

PLEASE KEEP YOUR CAMERAS AND MICROPHONES OFF

**POST-AWARD PROCEDURES AND TECHNICAL DESIGN
REQUIREMENTS FOR NIH C06 PROJECTS
SEPTEMBER 30TH, 2026**



National Institutes of Health

POST-AWARD PROCEDURES AND TECHNICAL DESIGN REQUIREMENTS FOR NIH C06 PROJECTS

**Xiang-Ning Li, Yong Chen, Sabrina Oasan,
Steven Breslin, Leo Fox**
September 30th, 2026

OVERVIEW OF THE PRESENTATIONS

Introducing Our Team - Xiang-Ning Li

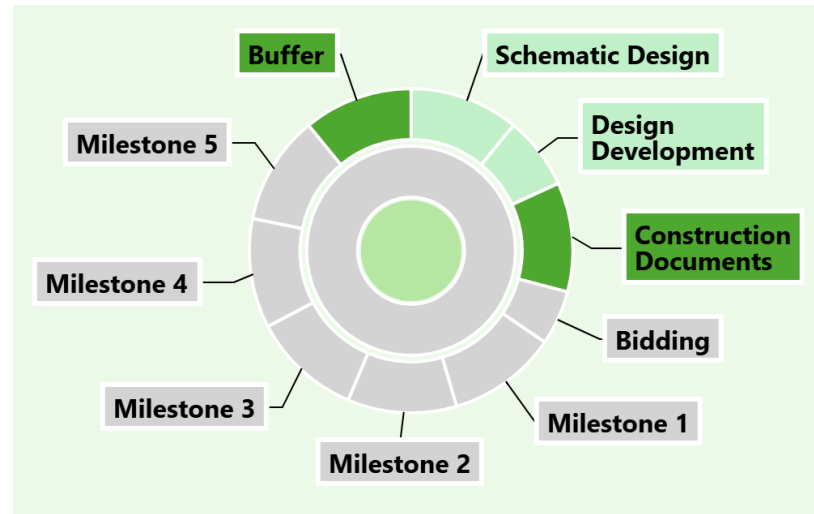
Project Timelines, Challenges & Lessons Learned – Yong Chen

Award Requirements – Sabrina Oasan

Technical Design Review – Steven Breslin

eCAMERA demo – Leo Fox

Q&As – All



Minimize Risk, Maximize Success!

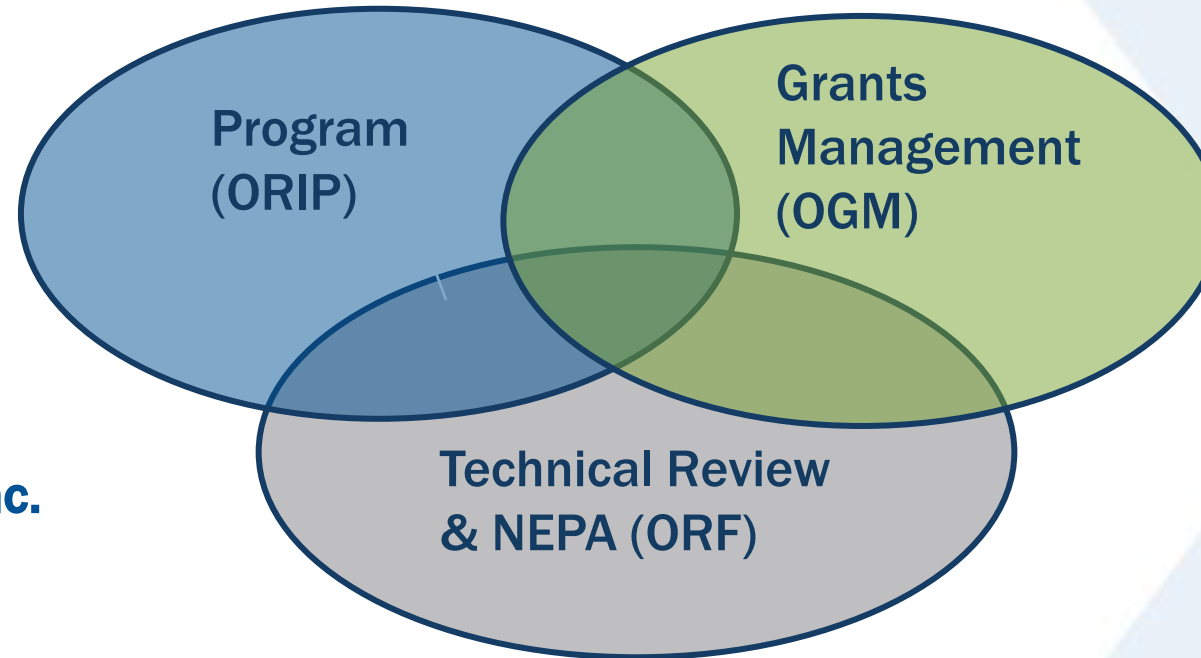
NIH TEAM: MANAGING CONSTRUCTION GRANTS

ORIP

Xiang-Ning Li, MD, PhD
Monika Aggarwal, PhD
Yong Chen, PhD
Laurel Kuxhaus, PhD
Sara Lioi, PhD
Jeffrey Spector, PhD

Highrise Consulting, Inc.

Leo Fox
Vadim Fuks-Rabinovich



OGM

Sabrina Oasan
Rachel Norcio

ORF

Steven Breslin, AIA, PE
Jordan Blackburn, PE
Mary Price, AIA
Mark Radtke, NEPA Coordinator

ORIP – Office of Research Infrastructure Programs

OGM – Office of Grants Management

ORF – Office of Research Facilities



GENERAL ADVICE

- NIH Design Requirements Manual (DRM) is the default design standard.
- Use eCAMERA for as many tasks in C06 process. Strive to stick with recommended timelines, finish design and review early.
- Be conservative with project scope and resistant to the urge of adding new features to avoid budget and schedule overrun.
- Budget is the number 1 risk in construction projects.
 - Be sensitive to budget, as construction labor and materials will likely increase. Constantly check budget vs. spending.
 - Do a thorough cost estimation at the DD time, anticipate and prepare plans to cope with higher bids or other potential cost increase.
- Communicate frequently with your leadership and secure institutional support.

TIMELINE: BUDGET PERIOD OF A C06 AWARD

Notice of Award (NoA) issued:
Funds restricted for technical design

All funds must be expended and
fully disbursed on the Federal Cash
Transaction Report



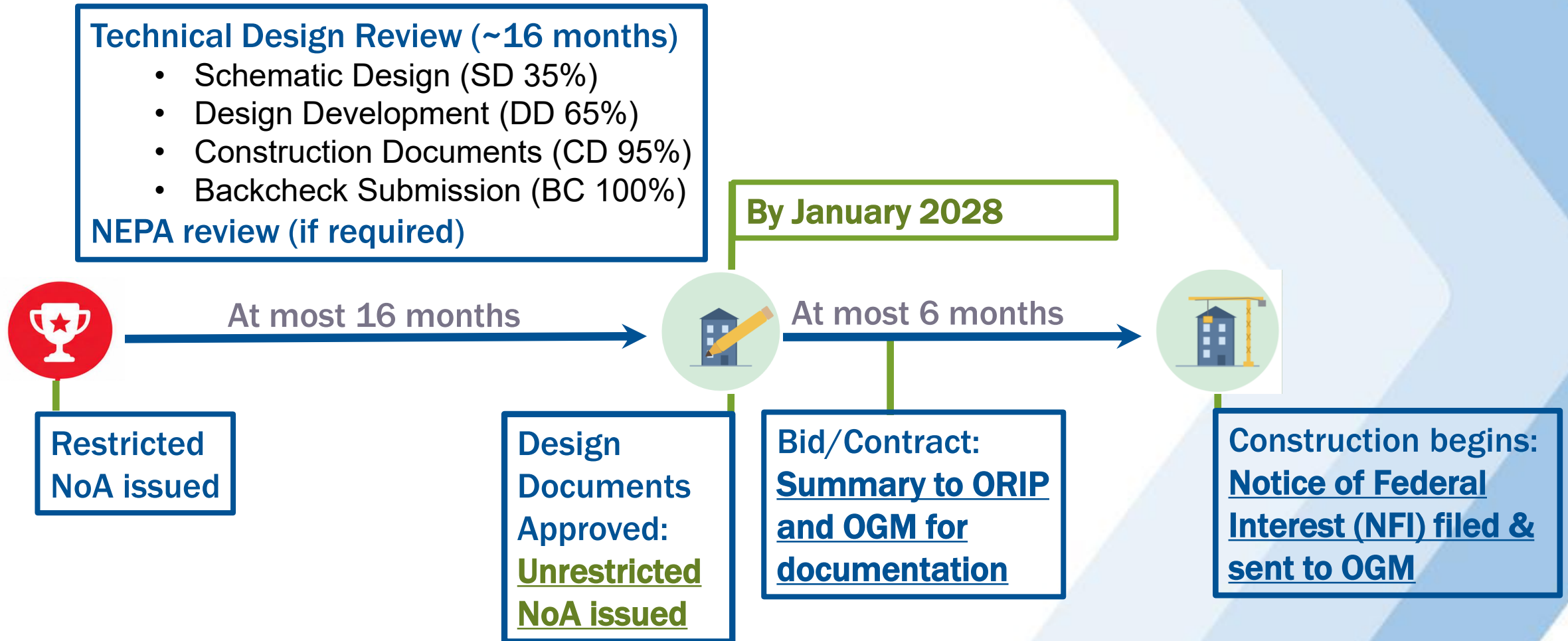
Sept. 2026



May 31, 2031

**Total budget time is only
4 yrs. & 8 mons (56 mons).**

TIMELINE: PRE-CONSTRUCTION PERIOD



CONSTRUCTION DELIVERY METHODS

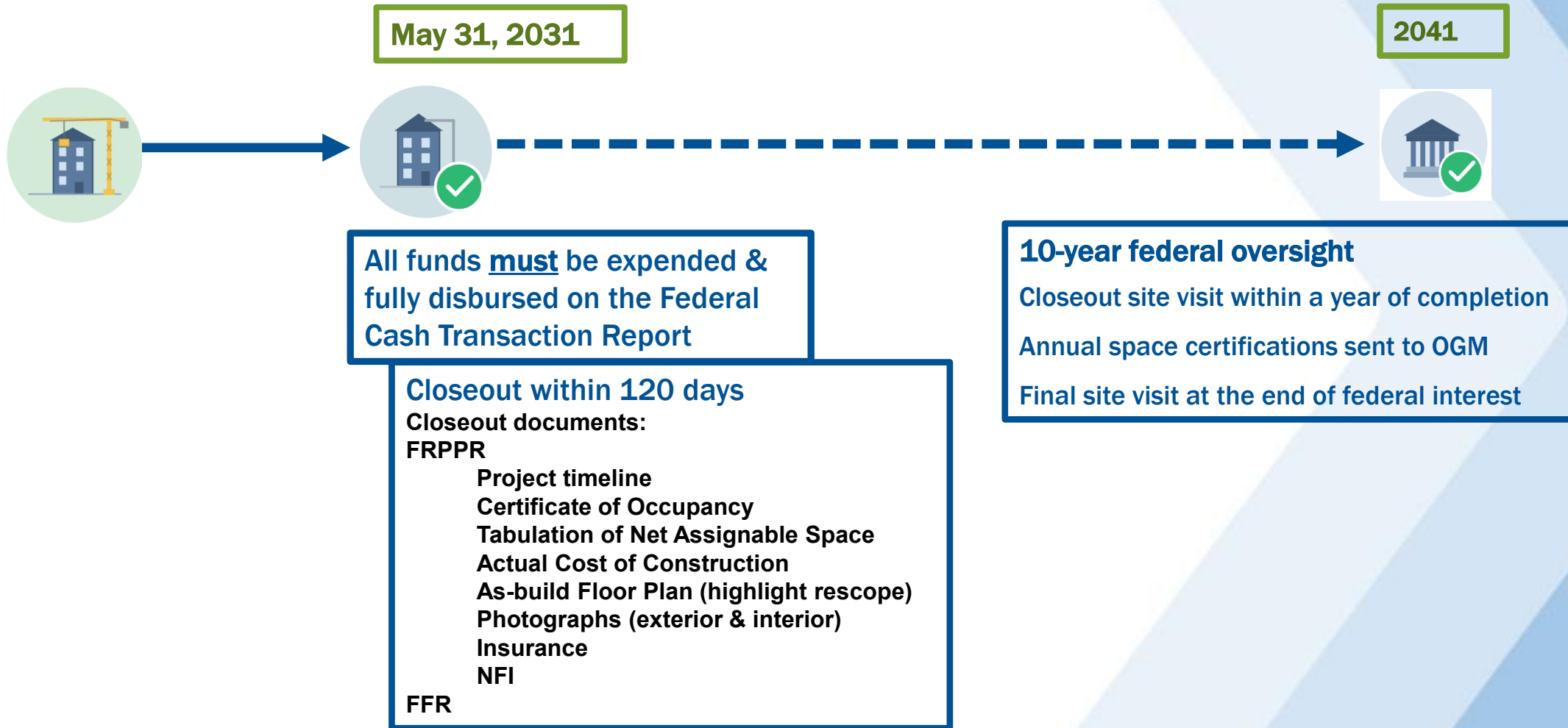
Standard:

- Design-bid-build (DBB)

Alternate Delivery Methods (require prior approval):

- Construction Manager as Agent (CMAA)
- Construction Manager at Risk (CMAR, guaranteed maximal price (GMP) required)
- Design-Build (DB, GMP required)

TIMELINE: POST-CONSTRUCTION



COMPLIANCE REQUIREMENTS

through out the grant period and federal oversight



JIT

Environmental
Analysis form
Assurances for
Construction
Programs (SF-424D)

Technical Design

SD

[submission/review/response/r review](#)

DD

[submission/review/response/r review](#)

CD

[submission/review/response/r review](#)

Design Completion/Revised NoA to remove
fund restriction

Environmental Assessment/Impact Statement

Summary of bidding/contract

RPPRs

NFI

As-built Documents

Prior approvals

PI change

NCE

Alternate contracting method

Scope change

Transfer of NFI

Closeout documents:

FRPPR

FFR

Certificate of Occupancy

NFI

Tabulation of Net Assignable Space

Actual Cost of Construction

As-built Floor Plan (highlight
rescope)

Photographs (exterior & interior)

Insurance

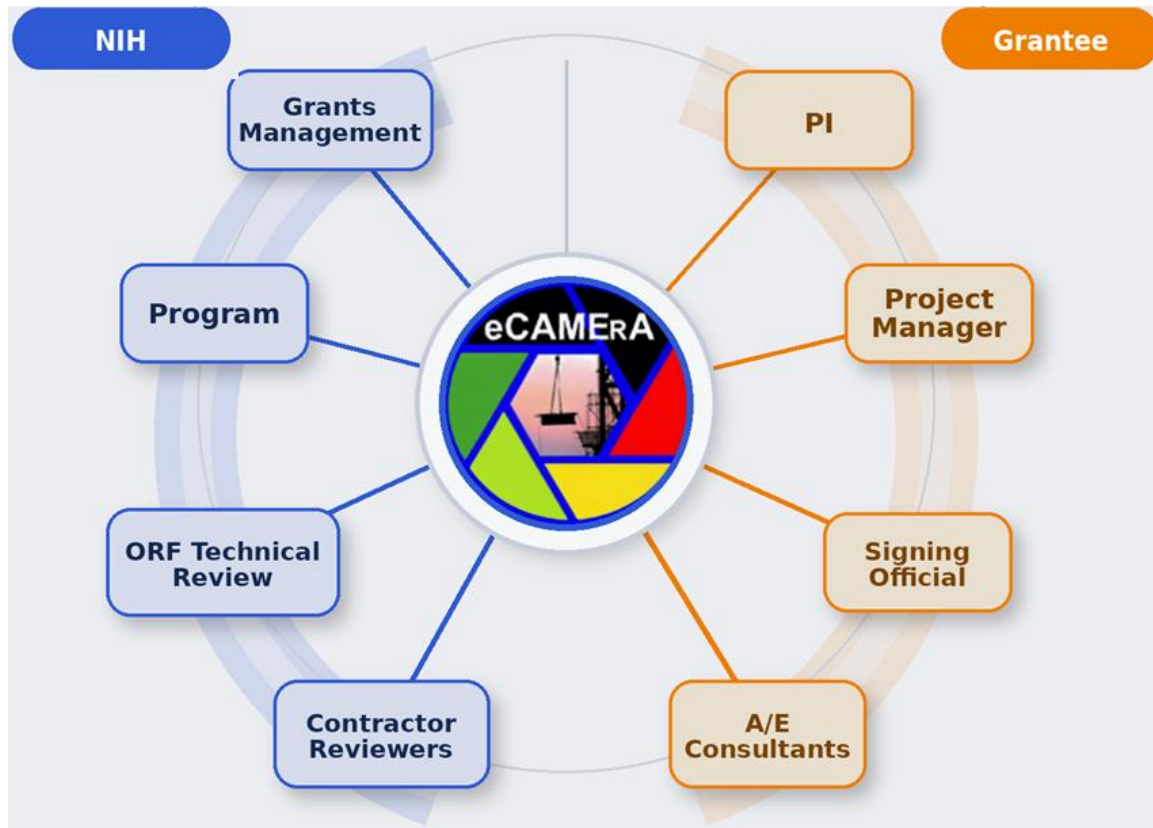
Project timeline

Self certified usage (10 years)

site visits

agenda/roster/report/presentation deck

Extramural Construction Award Management And Early Risk Alert (eCAMERA) System



Use eRA Commons or login.gov
credential to log on

eCAMERA system is developed to

- monitor project progress
- provide policy guide and documentation platform

1. Project management

a. Design Technical Review

- i. Submission
- ii. Review
- iii. Response
- iv. Response Review

b. Construction status tracking

2. Documentation

- a. JIT documents
- b. Contract/Construction Documents
- c. Prior approvals
- d. Closeout documents
- e. Federal oversight documents

CHALLENGES

- C06 grants are constrained by the project management triangle:
Scope, Time (56 months), Cost (no additional NIH C06 funds)
- Inflation and supply chain disruptions
- Delays can lead to early termination (failure) of the C06 grants and relinquishment of the funds, especially in situations of limited internal support, unmanageable timeline and cost, etc.
- NIH will not approve scope change requests after Technical Design Review is completed

RECOMMENDATIONS

- Dedicated team and project/program management skills are critical; regular project meetings; alternate delivery method is encouraged if it helps to bring CM on board earlier.
- Familiarity with NIH Design Requirement Manual (DRM) helps
- Have cost estimates at each design phase
- Mobilize institutional support for extra funds and resources
- Stick to timeline
- Minimize changes, minimize redos, and wastes
- Think ahead. Prepare your next steps and materials early. Leave sufficient buffer in your timelines for unexpected events
- NIH colleagues are your supporters. Keep your PO closely informed – regular check-ins

C06 AWARD REQUIREMENTS

Sabrina Oasan

Lead Grants Management Specialist

NHLBI/OGM



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AWARD REQUIREMENTS

PI is responsible for

- Leading and overseeing the project
- Annual Progress Reports
- Final Progress Report

AWARD REQUIREMENTS

All official communications outside the design submission process must be submitted to OGM and ORIP by an Authorized Organization Representative

Prior Approvals (e.g., alternate contracting method, change of scope, change of PI, etc)

- 1. PI/PM speak with your PO**
- 2. SO submits the request to eCAMERA for pre-approval**
- 3. PO and GMS review and pre-approve the request**
- 4. SO submits the pre-approved request to eRA Commons**

PRIOR APPROVAL REQUIREMENTS

Change of Scope

- Layout of Space differs from Grant Application

Change of PI

Alternate Contracting Methods (See Section 10.3 of the NIH Grants Policy Statement <https://grants.nih.gov/grants/policy/nihgps/nihgps.pdf>)

- Construction Manager as Agent
- Construction Manager at Risk
- Design-Build Services

Procurement Standards Can be found in Uniform Guidance (2 CFR 200) and it is very similar to Federal contracting guidelines. Work with your AOR, and review Sections 200.318 through 327.

- Prior approval if 3 bids cannot be reached
- Bid Process public notice

Extensions Review of extension requests must take into account the 5-year limitation of the expenditure of appropriated funds. May 31, 2031, is the absolute last day of this grant award.

PRIOR APPROVAL REQUIREMENTS

Per the Guide Notice, [NOT-OD-26-026](#): All Prior Approval Requests must be submitted via eRA Commons Prior Approval Module

Please consult with your Program Official and Grants Management Specialist if you have any questions

C06 GRANTS MANAGEMENT CONTACTS

Sabrina Oasan

- sabrina.oasan@nih.gov

Rachel Norcio

- rachel.norcio@nih.gov

TECHNICAL DESIGN REVIEW

Steven Breslin, AIA, PE

Chief, Standards and Policy Branch

Office of Research Facilities



National Institutes of Health

Technical Design Review

NIH Design Requirements Manual (DRM)

Also:

- Completion
- Coordination
- Best practice
- Value



Design Requirements Manual

Rev. 2.1: 8/2/2024



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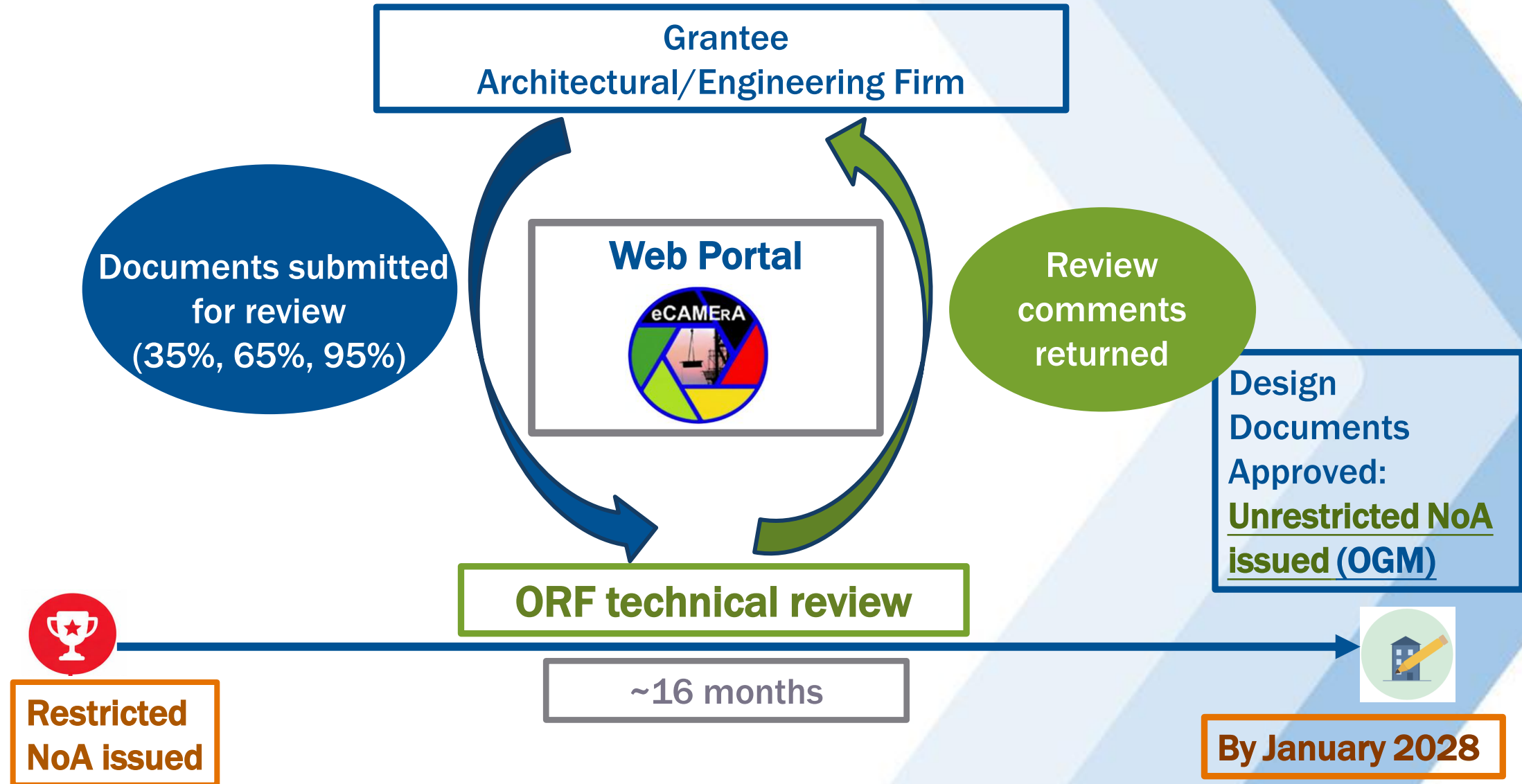
Division of Technical Resources
Office of Research Facilities

The formulae $\frac{\partial^2 U}{\partial x_i^2} = \frac{\partial}{\partial x_i} \left(\mu \frac{\partial U}{\partial x_i} \right) - \frac{\partial}{\partial x_i} \left(\frac{\partial U}{\partial x_j} \right) + \frac{\partial^2 U}{\partial x_j^2} - \frac{\partial}{\partial x_j} \left(\mu \frac{\partial U}{\partial x_j} \right) + \dots$ for building $\frac{\partial^2 U}{\partial x_i^2} = \frac{\partial}{\partial x_i} \left(\mu \frac{\partial U}{\partial x_i} \right) + \left(\mu - \frac{\partial \mu}{\partial x_i} \right) \frac{\partial U}{\partial x_i} - \frac{\partial}{\partial x_i} \left(\mu \frac{\partial U}{\partial x_j} \right) - \frac{\partial}{\partial x_j} \left(\mu \frac{\partial U}{\partial x_i} \right) + \dots$ state of the art $\frac{\partial^2 U}{\partial x_i^2} = \frac{\partial}{\partial x_i} \left(\mu \frac{\partial U}{\partial x_i} \right) - \frac{\partial}{\partial x_i} \left(\frac{\partial U}{\partial x_j} \right) + \frac{\partial^2 U}{\partial x_j^2} - \frac{\partial}{\partial x_j} \left(\mu \frac{\partial U}{\partial x_j} \right) + \dots$ biomedical research facilities.

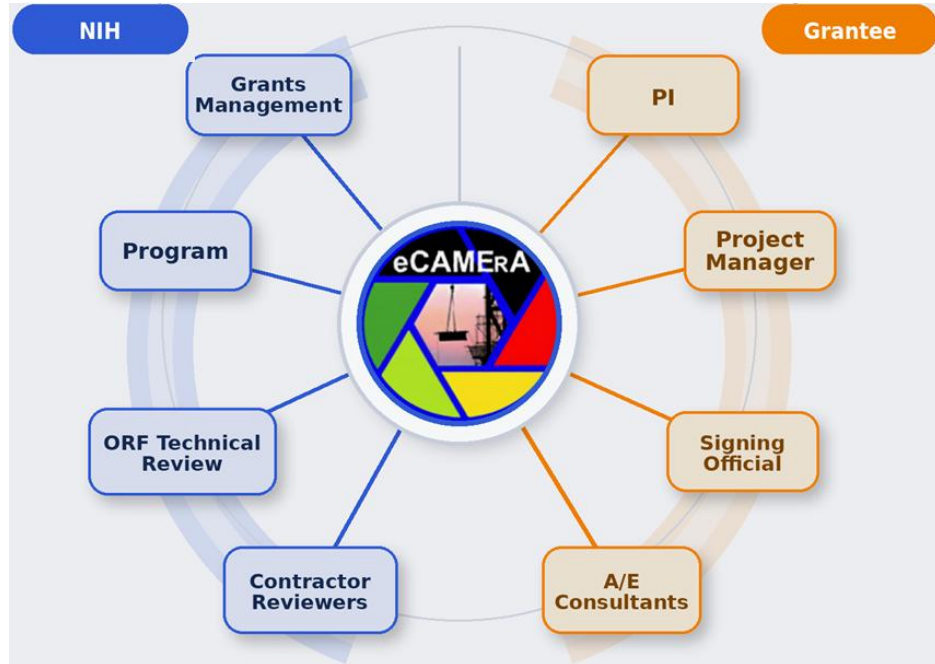


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TECHNICAL REVIEW: COMMUNICATIONS



TECHNICAL REVIEW: COMMUNICATIONS



Design phases

- 1 Schematic Design 35%
- 2 Design Development 65%
- 3 Construction Documents 95%
- 4 Backcheck Submission 100%

A/E Submission Requirements
DRM Appendix E

Review steps for Phases 1-4

Allowed documents

Submission

Drawings (Drawings.pdf)
Specifications (Specs.pdf)
Basis of Design (BOD.pdf)

Review Comments

Review.xlsx

AE Responses

AEResponse.xlsx

Comment Response Review

ResponseReview.xlsx

Other Documents

Variance request,
appendices...

CONTACT INFORMATION

- **ORF** – Technical design questions

Steven Breslin steven.breslin@nih.gov

eCAMERA DEMO

Leo Fox

Highrise Consulting, Inc.



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Thank you!

Questions?



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