

Pre-Design Deliverables

September 2023

As part of the deliverables for formal UM review at the end of Pre-Design, the Design Professional shall submit this "Pre-Design Deliverables" document to the University's Design Manager. On the "Pre-Design Deliverables" document, the Design Professional shall indicate the status of each required item (a check mark is interpreted to mean that an item has been included in the deliverables). On or attached to the "Pre-Design Deliverables" document, the Design Professional shall identify all items NOT included in the review package. Note Design Professional shall not contact City of Ann Arbor. Design Manager is the conduit for all communication between Design Professional and user groups. Campus Planning. City of Ann Arbor etc.

Concept Description 1 Concept Syntyme Content to Author the content to	Item	Pre-Design Phase	
3 Description of the Process of the Process of the Control of the Process of th			
1 Deciments that the Privated basis are any powered by the Control of the Contr	General Description		upancy classification etc.
A content of the co			
Comment of Parish Project Reportment Color 1 and Color 1 American Color 1 and Color 1 American Color 1 Ame			
Best or Obtain About 1 best Part Part			
To execute the radius of configuration anomalous (2) (2) black above and it common distance was in precision profile or the project years. The all Estate and Regulatory Contributions are all the configuration of the contribution of the contribu			Pre-Design). Reference DG 2.1 OPR and BOD (Owner Project Requirements and
Position to Relation a part of Control to Security of Control to Security of		<u> </u>	
County And Service			
Stage that require impacts. 2 Document of a district force or consentatives or the secondary of the Use of the Control of the Control of the Use of the U		7 Review the Facilities Conditions Assessment (FCA) data base and document deficien	t items to be picked up and funded within project scope.
Stage that require impacts. 2 Document of a district force or consentatives or the secondary of the Use of the Control of the Control of the Use of the U			
Journal of minispeed requires to rate of tight of days year, year an uncertaint downway table that provides not accessed table of the provides to do controlled to the minispeed and page provides and supported to a page provides and the provides to do controlled to the minispeed and page provides and the pag			mming, access needs, utility work) to Campus Planning Prior to proceeding with a
An Auto Challation & Bulletines 4 Products access errors or the products requirement and price or paper. 5 Identify Exercises of Price Fooders space requirement and active or separate. 6 Document any You Supplies, provided by LLM, and increases in 20% guideling without and price price for the price of the regulation of the regulation of the space of the price of the price of the regulation of the price		2 Document deed restrictions or encumbrances that will impact site development.	
Elisably Number of Price Process grave in State (1992) and an analysis of Engineery of State (1992) and analysis of Engineery of Engineery of State (1992) and analysis of Engineery o		3 Identify anticipated impacts to the City Right of Way (any new or modified drive way cuts, utility installations or connections et al, tree removals?) Consult the <u>City of Ann Arbor Preliminary Plan Review Checklist</u> .	
Document Print Provided Control of Control		4 Provide a code review to ensure compliance with applicable regulation for interior a	and exterior spaces.
Del Master Plan Review 1 cost let referring throughs, provided by 14th, and incorporate into Open (qualiting entitics), crimes, with and packing related to adjustment camous development). 2 coursent and provided that the provided of the State, responsibility to the provided of the State of		5 Identify Bureau of Fire Services space requirement and any impacts if applicable.	
2 Document option be Seate, Circ. LAM traffic and paraportation plans with Carroas Planning and incorporate as applicable. 2 Document of the Litter has been in meeting with Campas Planning to receive the UM flatter Plan to evap a compatible. 2 Document of a participation of the State, whether discuss and attention of certain plans of the State. A Poll-economic and administration control plan may be required. 3 Document of a participation of an art or will be 500 of where of the State. A Poll-economic administration control plan may be required. 3 Document of Plans (La Involvement of State State). 4 Document of Applicable. 5 Document of Plans (La Involvement of State State). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement). 5 Document of Plans (La Involvement of Plans (La Involvement). 5 Document of Plans (La Involvement of Plans (La Involvement). 5 Document of Plans (La Involvement of Plans (La Involvement). 5 Document of Plans (La Involve		6 Document any historically significant features that shall be protected and/ or restore	ed.
2 Document option be Seate, Circ. LAM traffic and paraportation plans with Carroas Planning and incorporate as applicable. 2 Document of the Litter has been in meeting with Campas Planning to receive the UM flatter Plan to evap a compatible. 2 Document of a participation of the State, whether discuss and attention of certain plans of the State. A Poll-economic and administration control plan may be required. 3 Document of a participation of an art or will be 500 of where of the State. A Poll-economic administration control plan may be required. 3 Document of Plans (La Involvement of State State). 4 Document of Applicable. 5 Document of Plans (La Involvement of State State). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement of Campas). 5 Document of Plans (La Involvement of Plans (La Involvement). 5 Document of Plans (La Involvement of Plans (La Involvement). 5 Document of Plans (La Involvement of Plans (La Involvement). 5 Document of Plans (La Involvement of Plans (La Involvement). 5 Document of Plans (La Involve			
Social between the street in the street in anothing with Camput Browning to move the CLM Maker Plant in craws congestibility.	U-M Master Plan Review	1 Use Site Planning Principles, provided by U-M, and incorporate into OPR (building se	etbacks, drives, walks and parking related to adjacent campus development).
Sociented that sheep has been an acting with carrage (Paris) of the state, verified, derivative the Cult Makes (Paris) of country) and year projected south of the state, verified, derivated data and streams within the site boundary. Document of a post content of a post content of the state, verified, derivative data evident and edition control plan may be required. Document of a post content of a post content of the state, very not applicable. Document of the state of the state (Paris) of the state			
Documental Review 1 Documentary regulated exter bodies of the statu, wations, donor and atherems within the site boundary. 2 Documentary as construction stars were many or wildin 50° of water of the State. A foil recolour and sedimentation control plan many be required. 2 Documentary as construction stars were management pain in Sequence. 4 Documentary and the state of the state. A foil recolour and sedimentation control plan many be required. 5 Documentary and the state of the State. A foil recolour and sedimentation control plan many be required. 6 Documentary and the state of the state of specialists. 7 Documentary and the state of specialists. 7 Documentary and personal or state of specialists. 7 Documentary and personal or state of specialists. 7 Documentary and personal or specialists. 7 Documentary and personal specialists. 7 Documentary and personal or specialists. 7 Documentary and persona			
2 Document 5 als is over an acro or within 500° of water of the State. A spile enotion and sedimentation control plan may be required. 3 Document 1 and control of some own emanagement past sequence. 4 Document throatened and schadingered species report if applicable. 5 Document formation from 15 to determine the preserved contaminated ash or hazardour material. 7 Document formation from 15 to determine the preserved contaminated ash or hazardour material. 8 Document information from 15 to determine the preserved contaminated ash or hazardour material. 9 Document information in protective fines, addises, exercises, soc. 1 Document information in protective fines, addises, exercises, soc. 2 Identify any excitate UMI parting of looding species be temporarily or premise groups or permanent, including protective during any patiential bowstrown Development Authority (book material) protecting propose, exceptionly or permanent, including protective during any patiential bowstrown Development Authority (book) material participating enhanced by the protect. 4 Document of the participation and of all not trained active survey including vehicular and pediatrian countries. 4 Document of the present strangety to device adversarial, certified in recording participating proposes. 5 Document of the present strangety to device adversarial protection (consider Boycle Parking Needs, impress, spooters and motorropides). 5 Document of the present organization reads. 5 Document of the present organization reads. 5 Document of the present organization reads. 6 Steel trainers of the present organization reads. 6 Steel trainers of the present organization reads. 6 Steel trainers of the present organization reads. 9 Document organization reads. 1 Document organization reads organization reads. 1 Document organization reads. 1 Document organization reads. 1 Document organization reads. 1 Document organization reads. 2 Document organization reads. 3 Document organization reads. 1 Document organization reads. 2 D		3 Document that there has been a meeting with Campus Planning to review the U-M I	Master Plan to ensure compatibility.
2 Document 5 als is over an acro or within 500° of water of the State. A spile enotion and sedimentation control plan may be required. 3 Document 1 and control of some own emanagement past sequence. 4 Document throatened and schadingered species report if applicable. 5 Document formation from 15 to determine the preserved contaminated ash or hazardour material. 7 Document formation from 15 to determine the preserved contaminated ash or hazardour material. 8 Document information from 15 to determine the preserved contaminated ash or hazardour material. 9 Document information in protective fines, addises, exercises, soc. 1 Document information in protective fines, addises, exercises, soc. 2 Identify any excitate UMI parting of looding species be temporarily or premise groups or permanent, including protective during any patiential bowstrown Development Authority (book material) protecting propose, exceptionly or permanent, including protective during any patiential bowstrown Development Authority (book) material participating enhanced by the protect. 4 Document of the participation and of all not trained active survey including vehicular and pediatrian countries. 4 Document of the present strangety to device adversarial, certified in recording participating proposes. 5 Document of the present strangety to device adversarial protection (consider Boycle Parking Needs, impress, spooters and motorropides). 5 Document of the present organization reads. 5 Document of the present organization reads. 5 Document of the present organization reads. 6 Steel trainers of the present organization reads. 6 Steel trainers of the present organization reads. 6 Steel trainers of the present organization reads. 9 Document organization reads. 1 Document organization reads organization reads. 1 Document organization reads. 1 Document organization reads. 1 Document organization reads. 1 Document organization reads. 2 Document organization reads. 3 Document organization reads. 1 Document organization reads. 2 D			
J. Document if a past contractions storm where management plan is required. 4. Document Threat in Environment and Installating Social report all applicable. 5. Document Threat in Environment and Assessment all applicable. 6. Document Threat in Environment and Assessment all applicable. 7. Document Tree Survey and Poliuminist the presence of contaminated with an hazardour material. 7. Document Tree Survey and Poliuminist the presence of contaminated with an hazardour material. 8. Document Information on appearity lines, whiles, consentration Politics. 8. Document Information on appearity lines, whiles, consentration the presence of contaminated with an hazardour material. 9. Document Information on appearity lines, whiles, consentration, and in a present and incompany or permanent, including material number. 1. Produce sourch discharge and of value for replacement, particulation. 2. Document Understand and Assessment and Francisco and Assessment and Francisco and State Sta	Environmental Review	1 Document any regulated water bodies of the State, wetland, drains and streams wit	hin the site boundary.
J. Document if a past contractions storm where management plan is required. 4. Document Threat in Environment and Installating Social report all applicable. 5. Document Threat in Environment and Assessment all applicable. 6. Document Threat in Environment and Assessment all applicable. 7. Document Tree Survey and Poliuminist the presence of contaminated with an hazardour material. 7. Document Tree Survey and Poliuminist the presence of contaminated with an hazardour material. 8. Document Information on appearity lines, whiles, consentration Politics. 8. Document Information on appearity lines, whiles, consentration the presence of contaminated with an hazardour material. 9. Document Information on appearity lines, whiles, consentration, and in a present and incompany or permanent, including material number. 1. Produce sourch discharge and of value for replacement, particulation. 2. Document Understand and Assessment and Francisco and Assessment and Francisco and State Sta			· · · · · · · · · · · · · · · · · · ·
A cocument Thresholded and Endingened Species report of againstale. 5 Document Information in DFS to determine the presence of commitmed also for hazardous material. 7 Document Information in DFS to determine the presence of commitmed also for hazardous material. 8 Document Information on property lines, settlines,			A Company of the Comp
Site, Circulation & Utilities Document Tree Survey and Evaluation if applicable. Consult the Libit Tree Processor Process Site, Circulation & Utilities Document Information to progetty lines, utilities, examenate, etc. Social part of the Survey and Evaluation if applicable. Consult the Libit Tree Processor Profess Consulting and Evaluation in Processor Survey and Evaluation in Applicable. Consult the Libit Tree Processor Profess Document Information to progetty lines, utilities, examenate, etc. Social part of the Survey and Evaluation in Progetty lines, utilities, examenate, etc. Provide sound activate and/or pain for replacement particular planting impacts, temporary or permanent, including meter number. Provide sound activate and/or pain for replacement particular planting impacts, temporary or permanent, including meter number. Provide sound activate and or pain for replacement particular planting whereing exhibition is experted to the particular particular and professions could be found to the particular and professions could be found to the particular particular particular and professions could be found to the particular par			
Site, Circulation & Utilities 1 Document information to DIS to determine the presence of contaminated value in trazerobas material. 2 Document incompared to instruction on properly lines, Utilities, describering policy lines, Utilities, and the properties of the			
Site, Circulation & Utilities			
Sites, Circulation & Utilities 1. Document information on property lines, utilities, espenients, acc. 2. Identify any euisting U M parting or loading spaces be temporarily or permanently impacted by the project. Identify any patential Document and Authority (DOM) metioned parking impacts, temporary or permanently, including meter number. Provide sound rationals and/ or pibin for replacement parking displicable. 3. Document off traffic Study will be required, and if so intenties a staffic survey (brilding vehicular and profestrian counts). 4. Document off traffic Study will be required, and if so intenties a staffic survey (brilding vehicular and profestrian counts). 4. Document off traffic Study will be required, and if so intenties a staffic survey (brilding vehicular and profestrian counts). 5. Linerify ADA agrees and desperation needs. 6. Linerify ADA agrees and desperation needs. 6. Linerify ADA agrees and desperation needs. 6. Size buillance between the proposed. 6. Size buillance between the proposed. 6. Size buillance between the proposed desperation needs. 6. Size buillance by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M and DTE 6. Document willing appeal of the size by Let M		6 Document information from EHS to determine the presence of contaminated soils o	r hazardous material.
Building Exterior Envelope Provide count of the service of the responsibility of the property of the proper		7 Document Tree Survey and Evaluation if applicable. Consult the <u>U-M Tree Preservat</u>	ion Policy.
Building Exterior Envelope Provide count of the service of the responsibility of the property of the proper			
Building Exterior Envelope Provide count of the service of the responsibility of the property of the proper	Site. Circulation & Utilities	1 Document information on property lines, utilities, easements, etc.	
Committy any potential Downtown Development Authority (DDA) metered parking impacts, temporary or permanent, including meter number.	one, en outation a outside		mnacted by the project
Provide sound rationals and/ or plan for replacement parking if applicable. 3 Document if Traffic Study will be required, and if o indicite a traffic survey (including vehicular and pedestrian counts). 4 Document the general stratery to address multi-modal transportation requirements (Consider Bicycle Parking Needs, mopeds, scooters and motorcycles),identify impacts to existing transit stops. identify impacts to existing transit stops. identify And Pegress and Transportation needs. identify any energency access needs, temporary and proposed. identify any energency access needs, temporary and proposed. identify any energency access needs temporary and proposed. identify any energency access needs temporary and proposed. identify any energency access needs to perform the proposed properties. identify any energency access needs to perform the properties of		Identity any existing o-wiparking or loading spaces be temporarily or permanently in	impacted by the project.
Document terror the general straining to address multi-motable transportation requirements (Canader Ricycle Parking Nects, respects, soutiers and motorcycles); - identify impact to estiting transit stops; - identify Abo Regists and transportation needs, - identify Abo Regists and transportation needs, - identify Abo Regists and transportation needs, - identify Abo Regists and transportation including size and weight of trucks making deliveries.		Identify any potential Downtown Development Authority (DDA) metered parking im	pacts, temporary or permanent, including meter number.
Document terror the general straining to address multi-motable transportation requirements (Canader Ricycle Parking Nects, respects, soutiers and motorcycles); - identify impact to estiting transit stops; - identify Abo Regists and transportation needs, - identify Abo Regists and transportation needs, - identify Abo Regists and transportation needs, - identify Abo Regists and transportation including size and weight of trucks making deliveries.		Provide sound rationale and/ or plan for replacement parking if applicable.	
Ducment the general strategy to address multi model transportation requirements (Consider Bicycle Parking Needs, mopeds, scooters and motorcycles). - Identify ADA geyes and transportation needs Identify and the ADA geyes and transportation needs Identify and ADA geyes and transportation needs Identify and ADA geyes and transportation needs Identify and ADA geyes are accessed and periminary hose by - Include utilities systems narrative to ensure the existing utility can support the proposed project requirements Obcoment utilities particles power/data sucress, and trunnel structural loading Provide overview of envelope construction, e.g. curtain wall, mass, frame. Percentage using glass Obcoment utilities particles approach planned to improve the envelopes energy performance Provide overview of envelope construction, e.g. curtain wall, mass, frame. Percentage using glass Obcoment utilities approach planned to improve the revolves envelope reformance Describe special occupancy environments to requirements to report the providence occurry The estating buildings, describe how project will accommodate ASHAA SO.1 energy code requirements for alterations. - Planned and the strain of the strain o			ng vehicular and pedestrian counts).
Identify Impacts to colsting transit stops. - Identify AND Agers and Interapertation needs. - Identify Any emergency access needs, temporary and proposed. - Identify any emergency access needs, temporary and proposed. - Identify any emergency access needs, temporary and proposed. - Identify any emergency access needs, temporary and proposed. - Identify any emergency access needs, temporary and proposed. - Identify any emergency access needs, temporary and proposed. - Identify any emergency access needs, temporary hose lay - Identify proposed location of major M. & tequipment, e.g. penthouse - Identify proposed location of major M. & tequipment, e.g. penthouse - Identify proposed location of major M. & tequipment, e.g. penthouse - Identify proposed location of major M. & tequipment, e.g. penthouse - Identify proposed location of major M. & tequipment, e.g. penthouse - Identify proposed location of major M. & tequipment, e.g. penthouse - Identify proposed location of major M. & tequipment, e.g. penthouse - Identify proposed location of major M. & tequipment is reported proposed project requirements. - Identify proposed location of major M. & tequipment is reported proposed project requirements. - Identify proposed location of major M. & tequipment is reported proposed project requirements. - Identify proposed location of major M. & tequipment is reported proposed project requirements. - Identify special plumbing, describe how project will accommodate ASHINAE 90.1 energy code requirements for alterations. - Identify protential system types, multiple options are acceptable. - Identify interes source difficult water, gas, stems, etc. - Identify interes source difficult water, gas, stems, etc. - Identify interes source difficult water, gas, stems, etc. - Identify interes source difficult water, gas, stems, etc. - Identify interes source difficult water, gas, stems, etc. - Identify interes source difficult water, gas, stems, etc. - I			· · · · · · · · · · · · · · · · · · ·
Identify ADA gress and transportation needs. Identify any emergency access needs, temporary and proposed.		· · · · · · · · · · · · · · · · ·	, (constact Biofold Farming recess) morphasis, and motor efficiely.
Social comment evaluation loading dock location including size and weight of trucks making deliveries.			
Site Utilities City, Lof M and DTE 2) Document. Fire Hydrant coverage and preliminary hose lay 1) Include utilities systems narrative to ensure the existing utility can support the proposed project requirements. (c) Document utility capacities, power/data sources, and tunnel structural loading 1 Identify proposed location of major M & E requirement, e.g. penthose 2 2 Provide cerview of envelope construction, e.g. curtain wall, mass, frame. Percentage using glass. 3 Describe envelope enhancements for reduce energy, e.g. additional insulation, overhangs, electro chromatic glass, trombe walls. 4 For existing buildings, describe the approach planned to improve the envelope's energy performance. 1 Describe special occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best known at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. 1 Describe special occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best known at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. 1 Describe source, civilide water, gas, steam, etc. 2 Define occupancy types and this stage. 3 Describe environmental system types, multiple options are acceptable. 3 Describe environmental system types, multiple options are acceptable. 4 Describe source, etc. 4 Describe source, etc. 4 Describe source, etc. 5 Describe environmental system types, multiple options are acceptable. 4 Describe source, etc. 5 Describe environmental system types, multiple options are acceptable. 6 Describe environmental system types, multiple options are acceptable. 6 Describe environmental system types, multiple environmental environmental system,		- Identify any emergency access needs, temporary and proposed.	
Site Utilities City, Lof M and DTE 2) Document. Fire Hydrant coverage and preliminary hose lay 1) Include utilities systems narrative to ensure the existing utility can support the proposed project requirements. (c) Document utility capacities, power/data sources, and tunnel structural loading 1 Identify proposed location of major M & E requirement, e.g. penthose 2 2 Provide cerview of envelope construction, e.g. curtain wall, mass, frame. Percentage using glass. 3 Describe envelope enhancements for reduce energy, e.g. additional insulation, overhangs, electro chromatic glass, trombe walls. 4 For existing buildings, describe the approach planned to improve the envelope's energy performance. 1 Describe special occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best known at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. 1 Describe special occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best known at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. 1 Describe source, civilide water, gas, steam, etc. 2 Define occupancy types and this stage. 3 Describe environmental system types, multiple options are acceptable. 3 Describe environmental system types, multiple options are acceptable. 4 Describe source, etc. 4 Describe source, etc. 4 Describe source, etc. 5 Describe environmental system types, multiple options are acceptable. 4 Describe source, etc. 5 Describe environmental system types, multiple options are acceptable. 6 Describe environmental system types, multiple options are acceptable. 6 Describe environmental system types, multiple environmental environmental system,			
Building Exterior Envelope		5 Document evaluation loading dock location including size and weight of trucks maki	ng deliveries.
Discussion of the content of the content of the existing utility can support the proposed project requirements. Document utility capacities, power/data sources, and tunnel structural loading I dentify proposed location of major M & E equipment, e.g. penthouse Provide overview of envelope construction, e.g. curtain wall, mass, frame. Percentage using glass. Provide overview of envelope construction, e.g. curtain wall, mass, frame. Percentage using glass. Provide overview of envelope construction, e.g. curtain wall, mass, frame. Percentage using glass. Percentage using glass. Describe special occupancy environmental requirements: temperature, humidity, wibration control, acoustical separation, etc. List the specific requirements as best know at this stage. Define occupancy types. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations.		6 Site Utilities City, U of M and DTE	
Comment utility capacities, power/data sources, and tunnel structural loading			
Building Exterior Envelope Identify proposed location of major M & E equipment, e.g. penthouse 2 Provide overview of envelope construction, e.g. curtain wall, mass, frame. Percentage using glass. 3 Describe envelope enhancements to reduce energy, e.g. additional insulation, overhangs, electro chromatic glass, trombe walls. 4 For existing buildings, describe the approach planned to improve the envelope's energy performance. 5 Describe special occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best know at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. 1 Identify potential system types, multiple options are acceptable. 2 Identify utilities source: chilled water, gas, steam, etc. 3 Identify special HVAC, hydronic, and exhaust systems: process air handlers, process CHW, smoke evacuation systems, laboratory exhaust, etc. 4 Identify major special MEP redundancy requirements, e.g. redundant vivarium AHUs on emergency power with dedicated chiller. 5 Identify special plumbing and process systems: RQ/DI, lab gases, acid waste, etc. 6 Identify if fire suppression is required and if so, identify source and any special systems. 1 Identify if fire suppression is required and if so, identify source and any special systems. 2 Identify special fire protection systems. 4 Identify if fire pump is required. 5 Identify if fire pump is required. 6 Identify if fire pump is required. 7 Identify if fire pump is required. 8 Identify special fire protection systems. 9 Identify special fire protection systems. 1 Identify if ire pump is required. 2 Identify special fire pump is required. 3 Identify special fi			oposed project requirements.
Provide overview of envelope construction, e.g. curtain wall, mass, frame. Percentage using plass. Describe envelope enhancements to reduce energy, e.g. additional insulation, overhangs, electro chromatic glass, trombe walls. For existing buildings, describe the approach planned to improve the envelope's energy performance. Describe special occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best know at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. HVAC		c) Document utility capacities, power/data sources, and tunnel structural loading	
Provide overview of envelope construction, e.g. curtain wall, mass, frame. Percentage using plass. Describe envelope enhancements to reduce energy, e.g. additional insulation, overhangs, electro chromatic glass, trombe walls. For existing buildings, describe the approach planned to improve the envelope's energy performance. Describe special occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best know at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. HVAC			
3 Describe envelope enhancements to reduce energy, e.g. additional insulation, overhangs, electro chromatic glass, trombe walls. 4 For existing buildings, describe the approach planned to improve the envelope's energy performance. 1 Describe special occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best know at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. 1 Identify potential system types, multiple options are acceptable. 2 Identify trillities source: chilled water, gas, steam, etc. 4 Identify utilities source: chilled water, gas, steam, etc. 4 Identify utilities source: chilled water, gas, steam, etc. 4 Identify utilities source: comestic water, fire protection water, storm, sanitary. 2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 5 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 4 Identify the fire suppression is required and if so, identify source and any special systems. 4 Identify special fire protection systems. 4 Identify is fire suppression is required and if so, identify source and any special systems. 4 Identify special fire protection systems. 4 Identify is fire pump is required. 5 Identify special fire protection systems. 4 Identify is fire pump is required. 5 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.	Building Exterior Envelope	1 Identify proposed location of major M & E equipment, e.g. penthouse	
### Sor existing buildings, describe the approach planned to improve the envelope's energy performance. #### Social occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best know at this stage. #### Define occupancy types. #### Identify potential system types, multiple options are acceptable. ##### Identify utilities source: chilled water, gas, steam, etc. ###################################		2 Provide overview of envelope construction, e.g. curtain wall, mass, frame. Percenta	ge using glass.
### Sor existing buildings, describe the approach planned to improve the envelope's energy performance. #### Social occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best know at this stage. #### Define occupancy types. #### Identify potential system types, multiple options are acceptable. ##### Identify utilities source: chilled water, gas, steam, etc. ###################################		3 Describe envelope enhancements to reduce energy, e.g. additional insulation, overh	nangs, electro chromatic glass, trombe walls.
Building Interior 1 Describe special occupancy environmental requirements: temperature, humidity, vibration control, acoustical separation, etc. List the specific requirements as best know at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. HVAC 1 Identify potential system types, multiple options are acceptable. 2 Identify utilities source: chilled water, gas, steam, etc. 3 Identify special HVAC, hydronic, and exhaust systems: process air handlers, process CHW, smoke evacuation systems, laboratory exhaust, etc. 4 Identify major special MEP redundancy requirements, e.g. redundant vivarium AHUs on emergency power with dedicated chiller. 1 Identify utilities source: domestic water, fire protection water, storm, sanitary. 2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 1 Identify if fire suppression is required and if so, identify source and any special systems. 4 Identify if fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. Electrical Power Distribution 1 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.			
know at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. Variable		2 11 0 11 1 0., account the approach planned to improve the circulate a circ	<u> </u>
know at this stage. 2 Define occupancy types. 3 For existing buildings, describe how project will accommodate ASHRAE 90.1 energy code requirements for alterations. Variable		4 Describe special acquirement antitanment les miles antitales ant	hyption control acquetical conception at a list the susself.
Politing Cocupancy Types.	Building Interior		pration control, acoustical separation, etc. List the specific requirements as best
HVAC Identify potential system types, multiple options are acceptable. Identify special HVAC, hydronic, and exhaust systems; process air handlers, process CHW, smoke evacuation systems, laboratory exhaust, etc. Identify special HVAC, hydronic, and exhaust systems; process air handlers, process CHW, smoke evacuation systems, laboratory exhaust, etc. Identify major special MEP redundancy requirements, e.g. redundant vivarium AHUs on emergency power with dedicated chiller. Identify utilities source: domestic water, fire protection water, storm, sanitary. Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. Identify if fire suppression is required and if so, identify source and any special systems. Identify the fire suppression source. Identify the fire suppression source. Identify if fire pump is required.			
HVAC 1 Identify potential system types, multiple options are acceptable. 2 Identify utilities source: chilled water, gas, steam, etc. 4 Identify major special MEP redundancy requirements, e.g. redundant vivarium AHUs on emergency power with dedicated chiller. Plumbing & Piping 1 Identify utilities source: domestic water, fire protection water, storm, sanitary. 2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 1 Identify if fire suppression is required and if so, identify source and any special systems. 2 Identify special fire protection systems. 4 Identify if fire pump is required. Electrical Power Distribution 1 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.			code requirements for alteresticate
2 Identify utilities source: chilled water, gas, steam, etc. 3 Identify special HVAC, hydronic, and exhaust systems: process air handlers, process CHW, smoke evacuation systems, laboratory exhaust, etc. 4 Identify major special MEP redundancy requirements, e.g. redundant vivarium AHUs on emergency power with dedicated chiller. 6 Identify utilities source: domestic water, fire protection water, storm, sanitary. 2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 7 Identify if fire suppression is required and if so, identify source and any special systems. 1 Identify if fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. 6 Identify if fire pump is required. 7 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 8 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 9 Note any high voltage or specialty power requirements.		5 For existing buildings, describe now project will accommodate ASHRAE 90.1 energy	code requirements for alterations.
2 Identify utilities source: chilled water, gas, steam, etc. 3 Identify special HVAC, hydronic, and exhaust systems: process air handlers, process CHW, smoke evacuation systems, laboratory exhaust, etc. 4 Identify major special MEP redundancy requirements, e.g. redundant vivarium AHUs on emergency power with dedicated chiller. 6 Identify utilities source: domestic water, fire protection water, storm, sanitary. 2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 7 Identify if fire suppression is required and if so, identify source and any special systems. 1 Identify if fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. 6 Identify if fire pump is required. 7 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 8 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 9 Note any high voltage or specialty power requirements.			
3 Identify special HVAC, hydronic, and exhaust systems: process air handlers, process CHW, smoke evacuation systems, laboratory exhaust, etc. 4 Identify major special MEP redundancy requirements, e.g. redundant vivarium AHUs on emergency power with dedicated chiller. 7 Identify utilities source: domestic water, fire protection water, storm, sanitary. 2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 1 Identify if fire suppression is required and if so, identify source and any special systems. 2 Identify the fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. 5 Identify if fire pump is required. 6 Identify if fire pump is required. 7 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 8 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 9 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations.	HVAC	1 Identify potential system types, multiple options are acceptable.	
3 Identify special HVAC, hydronic, and exhaust systems: process air handlers, process CHW, smoke evacuation systems, laboratory exhaust, etc. 4 Identify major special MEP redundancy requirements, e.g. redundant vivarium AHUs on emergency power with dedicated chiller. 7 Identify utilities source: domestic water, fire protection water, storm, sanitary. 2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 1 Identify if fire suppression is required and if so, identify source and any special systems. 2 Identify the fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. 5 Identify if fire pump is required. 6 Identify if fire pump is required. 7 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 8 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 9 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations.		2 Identify utilities source: chilled water, gas, steam, etc.	
Identify major special MEP redundancy requirements, e.g. redundant vivarium AHUs on emergency power with dedicated chiller. Identify utilities source: domestic water, fire protection water, storm, sanitary. Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. Identify if fire suppression is required and if so, identify source and any special systems. Identify the fire suppression source. Identify if fire protection systems. Identify if fire pump is required. Identify identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. Identify location of substation in requirements.		3 Identify special HVAC, hydronic, and exhaust systems: process air handlers, process	CHW, smoke evacuation systems, laboratory exhaust, etc.
Plumbing & Piping 1 Identify utilities source: domestic water, fire protection water, storm, sanitary. 2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 1 Identify if fire suppression is required and if so, identify source and any special systems. 2 Identify the fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. Electrical Power Distribution 1 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.			
2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 1 Identify if fire suppression is required and if so, identify source and any special systems. 2 Identify the fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. 1 Conceptually, identify the approximate service size and from where will it be served (i.e campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.		2. 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	- 0/ p
2 Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. 1 Identify if fire suppression is required and if so, identify source and any special systems. 2 Identify the fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. 1 Conceptually, identify the approximate service size and from where will it be served (i.e campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.		I densify williage agree describer to the Control of the Control o	
Identify special plumbing and process systems: RO/DI, lab gases, acid waste, etc. Identify if fire suppression is required and if so, identify source and any special systems. Identify the fire suppression source. Identify special fire protection systems. Identify if fire pump is required. I Conceptually, identify the approximate service size and from where will it be served (i.e campus loop, DTE, other?) Identify ductbank location in relationship to building. I Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. Note any high voltage or specialty power requirements.	Plumbing & Piping	i judentity utilities source: domestic water, fire protection water, storm, sanitary.	
Fire Protection (Mechanical) 1 Identify if fire suppression is required and if so, identify source and any special systems. 2 Identify the fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. 1 Conceptually, identify the approximate service size and from where will it be served (i.e campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.		2 Identify special plumbing and process systems: PO/DL lab gases, acid waste, atta	
2 Identify the fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. 1 Conceptually, identify the approximate service size and from where will it be served (i.e campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.		Endentity special plumbing and process systems. RO/DI, lab gases, acid waste, etc.	
2 Identify the fire suppression source. 3 Identify special fire protection systems. 4 Identify if fire pump is required. 1 Conceptually, identify the approximate service size and from where will it be served (i.e campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.			
3 Identify special fire protection systems. 4 Identify if fire pump is required. 1 Conceptually, identify the approximate service size and from where will it be served (i.e campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.	Fire Protection (Mechanical)		ms.
4 Identify if fire pump is required. 1 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.		2 Identify the fire suppression source.	
Electrical Power Distribution 1 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.		3 Identify special fire protection systems.	
Electrical Power Distribution 1 Conceptually, identify the approximate service size and from where will it be served (i.e., campus loop, DTE, other?) Identify ductbank location in relationship to building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.		4 Identify if fire pump is required.	
building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.			
building. 2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.		1 Concentually identify the approximate consists and from the constitution of	(i.e. campus loon DTE athor?) Identify duether blaceties in relationable
2 Identify location of Substation, whether it is in building or adjacent, its accessibility, and if the building needs single-ended, double-ended, or multiple substations. 3 Note any high voltage or specialty power requirements.	Electrical Power Distribution		(i.e., campus 100p, DTE, other?) Identity ductbank location in relationship to
3 Note any high voltage or specialty power requirements.			
		2 Identify location of Substation, whether it is in building or adjacent, its accessibility,	and if the building needs single-ended, double-ended, or multiple substations.
4 Note emergency and standby power requirements and if emergency generator is needed - consider location and fuel source.		3 Note any high voltage or specialty power requirements.	
		4 Note emergency and standby power requirements and if emergency generator is ne	eeded - consider location and fuel source.

Fire Alarm and Emergency	1 Determine if a fire alarm system is required by code, if in place note age of system.	
Communications		
	2 Note if MOSCAD system will perform the functions as a Central Station Monitoring facility.	
	3 Identify building entrance selected for emergency response. Note fire alarm panel location.	
	4 Indicate if fire alarm system will be used as a mass notification system.	
	5 Identify is toxic/ flammable gas or other special alarm systems are anticipated.	
Communications (Including voice, data & video systems)	1 Identify Tele/Data service entrance point into building. BE room location and location of communication duct bank in relationship to the building.	
	2 Allocate space for IT closets.	
Security (including CCTV and	1 Identify security system needs (security cameras, card access, etc.)	
Card Access Control Systems)		
LEED and Sustainability	1 Create a "simple box" energy model to estimate the Energy Use Intensity (EUI) for the building mass. Include a brief description of baseline assumptions and potential load reduction strategies.	
	2 List of Document project sustainability goals, including LEED certification, maximum carbon emissions, Energy Use Intensity (EUI), energy cost savings, water reduction targets conservation measures, and storm water management.	
Cost	1 Provide Preliminary Concept design cost estimate.	
	2 Provide design timeline/estimated design phase durations. (if requested by UM).	
Notes		