LIMITED TO UTILITIES, STORM DRAINAGE, LANDSCAPE, GUARDRAIL, FENCE, IRRIGATION, BUILDING, AND RETAINING WALLS. SEE RETAINING WALL PLANS (BY OTHERS) FOR ADDITIONAL NOTES AND DETAILS REGARDING INSTALLATION OF SITE FEATURES WITHIN VICINITY OF RETAINING WALLS. BELOW ARE SOME ITEMS SPECIFIC TO THIS SITE THAT WILL RE□UIRE COORDINATION BY THE CONTRACTOR WITH OTHER TRADES:
   - 5.1. STORM PIPES AND DRAINAGE STRUCTURES ARE LOCATED NEAR RETAINING WALLS AND WITHIN GEOGRID LIMITS OF RETAINING WALLS. REFER TO RETAINING WALL DESIGN PLANS FOR INSTALLATION OF GEOGRID AROUND STORM PIPING AND STRUCTURES. STORM PIPES CROSS BELOW RETAINING WALLS. SEE DETAILS AND WALL DESIGN PLANS FOR ADDITIONAL INFORMATION.
   - 5.2. GUARDRAILS AND FENCING ARE LOCATED WITHIN GEOGRID LIMITS OF RETAINING WALLS. GEOGRID SHALL BE CUT FOR POST INSTALLATION IN ACCORDANCE WITH RETAINING WALL DESIGN PLANS. SLEEVES OR SONOTUBES MAY BE RE□UIRED FOR POST INSTALLATION (SEE RETAINING WALL DESIGN PLANS). AUGERING OR DRIVING OF POST POSTS THROUGH GEOGRID SHALL NOT BE PERMITTED.
   - 5.3. VARIOUS UTILITY SERVICES ARE LOCATED NEAR RETAINING WALLS. CONTRACTOR SHALL COORDINATE WITH UTILITY SERVICE PROVIDERS, SITE UTILITY CONTRACTOR, AND WALL INSTALLER TO AVOID IMPACTS TO RETAINING WALLS.
6. CONTRACTOR SHALL VERIFY ALL EXISTING TOPOGRAPHIC INFORMATION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING PRIOR TO COMMENCING WORK.
7. CONTRACTOR SHALL VERIFY SITE FEATURES IN THE VICINITY OF THE WALL PRIOR TO CONSTRUCTION AND NOTIFY THE SITE ENGINEER, THE WALL DESIGN ENGINEER AND THE OWNER IMMEDIATELY OF ANY CONFLICTS BETWEEN SITE CONDITIONS AND THE PLANS.
8. CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
9. THE WALL DESIGN ENGINEER SHALL PERFORM CONSTRUCTION OBSERVATION DURING INSTALLATION OF THE WALLS, AND PROVIDE CONSTRUCTION CERTIFICATION UPON COMPLETION.
10. REFER TO SHEET C-0.01 FOR WALL APPEARANCE SPECIFICATIONS.

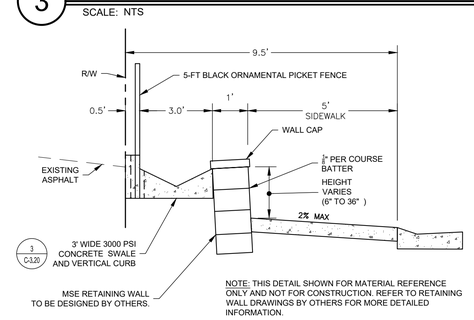


1 GRADING ENLARGEMENT

SCALE: 1"-5'

3 CONCRETE SWALE SECTION

SCALE: NTS



2 RETAINING WALL SCHEMATIC SECTION A - A

SCALE: NTS

GRADING AND STORM DRAINAGE KEY NOTES:

1. EXISTING 18" NYLOPLAST DRAIN BASIN□ADJUST RIM TO PROPOSED GRADE.
2. EXISTING FIRE HYDRANT TO BE RELOCATED TO BACK OF PROPOSED SIDEWALK□REFER TO SHEET C-4.00 FOR DETAILS.
3. CONTRACTOR SHALL VERIFY SI□E, DEPTH, AND LOCATION OF EXISTING GAS & WATER LINE AND VALVES PRIOR TO CONSTRUCTION.
4. TREE PIT DRAINAGE, TYP□REFER TO DETAIL #2 & #3 / SHEET C-6.33.
5. 8 LF OF 4" SCH 40 PERFORATED PVC TREE PIT DRAINAGE □ 1.0□ MIN. SLOPE□REFER TO DETAIL #2/ SHEET C-6.33.

NOTES:

1. SEE SHEETS C-0.01 AND C-0.02 FOR GRADING, STORM DRAINAGE, AND OTHER RELATED NOTES.
2. SEE SHEETS C-4.00 & C-4.01 FOR ADDITIONAL UTILITY INFORMATION.
3. REFER TO CHAPTER 6 FOR ADDITIONAL STORM DRAINAGE DETAILS.

North

20 0 20 40 60

SCALE: 1" = 20'

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

GRADING AND STORM DRAINAGE PLAN

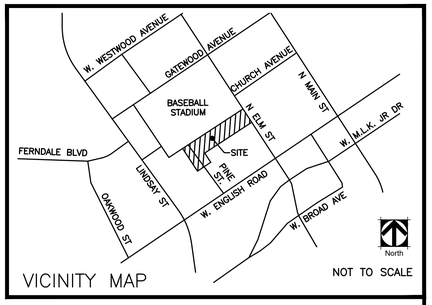
SCALE: 1" = 20'

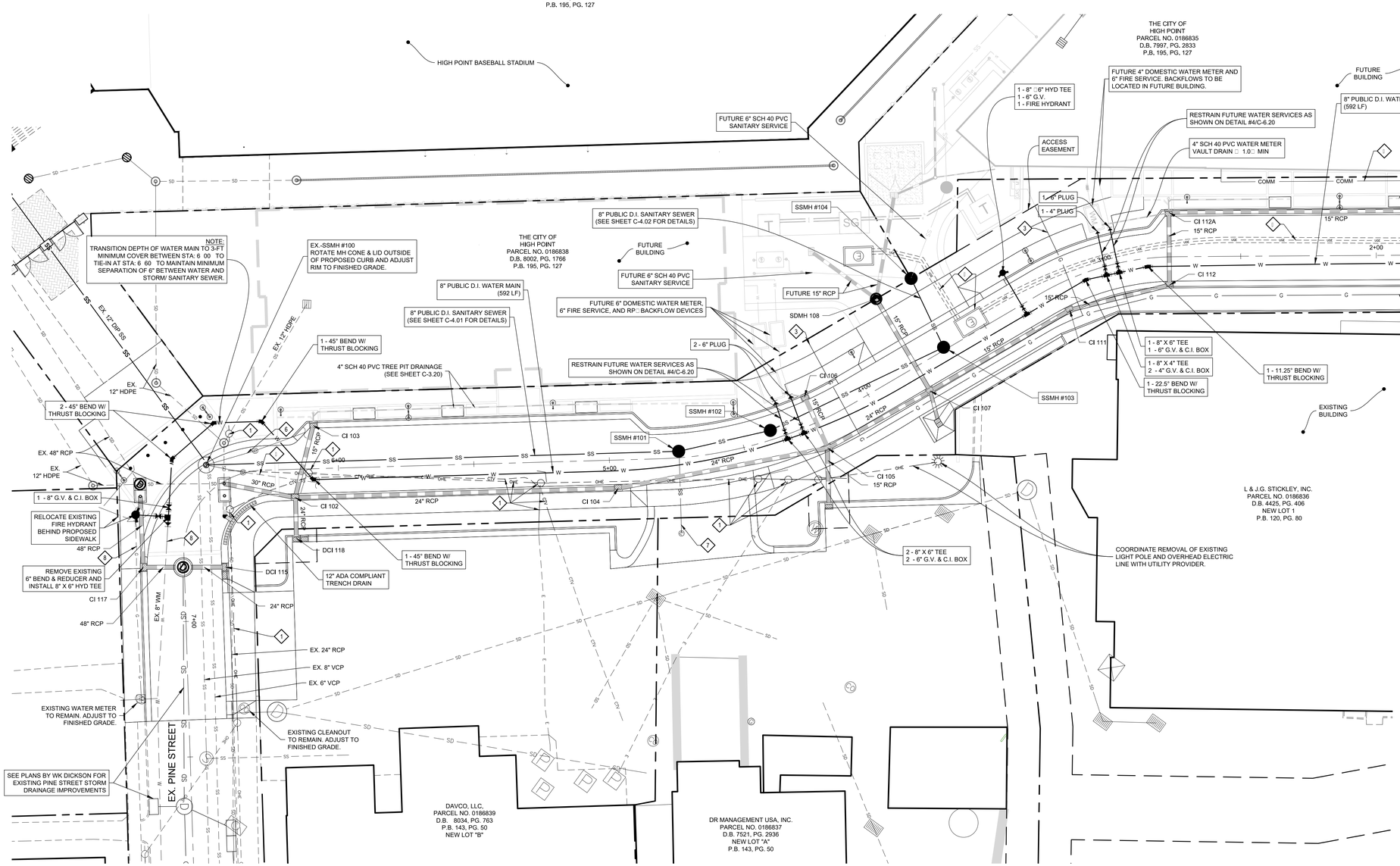
SHEET NO.:

C-□.□0

UTILITY KEY NOTES:

1. COORDINATE RELOCATION OF UTILITY POLES AND OVERHEAD & UNDERGROUND UTILITY LINES WITH APPROPRIATE UTILITY PROVIDERS.
2. CITY OF HIGH POINT ELECTRICAL DUCT BANK AND MANHOLE□(2) - 6" & (2) - 4" CONDUITS□ DESIGN BY OTHERS□COORDINATE ROUTING W/ UTILITY SERVICE PROVIDER
3. GAS SERVICE LINES BY PIEDMONT NATURAL GAS□VERIFY ROUTING WITH PNG.
4. TELECOM SERVICE LINE BY OTHERS□VERIFY ROUTING WITH UTILITY SERVICE PROVIDER.
5. EXISTING 6" VCP SANITARY SEWER SERVICE LATERAL (NOT SURVEYED) ASSUMED TO SERVE STICKLEY INC. PROPERTY (PARCEL ID: 0186836). FIELD INVESTIGATE AND NOTIFY ENGINEER FOR FURTHER DIRECTION.
6. EXISTING 8" VCP SANITARY SEWER SERVICE LATERAL (NOT SURVEYED). FIELD INVESTIGATE AND DETERMINE IF ACTIVE AND NOTIFY ENGINEER FOR FURTHER DIRECTION.
7. 6" SCH 40 PVC SANITARY SEWER SERVICE □ 2□ MIN. SLOPE TO SERVE STICKLEY INC PROPERTY (PARCEL ID: 0186836). FIELD INVESTIGATE TO DETERMINE THE EXACT SI□E AND LOCATION OF EXISTING SANITARY SEWER SERVICE AND NOTIFY ENGINEER FOR FURTHER DIRECTION.
8. CONTRACTOR SHALL VERIFY SI□E, DEPTH, AND LOCATION OF EXISTING GAS & WATER LINE AND VALVES PRIOR TO CONSTRUCTION.





LEGEND

- PROPERTY BOUNDARY
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- SD — EXISTING STORM DRAINAGE LINE
- PROPOSED STORM DRAINAGE LINE
- W — EXISTING WATERLINE
- W — PROPOSED WATERLINE
- SS — EXISTING SANITARY SEWER LINE
- SS — PROPOSED SANITARY SEWER MAIN
- COMM — EXISTING COMMUNICATION LINE
- FOC — EXISTING FIBER OPTIC LINE
- T — EXISTING TELEPHONE LINE
- T — PROPOSED TELEPHONE LINE (VERIFY LOCATION WITH UTILITY PROVIDER)
- OHE — EXISTING OVERHEAD UTILITY LINE
- OHE — PROPOSED OVERHEAD UTILITY LINE (VERIFY LOCATION WITH UTILITY PROVIDER)
- G — EXISTING NATURAL GAS LINE
- G — PROPOSED OVERHEAD UTILITY LINE (VERIFY LOCATION WITH UTILITY PROVIDER)
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY CLEANOUT
- PROPOSED GATE VALVE
- PROPOSED TEE
- PROPOSED FIRE HYDRANT
- PROPOSED PLUG

NOTES

1. REFER TO SHEETS C-0.01 AND C-0.02 FOR ADDITIONAL NOTES.
2. REFER TO SHEETS C-3.20 AND C-6.10 FOR ADDITIONAL STORM DRAINAGE INFORMATION AND DETAILS.
3. REFER TO SHEETS C-4.01 AND C-6.20 FOR ADDITIONAL UTILITY INFORMATION AND DETAILS.

North

20 0 20 40 60

SCALE: 1" = 20'

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

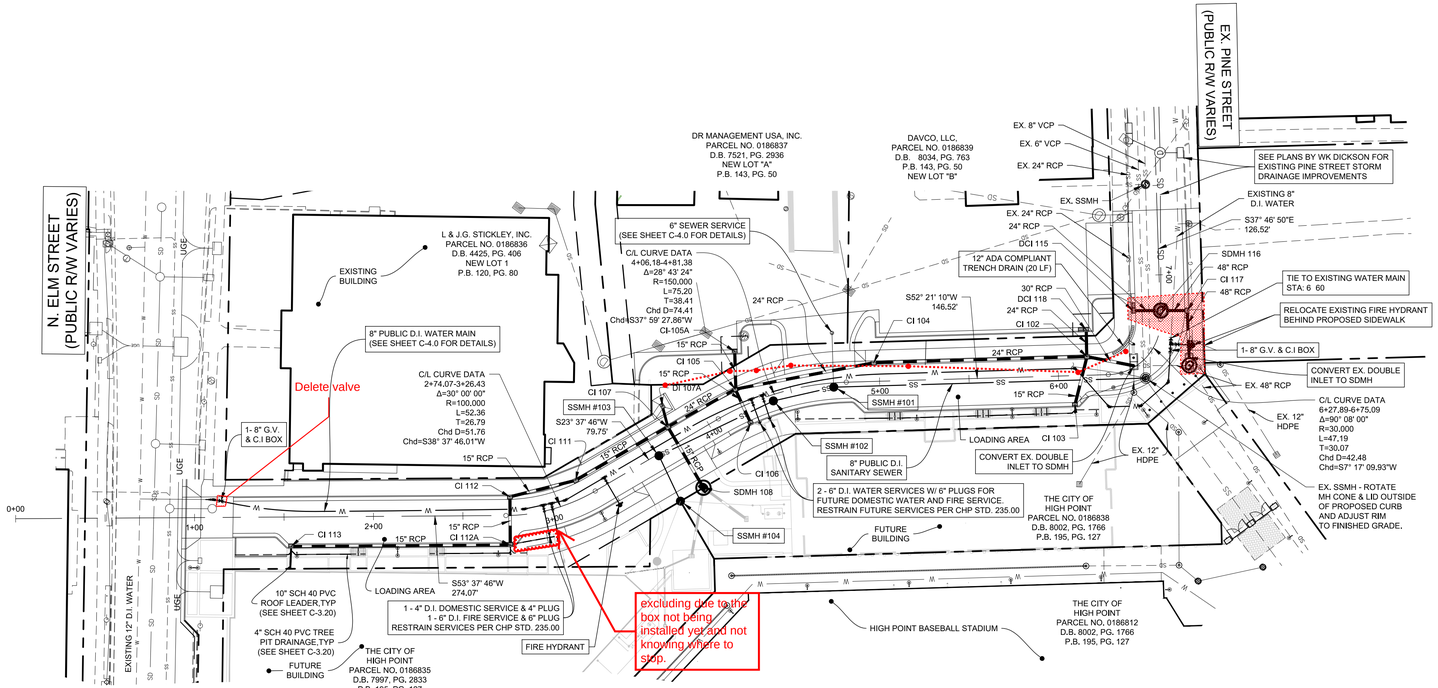
SHEET TITLE:

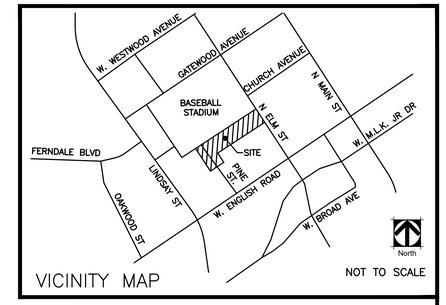
OVERALL UTILITY PLAN

SCALE: 1" = 20'

SHEET NO.:

C-□.00





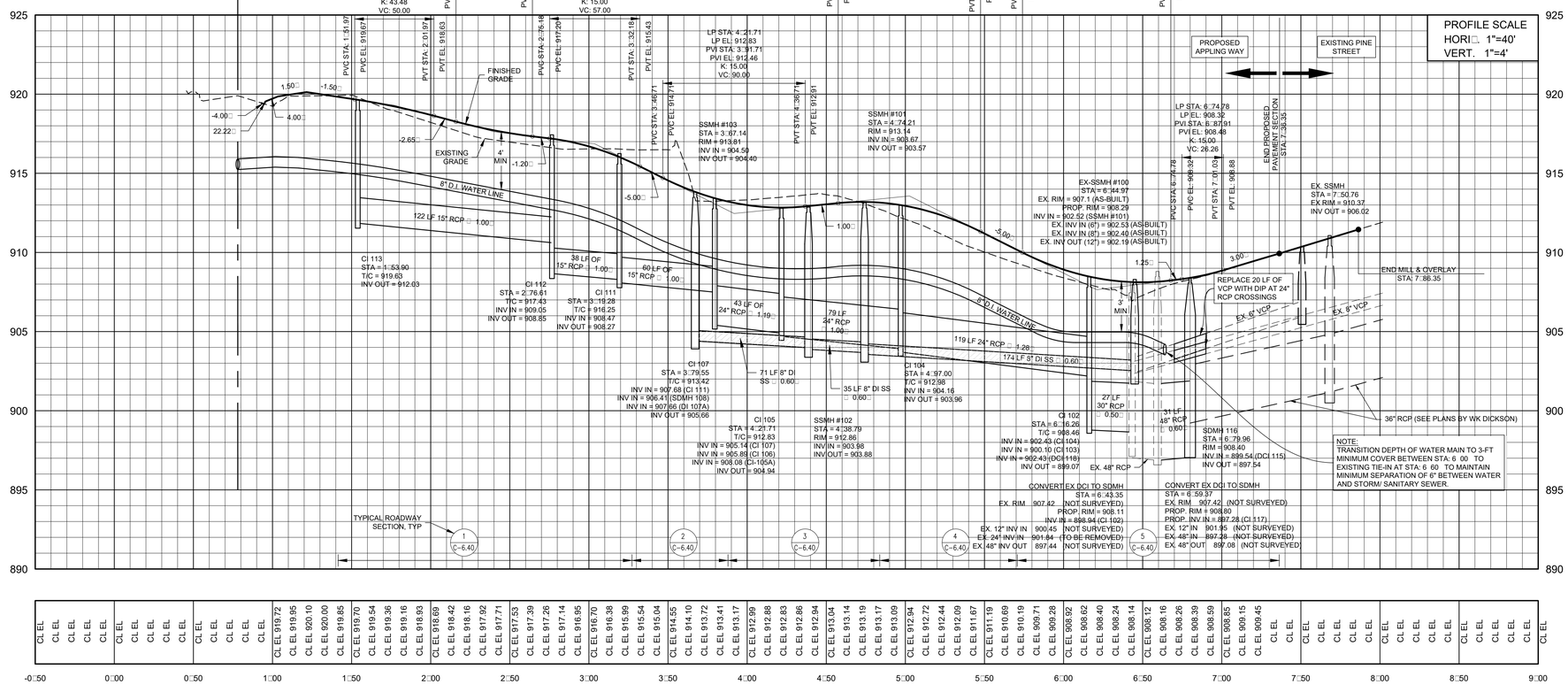
(EE) ENDORSEMENT BLOCK ON ALL PLAN AN D PROFILE SHEETS (NOT DETAILS):
APPROVED BY THE TECHNICAL REVIEW COMMITTEE FOR : YEARS, SUBJECT TO THE APPROVAL OF A SEPARATE LAND-DISTURBING PERMIT AND/OR EROSION CONTROL PLAN, AND MAY BE E: TENDED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 9-6-8(e) OF THE HIGH POINT DEVELOPMENT ORDINANCE.

Director of Planning and Development Date

NORTH

40 0 40 80 120

SCALE: 1" = 40'



LEGEND

- PROPERTY BOUNDARY
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- SD — EXISTING STORM DRAINAGE LINE
- PROPOSED STORM DRAINAGE LINE
- W — EXISTING WATERLINE
- W — PROPOSED WATERLINE
- SS — EXISTING SANITARY SEWER LINE
- SS — PROPOSED SANITARY SEWER MAIN
- COMM — EXISTING COMMUNICATION LINE
- FOC — EXISTING FIBER OPTIC LINE
- T — EXISTING TELEPHONE LINE
- T — PROPOSED TELEPHONE LINE (VERIFY LOCATION WITH UTILITY PROVIDER)
- OHE — EXISTING OVERHEAD UTILITY LINE
- OHE — PROPOSED OVERHEAD UTILITY LINE (VERIFY LOCATION WITH UTILITY PROVIDER)
- G — EXISTING NATURAL GAS LINE
- G — PROPOSED OVERHEAD UTILITY LINE (VERIFY LOCATION WITH UTILITY PROVIDER)
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY CLEANOUT
- PROPOSED GATE VALVE
- PROPOSED TEE
- PROPOSED FIRE HYDRANT
- PROPOSED PLUG

NOTES

1. REFER TO SHEETS C-0.01 AND C-0.02 FOR ADDITIONAL NOTES.
2. REFER TO SHEETS C-3.20, C-6.10 & C-6.11 FOR ADDITIONAL STORM DRAINAGE INFORMATION AND DETAILS.
3. REFER TO SHEETS C-4.00 AND C-6.20 FOR ADDITIONAL UTILITY INFORMATION AND DETAILS.
4. REFER TO SHEET C-6.40 FOR TYPICAL ROADWAY SECTIONS.

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY
DRAWING
NOT FOR
CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

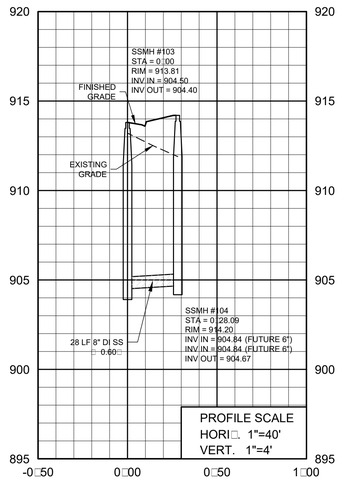
APPLING WAY
PLAN & PROFILE

SCALE: H: 1" = 40', V: 1" = 4'

SHEET NO.:

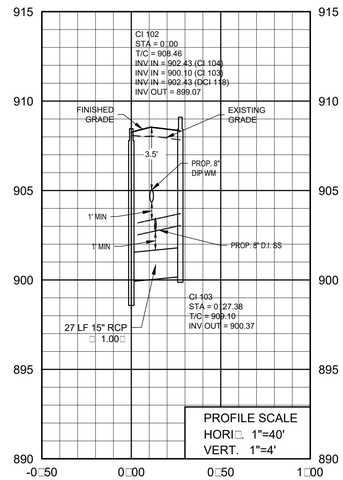
C-□.01

F:\18-330\Drawings\CD\18-330 C-4.00 PLAN & PROFILE.dwg : C-4.01 06/24/19 3:34pm



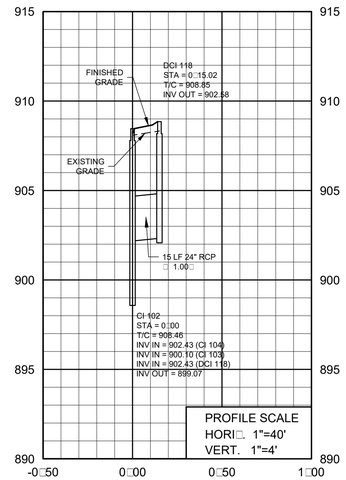
SSMH #103 TO SSMH #104

SCALE: 1"=40(H) □1"=4'(V)



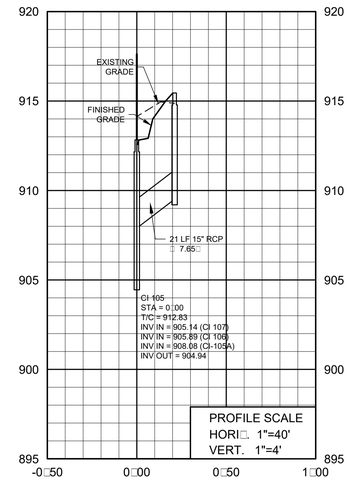
CI 102 TO CI 103

SCALE: 1"=40(H) □1"=4'(V)



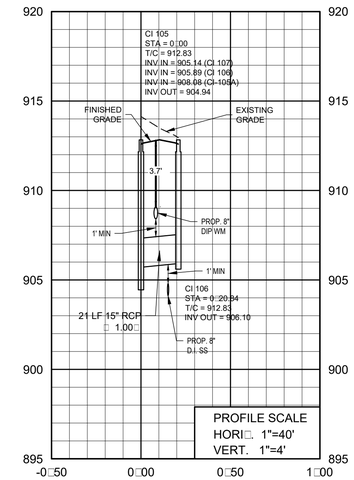
CI 102 TO CI 118

SCALE: 1"=40(H) □1"=4'(V)



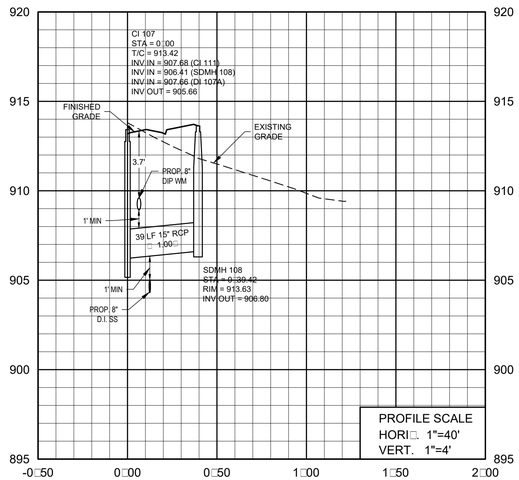
CI 105 TO CI 105A

SCALE: 1"=40(H) □1"=4'(V)



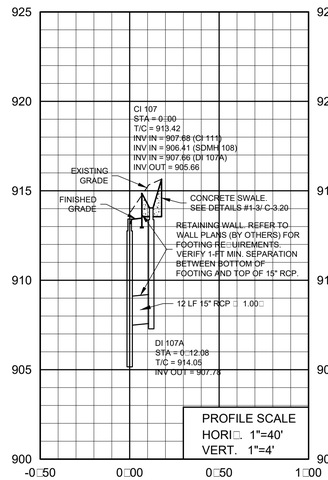
CI 105 TO CI 106

SCALE: 1"=40(H) □1"=4'(V)



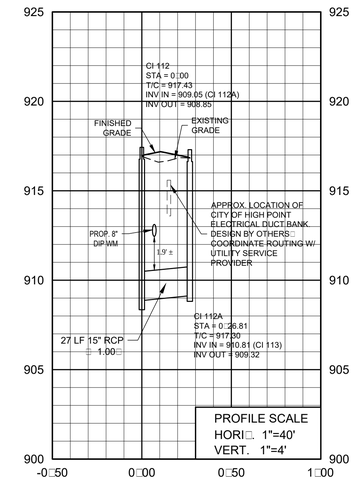
CI 107 TO SDMH 108

SCALE: 1"=40(H) □1"=4'(V)



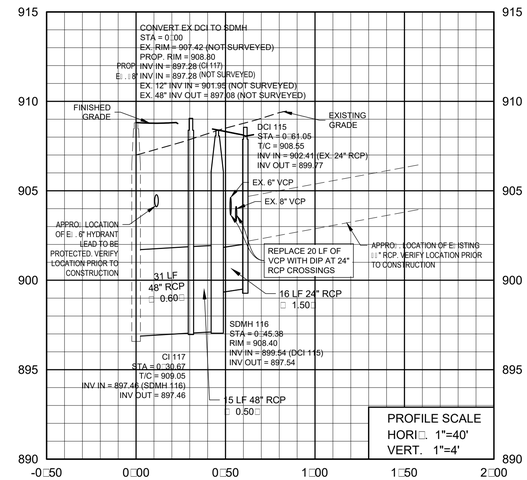
CI 107 TO DI 107A

SCALE: 1"=40(H) □1"=4'(V)



CI 112 TO C1 112A

SCALE: 1"=40(H) □1"=4'(V)



EX SDMH 99 TO CI 117

SCALE: 1"=40(H) □1"=4'(V)

NOTES

1. REFER TO SHEETS C-0.01 AND C-0.02 FOR ADDITIONAL NOTES.
2. REFER TO SHEETS C-3.20, C-6.10 & C-6.11 FOR ADDITIONAL STORM DRAINAGE INFORMATION AND DETAILS.
3. REFER TO SHEETS C-4.00 AND C-6.20 FOR ADDITIONAL UTILITY INFORMATION AND DETAILS.

(EE) ENDORSEMENT BLOCK ON ALL PLAN AN D PROFILE SHEETS (NOT DETAILS):
APPROVED BY THE TECHNICAL REVIEW COMMITTEE FOR □ YEARS, SUBJECT TO THE APPROVAL OF A SEPARATE LAND-DISTURBING PERMIT AND/OR EROSION CONTROL PLAN, AND MAY BE E□ TENDED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 9-6-8(e) OF THE HIGH POINT DEVELOPMENT ORDINANCE.

Director of Planning and Development Date

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

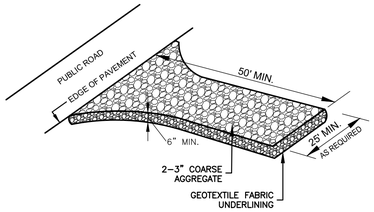
SHEET TITLE:

SANITARY & STORM SEWER PROFILES

SCALE: H: 1" = 40', V: 1" = 4'

SHEET NO.:

C-□.0□



DEFINITION: A GRAVEL AREA OR PAD LOCATED WHERE VEHICLES ENTER AND LEAVE A CONSTRUCTION SITE.

PURPOSE: TO PROVIDE STABILITY AT THE ENTRANCE AND EXIT POINTS OF A CONSTRUCTION SITE. THIS DEVICE IS DESIGNED TO KEEP MUD AND SEDIMENT OFF PUBLIC ROADS.

CONDITIONS WHERE PRACTICE APPLIES: WHEREVER TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD OR OTHER PAVED OFF-SITE AREAS. CONSTRUCTION PLANS SHOULD LIMIT ACCESS TO PROPERLY CONSTRUCTED ENTRANCES.

MINIMUM RE□UIREMENTS
AGGREGATE SI□E: USE 2 3 INCH WASHED STONE (SURGE), OR AGGREGATE SI□E APPROVED BY THE DEPT. OF TRANSPORTATION.

THICKNESS: 6 INCHES MINIMUM (MUST INCLUDE A GEOTEXTILE UNDERLINING)

WIDTH: 25 FEET MINIMUM THROUGHOUT THE ENTIRE ENTRANCE

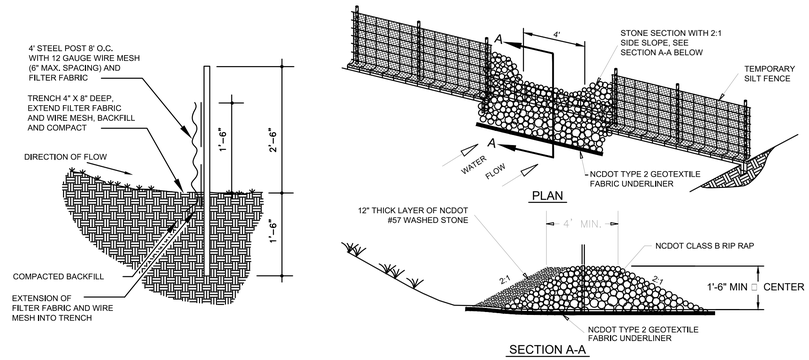
LOCATION: POSITION THE ENTRANCE TO LIMIT SEDIMENT FROM LEAVING THE SITE AND TO ALLOW MAXIMUM USAGE FOR CONSTRUCTION TRAFFIC. A VOID STEEP SLOPES AND ENTRANCES AT CURVES IN PUBLIC ROADS.

WASHING: TIRES WILL NEED TO BE WASHED IF MOST OF THE SEDIMENT IS NOT REMOVED WHEN PASSING OVER THE STONE. WASH AREAS SHOULD ALWAYS DRAIN INTO A SEDIMENT TRAP OR OTHER SUITABLE DISPOSAL AREA.

CONSTRUCTION SPECIFICATIONS: MAKE SURE ENTRANCE IS CLEAR OF ROOTS, VEGETATION, AND DEBRIS. PLACE STONE ON THE PROPER GRADE AS SHOWN ON THE PLAN AND PROVIDE ADE□UATE DRAINAGE TO AN APPROVED EROSION CONTROL DEVICE. GEOTEXTILE UNDERLINING MUST BE INSTALLED TO IMPROVE FOUNDATION STABILITY.

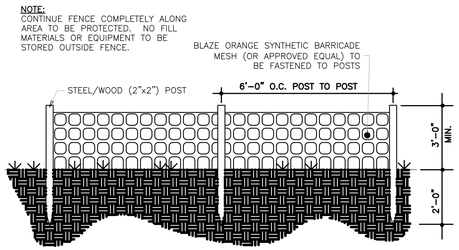
1 STONE CONSTRUCTION ENTRANCE

SCALE: NTS



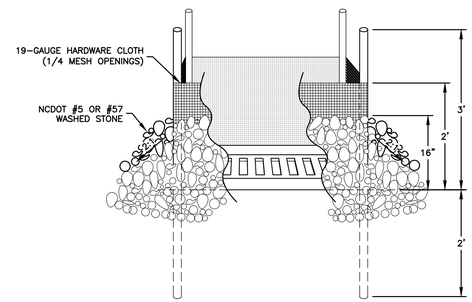
2 SILT FENCE SILT FENCE OUTLET

SCALE: NTS



3 CONSTRUCTION FENCE

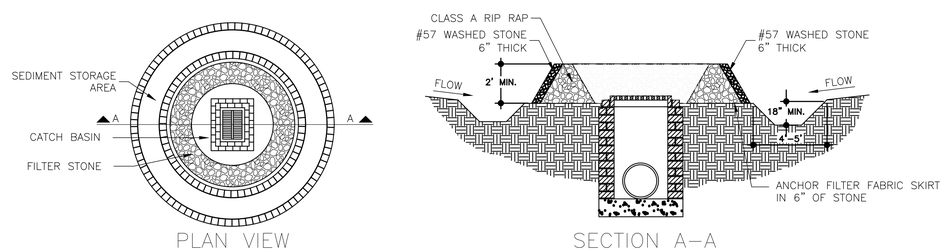
SCALE: NTS



NOTE: INSPECT THE FABRIC BARRIER AFTER EACH RAIN AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADE□UATE STORAGE VOLUME FOR SUBSE□UENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADE□UATELY STABILI□ED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILI□E ALL BARE AREAS AROUND THE INLET.

4 HARDWARE CLOTH & GRAVEL INLET PROTECTION

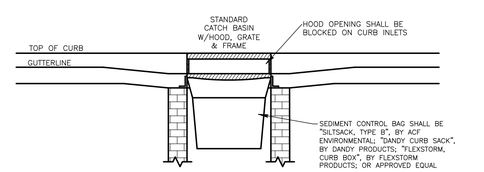
SCALE: NTS



GENERAL NOTES:
* SEDIMENT SHALL BE REMOVED AND SEDIMENT STORAGE AREA RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE SEDIMENT STORAGE AREA. REMOVED SEDIMENT SHALL SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
* THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
* CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
* THE TEMPORARY STONE DOUGHNUT SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

5 TEMPORARY STONE DOUGHNUT

SCALE: NTS



NOTES:
SEDIMENT CONTROL BAG TO BE PLACED IN DRAINAGE STRUCTURES AS SHOWN ON THE PLANS. BAGS SHALL RECEIVE WEEKLY MAINTENANCE, OR AS REQUIRED AND REPLACED AS NECESSARY.

6 SEDIMENT BAG INLET PROTECTION

SCALE: NTS

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY
HIGH POINT, NC

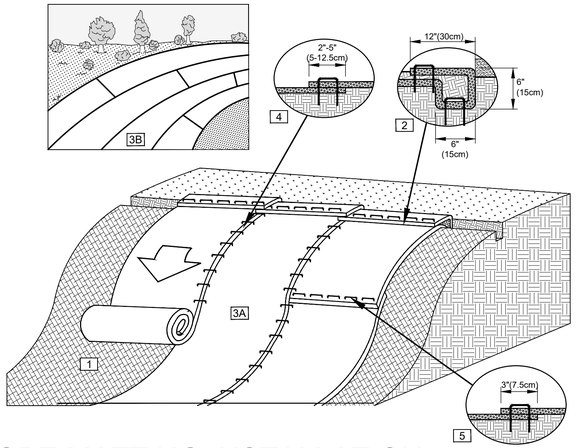
CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:
EROSION CONTROL DETAILS

SCALE:
SHEET NO.:
C-□.00



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILI□ER, AND SEED.

2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPS IN A 6"(15CM) DEEP X 6"(15CM) WIDE TRENCH WITH APPROXIMATELY 12" (30CM) OF RECPS EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12"(30CM) PORTION OF RECPS BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPS OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12"(30CM) APART ACROSS THE WIDTH OF THE RECPS.

3. ROLL THE RECPS (A) DOWN OR (B) HORI□ONTALLY ACROSS THE SLOPE. RECPS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.

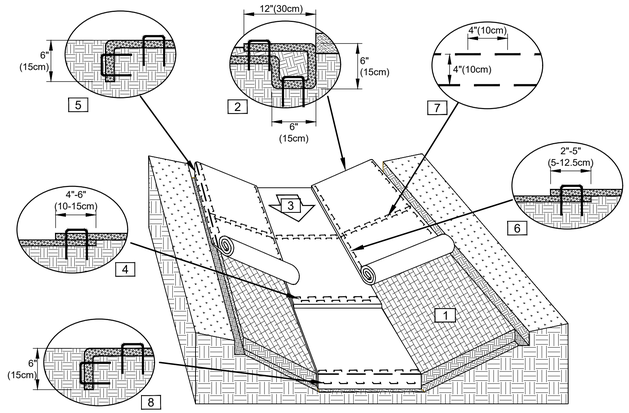
4. THE EDGES OF PARALLEL RECPS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5-12.5CM) OVERLAP DEPENDING ON THE RECPS TYPE.

5. CONSECUTIVE RECPS SPLICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3"(7.5CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12"(30CM) APART ACROSS ENTIRE RECPS WIDTH.

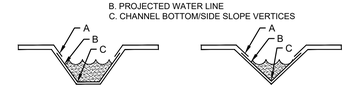
□NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6"(15CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

1 SLOPE MATTING INSTALLATION

SCALE: NTS



CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES



NOTES□:
□HORI□ONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

□IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6"(15CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILI□ER, AND SEED.

2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECPS IN A 6"(15CM) DEEP X 6"(15CM) WIDE TRENCH WITH APPROXIMATELY 12"(30CM) OF RECPS EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. USE MATTING AT THE CHANNEL/CULVERT OUTLET AS SUPPLEMENTAL SCOUR PROTECTION AS NEEDED. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12"(30CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12"(30CM) PORTION OF RECPS BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPS OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPS.

3. ROLL CENTER RECPS IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECPS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.

4. PLACE CONSECUTIVE RECPS END-OVER-END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECPS.

5. FULL LENGTH EDGE OF RECPS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12"(30CM) APART IN A 6"(15CM) DEEP X 6"(15CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

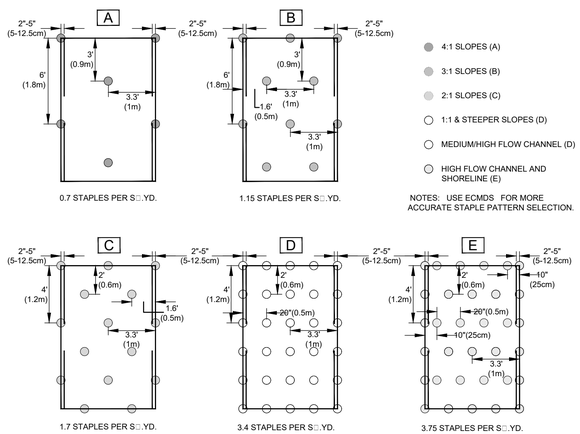
6. ADJACENT RECPS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5-12.5CM) (DEPENDING ON RECPS TYPE) AND STAPLED.

7. IN HIGH FLOW CHANNEL APPLICATIONS A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 -12M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4"(10CM) APART AND 4"(10CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.

8. THE TERMINAL END OF THE RECPS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN A 6"(15CM) DEEP X 6"(15CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

2 CHANNEL MATTING INSTALLATION

SCALE: NTS



3 STAPLE PATTERN GUIDE

SCALE: NTS

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

EROSION CONTROL DETAILS

SCALE:

SHEET NO.:

C-□.01

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site
and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This general permit as well as the certificate of coverage, after it is received.

(b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

(c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(b) Anticipated bypasses and unanticipated bypasses.

(c) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible***. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NORTH CAROLINA Environmental Quality

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY
HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

EROSION CONTROL DETAILS

SCALE:

SHEET NO.:

C-□.0□

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

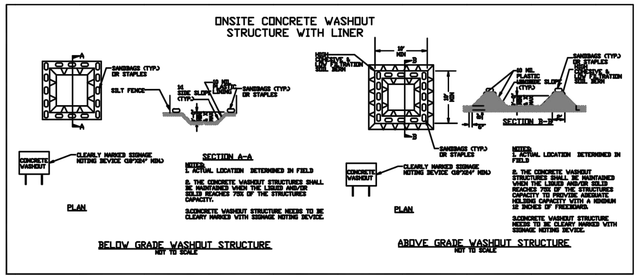
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

NORTH CAROLINA Environmental Quality



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

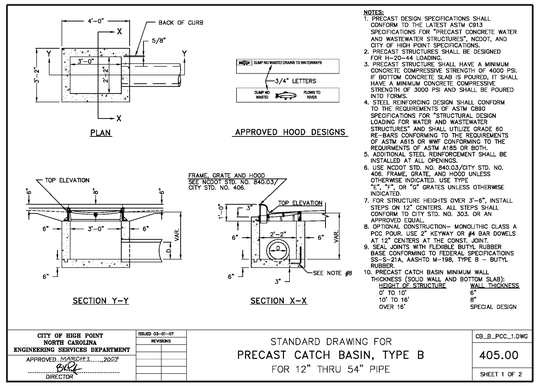
APPLING WAY
HIGH POINT, NC

CLIENT:
CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

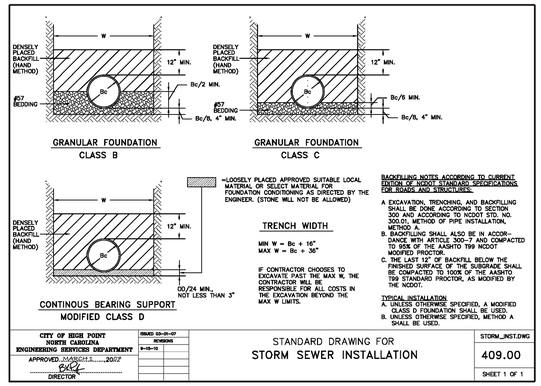
SHEET TITLE:
EROSION CONTROL DETAILS

SCALE:
SHEET NO.:
C-□.0□



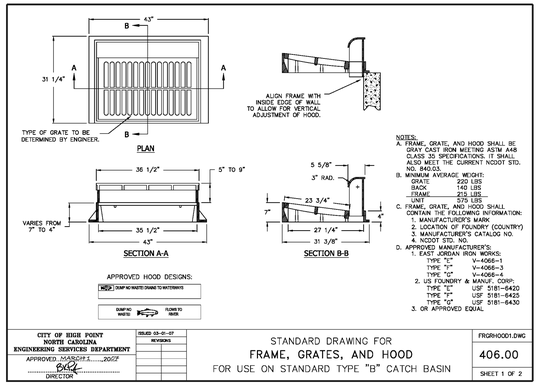
1 CATCH BASIN

SCALE: NTS



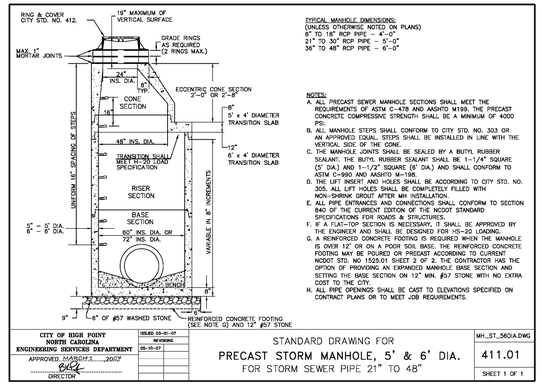
2 STORM SEWER TRENCH & BEDDING

SCALE: NTS



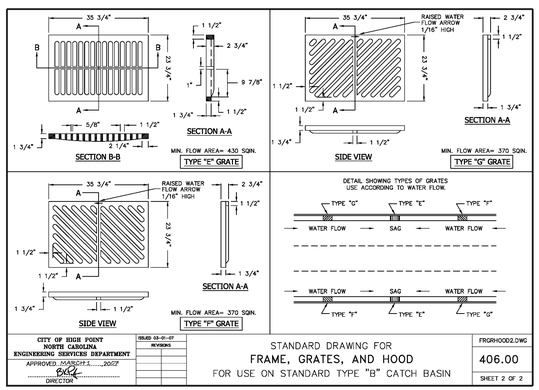
3 CATCH BASIN HOOD & FRAME

SCALE: NTS



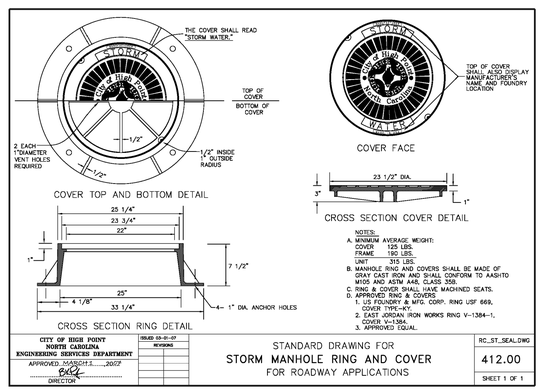
4 STORM MANHOLE

SCALE: NTS



5 CATCH BASIN GRATE

SCALE: NTS



6 STORM MANHOLE RING & COVER

SCALE: NTS

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

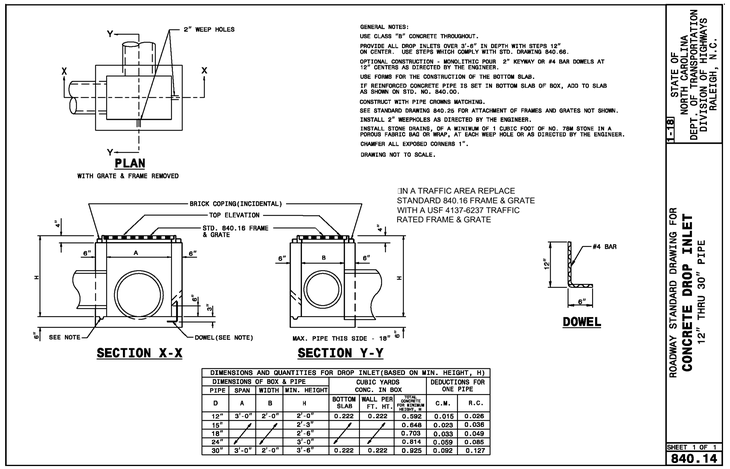
SHEET TITLE:

STORM DRAINAGE DETAILS

SCALE:

SHEET NO.:

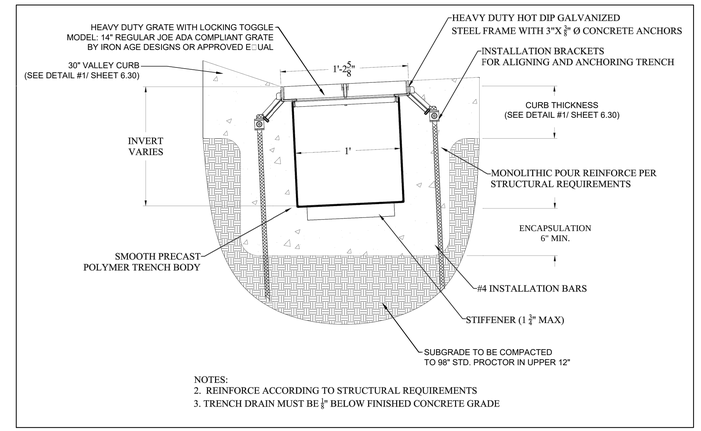
C-□.10



DIMENSIONS AND QUANTITIES FOR DROP INLET(BASED ON MIN. HEIGHT, H)								
DIMENSIONS OF BOX & PIPE				CUBIC YARDS CONC. IN BOX			DEDUCTIONS FOR ONE PIPE	
PIPE	SPAN	WIDTH	MIN. HEIGHT					
D	A	B	H	BOTTOM SLAB	WALL PER FT. HT.	TOTAL (INCL. BOTTOM SLAB AND 6" BELOW H)	C.Y.	R.C.
12"	3'-0"	2'-0"	2'-0"	0.222	0.222	0.592	0.015	0.026
15"	/	/	2'-3"	/	/	0.648	0.023	0.036
18"	/	/	2'-6"	/	/	0.703	0.033	0.049
24"	/	/	3'-0"	/	/	0.814	0.059	0.085
30"	3'-0"	2'-0"	3'-6"	0.222	0.222	0.925	0.092	0.127

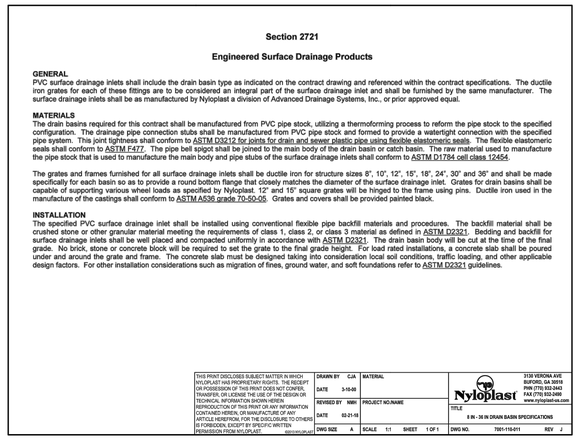
1 NCDOT CONCRETE DROP INLET

SCALE: NTS



2 RADIUS TRENCH DRAIN IN 30" VALLEY CURB

SCALE: NTS



Section 2721

Engineered Surface Drainage Products

GENERAL
PVC surface drainage inlets shall include the drain basin type as indicated on the contract drawing and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc., or prior approved equal.

MATERIALS
The drain basins required for this contract shall be manufactured from PVC pipe stock, utilizing a thermoforming process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The pipe bell spigot shall be joined to the main body of the drain basin or catch basin. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to ASTM D1784 cell class 12454.

The grates and frames furnished for all surface drainage inlets shall be ductile iron for structure sizes 8", 10", 12", 15", 18", 24", 30" and 36" and shall be made specifically for each basin so as to provide a round bottom flange that closely matches the diameter of the surface drainage inlet. Grates for drain basins shall be capable of supporting various wheel loads as specified by Nyloplast. 12" and 15" square grates will be hinged to the frame using pins. Ductile iron used in the manufacture of the castings shall conform to ASTM A536 grade 70-50-05. Grates and covers shall be provided painted black.

INSTALLATION
The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for surface drainage inlets shall be well placed and compacted uniformly in accordance with ASTM D2321. The drain basin body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For load rated installations, a concrete slab shall be poured under and around the grate and frame. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to ASTM D2321 guidelines.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, GRANT OR IMPLY TO YOU ANY RIGHTS TO DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN, REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST. 6001-NYLOPLAST

DRAWN BY	CJA	MATERIAL			
DATE	3-10-00				
REVISED BY	MMH	PROJECT NO/NAME			
DATE	03-21-18				
DWG SIZE	A	SCALE	1:1	SHEET	1 OF 1

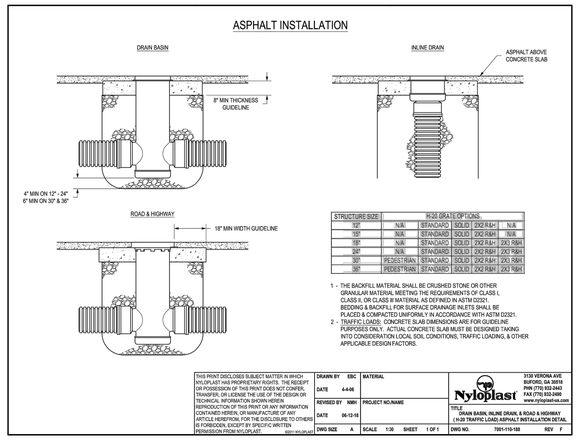
Nyloplast
3128 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-0486
www.nyloplastus.com

TITLE
8 IN - 36 IN DRAIN BASIN SPECIFICATIONS

DWG NO. 7001-110-011 REV J

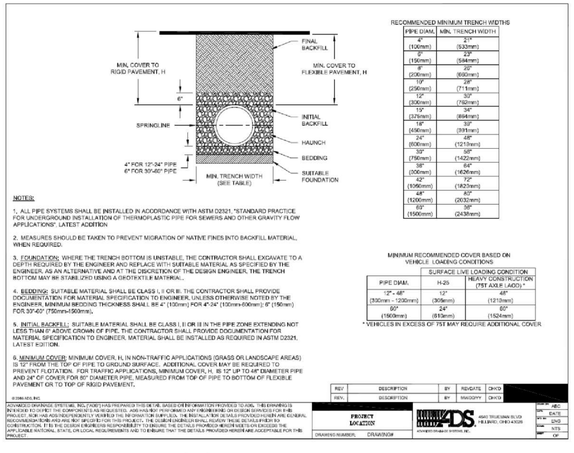
3 DRAINAGE BASIN SPECIFICATIONS

SCALE: NTS



4 HDPE PIPE COVER DETAIL

SCALE: NTS



1 2 3 4

F:\18-330\Drawings\CG\18-330 C-6.00 DETAILS.dwg : C-6.11 06/19/19 4:58pm

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

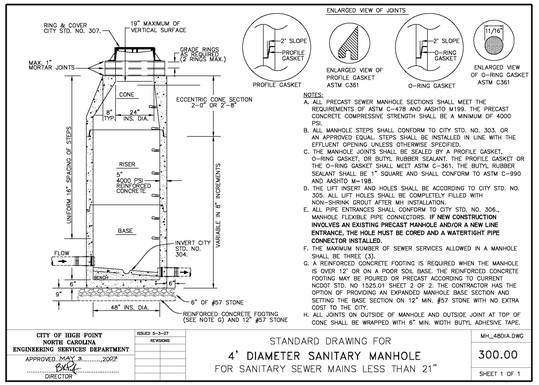
SHEET TITLE:

STORM DRAINAGE DETAILS

SCALE:

SHEET NO.:

C-□.11



NOTES:

A. ALL PRECAST SEWER MANHOLE SECTIONS SHALL MEET THE REQUIREMENTS OF ASTM C-478 AND AASHTO M199. THE PRECAST CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINIMUM OF 4000 PSI.

B. ALL MANHOLE STEPS SHALL CONFORM TO CITY STD. NO. 303, OR AN APPROVED EQUAL. STEPS SHALL BE INSTALLED IN LINE WITH THE EFFLUENT OPENING UNLESS OTHERWISE SPECIFIED.

C. THE MANHOLE JOINTS SHALL BE SEALED BY A PROFILE GASKET, O-RING GASKET, OR BUTYL RUBBER SEALANT. THE PROFILE GASKET OR THE O-RING GASKET SHALL MEET ASTM C-361. THE BUTYL RUBBER SEALANT SHALL BE 1" SQUARE AND SHALL CONFORM TO ASTM C-990 AND AASHTO M-198.

D. THE LIFT INSERT AND HOLES SHALL BE ACCORDING TO CITY STD. NO. 305. ALL LIFT HOLES SHALL BE COMPLETELY FILLED WITH NON-SHRINK GROUT AFTER MH INSTALLATION.

E. ALL PIPE ENTRANCES SHALL CONFORM TO CITY STD. NO. 306. MANHOLE FLEXIBLE PIPE CONNECTORS. **IF NEW CONSTRUCTION INVOLVES AN EXISTING PRECAST MANHOLE AND/OR A NEW LINE ENTRANCE, THE HOLE MUST BE CORED AND A WATERTIGHT PIPE CONNECTOR INSTALLED.**

F. THE MAXIMUM NUMBER OF SEWER SERVICES ALLOWED IN A MANHOLE SHALL BE THREE (3).

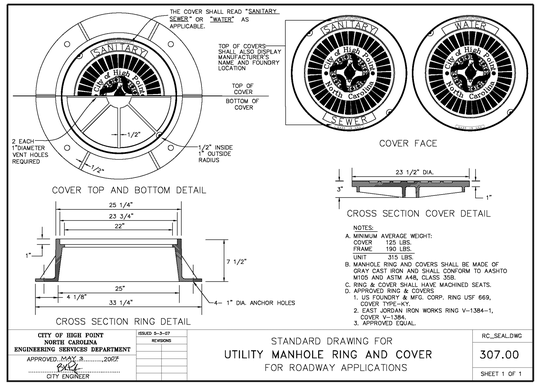
G. A REINFORCED CONCRETE FOOTING IS REQUIRED WHEN THE MANHOLE IS OVER 12' OR ON A POOR SOIL BASE. THE REINFORCED CONCRETE FOOTING MAY BE POURED OR PRECAST ACCORDING TO CURRENT NCDOT STD. NO 1525.01 SHEET 2 OF 2. THE CONTRACTOR HAS THE OPTION OF PROVIDING AN EXPANDED MANHOLE BASE SECTION AND SETTING THE BASE SECTION ON 12" MIN. #57 STONE WITH NO EXTRA COST TO THE CITY.

H. ALL JOINTS ON OUTSIDE OF MANHOLE AND OUTSIDE JOINT AT TOP OF CONE SHALL BE WRAPPED WITH 6" MIN. WIDTH BUTYL ADHESIVE TAPE.

CITY OF HIGH POINT NORTH CAROLINA ENGINEERING SERVICES DEPARTMENT	ISSUED 5-3-07 REVISIONS	STANDARD DRAWING FOR 4' DIAMETER SANITARY MANHOLE FOR SANITARY SEWER MAINS LESS THAN 21"	MH_48DIA.DWG 300.00
APPROVED MAY 3 2007 DIRECTOR			SHEET 1 OF 1

1 4' SANITARY MANHOLE

SCALE: NTS



NOTES:

A. MINIMUM AVERAGE WEIGHT:
COVER 125 LBS.
FRAME 190 LBS.
UNIT 315 LBS.

B. MANHOLE RING AND COVERS SHALL BE MADE OF GRAY CAST IRON AND SHALL CONFORM TO AASHTO M105 AND ASTM A48, CLASS 35B.

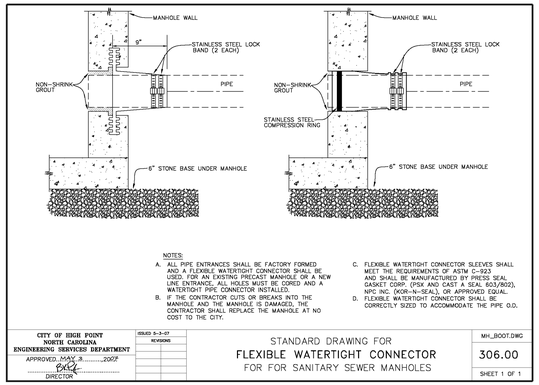
C. RING & COVER SHALL HAVE MACHINED SEATS.

D. APPROVED RING & COVERS
1. US FOUNDRY & MFG. CORP. RING USF 669, COVER TYPE-KX.
2. EAST JORDAN IRON WORKS RING V-1384-1, COVER V-1384.
3. APPROVED EQUAL.

CITY OF HIGH POINT NORTH CAROLINA ENGINEERING SERVICES DEPARTMENT	ISSUED 5-3-07 REVISIONS	STANDARD DRAWING FOR UTILITY MANHOLE RING AND COVER FOR ROADWAY APPLICATIONS	RC_SEAL.DWG 307.00
APPROVED MAY 3 2007 CITY ENGINEER			SHEET 1 OF 1

2 MANHOLE RING AND COVER

SCALE: NTS



NOTES:

A. ALL PIPE ENTRANCES SHALL BE FACTORY FORMED AND A FLEXIBLE WATERTIGHT CONNECTOR SHALL BE USED. FOR AN EXISTING PRECAST MANHOLE OR A NEW LINE ENTRANCE, ALL HOLES MUST BE CORED AND A WATERTIGHT PIPE CONNECTOR INSTALLED.

B. IF THE CONTRACTOR CUTS OR BREAKS INTO THE MANHOLE AND THE MANHOLE IS DAMAGED, THE CONTRACTOR SHALL REPLACE THE MANHOLE AT NO COST TO THE CITY.

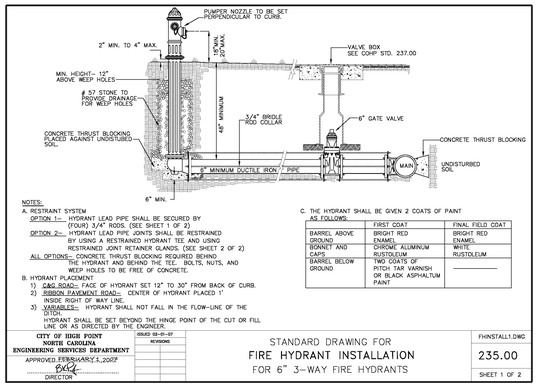
C. FLEXIBLE WATERTIGHT CONNECTOR SLEEVES SHALL MEET THE REQUIREMENTS OF ASTM C-923 AND SHALL BE MANUFACTURED BY PRESS SEAL GASKET CORP. (PSX AND CAST A SEAL 603/802), NPC INC. (KOR-N-SEAL), OR APPROVED EQUAL.

D. FLEXIBLE WATERTIGHT CONNECTOR SHALL BE CORRECTLY SIZED TO ACCOMMODATE THE PIPE O.D.

CITY OF HIGH POINT NORTH CAROLINA ENGINEERING SERVICES DEPARTMENT	ISSUED 5-3-07 REVISIONS	STANDARD DRAWING FOR FLEXIBLE WATERTIGHT CONNECTOR FOR FOR SANITARY SEWER MANHOLES	MH_BOOT.DWG 306.00
APPROVED MAY 3 2007 DIRECTOR			SHEET 1 OF 1

3 MANHOLE CONNECTOR

SCALE: NTS



NOTES:

A. RESTRAINT SYSTEM
OPTION 1— HYDRANT LEAD PIPE SHALL BE SECURED BY (FOUR) 3/4" RODS. (SEE SHEET 1 OF 2)
OPTION 2— HYDRANT LEAD PIPE JOINTS SHALL BE RESTRAINED BY USING A RESTRAINED HYDRANT TEE AND USING RESTRAINED JOINT RETAINER GLANDS. (SEE SHEET 2 OF 2)
ALL OPTIONS— CONCRETE THRUST BLOCKING REQUIRED BEHIND THE HYDRANT AND BEHIND THE TEE. BOLTS, NUTS, AND WEEP HOLES TO BE FREE OF CONCRETE.

B. HYDRANT PLACEMENT
1) C&G ROAD— FACE OF HYDRANT SET 12" TO 30" FROM BACK OF CURB.
2) RIBBON PAVEMENT ROAD— CENTER OF HYDRANT PLACED 1' INSIDE RIGHT OF WAY LINE.
3) UTILITIES— HYDRANT SHALL NOT FALL IN THE FLOW-LINE OF THE DITCH.
HYDRANT SHALL BE SET BEYOND THE HINGE POINT OF THE CUT OR FILL LINE OR AS DIRECTED BY THE ENGINEER.

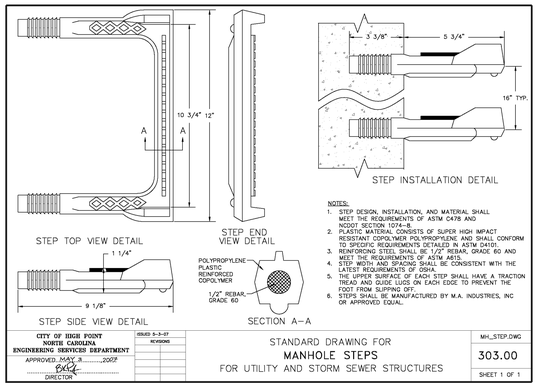
C. THE HYDRANT SHALL BE GIVEN 2 COATS OF PAINT AS FOLLOWS:

	FIRST COAT	FINAL FIELD COAT
BARREL ABOVE GROUND	BRIGHT RED ENAMEL	BRIGHT RED ENAMEL
BONNET AND CAPS	CHROME ALUMINUM RUSTOLEUM	WHITE RUSTOLEUM
BARREL BELOW GROUND	TWO COATS OF PITCH TAR VARNISH OR BLACK ASPHALTUM PAINT	

CITY OF HIGH POINT NORTH CAROLINA ENGINEERING SERVICES DEPARTMENT	ISSUED 02-01-07 REVISIONS	STANDARD DRAWING FOR FIRE HYDRANT INSTALLATION FOR 6" 3-WAY FIRE HYDRANTS	FHINSTALL1.DWG 235.00
APPROVED FEBRUARY 1, 2007 DIRECTOR			SHEET 1 OF 2

4 FIRE HYDRANT

SCALE: NTS



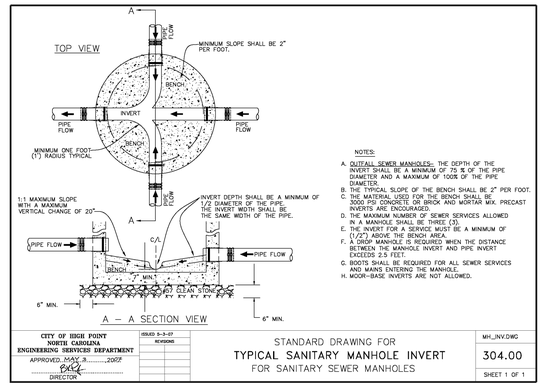
NOTES:

1. STEP DESIGN, INSTALLATION, AND MATERIAL SHALL MEET THE REQUIREMENTS OF ASTM C478 AND NCDOT SECTION 1074-8.
2. PLASTIC MATERIAL CONSISTS OF SUPER HIGH IMPACT RESISTANT COPOLYMER POLYPROPYLENE AND SHALL CONFORM TO SPECIFIC REQUIREMENTS DETAILED IN ASTM D4101.
3. STEP REINFORCING ROD SHALL BE 1/2" REBAR, GRADE 60 AND MEET THE REQUIREMENTS OF ASTM A615.
4. STEP WIDTH AND SPACING SHALL BE CONSISTENT WITH THE LATEST REQUIREMENTS OF OSHA.
5. THE UPPER SURFACE OF EACH STEP SHALL HAVE A TRACTION TREAD AND GUIDE LUGS ON EACH EDGE TO PREVENT THE FOOT FROM SLIPPING OFF.
6. STEPS SHALL BE MANUFACTURED BY M.A. INDUSTRIES, INC OR APPROVED EQUAL.

CITY OF HIGH POINT NORTH CAROLINA ENGINEERING SERVICES DEPARTMENT	ISSUED 5-3-07 REVISIONS	STANDARD DRAWING FOR MANHOLE STEPS FOR UTILITY AND STORM SEWER STRUCTURES	MH_STEP.DWG 303.00
APPROVED MAY 3 2007 DIRECTOR			SHEET 1 OF 1

5 MANHOLE STEPS

SCALE: NTS



NOTES:

A. OUTFALL SEWER MANHOLES:- THE DEPTH OF THE INVERT SHALL BE A MINIMUM OF 75 % OF THE PIPE DIAMETER AND A MAXIMUM OF 100% OF THE PIPE DIAMETER.

B. THE TYPICAL SLOPE OF THE BENCH SHALL BE 2" PER FOOT.

C. THE MATERIAL USED FOR THE BENCH SHALL BE 3000 PSI CONCRETE OR BRICK AND MORTAR MIX. PRECAST INVERTS ARE ENCOURAGED.

D. THE MAXIMUM NUMBER OF SEWER SERVICES ALLOWED IN A MANHOLE SHALL BE THREE (3).

E. THE INVERT FOR A SERVICE MUST BE A MINIMUM OF (1/2") ABOVE THE BENCH AREA.

F. A DROP MANHOLE IS REQUIRED WHEN THE DISTANCE BETWEEN THE MANHOLE INVERT AND PIPE INVERT EXCEEDS 2.5 FEET.

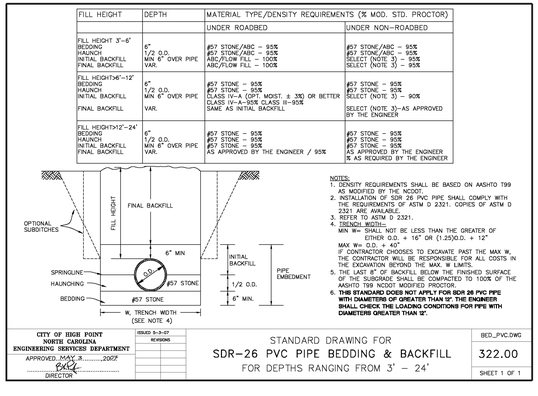
G. BOOTS SHALL BE REQUIRED FOR ALL SEWER SERVICES AND MAINS ENTERING THE MANHOLE.

H. MOOR-BASE INVERTS ARE NOT ALLOWED.

CITY OF HIGH POINT NORTH CAROLINA ENGINEERING SERVICES DEPARTMENT	ISSUED 5-3-07 REVISIONS	STANDARD DRAWING FOR TYPICAL SANITARY MANHOLE INVERT FOR SANITARY SEWER MANHOLES	MH_INV.DWG 304.00
APPROVED MAY 3 2007 DIRECTOR			SHEET 1 OF 1

6 SANITARY MANHOLE INVERT

SCALE: NTS



FILL HEIGHT	DEPTH	MATERIAL TYPE/DENSITY REQUIREMENTS (% MOD. STD. PROCTOR)	
		UNDER ROADBED	UNDER NON-ROADBED
FILL HEIGHT 3'-6'			
BEDDING	6"	#57 STONE/ABC – 95%	#57 STONE/ABC – 95%
HAUNCH	1/2 O.D.	#57 STONE/ABC – 95%	#57 STONE/ABC – 95%
INITIAL BACKFILL	MIN 6" OVER PIPE	ABC/FLOW FILL – 100%	SELECT (NOTE 3) – 90%
FINAL BACKFILL	VAR.	ABC/FLOW FILL – 100%	SELECT (NOTE 3) – 95%
FILL HEIGHT 6'-12'			
BEDDING	6"	#57 STONE – 95%	#57 STONE – 95%
HAUNCH	1/2 O.D.	#57 STONE – 95%	#57 STONE – 95%
INITIAL BACKFILL	MIN 6" OVER PIPE	CLASS IV-A (OPT. MOIST. ± 3%) OR BETTER	SELECT (NOTE 3) – 90%
FINAL BACKFILL	VAR.	CLASS IV-A-95% CLASS III-95% SAME AS INITIAL BACKFILL	SELECT (NOTE 3)-AS APPROVED BY THE ENGINEER
FILL HEIGHT 12'-24'			
BEDDING	6"	#57 STONE – 95%	#57 STONE – 95%
HAUNCH	1/2 O.D.	#57 STONE – 95%	#57 STONE – 95%
INITIAL BACKFILL	MIN 6" OVER PIPE	#57 STONE – 95%	#57 STONE – 95%
FINAL BACKFILL	VAR.	AS APPROVED BY THE ENGINEER / 95%	AS APPROVED BY THE ENGINEER % AS REQUIRED BY THE ENGINEER

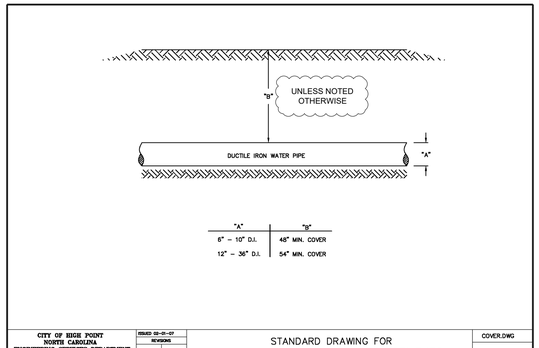
NOTES:

1. DENSITY REQUIREMENTS SHALL BE BASED ON AASHTO T99 AS MODIFIED BY THE NCDOT.
2. INSTALLATION OF SDR 26 PVC PIPE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM D 2321. COPIES OF ASTM D 2321 ARE AVAILABLE.
3. REFER TO ASTM D 2321.
4. TRENCH WIDTH:
MIN W= SHALL NOT BE LESS THAN THE GREATER OF EITHER O.D. + 16" OR (1.25)O.D. + 12"
MAX W= O.D. + 40"
IF CONTRACTOR CHOOSES TO EXCAVATE PAST THE MAX W, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS IN THE EXCAVATION BEYOND THE MAX. W LIMITS.
5. THE LAST 8" OF BACKFILL BELOW THE FINISHED SURFACE OF THE SUBGRADE SHALL BE COMPACTED TO 100% OF THE AASHTO T99 NCDOT MODIFIED PROCTOR.
6. **THIS STANDARD DOES NOT APPLY FOR SDR 26 PVC PIPE WITH DIAMETERS OF GREATER THAN 24". THE ENGINEER SHALL CHECK THE LOADING CONDITIONS FOR PIPE WITH DIAMETERS GREATER THAN 24".**

CITY OF HIGH POINT NORTH CAROLINA ENGINEERING SERVICES DEPARTMENT	ISSUED 5-3-07 REVISIONS	STANDARD DRAWING FOR SDR-26 PVC PIPE BEDDING & BACKFILL FOR DEPTHS RANGING FROM 3' – 24'	BED_PVC.DWG 322.00
APPROVED MAY 3 2007 DIRECTOR			SHEET 1 OF 1

7 SEWER PIPE BEDDING RE□UIREMENTS

SCALE: NTS



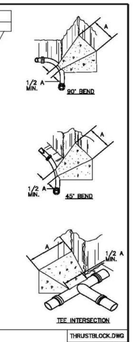
CITY OF HIGH POINT NORTH CAROLINA ENGINEERING SERVICES DEPARTMENT	ISSUED 02-01-07 REVISIONS	STANDARD DRAWING FOR WATER PIPE COVER REQUIREMENTS FOR 6" – 36" D.I. WATER PIPE – PRESSURE CLASS 350	COVER.DWG 230.00
APPROVED FEBRUARY 1, 2007 DIRECTOR			SHEET 1 OF 1

8 WATER PIPE COVER DETAIL

SCALE: NTS

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS
BASED ON TEST PRESSURE OF 200 PSI

SIZE AND DEGREE OF BEND	STATIC THRUST IN POUNDS	FAIRLY DRY CLAY 4,000 LBS/SQFT	SOFT CLAY 2,000 LBS/SQFT	GRAVEL, COARSE SAND 16,000 LBS/SQFT	DRY CLAY HARD 8,000 LBS/SQFT	DRY SAND 6,000 LBS/SQFT	COMPACTED FINE SAND 6,000 LBS/SQFT	SOFT CLAY & SAND 2,000 LBS/SQFT	PIPE 10,000 LBS/SQFT	TIE RODS REQUIRED
6"										
11.25°	1108	1	1	1	1	1	1	1	1	
22.50°	2207	1	2	2	1	1	1	1	1	
45°	4328	2	3	3	1	1	2	1	1	
90°	7996	2	4	5	1	1	2	1		
PLUG	5665	2	3	4	1	1	2	1	2- 1/2" DIA.	
8"										
11.25°	1970	1	1	2	1	1	2	1		
22.50°	3922	1	2	3	1	1	3	1		
45°	7694	2	4	5	1	1	5	1		
90°	14215	4	8	9	2	2	8	2		
PLUG	10053	3	5	6	2	2	6	1	2- 5/8" DIA.	
12"										
11.25°	4433	2	3	3	1	1	2	1		
22.50°	8826	3	5	6	2	2	3	1		
45°	17312	5	9	11	3	3	5	2		
90°	31983	8	16	19	4	4	8	4		
PLUG	22619	6	12	14	3	3	6	3	4- 3/4" DIA.	



REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR

NOTES:

1. CONCRETE SHALL BE 3000 PSI.
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
3. ALL BENDS AND INTERSECTIONS SHALL HAVE CONCRETE THRUST BLOCKING.
4. USE 6" 90° BEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTORS.

CITY OF HIGH POINT NORTH CAROLINA ENGINEERING SERVICES DEPARTMENT	ISSUED 02-01-07 REVISIONS	STANDARD DRAWING FOR THRUST BLOCKING FOR 6" – 12" WATER LINE	THRUSTBLOCK.DWG 232.00
APPROVED FEBRUARY 1, 2007 DIRECTOR			SHEET 1 OF 1

9 THRUST BLOCKING DETAIL

SCALE: NTS

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY
HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

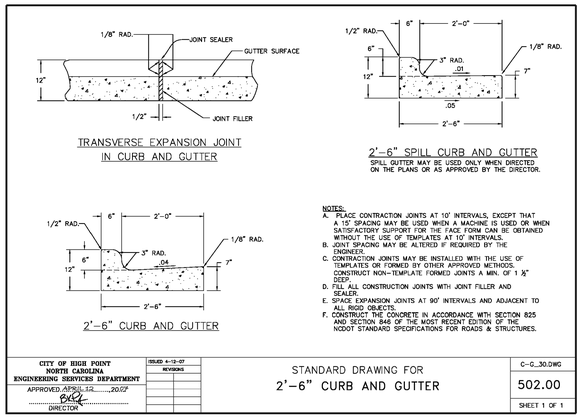
SHEET TITLE:

UTILITY DETAILS

SCALE:

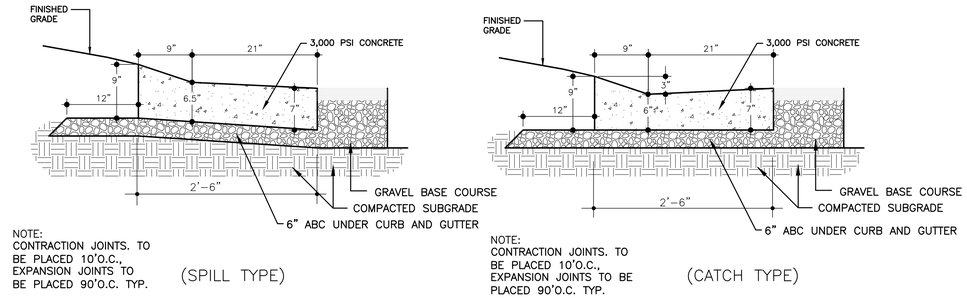
SHEET NO.:

C-□.□0



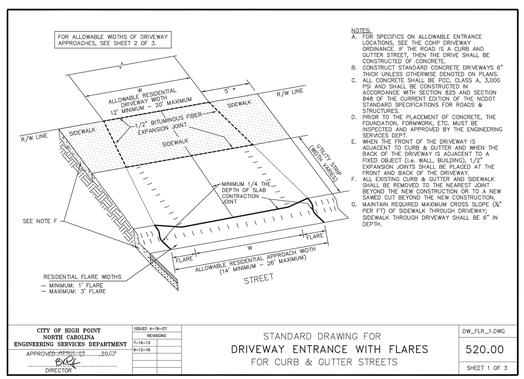
1 STANDARD CURB & GUTTER DETAIL

SCALE: NTS



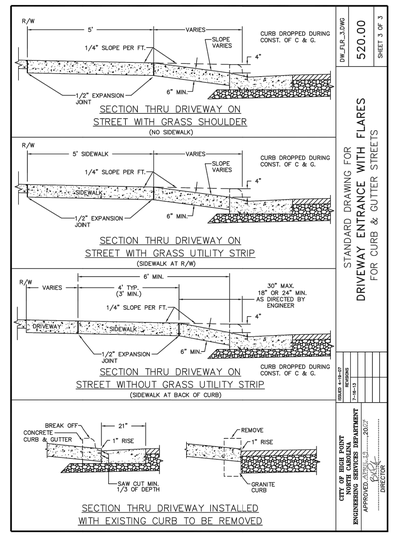
2 30" VALLEY CURB & GUTTER

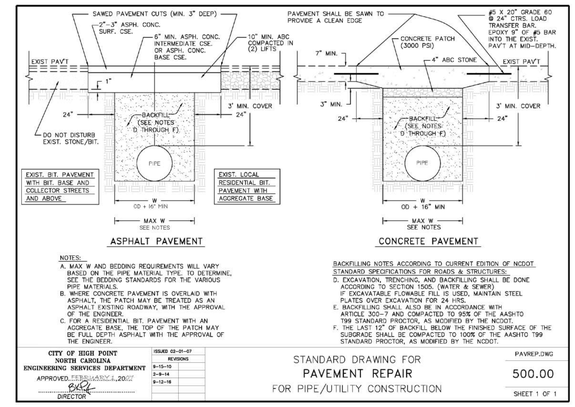
SCALE: NTS



3 DRIVEWAY ENTRANCE WITH FLARES

SCALE: NTS



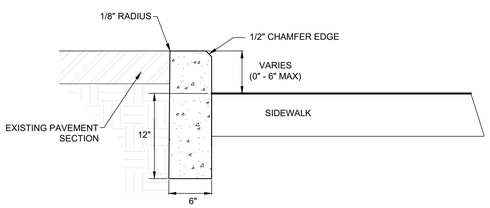


4 PAVEMENT REPAIR DETAIL

SCALE: NTS

NOTES:

1. CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.
2. CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2" SHALL BE OBTAINED.
3. ALL EXPANSION JOINTS SHALL BE SPACED AT 90-FOOT INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS. JOINTS SHALL MATCH LOCATIONS WITH JOINTS IN ABUTTING SIDEWALK.
4. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 P.S.I. IN 28 DAYS.
5. TOP 6" OF SUBGRADE BENEATH THE CURB SHALL BE COMPACTED TO 100□ STANDARD PROCTOR DENSITY.

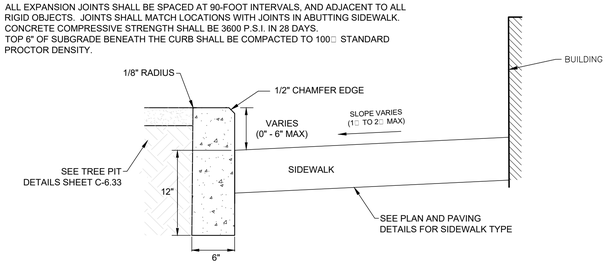


5 VERTICAL CURB ADJACENT TO N. ELM SIDEWALK

SCALE: NTS

NOTES:

1. CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.
2. CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2" SHALL BE OBTAINED.
3. ALL EXPANSION JOINTS SHALL BE SPACED AT 90-FOOT INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS. JOINTS SHALL MATCH LOCATIONS WITH JOINTS IN ABUTTING SIDEWALK.
4. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 P.S.I. IN 28 DAYS.
5. TOP 6" OF SUBGRADE BENEATH THE CURB SHALL BE COMPACTED TO 100□ STANDARD PROCTOR DENSITY.



6 VERTICAL CURB ADJACENT TO TREE PIT

SCALE: NTS

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

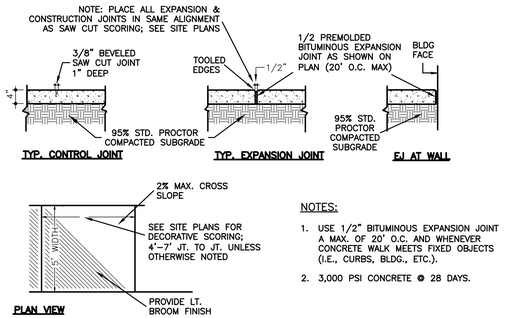
SHEET TITLE:

SITE DETAILS

SCALE:

SHEET NO.:

C-□.□0

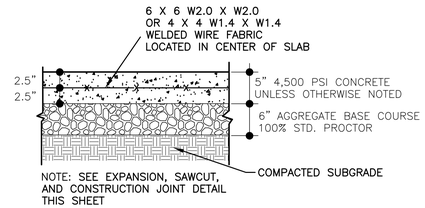


NOTES:

1. USE 1/2" BITUMINOUS EXPANSION JOINT A MAX. OF 20' O.C. AND WHENEVER CONCRETE WALK MEETS FIXED OBJECTS (I.E., CURBS, BLDG., ETC.).
2. 3,000 PSI CONCRETE @ 28 DAYS.

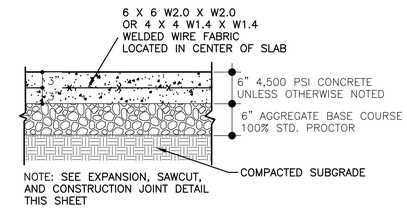
1 CONCRETE WALK

SCALE: NTS



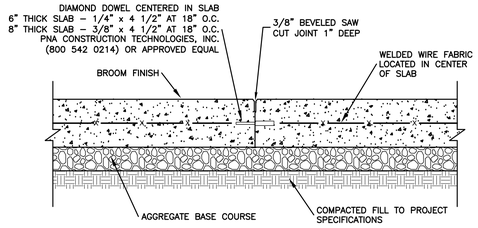
2 5" CONCRETE PAVING DETAIL

SCALE: NTS



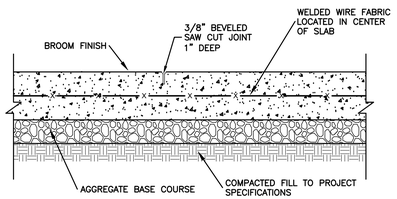
3 6" CONCRETE PAVING DETAIL

SCALE: NTS



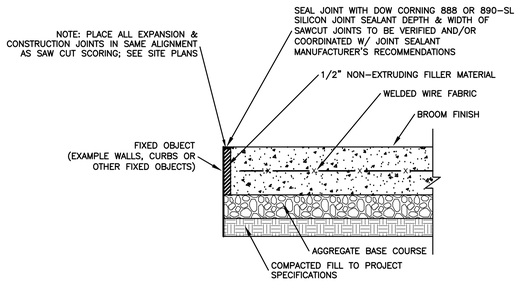
4 CONSTRUCTION JOINT

SCALE: NTS



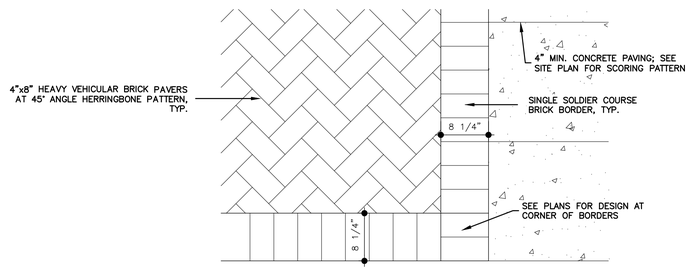
5 SAW-CUT JOINT

SCALE: NTS

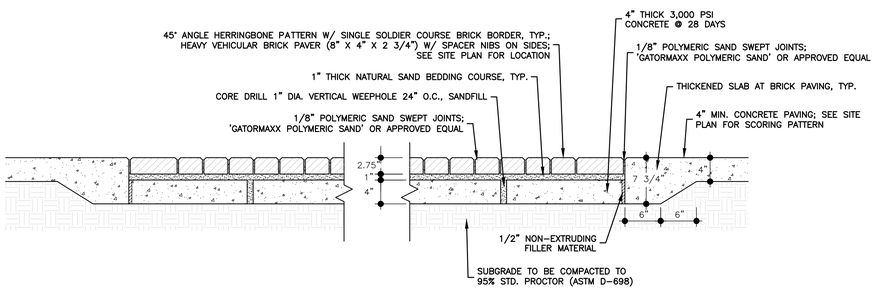


6 ISOLATION JOINT AT FIXED OBJECT

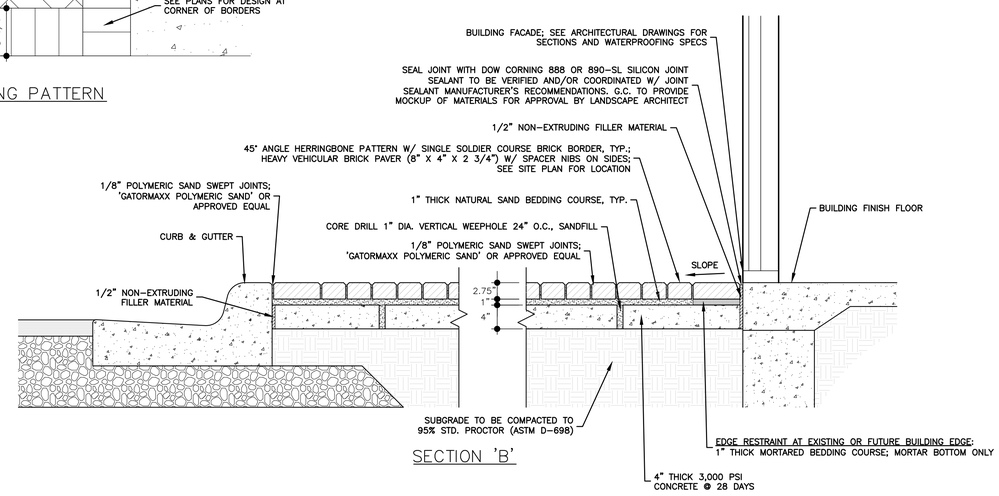
SCALE: NTS



TYPICAL PAVING PATTERN



SECTION 'A'



SECTION 'B'

7 BRICK PAVING ADJACENT TO BUILDING

SCALE: 1" = 1'-0"

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

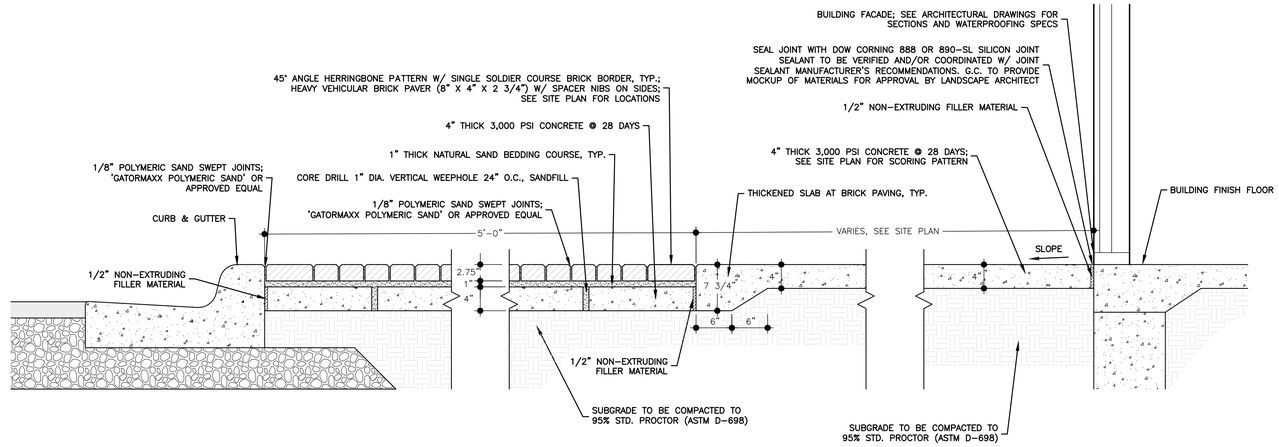
SHEET TITLE:

SITE DETAILS

SCALE:

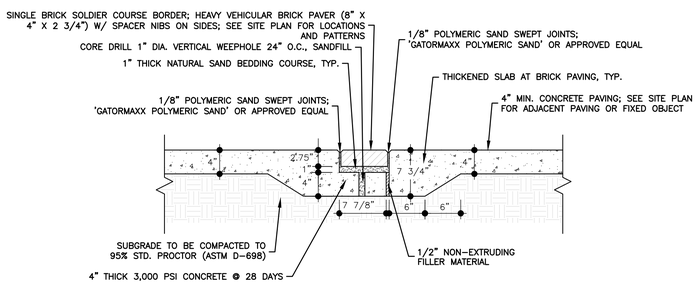
SHEET NO.:

C-□.□1

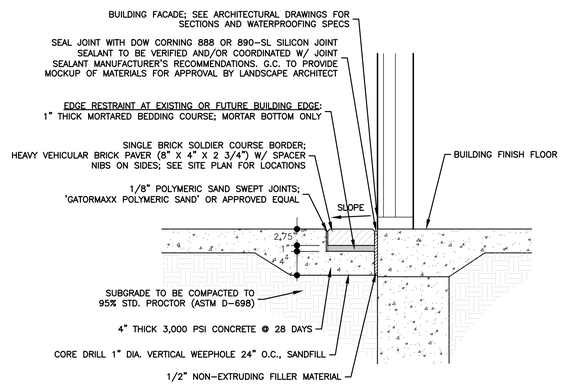


1 BRICK PAVING ADJACENT TO SIDEWALK

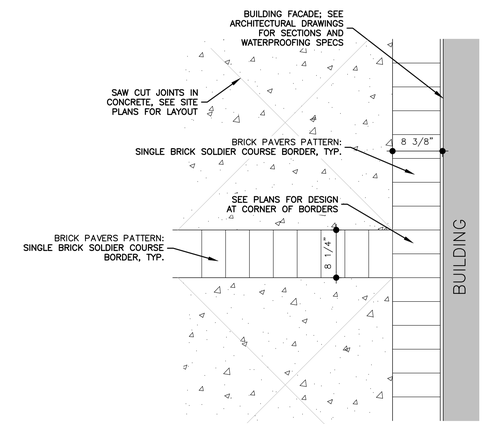
SCALE: 1" = 1'-0"



SINGLE BRICK BORDER IN CONCRETE PAVING



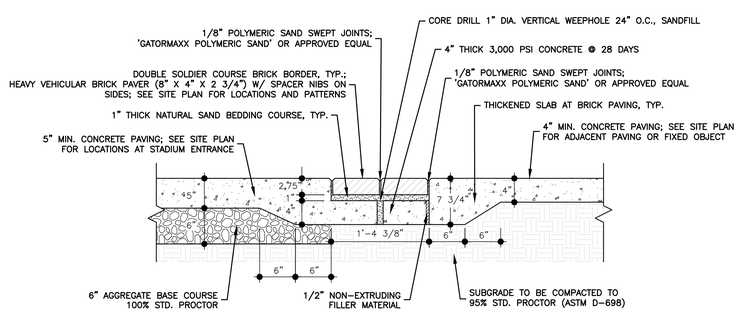
SINGLE BRICK BORDER AT BUILDING



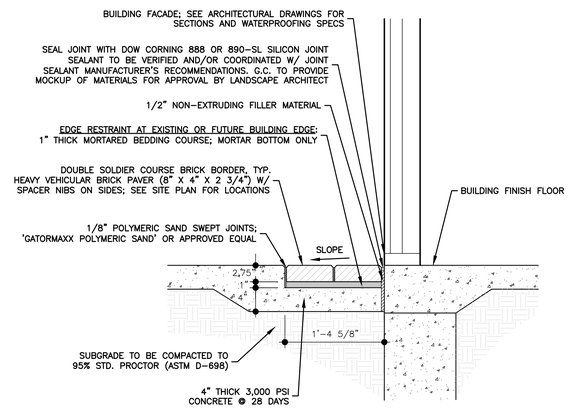
TYPICAL SINGLE BRICK BORDER PAVING PATTERN

2 SINGLE BRICK COURSE BORDER ADJACENT TO CONCRETE

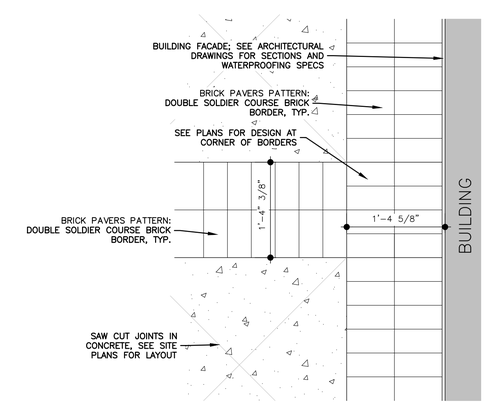
SCALE: 1" = 1'-0"



DOUBLE BRICK BORDER IN CONCRETE PAVING



DOUBLE BRICK BORDER AT BUILDING



TYPICAL DOUBLE BRICK BORDER PAVING PATTERN

3 DOUBLE BRICK COURSE BORDER ADJACENT TO CONCRETE

SCALE: 1" = 1'-0"

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

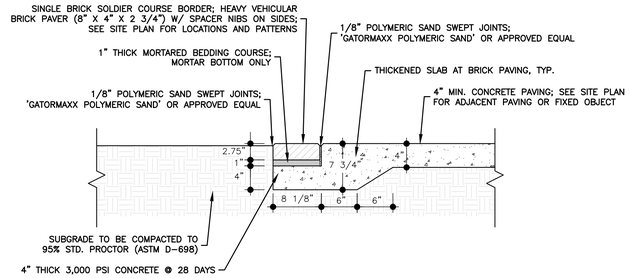
SHEET TITLE:

SITE DETAILS

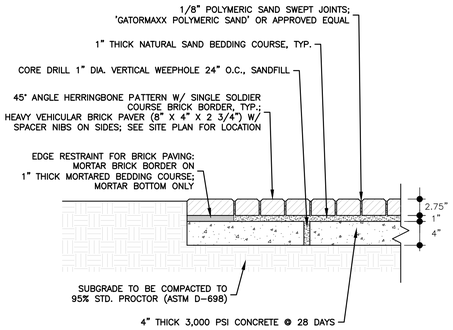
SCALE:

SHEET NO.:

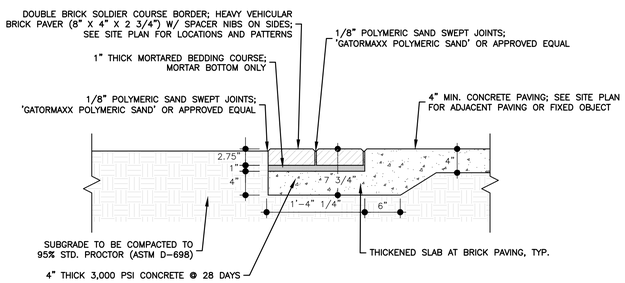
C-□.□□



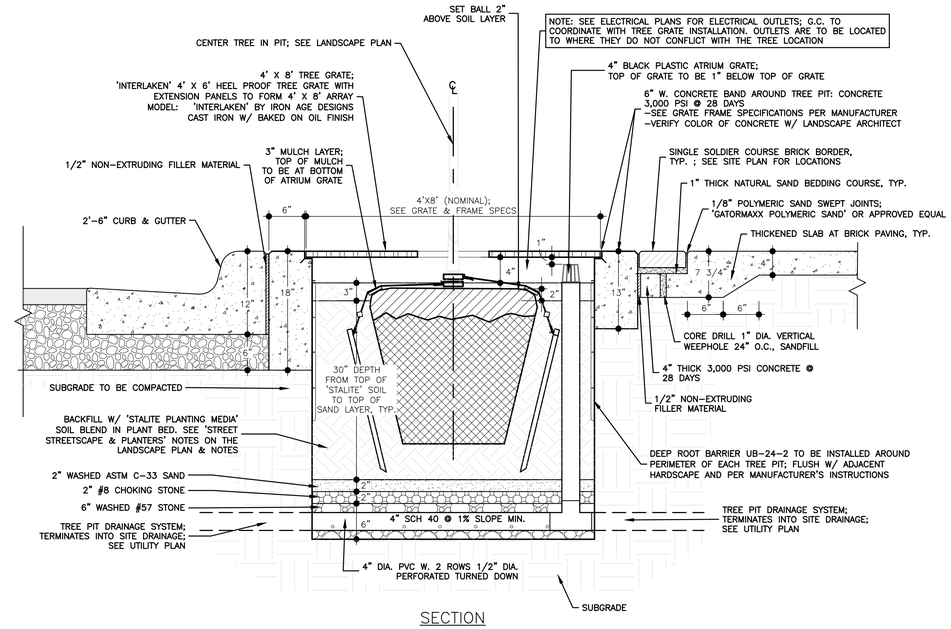
MORTARED SINGLE BRICK BORDER EDGE



MORTARED BRICK AS EDGE RESTRAINT



MORTARED DOUBLE BRICK BORDER EDGE

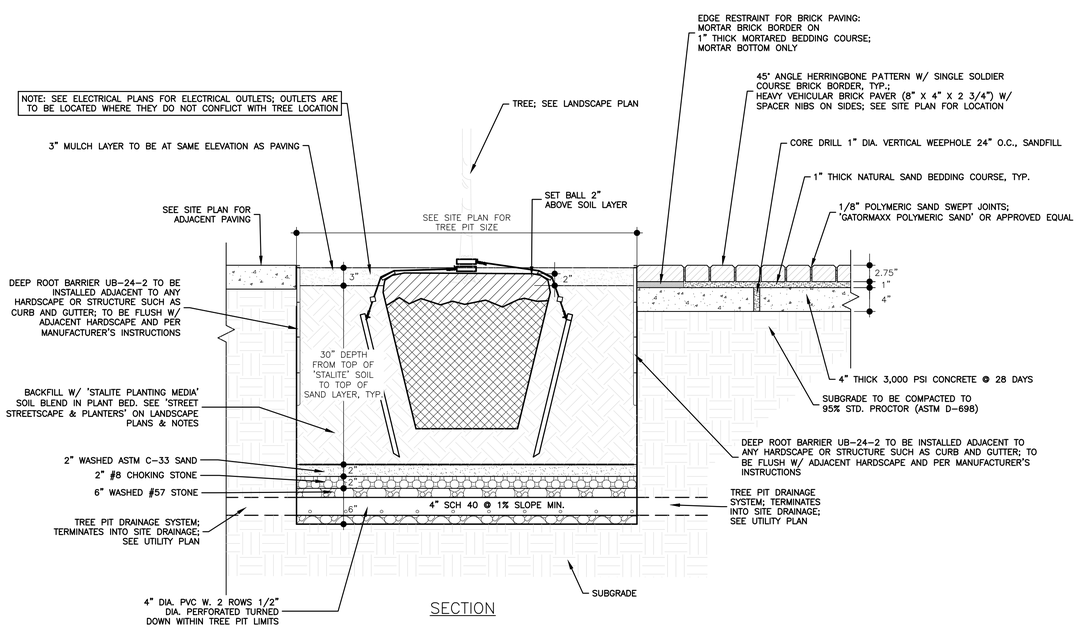


SECTION

NOTE:
STALITE PLANTING MEDIA BY CAROLINA STALITE COMPANY (1.877.737.6284; CHUCK FRIEDRICH, RLA)

1 MORTARED BRICK BORDER EDGE

SCALE: 1" = 1'-0"

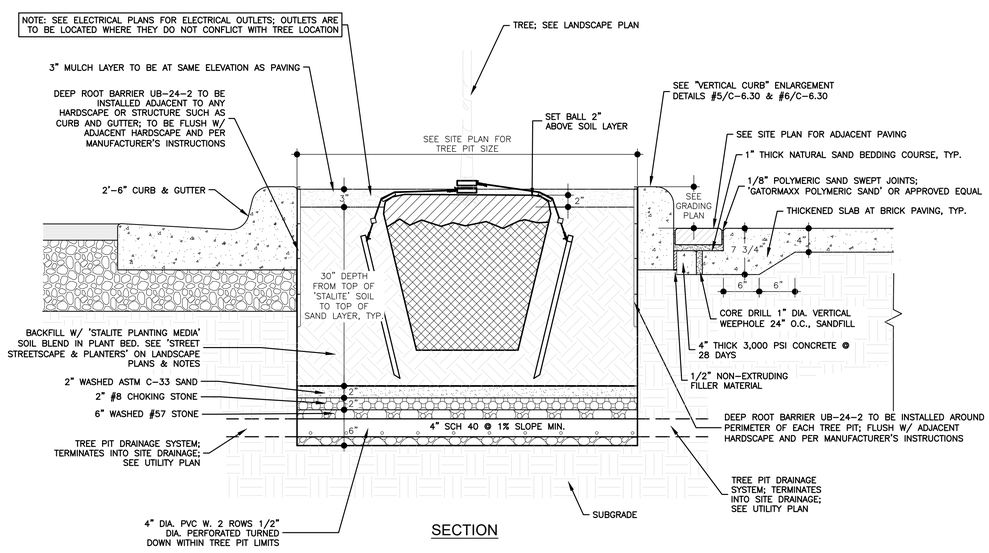


SECTION

NOTE:
STALITE PLANTING MEDIA BY CAROLINA STALITE COMPANY (1.877.737.6284; CHUCK FRIEDRICH, RLA)

2 TREE PIT WITH TREE GRATE

SCALE: N.T.S.



SECTION

NOTE:
STALITE PLANTING MEDIA BY CAROLINA STALITE COMPANY (1.877.737.6284; CHUCK FRIEDRICH, RLA)

3 TREE PIT (NO GRATE)

SCALE: 1" = 1'-0"

4 TREE PIT ADJACENT TO VERTICAL CURB

SCALE: 1" = 1'-0"

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

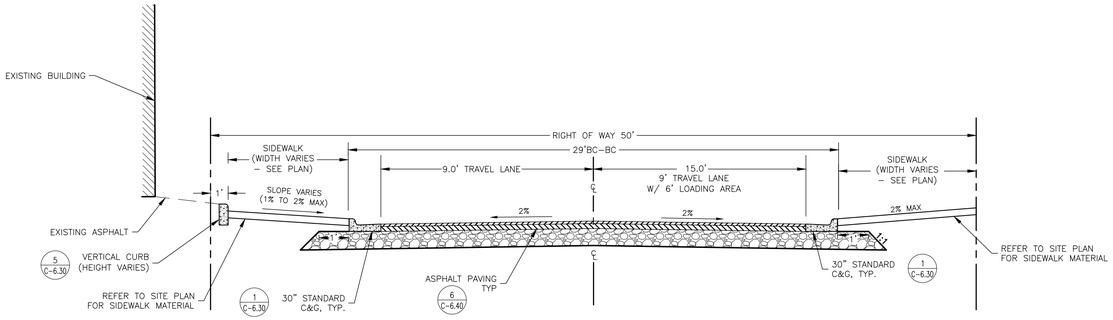
SHEET TITLE:

SITE DETAILS

SCALE:

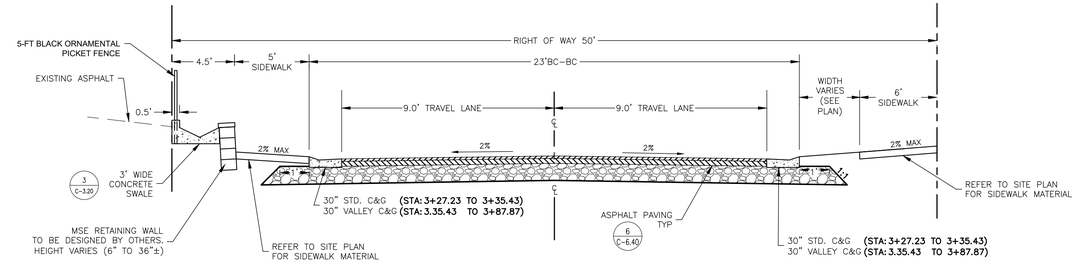
SHEET NO.:

C-□.□□



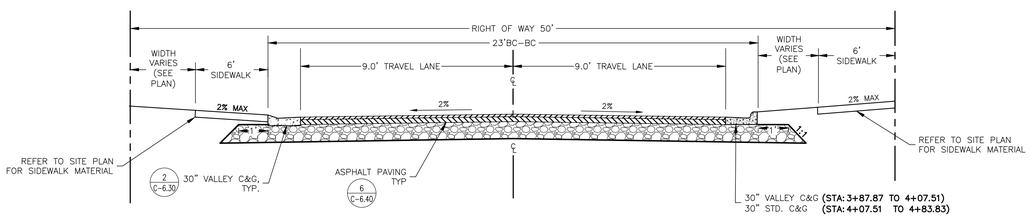
1 APPLING WAY - ADJACENT TO EXISTING BUILDING

SCALE: NTS



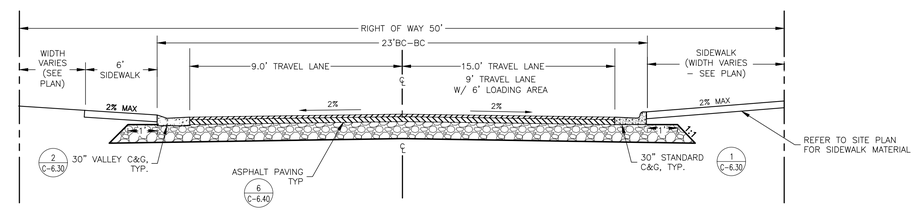
2 APPLING WAY - ADJACENT TO EXISTING LOADING AREA

SCALE: NTS



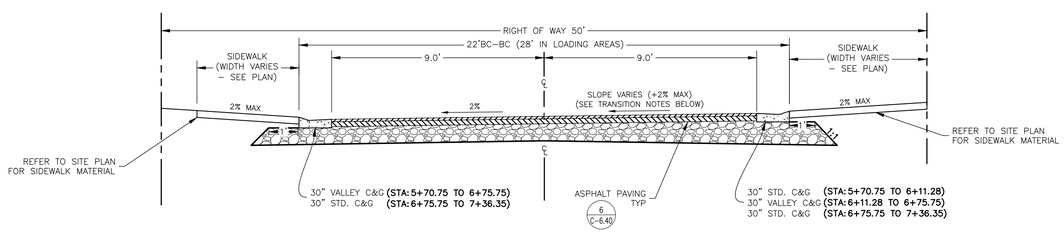
3 APPLING WAY - STA: 3□87.87 TO STA: 4□83.83

SCALE: NTS



4 APPLING WAY - LOADING AREA

SCALE: NTS

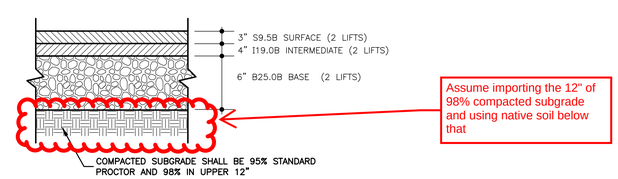


SUPER ELEVATION TRANSITION NOTES:

STATION 5+70.75 TO STATION 6+18.32: TRANSITION FROM NORMAL CROWN (TYPICAL SECTION ON DTL. 8/C-6.31) TO +2% CROSS SLOPE.)
STATION 6+18.32 TO STATION 6+54.00: +2% CROSS SLOPE (SUPERELVATED SECTION)
STATION 6+54.00 TO STATION 7+25.00: TRANSITION FROM +2% CROSS SLOPE TO NORMAL CROWN (TYPICAL SECTION ON DTL. 8/C-6.31).
STATION 7+25.00 TO STATION 7+36.35: NORMAL CROWN

5 APPLING WAY - SUPERELEVATED SECTION

SCALE: NTS



6 ASPHALT PAVING

SCALE: NTS

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	BWC
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

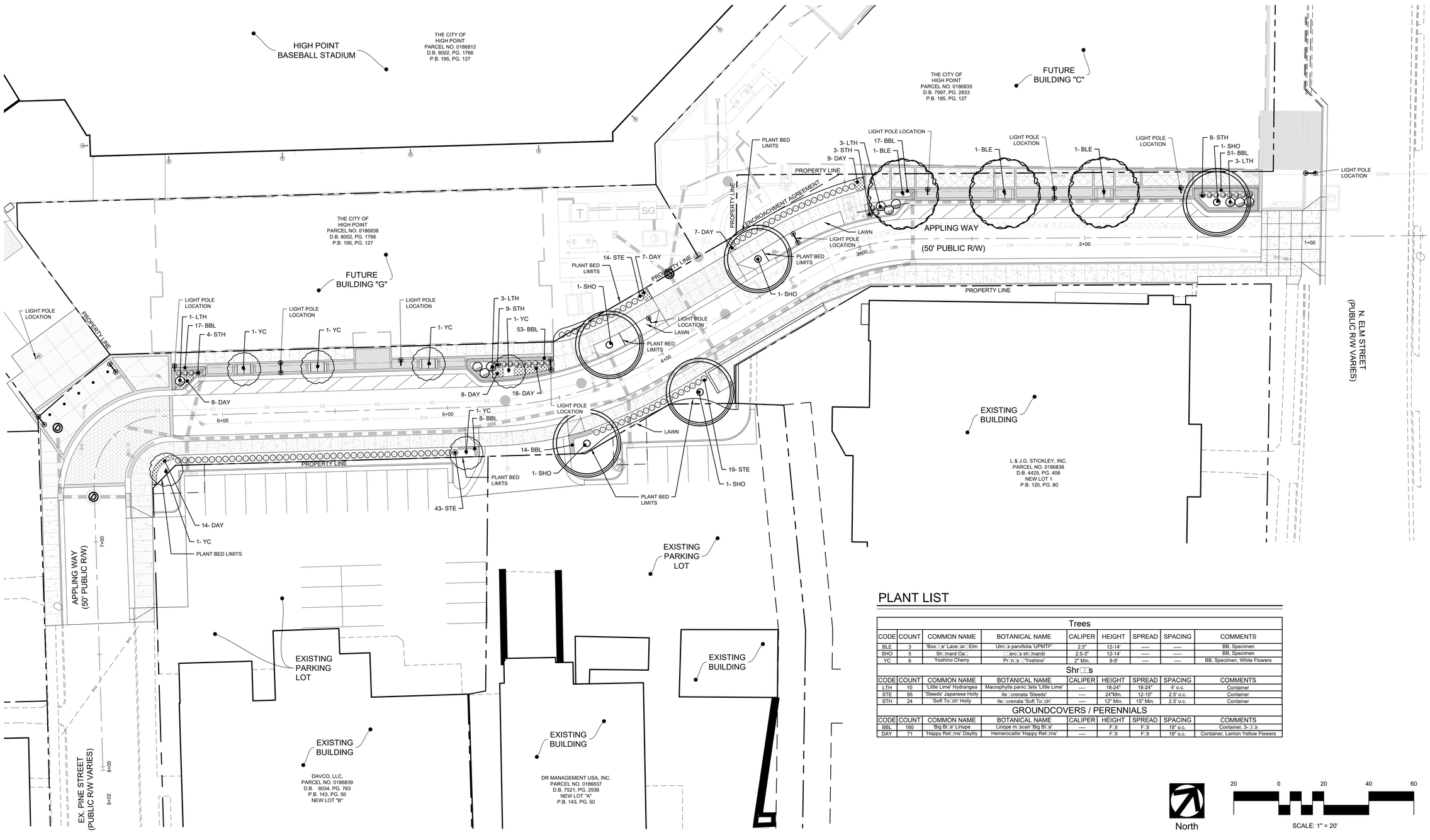
SHEET TITLE:

TYPICAL SECTIONS

SCALE:

SHEET NO.:

C-□.□0



PLANT LIST

CODE	COUNT	COMMON NAME	BOTANICAL NAME	CALIPER	HEIGHT	SPREAD	SPACING	COMMENTS
Trees								
BLE	3	'Bos□□a' Lace□ar□ Elm	Ulm□s parvifolia 'UPMTF'	2.5"	12-14'	-----	-----	BB, Specimen
SHO	5	Sh□mard Oa□	□□erc□s sh□mardii	2.5-3"	12-14'	-----	-----	BB, Specimen
YC	6	Yoshino Cherry	Pr□□n□s □''Yoshino'	2" Min.	8-9'	-----	-----	BB, Specimen, White Flowers
Shr□□s								
LTH	10	'Little Lime' Hydrangea	Macrophylla panic□lata 'Little Lime'	-----	18-24"	18-24"	4' o.c.	Container
STE	95	'Steeds' Japanese Holly	Ile□□crenata 'Steeds'	-----	24"Min.	12-15"	2.5' o.c.	Container
STH	24	"Soft To□ch' Holly	Ile□□crenata 'Soft To□ch'	-----	12" Min.	15" Min.	2.5' o.c.	Container
GROUNDCOVERS / PERENNIALS								
CODE	COUNT	COMMON NAME	BOTANICAL NAME	CALIPER	HEIGHT	SPREAD	SPACING	COMMENTS
BBL	160	"Big Bl□e' Liriope	Liriope m□scari 'Big Bl□e'	-----	F□ll	F□ll	18" o.c.	Container, 3-□□s
DAY	71	"Happy Ret□rns" Daylily	Hemerocallis "Happy Ret□rns"	-----	F□ll	F□ll	18" o.c.	Container, Lemon Yellow Flowers

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY DRAWING NOT FOR CONSTRUCTION

PROJECT:

APPLING WAY

HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN:	JMT
DATE:	5/20/19
REVISIONS:	
JOB. NO:	18-330

SHEET TITLE:

OVERALL LANDSCAPE PLAN

SCALE:

SHEET NO.:

L-1.00

F:\18-330\Drawings\CD\18-330_L-1.00_LANDSCAPE PLAN.dwg : L-1.00 06/24/19 4:47pm

LANDSCAPE WORK SPECIFICATIONS:

PART 1 - GENERAL

DESCRIPTION OF WORK:

Extent of landscape work includes furnishing all materials, equipment and labor necessary for preparation of final subgrades in planting areas; distribution/ application of topsoil; soil treatment; planting of trees and shrubs; protection/ maintenance/guarantee/replacement of plants; related items required to complete work indicated on drawings and specifications. (See Landscape Plan.)

GUARANTEE:

Guarantee trees/shrubs/lawn/grass for period of one year after date of acceptance, against defects including death and unsatisfactory growth, except for defects resulting from neglect by Owner, abuse/damage by others, or unusual phenomena/incidents which are beyond landscape installer's control.

Remove/replace trees, shrubs, grass or other plants found to be dead or in unhealthy condition during warranty period. Make replacements during growth season following end of warranty period. Replace trees/shrubs which are in doubtful condition at end of warranty period, unless, in opinion of Landscape Architect, it is advisable to extend warranty period for a full-growing season.

Another inspection will be conducted at end of extended warranty period, if any, to determine acceptance/rejection. Only one replacement will be required at end of guarantee period, except for losses/replacements due to failure to comply with specified requirements.

INDUSTRY STANDARDS:

Some products and execution are specified in this Section by reference to published specifications or standards of the following (with respective abbreviations used). Reference is to the latest edition of the standard referenced.

The American Society for Testing and Materials (ASTM)

Association of Official Agricultural Chemists (AOAC)

American Association of Nurserymen (AAN)

U.S. Department of Agriculture (USDA)

SUBMITTALS:

Substitutions shall not be considered unless it can be reasonably demonstrated that material specified is or shall be unavailable within 500 miles of the site of the work at the time of installation. Landscape Architect shall authorize the nearest equivalent obtainable size/variety of plant having some essential characteristics with equitable adjustment of contract price. Unit price of substituted item shall not exceed bid item being replaced. All submittal requests are to be made in writing.

Certificates: All material whose transportation requires inspection and/or certification by any governmental agency shall be accompanied by copies of certification or inspection which shall be given to a selected representative at the site at the time of delivery.

Soil PH Testing: Landscape contractor to submit a soil sample to test the current PH Level, once beds are defined and prior to any planting. The PH Level must be (5.8-6.2) and approved by the Landscape Architect prior to any plant installation.

QUALITY ASSURANCE:

General: Ship landscape materials covered and with certificates of inspection required by governing authorities. Comply with regulations applicable to landscape materials. All plant material must be "nursery grown". All plant material collected from naturalized areas will be rejected.

Soil Ph: Landscape Contractor to submit a soil sample, once beds are amended and prior to planting. The Ph must be correct and checked by Landscape Architect prior to any planting.

Topsoil: Provide topsoil of a type that is in compliance with Part 2 - Products of this section.

Plant List: List of plants as shown on drawings (Sheets L-1.0).

Quantities: Quantities necessary to complete plantings as shown/located on drawings shall be furnished. Quantities shown in list are for convenience of contractors and believed to be substantially correct, but accuracy of quantities in list is not guaranteed.

Trees and Shrubs: Provide trees and shrubs grown in a recognized nursery in accordance with good horticultural practice. Provide healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun-scald, injuries, abrasions, or disfigurement. All shade trees to be 'A' grade trees (see detail below).

Sizes: Provide trees and shrubs of sizes shown or specified in Plant List, which are minimum acceptable sizes and shall be measured before pruning with branches in normal position. Any necessary pruning shall be done at time of planting. Trees and shrubs of larger size may be used if acceptable to Landscape Architect, and if sizes of roots or balls are increased proportionately.

Tagging Trees: Landscape Architect reserves the right to tag specimen trees (See General Notes) at place of growth for compliance with requirements for size and quality assurance. Landscape Contractor recommended to use the following nurseries for the supply of trees:

-Shady Grove	(803-534-5683)	-Select Trees	(706-769-9879)
-Bold Springs	(770-267-9196)	-Lone Oak	(706-637-6240)
-Green Thumb	(910-428-4587)	-Gilmore Plant & Bulb Co.	(336-685-4451)
-Worthington Farms	(252-756-3827)		

Inspection: Landscape Architect reserves the right to inspect trees and shrubs either at place of growth or at site, for compliance with requirements for name, variety, size and quality.

DELIVERY, STORAGE AND HANDLING:

Packaged Materials: Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.

Trees, Shrubs & Transplanted Trees: Provide freshly dug trees and shrubs. Do not prune prior to delivery. Do not bend or bind-tie trees or shrubs in such manner as to damage bark, break branches or destroy natural shape. Provide protective covering during delivery. All trees, shrubs & groundcovers much be delivered in a completely tarped and covered vehicle or the entire load will be refused. Immediately after unloading, trees to be set upright never placed lying down. Always lift and move trees by strapping on root ball or by using chain cradle on the root ball for larger root balls.

JOB CONDITIONS:

Utilities: Determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.

Coordination with Other Work: Plant new trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise acceptable to Landscape Architect. If planting of trees and shrubs occurs after lawn work, protect lawn areas and promptly repair damage to lawns resulting from planting operations.

PART 2 - PRODUCTS

Topsoil: Additional topsoil to be furnished at no cost to Owner. Topsoil to be natural, fertile, friable soil, possessing characteristics of representative productive soils in vicinity; obtained from naturally well-drained areas; not excessively acid/ alkaline nor contain toxic substances harmful to plant growth; without admixture of subsoil and cleaned and reasonably free from clay/lumps/stone/ stumps/roots or similar substances 2" or more in diameter/debris/objects which might hinder planting operations.

Lime: Ground limestone containing not less than 85% total carbonates to such fineness that 50% will pass through a 100-mesh sieve and 90% will pass through a 20-mesh sieve. Use as necessary for specific plants.

Commercial Fertilizer: Organic fertilizer Stay Green Nursery Special 12-6-6 or approved equal; delivered dry/free-flowing in original unopened containers, each bearing manufacturer's guaranteed analysis, shall conform to applicable State Fertilizer laws. Any fertilizer which becomes caked/damaged, making it unsuitable for use, will not be accepted.

Pre-emergence Herbicides: Landscape Contractor to apply pre-emergence Herbicides as per manufacturer's specifications in all plant beds prior to final mulch application.

Soil Mix: All plant beds shall be composed of the following:
1 part Existing Soil
1 part Topsoil
1 part Pine Bark Soil Conditioner

Soil Conditioner: Soil Conditioner shall be small pine bark particles of 3/8" or less, provided in prepackaged bags or approved bulk delivery.

Mulch:
Contractor shall supply/place clean hardwood mulch 3" depth moistened at time of application to prevent wind displacement; bed mulched instead of pit mulched.

Water: Furnished by Owner, suitable for irrigation and free from ingredients harmful to plant life.

Materials for Staking Trees: Contractor shall place stakes of sound new hardwood, treated softwood or redwood, free of knot holes/defects. Provide wire ties/guys of 2-strand twisted, pliable, #2-12 gage, galvanized iron wire, zinc-coated turnbuckles. Provide not less than 1/2" hose, cut to required lengths to protect tree trunks from damage.

PART 3 - EXECUTION

PLANTING:

Layout: Location for plants/outlines of areas to be planted are indicated on plan. Where construction and utilities below ground or overhead are encountered or where changes have been made in construction, necessary adjustments to be approved by Landscape Architect.

Soil Preparation: Soil shall be as specified; be in relatively dry state and mixed thoroughly by hand or rotary mixer. Commercial fertilizer at rate of 2#/c.y. shall be added. All planting beds shall be coated with approved pre-emergence weed killer according to manufacturer's specifications. All shrub planting areas to be bed prepared and not just pit prepared/planted unless approved by Landscape Architect. Soil shall be prepared minimum of one week prior to planting day, for proper settling.

Landscape Contractor responsible for all shaping and fine grading of bermed areas. General Contractor to provide topsoil. See Landscape Plans for locations.

Landscape Contractor responsible for all fine grading of areas to receive seeding.

For pit/trench backfill, mix planting soil prior to backfilling and stockpile at site.

For planting beds, mix planting soil thoroughly prior to planting or apply on surface of topsoil.

For plant beds against building foundations, soil mix shall be mixed thoroughly prior to placement. Prevent lime from contacting roots of acid-loving plants. Prepare soil mix as specified to minimum depth of 6" below largest shrub root ball.

Balled/Burlapped Plants: After final setting loosen wrappings of balled/burlapped plants and roll wrappings back from top of ball leaving ball unbroken. Cut off excessive amounts of burlap, remove sufficient quantity to eliminate creation of voids upon decomposition.

Container Grown Plants: These may be applied in lieu of balled/burlapped plants if all other specified requirements are met; plants to have grown in container for minimum of six months and maximum of two years and when delivered, have sufficient root growth to hold earth intact when removed from container; plants must not be root bound. Remove container in way to prevent damage to plant/root system.

Tree Pit Sizes: Minimum diameter/depth of planting pits for balled/burlapped, bare roots and container grown plants shall be 24" greater than diameter of ball/spread of roots and trees sit directly on pit bottom to prevent settlement.

Shrubs/Groundcovers: All plant beds for shrubs/groundcovers to be prepared for a total depth of 9" and should consist of 1 part existing soil, 1 part topsoil and 1 part soil conditioner (see soil mix). Till existing soil to a minimum depth of 3"; add 3" of topsoil and till thoroughly; add 3" of pine bark soil conditioner and till with other amendments to a total depth of 9". Entire bed to be covered with 3" of clean hardwood mulch.

Lawn - Seeding: All unpaved disturbed areas (or lawn to be reestablished), excluding areas to be sodded, outside planting bed to be seeded with an even mixture of Hunter, Padre, and Magellan tall fescues, or approved equal, at a rate of 5-6 lbs./1,000 s.f. so as to produce a thick, firm stand of grass. Fertilize at a rate of 10 lbs./1,000 s.f. with 10-10-10 slow-release fertilizer (use straw or other material to cover seed until stable.) Apply lime according to soil test, or apply 4,000 lbs./acre slow-release pelletized agricultural limestone.

Seeding dates: Aug. 20 through Oct. 25 and Feb. 1 through May.

Setting Trees: All trees to be planted according to Planting Details shown on Landscape Plans. Unless otherwise specified, all trees to be planted in pits, centered, set on unexcavated soil to depths that finished grade level of plant after settlement shall be same as that which plant was grown; plant upright and faced to give best appearance/ relationship to adjacent structures; plant above grade 3/4" for every foot of ball diameter. Place tree root balls at a level where the trunk flare will be 2" above surrounding finished grade. No burlap to be pulled out from under balls; remove platforms, wire and surplus binding from top/sides of balls; cut broken/frayed roots; place/compact prepared soil to avoid injury to roots and fill all voids. Saturate the planting hole with water after backfill is 3/4 complete and allow to soak away; fill hole to finished grade, allowing 4" of mulch; form shallow saucer around each plant.

Pruning New Plant Material: Remove dead/broken branches from all plant material. Prune all trees/ shrubs to a branch node and remove only as much foliage as necessary for neat appearance while retaining natural growth habit of plant variety. Prune away crossing limbs or water sprouts/ shoots from trees always leaving branch collar intact (no additional stub length). Under cut larger limbs to prevent tearing of the bark. Girdling roots of trees should be cut at this time to prevent future problems. Make all cuts with sharp pruning equipment. Topping of trees and wound painting are NOT permitted. Remove trimmings from the site.

Guying Trees: All canopy trees 2" caliper or greater shall be staked and guyed. Landscape Contractor is responsible to remove all stakes and guys at the end of the one year warranty period. See Planting/Staking Details.

Mulching: Trees/shrubs shall be mulched immediately after planting with 3" depth of hardwood mulch. Prevent wind displacement of mulch by thoroughly wetting down. Mulch the area over tree rootballs to a depth no deeper than 1.5-2". Keep all mulch away from the trunk flare. If plant has existing mulch, remove old mulch before applying new mulch.

Excess Excavated Soil:
To be disposed of by Contractor at no additional expense to Owner.

MAINTENANCE:

Begin immediately after planting. Maintain trees/shrubs/other plants until final acceptance. Maintain trees/shrubs/other plants by pruning, cultivating, weeding as required for healthy growth. Restore planting saucers; tighten/repair stake and guy supports and reset trees/shrubs to proper grades/vertical position as required. Restore/replace damaged wrappings. Spray as required to keep trees/shrubs free of insects/disease.

CLEANUP AND PROTECTION:

During landscape work keep pavements clean, work area in orderly condition; protect work/materials from damage due to landscape operations, operations by other contractors/trades/trespassers. Maintain protection during installation/maintenance periods. Treat/repair/replace damaged landscape work as directed.

INSPECTION:

See "Landscape Construction Sequence" on Landscape Plans. When landscape work is complete, including maintenance, Landscape Architect will, upon request, make inspection to determine acceptability. Landscape work may be inspected for acceptance in parts agreeable to Landscape Architect, provided work offered for inspection is complete, including maintenance. Where inspected landscape work does not comply with requirements, replace rejected work, continue specified maintenance until reinspected by Landscape Architect and found to be acceptable. Remove rejected plants/materials promptly from project site.

SPECIAL CONDITIONS:

1. Landscape contractor is responsible for coordinating a "site acceptance inspection" with the owner, General Contractor and Architect prior to start of construction.
2. Landscape contractor to submit a soil sample, once beds are amended and prior to planting. The ph must be correct and checked by Landscape Architect prior to any planting.
3. Landscape contractor is responsible for providing topsoil in traffic islands so there is a crown of 10-12" at the center of each island
4. All canopy trees 2" caliper or greater shall be staked and guyed. Landscape contractor is responsible to remove all stakes and guys at the end of the one year warranty period.
5. All tree-form and multi-stem trees to have multiple trunks (min 3 each) and be limbed up a min. of 3.0.' All large canopy trees to have the height of their first branches 5-6' above ground. All columnar and single story trees to have the height of their first branches 4-5' above ground.
6. Soil mix for all perennial areas to be 6" thick "metro-mix" from Southern Agricultural Insecticide, Boone, NC (1-800-477-8843).

GENERAL LANDSCAPE NOTES:

1. General contractor to use licensed Landscape Contractors with Landscape Architect prior to bidding. Bids using Landscape Contractors not pre-approved will not be considered.

Landscape Contractor to:

1. Follow landscape construction sequence.
2. Contact General Contractor prior to submitting bid to verify any phasing of planting areas.
3. Fine grade all grass and planting areas disturbed during construction. Remove from site all temporary seeding/stabilization, stones, gravel and all extraneous debris including roots and limbs prior to sodding/seeding. When fine grading insure that positive drainage is occurring.
4. Till and amend all plant beds as required in specifications. Apply pre-emergence herbicides per manufacturer's specifications in all plant beds prior to any planting. Cover entire bed with a 3" min. Clean mulch immediately after planting. Site mulch to be clean hardwood mulch except for plant beds at the public doors--use mini-pine bark nuggets.
5. Bring to the attention of the Landscape Architect any debris or poor soils remaining in parking lot islands after general construction and prior to planting.
6. Verify all underground utilities prior to installation of any plant materials. Utilities shown on plan are for reference only and may not be all inclusive. See General Contractor for as-built drawings for all underground utilities.
7. Provide 3' diameter mulch rings for all trees in grass areas.
8. Insure that all tree mulch rings are a minimum of 2.0' from the edges of shrub beds and curbs.
9. Neatly edge all plant bed/grass borders with a straight "v"-cut edge.
10. Insure all trees of same variety match in shape and size where they are to be installed in groups, rows or as street trees.
11. Obtain authorization prior to any changes of plant location due to utilities or other factors.
12. Protect all existing structures (i.e.. Curb and gutter, pavement, etc.) During installation of large trees and other plants.
13. Prior to seeding, verify that all trenching and other land disturbing activities within areas to be seeded have been completed.

LANDSCAPE CONSTRUCTION SEQUENCE:

Landscape Contractor to:

1. Visit site after authorization by General Contractor to begin, and accept/reject condition of site prior to any planting.
2. Stake and till entire plant beds and include fertilizer, pre-emergence herbicides and soil mix per specifications.
3. Transport all plants to site covered. Any plants damaged during or prior to shipping to the site will not be accepted.
4. Contact Architect for approval/denial of all plant beds and plant stock prior to installation.
5. Proceed according to planting plan upon approval by Architect of plants and plant bed staking and preparation.
6. Contact Architect, upon completion of work, for final approval of work.
7. Make necessary adjustments for approval. Landscape Contractor responsible for contacting the G.C. to set a meeting to review the punch items.
8. Maintain all plant material according to specifications/warranty.
9. Immediately remove/replace any dead or dying plants during warranty period.

SOIL MIX (SEE SPECS.):

One part existing soil
One part topsoil
One part pine bark soil conditioner

Planting bed depth to be a minimum of 9"

SOIL PREPARATION:

1. Prepare all shrub beds to a total depth of 9."
2. Till existing subsurface soil to a minimum 3" depth.
3. Add 3" of topsoil and till with existing soil.
4. Add 3" of pine bark soil conditioner and till thoroughly with other amendments.

STREET STREETSCAPE & PLANTERS

I. STREET STREETSCAPE PLANTERS / TREE PITS:

A. INITIAL TREE PIT PREPARATION BY LANDSCAPE CONTRACTOR:

1. Landscape Contractor shall excavate existing tree pits to a depth of 2' and backfill with Stalite Planting Media Soil Blend. (See Specification below.)
2. Contact Chuck Friedrich, RLA with Carolina Stalite Company Phone: (877) 737-6284

B. TREE PIT EXCAVATION

1. The Landscape Contractor shall dig out by hand the existing materials to a depth of equal the height of the root ball of the tree to be planted.
2. Stockpile excavated soil on adjacent walkway.
3. Periodically test the soil remaining in the tree pit for it's suitability to plant proposed trees. Excavate and replace this soil if necessary.
4. Place the tree in the pit and plant per Typical Tree Planting Detail and backfill with Stalite Planting Media.
5. Stockpile any remaining Stalite Planting Media Soil Backfill for use in unsuitable soil pits and for other phases of this project.

Section [illegible]10 PLANTING MEDIA FOR PLANTERS

PART 1 - GENERAL

1.0 SUMMARY

A. Section Includes:
1. Planting Media
B. Related Sections

1.01 REFERENCES

A. ASTM - American Society for Testing and Materials
B. USDA - US Department of Agriculture

1.0[illegible] DEFINITIONS

1.0[illegible] SYSTEM DESCRIPTION

A. Planting Media [illegible]

[illegible]0 Stalite Recycled Fines
[illegible]0 USGA Rootzone Sand
[illegible]0 [illegible]
10 Pine Bark Fines

PART 2 - PRODUCTS

2.01 MATERIALS

A. Stalite Recycled [illegible]

Sieve Size	% Retained
#4	4-8%
#8	28-38%
#16	46-58%
#30	63-75%
#50	74-84%
#100	82-90%
Fine Material	2.79-3.53 % passing #100

B. USGA Root Zone Sand
1. Grain Size Distribution (ASTM C136-95A)

Sieve Size	% Retained on Sieve
2.00 mm	[illegible]3%
1-2 mm	10% max
0.5 -1 mm	45% max
.25 -.5 mm	35% - 75%
.15 -.25 mm	15% max
.05 - .15 mm	5% max

C. Approved Component
1. Compost must be certified and derived from a non-sewage sludge feedstock source. The addition of yard waste to the composting process must also meet certification requirements.
2. Finished compost must be screened to minus 1/2”, protected, and free from any outside contaminants during and after screening and curing.
3. Metals and contaminants must meet or exceed US EPA Standard 40

2.03 Mixes

A. Planting Media

Stalite Recycled Fines	40%
USGA Root Zone Sand	30%
Approved Compost	20%
Pine Bark Fines	10%

3.02 PROTECTION OF SOIL MIXES

A. Contamination and Compaction

1. Do not deliver or place soils in frozen, wet, or muddy conditions. Do not place materials in an excessively moist condition.
2. When stockpiled, protect soils media from absorbing excess water and from erosion at all times. Do not store materials unprotected from large rainfall events. Do not allow excess water to enter site prior to compaction. If water is introduced into the material after stockpiling, allow material to drain or aerate to optimum compaction moisture content.
3. In handling materials, operating tools and equipment, protect the media from compaction by laying down planking or plywood as required for protection.
4. Pressure wash equipment prior to handling media to prevent weed seed contamination.

---

stimmel
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
LAND PLANNING
601 N. TRADE STREET, SUITE 200
WINSTON-SALEM, NC 27101
P: 336.723.1067 F: 336.723.1069
www.stimmelpa.com

SEALS:

NCBEES CERT. NO.: C-1347

PRELIMINARY
DRAWING
NOT FOR
CONSTRUCTION

PROJECT:

APPLING WAY
HIGH POINT, NC

CLIENT:

CITY OF HIGH POINT
211 S HAMILTON STREET
HIGH POINT, NC 27260
(336) 883-8515

DRAWN: JMT
DATE: 5/20/19
REVISIONS:

JOB. NO: 18-330
SHEET TITLE:

LANDSCAPE
NOTES, SPECS
& DETAILS

SCALE:
SHEET NO.:

L-2.00

F:\18-330\Drawings\CD\18-330 L-1.00 LANDSCAPE PLAN.dwg : L-2.00 06/24/19 4:51pm

City of High Point Project Number _29-012418_
("the Project")

Change Order No. 4

APPENDIX D
Payment Bond
Performance Bond

CITY OF HIGH POINT

<u>PAYMENT BOND</u>

CITY OF HIGH POINT PROJECT NUMBER:

_____

PAYMENT BOND

Principal: _____
Name of Principal Contractor

Surety: _____
Name of Surety

Project Number: _____ County: _____

Bond Amount: _____

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal and Surety named above, are held and firmly bound unto the City of High Point in the penal sum of the amount stated above for the payment of which sum well and truly be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into a certain contract with the City of High Point identified by the Project Number set forth above, and hereto attached:

NOW, THEREFORE, if the Principal promptly makes payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then this obligation to be void; otherwise to remain in full force and effect;

This payment bond is provided pursuant to and governed by Article 3 of Chapter 44A of the North Carolina General Statutes, N.C. Gen. Stat. §§44A-25 et seq., including but not limited to the statutory provisions regarding claims on this payment bond.

IN WITNESS WHEREOF, the Principal and Surety have caused this instrument to be executed under their several seals on the dates indicated below, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

_____
SURETY

By _____
General Agent or Attorney-in-Fact Signature

Seal of Surety

_____
Print or type Signer's Name

Date: _____

_____
PRINCIPAL

By: _____

Printed Name:_____

Title: _____

Date: _____

(Corporate Seal)

CITY OF HIGH POINT

<u>PERFORMANCE BOND</u>

CITY OF HIGH POINT PROJECT NUMBER:

_____

PERFORMANCE BOND

Principal: _____
Name of Principal Contractor

Surety: _____
Name of Surety

Project Number: _____ County: _____

Bond Amount: _____

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal and Surety named above, are held and firmly bound unto the City of High Point in the penal sum of the amount stated above for the payment of which sum well and truly be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into a certain contract with the City of High Point identified by the Project Number set forth above, and hereto attached:

NOW, THEREFORE, if the Principal shall well and truly perform and fulfill all of the undertakings, covenants, terms, conditions, and agreement of said contract during the original term of said contract and any extensions thereof that may be granted by the City of High, with our without notice the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreement of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then, this obligations to be void; otherwise to remain in full force and virtue.

This performance bond is provided pursuant to and governed by Article 3 of Chapter 44A of the North Carolina General Statutes, N.C. Gen. Stat. §§44A-25 et seq., including but not limited to the statutory provisions regarding claims on this performance bond.

IN WITNESS WHEREOF, the Principal and Surety have caused this instrument to be executed under their several seals on the dates indicated below, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

_____
SURETY

By _____
General Agent or Attorney-in-Fact Signature

Seal of Surety

_____
Print or type Signer's Name

Date: _____

_____
PRINCIPAL

By: _____

Printed Name:_____

Title: _____

Date: _____

(Corporate Seal)