

Last Saved: N:4747247211 - TCNJ Campus Fire Alarm<math>47211-00-C000.dwg, 5/3/20 at 8:07 AM By SGOWERS - Last Printed: 5/4/20 at 5:19 PM By Gowers, Scot

THE COLLEGE OF NEW JERSEY CAMPUS FIRE ALARM PROJECT CABLE, HARDWARE, AND SOFTWARE UPGRADES 2000 PENNINGTON ROAD EWING, NJ 08618

Set Consisting Of G And FA Drawings Detailing Campus Fiber Cable Upgrades

Set Consisting Of E Drawings Detailing Building Fire Alarm Hardware And Software Upgrades



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TCNJ - CAMPUS FIRE ALARM PROJECT CO	OVER SHEE	T		
2000 PENNINGTON ROAD,				
EWING NJ, 08618 scale AS S	cale S SHOWN	drawn by SC	checked by SG	date 5/03/2020

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Last Saved: N:\47\472\47211 - TCNJ Campus Fire Alarm\010 Cable Infrastructure Upgrade\47211 - 00 - G000.dwg, 5/3/20 at 8:00 AM By SGOWERS - Last Printed: 5/4/20 at 5:19 PM By Gowers, Scot

THE COLLEGE OF NEW JERSEY CAMPUS FIRE ALARM PROJECT PART A - CABLE INFRASTRUCTURE UPGRADES 2000 PENNINGTON ROAD EWING, NJ 08618





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AERIAL IMAGE

project TCNJ - CAMPUS FIRE ALARM PROJECT PART A - CABLE INFRASTRUCTURE UPGRADES 2000 PENNINGTON ROAD,	^{title} COVER SHE	ΈT		
EWING NJ, 08618	scale AS SHOWN	drawn by SC	checked by SG	date 05/03/2020

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	A	В		С	D	E	F	G	H			J	K	L		M		N
	PROJECT OVERVIEW						CONTRACTOR UNIT F	PRICING REQUIREME	NTS				FIBER NOTES					
1	1. Project Description:						Contractor To Provide L	Jnit Pricing For:	conduit ducthank as show	on Shoot CO	102 Dotails 02 and 02 So	o hid	1. Contractor To Contractor To	o Cooridate With TC o Meet With TCNJ II	CNJ IT Departme Γ Representative	nt For All Fiber M e To Coordinate A	laterial, Labe	ling, Installation And Oth ns Including Those Locat
	A. This Project Wi Optic Cabling B	ll Upgrade All Campu etween Buildings For	s Fire Alarm Fire Alarm	n Cable Infrastructu Building System U	ures From Copper To Fiber Whicl pgrades.	ch Includes Fiber	documents for ac	ditional information.	Conduit ductbank as shown	on sheet Go	JUS, Details UZ and US. Se	e bla	In Existing IT	Manholes.	coint At Droiget	Cita Ta Datarmin	o Continuity	Of Each Strand End To E
	B. The Project Cor Building Fire Ala	nsists Of Installation (arm Panel. The Quan	Of New Fibe tity Of New	er Communication Fibers Installed Wi	Infrastructure To Provide Fiber C ill Create Communication Paths	Connectivity At Each And Connect All	2. 100 Linear feet of on Sheet FA003.	f fiber cable installed in See bid documents for a	to existing pathway, termin additional information.	ated and tes	sted, for each fiber cable s	ize identified	and OTDR Te Cable Shall Be	est Sets (Tier 1 And T Replaced. Contra	Tier 2 Testing). C ctor To Maintair	ompare To Manu A Test Record A	e Continuity Ifacturer's Te .nd Label Eacl	sting Certification For Fi h Strand With Test Date.
	Building FACP's	To Front End.	,				3. Furnish and insta	ll one Medium (6'x6'x8') precast manhole and acc	ssories as de	escribed on Sheet G003, D	etail 01.	3. All Fiber To B	Be Installed In Innerc	duct Within Con	duits And Multipl	le Fibers Can	Be Pulled In The Same Ir
2	2. Scope Of Work Summ	hary: Brief Scone Of The M	/ork For Thi	s Project (Not Inte	nded To Be All Inclusive):		ADD ALTERNATES						4. Fiber To Be Ir	nstalled Continuous	Without Any Sp	lices From MDF T	To MDF. A 30) Foot Service Loop Shall
	A. Conduit Installa	ations:					1. Add Alternate #1 -	Fiber Cable Strand Cou	Int Change. Cable Strand C	ounts Reflect	ted On G004 Indicates Ba	se Bid Size And	Location.					
	1) Install Unde	rground Conduit Duc	t Banks Bet	tween Building as	Identified on Drawings For Fibe	er Cable Routing. This	Housings, Cassette	s, Connectors, Termina	tions, Testing, Etc.	Changed Ca	able Size And All Necess	ary connector	5. Coordinate A Termination, Mapholo In A	All Labeling Requiren , At Each Tap, Exposi- and Out, Etc	nents With TCNJ ed At 15 Foot In	I IT Department A tervals, At Each C	And Specificat Cabinet / Racl	tions. Each Cable Shall E k / Panel, At Each Wall P
	2) Install New	Pathways Inside The	e Buildings	In Electrical / Me	echanical Rooms And Other Are	eas As Identified On	2. Add Alternate #2 - And FA008 For Due	Underground Duct Bar ct Banks Included In Thi	nk Conduit Quantity Change s Change.	. Refer To Ta	able On Drawings FA005,	FA006, FA007,	6. All New And	Existing Cables And	Terminations To	o Be Tested Upon	Completed I	Installation And Termina
	Drawings Fo	or Routing The New Fi	ber.				3. Add Alternate #3 Existing Undergrou	- New Underground 4" and Conduit Would Be	Conduit Will Be Routed T Inspected and Cleaned As	o Provide Lin Part Of The	nk Between Travers To Th Base Bid To Determine	ne TW Garage. If Conduit Has	Bi-Directiona Length And C	Il For Optical Loss Ar Connector Per EIA/TI	nd OTDR (Tier 1 / IA And BICSI Star	And Tier 2) To Co ndards. Fiber Cab	onfirm All Fibe ole Installation	ers Continuous And With n Shall Be To The Requir
	3) Install New	Fiber Communication	n Infrastruct	ture Between Build	dings. Fiber Shall Be Routed Co	ontinuous (Unspliced)	Been Compromise	d.	, , , , , , , , , , , , , , , , , , , ,				Project Comp	oletion.	er s exterided w	ananty Fiogram.	. Fulfilsit fest	. Results And Manufactu
	From MDF F Duct Banks	Room In One Building And From Point Of Er	g To MDF Ro htry (POE) Ir	oom In Another B n The Buildings To	uilding. This Includes Routing F MDF Room. These Pathways M	Fiber In Underground lay Be A Combination	4. Add Alternate #4 Maintenance Build Of Maintenance	 New Underground 4' ling. Routing Would Fo The Existing Undergro 	" Conduit Will Be Routed " ollow The Existing Path Fro ound Conduit Would Be II	o Provide Lin n The Chiller spected Anc	nk Between The Power F r Room To The Pull Box C d Cleaned As Part Of Th	louse And The In The Exterior e Base Bid To						
	4) Install Fiber	From MDF Room To	WCH Which	s. h Is To Be Located	In The Vicinity Of The Fire Alarr	m Equipment In Each	Determine If Cond	uit Has Been Compromi	ised.				DOCUMENT OR	GANIZATION				
	Building as in	dentified on the Drav	vings. Term	ninate All Fibers At	All Locations.	ell New Jenson Fiber	5. Add Alternate #5 - Alternate Shall Inc Testing, Etc.	Fiber Cable Type Chan lude Changed Cable Typ	ge From OS2/OM3 To OS2 Se And All Necessary Conn	OM4. Refer	r To Cable Listings On G0 gs, Cassettes, Connectors,	04 And G004a. , Terminations,	Drawings Organiz	zation				
4	Cables That Existing IT R	Would Include Fibe Requirements. Termi	ng Commu ers For Both nate all Fib	h New Fire Alarm bers. Disconnectio	Communication And The Rep On Of Jumpers On Existing Fiber	blacement Fibers For rs Will Be By TCNJ IT	PROJECT OBJECTIVES	AND EXECUTION					1. General Infor	rmation Sheets (G So	eries)			
	Department					,	1. Objectives:						2. Fire Alarm (F	A Series)				
	3. Owner Will Provide O Racking, Etc.) Are Not	ne 2-Piece, Pre-Cast, Included, Contracto	Medium Ma r To Include	anhole Currently L	ocated In ASB Parking Lot. Acces	essories (E.G. Lid, I Install	A. The Intent To Practical Durin	Keep The Campus An	nd All Buildings Connected	To The Exist	sting Campus Infrastructu	re As Long As Priority During						
							Construction I	Planning And Contracto	r Selection.		construction will be right	Thomy During	Drawing Sequenc	<u>:e</u> ith General Informa	tion Sheets Ove	erview Diagrams	And Plan Vie	ws Followed By All Othe
5	DESIGN CRITERIA AND) ADDITIONAL PRO.	IECT REQU	IIREMENTS			B. The Project M	ust Be Completed On T	ime.	adata Tha O	Description Of The Callers		Information. Whe	ere Effective, Supple	emental Informa	ition Is Included E	Directly On Th	ne Plan Views.
	1 General:						D. Complete The	Project As Fast As Poss	ible While Maintaining Qua	lity And Mini	imizing Disruption.	Ji new Jersey.	Drawing Number	ing				
	A. Entire Installati	on Shall Comply Witl	n All Local A	And State Codes Ar	nd Other Authorities Having Juri	isdiction. Contractor	2. Project Execution:			·			The Drawing Num	nbering Strategy And	a Nomenclature	IS AS FOILOWS:		
	Shall Secure, Pa	ay And Schedule All R	equired Per	mits, Fees, And Ins	spections Required For Their Wo	ork.	A. The Project Sl Necessary To	nall Be Bid To A Single F Complete The Various S	Prime Contractor. The Cont Scope Items Included In The	ractor Shall I se Document	Include All Sub Contractor	rs Under Them			#### =			
6	A. International B	uilding Code, 2015 Ec	ition.				B. Any Period Of	Downtime For Building	s Communications Systems	Shall Be Coo	ordinated To Avoid Disrup	tion And To Be	Drawi	ing Trade:			Building Iden	tifier
	B. National Electri	ical Code, 2014 Editio	n.				GENERALNOTES	Disruption.					G FA	General Fire Alarm			Unique ID: 1	, 2, 3
	C. UL 96A - Install	ation Requirements F	or Lightning	g Protection Syster	ms, Current Edition.								Specifications					
	All Local & State Am	iendments Shall Be Ir	cluded In Tl	he Project Require	ements.		1. General:					de a di Dia Tara da	A Book Specificati	ion Is Provided With	n These Drawing	S.		
7	A. The Campus S	tandard for Fiber Is	Hybrid (Si	ingle Sheath) Sing	gle / Multi Mode Optical Ribb	oon Fiber Cable, See	But This Does	Not Limit The Responsi	bility Of The Contractor To	Any Single Ca	ategory.	fized by frade,	Miscellaneous					
	Specifications F	For Additional Details	munication	os Conduits In Para	Illel With Each Eiber Cable, Term	ninate Fach Tracer On	B. Entire Installa	tion Shall Comply With	All Local And State Codes A	nd Other Aut	thorities Having Jurisdictio	on.	1. The Term 'Sh	neet' Or 'Drawing' Is	Used Interchan	geably.		
	An IDC Ground	ing Terminal Designe	d For The Pu	urpose And Connec	cted To A Communications Grou	unding Point.	C. Proper Fire P Cutting With T	Forches Or Electric Arc.	Contractor To Provide Ope	n Flame Perr	mit lf Required.	en weiding Or	 Printing Of Th Ear Itoms Th 	he Plans Is Often Re	duced, So A Gra	phic Scale Is Prov	vided On Each) Sheet.
	C. Labeling Of Eac Materials And N	ch Cable And Each T Methods.	ermination	Will Be Required.	This Includes The Labeling Sch	neme As Well As The	D. All Exposed Ca	ables Of Any Type In Ple	enum Ceiling Space Or Oper	Ceiling Spac	ce Shall Be Installed In Cor	nduit.	That Are Pred	dominately Text Suc	ch As Schedules,	Titles Are At The	Top Of The	Item Described.
8	D. Fiber Installatio	on And Testing To Foll	ow EIA/TIA	and BICSI Standard	ds.		Owner / Engir	ieer.	Set Of Red Line As-Builts C	n Sile During	g Construction Period For	Review by The	4. Shading Of A Emphasis Car	n Area Often Is Useo n Be:	d To Emphasize	An Area To The R	Reader. Some	e Of The Possible Purpos
	E. Basis Of Design	Shall Be Corning For	Fiber And A	Associated Hardwar	re.		F. All Open Ende	d Conduits Are To Be P	rotected During The Const	uction Perioc	d From Construction Dust	And Debris.	A. Identify	Major Pieces Of Equ	uipment.			
							2. Coordination:						B. Defining	g A Topics Boundary	Without Conflic	ting With Other L	inework.	
╎┝		CONCERNS					A. Contractor SI Construction	nall Coordinate Their Or Development That C	Work With The Existing ould Directly Impact, Or Be	Field Cond Impacted By	ditions, And Other Activ , The Scope Of This Project	ve Projects In ct.	C. Help To	Emphasize The Exist	tence Of A Part I	Plan Of The Area.		
9	1. Coordinate This Proj	ect's Scope Of Work	With Other	Projects Being Und	dertaken By Others For TCNJ Incl	cluding:	B. Contractor Sh	all Visit The Job Site And	d Verify Existing Field Cond	tions Prior To	o Submission Of Bid.		How Notes Are U	lsed				
	'A' Replacemen	it.	inty rioject	South (S, Donnese			C. Contractor Sh Required Insp	all Provide All Informat ections.	ion Required To Secure Ar	d Pay For All	l Required Permits And Sh	nall Arrange All	1. General Note	es - One Or More In	List Form Which	n Are Not Indicate	ed Specifically	/ On A Plan, Section, Ele
·	2. The Contractor Shall Etc.) As Per TCNJ Rec	Restore Disturbed A quirements. For Gras	reas To Mat s Areas This	tch Existing, Adjace s Includes Topsoil,	ent Surfaces (Grass, Pavement, C Seed and Hay.	Concrete, Gravel,	3. Installation / Demo	lition:					2. Notes For Thi	is Drawing - Genera	l Notes Located	Only On The Drav	wing That Ap	plies.
	3. Include All Fence Rei	moval, Replacement,	To Perform	The Work On this	Project.		A. Proper Fire P	rotection Measures, Sa	atisfactory To The Local F	re Departme	ent, Shall Be Taken Whe	en Welding Or	 Key Notes - U Listed Collect 	Jsed In Lieu Of Stand tively On The Drawir	dard Notes Whe ngs On Which Th	re They Improve ney Are Located.	Readability, I	Key Notes Are Gathered
10	4. Coordinate All Fiber	Termination Location	is With TCN	IJ IT Department.	nd Utilities Infrastructure Trees	s Ftr	B. Each Contract	or Shall Be Responsible	For All Cutting And Patchi	ng Of Walls A	And Floors Required As A	Result Of Their	Addenda & Revis	ions			٨	
	 Coordinate And Sche 	edule Work To Limit I	mpacting Er	mergency Exit Rout	tes During Times The Building Is	S Used Most	Work.	ns Of Flagra (Whathar	Or Not Fire Desistance Dat	d) And All D	anatrations Of Fire Dated	Walls Shall Da	1. Some Addend Revision Bloc	da And Revisions Ar ck In The Title Block	e Identified On ⁻ Section.	The Drawings Usi	ng A $/1$. Tl	he Number In The Triang
	Frequently, Such As 7. All Work Shall Be Co	During The Semester	S.	With Local, State,	And Federal Regulations And Co	odes. This Includes.	Firestopped.	Refer To The Specificati	on For Additional Requirer	ents.			2. Sometimes T	he Most Recent Cha	ange Is Clouded	\sim	To Provide	Increased Clarity.
	But Is Not Limited To Such As Manholes.	o, The Use Of Proper	Cave-in Prot	tection Methods A	nd Entry Into Permit Required C	Confined Spaces,	D. Conduit, Duct Size And Capa	bank, And Wiring Layo city, And Do Not Indica	uts Are Schematic Diagram te Which Conduit Is Above A Coordinate The Work, Fu	s And Are In Or Below The	ntended To Show General ne Other. All Offsets Are N Dry Offcots And Fittings To	Arrangement, Not Necessarily						
11	8. The Contractor Shall	Limit And Contain M	aterials, Equ	uipment, Debris, C	dors, Etc. Within The Work Area	as.	With Other M And Infrastruc	All And Electric ture, Without Addition	al Services, Structural And al Cost To The Owner. If A	Architectura reas Of Confl	al Elements, And Underg	round Utilities Engineer Shall	ENVIRONMENT	AL SURVEY OBSER	RVATIONS			
	9. The Contractor Shall May Enter And The F	l Identify The Entranc Requirements (i.e. PP	es To Work E, Etc.) To E	Areas, And Install inter.	Signs Indicating That Only Autho	orized Personnel	Be Notified A Begun.	nd Contractor Recomm	endations Shall Be Submit	ed To The E	ngineer For Approval Be	tore Work Has	The Observations	S Listed Below Were	Compiled Bases	On Information	From TCNU A	nd Visual Field Inspectio
	10. During Any Full Or Pa Traffic Control Meas	artial Lane Closures, F sures.	or Any Dura	ation, The Contrac	tor Or Its Subcontractor(s) Shall	Provide Proper	E. All Cost Assoc	iated With Rigging, Rec	eiving And Storage Shall Be	The Respons	sibility Of The Contractor.		Full Building Envir Contractor Shall T	ronmental Surveys V Thoroughly Investiga	Vere Not Performate Any Proposed	med Under This S d Routing For Env	Scope And Ur	derground Conditions A Hazards.
	11. Location And Markin	ng Of Site Utilities Is T	he Responsi	ibility Of The Conti	ractor. Location Markings To Be	Reviewed With	F. Contractor Sh Suspended Fr	all Provide All Necessa om Slab, Steel, Wall, Tru	ry Miscellaneous Steel For usswork, Etc., Or Anchored	The Support To Pads, Fou	t Of All Equipment And C Indations, Frames, Etc.	Conduit That Is	1. It is The Cont	tractors Responsibili	ity To Conduct A	n Environmental	Survey And E	Evaluation Prior To Begir
12	12. A Portion Of This Wo	nd Markout Technicia ork Will Be Occurring	n. In The Path	Of An Emergency	Egress Route. During All Phases	s Of This Proiect. A	ELECTRICAL NOTES						2. If Any Areas (Of Asbestos Are Enc	ountered In Any	/ Building And Ca	nnot Be Avoi	ded, Contractor Shall En
	Protected Emergenc From The Building.	y Egress Route Must Approval From The D	Be Maintair epartment (ned Through Each Of Community Affa	Affected Emergency Egress Rout airs Is Required To Close Or Re-D	te, Allowing Retreat Direct An Egress	1. Communication Ca	bling					Environmenta Allowance.	al Consultant For Te	esting. Asbestos	Abatement, If Re	equired Shall	Be Covered Under Envir
	13. Contractor Shall Pre	pare And Submit Con	fined Space	Entry Program As	Part Of The Submittal Process.		A. In General, Ca	Ibling Is Not Shown On	The Plan Drawings. Symb	ols For FACP,	P, MDF, POE, Etc. Are Sho	wn To Identify	3. Green Hall Ar	nd Recreation Cente	er Both Have Kno	own Areas Of Asb	oestos In Cert	ain Above Ceiling Areas.
	14. Existing Duct Bank C	rossings: The Minimu	um Depth To	o Top Of Conduits	As Per Details On Drawings Shal	ll Be 30" With	These Drawin	gs And In Accordance W	Vith These General Notes A	nd Specificati	ions.		4. Most Older B Into Standarc	Buildings Have Lead- d Work Procedures I	Based Paint In C For This Project	One Form Or Anot Including, But No	ther And Lead t Limited To,	d-Safe Work Protocols SI The Following:
13	Concrete Encasemer The Minimum Burial Not Rely On Exiting [nt Of 4". When Cross Depth. If Crossing A Duct Banks For Suppo	ing Existing bove Existin rt. Contract	Underground Infra ng Duct Banks New tor Shall Provide Be	astructure, It May Be Necessary / Duct Banks Shall Be Independer edding Of Suitable Material And	ntly Supported And Depth For Crossings	2. Wiring Methods						A. Contract	tor To Be EPA Certifi	ied In Lead-Base	ed Paint Safe Wor	k Practices a	nd Train All Workers In S
	That Occur Over Exis Will Cross Undernea	sting Duct Banks And th Existing Undergrou	Utilities. Co and Utilities	ontractor Shall Pro	vide Shop Drawings For Areas W Along With Appropriate Shoring	Where New Duct Bank And Support Details.	1) In Finishe	ed Areas, Conceal All C	Cable Pathways In Building	Walls, Floor	rs, And Above Finished C	Ceilings. Cable	B. Work Ar	rea Contaminant To	Be Used To Prev	vent Dust And De	bris From Lea	aving The Work Place
	15. Existing Utility Cross Minimum Burial Dep	ings: When Crossing I oth. Duct Banks And C	Existing Und	derground Infrastru all Be Installed Abo	ucture, It May Be Necessary To G	Go Deeper Than The derground Crossings	Pathways As Appro	May Be Run Exposed I ved By The Owner. N	n Mechanical/Electrical Eq o Cable Pathways Shall Be	ipment Roor Installed Exp	ms, Electrical Closets, Util posed On The Outside S	ity Rooms And urfaces Of The	D. No Eatin	ng Or Drinking In The	e Work Area.			
	Above Steam Lines S Provide Shop Drawir	Shall Maintain A Minin ngs For Areas Where	num Of 24" New Duct Ba	' Clearance To Be F ank Will Cross Und	Filled With Foam Glass Insulation derneath Existing Underground L	n. Contractor Shall Utilities Including	2) Indoors (ی میں کہ کریں ہوں کر کریں ہوں۔ Unclassified)	EMT Conduit With Stee	Set Screw Fi	ittings - Exposed Location	s	E. Post Sigr	ns Clearly Identifying	g Work Area.			
14	Details Along With A 16. Contractor Shall Vision	ppropriate Shoring A	na Support	Details.	Discrepancies In An RFI During T	The Questions Period	3) Outdoors	(Unclassified)	Flexible Non Metallic T	bing - Conce	ealed / Above Ceilings.							
	Of The Bid Milestone	e Schedule.		,			a. Expo b. Unde	sed: erground:	GRC Conduit With Rain Schedule 40 PVC Condւ	Tight Steel Fi it For Straigh	ittings nt Runs,							
\square			I			1		-	Installed In Concrete Er	cased Ductba	ank		- •	1				project
45											1		D ASSOCIATE	es P.C.				TCNJ - CAMPUS
30X 30	1 05/01/2020 ISSUED FOR	BID										265 Industr	rial Way West, Eatontown, N	I.J. 07724				2000 PENNINGT
Last	ITEM DATE ISSUE DESCR	RIPTION NJ Campus Fire Alarm\01	.0 Cable Infra	TEM DATE ISS	SUE DESCRIPTION 7211 - 00 - G001.dwg, 5/4/20 at 5:05	PM By SGOWERS - Last Prir	nted: 5/4/20 at 5:19 PM Bv Gow	ers, Scot			Que DLB	Project ID: 47211	Anthony Phone: 732-	-азкозку -927-5038				EVVING NJ, 0861

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FIBE	ER NOTES							_						
1.	Contractor To Co	oridate With	TCNJ IT De	epartment For All	Fiber Material, L	abeling, Installation	And Other Requirements.							
	In Existing IT Mar	holes.	J II Reples			cions including mos								
2.	All Cables To Be and OTDR Test Se Cable Shall Be Re	fested Upon l ets (Tier 1 And placed. Cont	Receipt At d Tier 2 Te ractor To I	: Project Site To D esting). Compare ⁻ Maintain A Test F	etermine Continu o Manufacturer' ecord And Label	ity Of Each Strand E s Testing Certificatic Each Strand With Te	end To End With Optical Loss on For Fiber Cable; Damaged est Date.							
3.	All Fiber To Be In	stalled In Inne	erduct Wit	thin Conduits And	Multiple Fibers (Can Be Pulled In The	Same Innerduct If Possible.							
4.	Fiber To Be Instal Terminal Locatio	led Continuo n And Any Ma	us Withou anhole Alo	it Any Splices From ong The Route To	n MDF To MDF. Be Coiled Neatly	A 30 Foot Service Lo And Secured To A W	op Shall Be Provided At /all In The POE And MDF							
5	Location.	heling Requir	oments W	/ith TCNLIT Depa	tment And Speci	fications Each Cabl	e Shall Be Labled At Fach							
5.	Termination, At E Manhole In And (Each Tap, Exp Dut, Etc.	osed At 15	5 Foot Intervals, A	t Each Cabinet /	Rack / Panel, At Eacl	h Wall Penetration, In Each							
6.	All New And Exist Bi-Directional For	ting Cables Ar Optical Loss	nd Termina And OTDR	ations To Be Test R (Tier 1 And Tier	ed Upon Complet 2) To Confirm All	ed Installation And ⁻ Fibers Continuous A	Termination. Testing Shall Be and With Minimum Loss For	No.	Drawing Title			Issues / Rev	visions	
	Length And Conn Certified Under T	ector Per EIA he Manufact	/TIA And E urer's Exte	BICSI Standards. F ended Warranty F	iber Cable Installa rogram. Furnish	ation Shall Be To The Fest Results And Ma	e Requirements Of And anufacturer's Certification At							3
	roject completi											3ID		
								-				D FOR I 020		
		NIZATION										ISSUE 5/1/2		
	wings Organizatio	<u>n</u> ion Shoots (C	Sorios)					GENERAL IN	FORMATION FOR ALL TRADES			x		4
2.	Fire Alarm (FA Se	ries)	561165)					G001	GENERAL INFORMATION			X		
								G002	GENERAL INFORMATION			x		
<u>Drav</u>	wing Sequence							G003	FIRE ALARM NETWORK OVERVIE	W DIAGRAM		x		
Drav Infor	rmation. Where E	feneral Inform ffective, Sup	nation She plemental	eets, Overview Di Information Is In	agrams, And Plan cluded Directly O	Views Followed By n The Plan Views.	All Other Pertinent	G004A		W DIAGRAM (ADD ALT)		X		5
Drav	wing Numbering	ing Charle	\ n. d. 8.1		0.112			G005 G006	DETAILS	AND DETAILS		X X		$\left - \right $
The	awing Number ויס	nig strategy A		H _ V	uws:			G007	DETAILS			x		
				π - Λ				FIRE ALARM	CAMPUS OVERVIEW - EXISTING I	FIBER		x		
-	Drawing T	rade:			Building	dentifier		FA002	CAMPUS OVERVIEW - NEW FIBEI	R & NEW CONDUIT		x		6
_	G Ger FA Fire	eral Alarm			——— Unique II	D: 1, 2, 3		FA003 FA004	CAMPUS OVERVIEW - NEW FIBEI	R IN EXISTING EMPTY COI	NDUIT	X X		
Spec	cifications							FA005	CAMPUS CONDUIT ROUTING PLA	AN - ZONE 1		x		
A Bo	ook Specification I	s Provided W	ith These l	Drawings.				FA006	CAMPUS CONDUIT ROUTING PLA	AN - ZONE 2		x		
Misc	cellaneous							FA008	CAMPUS CONDUIT ROUTING PLA	AN - ZONE 4		X		7
1.	The Term 'Sheet' Printing Of The P	Or 'Drawing'	Is Used In	iterchangeably. So A Graphic Scal	e Is Provided On F	ach Sheet		FA009				x		
3.	For Items That Ar	e Plans, Deta	ils, And Ot	ther Graphic Item	s, Titles Are At Th	e Bottom Of The Ite	em Described. For Items	FA010	BUILDING FIBER ROUTING			x		
4	That Are Predom	inately Text S	Such As Scl sed To Em	hedules, Titles Ar	e At The Top Of T	The Item Described.	Purposes Of This	FA012	BUILDING FIBER ROUTING			X		
	Emphasis Can Be		Sed TO LIII		to the Redder. 5			FA013 FA014	INTERIOR FIBER ROUTING - ADM INTERIOR FIBER ROUTING - ARM	STRONG HALL & BIOLOG	AIMM BUILDING Y BUILDING	X X		8
	A. Identify Maj	or Pieces Of E	Equipment	:. It Conflicting With	Other Linework			FA015	INTERIOR FIBER ROUTING - BLISS	SHALL & BROWER STUDE	NT CENTER	x		
	C. Help To Emp	hasize The Ex	kistence Of	f A Part Plan Of T	ne Area.			FA016 FA017	INTERIOR FIBER ROUTING - BUSI	NESS BUILDING & CENTEI	ARAGE	X X		
	D. Differentiate	Line Work Ir	n Congeste	ed Areas.				FA018	INTERIOR FIBER ROUTING - DECK	(ER HALL & ELY-ALLEN-BR	REWSTER	x		
How	<u>v Notes Are Used</u>		In List Form	m Millioh Ava Nat	Indicated Creesifi		tion Flowation On Datail	FA019 FA020	INTERIOR FIBER ROUTING - EDUC	CATION, FORCINA GARAG	E & EICKHOFF HALL	x x		
2.	Notes For This Dr	awing - Gene	eral Notes	Located Only On	The Drawing That	Applies.	tion, Elevation, of Detail.	FA021	INTERIOR FIBER ROUTING - HAUS	SDOERFFER HALL & KEND	ALL HALL	x		
3.	Key Notes - Used	In Lieu Of Sta	andard No	tes Where They I	mprove Readabili	ty, Key Notes Are G	athered Together And	FA022 FA023	INTERIOR FIBER ROUTING - GITE	NSTEIN LIBRARY & MAINT ZGER GARAGE & MUSIC B	TENANCE BUILDING	x x		
Add	enda & Revisions		wings On v					FA024	INTERIOR FIBER ROUTING - STAD	DIUM & SOCCER FIELD BU	ILDINGS	x		10
1.	Some Addenda A Revision Block In	nd Revisions The Title Bloc	Are Identi ck Section	ified On The Draw	ings Using A $\cancel{1}$. The Number In Th	ne Triangle Links To The	FA025 FA026	INTERIOR FIBER ROUTING - NEW	RESIDENCE HALL & NOR	SWORTHY HALL	X X		
2.	Sometimes The N	lost Recent C	Change Is (To Prov	ide Increased Clarity	/.	FA027	INTERIOR FIBER ROUTING - POW	ERHOUSE & RECREATION	I CENTER	X		
					~~~			FA028		COE WEST HALL & CHEMI	STRY BUILDING	X X		
FNIV	/IRONMENTAL G		ERVATIO	NS				FA030	INTERIOR FIBER ROUTING - STEN	1 BUILDING & TOWN HOL	JSE EAST	X		
	Observation				motion F	11 April 12		FA031		N HOUSE SOUTH & TOW	N HOUSE WEST	x		
Full I Cont	Building Environm tractor Shall Thore	еч веюw We iental Survey pughly Investi	s Were No igate Any l	eu based On Info ot Performed Und Proposed Routing	er This Scope And For Environmen	d Underground Conc tal Hazards.	ditions Are Unknown.			,	_,			
1.	It Is The Contract	ors Responsit	bility To Co	onduct An Enviro	nmental Survey A	nd Evaluation Prior	To Beginning Rough-In /							
2.	If Any Areas Of A	sbestos Are E	ncountere	ed In Any Building	And Cannot Be A	voided, Contractor	Shall Engage An	KEY PART	ICIPANTS & THEIR ROLES					12
	Environmental Co Allowance.	onsultant For	Testing. A	Asbestos Abatem	ent, If Required S	nall Be Covered Und	ler Environmental	Client The Colleg	e Of New Jersey	MEP DLB Ass	sociates, PC			
3.	Green Hall And R	ecreation Cer	nter Both I	Have Known Area	s Of Asbestos In (	Certain Above Ceilin	ig Areas.	2000 Penn Ewing, NJ ( Contact: N	ington Road 08628-0718 Iumtaz Makhdomi	265 Ind Eatonto Contact	bwn, NJ 07724 t: Anthony Laskosky -	Project Manage	r	
4.	Into Standard Wo	ork Procedure	es For This	Project Including	, But Not Limited	To, The Following:		Email: cpla Phone: (60	nconsult2@tcnj.edu 9)-771-2372	Tel: (73	32) 927-5038	5		
	<ul><li>A. Contractor T</li><li>B. Work Area C</li></ul>	o Be EPA Cer	tified In Le	ead-Based Paint S	ate Work Practice	es and Train All Work	kers In Said Practices Place							13
	C. Thorough Cl	eaning Follow	ved By Cle	aning Verification	To Minimize Lea	d-Based Paint Hazar	rd Exposures.							
	D. No Eating Or	[.] Drinking In T	The Work A	Area.										$\vdash$
	E. Post Signs Cl	early Identify	ving Work <i>i</i>	Area.						F				
										Ne Fi	ew Fiber Installation Sh re Alarm Network Cab And Operational For	all Be Independ ling Which Shall	ent Of Existir Remain Intac his Project	rg   14
												THE EXTENT OF N	s i ruject.	
llb as	sociates					project TCNI - CAN	MPUS FIRE ALARM PROU	CT		J		dwg. no.		
ONSULTING dustrial Way W	<b>ENGINEERS, P.C.</b> /est, Eatontown, N.J. 07	724				PART A - C	CABLE INFRASTRUCTURE	JPGRADES		-		G	001	
:	Anthony Lask Phone: 732-927-5	<b>osky</b> 038				EWING NJ	, 08618		scale drawn by AS SHOWN SC	checked by date SG 09/18/201	19			

	A	В	С	D	E	F
	TREE REPLACEMENT	GUIDELINES				PERMANENT V
	1. Prior To Removal,	All Trees Must Be Tagged A	and Approved For Removal	By The TCNJ Grounds Crev	ν.	Topsoil Stripping
	2. All Trees That Hav Along The Trench	ve The Root System Disturbe ed Side Of The Root System	ed, But Are Not To Be Remo	oved Shall Have An Arboris	t Perform Root Pruning	1. Field Explorat
	3. No Stockpiling Of	Excavated Dirt Shall Be Stor	ed On The Root System Wi	thin 15 Feet Of The Base O	Of Remaining Trees.	2. A 6-Inch Strip
	<ul><li>Prior To Trenching</li><li>4. Several Excavation</li></ul>	g contact TCNJ Grounds Cre n Areas Contain Site Lighting	w TO IVIARK Out A Radius As	ks. In The Event That Site	ות Along The Trench. .ighting Fixtures.	3. Stockpiles Sh Be Delineated Topsoil Stock
	Conduit, Or Suppo Required To Main	orts Are Disturbed During Co tain Existing Conditions.	onstruction Or Tree Remov	al Process The General Co	ntractor Must Repair As	4. Stockpiles Sh
	5. Unless Otherwise Specified Replace	Noted, Trees Shall Be Repla ment Guide Is Listed On Thi	nced 1 For 1 With A Tree Of s Plan For Reference.	The TCNJ Ground Crew's	Choosing. TCNJ's	Site Preparation
	6. General Contracto	or Shall Visit The Site Prior T	o Bidding And Notify TCNJ	DLB Of Discrepancies In A	n RFI During The	1. Install Erosion
	SOIL EROSION AND	SEDIMENT CONTROL NO	TES			Application, 1
2	Soil And Frosion Contro	h Shall Comply With The Reg	uirements Of The Mercer Co	unty Soil Conservation Dist	rict With The Following	3. The Contractor Experience.
	Additional Requiremen	ts:			net with the colowing	Seedbed Prepara
	1. The Contractor Sh And Stabilize In A	nall Only Excavate That Porti Day.	on Of The Trench That The	Contractor Can Install The	Pipe, Backfill The Trench	1. Topsoil Requ Minimum De
	2. Where A Portion For Inlets As Indica	Of The Trench Is Required To ated ) Shall Be Installed Along	o Remain Open. Erosion Ang g Level Sections Of The Proje	d Sediment Control Devices ect.	s (Silt Fence And Silt Sack	pH: 6.0 To 8.0 Organic Matt
4	3. The Contractor Sh	all Not Commence Excavatio	n During Periods Of Expecte	d Poor Weather Conditions		Phosphorous Potassium: 50
	4. Mud And Sedimen The Site.	nt Shall Be Washed Off Of The	e Construction Equipment W	/hile On Site To Prevent Mi	gration Of Sediment From	2. The Contract Provided From
	5. Stabilization Of T Permanent Vegeta	he Backfilled Trench Shall C ative Cover For Soil Stabilizati	onform To The Requireme	nts Of The Mercer County	Soil's Requirements For	3. Topsoil Shou
	MANAGEMENT OF H	HIGH ACID PRODUCING S	OILS			4. Apply A Unifo Sulfide Shall I
5	General Requirements					Shall Conform
	1. Limit The Excavatio	n Area And Exposure Time \	When High Acid Producing	Soils Are Encountered.		6. Apply Limest
	2. Topsoil Stripped Fre	om The Site Shall Be Stored	Separately From Temporal	rily Stockpiled High Acid-Pi	oducing Soils.	Cooperative Applied At Th
	Material Has High C	Clay Content.	be cocated on Level Land		, Lapecially when this	7. Apply Limest Most Soils So
6	4. Temporarily Stockp Properly Anchored, With A Minimum O	niled High Acid-Producing So Heavy Grade Sheets Of Pol If 3 To 6 Inches Of Wood Ch	bil Material To Be Stored M yethylene Where Possible. ips To Minimize Erosion Of	ore Than 48 Hours Should If Not Possible, Stockpiles The Stockpile, Silt Fence 9	Be Covered With Should Be Covered Shall Be Installed At The	
	Toe Of The Slope To Prevent Topsoil Cor	o Contain Movement Of The ntamination With High Acid	Producing Soil.	soil Shall Not Be Applied To	The Stockpiles To	
-	5. High Acid-Producin Shall Be Ultimately	g Soils With A pH Of 4.0 Or I Placed Or Buried With Lime	Less Or Containing Iron Sul estone Applied At The Rate	fide (Including Borrow Cut Of 10 Tons Per Acre (Or 4!	s <u>Or Dredged Sediment</u> ) 50 Pounds Per 1,000	8. Work Lime A
	Square Feet Of Surf As Follows:	face Area) And Covered Wit	h A Minimum Of 12 Inches	Of Settled Soil With A pH	Of 5.0 Or More Except	General Cont 9. Remove From
7	<ul> <li>Disposal Areas Sha Ditches, And Other</li> </ul>	all Not Be Located Within 24 ers, To Prevent Potential Lat	4 Inches Of Any Surface Of eral Leaching Damages.	A Slope Or Bank, Such As I	Berms, Stream Banks,	As Wire, Tree
	6. Equipment Used Fo Spreading Of High 4	or Movement Of High Acid-P Acid-Producing Soil Material	Producing Soils Should Be C Is to Other Parts Of The Site	leaned At The End Of Each e, Into Streams Or Stormw	Day To Prevent ater Convevances, And	Seeding       1. Select A Seed
	To Protect Machine	ery From Accelerated Rustin	ig.			2. Apply Seed U
	<ol> <li>Non-Vegetative Ero Barrier, Wood Chip Site.</li> </ol>	sion Control Practices (Ston s) Should Be Installed To Lin	ne Tracking Pads, Strategica nit The Movement Of High	NIY Placed Limestone Chec Acid-Producing Soils From	к Dam, Sediment , Around, Or Off The	Mulch Shall N Hydromulch I
8	8. Following Burial Or	Removal Of High Acid-Prod	ucing Soil, Topsoiling And S	eeding Of The Site (See Te	emporary Vegetative	Depth Of 1/4 3. After Seeding
	For A Minimum Of Emerge. If Problem	<b>6 Months</b> To Ensure There ns Still Exist, The Affected Ar	Is Adequate Stabilization A rea Must Be Treated As Ind	nd That No High Acid-Proc icated Above To Correct T	lucing Soil Problems ne Problem.	Minimize She
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G H	l		J	К	L	M	N O	Р	Q		R S	5 T	
EGETATIVE COVER FOR SOIL STABILIZATION				PERMANENT VEGETATIVE	COVER FOR SOIL STABIL	IZATION (CONTINUED	)	TOPSOILING	(CONTINUED)				
g And Stockpiling ion Should Be Made To Determine Whether Quant	tity And / Or Quality Of Surface Sc	oil Justifies	Stripping.	Mulching 1. Unrotted Straw, Hay Free C	Df Seeds, Or Salt Hay Is Rec	quired On All Seeding At	A Rate Of 1.5 To 2 Tons Per Acre, (70 To 90	4. Employ Ne Measures,	eded Erosion Control Pra Sedimentation Basins, Ar	tices Such As Div d Waterways.	versions, Grade Stabilization Struc	ctures, Channel Stabilization	1
ping Depth Is Typical, But May Vary Depending On	The Particular Soil Structure Or P	Pre-Existing	g Use.	Application Is 3 Tons Per A	cre.			1. Topsoil Sho	ould Be Handled Only Wh	en It Is Dry Enou	gh To Work Without Damaging Sc	oil Structure; i.e., Less Than Field	
ould Be Located So As To Not Obstruct Natural Dra d On The Certified Soil Erosion And Sediment Contr pile Detail.	inage Or Cause Off-Site Environm ol Plan And Be Constructed In Acc	nental Dama ccordance W	hage, And Shall With The	<ul> <li>2. Mulch Anchoring Should Be Be Done According To The</li> <li>Wood-Fiber Or Paper-Fib</li> </ul>	<ul> <li>Accomplished Immediate</li> <li>Following Methods:</li> <li>er Mulch At The Bate Of 1</li> </ul>	ely After Placement To N 500 Pounds Per Acre Ap	linimize Loss Due To Wind Or Water. This May	Capacity. 2. A Uniform Sulfide Sha	Application To A Depth C Il Be Covered With A Min	6 Inches (Unset	ttled) Is Required. Soils With A pH	H Of 4.0 Or Less Or Containing Iror	n ith
ould Be Temporarily Stabilized According To The St	andards.			Only The Optimum Seedin	ng Season.			The Standa	ard For Management Of H	gh Acid Produci	ng Soil.		2
n Control Measures And Facilities Such As Silt Fence	e, Diversions, Sediment Basins, An	nd Channel	l Stabilization.	<ul> <li>Synthetic Or Organic Bind</li> <li>Peg And Twine, Mulch Ne</li> </ul>	ers etting, And Mechanical Crir	nping.		3. Topsoil Sho The Potent	ial For Re-Compacting Th	n Low Ground Pi e Subsoil.	ressure Equipment Or By Hand W	hen Practical And Feasible To Red	luce
eded And Feasible To Permit The Use Of Convention	nal Equipment For Seedbed Prepa	aration, See	eding, Mulch	Crimping Requires A High	er Mulch Rate (3 Tons Per	Acre)		MERCER COU	JNTY SOIL EROSION AN	D SEDIMENT C	CONTROL NOTES		
or Responsible For Site Preparation, Seeding, And I	Mulching Shall Have A Minimum C	Of 5 Years P	Professional	Note 1. One Bale Of Hay Weighs 40	)-60 Pounds Depending Or	How It Was Baled.		1. The Merce Mailed, Fa	er County Soil Conservation xed Or Emailed To: MCSCD,	District Shall Be N 590 Hughes Drive	otified 48 Hours Prior To Starting Lar e, Hamilton Square, NJ 08690	nd Disturbance Activity. Notice May E	Be
ation				A 1,500 Tank Of Hydromulch (	Covers 0.5 Acres.	Permanent Seedin	Miyos	2. If Applicab	9-586-9603 Fax: 609-586 Ile To This Project, The Own	-1117 Email: <u>P</u> er Should Be Awai	re Of His Or Her Obligation To File Fo	or A NJPDES Construction	3
red:				1. Mix: Early Spring / Late Sur	nmer To Early Fall	1. Optimum Seedi	ng Dates: March 1 To May 15 And	Activity St The Assoc	ormwater 5G3 Permit (NJG iated Best Management Pra	088323) Via The I ctices And Stormy Start Of Soil Dict	NJDEP Online Permitting System ( <u>ww</u> water Pollution Prevention Plan Self-I	vw.nj.gov/dep/online) And To Mainta Inspection Logbook Onsite At All Tim	ain ies.
oth: 6" (Unsettled)				• 100% Perennial Ryegrass		August 15 To O • Application Ra	ctober 15 ate: 200 Pounds Per Acre	Certificatio Plan.	on Code, Which Is Provided	By The Soil Conser	rvation District Upon Certification Of	The Soil Erosion And Sediment Cont	rol
er Content: 2.75% Minimum ) Pounds Per Acre (50% Water Insoluble) : 100 Pounds Per Acre				Rate: 100 Pounds Per Acr	e	• 70% Turf Type	Tall Fescue	3. The Merce	er County Soil Conservation	District Shall Be N	otified Of Any Changes In Ownership	).	
) Pounds Per Acre	Inon The Site Conditions That All	ll Toncoil M		<ul> <li>40% Pearl Millet</li> </ul>		• 20% Perennia	Ryegrass	4. Any Chang The Subm	ges To The Certified Soil Ero ission Of Revised Soil Erosic	ion And Sediment And Sediment C	t Control Plan, Including An Increase Control Plans To The District For Rece	In The Limit Of Disturbance, Will Rec rtification. The Revised Plans Must N	quire <b>4</b> Neet
n An Off-Site Source.	Upon The Site Conditions, That All		lay Have To Be	• 40% Millet (German Or H	ungarian)	• 10% Kentucky	Bluegrass	All Curren	t State Soil Erosion & Sedim	ent Control Standa	ards. rol Plan Shall Be Maintained On Site	At All Times.	
d Be Handled Only When Dry Enough To Work Wit	hout Damaging Soil Structure.		Containing Iron	• 20% Weeping Lovegrass				6. All Soil Erc	osion And Sediment Control	Practices Shall Be	Installed Prior To Any Major Soil Dist	turbances, Or In Their Proper Sequer	nce
Be Covered With A Minimum Depth Of 12 Inches O To the Topsoil Standard And Shall Be Limed Acco	of Soil Having A pH Of 5.0 Or More rding To The Specifications.	e And The T	Top 5 Inches	Rate: 100 Pounds Per Acr	2			As Outline Permanen	d Within The Sequence Of ( t Protection Is Established.	onstruction On Th	he Certified Soil Erosion And Sedime	nt Control Plan, And Maintained Unti	il
Becomes Compacted, The Surface Must Be Scarific	ed 6" To 12" To Provide Good See	ed-To-Soil B	Bond.	TOPSOILING				7. All Work S Contained	hall Be Done In Accordance Within Any Other Permit F	With The Current r This Project Is N	Standards For Soil Erosion And Sedin Nore Restrictive Than (But Not Contra Nort Control Plan, Than The More Po	ment Control In NJ. If Language adictory To) What Is Contained With strictive Dermit Dequirements Shall S	in 5
one And Fertilizer According To Soil Test Recomme Extension. If Soil Testing Is Not Feasible, Fertilizer (	ndations Such As Those Offered B (10-20-10) With 50% Water Insolu	By Rutgers I uble Nitroge	University en Should Be	Materials				Followed.	es or on the certified soil	rosion And Sedim	ient Control Plan, Then The More Re	strictive Permit Requirements Shall E	3e
one Equivalent To 50% Calcium Plus Magnesium Ox oth Of The New Brunswick - Trenton Fall Line) As F	ds Per 1,000 Square Feet. xides (Pulverized Dolomitic Limest ollows:	stone Is Pref	eferred For	<ol> <li>Topsoil Should Be Friable, I Adverse Chemical Or Physi (Conductivity Less Than 0.5 Impact Growth). Topsoil N</li> </ol>	.oamy, Free Of Debris, Obj cal Condition That May Be Millimhos Per Centimeter lust Have An Organic Matt	ectionable Weeds And S Harmful To Plant Growt r. More Than 0.5 Milliml er Content No Less Than TER (TOM) CONTENT BY SOIL T	tones, And Contain No Toxic Substance Or h. Soluble Salts Should Not Be Excessive nos May Dessicate Seedlings And Adversely That Shown In The Table Below.	8. The Stand Constructi Span The I This Shall Paved Trai	ard For Stabilized Construct on Driveways Immediately Full Width Of Egress, And Le Include Individual Lot Acces nsition Shall Be Provided Be	on Access Require fter Initial Site Di ngth Shall Be 50 F Points Within Re ween The Edge O	es The Installation Of A 1½" To 2½" C sturbance, Whether Identified On Th t. Or More, Depending On Site Cond sidential Subdivisions. If The Egress I of Pavement And The Stone Access Pa	Clean Stone Tracking Pad At All ne Certified Plan Or Not. The Width S itions And As Required By The Standa Is To A County Road, Then A 20 Ft. Lo ad.	shall ard. ong
CLAY, CLAY LOAM, HIGH ORGANIC SANDY LOAM, LOAM, SILT LOAM LOAMY SAND, SAND	3         135           2         90           1         45				SOIL TEXTURE CLASS	S MINIMUM SOIL ORC (% BY M/ ND 2.0	GANIC MATTER ASS)	9. A Sub-Bas Streets, Ro Of Prelimi Constructi	e Course Will Be Applied Im bads, Driveways And Parkin nary Grading, Provided Tha on Have Been Met.	nediately Followin Areas. In Areas V All Other Require	ng Rough Grading And Installation Of Vhere No Utilities Are Present, The S ements Related To Detention Basins,	f Improvements In Order To Stabilize ub-Base Shall Be Installed Within 15 Swales And The Sequence Of	Days
nd Fertilizer Into Soil To A Depth Of 4 Inches. The F our. Continue Tillage Until A Uniform, Fine Seedbe	Final Harrowing Or Disc Operation ed Is Prepared.	n Should Be	e On The		SANDY LOAM LOAM	2.5		10. Any Distur Temporar	bed Areas That Will Be Left Stabilization, If The Seaso	Exposed More The Prevents Establis	an 14 Days And Not Subject To Const shment Of A Temporary Vegetative C	truction Activity Will Immediately Re Cover, Or If The Area Is Not Topsoiled	eceive
n The Surface All Stones 2 Inches Or Larger In Any E Roots, Pieces Of Concrete, Clods, Lumps, Or Othe	Dimension, And Other Objectional r Unsuitable Material.	ible Stones (	Or Debris Such	Organic Matter Content Ma Following Specifications:	SILT LOAM, ALL CLAY LOAMS, A	AND CLAY 5.0 By The Addition And Mix	ng Of Additives Which Conform To the	Then The State Stan (I.E. Steep Initial Dist	Disturbed Areas Will Be Mu dards. Sloped Areas In Exce Slopes, Roadway Embankm urbance Or Rough Grading	ched With Straw, ss Of 3H:1V Shall ents, Environmen	Or Equivalent Material, At A Rate Of Be Provided With Erosion Control Bla tally Sensitive Areas) Will Receive Te	f Two (2) Tons Per Acre, According To ankets. Critical Areas Subject To Eros emporary Stabilization Immediately A	ion After <b>7</b>
Mixture Approved By The Mercer County Soils Co	nservation District.			No Undigested (Raw) Mat	erial Greater Than 10% By	v Volume		11. Any Steep Installation	Slopes (I.E. Slopes Greater n Proceeds.	han 3:1) Receivin	g Pipeline Or Utility Installation Will	Be Backfilled And Stabilized Daily, As	5 The
niformly By Hand, Cyclones, Drop Seeder, Drill Cult ep Areas Where Conventional Applications Are No	tipacker, Or Hydroseeder. The Lat It Feasible. Hyrdroseeding Shall B	atter May Be Be A Two St	e Justifiable tep Process:	No Trash     No Rocks Or Stones Large	ar Than 0.5"			12. Permanen	t Vegetation Shall Be Seede	l Or Sodded On A	ll Exposed Areas Within Ten (10) Day	ys After Final Grading And Topsoiling.	. All
ot Be Mixed With The Seed; The Seed Must Be Ap s Then Sprayed Over The Seeding. For Optimum R	plied First To Assure Proper Seed esults, The Seed Should Be Incorp	To Soil Con porated Inte	ntact. The to The Soil To A	<ul> <li>No Raw Or Fresh Manure</li> </ul>	(Green Or Otherwise). Cc	mpost Must Be Fully De	composed.	Accordance And Provid	ce With The Standards, Shal de Them To The District Ins	Be Used On All Se ector To Verify Th	eeded Areas. Save All Tags And/Or Ba nat Mixtures And Rates Meet The Sta	ags Used For Seed, Lime And Fertilize andards.	er,
to 1/2 Inch Depending Upon Species.	ller. When Performed On The Cor	ontour, Rolli	ing Will	Quality Of Organic Matte     DEP Solid Waste Requirer	r (Compost) Must Be Verifi ments At NIAC 7:26A-4 5/h	ied Through Certificatior	From The Supplier In Accordance With NJ	13. At The Tim Provide A	ne When The Site Preparation	n For Permanent	Vegetative Stabilization Is Going To I	Be Accomplished, Any Soil That Will I	Not 8
et Erosion And Maximize Water Conservation.		,	0	2. Organic Matter Shall Be Ble	ended With Topsoil By Any	Of The Following Metho	ods:	Will Perma The Soil W	anently Adjust The Soil Con /ill Not Provide Suitable Cor	itions And Render	r It Suitable For Vegetative Ground C -Vegetative Means Of Permanent Gr	Cover. If The Removal Or Treatment C round Stabilization Will Have To Be	Df
				<ul> <li>Blending In Bulk Either Or Organic Material Used In</li> </ul>	1 Site Or By The Supplier.	Supplier Is To Provide W M Content In Percent By	ritten Verification Of Quality And Amount Of Weight With NLDEP Requirements	Employed.	P Course Of Construction So	il Compaction Ma	ay Occur Within Haul Routes, Staging	Areas And Other Project Areas In	
Ar Ur Re	ny Existing Bushes Or Shrubs That Iderground Duct Bank Routing Sha Iplaced In Kind.	: Are In The nall Be Remo	e Path Of Any New loved And	<ul> <li>Spread As A Second Layer Mounted Tiller Or Similar Amount Of Compost To B</li> </ul>	[•] Over Topsoil Which Has E Equipment To Uniformly I Se Spread Per Acre For Incc	Been Previously Placed, A ncorporate Organic Mat prporation) Into Topsoil.	and Then Blended With A Disk Harrow, Tractor ter (See Item 3 Below To Determine Proper	Accordance Applicatio Danger To	ce With The Standard For To n. This Will Help Ensure A G Underground Utilities (Cab	osoiling, Compact od Bond Betwee es, Irrigation Syste	red Surfaces Should Be Scarified 6" To n The Topsoil And Subsoil. This Pract ems, Etc.).	o 12" Immediately Prior To Topsoil tice Is Permissible Only Where There	Is No
				Small Areas May Have Or	ganic Matter Incorporated	By Hand Or With A Roto	or Tiller.	15. Prior To Se Debris And	eeding, Topsoil Shall Be Wor d Stones, Along With Other	ked To Prepare A Requirements Of T	Proper Seedbed. This Shall Include R The Standard For Permanent Vegetat	taking Of The Topsoil And Removal O tive Cover For Soil Stabilization.	f
				<ul> <li>Subsequent Compaction (19-1).</li> </ul>	Remediation By Ripping M	ay Be Required In Accord	dance With The Standard For Land Grading	16. In Accorda Sulfides Sh pH Of 5 Or	nce With The Standard For nall Be Buried With Limesto More Prior To Topsoil App	Management Of H e In Accordance \ cation And Seedb	High Acid Producing Soils, Any Soil Ha With The Standard And Be Covered V Ded Preparation. If The Area Is To Rec	aving A pH Of 4 Or Less Or Containing With A Minimum Of 12" Of Soil Havin ceive Tree Or Shrub Plantings, Or Is	g Iron ng A
				<ol> <li>The Quantity Of Organic M</li> <li>SOM = Existing Organic</li> </ol>	atter To Be Added Shall Be Matter Fraction (Expresse	e Determined By The Fol d As A Decimal)	owing Formula:	Located O 17. Mulching	n A Slope, Then The Area Sh To The Standards Is Require	all Be Covered Wi I For Obtaining A	th A Minimum Of 24" Of Soil Having Conditional Report Of Compliance. C	A Ph Of 5 Or More. Conditional ROC's Are Only Issued Wh	hen
				TOM = Target OM Value COM = Compost Organi CV = Compost Volume F	• (From Table, Expressed A c Matter Fraction Required (Cubic Yards Per )	s A Decimal Fraction)		The Seaso Following	n Prohibits Seeding. Permai The Conditional ROC, Or Th	ent Stabilization I Completion Of W	Must Then Be Completed During The Vork In A Given Area.	e Optimum Seeding Season Immediat	tely 10
H	B Existing Bush Shall Be Rem	noved And F	Replaced In Kind	$CV = 2375 \times [(TOM - SOI)$	Motorial M/high May Have	Poon Amondod With Co	nd Silt Clay Organia Mattar Fartilizar Or	18. Hydroseed Promote C	ling Is A Two-Step Process. Consistency, Good Seed-To-	he First Step Inclu oil Contact, And G	udes Seed, Fertilizer, Lime, Etc., Alon Give A Visual Indication Of Coverage.	g With Minimal Amounts Of Mulch T Upon Completion Of The Seeding	ō
				Lime And Has The Appeara Establishing Permanent Ve	nce Of Topsoil. Topsoil Sul getation. All Topsoil Subst	bstitutes May Be Utilized itute Materials Shall Me	I On Sites With Insufficient Topsoil For et The Requirements Of Topsoil Noted Above.	Opposed T Discourage	Fo Straw, Is Limited To Optined.	num Seeding Date	es As Listed In The Standards. The Us	e Of Hydromulch On Sloped Areas Is	15
	EXISTING TREES (1) (2)			5. Topsoil And Organic Matte	er Criteria For Stabilization	ponents Of Sand, Silt, Cla In The Pinelands Nationa	ly, Organic Matter, Soluble Salts And pH Level.	19. The Contra Dropped,	actor Is Responsible For Kee Tracked Or Spilled Onto Pav	bing All Adjacent ad Surfaces Shall E	Roads Clean During Life Of The Const Be Immediately Removed.	truction Project. All Sediment Washe	^{ed,} 11
The set of the	<ol> <li>Bradford Pear</li> <li>Elowering Dogwood</li> </ol>			Established In The Standard	J For Permanent Vegetativ	e Stabilization.		20. The Colleg	e Shall Be Responsible For I	emediating Any E	Frosion Or Sediment Problems That A	Arise As A Result Of Ongoing Construction	ction,
	<ol> <li>Pine</li> <li>Red Maple</li> </ol>			1. Field Exploration Should Be	Made To Determine Whe	ther Quantity And Or Qu	ality Of Surface Soil Justifies Stripping.	District.		And Sediment Co	introl measures At the Request of th		
4 <b>6</b>	5. Cherry Tree			2. Stripping Should Be Confine	ed To The Immediate Cons	truction Area.		21. Conduit O 22. All Detent	utlet Protection Must Be In:	talled At All Requi	ired Outfalls Prior To The Drainage S	ystem Becoming Operational.	,
	TREE REPLACEMENT GUIDE	E (1)(2)		3. Where Feasible, Lime May Approximately 6.5. In Lieu	Be Applied Before Strippin Of Soil Tests, See Lime Rat	ng At A Rate Determined te Guide In Seedbed Pre	By Soil Tests To Bring The Soil pH To paration For Permanent Vegetative Cover For	Stabilized Limited To	Prior To Paving Or Prior To Topsoil, Seed, Straw Mulc	he Addition Of Ar And Binders Or E	ny Impervious Surfaces. Permanent S Erosion Control Blankets On All Seedi	Stabilization Includes, But May Not Bo ing, All Agronomic Requirements As	e 12
	Replace Removed Trees With (Coordinate Selection With TC	n One Of The CNJ):	ne Following	<ul><li>4. A 4-6 Inch Stripping Depth</li></ul>	Is Common, But May Vary	Depending on the Partic	ular Soil.	Storm Dra	inage Piping, Low Flow Cha	nels, Conduit Out	tlet Protection, Emergency Spillways,	, And Lap Ring Protection.	
	1. Cornus Florida (Flowering	ng Dogwood	d) - 2" Caliper	5. Stockpiles Of Topsoil Shoul	d Be Situated So As Not Tc	Obstruct Natural Draina	age Or Cause Off-Site Environmental Damage.	23. The Riding Pavement	g Surface Of All Utility Trenc Has Been Installed. Tempo	es Within Paved ary Soil Riding Sur	Areas Shall Be 3/4" Clean Stone Or B faces Are Prohibited.	ase Pavement Until Such Time As Fin	nal
	2. Prunus Kwanzan (Kwanza	an Cherry) -	- 2" Caliper	<ol> <li>Stockpiles Should Be Veget Or Temporary Vegetative C</li> </ol>	ated In Accordance With S Cover For Soil Stabilization.	tandards Previously Des Weeds Should Not Be A	cribed Herein; See Standards For Permanent Illowed To Grow On Stockpiles.	24. All Constru Standard F	uction Dewatering (Trenche For Dewatering Or As Depic	, Excavations, Etc ed On The Certifie	c.) Must Be Done Through An Inlet Or ed Soil Erosion And Sediment Contro	r Outlet Filter In Accordance With The I Plan. Discharge Locations For The	e
Internal FL	<ol> <li>Prunus Serrulata (Japane Caliper</li> </ol>	ese Flowerir	ing Cherry) - 2"	7. Coordinate With College Fo	or Stockpile Locations.			Dewaterin 25. All Swales	g Operation Must Contain F Or Channels That Will Rece	erennial Vegetatio	on Or Similar Stable Surface. aved Surfaces Must Be Permanently	Stabilized Prior To The Installation O	of 13
	4. Ilex Opaca (American Hol	olly) - 2" Cali	liper	Site Preparation	Ontimal Seeding Device C	η Δς Τη Minimiza The Du	ration And Area Of Exposure Of Disturbed Cail	Pavement Stabilized	. If The Season Prohibits Th In Accordance With The Sta	e Establishment O ndards.	f Permanent Stabilization, The Swale	es Or Channels May Be Temporarily	
	<ol> <li>Gersis Canadensis (Easter</li> <li>Replace In Kind - 2" Calip</li> </ol>	per	j-z Callper	To Erosion. Immediately F Of The Essence.	roceed To Establish Veget	ative Cover In Accordance	ce With The Specified Seed Mixture. Time Is	26. Stockpilin TCNJ.	ng Shall Not Be Permitted	On Paved Drivev	ways Or Within Paved Parking Lots	s. Coordinate Stockpile Location V	Vith
	7. Aristocrat Pear - 2" Calip	ber		2. Grade As Needed And Feas Application And Apphoring	ible To Permit The Use Of	Conventional Equipmen	t For Seedbed Preparation, Seeding, Mulch ading.						
	8. Eastern Pine - 2" Caliper			3. As Guidance For Ideal Cond	ditions, Subsoil Should Be	Tested For Lime Requirer	nent. Limestone, If Needed, Should Be						14
CAN	9. Scotch Pine - 2" Caliper VPUS TREE PLAN Scale:	D	Drawing: <b>G002</b>	Applied, Should Be Applied Depth Of 4 Inches.	io Bring Soil pH Of Appro	ximately 6.5 And Incorpo	prated Into The Soil As Nearly As Practical To A						
		D		b associates						ΔΤΙΩΝ		dwg. no.	
		(	CON 265 Indust	ISULTING ENGINEERS, P.C. trial Way West, Eatontown, N.J. 07724			PART A - CABLE INFRASTRUCTUR	E UPGRADES				G002	
		C	Questions For DLB Call: DLB Project ID: 47211	Anthony Laskosky Phone: 732-927-5038			EWING NJ, 08618		scale drawn by AS SHOWN SC	checked by SG	y date 05/03/2020		



		•	
	Scale:	Drawing: G003	
DOCT BANK DETAIL	NTS	Detail: <b>02</b>	DOCT BANK

ER ENCLOSURE INSTALLATION		Scale: NTS	Drawing: <b>G003</b> Detail: <b>06</b>	Drawing: <b>G003</b> Detail: <b>06</b>					
	projec TCN PAF 200	et NJ - CAMPUS RT A - CABLE 00 PENNING	S FIRE ALARM PRO E INFRASTRUCTUP TON ROAD,	OJECT RE UPGRADES	^{title} DETAILS				
	ING NJ, 086	18		scale AS SHOWN	drawn by SC	checked by SG	date 05/03/2020		

Т	
	1
OCK	
PATHWAY TERMINATES AT	2
WCH ( SEE DETAIL 6 )	
	3
FIRE ALARM ROOM	
Urop	
	4
Box At POE ox At nts	
ficient	
eiling.	
Scale: Drawing: G003	5
NTS Detail: <b>04</b>	
	6
	7
	Q
	0
Il-Mount Cabinet; Gen 3; 220 mm x 610 mm x 760	
ed Rails; Tempered Glass ; Black	9
	10
	11
	_
INET	12
	13
s To Facilitate Transitioning	
abeling Based On Cable Size	14
Scale: Drawing: G003	
MTS Detail: 07	
G003	
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	dl	b associates
	CON 265 Indust	SULTING ENGINEERS, P.C. rial Way West, Eatontown, N.J. 07724
	Questions For DLB Call:	Anthony Laskosky
	DLB Project ID: 47211	Phone: 732-927-5038

Μ	N O	Р		Q	R					
			Eibor F	Pouting						<b>—</b>
			Span ID	Starting Building	Ending Building	Empty Condu	it B	ase Bid		-
							c	able	Type Of Cable	
M	aintenance Building		1	Armstrong Hall**	STEM Building	Yes	;	12/12	OS2 / OM3	- 3
			2	Bliss Hall	Kendall Hall	Yes	;	12/12	OS2 / OM3	
			3	Business Building	Kendall Hall	No		12/12	OS2 / OM3	_
			4	Music Building	Kendali Hali	No		12/12	OS2 / OM3	_
le de la compañía de				AIMM Building	Kendall Hall	N/4	<b>\</b>	0*	OS2 / OM1	
			6	Social Science	Kendall Hall	Yes	;	12/12	OS2 / OM3	4
				Kendall Hall	Green Hall	Yes	;	0*	OS2 / OM3	_
Powerhouse				Chemestry Building	STEM Building	N/#	\	0*		_
				Physics Building	STEM Building	N/A		0*	OS2 / OM1	_
>				STEM Building	Green Hall	N/A		0*	OS2 / OM1 OS2 / OM1	┤╴
			8	Forcina Hall	Roscoe Hall	Yes	;	12/12	OS2 / OM3	
				Education Building	Roscoe Hall	N/#		0*	OS2 / OM1	
Decker Ha			9	Centennial Hall	Roscoe Hall	No		12/12	OS2 / OM3	_
			10	Gitenstein Library	Roscoe Hall	No		12/12	OS2 / OM3	_
				Roscoe Hall Norsworthy Hall	Green Hall Elv-Allen-Brewster	NO N/A		0*	052 / 0M3	
			12	Spiritual Center	Ely-Allen-Brewster	No		12/12	OS2 / OM3	
			13	Maintenance Building	Powerhouse	Yes	;	12/12	OS2 / OM3	_
			14	Powerhouse	Ely-Allen-Brewster	No		12/12	OS2 / OM3	
(17) New I	Residence Hall		15	Decker Hall	Ely-Allen-Brewster	No		12/12	OS2 / OM3	_
			16	Ely-Allen-Brewster** New Residence Hall	Green Hall	No		12/12	052 / 0M3	-  ₇
$\langle 18 \rangle$			18	Packer Hall	Eickhoff Hall	No		12/12	OS2 / OM3	-  '
				Brower Student Center	Eickhoff Hall	N/A	<b>\</b>	0*	OS2 / OM1	
	Packer Hall		19	Eickhoff Hall	Green Hall	No		12/12	OS2 / OM3	
			20	TH1 (Town House West)	Cromwell Hall	No		48/48	OS2 / OM3	_
			21	TH5 21A/B (Town House East	Cromwell Hall	No		(2) 36/36	OS2 / OM3	8
	Brower Student Center		22	Travers Hall	Cromwell Hall	Yes	;	12/12	OS2 / OM3	
				Wolfe Hall	Cromwell Hall	N/4	<b>\</b>	0*		-
			24	Decker Garage	Cromwell Hall	Yes	;	12/12	OS2 / OM3	
			25	Recreation Center	Cromwell Hall	No		12/12	OS2 / OM3	_
~			26	Stadium Generator Building	Recreation Center	No		12/12	OS2 / OM3	9
			27	Soccer Field Press Box 28A/B	Admin Splice	No		24/24	OS2 / OM1	_
Cluster 4			29	Metzger Garage	Admin Splice	No		24/24	OS2 / OM1	-
Town House				Phelps Hall	Admin Splice	N/#	\	0*	OS2 / OM1	
				Hausdoerffer Hall	Admin Splice	N/#	\	0*	OS2 / OM1	_
Cluster 3			32	Cromwell Hall	Green Hall	No		12/12	OS2 / OM3	-10
			34	Forcina Garage	Education Building	No	,	12/12	OS2 / OM1	_
			35	Fire Pump House	Admin Services Building	No		12/12	OS2 / OM1	-
			36	Admin Services Building	Admin Splice	N/#	<b>\</b>	36/36	OS2 / OM1	
Cluster 2 Town	Houso		41	Eickhoff Room 227	Eickhoff Room 337	No		-	OS2 / OM3	_
(20)	est		NOTES	* - Spare Capacity Is Available	e In Existing Fiber Located At T	he MDF For Fire	Alarm			11
			2.	** - New Pathway For This Ro	oute Installed Under Domestic	Water Project.				
Cluster 1			3.	Contractor To Terminate All F	iber Strands On Both Ends Of	Cable				
FACP			GE	NERAL NOTES						
			1.	All New Cables Shall B	e Tested From MDF In C	ne Building	To MDF In	Another.		1
			2.	All Existing Cables For	This Project Shall Be Te	sted. Existin	g Fiber Sha	all Be Tested Accor	ding To The	12
				Specifications For Test Each Span Noted To H	ting New Fiber. Contrac ave Existing Fibers Avail	ctor Shall Pro able	ovision And	l Provide Testing F	or A 12/12 Fiber For	ſ
wn House South			3.	Type Of Hybrid Cable	Designation Has Been A	dded To The	Table Abo	ve For Reference	And To Clarify Types	;
				Cassettes, Etc. Shall Be	e Per The Cable Perform	ance Type N	oted. All F	iber Spans Includi	ng Interior Building	
				The Performance Type	es Indicated Shall Be Util	ized For Inte	erior Buildi	ng Fiber With The	Exception Of Green	112
CABLE	- Connecting Hardware - Cassettes For	· 0M3								$1_{13}$
CCH-C	S12-AD-POOTJ - CCH Pigtail Cass. 12/F	Shutter I C UPC								_
Dupx	OM3 Ribbon		<u>Ide</u>	entifier <u>Description</u>	n Eihor Strands Available					
				Existing Oper	duit Pathway Available F	or New Fibe	r Installati	n		
	New Fiber Installation Shall Be Independer	nt Of Existing emain Intact		Remove Exis	ting Fiber And Pull New	Fiber Throug	sh Emoty C	Conduit Pathway		11
	And Operational For The Existent Of Th	is Project.		No Existing F	iber Available - New Du	ct Bank. Trer	iching. And	d New Fiber Requi	red	
l			<b>S</b>	Fire Alarm D	evices Fed From Panel L	ocated In An	other Build	ding		
	project	<b></b>	title			,		dwg. no.		+
	TCNJ - CAMPUS FIRE ALARM PR PART A - CABLE INFRASTRUCTU	OJECT RE UPGRADES	FIBE	ER NETWORK OVE	RVIEW DIAGRAM					
	2000 PENNINGTON ROAD,		scale	drawn hu	checked by				004	
	ιννιίνο Ινί, υδότδ		AS SH	IOWN SC	SG 09/18	/2019	(	Confidential and Prop	rietary / ©DLB Associat	tes 2020



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Clarification On Add Alternate #1 In Regards To The Base	did associates
s In The Table Above Indicate Spans With Modified Fiber ormance Type.	CONSULTING ENGINEERS, P.C. 265 Industrial Way West, Eatontown, N.J. 07724
	Questions For DLB Call:Anthony LaskoskyDLB Project ID: 47211Phone: 732-927-5038

M N O P		Q	R				
	Fiber F	Routing					
	Span ID	Starting Building	Ending Building	Empty Conduit	Alternate #1 Cable	Type Of Cable	
Maintenance Building	1	Armstrong Hall**	STEM Building	Yes		OS2 / OM3	3
	2	Bliss Hall Business Building	Kendall Hall Kendall Hall	Yes	48/48	OS2 / OM3 OS2 / OM3	
	4	Trenton Hall Music Building	Kendall Hall	No	36/36	OS2 / OM3	
		AIMM Building	Kendall Hall	N/A		OS2 / OM1	4
	6	Social Science Kendall Hall	Kendall Hall Green Hall	Yes	36/36	OS2 / OM3 OS2 / OM3	
Powerhouse PDC		Chemestry Building	STEM Building	N/A			-
		Biology Building	STEM Building	N/A N/A		OS2 / OM1 OS2 / OM1	
	8	STEM Building	Green Hall	N/A Yes	24/24	OS2 / OM1	5
		Education Building	Roscoe Hall	N/A		OS2 / OM1	
Decker Hall	9 10	Centennial Hall Gitenstein Library	Roscoe Hall Roscoe Hall	No	24/24 36/36	OS2 / OM3 OS2 / OM3	
	11	Roscoe Hall	Green Hall	No	96/96	OS2 / OM3	
	12	Spiritual Center	Ely-Allen-Brewster	N/A No		OS2 / OM1 OS2 / OM3	6
	13	Maintenance Building Powerhouse	Powerhouse Ely-Allen-Brewster	Yes	24/24	OS2 / OM3	
New Residence Hall	15	Decker Hall	Ely-Allen-Brewster	No	36/36	OS2 / OM3	
	16 17	Ely-Allen-Brewster** New Residence Hall	Green Hall Eickhoff Hall	No	24/24	OS2 / OM3 OS2 / OM3	7
	18	Packer Hall	Eickhoff Hall	No	36/36	OS2 / OM3	
Packer Hall	19	Eickhoff Hall	Green Hall	N/A	96/96	OS2 / OM1 OS2 / OM3	
	20	TH1 (Town House West) TH5 21A/B (Town House East	Cromwell Hall	No		OS2 / OM3	-
	22	TH9 (Town House South)	Cromwell Hall	No		OS2 / OM3	8
Brower Student Center	23	Travers Hall Wolfe Hall	Cromwell Hall Cromwell Hall	Yes N/A		OS2 / OM3	
	24	Decker Garage	Cromwell Hall	Yes	25/25	OS2 / OM3	
	25	Stadium Generator Building	Recreation Center	No	36/36	OS2 / OM3 OS2 / OM3	
	27	Stadium Concession Stand Soccer Field Press Box 28A/B	Recreation Center	No	36/36	OS2 / OM3	9
Cluster 4	29	Metzger Garage	Admin Splice	No		OS2 / OM1	
Town House East		Phelps Hall Hausdoerffer Hall	Admin Splice Admin Splice	N/A N/A		OS2 / OM1 OS2 / OM1	-
Cluster 3	32	Cromwell Hall	Green Hall	No	144/144	OS2 / OM3	10
	34	Forcina Garage	Education Building	No		OS2 / OM1	
<u>^</u>	35 36	Fire Pump House Admin Services Building	Admin Services Building Admin Splice	No N/A		OS2 / OM1 OS2 / OM1	
Cluster 2 Town House	41	Eickhoff Room 227	Eickhoff Room 337	No	48/48	OS2 / OM3	
West	NOTES 1.	* - Spare Capacity Is Availabl	e In Existing Fiber Located At Th	ne MDF For Fire Alarm.			11
	2.	** - New Pathway For This Ro	oute Installed Under Domestic V	Vater Project.			
Cluster 1 FACP	GE	NERAL NOTES					
	1. 2.	All New Cables Shall B All Existing Cables For	e Tested From MDF In O This Project Shall Be Tes	ne Building To MDI ted. Existing Fiber	F In Another. Shall Be Tested Accor	ding To The	12
	3.	Specifications For Test Each Span Noted To H Type Of Hybrid Cable	ting New Fiber. Contract ave Existing Fibers Availa Designation Has Been Ad	tor Shall Provision / ble. ded To The Table /	And Provide Testing F Above For Reference /	or A 12/12 Fiber For And To Clarify Types	
wn House South		To Be Utilized For The For Span Between Gre Cassettes, Etc Shall Ut	Add Alternate. Refer To en And Kendall. All Fibe ilize The Performance Ty	Detail FA009/07 F r Spans Including Ir pe Identified In The	or Further Informatio nterior Building Route e Table Above. The Ca	n On Add Alternate d Fiber, Connectors, able Performance	
CABLE Connecting Hardware - Cassettes for OM3 And OM4	А	Types Indicated Shall OS2/OM3 For Interior The Existing Fiber Cab	, Be Utilized For Interior B Fiber. Je Between Green And K	uilding Fiber With T	The Exception Of Gree	n Which Will Utilize	
CCH-CS12-AD-P00TJ - CCH Pigtail Cass, 12/F shutter LC UPC Dupx OM3 ribbon		Above Utilizing Existin Department.	g Conduit. Coordinate E	xisting Fiber Remov	val / Replacement Wit	h The College IT	13
CCH-CS12-AD-P00QJ - CCH Pigtail Cass, 12/F shutter LC UPC Dupx OM4 ribbon	PA	RTIAL SYMBOLS & AE	BREVIATIONS				-
	Ide }	Entifier Description Existing One	n Fiber Strands Available				
New Fiber Installation Shall Be Independent Of Existing	, 	= = → Existing Cone	duit Pathway Available Fo	or New Fiber Instal	lation		
Fire Alarm Network Cabling Which Shall Remain Intact And Operational For The Existent Of This Project.	<b>}</b> =	Remove Exis	ting Fiber And Pull New F	iber Through Emp	ty Conduit Pathway	-od	14
	 ک	Fire Alarm D	evices Fed From Panel Lo	санк, Trenching,	And New Fiber Requi	eu	
project TCNJ - CAMPUS FIRE ALARM PROJECT	^{title}	ER NETWORK OVE	RVIEW DIAGRAM (A	ADD ALT)	dwg. no.		
PART A - CABLE INFRASTRUCTURE UPGRADES 2000 PENNINGTON ROAD,	00-1		chocked by			04A	
EWING NJ, 08618	scale AS SH	IOWN SC	SG 09/18/	2019	Confidential and Prop	rietary / ©DLB Associate	s 2020



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N/I			0	D		0		R	
IVI						Q			
OCK WALL						of fine noted or not		ining on	
		1.	effective barrier against the spread of	on of materials used to flame, smoke, and ho	retain integrity t gases through	penetrations in joi	ruction by maintants between fire r	ated wall	
421,090			and floor assemblies.						
CAJ1		2.	Only tested firestop systems shall be	e used in specific locati	ons as follows: P	enetrations for the	passage of cond	uit through	
2			fire-rated vertical barriers (walls and	partitions), and horizo	ntal barriers (flo	or/ceiling assembli	es).		
9		3.	Test Requirements: ASTM E-814-02, Laboratories (UL) of Northbrook. IL	, "Standard Method of runs ASTM E-814 unde	Fire Tests of Thr	rough Penetration I on of UL 1479 and	Fire Stops"; Under publishes the resu	writers Its in	
-			their "FIRE RESISTANCE DIRECTORY"	' that is updated annua	ally.				
		4.	A manufacturer's direct representati	ive (not distributor or a	agent) to be on-s	site during initial in	stallation of firest	op systems	
			to train appropriate contractor perso written recommendations published	onnel in proper select	on and installati I drawing details	on procedures. Th	is will be done per	manufacturer's	
			Firesten System installation must me	at requirements of AC		170 or 111 2070 toot	ad accomplian the	t provido o	
		5.	fire rating equal to that of construct	ion being penetrated.	TIVI E-814, UL 14	179 of UL 2079 test	ed assemblies tha	t provide a	
гніск).		6.	Proposed firestop materials and met	hods shall conform to	applicable gover	rning codes having	local jurisdiction.		
		_	'	oviet for which no 11		a availabla thraugh	o monufoaturor	on onginooring i	udanaant dariwa
		7.	tests will be submitted to local auth	iorities having jurisdict	ion for their rev	iew and approval r	orior to installation	n. Engineer judg	adgment derive gment drawings
			International Firestop Council (Septe	ember 7, 1994, as may	be amended fro	m time to time).			
S SIL GG		8.	REQUIRED SUBMITTALS						
LOOR ONLY). 'S-S SIL GG		8	.1. Shop Drawings: Proposed cond	duit routes per buildinរ្	g with each pene	etration identified.			
OR HILTI CFS-S		8	.2. Product Data: Manufacturer's	specifications and tec	hnical data for e	each material inclu	ding the composit	ion and limitatic	ons, documentat
			manufacturer's installation inst	ructions to comply wit	h Section 1300.				
OR HILTI CFS-S LL ASSEMBLY.		8	.3. Manufacturer's engineering juc name and contractor's name w	dgment identification ho will install firestop	number and dra system as descri	wing details when bed in drawing.	no UL system is a	vailable for an a	application. Eng
NT IS USED, AND -S SIL SL		0	4 Submit material safety data sh	acts provided with pro	, duct dolivorod t	a iah cita			
		8	.4. Submit material safety data she	eets provided with pro	duct delivered to	o jod-site.			
Scale: Drawing:	G005	9.	INSTALLER QUALIFICATIONS: Engage training to install manufacturer's p	e an experienced Insta roducts per specified	ller who is certi requirements.	fied, licensed, or o A supplier's willing	therwise qualified gness to sell its fi	by the firestopp restopping prod	ping manufactur lucts to the Con
NTS Detail:	03	1	Contractor does not in itself confer q	qualification on the buy	/er.				
		10.	DELIVERY, STORAGE, AND HANDLING	G					
		1	0.1. Deliver materials undamaged ir	n manufacturer's clear	y labeled, unope	ened containers, id	entified with bran	d, type, and UL k	abel where appli
		1	0.2. Coordinate delivery of material	ls with scheduled insta	llation date to al	llow minimum stora	age time at job-sit	e.	
			0.2 Store materials under sover an	d protoct from woaths	r and damage in	compliance with n	nanufacturor's ros	uiromonto inclu	iding tomporatu
			J.S. Store materials under cover and	u protect from weathe	ir and damage in			fuirements, inclu	ung temperatur
		1	0.4. Comply with recommended pro	ocedures, precautions	or remedies des	cribed in material s	afety data sheets	as applicable.	
		1	0.5. Do not use damaged or expired	I materials.					
		11.	PROJECT CONDITIONS						
		1	1.1. Do not use materials that conta	ain flammable solvents					
			1.2 Schodulo installation of firostor	aning after completion	of popotrating i	tom installation bu	t prior to covoring	or concooling of	fononings
					of penetrating i			or concearing or	openings.
		1	1.3. Verify existing conditions and s	ubstrates before start	ng work. Correc	ct unsatisfactory co	nditions before pr	oceeding.	
		1	1.4. Weather conditions: Do not p product label and product data	proceed with installati	on of firestop n	naterials when ten	nperatures exceed	the manufactu	rer's recommen
plicable UL System Detail(s)									
W-I-1054·W-I-1441			1.5. During installation, provide mas	sking and drop cloths t	o prevent firesto	opping materials fro	om contaminating	any adjacent sur	rfaces.
W-L-1054; W-L-1441		12.	Provide firestopping composed of co of service and application, as demon	omponents that are co strated by the firestop	mpatible with eaping manufactu	ach other, the subs rer based on testin	trates forming op g and field experie	enings, and the i ^r ence.	tems, if any, per
J-1184; C-AJ-1226; C-AJ-1421		12	Drouido componente for each fireste	nning system that are	noodod to insta	ll fill matarial - Llag		c chacified by the	o firostonning m
J-1184: C-AJ-1226; C-AJ-1421		13.	testing agency for the designated fire	e-resistance-rated syst	ems.	alı fili material. Üse	e only components	specified by the	e firestopping m
J-1184: C-AJ-1226; C-AJ-1421		14.	MATERIALS						
F-C-1059			1. Use only fireston products the	at have been 111 1/70	) ASTM F-81/	or 111 2079 tested	for specific fire.	rated constructiv	on conditions c
AJ-1226; F-A-1105; F-A-1128; (	C-AJ-1421		penetrating item type, annular	space requirements, a	nd fire-rating inv	volved for each sep	arate instance.		
		1	4.2. Provide a firestop system with a	a "F" Rating as determ	ined by UL 1479	or ASTM E814 whi	ch is equal to the t	time rating of cor	nstruction being
		1	4.3. Provide a firestop system with a	an Assembly Rating as	determined by l	JL 2079 which is eo	ual to the time ra	ting of construct	ion being penetr
		15		, 0	,			0	
		15.	PREPARATION						
		1	5.1. Verification of Conditions: Pric completion.	or to beginning the wo	rk, examine area	as and conditions ι	inder which work	is to be perform	ed and identify
on this project. They are prov	vided for		5.2 Verify penetrations are properly	v sized and in suitable	condition for an	unlication of materi	als		
penetrated. It is the contracto	or's			y sized and in suitable			ais.		
existing conditions, constructa	bility and	1	5.3. Surfaces to which firestop mate adhesion.	erials will be applied s	hall be free of di	irt, grease, oil, rust	, laitance, release	agents, water re	pellents, and an
plification of construction, all		1	5.4. Provide masking and temporar	v covering to prevent s	oiling of adiacer	nt surfaces by firest	opping materials.		
nree hour rated option, notify	the		E E Comply with manufacturor's ro	commandations for to	monature and h		hoforo during ar	ad aftar installati	ion of firostoppir
nd ceilings to be penetrated p	prior to the		3.5. Comply with manufacturer ster			initiality conditions	s before, during ar		on of mestoppi
hand-marked) for each buildir t the discretion of the contract	ng and tor in the	1	5.6. Do not proceed until unsatisfac	tory conditions have b	een corrected.				
for number or type of penetra	ations to	16.	INSTALLATION						
ti products. The contractor is t	to use a	1	6.1. Regulatory Requirements: Inst	all firestop materials ir	accordance wit	h UL Fire Resistanc	e Directory or Om	ega Point Labora	atories Directory
		1	6.2. Manufacturer's Instructions: C	omply with manufactu	rer's instruction	s for installation of	through-penetrat	ion and construc	tion joint mater
			16.2.1 Social all bolos or voids may	to by popotrations to a	ncuro an air and	l water registant co	al		
			16.2.2. Protect materials from day	mage on surfaces subj	ected to traffic.				
		17.	FIELD QUALITY CONTROL						
		1	7.1. Examine sealed penetration are	eas to ensure proper ir	stallation before	e concealing or enc	losing areas.		
		1	7.2. Keep areas of work accessible ι	until inspection by app	icable code auth	norities.			
			73 Inspection of through accest	tion firestonning -t	he performed	in accordance with	Δςτιλ ε 2174 "	Standard Dreat	re for On Site !
			recognized standard.	tion mestopping shall	ve performed	m accordance with	1 AJTIVI E 21/4, "	stanuaru Practic	,e າບາ UN-Site In
		1	7.4. Perform under this section pate	ching and repairing of t	irestopping caus	sed by cutting or pe	enetrating of exist	ing firestop syste	ems already insta
		10		-	-	- •		·	
		1 ^{10.}							
			s.1. Remove equipment, materials a	and debris, leaving are	a in undamaged	, clean condition.			
		1	8.2. Clean all surfaces adjacent to se	ealed holes and joints	to be free of exc	ess firestop materia	als and soiling as v	vork progresses.	
STILOW, P.E.	pro T(	ject CNJ - (	CAMPUS FIRE ALARM PRC	JECT		FING GENFR	AL SCOPF		
02660202	PA	ART A	- CABLE INFRASTRUCTUR	E UPGRADES	AND DETA	AILS			
U366U3U0 MAY 01, 2020	20 FV	000 Pl אואה	NNINGTON ROAD,		scale	drawn by	checked by	date	
			-,		AS SHOWN	CDO	AL	09/18/2019	

d from similar UL system designs or other must follow requirements set forth by the	3
ion of UL firestop systems to be used and neer judgment must include both project	4
er as having been provided the necessary tractor or to an Installer engaged by the	5
cable. e restrictions.	6
	7
ded limitations for installation printed on etrating the firestopping under conditions	8
anufacturer and approved by the qualified onforming to construction assembly type, penetrated.	9
ated. conditions detrimental to proper or timely	10
y other substances that may affect proper g.	11
als.	12
	13
spection of Installed Fire Stops" or other lled by other trades.	14
dwg. no. G005	

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	Image: Normal State State     Image: Normal State       Image: Normal State     Image: Normal State <t< th=""><th>ION Campus Fire Alarm\010 Cab</th><th>ITEM DATE ISS</th><th>UE DESCRIPTION 211 - 00 - G006.dwg, 4/22/20 at</th><th>11:54 AM By MHABIB - Last Pr</th><th>rinted: 5/4/20 at 5:19 PM Bv Go</th><th>owers, Scot</th></t<>	ION Campus Fire Alarm\010 Cab	ITEM DATE ISS	UE DESCRIPTION 211 - 00 - G006.dwg, 4/22/20 at	11:54 AM By MHABIB - Last Pr	rinted: 5/4/20 at 5:19 PM Bv Go	owers, Scot

![](_page_8_Figure_1.jpeg)

![](_page_9_Figure_0.jpeg)

T	
anned To Be Reused Shall Be Trucked Excavation. Soils Of This Category Shall Disposal Shall Be Provided To TCNJ Be Stockpiled Next To The Trench As S Can Not Be Stockpiled Next To	1
ree Drip Line) Or In Heavily ckfill, All Soils Related To The Work moved From The Carlton Avenue Lot . Provide Receipt Of Disposal To TCNJ ed To The Condition At The Time Of Bid cludes Striping Where Damaged By	2
The Contractor Must Inspect And g Conditions For Restoration gnated On This Plan. Carlton Avenue d 30'x60' Disruption Area At The	3
	4
——<	5
	6
	7
	8
ЭТ	9
	10
	11
	12
	13
quired For All Installations. ent And Roadway Are Paved. L Scale: Drawing: G007 Detail: 06	14
dwg. no. G007	
Confidential and Proprietary / ©DLB Associate	s 2019

![](_page_10_Figure_0.jpeg)

								I		
M	N	0	P	Fiber		R	S		T	
				Snan II	Starting Ruilding	Ending Building	Empty Conduit	Hybrid Cable To Be	-	
				Span II	D Starting Building	Ending Building	Empty Conduit	Installed	_	1
				1	Armstrong Hall**	STEM Building	Yes	12/12	_	
				3	Business Building	Kendall Hall	No	12/12	-	
				4	Trenton Hall	Kendall Hall	No	12/12		
				5	Music Building	Kendall Hall	No	12/12		2
				6	Social Science	Kendall Hall	Yes	12/12	_	
					Kendall Hall	Green Hall	Yes	0*		
					Chemestry Building	STEM Building	N/A	0*		
					Physics Building	STEM Building	N/A	0*	-	
					STEM Building	Green Hall	N/A N/A	0*	-	3
				8	Forcina Hall	Roscoe Hall	Yes	12/12		
					Education Building	Roscoe Hall	N/A	0*		 
				9	Centennial Hall	Roscoe Hall	No	12/12	_	
				10	Gitenstein Library	Roscoe Hall	No	12/12	-	
				11	Norsworthy Hall	Ely-Allen-Brewster	N/A	0*		4
				12	Spiritual Center	Ely-Allen-Brewster	No	12/12		
				13	Maintenance Building	Powerhouse	Yes	12/12	_	
				14	Powerhouse	Ely-Allen-Brewster	No	12/12	-	
				15	Decker Hall	Ely-Allen-Brewster	No	12/12	_	5
				10	New Residence Hall	Eickhoff Hall	No	12/12		
				18	Packer Hall	Eickhoff Hall	No	12/12	-	
					Brower Student Center	Eickhoff Hall	N/A	0*		
POE #1				19	Eickhoff Hall	Green Hall	No	12/12	_	6
				20	TH1 (Town House West)	Cromwell Hall	No	48/48	_	U
				22	TH9 (Town House South)	Cromwell Hall	No	48/48	-	
WER				23	Travers Hall	Cromwell Hall	Yes	12/12	_	
HOUSE?	A				Wolfe Hall	Cromwell Hall	N/A	0*	_	
				24	Decker Garage	Cromwell Hall	Yes	12/12	_	7
				25	Recreation Center	Cromwell Hall Recreation Center	No	12/12	-	
				27	Stadium Concession Stand	Recreation Center	No	12/12	-	
					Stadium Press Box	Stadium Generator Building	No	12/12		
				28	Soccer Field Press Box	Admin Splice	No	24/24	_	Q
STR.				36	Admin Services Building	Admin Splice	N/A	36/36		0
				29	Metzger Garage	Admin Splice	NO N/A	0*		
					Hausdoerffer Hall	Admin Splice	N/A	0*	-	
				32	Cromwell Hall	Green Hall	No	12/12	_	
				33	Travers/Wolfe Garage	Travers Hall	Yes	12/12	_	9
				34	Forcina Garage	Education Building	No	12/12		
				NOTES				,		
				1	. * - Existing Fiber Spare Capac	city Available At MDF For Fire A	Alarm Cable.			
				2	. ** - New Pathway For This Ro	oute Installed As Part Of Dome Fiber Strands On Both Ends Of	estic Water Project.			10
				GE						
				1.	This Sheet's Purpose Is MDF For The Fire Alarr	s To Show An Overview O n Panel. Refer To The Bu	of Buildings That Have ilding Drawing Series	e Spare Existing Fiber ( For Scope Of Work Ins	Capacity At The side These	
					Buildings. Those Buildi	ngs Are identified By The	e Shaded Rows In The	lable Above.		
										11
										12
				PA	ARTIAL SYMBOLS & AB	BREVIATIONS				
				Ide	entifier Description		Identifier I	Description		
					Existing Manl	hole	MDF M	Main Distribution Fram	ne	13
							Мн	Vanhole		
								Apphal 1 1 100	Tee	
							IVIH#XX ♪	viannole identification	ıag	
							POE F	Point Of Entry		14
		<b>.</b>	• • • • • • • • • • • • • • • • • • •				WCH \	Wall-Mounted Connec	tor Housing	<del>_</del>
	CAMPUS PLAN	Scale: 1"= 150'-0"	Drawing: FA001 Detail: 01	-						
	project TCNJ - CAMPI	JS FIRE ALA	RM PROJECT	title CAN	MPUS OVERVIEW/			dwg. no.		
	PART A - CABL		RUCTURE UPGRADES	EXIS	STING FIBER			FAC	001	
	EWING NJ, 086	518	· )	scale	drawn by SC	checked by date SG 05/03/2	2020			

![](_page_11_Figure_0.jpeg)

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Μ	N	0	P	Q	R		5	Т
			Span	ID Starting Building	Ending Building	Empty Conduit	Hybrid Cable To Be Installed	
THE INTENT OF THIS PL	LAN IS TO SHOW THE GENERAL R	ROUTING	1	Armstrong Hall**	STEM Building	Yes	12/12	
FOR NEW FIBER AND N CAMPUS.	IEW CONDUIT THROUGHOUT TH	E	2	Bliss Hall	Kendall Hall	Yes	12/12	
			4	Trenton Hall	Kendall Hall	No	12/12	1
			5	Music Building	Kendall Hall	No	12/12	
			6	AIMM Building	Kendall Hall	N/A Yes	0*	-
			0	Kendall Hall	Green Hall	Yes	0*	
				Chemestry Building	STEM Building	N/A	0*	
				Physics Building Biology Building	STEM Building	N/A N/A	0*	_
				STEM Building	Green Hall	N/A	0*	_
			8	Forcina Hall	Roscoe Hall	Yes	12/12	_
			9	Education Building	Roscoe Hall	N/A No	0*	
			10	Gitenstein Library	Roscoe Hall	No	12/12	1
			11	Roscoe Hall	Green Hall	No	12/12	
			12	Norsworthy Hall	Ely-Allen-Brewster	N/A	0*	
			12	Maintenance Building	Powerhouse	Yes	12/12	1 -
			14	Powerhouse	Ely-Allen-Brewster	No	12/12	
			15	Decker Hall Elv-Allen-Brewster**	Ely-Allen-Brewster	No	12/12	-
			10	New Residence Hall	Eickhoff Hall	No	12/12	
			18	Packer Hall	Eickhoff Hall	No	12/12	1 F
			10	Brower Student Center	Eickhoff Hall Green Hall	N/A	0*	- 1
15 POE#1			20	TH1 (Town House West)	Cromwell Hall	No	48/48	
#2	7		21	TH5 21A/B (Town House	East Cromwell Hall	No	(2) 36/36	
			22	TH9 (Town House South)	Cromwell Hall	No	48/48	
POWER HOUSE				Wolfe Hall	Cromwell Hall	N/A	0*	
			24	Decker Garage	Cromwell Hall	Yes	12/12	
			25	Recreation Center	Cromwell Hall	No	12/12	-
			27	Stadium Concession Stan	d Recreation Center	No	12/12	
				Stadium Press Box	Stadium Generator Buildir	g No	12/12	
KELT			28	Soccer Field Press Box	Admin Splice	No N/A	24/24	-
L S 1			29	Metzger Garage	Admin Splice	No	24/24	
				Phelps Hall	Admin Splice	N/A	0*	
			32	Hausdoerffer Hall	Admin Splice	N/A	0*	
			33	Travers/Wolfe Garage	Travers Hall	Yes	12/12	
			34	Forcina Garage	Education Building	No	12/12	
			35 NOTE	Fire Pump House	Admin Services Building	No	12/12	-
				1. * - Existing Fiber Spare Ca	apacity Available At MDF For Fir	e Alarm Cable.		
				<ol> <li>2. ** - New Pathway For Th</li> <li>3. Contractor To Terminate</li> </ol>	is Route Installed As Part Of Do All Fiber Strands On Both Ends	nestic Water Project. Of Cable		1
			G	ENERAL NOTES				
			1	. This Sheet's Purpo	se Is To Show An Overvi	ew Of All The New U	Inderground Conduit Du	ct Banks For the
			2	. Contractor Shall Er	ngage Private Utility Loca	ting Service To Obta	a lable Above. ain Markout Of Existin	g Underground
				Utilities Using EM S	canning And GPR Method	5. Provide TCNJ With	Mapping Results Prior	To Excavation.
			3	Extraction.	pen And Verify Entry LC	cations for New Co	onduit in Existing Mar	indles Prior To
			4	. Duct Bank Routing S A Routing Plan For	Shown On This Plan Is Diag Review. The Routing Plan Jings And Manholes – Boy	grammatic. Contract Shall Include Propositions Shall Be Based	or Shall Be Responsible sed Routings For New I d On GPB (Ground Per	e For Submitting Ducts And Entry — Detrating Badar)
				And Field Condition	s Conducted Prior To Exca	vation.		
								1
				ARTIAL SYMBOLS &	ADDREVIATIONS			
				<ul> <li>Description</li> <li>Existing M</li> </ul>	anhole	MDF	<b>Description</b> Main Distribution Fran	me 1
				New Manl	nole	МН	Manhole	
			<b>_</b>	No Existin → Duct Bank	g Fiber Available - New , Trenching, And New Fibe	r MH#XX	Manhole Identificatio	n Tag
				Required	o Building Coop Nearchea		Point Of Entry	~0
				Building V	/ith New Conduit		Wall-Mounted Conne	ctor Housing
	Scale:	Drawing: FA00	)2	Connectio	ins		wan-wounted conne	
	calvipus plan 1"= 150	0'-0" Detail: <b>01</b>	title				dwg. no.	
	TCNJ - CAMPUS FIRE PART A - CABLE INFR	ALARM PROJECT ASTRUCTURE UPGRAD	ES NE	MPUS OVERVIEW	, CONDUIT			רחר
	2000 PENNINGTON F EWING NJ, 08618	ROAD,	scal	e drawn by	checked by date	2/2020		
	· ·		AS S		ວບ 05/03	0/2020		

![](_page_12_Figure_0.jpeg)

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M	<u> </u>	0		P		0	R		S		
		0		•	Fiber I	Routing			<b>J</b>		╋
					Span II	Starting Building	Ending Building	Empty Conduit	Hybrid Cable To Be Installed		
					1	Armstrong Hall**	STEM Building	Yes	12/12		
					2	Bliss Hall	Kendall Hall	Yes	12/12		
					3	Business Building	Kendall Hall	No	12/12	_	
					5	Music Building	Kendall Hall	No	12/12	_	
						AIMM Building	Kendall Hall	N/A	0*		2
					6	Social Science	Kendall Hall	Yes	12/12	_	
						Kendall Hall Chemestry Building	Green Hall STEM Building	Yes N/A	0*	_	
						Physics Building	STEM Building	N/A	0*	_	
						Biology Building	STEM Building	N/A	0*		
						STEM Building	Green Hall	N/A	0*	_	
					8	Forcina Hall	Roscoe Hall	Yes	12/12	-	
					9	Centennial Hall	Roscoe Hall	N/A	12/12	-	
					10	Gitenstein Library	Roscoe Hall	No	12/12	_	
					11	Roscoe Hall	Green Hall	No	12/12		4
						Norsworthy Hall	Ely-Allen-Brewster	N/A	0*	_	
					12	Spiritual Center	Ely-Allen-Brewster	No	12/12	-	
					13	Powerhouse	Ely-Allen-Brewster	No	12/12		
					15	Decker Hall	Ely-Allen-Brewster	No	12/12		
					16	Ely-Allen-Brewster**	Green Hall	No	12/12		
					17	New Residence Hall	Eickhoff Hall	No	12/12		
					18	Packer Hall	Eickhoff Hall	No N/A	12/12	_	
					19	Eickhoff Hall	Green Hall	No	12/12		
15 POE#1					20	TH1 (Town House West)	Cromwell Hall	No	48/48	_	6
#2					21	TH5 21A/B (Town House Eas	t)Cromwell Hall	No	(2) 36/36		
					22	TH9 (Town House South)	Cromwell Hall	No	48/48	_	
POWER SET						Wolfe Hall	Cromwell Hall	Yes N/A	0*	-	
HUTE					24	Decker Garage	Cromwell Hall	Yes	12/12		
					25	Recreation Center	Cromwell Hall	No	12/12		'
	\ \				26	Stadium Generator Building	Recreation Center	No	12/12	_	
					27	Stadium Concession Stand	Recreation Center	No	12/12	_	
					28	Stadium Press Box	Admin Splice	No	24/24		
TREE					36	Admin Services Building	Admin Splice	N/A	36/36		8
					29	Metzger Garage	Admin Splice	No	24/24		
						Phelps Hall	Admin Splice	N/A	0*	_	
					32	Hausdoerffer Hall	Admin Splice	N/A	0*	-	
					33	Travers/Wolfe Garage	Travers Hall	Yes	12/12		g
					34	Forcina Garage	Education Building	No	12/12		
					35	Fire Pump House	Admin Services Building	No	12/12	_	
					NOTES	. * - Existing Fiber Spare Capac	city Available At MDF For Fire A	larm Cable.			
					2	. ** - New Pathway For This Ro	oute Installed As Part Of Dome	stic Water Project.			
					3	. Contractor To Terminate All	Fiber Strands On Both Ends Of	Cable			_1
					GE	NERAL NOTES					
					1.	This Sheet's Purpose	Is To Show An Overvie	w Of The Existin	g Underground Conduit	Duct Banks With	
						By The Shaded Rows Ir	That Are Proposed To Be C The Table Above.	Jtilized For New Fil	ber Cables. Those Building	gs Are identified	
					2.	Contractor Shall Clean T Installation.	he Existing Conduits Using	Wire Brush Mano	drill And Rubber Duct Swa	ab Prior To Cable	1
											1
											┥
					PA	RTIAL SYMBOLS & AB	BREVIATIONS	1			
					Ide	entifier <u>Description</u>		<u>Identifier</u>	Description		1
						Existing Manl		MDF	Main Distribution Fra	me	
						Fxisting Cond	uit Pathway Available	МН	Manhole		
						For New Fibe	r Installation	MH#XX	Manhole Identificatio	n Tag	
						#   Building To B	uilding Span Number	POE	Point Of Entry		
						Building With	n New Conduit	WCH	Wall-Mounted Conne	ctor Housing	1
		Scale:	Drawing: FA	003	1	Connections				0	
	project	1"= 150'-0"	Detail: <b>01</b>		title				dwg. no.		+
	TCNJ - CAMPL	JS FIRE ALA				APUS OVERVIEW				<b>101</b>	
	2000 PENNIN	GTON ROAL		UC3						703	
	EWING NJ, 08	618			scale AS SH	drawn by IOWN SC	cnecked by date SG 05/03/2	020	Confidential a 12		

![](_page_13_Figure_0.jpeg)

Μ	Ν	0	Р	1	Q	R		S	T
				Fiber F	Routing Starting Building	Ending Building	Empty Conduit	Hybrid Cable To Be	
				japan IL	Armstrong Hall**	STEM Building	Yes	Installed 12/12	
				2	Bliss Hall	Kendall Hall	Yes	12/12	
				3	Business Building Trenton Hall	Kendall Hall Kendall Hall	No	12/12	-
				5	Music Building	Kendall Hall	No	12/12	
				6	AIMM Building	Kendall Hall Kendall Hall	N/A Vec	0*	
				0	Kendall Hall	Green Hall	Yes	0*	
					Chemestry Building	STEM Building	N/A	0*	
					Physics Building Biology Building	STEM Building	N/A N/A	0*	
					STEM Building	Green Hall	N/A	0*	
				8	Forcina Hall	Roscoe Hall	Yes	12/12	-
				9	Centennial Hall	Roscoe Hall	NO	12/12	-
				10	Gitenstein Library	Roscoe Hall	No	12/12	
				11	Roscoe Hall Norsworthy Hall	Green Hall Elv-Allen-Brewster	No N/A	0*	-
				12	Spiritual Center	Ely-Allen-Brewster	No	12/12	
				13	Maintenance Building	Powerhouse	Yes	12/12	
				14 15	Powerhouse Decker Hall	Ely-Allen-Brewster Ely-Allen-Brewster	No	12/12	
				16	Ely-Allen-Brewster**	Green Hall	No	12/12	
				17	New Residence Hall	Eickhoff Hall	No	12/12	
				18	Brower Student Center	Eickhoff Hall	No N/A	0*	
_ POE #1				19	Eickhoff Hall	Green Hall	No	12/12	
				20	TH1 (Town House West)	Cromwell Hall	No	48/48	
				21	TH9 (Town House South)	Cromwell Hall	No	48/48	
POWER Z			FA006	23	Travers Hall	Cromwell Hall	Yes	12/12	
HOUL			ZONE 2	24	Wolfe Hall Decker Garage	Cromwell Hall Cromwell Hall	N/A Yes	0*	
			- <del>I</del>	25	Recreation Center	Cromwell Hall	No	12/12	
	X		FA008	26	Stadium Generator Building	Recreation Center	No	12/12	
			ZONE 4	27	Stadium Concession Stand Stadium Press Box	Recreation Center Stadium Generator Building	No	12/12	
				28	Soccer Field Press Box	Admin Splice	No	24/24	
S TR/				36	Admin Services Building	Admin Splice	N/A	36/36	
				29	Phelps Hall	Admin Splice	N/A	0*	
					Hausdoerffer Hall	Admin Splice	N/A	0*	
				32	Cromwell Hall Travers/Wolfe Garage	Green Hall Travers Hall	No	12/12	
				34	Forcina Garage	Education Building	No	12/12	
				35	Fire Pump House	Admin Services Building	No	12/12	-
				1. 2. 3. GE	. * - Existing Fiber Spare Capac . ** - New Pathway For This Ro . Contractor To Terminate All I <b>:NERAL NOTES</b>	ity Available At MDF For Fire A oute Installed As Part Of Dome Fiber Strands On Both Ends Of	larm Cable. stic Water Project. Cable		
				1.	This Sheet's Purpose Is Scope For The Campus	To Show An Overview O . Those Buildings Are Ide	f All The New And ntified By The Sha	Existing Duct Bank Routi ded Rows In The Table Al	ng Within oove.
									-
				PA	RTIAL SYMBOLS & AB	BREVIATIONS			
				Ide	entifier Description		Identifier	Description	
					<ul><li>Existing Manh</li></ul>	nole	for the second s	Detail Identifier	tion)
					New Manhole Remove Exist	e ing Fiber And Pull New		Detail #	
				~	Fiber Through Pathway	n Empty Conduit		Photo Identification Ta	g
				<b>→</b>	Existing Cond For New Fibe	luit Pathway Available r Installation	MDF	Main Distribution Fram	e
				<u> </u>	No Existing Fi	iber Available - New enching, And New	MH	Manhole	
					Fiber Require	uilding Span Number	MH#XX	Manhole Identification	Tag
					Building With	New Conduit	POE	Point Of Entry	
	CAMPUS PLAN	Scale: 1"= 150'-0"	etail: <b>01</b>		Connections		WCH	Wall-Mounted Connec	tor Housing
	project	PUS FIRE ALARM PRO	DIFCT	title				dwg. no.	

![](_page_14_Picture_0.jpeg)

	Q	R			S		Т		
Fiber R Span ID	outing Starting Building	Ending Building	Empty	Conduit	Hybrid C	able To Be Insta	lled		
					Base Bid		Alternate #1		1
1 2	Armstrong Hall** Bliss Hall	STEM Building Kendall Hall		Yes Yes		12/12 12/12	48/48		-
3	Business Building	Kendall Hall Kendall Hall		No		12/12	24/24 36/36		
5	Music Building	Kendall Hall		No		12/12	24/24		
6	AIMM Building Social Science	Kendall Hall Kendall Hall		N/A Yes		0* 12/12	36/36		
	Kendall Hall	Green Hall		Yes		0*	144/144		2
	Physics Building	STEM Building		N/A		0*			
	Biology Building STEM Building	STEM Building Green Hall		N/A		0* 0*			
8	Forcina Hall	Roscoe Hall		Yes		12/12	24/24		
9	Education Building Centennial Hall	Roscoe Hall Roscoe Hall		N/A No		0* 12/12	24/24		3
10	Gitenstein Library	Roscoe Hall		No		12/12	36/36		
	Roscoe Hall Norsworthy Hall	Ely-Allen-Brewster		NO N/A		0*	96/96		
12	Spiritual Center	Ely-Allen-Brewster		No		12/12	24/24		
14	Powerhouse	Ely-Allen-Brewster		No		12/12	48/48		Δ
15 16	Decker Hall Ely-Allen-Brewster**	Ely-Allen-Brewster Green Hall		No No		12/12 12/12	36/36 144/144		-
17	New Residence Hall	Eickhoff Hall		No		12/12	24/24		
18	Packer Hall Brower Student Center	Eickhoff Hall Eickhoff Hall		No N/A		12/12 0*	36/36		
19	Eickhoff Hall	Green Hall		No		12/12	96/96		
20	TH5 21A/B (Town House East	Cromwell Hall		No	(	2) 36/36			5
22	TH9 (Town House South)	Cromwell Hall		No		48/48			
	Wolfe Hall	Cromwell Hall		N/A		0*			
24 25	Decker Garage Recreation Center	Cromwell Hall Cromwell Hall		Yes No		12/12 12/12	36/36		
26	Stadium Generator Building	Recreation Center		No		12/12			6
27 28	Stadium Concession Stand Soccer Field Press Box 28A/B	Recreation Center Admin Splice		No		12/12 24/24	36/36		
29	Metzger Garage	Admin Splice		No		24/24			
	Hausdoerffer Hall	Admin Splice		N/A		0*			
32 33	Cromwell Hall Travers/Wolfe Garage	Green Hall Travers Hall		No Yes		12/12	144/144		7
34	Forcina Garage	Education Building		No		12/12			/
35 36	Fire Pump House Admin Services Building	Admin Services Building Admin Splice		No N/A		12/12 36/36			
41	Eickhoff Room 227	Eickhoff Room 337		No		-	48/48		
New M Coordi Condu To Be Remov With T NERAL All Cor Provide Spare	A WC C A WC C C C C C C C C C C C C C C	led In This Location. S are Fiber Connections IT Department To Ha s, Bushes And Shrubk 2 For Additional Infor lot Be Less Than 10 T ove All Duct Banks. ucts In All Of The Ar pare Inner Duct Per E	See Sh s In Th ve Ex bery In matic	neet G003 / ( nis Area. Fibe isting Fiber ( n Order To Ir on. The Inside D Conduits Per ank.	01 For er Sha Connec nstall U iamet	More Deta	ails. In Existing Spare ged To Allow Exist d Conduit. Coordin onduit.	ting nate Each	9
Manho Provide Condu All Ma And In Contra Local U Mark O Excava Coordi	e A 5/8 Inch X 10 For ctor From The Groun nhole Locations And frastructure. Actor Shall Obtain A Jtility Companies An Dut All Buried Infrast tion. Hand Digging nate Routing Of Unc MBOLS & ABBRE	ot Ground Rod At Ea nd Rod To The Bondi d Ductbank Routings Private Mark Out Of nd New Jersey One tructure And Utilities In Certain Locations I derground Duct Bank	ch Ma ng Rik Shall The Call (8 In Th Is High	anhole Locat obon In The I Be Coordina Area Of Wor 811) As Req be Vicinity Of hly Recommo	ion. A Manho ated W rk. Cc uired Propo ended eld Con	Attached A ole. /ith Existing ontractor A By Those E osed Condu nditions.	#2 Solid Tinned Gi g Underground Ut Iso To Coordinate Intities To Identifuit Routing Prior T	round ilities With y And o Any	11
ntifier	Description			<u>Identifier</u>	Des	scription			
•	Existing Manhole			GXXX -	<u>Det</u> Dra	ail Identifie wing # (De	e <u>r</u> tail Location)		
	Remove Existing	Fiber And Pull New			- Det	ail #	,		12
<b>— — २</b>	Fiber Through En Pathway	າpty Conduit			Pho	oto Identifio	cation Tag		тЭ
	Existing Conduit For New Fiber Ins	Pathway Available stallation		MDF	Ma	in Distribut	ion Frame		
	No Existing Fiber	Available - New		МН	Ma	nhole			
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Duct Bank, Trenc Fiber Required	ning, And New		MH#XX	Ma	nhole Ident	tification Tag		
#	Building To Build	ing Span Number		POE	Poi	nt Of Entry			14
				WCH	Wa	ll-Mounted	l Connector Housi	ng	
						dwg. no.			
1PUS (E 1	drawn by SC SC SC	ING PLAN Hecked by date G 05/03/	2020			F	A005		

KEY

GEN

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PA

<u>Identifier</u>	Description	Identifier
\bigcirc	Existing Manhole	
	New Manhole	GXXX ##
	Remove Existing Fiber And Pull New Fiber Through Empty Conduit Pathway	A
} →	Existing Conduit Pathway Available For New Fiber Installation	MDF
	No Existing Fiber Available - New	MH
}	Duct Bank, Trenching, And New Fiber Required	MH#XX
(#)	Building To Building Span Number	POE
		WCH

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PHOTO D - OUTSIDE NEW LIBRARY Location For New Manhole And Duct Bank Routing From New Library To Green Hall. Route Includes Hardscapes Such As Brick And Concrete.

PHOTO E - NORTH EAB Location For New Manhole And Duct Bank Routing From New Manhole North Of EAB To Manhole 12C. Route Includes Hardscapes Such As Brick And Concrete.

C	Counts - Alternate								
	Base Bid	Alternate 2							
	(Quantity Of Conduits)	(Quantity Of Conduits)							
	В	С							
	2	4							
	2	4							
	2	4							
	2	4							
	2	4							
	2	4							
	2	4							
n	nd FA008 For Further Information Regarding This Alternate.								

			Q		२			S			Т		
		Fiber F	Couting Starting Building	Ending Building		Empty Con	duit	Hybrid C	able To Be Insta	lled			
								Base Bid		Alternate #1			
		1	Armstrong Hall** Bliss Hall	STEM Building Kendall Hall			Yes		12/12 12/12	48/48			1
		3	Business Building	Kendall Hall			No		12/12	24/24			
		4 5	Trenton Hall Music Building	Kendall Hall Kendall Hall			No		12/12 12/12	36/36 24/24			
		6	AIMM Building	Kendall Hall			N/A		0*	26/26			
			Kendall Hall	Green Hall			Yes		12/12	144/144	4		2
			Chemestry Building Physics Building	STEM Building		 	N/A		0*				
			Biology Building	STEM Building			N/A		0*				
		8	STEM Building Forcina Hall	Green Hall Roscoe Hall		I	N/A Yes		0*	24/24			
			Education Building	Roscoe Hall			N/A		0*				2
		9 10	Centennial Hall Gitenstein Library	Roscoe Hall Roscoe Hall			No		12/12 12/12	24/24 36/36			5
		11	Roscoe Hall	Green Hall			No		12/12	96/96			
		12	Spiritual Center	Ely-Allen-Brewster			No		12/12				
		13	Maintenance Building	Powerhouse Elv-Allen-Brewster			Yes		12/12	24/24			
		15	Decker Hall	Ely-Allen-Brewster			No		12/12	36/36			4
		16 17	Ely-Allen-Brewster** New Residence Hall	Green Hall Eickhoff Hall			No		12/12	144/144 24/24	4		
		18	Packer Hall	Eickhoff Hall			No		12/12	36/36			
		19	Brower Student Center Eickhoff Hall	Eickhoff Hall Green Hall		I	N/A No		0* 12/12	96/96			
		20	TH1 (Town House West)	Cromwell Hall			No		48/48				5
		21 22	TH5 21A/B (Town House East TH9 (Town House South)	Cromwell Hall Cromwell Hall			No	(2	2) 36/36 48/48				
		23	Travers Hall	Cromwell Hall			Yes		12/12				
		24	Wolfe Hall Decker Garage	Cromwell Hall			Yes		12/12				
		25	Recreation Center	Cromwell Hall			No		12/12	36/36			
		27	Stadium Concession Stand	Recreation Center			No		12/12				6
		28 29	Soccer Field Press Box 28A/B Metzger Garage	Admin Splice Admin Splice			No		24/24	36/36			
			Phelps Hall	Admin Splice			N/A		0*				
		32	Hausdoerffer Hall Cromwell Hall	Admin Splice Green Hall		I	N/A No		0*	144/144	4		
		33	Travers/Wolfe Garage	Travers Hall			Yes		12/12				7
		34 35	Forcina Garage Fire Pump House	Education Building Admin Services Bu	ilding		No		12/12 12/12				
		36	Admin Services Building	Admin Splice			N/A		36/36	40/40			
	2. 3. 4. GEN 1. 2. 3. 4. 5. 6.	New N Coord Condu To Be Remo With ERAL All Co Provic Spare Provic Spare Provic Condu All Ma And Ir	Manhole To Be Instal linate With IT For Spa uit. Coordinate With Pulled Out. ve And Replace Tree TCNJ. See Sheet GOO NOTES nduit Sweeps Shall N de Warning Tape Abo de (3) 1-1/2" Innerdu Conduit And Each Sp de A #6 Ground Win ole Locations. de A 5/8 Inch X 10 Fo uctor From The Grou anhole Locations Ano frastructure.	led In This Lo are Fiber Con IT Departmen s, Bushes And 2 For Additio Jot Be Less Th ove All Duct B acts In All Of T bare Inner Du re Along All ot Ground Ro nd Rod To Th d Ductbank R	cation. S nections nt To Hav d Shrubb nal Infor nan 10 Ti anks. The Activ uct Per D Undergro od At Eac ie Bondir coutings	See She In This ve Exist bery In (mation mation mes Th re Cond uct Ban ound C ch Man ng Ribb Shall Be	et G003 / Area. Fib ing Fiber (Drder To I ne Inside D uits Per D ik. Conduit Ro hole Locat on In The e Coordina	01 For er Shal Connec nstall U Diamete uctbar outing. tion. A Manho ated W	More Deta II Be Pulled ction Chan Jndergoun er Of The C ak. Provide All Grour attached A ole. /ith Existin	ails. In Existing Iged To Allo d Conduit. Conduit. Pull Cords ads Shall Be #2 Solid Tin g Undergro	Spare w Existi Coordin In Each e Tied I ned Gro und Uti	ng ate n At ound lities	9 10 11
	7. 8. 9. PAR Iden	All Du Contra Local Mark Excava Coord TIAL S	ctbanks Shall Be Enc actor Shall Obtain A Utility Companies A Out All Buried Infras ation. Hand Digging linate Routing Of Un SYMBOLS & ABBRE Description	ased In Flowa Private Mark nd New Jerse tructure And In Certain Lo derground Du	able Fill. COUT Of ey One C Utilities cations Is uct Banks	The Ar Call (81 In The s Highly s With I	ea Of Wo 1) As Req Vicinity O Recomm Existing Fi dentifier	ork. Co Juired f Propo lended eld Col	ontractor A By Those I osed Condu nditions.	lso To Coor Entities To I uit Routing	dinate dentify Prior To	With And Any	12
	($\overline{)}$	Existing Manhole	2				Det	ail Identifi	er			
	I	3	New Manhole				GXXX ##	– Dra – Det	wing # (De ail #	tail Locatio	n)		12
،			Remove Existing Fiber Through Er	Fiber And Pu npty Conduit	ll New		A	Pho	oto Identifi	cation Tag			<u>د ب</u>
		.	Pathway Existing Conduit	Pathway Ava	ilable	N	ÚDF	Mai	in Distribut	ion Frame			
			For New Fiber In	stallation	-	N	1H	Ma	nhole				
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	No Existing Fiber Duct Bank, Trend	· Available - N ching, And Ne	lew ew		1⊢₩⋎⋎	N/-	nholo Idar	tification T-	ισ		
	(1	<b>#</b> >	FIDER REQUIRED	ing Span ID				ıvid		เกเฉมปก ได้	σ		14
	<u> </u>		6				UE	Poii	Of Entry				
tit	le						VCH	Wa	II-Mounted dwg. no.	Connector	⁻ Housir	Ig	
C. Z( sca AS	AMI ONE	PUS 2 WN	CONDUIT ROUT	ING PLAN	date 05/03/2	2020			F	-A0(	06		

128'Drawing:FA006Detail:01

TCNJ - CAMPUS FIRE ALARM PROJECT

2000 PENNINGTON ROAD,

EWING NJ, 08618

PART A - CABLE INFRASTRUCTURE UPGRADES

project

<u>Identifier</u>	Description	Identifier				
$\odot$	Existing Manhole					
	New Manhole	GXXX ##				
<del>ب</del> ۲	Remove Existing Fiber And Pull New Fiber Through Empty Conduit Pathway	A				
<del>ہے</del> ۔ ۔ ــــ	Existing Conduit Pathway Available For New Fiber Installation	MDF				
	No Existing Fiber Available - New	МН				
<b></b>	Duct Bank, Trenching, And New Fiber Required	MH#XX				
$\langle \# \rangle$	Building To Building Span ID	POE				
		WCH				
title CAMPUS CONDUIT ROUTING PLAN ZONE 2						

	А	В	С	D	E	F
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3(	1 05/01/2020 ISSUED FO	DR BID CRIPTION	ITEM DATE IS	SUE DESCRIPTION		

![](_page_16_Figure_1.jpeg)

	dlb a	issociates
	CONSULT 265 Industrial Wa	ING ENGINEERS, P.C. ay West, Eatontown, N.J. 07724
Questions For	DLB Call:	Anthony Laskosky
DLB Project ID	: 47211	Phone: 732-927-5038

	Q	R		S	5	Т		
Fiber F	louting	I	· · · · ·	 ,				
Span ID	Starting Building	Ending Building	Empty Condu	it Hyb Bas	orid Cable To Be Insta e Bid	Alternate #1		
1	Armstrong Hall**	STEM Building	Yes	;	12/12			1
2	Bliss Hall Business Building	Kendall Hall Kendall Hall	Yes		12/12	48/48		
4	Trenton Hall	Kendall Hall	No		12/12	36/36		
5	AIMM Building	Kendall Hall	N/A	\	0*	24/24		
6	Social Science	Kendall Hall	Yes	;	12/12	36/36		2
	Chemestry Building	STEM Building	N/A		0*	144/144		1
	Physics Building	STEM Building	N/A		0*			
	STEM Building	Green Hall	N/A	\	0*			
8	Forcina Hall Education Building	Roscoe Hall	Yes	; 	12/12 0*	24/24		
9	Centennial Hall	Roscoe Hall	No		12/12	24/24		3
10	Gitenstein Library Roscoe Hall	Roscoe Hall Green Hall	No		12/12	36/36 96/96		
	Norsworthy Hall	Ely-Allen-Brewster	N/A	\	0*			
12 13	Spiritual Center Maintenance Building	Ely-Allen-Brewster Powerhouse	No	;	12/12	24/24		
14	Powerhouse	Ely-Allen-Brewster	No		12/12	48/48		Л
15 16	Decker Hall Ely-Allen-Brewster**	Ely-Allen-Brewster Green Hall	No		12/12	36/36		4
17	New Residence Hall	Eickhoff Hall	No		12/12	24/24		
18	Packer Hall Brower Student Center	Eickhoff Hall	No N/A		12/12	36/36		
19	Eickhoff Hall	Green Hall	No	·	12/12	96/96		
20	TH1 (Town House West)	Cromwell Hall	No		48/48			5
22	TH9 (Town House South)	Cromwell Hall	No		48/48			
23	Travers Hall	Cromwell Hall	Yes	;	12/12			
24	Decker Garage	Cromwell Hall	Yes	;	12/12			
25	Recreation Center	Cromwell Hall	No		12/12	36/36		
26	Stadium Generator Building Stadium Concession Stand	Recreation Center	No		12/12			6
28	Soccer Field Press Box 28A/B	Admin Splice	No		24/24	36/36		
29	Metzger Garage Phelps Hall	Admin Splice Admin Splice	No N/A	\	0*			
	Hausdoerffer Hall	Admin Splice	N/A	\	0*			
32 33	Cromwell Hall Travers/Wolfe Garage	Green Hall Travers Hall	No Yes	;	12/12	144/144		
34	Forcina Garage	Education Building	No		12/12			7
35 36	Fire Pump House Admin Services Building	Admin Services Building Admin Splice	No N/A	\	36/36			
41	Eickhoff Room 227	Eickhoff Room 337	No		-	48/48		
Condu Pulled Remo With ⁻ ERAL All Co Provid Spare Provid Spare Provid Manh Provid Condu All Ma And Ir Contra Local	III. Coordinate With Out. Ve And Replace Tree FCNJ. See Sheet GOO <b>NOTES</b> nduit Sweeps Shall N le Warning Tape Abo le (3) 1-1/2" Innerd Conduit And Each S le A #6 Ground Wi ole Locations. le A 5/8 Inch X 10 Fo actor From The Grou anhole Locations An frastructure.	II Department To Ha es, Bushes And Shrub 2 For Additional Info Not Be Less Than 10 ⁻¹ ove All Duct Banks. Jucts In All Of The A pare Inner Duct Per I re Along All Underg oot Ground Rod At Ea and Rod To The Bond d Ductbank Routings . Private Mark Out O and New Jersey One	bery In Or mation. Fimes The ctive Con Duct Bank round Col ach Manho ing Ribbon 5 Shall Be f The Area Call (811)	Inside Dia duits Per I nduit Rout ole Locatio n In The M Coordinate	tall Undergou meter Of The Ductbank. Pro ting. All Grou on. Attached A anhole. ed With Existin . Contractor A	nd Conduit. Coord Conduit. Conduit. Dvide Pull Cords In ands Shall Be Tied A #2 Solid Tinned G ng Underground U Also To Coordinate Entities To Identi	n Each In At Sround tilities e With fy And	9 10 11
Excava Coord	inate Routing Of Un	derground Duct Ban	ls Highly F	isting Field	d Conditions.			12
tifier	Description Existing Manhole	2	Ide	entifier	Detail Identif	ior		
	New Manhole		(	GXXX ##	Drawing # (D	etail Location)		
	Remove Existing	Fiber And Pull New			Detail #			13
	Pathway	npty Conduit			Photo Identif	ication Tag		10
	Existing Conduit For New Fiber In	Pathway Available Istallation	ME	)F	Main Distribu	ition Frame		
	No Existing Fiber	r Available - New	MF	ł	Manhole			
	Duct Bank, Tren Fiber Required	ching, And New	MF	I#XX	Manhole Ide	ntification Tag		
#>	Building To Build	ling Span Number	PO	E	Point Of Entr	y		14
				`н	W/all_N/ounts	d Connector House	ing	
				~ 1			····δ	
PUS E 3	CONDUIT ROUT	ING PLAN			dwg. no.	FA007		
WN	drawn by c SC S	hecked by date G 05/03,	/2020					

## KEY N

### GEN

## PART

Identifier	Description	<b>Identifier</b>
$\bigcirc$	Existing Manhole	
	New Manhole	GXXX ##
	Remove Existing Fiber And Pull New Fiber Through Empty Conduit Pathway	
<b>}</b> →	Existing Conduit Pathway Available For New Fiber Installation	MDF
, , ,	No Existing Fiber Available - New	MH
(	Fiber Required	MH#XX
<b>(#</b> )	Building To Building Span Number	POE
		WCH
le		

AMPUS C	ONDUIT	ROUT	ING	PLAN
ONE 3				

![](_page_17_Figure_0.jpeg)

	CAMPUS FIBER PART PLAN	Scale: 1/64"=1'-0	)" 16'22' 64'	Drawing: FA008
dib associates CONSULTING ENGINEERS, P.C. 265 Industrial Way West, Eatontown, N.J. 07724			project TCNJ - CAMPUS F PART A - CABLE II 2000 PENNINGTO	FIRE ALARM PROJECT NFRASTRUCTURE UPGRADES ON ROAD,
Questions For DLB Call:Anthony LaskoskyDLB Project ID: 47211Phone: 732-927-5038			EWING NJ, 08618	3

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3				
Γτ	NJ - Manhole Conduit Co	ounts - Alternate		7
Roi	uting	Base Bid	Alternate 2	-
	U U	(Quantity Of Conduits)	(Quantity Of Conduits)	
	A			
мн	I-15A To MH-16A	2	4	]
Pov	wer House To MH-5	2	4	1
мн	I-5 To MH-6A	2	4	1
МН	I-6C To MH-7A	2	4	_
		-	•	

Eickhoff Hall To MH-6C

MH-1B To MH-1C

MH-3 to MH-6A

![](_page_17_Picture_4.jpeg)

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Refer To Details, FA006, And FA008 For Further Information Regarding This Alternate.

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PHOTO A - RECREATION CENTER POE Area For New Recreation Center Point Of Entry And New Duct Bank. Route Includes Hardscapes Such as Brick And Concrete.

![](_page_17_Picture_6.jpeg)

PHOTO B - Outside Tennis Field Area For New Manhole And Duct Bank Routing Located Outside Tennis Field. Route Includes Hardscapes Such As Brick And Concrete.

		Q	R			S		Т		
	Fiber R Span ID	Couting Starting Building	Ending Building	Empty Co	onduit	Hybrid Ca	ble To Be Insta	lled		
	1	Armstrong Hall**	STEM Building		Yes	Base Bid	12/12	Alternate #1		1
	2	Bliss Hall	Kendall Hall		Yes		12/12	48/48		
	3	Business Building Trenton Hall	Kendall Hall Kendall Hall		No		12/12	24/24 36/36		
	5	Music Building	Kendall Hall		No	:	12/12	24/24		
	6	Social Science	Kendall Hall Kendall Hall		N/A Yes	:	0* 12/12	36/36		
		Kendall Hall	Green Hall		Yes		0*	144/144		2
		Physics Building	STEM Building		N/A		0*			
		Biology Building STEM Building	STEM Building Green Hall		N/A N/A		0*			
	8	Forcina Hall	Roscoe Hall		Yes	:	12/12	24/24		
	9	Education Building Centennial Hall	Roscoe Hall Roscoe Hall		N/A No	:	0*	24/24		3
	10	Gitenstein Library	Roscoe Hall		No	:	12/12	36/36		
		Norsworthy Hall	Ely-Allen-Brewster		N/A		0*	96/96		
	12 13	Spiritual Center Maintenance Building	Ely-Allen-Brewster		No		12/12	24/24		
	14	Powerhouse	Ely-Allen-Brewster		No		12/12	48/48		Л
	15 16	Decker Hall Ely-Allen-Brewster**	Ely-Allen-Brewster Green Hall		No	:	12/12	36/36		4
	17	New Residence Hall	Eickhoff Hall		No		12/12	24/24		
	18	Packer Hall Brower Student Center	Eickhoff Hall Eickhoff Hall		No N/A	:	12/12 0*	36/36		
	19	Eickhoff Hall	Green Hall		No	:	12/12	96/96		
	20	TH1 (Town House West) TH5 21A/B (Town House East	Cromwell Hall		No	(2	) 36/36			5
	22	TH9 (Town House South)	Cromwell Hall		No		48/48			
	23	Wolfe Hall	Cromwell Hall		N/A		0*			
	24	Decker Garage Recreation Center	Cromwell Hall		Yes	:	12/12	36/36		
	26	Stadium Generator Building	Recreation Center		No	:	12/12			6
	27 28	Stadium Concession Stand Soccer Field Press Box 28A/B	Recreation Center Admin Splice		No No		12/12 24/24	36/36		0
	29	Metzger Garage	Admin Splice		No	:	24/24			
		Phelps Hall Hausdoerffer Hall	Admin Splice Admin Splice		N/A N/A		0* 0*			
	32	Cromwell Hall	Green Hall		No		12/12	144/144		
	33	Forcina Garage	Travers Hall Education Building		Yes No		12/12			7
	35	Fire Pump House	Admin Services Building		No N/A	:	12/12			
	41	Eickhoff Room 227	Eickhoff Room 337		No		-	48/48		
KEY NOTES (SYMBOLS ①, ②, ETC.)       8         1. New Point Of Entry From New Duct Bank Into Building. Core Drill Wall As Required For Conduit Entry. Coordinate Exact POE Location With Field Conditions.       1         2. New Manhole To Be Installed In This Location. See Sheet G003 / 01 For More Details.       1         3. Contractor Shall Coordinate With College IT Department To Disconnect The Existing Fiber Cable Before Pulling Out Cable. Once The Cable Has Been Disconnected And Removed, Contractor Shall Utilize Pathway To Pull In Replacement Fiber Cable.       9							8			
т.	With ⁻	TCNJ. See Sheet G00	2 For Additional Info	rmatic	n.					
GEN	ERAL	NOTES								
1.	All Co	nduit Sweeps Shall N	Not Be Less Than 10	Times 7	۲he Inside ۱	Diamet	er Of The	Conduit.		
2.	Provic	le Warning Tape Abo	ove All Duct Banks.							10
3.	Provic Spare	le (3) 1-1/2" Innerd Conduit And Each S	ucts In All Of The A pare Inner Duct Per I	ctive ( Duct Ba	Conduits Pe ank.	er Duct	bank. Pro	ovide Pull Cords I	n Each	
4.	Provic Manh	le A #6 Ground Wi ole Locations.	re Along All Underg	round	Conduit R	outing.	All Grou	nds Shall Be Tiec	l In At	
5.	Provic	le A 5/8 Inch X 10 Fc	oot Ground Rod At Ea	ich Ma	nhole Loca	ition. A	Attached A	. #2 Solid Tinned C	Ground	
C	Condu	ictor From The Grou	Ind Rod To The Bond	ing Rib	bon In The	Manho	ole.		14:11:4:00	11
0.	And Ir	nfrastructure.	u Ductbank Koutings	Slidii	Be Coordin		TITI EXISTI	ig onderground c	Junues	**
7.	All Du	ctbanks Shall Be End	cased In Flowable Fill							
8.	Contra Local	actor Shall Obtain A Utility Companies A	Private Mark Out O Ind New Jersey One	f The / Call (8	Area Of Wo 311) As Reo	ork. Co quired	ontractor A By Those	Also To Coordinat Entities To Identi	e With fy And	
	Excava	ation. Hand Digging	In Certain Locations	Is High	ly Recomn	nended	l.	uit Routing Prior	TO ANY	
9.	Coord	inate Routing Of Un	derground Duct Ban	ks With	n Existing F	ield Co	nditions.			12
PAR	TIALS	SYMBOLS & ABBR	EVIATIONS							
Iden	tifier	Description			Identifier	Des	scription			
(	$\geq$	Existing Manhole	2		CXXX-	Det	ail Identif	ier atail Location)		
		New Manhole Remove Existing	Fiber And Pull New		##	– Det	ail #			13
<b>ب م</b> ح	2	Fiber Through Er Pathway	npty Conduit		#	Pho	oto Identif	ication Tag		
<b>ـ</b> ــــ		Existing Conduit	Pathway Available		MDF	Ma	in Distribu	tion Frame		
	•	For New Fiber In	r Available - Now		МН	Ma	nhole			
<b>}</b>		Duct Bank, Trend	ching, And New		MH#XX	Ma	nhole Ider	ntification Tag		
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42 SHO	VVIN	SC S	,05/03	2020						

## KEY

## GEN

Identifier	Description	<b>Identifier</b>
$\bigcirc$	Existing Manhole	
	New Manhole	GXXX ##
<del>، ،</del>	Remove Existing Fiber And Pull New Fiber Through Empty Conduit Pathway	#
<b>→ →</b>	Existing Conduit Pathway Available For New Fiber Installation	MDF
	No Existing Fiber Available - New	MH
<b>ب</b>	Duct Bank, Trenching, And New Fiber Required	MH#XX
<b>(#</b> )	Building To Building Span ID	POE
		WCH
^{tle} CAMPUS C CONE 4	ONDUIT ROUTING PLAN	

cale	drawn by	checked by	date
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![](_page_18_Figure_0.jpeg)

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Bid	Alternate #1		
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12/12	48/48		
12/12	24/24		
12/12	24/24		
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12/12	36/36		
	144/144		2
0*			
0*			
0*			
12/12	24/24		
0*			
12/12	24/24		3
12/12	36/36		
12/12	96/96		
0*			
12/12	24/24		
12/12	48/48		
12/12	36/36		4
12/12	144/144		
12/12	24/24		
12/12	36/36		
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48/48	50750		
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48/48			
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12/12			
12/12	36/36		
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24/24			
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Conduit Pathy tion and New Fiber I	Required		10 11 12 14
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![](_page_19_Figure_0.jpeg)

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12/12	24/24		
12/12	36/36		
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12/12	36/36		2
0*	144/144		2
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12/12	24/24		
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12/12	24/24		5
12/12	96/96		
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12/12	24/24		
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12/12	36/36		4
12/12	24/24		
12/12	36/36		
0*	06/06		
48/48	90/90		_
(2) 36/36			5
48/48			
0*			
12/12			
12/12	36/36		
12/12			6
24/24	36/36		
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12/12	144/144		
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![](_page_20_Figure_0.jpeg)

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12/12	Alternate #1		1
12/12	48/48		
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12/12	24/24		
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12/12	36/36		5
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12/12	36/36		
0*			
12/12 48/48	96/96		
(2) 36/36			5
48/48			
12/12 0*			
12/12			
12/12	36/36		
12/12			6
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Fiber Ro	outing			5			
Span ID	Starting Building	Ending Building	Empty Conduit	Hybrid Cable To Be Ins	talled		
1	Armetrong Hall**		Vec	Base Bid	Alternate #1		1
1 / 2 E	Bliss Hall	Kendall Hall	Yes	12/12	48/48		-
3 E	Business Building	Kendall Hall	No	12/12	24/24		
4 ⁻	Trenton Hall	Kendall Hall	No	12/12	36/36		
	AIMM Building	Kendall Hall	N/A	0*			
6 5	Social Science	Kendall Hall	Yes	12/12	36/36		2
ŀ	Kendall Hall	Green Hall STEM Building	Yes N/A	0*	144/144		2
F	Physics Building	STEM Building	N/A	0*			
E	Biology Building	STEM Building	N/A	0*			
8 6	STEM Building	Green Hall	N/A Yes	0*	24/24		
o r	Education Building	Roscoe Hall	N/A	0*	24/24		
9 (	Centennial Hall	Roscoe Hall	No	12/12	24/24		3
10	Gitenstein Library	Roscoe Hall	No	12/12	36/36		
1 11	Norsworthy Hall	Ely-Allen-Brewster	N/A	0*	90/90		
12 5	Spiritual Center	Ely-Allen-Brewster	No	12/12			
13	Maintenance Building	Powerhouse	Yes	12/12	24/24		
14 F 15 [	Powernouse Decker Hall	Ely-Allen-Brewster	No	12/12	36/36		4
16 ^E	Ely-Allen-Brewster**	Green Hall	No	12/12	144/144		
17	New Residence Hall	Eickhoff Hall	No	12/12	24/24		
18 F	Packer Hall Brower Student Center	Eickhoff Hall Eickhoff Hall	No N/A	0*	36/36		
19 E	Eickhoff Hall	Green Hall	No	12/12	96/96		
20	TH1 (Town House West)	Cromwell Hall	No	48/48			5
21	TH5 21A/B (Town House East	Cromwell Hall	No	(2) 36/36			•
23	Travers Hall	Cromwell Hall	Yes	12/12			
· · · · · · · · · · · · · · · · · · ·	Wolfe Hall	Cromwell Hall	N/A	0*			
24	Decker Garage	Cromwell Hall	Yes	12/12			
25 F	Recreation Center Stadium Generator Building	Cromwell Hall Recreation Center	No	12/12	36/36		C
27 5	Stadium Concession Stand	Recreation Center	No	12/12			6
28	Soccer Field Press Box 28A/B	Admin Splice	No	24/24	36/36		
29	Metzger Garage	Admin Splice	No N/A	24/24			
	Hausdoerffer Hall	Admin Splice	N/A	0*			
32 (	Cromwell Hall	Green Hall	No	12/12	144/144		
33	Travers/Wolfe Garage	Travers Hall	Yes	12/12			7
34 F	Forcina Garage	Education Building	No	12/12			
35 r 36 /	Admin Services Building	Admin Splice	N/A	36/36			
41 E	Eickhoff Room 227	Eickhoff Room 337	No	-	48/48		
This Sho A005-F Couting	eets Purpose Is To Si 2008 For Further Car Information.	now The Fiber Pathwa mpus Routing Informa	y Between Building ition. See The Bui	gs Where New Fi Iding Drawing Se	ber Will Be Provideo ries For Further Bu	d. See iilding	
				, .,			9
TIAL S	YMBOLS & ABBRE	VIATIONS					
ifier	Description						
)	Existing Manhole						10
	New Manhole						
	Remove Existing	Fiber And Pull New Fi	iber Through Emp	oty Conduit Path	way		
	Existing Conduit I	Pathway Available Fo	r New Fiber Insta	llation	·		
	No Existing Fiber	Available - New Duct	Bank Trenching	And New Fiber	Required		
``	Building To Buildi	ing Span Number			nequirea		11
]		ייא פאמון ואמווואקן					
		PENNINGTON RD					
							12
							13
			GREEN LN	ŊŢ			14
			MPUS KEY				
ING	FIBER ROUTING	6		dwg. no.	FA012		
	drawn by ch	ecked by date					
νN	SL SC	05/03/2	2020	Confidential an	d Propriotory / ODLP	Associated	2010

![](_page_21_Picture_15.jpeg)

scale AS SHOWN	drawn by SC	checked by SG	date 05/03/2020