



# Comprehensive Community Infrastructure Budget Narrative Template

Applicant Name: Merit Network, Inc.

EasyGrants Number: 4658

Organization Type: Non-Profit Corporation

Proposed Period of Performance: 10/1/10 through 6/30/13

Total Federal Grant Request: \$69,639,291

Total Matching Funds (Cash): \$17,409,823

Total Matching Funds (In-Kind): \$0

Total Matching Funds (Cash + In-Kind): \$17,409,823

Total Matching Funds (Cash + In-Kind) as Percentage of Total  
Project Costs: 20%

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## 1. Administrative and legal expenses - \$621,845

- [REDACTED] of this category, includes pre-award expenses for a grant writer, writing assistant, accountants, costing consultants, research leads and assistants. The regular staffing costs were taken directly from timesheets. The hourly rate and fringe benefit costs (see fringe benefit note below) utilized were the same as their rounded, current rates. No additions were made for corporate overhead or indirect costs. The grant writer submitted timesheets and was hired at a set hourly rate and FICA charges. All timesheets were reviewed and signed by managers for appropriateness. The consultants submit invoices at hourly rates.



- The following table lists all hours and rates for these expenses:

Pre Award Expense			
<u>Staff</u>	<u>Hrs</u>	<u>Hourly Rate*</u>	<u>Total</u>
Admin	65	\$ [REDACTED]	[REDACTED]
Admin	112	\$ [REDACTED]	[REDACTED]
Financial	144	\$ [REDACTED]	[REDACTED]
Research	100	\$ [REDACTED]	[REDACTED]
Research	100	\$ [REDACTED]	[REDACTED]
Research	105	\$ [REDACTED]	[REDACTED]
Research	150	\$ [REDACTED]	[REDACTED]
Research	152	\$ [REDACTED]	[REDACTED]
Consulting Accounting	12	\$ [REDACTED]	[REDACTED]
Consulting Costing	10	\$ [REDACTED]	[REDACTED]
Grant Writer	290	\$ [REDACTED]	[REDACTED]
* Rounded to the nearest dollar			
* Begin date 2/15/10			

- [REDACTED] of this category was for pre-award legal consultants. The legal fees, at [REDACTED] were estimated costs (yet unbilled) for development related to Merit’s MOUs (Memos of Understanding) with the seven sub-recipients of the proposal and IRUs (Indefesible Right to Use) for Merit’s agreements with other fiber owners and the Michigan Mackinaw Bridge Authority.
- [REDACTED] in this category is for an administration grant specialist, a grant administration assistant and a grant consultant to be hired during the project period to handle mandated compliance requirements, project time keeping, invoicing, project related financials, and serve as an assistant to the project managers. The estimated salary for the grant administration specialist is [REDACTED] Merit, during this round, will have seven sub-recipients and has determined that in order to manage the recipients’ invoicing and payments an assistant will be required. The estimated salary for this position is [REDACTED] The standard fringe benefit package includes Merit’s portion of FICA, health insurance and dental insurance, group insurance, retirement plan, long-term disability, and [REDACTED] for the University of Michigan’s administration of the benefit programs. The average cost for this program is [REDACTED] per dollar of salary. Once an hourly estimate for salary was established for each position the hourly salary was then increased by [REDACTED] to cover the fringe benefit package. The rate for each position includes salary and this fringe benefit amount only. No other costs were added to the rates. The [REDACTED] does not include any other indirect or direct costs, (i.e.) overhead, facilities, general or administrative costs, etc. nor were any of these costs added to the proposal.



- It is expected that these will be 40 hour per week positions and will be entitled to all standard benefits offered by the corporation. A salary increase of [REDACTED] has been built into the average hourly rate for both positions. Merit Network, Inc. has utilized grant administrators and assistants over the course of its history and is very familiar with the going rates. These positions will be limited to the duration of the project. Merit will also utilize an outside grant consultant at the initiation of the project to assist with administrative issues. It is estimated that [REDACTED] hours at [REDACTED] of time will be used. This rate is based upon similar consulting work performed for Merit.
- The following table lists all hours and rates for these expense:

<b>Administrative and Consulting</b>				
<b>Staff</b>	<b>Hrs</b>	<b>Hourly Rate*</b>	<b># of Yrs</b>	<b>Total</b>
Grant Administrator	2,080	\$ [REDACTED]	3	\$ [REDACTED]
Grant Admin Assistant	2,080	\$ [REDACTED]	3	\$ [REDACTED]
Grant Consultant	100	\$ [REDACTED]		\$ [REDACTED]
				\$ [REDACTED]

\* Rounded to the nearest dollar

- [REDACTED] constitutes the remaining portion of this category and will be for consulting services. [REDACTED] is for legal fees for construction contract review and is based on the average legal cost per mile [REDACTED] Merit has experienced with fiber construction. BBCGI, the firm reviewing unserved and underserved statistics, invoiced Merit for [REDACTED].
- All expenses in this category are to be supported by [REDACTED] cash matching funds supported by Merit and its sub-recipients. All sub-recipients are sharing [REDACTED] of [REDACTED], through a pro ration of the number of fiber stands they will own, for a total share cost of [REDACTED]. The remaining category expense of [REDACTED] is directly related to a single sub-recipient and that partner will support [REDACTED] of the expenses for a share support of [REDACTED].

<b>Administrative and Legal</b>			
<b>Category Expense</b>	<b>Grant Support</b>	<b>Cash Match</b>	<b>Share Method</b>
\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
\$ [REDACTED]	[REDACTED]	[REDACTED]	1 Sub-recipient
<b>\$ 621,845</b>	<b>\$ 497,476</b>	<b>\$ 124,369</b>	<b>Total</b>
<b>100%</b>	<b>80%</b>	<b>20%</b>	<b>%</b>

2. Land, structure, rights-of-way, appraisals, etc. - \$1,116,000

- \$1,116,000 will provide for the installation of [REDACTED] prefabricated huts in order to support active network equipment. These huts are 10' x 12', are made out of concrete and are commonly



used for field equipment installations. The cost includes the hut, a concrete foundation, a gravel access road to the hut for maintenance purposed, and the installation of these components. Each hut will cost [REDACTED] with a slight variance for the road access cost which has been averaged into the over all cost. These costs have been obtained from vendor quotes.

- All expenses in this category are to be supported by 20% cash matching funds. The huts will be utilized by Merit and all the partners therefore the 20% cash match will be shared by all through a pro ration of the number of fiber stands they will own, for a total share cost of \$ [REDACTED].

Land/Structures/Right-of-Way			
Category Expense	Grant Support	Cash Match	Share Method
\$ 1,116,000	\$ 892,800	\$ 223,200	All partners by strand count
100%	80%	20%	%

3. Relocation expenses and payment - \$0

4. Architectural and engineering fees - \$4,301,298

- [REDACTED] of these costs are the estimated expense for the engineering and surveying of the fiber routes and preparation for the documentation of the permitting process. This is a contractual cost and has been derived from multiple consultations with fiber installation contractors. This is estimated at [REDACTED] per fiber mile with a build of 1172.2 miles. Note: Cost is per fiber mile and is not dependant on the number of strands which varies through out the build.
- [REDACTED] includes pre-award expenses for engineering staff, engineering assistants, and engineering consultants. The regular staffing costs were taken directly from timesheets. The hourly rate and fringe benefit costs (see fringe benefit note below) utilized were the same as their rounded, current rates. No additions were made for corporate overhead or indirect costs. All timesheets were reviewed and signed by managers for appropriateness. The consultants submit invoices at hourly rates.

Pre Award Expense			
Staff	Hrs	Hourly Rate*	Total
Engineering	[REDACTED]	[REDACTED]	[REDACTED]
Engineering	[REDACTED]	[REDACTED]	[REDACTED]
Engineering	[REDACTED]	[REDACTED]	[REDACTED]
Engineering	[REDACTED]	[REDACTED]	[REDACTED]
Engineering	[REDACTED]	[REDACTED]	[REDACTED]
Consultant Engineering	[REDACTED]	[REDACTED]	[REDACTED]
			[REDACTED]
* Rounded to the nearest dollar			
* Begin date 2/15/10			

- [REDACTED] is included in this category to provide for engineering staff during the project. It includes six full time positions and partial hours for several other engineering tasks. The full time



positions include a project manager, a project manager assistant, two operations engineers, and two junior engineering assistants. Rates (see below) are based upon similar or current salaried positions within the corporation and the standard fringe benefit package. The standard fringe benefit package includes Merit's portion of FICA, health insurance and dental insurance, group insurance, retirement plan, long-term disability, and [REDACTED] for the University of Michigan's administration of the benefit programs. The average cost for this program is [REDACTED] per dollar of salary. Once an hourly estimate for salary was established for each position the hourly salary was then increased by [REDACTED] to cover the fringe benefit package. The rate for each position includes salary and this fringe benefit amount only. No other costs were added to the rates. The [REDACTED] does not include any other indirect or direct costs, (i.e.) overhead, facilities, general or administrative costs, etc. nor were any of these costs added to the proposal.

The project manager and the project assistant will have limited three year positions. The four full-time engineering positions will commence six months after the notice of the award and will continue after the project is completed.. The staffing will be utilized for network design, network and optical transport equipment configuration, installation, provisioning and testing of systems. This also includes fiber testing using optical testing equipment by operations and for fiber route surveying and engineering, documentation including as-built drawings, engineering/project management of fiber build projects. Also included in the cost are engineering and documentation for entrance into anchor tenants and central offices. Several contractual and other staff will be utilized on a partial basis as required. Rates and hours are provided below. Time and costs are based upon Merit's experience in implementing an optical and IP network

This amount also includes travel cost for engineering and the project managements staff. It is estimated that over three years the cost will be [REDACTED]. Rates are based upon average hotel costs, estimated travel miles, approved daily meal cost, and anticipated mileage.

- Below is a table listing the project engineering staff, positions, rates, hours and travel and is followed by a table detailing travel requirements:

<b>Architecture and Engineering Fees</b>				
<b>Staff</b>	<b>Hrs</b>	<b>Hourly Rate*</b>	<b># of Yrs</b>	<b>Total</b>
Project Manager	2,080	\$ [REDACTED]	3	\$ [REDACTED]
PM Assistant	2,080	\$ [REDACTED]	3	\$ [REDACTED]
Engineer/Ops 1	1,733	\$ [REDACTED]	2.5	\$ [REDACTED]
Engineer/Ops 2	1,733	\$ [REDACTED]	2.5	\$ [REDACTED]
Engineering Staff Assistant	1,733	\$ [REDACTED]	2.5	\$ [REDACTED]
Engineering Staff Assistant	1,733	\$ [REDACTED]	2.5	\$ [REDACTED]
Engineering Equipment Mg	360	\$ [REDACTED]	1	\$ [REDACTED]
Engineering Field Equipme	440	\$ [REDACTED]	1	\$ [REDACTED]
Engineering Design	580	\$ [REDACTED]	1	\$ [REDACTED]
Eng.Project, R/W/Staking	147	\$ [REDACTED]	1	\$ [REDACTED]
Engineering Support	220	\$ [REDACTED]	1	\$ [REDACTED]
Travel Project Manager				\$ [REDACTED]
Travel Engineering				\$ [REDACTED]
Travel Access Engineering				\$ [REDACTED]
				<b>\$ [REDACTED]</b>

\* Rounded to the nearest dollar



Travel Detail	Cost of Miles			Lodging Cost		Meal Cost		Travel	Lodging	Meals	# of Yrs	Total
	Mons of Travel	# of trips/ Mon	Total Miles	Cost/ Mile	Hotel Days	Cost/ Days	Meal Days					
Project Manager	7	2.0	1,200		3		3				2.5	
PM Assistant	5	0.8	1,200		1		1				2	
Engineer/Ops 1	9	1.5	1,200		2		2				3	
Engineer/Ops 2	9	1.5	1,200		2		2				1.5	
Access Optical Eng.	6	1.5	591		0	\$ -	2				3	

- [redacted] of the project budget supports contracted system lineup and testing [redacted] and deployment execution [redacted]). These costs are based upon vendor quotes.
- All expenses in this category are to be supported by [redacted] cash matching funds from Merit and its sub-recipients. All sub-recipients are sharing 20% of [redacted], the [redacted], and [redacted], through a pro ration of the number of fiber stands they will own, for a total share cost of [redacted]. [redacted] of the remaining category expenses are directly related to Merit or a single sub-recipient and will be support by that partner for 20% of the expenses for a share support of [redacted].

Architecture and Engineering			
Category Expense	Grant Support	Cash Match	
\$ [redacted]	[redacted]	[redacted]	All partners by strand count
\$ [redacted]	[redacted]	[redacted]	All partners by strand count
\$ [redacted]	[redacted]	[redacted]	1 Sub-recipient
\$ [redacted]	[redacted]	[redacted]	All partners by strand count
\$ [redacted]	[redacted]	[redacted]	Merit only
\$ [redacted]	[redacted]	[redacted]	1 Sub-recipient
\$ [redacted]	[redacted]	[redacted]	1 Sub-recipient
<b>\$ 4,301,298</b>	<b>\$ 3,441,039</b>	<b>\$ 860,260</b>	<b>Total</b>
<b>100%</b>	<b>80%</b>	<b>20%</b>	<b>%</b>

5. Other architectural and engineering fees - \$0

6. Project inspection fees - \$732,625

- **\$732,625** is an estimate for pole inspections and Michigan Department of Transportation (MDOT) charges. Pole inspections average about \$5.00 per pole. The project is estimated to utilize about [redacted] poles per mile and the total mileage is 1172.2. The total cost for pole inspection is estimated at [redacted]. MDOT charges an inspection fee of [redacted] per mile. With 1172.2 miles the



estimated charge for MDOT inspection is [REDACTED]. Fees are also for verification of acceptance once work is completed.

- All expenses in this category are to be supported by a 20% cash matching funded by all partners. Merit and all sub-recipients are sharing 20% of [REDACTED], through a pro ration of the number of fiber stands they will own, for a total share cost of [REDACTED].

Project Inspection Fees			
Category Expense	Grant Support	Cash Match	Share Method
\$ 732,625	\$ 586,100	\$ 146,525	All partners by strand count
100%	80%	20%	%

7. Site work - \$723,009

- [REDACTED] is for wiring work in the central offices. The estimate is based upon quotes from vendors. This includes inside plant preparation work including conduit, fiber panel, and power installation for network and optical equipment. Also in this budget category are the added costs of working with local telecommunication companies to penetrate the identified central offices in the proposal.
- [REDACTED] the estimate for the fiber connectionwork associated with anchor tenant access. The cost is based on quotes from two fiber installation contractors and Merit’s own experience installing fiber into anchor tenants.
- [REDACTED] is the estimate for additional fiber installation and wiring based on quotes from vendors.
- [REDACTED] is the estimate for power improvement at AMP sites based upon current known rates. This is for network management of the optical transport equipment. The \$7500 is the cost for the Network Management appliance and software for the optical transport. . This cost comes from a vendor quote.
- All expenses in this category are to be supported by a 20% cash matching funded by Merit or one of the partners. The [REDACTED] for the central office wiring and the [REDACTED] for anchor tenant access is exclusive to Merit and the 20% share of [REDACTED] is to be supported by Merit, The remaining [REDACTED] and [REDACTED] for power improvement 20% share cost is the responsibility of partners for [REDACTED].

Site Work			
Category Expense	Grant Support	Cash Match	
\$ [REDACTED]	[REDACTED]	[REDACTED]	Merit only
\$ [REDACTED]	[REDACTED]	[REDACTED]	Merit only
\$ [REDACTED]	[REDACTED]	[REDACTED]	1 Sub-recipient
\$ [REDACTED]	[REDACTED]	[REDACTED]	1 Sub-recipient
\$ 723,009	\$ 578,407	\$ 144,602	Total
100%	80%	20%	%



8. Demolition and removal - \$0

9. Construction - \$51,151,342

- [REDACTED] is for the fiber build that will vary from [REDACTED] to [REDACTED] strands covering 1172.2 miles. The build includes installation of fiber optic cable and repair of any current infrastructure (make ready). Labor includes both aerial and underground construction. Variances between build costs are due to location issues and number of fiber strands in the bundle. Costs are based upon consultation with multiple fiber installation contractors.

Fiber Construction Costs			
Strands/Build	Miles	Cost/Mile	
Fiber Build [REDACTED] Strands	14.0	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	88.8	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	96.7	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	29.5	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	160.2	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	123.0	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	369.5	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	72.4	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	29.7	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	75.0	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	16.3	\$ [REDACTED]	[REDACTED]
Fiber Build [REDACTED] Strands	97.1	\$ [REDACTED]	[REDACTED]
<b>Total</b>	<b>1172.2</b>		<b>\$ [REDACTED]</b>

- [REDACTED] is budgeted for the wiring construction into the central offices. The cost is an estimate based upon consultation with vendors who have built dual entrance access into central offices.
- All expenses in this category are to be supported by a 20% cash matching funded by Merit and the partners. The fiber construction and the central office wiring construction will be utilized by Merit and all the partners therefore the 20% cash match will be shared by all through a pro ration of the number of fiber stands they will own, for a total share cost of \$ [REDACTED].

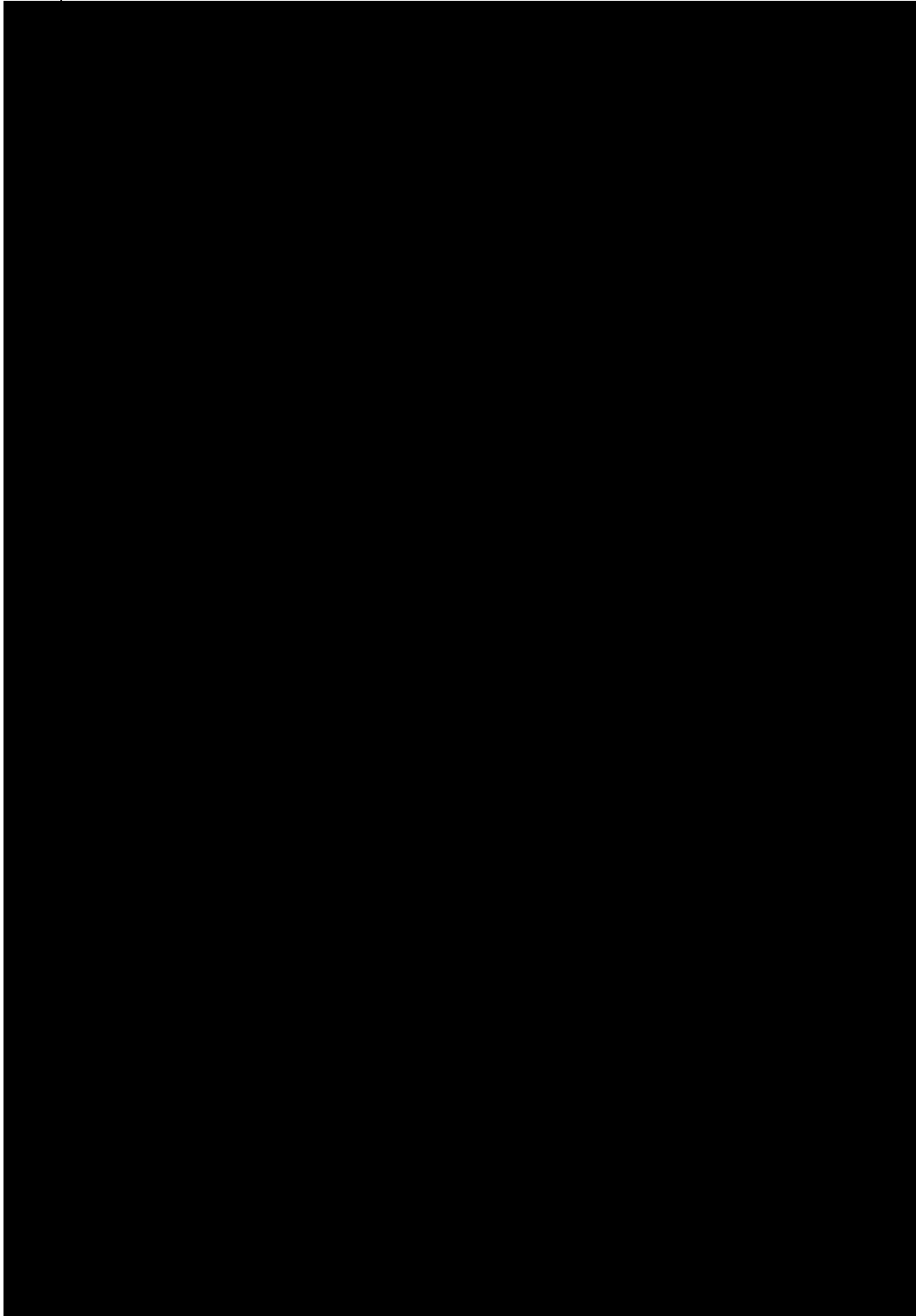
Construction			
Category Expense	Grant Support	Cash Match	
\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
<b>\$ 51,151,342</b>	<b>\$ 40,921,074</b>	<b>\$ 10,230,268</b>	<b>Total</b>
<b>100%</b>	<b>80%</b>	<b>20%</b>	<b>%</b>

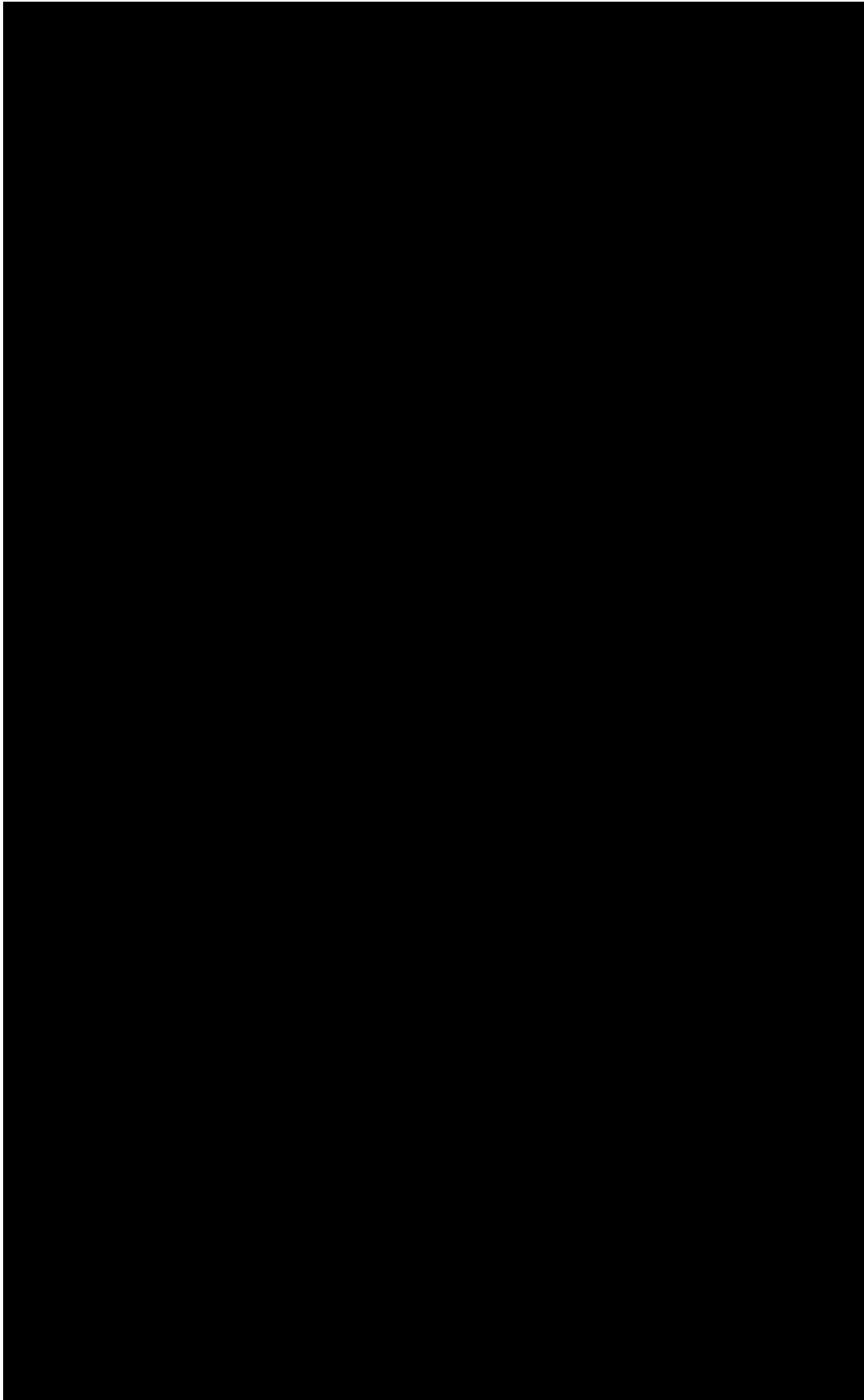


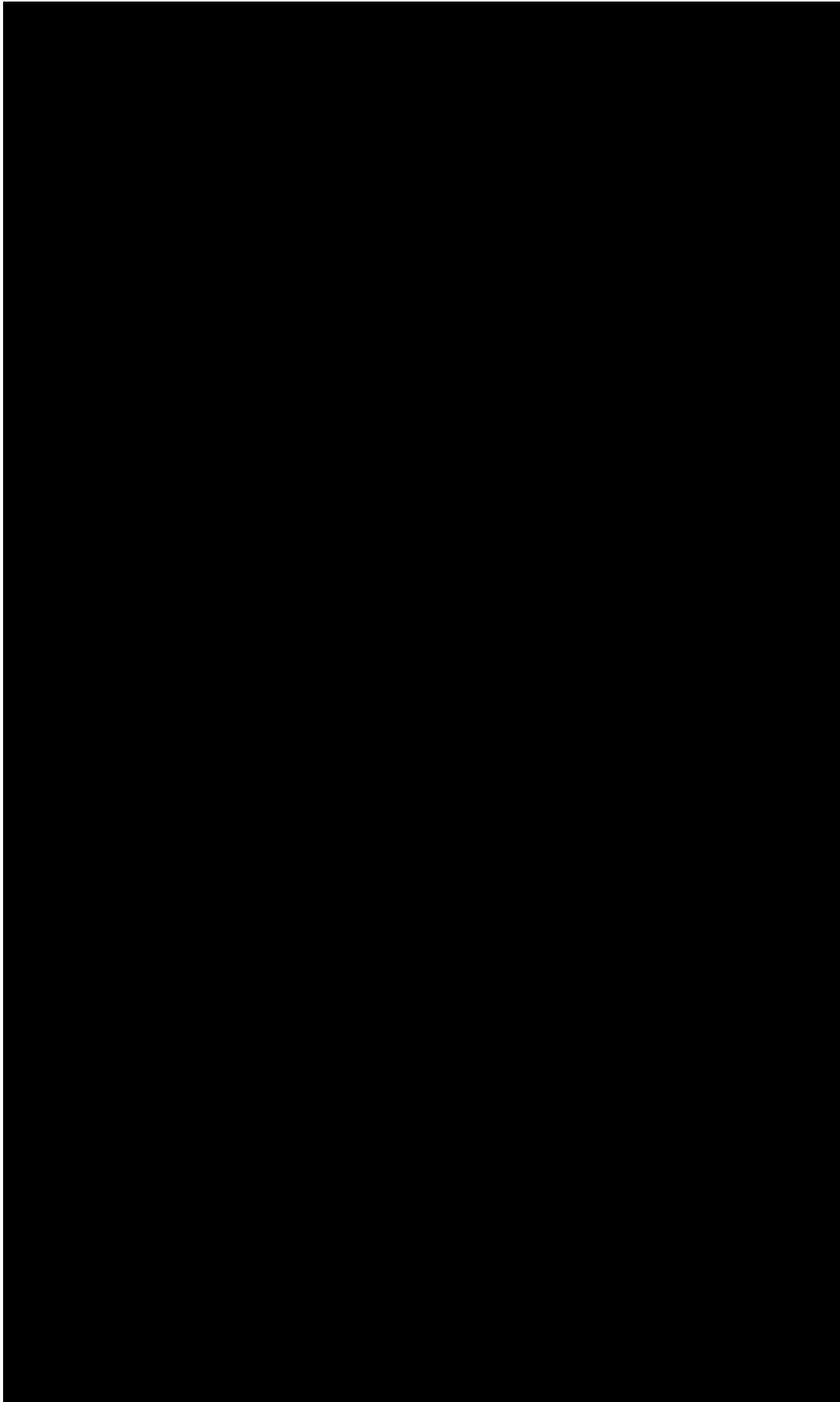


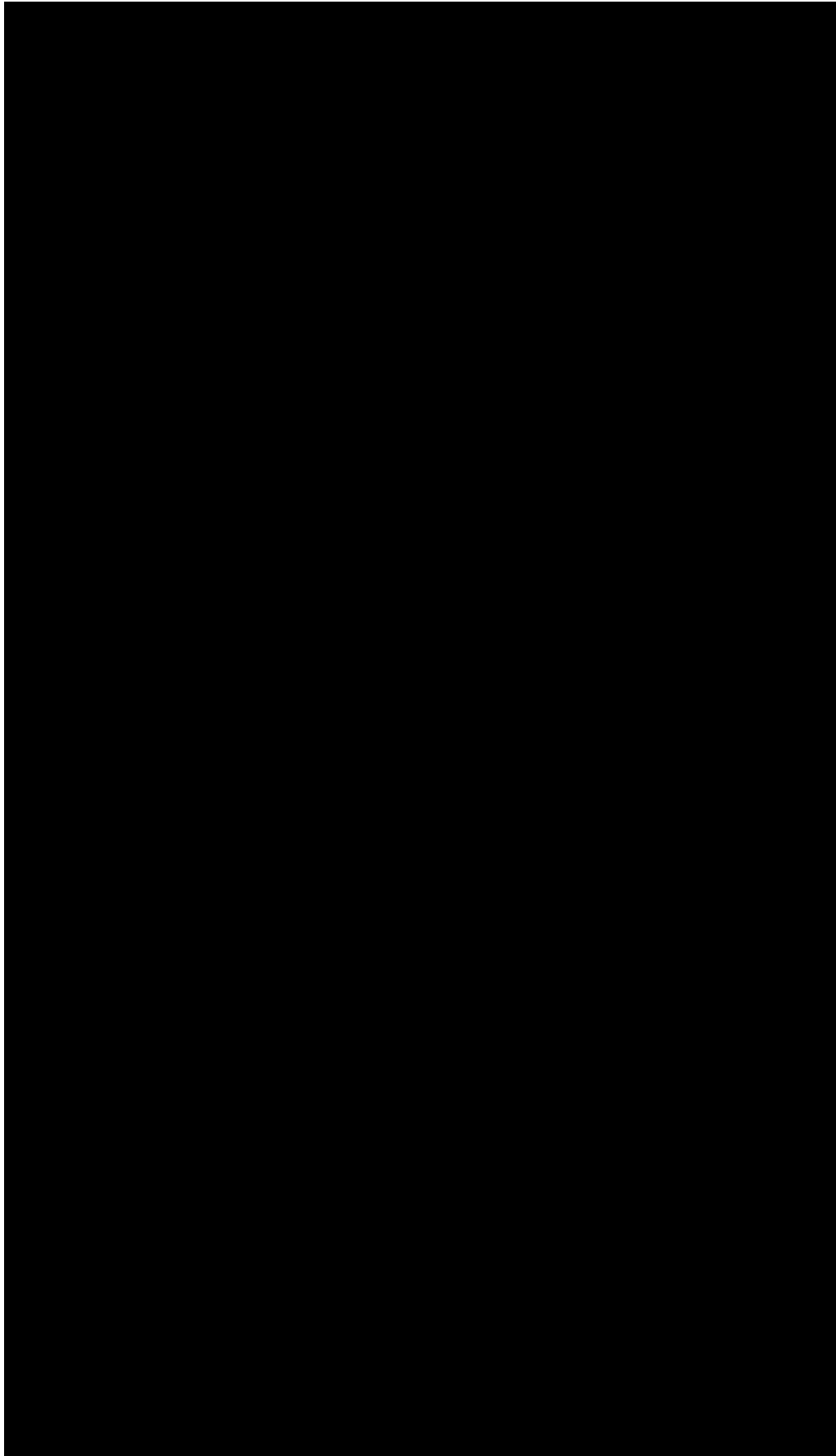
10. Equipment - \$28,244,599

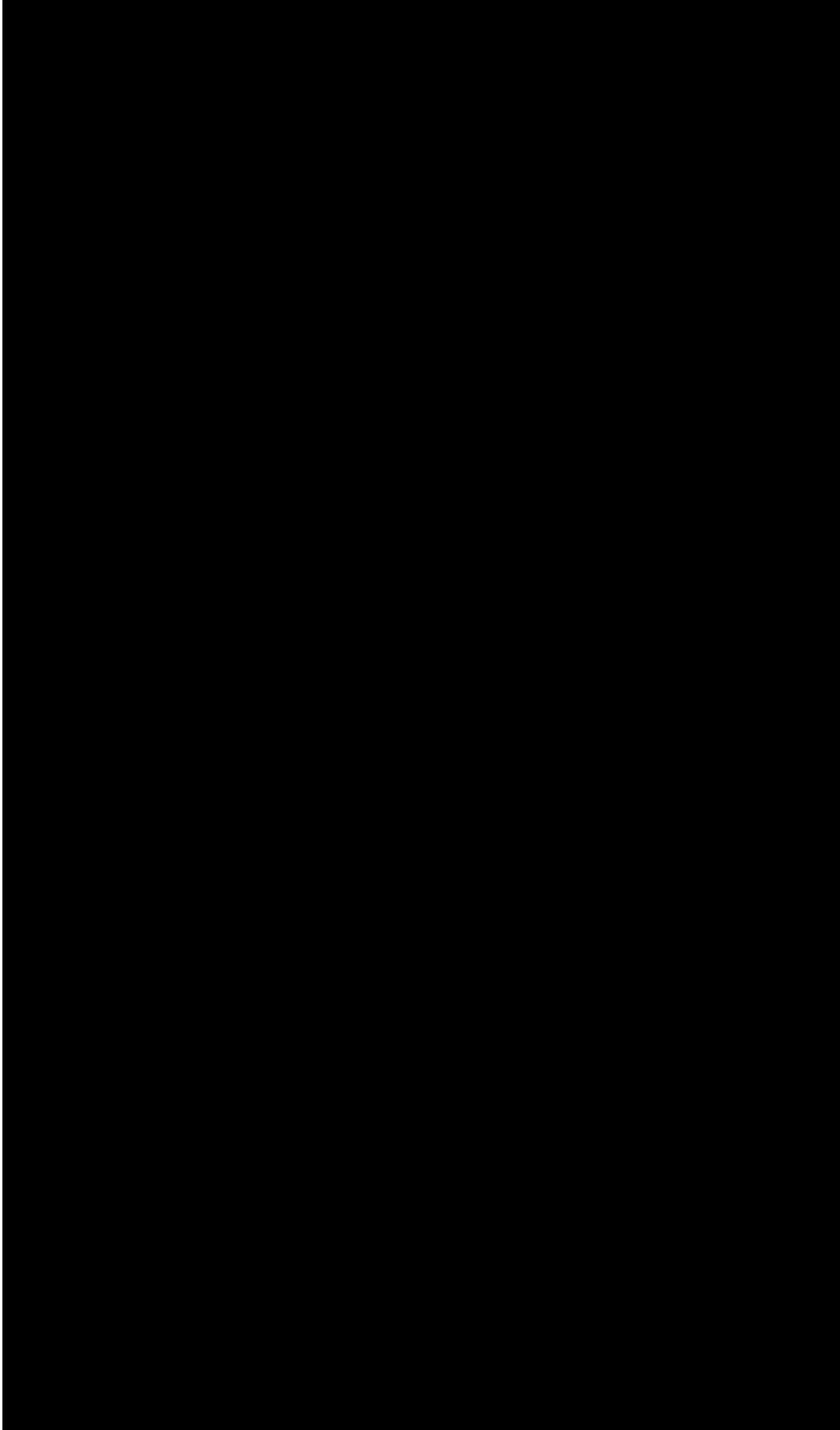
- **\$28,244,599** is budgeted for equipment. All the equipment is purchased except for two, twenty (20) year IRUs (Indefesable Right to Use) leases on fiber. All equipment costs are based on vendor quotes or negotiated IRUs. All project equipment is listed below:

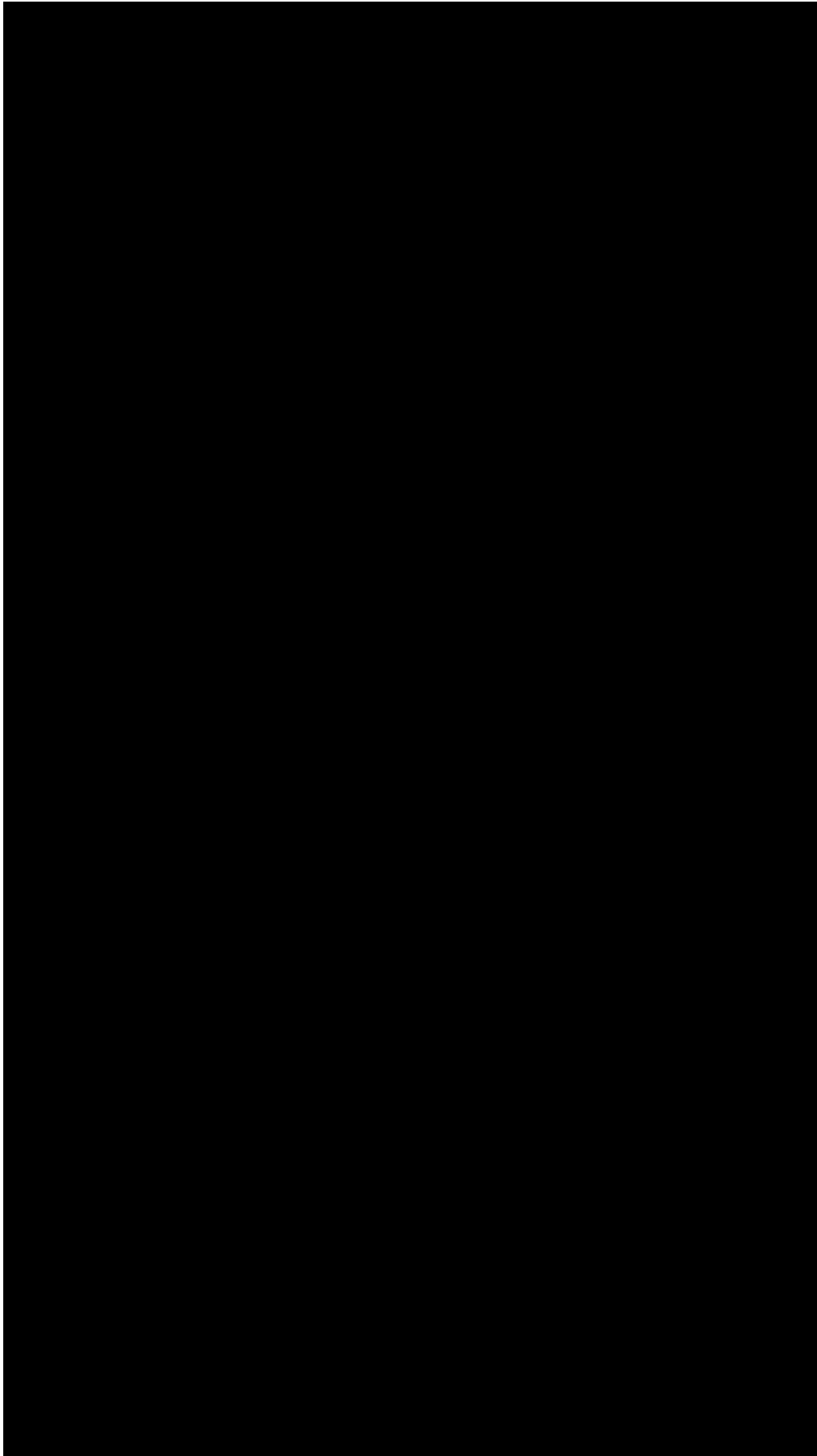


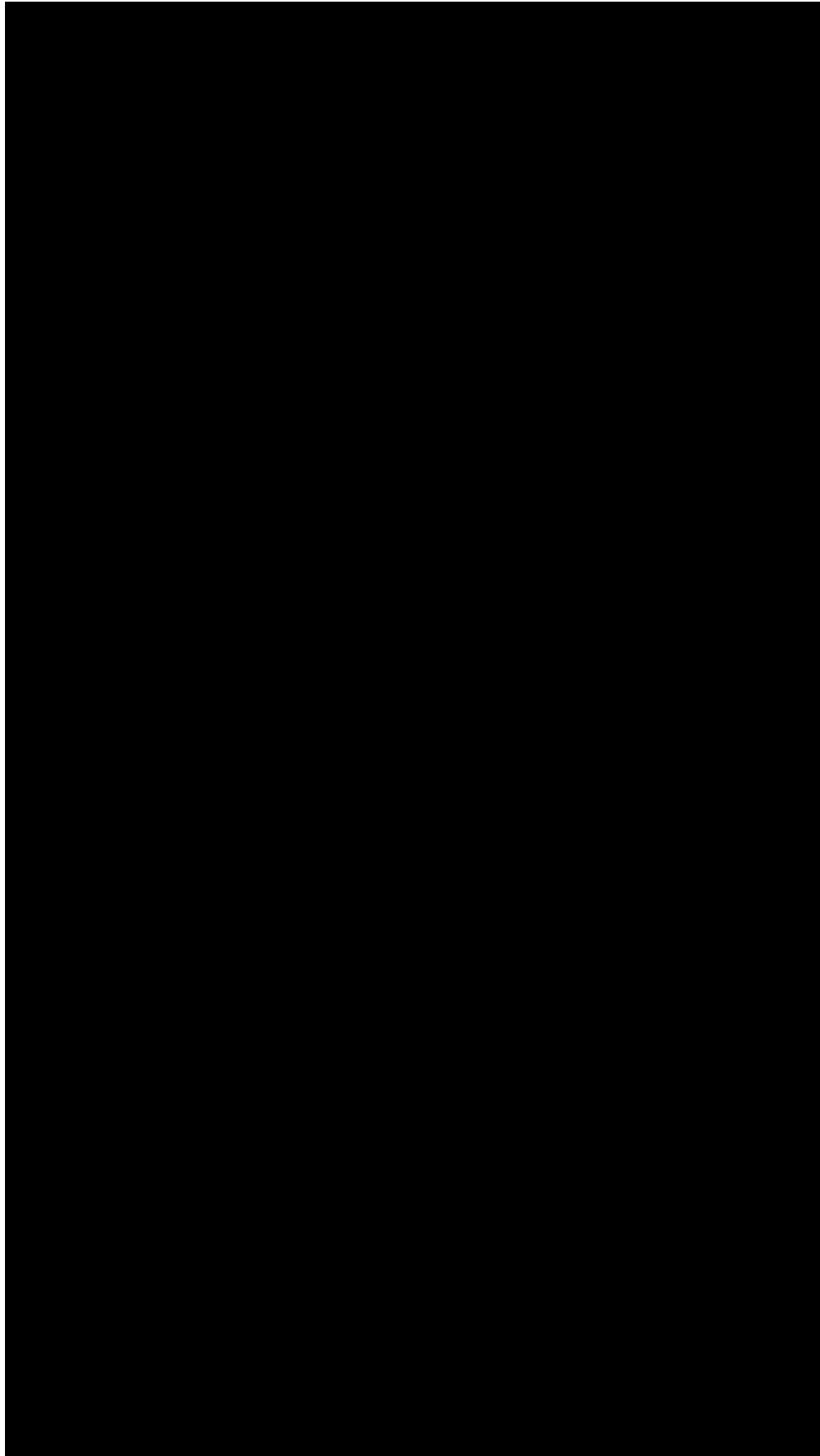


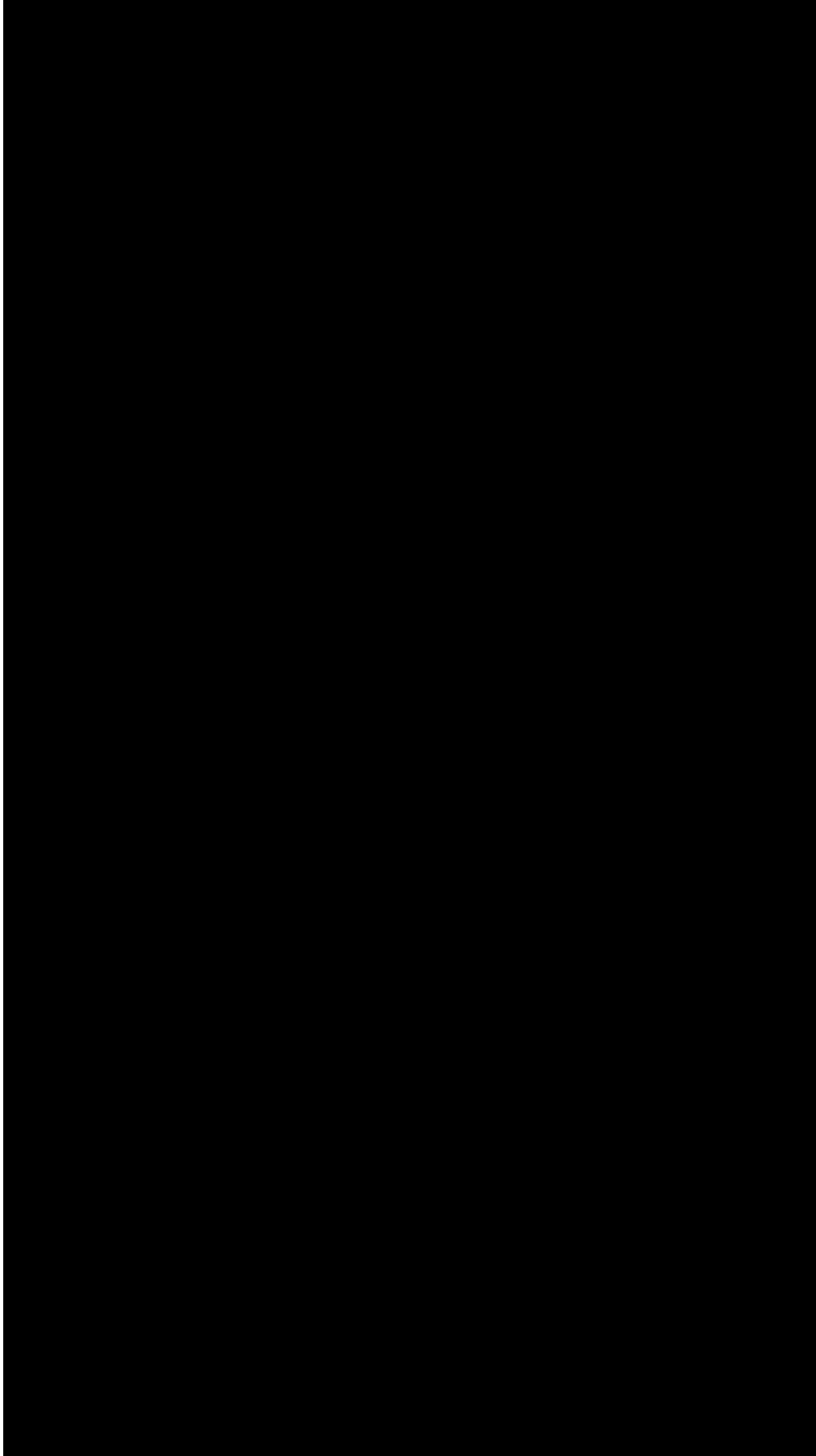




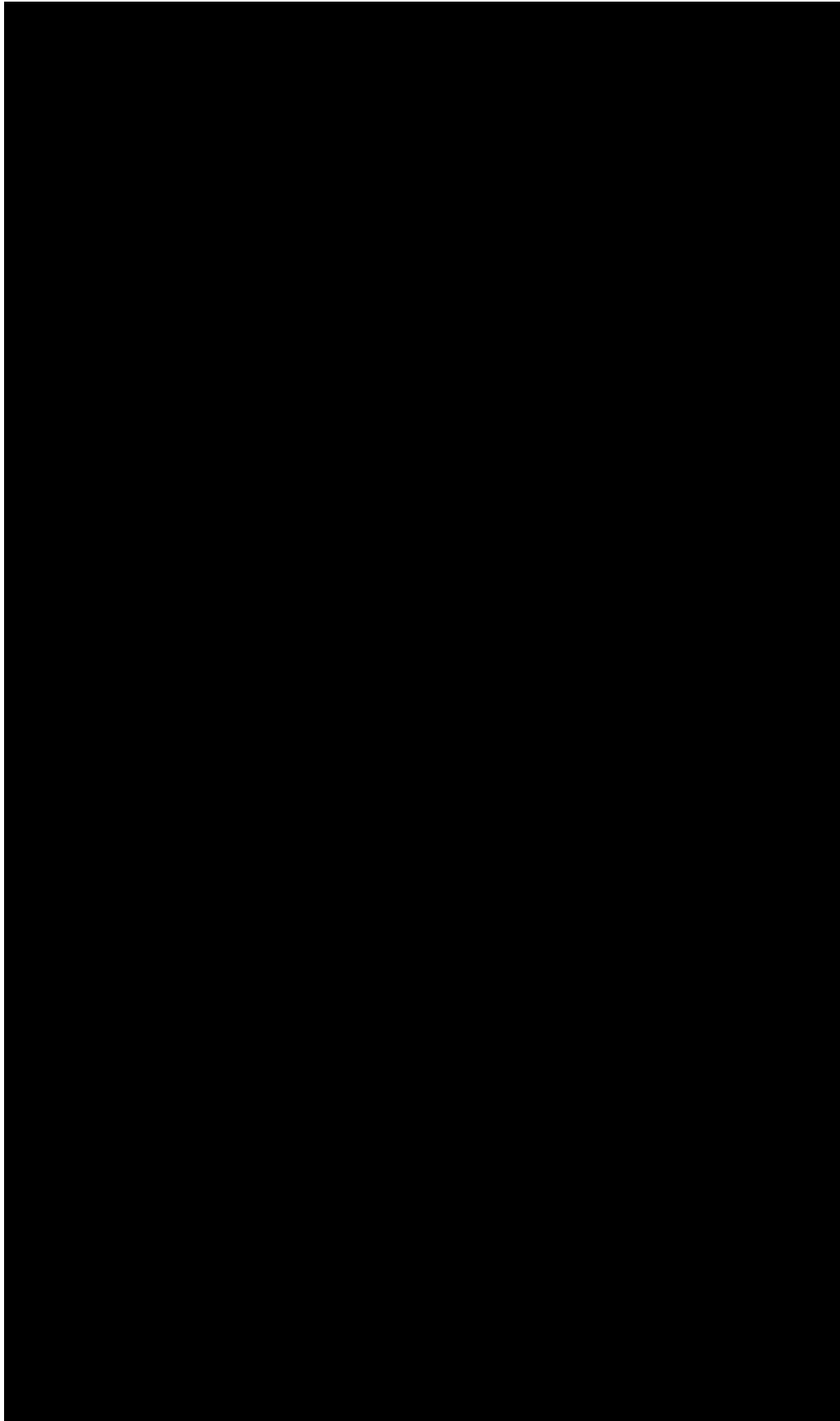


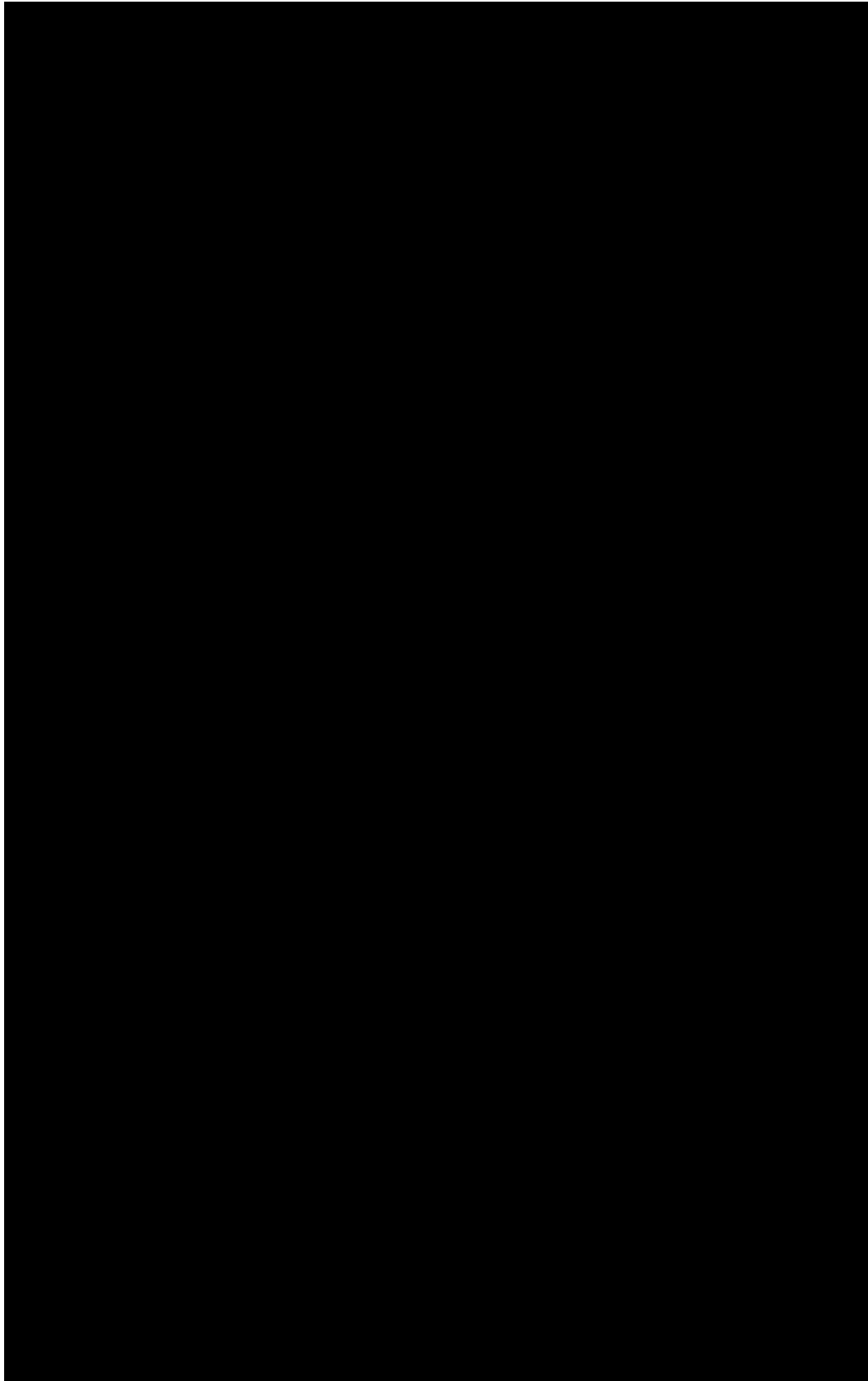


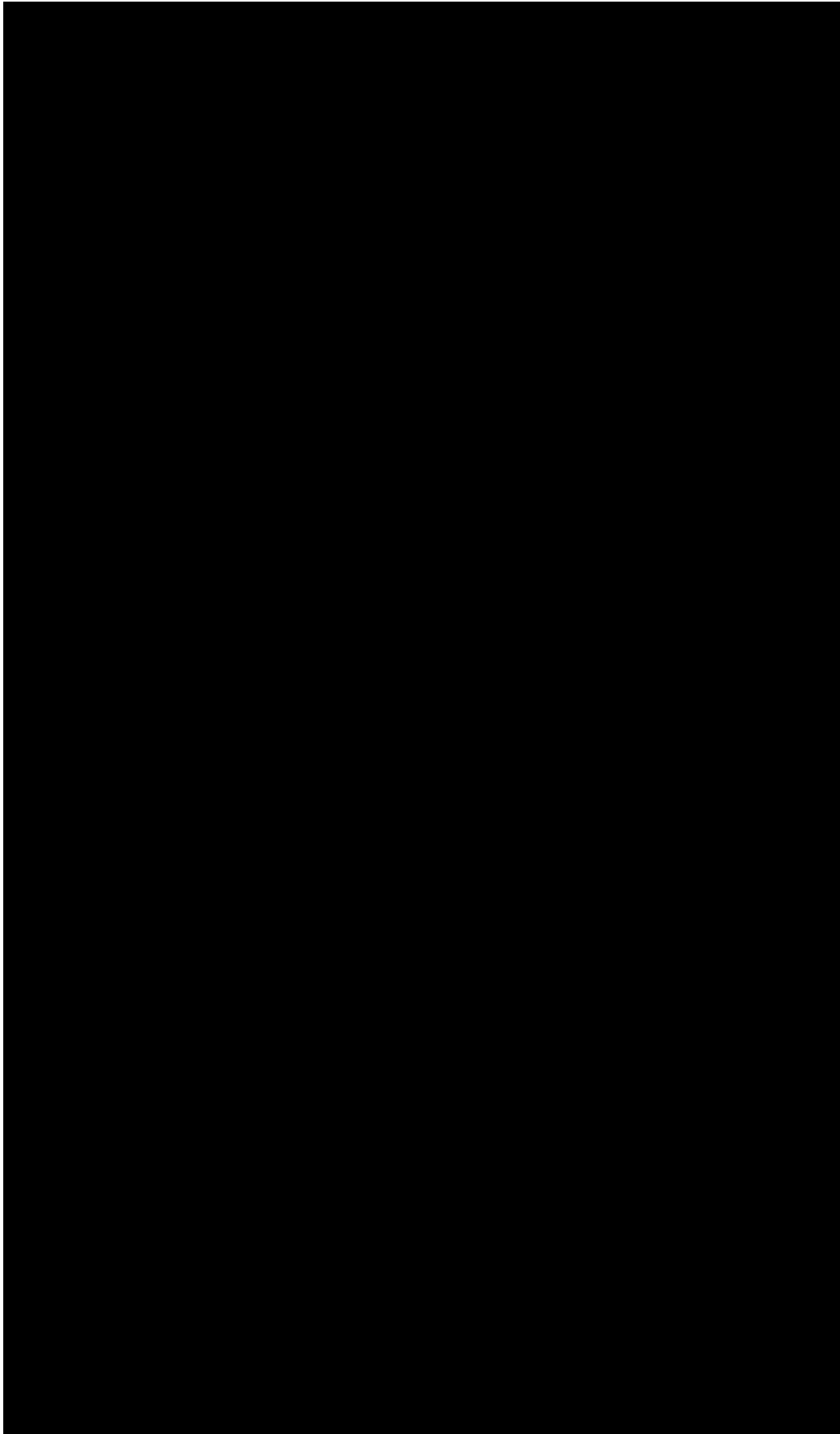


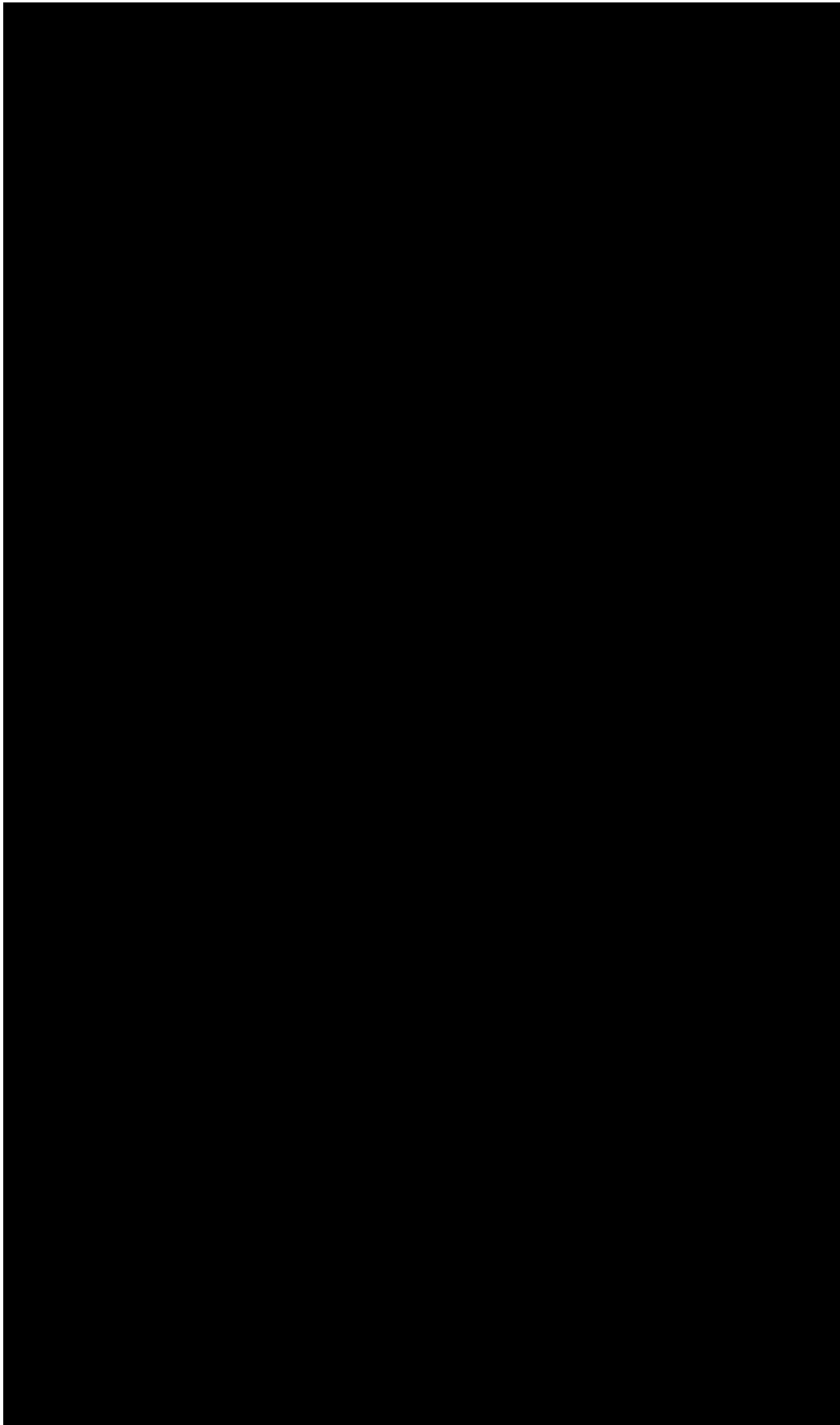


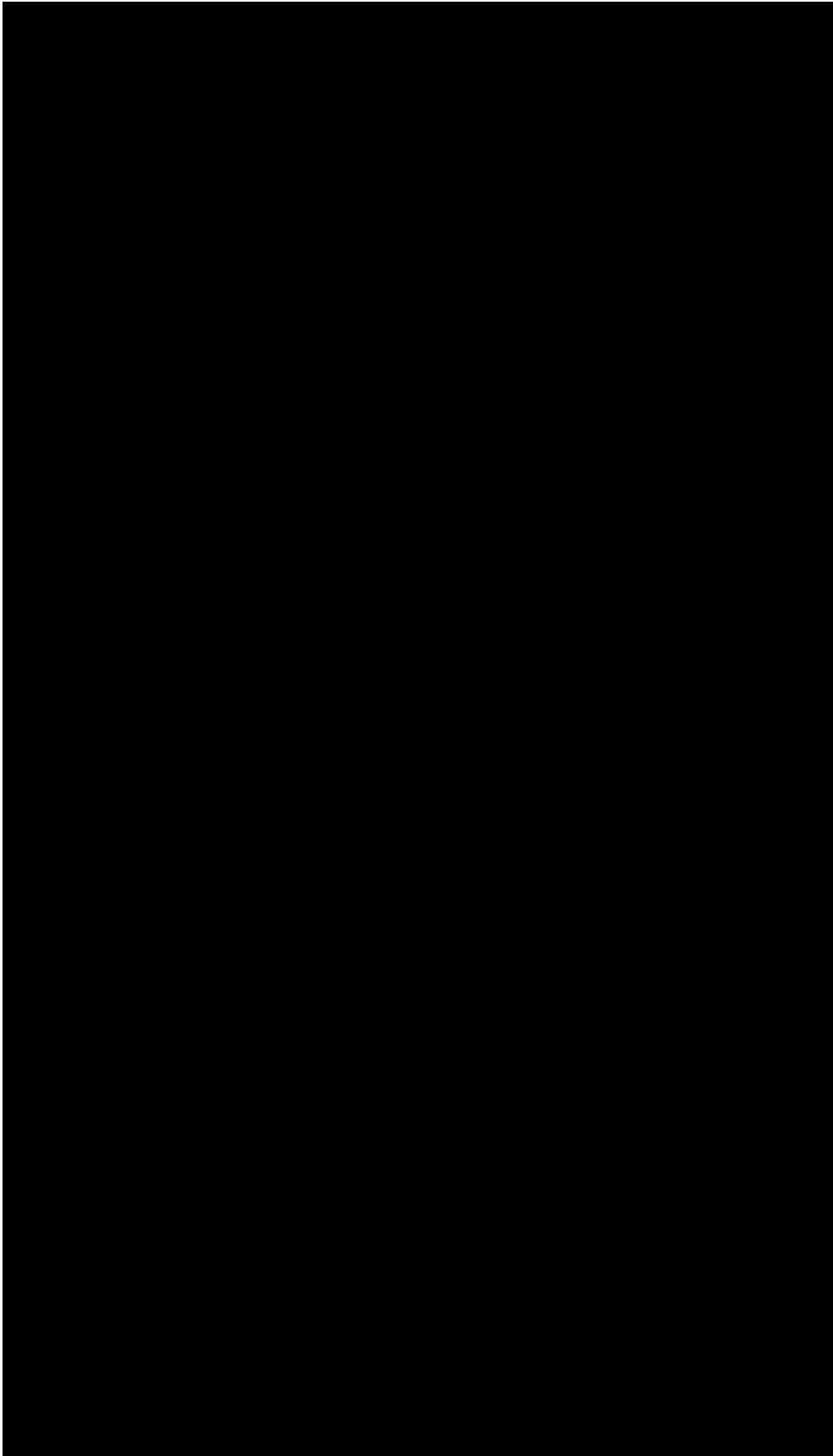


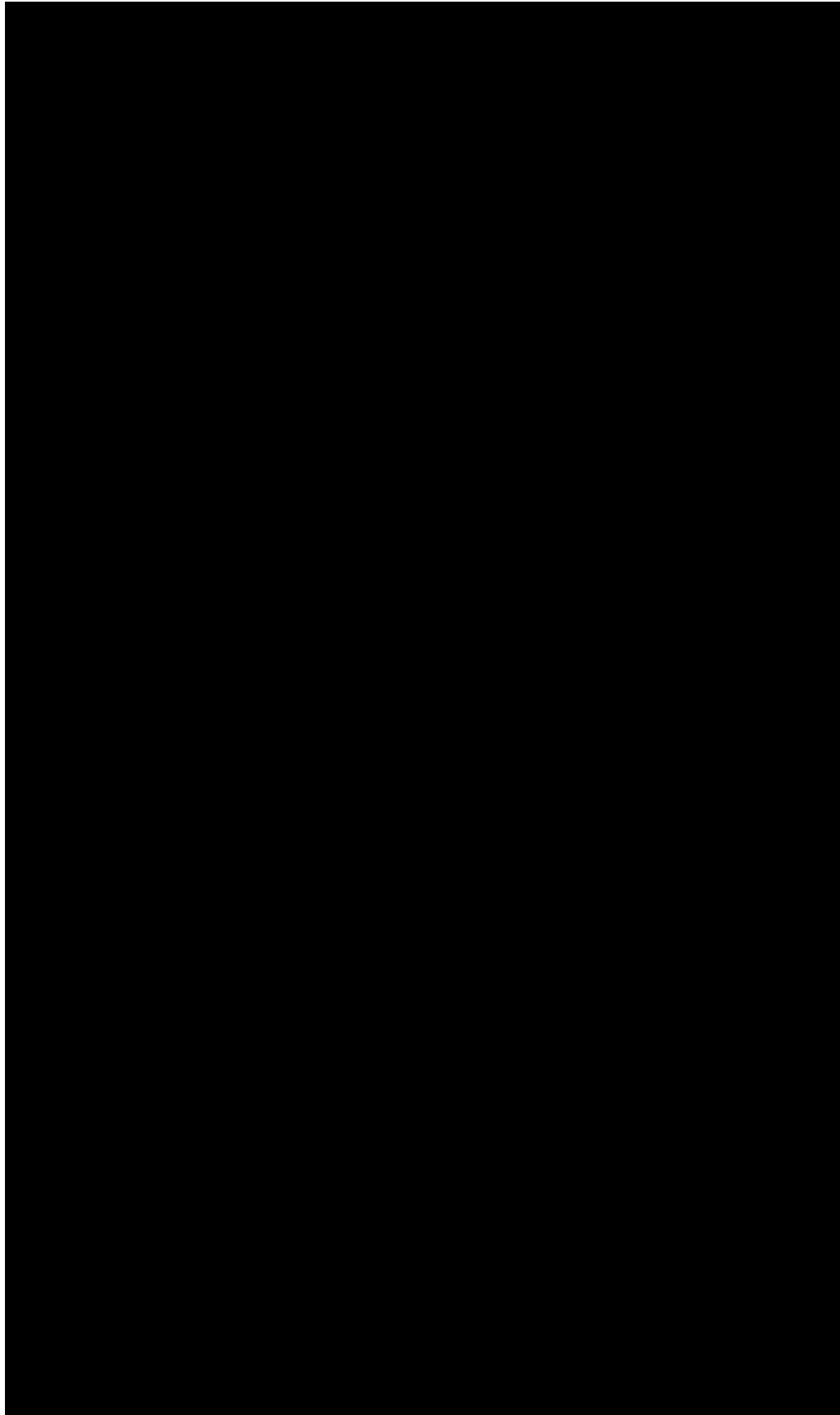


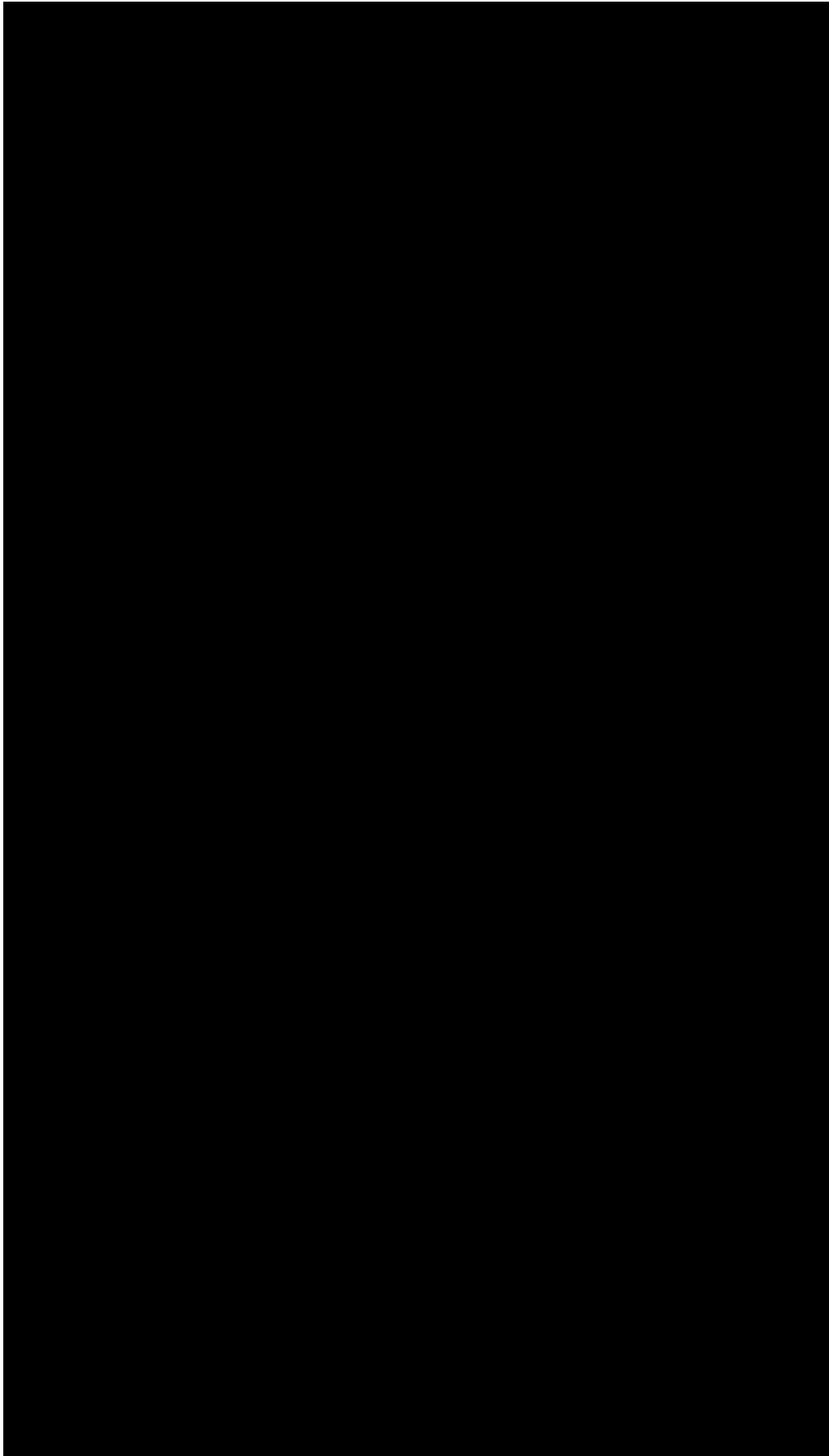


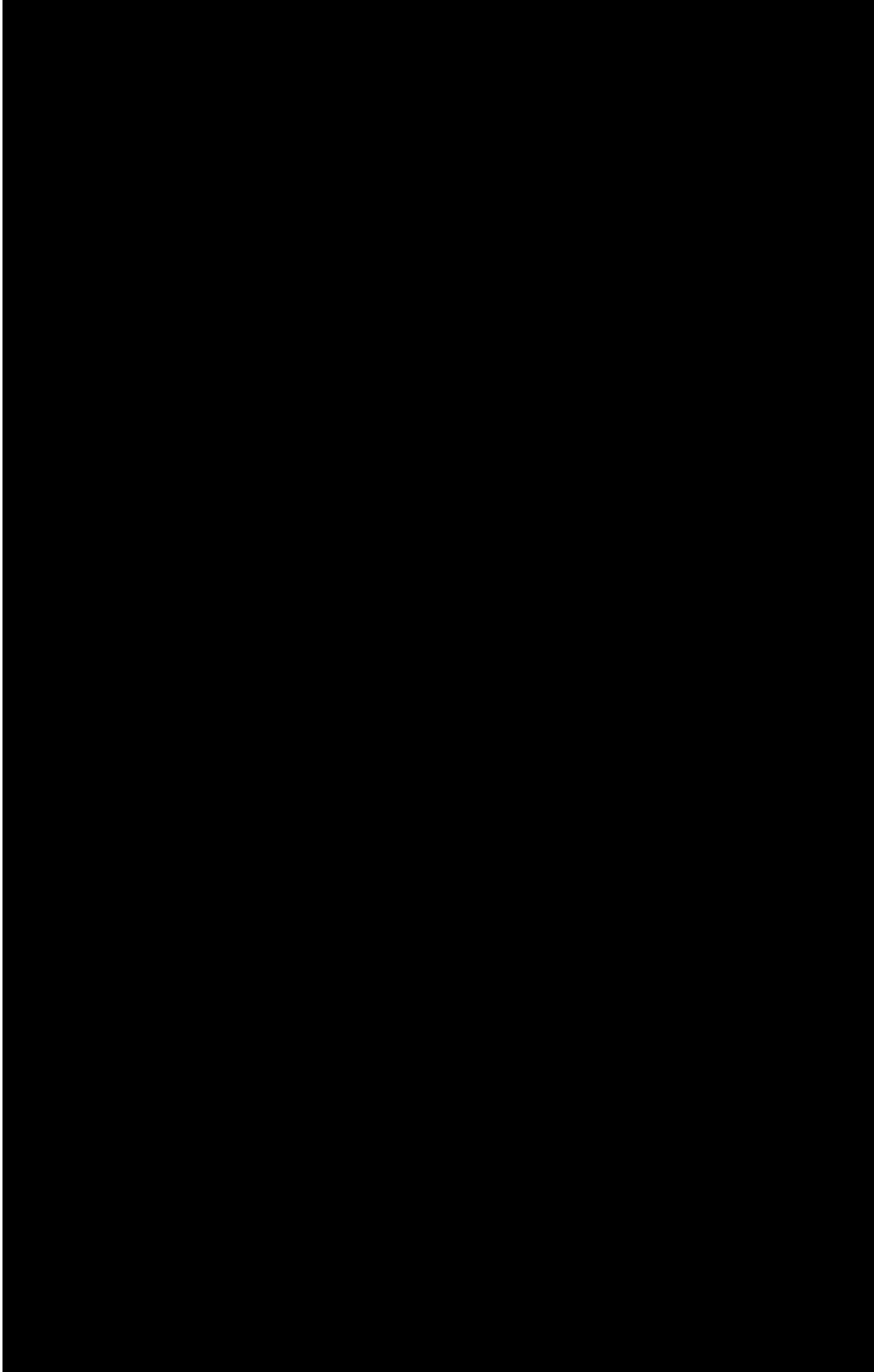




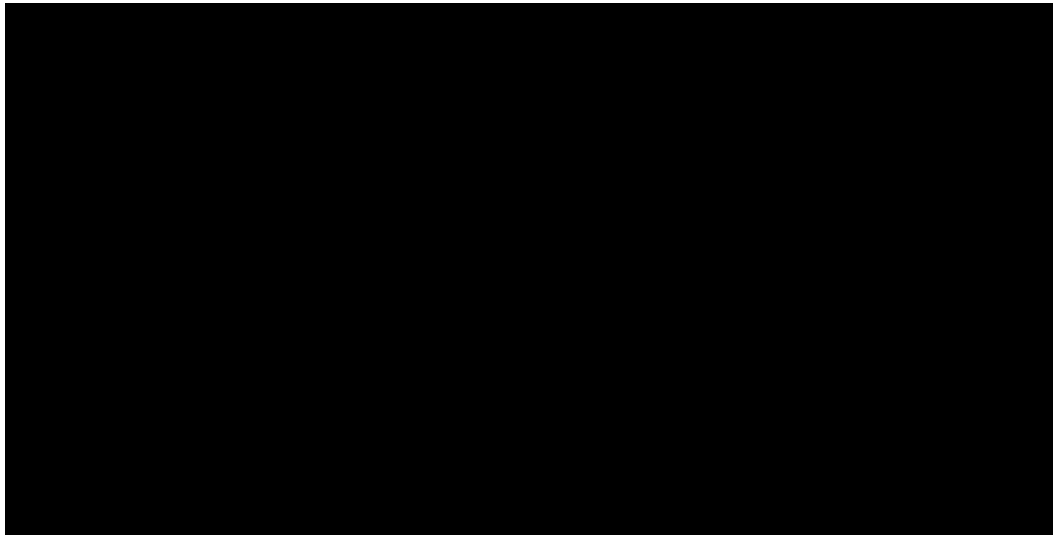












- All expenses in this category are to be supported by a 20% cash matching funded by Merit and the partners. The fiber equipment will be utilized by Merit and all the partners therefore the 20% cash match will be shared by all through a pro ration of the number of fiber stands they will own. The network access equipment and the chromatic dispersion meter will be owned by individual partners or Merit and the supporting 20% cash match will be supplied by those individual companies. The IRU's are to be supported by some of the partners and Merit and they will share the 20% cash support. In total, Merit and the project partners will support a 20% match of [REDACTED] for equipment.

Equipment				
Description	Category Expense	Grant Support	Cash Match	
Network/AccessPartner	\$ [REDACTED]	[REDACTED]	[REDACTED]	Partners equipment
Network/Access Merit	\$ [REDACTED]	[REDACTED]	[REDACTED]	Merit equipment
Fiber Optic Cable	\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
Fiber IRU SSM	\$ [REDACTED]	[REDACTED]	[REDACTED]	Various partners & Merit
Fiber IRU Bridge	\$ [REDACTED]	[REDACTED]	[REDACTED]	Various partners & Merit
Fiber Optic 48 Strand	\$ [REDACTED]	[REDACTED]	[REDACTED]	1 Sub-recipient
Anchor Tenant Access Laterals	\$ [REDACTED]	[REDACTED]	[REDACTED]	Merit equipment
Telepone Poles	\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
Hang Tags	\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
Domed Marker Poles	\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
Underground Tags	\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
Chromatic Dispersion Meter	\$ [REDACTED]	[REDACTED]	[REDACTED]	1 Sub-recipient
<b>Total</b>	<b>\$ 28,244,599</b>	<b>\$ 22,595,679</b>	<b>\$ 5,648,920</b>	<b>Total</b>
	100%	80%	20%	%

- Note: Fiber specifications will require operation in the C-Band transmission window with non-zero chromatic dispersion to facilitate dense wave division multiplexing (DWDM) for high capacity systems.



11. Miscellaneous - \$158,396

- [REDACTED] is estimated for computers and cell phones. This amount includes six computers projected at [REDACTED] each based on vendor quotes. Cell phones are for the lead engineers, project manager and the project manager’s assistant. These are estimated at an initial charge of [REDACTED] each and then average annual usage of [REDACTED] over [REDACTED] and [REDACTED] for a total of [REDACTED]. The cell phone usage is based on the current cell phone plan
- [REDACTED] is estimated for the environmental assesment. Cost is based upon current results of Merit’s RFP for round one.
- [REDACTED] is estimated for additional liability insurance over the three year project build. Cost based upon current rates from AON.
- [REDACTED] is estimated for engineer training. This includes training for four engineers for Fiber Splicing (\$3000 each), OTDR Testing (\$3000 each), Optronics Testing (\$2114 each). These expenses are based upon known costs for the training classes and the number of engineers that will be participating.
- All expenses in this category are to be supported by a 20% cash matching funded by Merit and the partners. Some project expenses are exclusive to Merit or a partner and the cost share will be supported by that individual company. All other expenses are shared by all through a pro ration of the number of fiber stands they will own, for a total share cost of \$ [REDACTED]

Miscellaneous				
Description	Category Expense	Grant Support	Cash Match	
Engineer Computers	\$ [REDACTED]	[REDACTED]	[REDACTED]	Merit
Project Management Computers	\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
Project Management Cells	\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
Engineer Cells	\$ [REDACTED]	[REDACTED]	[REDACTED]	Merit
Environmental Assessment	\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
Additional Insurance	\$ [REDACTED]	[REDACTED]	[REDACTED]	All partners by strand count
Training	\$ [REDACTED]	[REDACTED]	[REDACTED]	Merit
Training	\$ [REDACTED]	[REDACTED]	[REDACTED]	1 Sub-recipient
<b>Total</b>	<b>\$ 158,396</b>	<b>\$ 126,717</b>	<b>\$ 31,679</b>	<b>Total</b>
	100%	80%	20%	%

13. Contingencies - \$0

15. Project (program) income - \$0



## Addendum

Except for fringe benefits no other indirect costs are included in the budget.

Merit's fringe benefit package is controlled by the University of Michigan since all Merit employees are contracted to Merit from the university per a five year hosting agreement. No Merit employee has access to special packages or rates. The package includes the employer's portion of FICA, pro rata health insurance subsidy, and dental insurance, group insurance, retirement plan, long-term disability, and [REDACTED] for university administration of the programs. The university rates currently average [REDACTED] per dollar of salary. This is the rate that was used to estimate total salary and fringe benefits for new positions. For current staffing their known rate was applied.

The fringe benefit costs included in the salary rates refers only to this package. It does not include any other indirect costs, (i.e.) overhead, facilities, general or administrative, etc.