# Subcontractor Forum 2019

August 8, 2019

Los Alamos
NATIONAL LABORATORY
EST. 1943

Managed by Triad National Security, LLC for the U.S. Department of Energy's NNSA

# Agenda

| Tewa Pre-Function | | |
|---|---|---|
| 07:00 – 08:00 | Registration | |
| Tewa Ballroom (General Session) | | |
| 08:00 – 08:10 | Kick off and welcome | Thom Mason<br>*Director, Los Alamos National Laboratory* |
| 08:10 – 08:40 | LANL Construction Strategy | Kelly Beierschmitt<br>*Deputy Laboratory Director for Operations* |
| 08:40 – 08:50 | Safety Message | Michael Hazen<br>*Associate Laboratory Director for ESHQSS* |
| 08:50 – 09:50 | Capital Projects | Kathye Segala<br>*Associate Laboratory Director for Capital Projects* |
| 09:50 – 10:20 | Networking Break | |
| 10:20 – 11:10 | F&O Maintenance | Reed Sharp<br>*Director of Maintenance* |
| 11:10 – 12:00 | ASM Processes/SB Initiatives | LeAnne Stribley<br>*Associate Laboratory Director for Business Management* |
| 12:00 – 12:50 | Lunch / Keynote Speaker | Kelly Beierschmitt<br>*Deputy Laboratory Director for Operations* |
| 04:30 – 05:00 | Subcontractor Feedback | Susan Stein<br>*Group Leader for ASM-Capital Projects* |

# Agenda

| Tewa Pre-Function | | | |
|---|---|---|---|
| 08:00 – 05:00 | Exhibitor Space | | |
| Caldera Ballroom | | | |
| | **Tewa Bay 1-A (Afternoon Session A)** | **Barranca Ballroom (Afternoon Session B)** | **Tewa Bay 1-C (Afternoon Session C)** |
| 12:50 – 01:40 | Exhibit F updates<br>Christine Baker<br>*Industrial Safety & Hygiene* | How to complete a Request for Proposal<br>John Roybal<br>*Assurance Operations* | Engineering submittals / process improvements<br>Jim Streit<br>*Engineering Services Division Office* |
| 01:40 – 02:30 | Exhibit F updates<br>Christine Baker | Lessons Learned<br>Ron Schroder<br>*Project Integration Division Office* | DCO / RFP Process Improvements<br>Susan Stein<br>*ASM-Capital Projects* |
| 02:30 – 02:50 | Networking Break | | |
| 02:50 – 03:40 | Security / Exhibit G<br>Steve Maestas / Barbara Carmichael<br>*Safety-Deployed Security* | How to complete a Request for Proposal<br>John Roybal<br>*Assurance Operations* | Engineering submittals / process improvements<br>Jim Streit |
| 03:40 – 04:30 | Security / Exhibit G<br>Steve Maestas / Barbara Carmichael<br>*Safety-Deployed Security* | Lessons Learned<br>Ron Schroder<br>*Project Integration Division Office* | DCO / RFP Process Improvements<br>Susan Stein<br>*ASM-Capital Projects* |

# Dr. Thom Mason
# Director

# Kick Off and Welcome

# Dr. Kelly Beierschmitt
# Deputy Laboratory Director for Operations and Chief Operating Officer

"To assure quality, safety, and security, we must stabilize the workforce."

*–Kelly Beierschmitt*

# LANL is changing its approach to construction subcontract management

# We expect to be executing at least $5.5 billion dollars in construction over the next five years and $2.5 billion in subcontracting labor and materials

# Our first procurement for general construction and D&D will be awarded August 30, 2019

**LANL will also be awarding new Master Task Order Agreements (MTOA) for electrical, modular buildings, fire suppression, and fire protection by September 30, 2019**

# We can all succeed if we make a strong commitment to each other and to our new way of doing business

## Architectural and engineering services

## Construction services

- General contractors
- Mechanical contractors
- Electrical contractors
- Modular contractors expertise

Exascale Class Computer Cooling Equipment Project

## D&D contractors

- Process contaminated expertise
- Waste characterization

## Specialty services

- Third-party inspection
- Laboratory services
- Commissioning services
- Historical preservation

# We have partners in the room that can help

TECHSOURCE
A Science & Engineering Consultancy

Brian D'Anrea
President & CEO

MERRICK
SMSI
Strategic Management Solutions LLC

Scott Gustafson,
Vice President
Merrick & Managing
Partner of the
Merrick-SMSI Joint
Venture

LONGENECKER & ASSOCIATES

Michael Briggs
Vice President
Operations and
George Rael
Site Program
Manager

TSAY
Federal Contracting Group

Ron Lovato
CEO TSAY Corporation

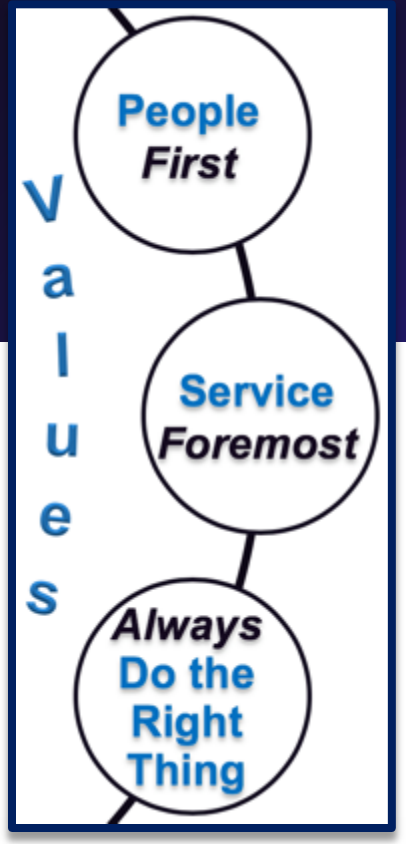
Dominic Pruitt
General Manager of
San Ildefonso Services,
LLC

Acoma SKY CITY
ACOMA BUSINESS ENTERPRISES

Shaun Cunningham Chief
Executive Officer

# LANL has been around for more than 75 years

# With your partnership, we plan to be around for 75 more




# Safety Message

Michael Hazen
Associate Laboratory Director for
Environment, Safety, Health,
Quality, Safeguards, and Security

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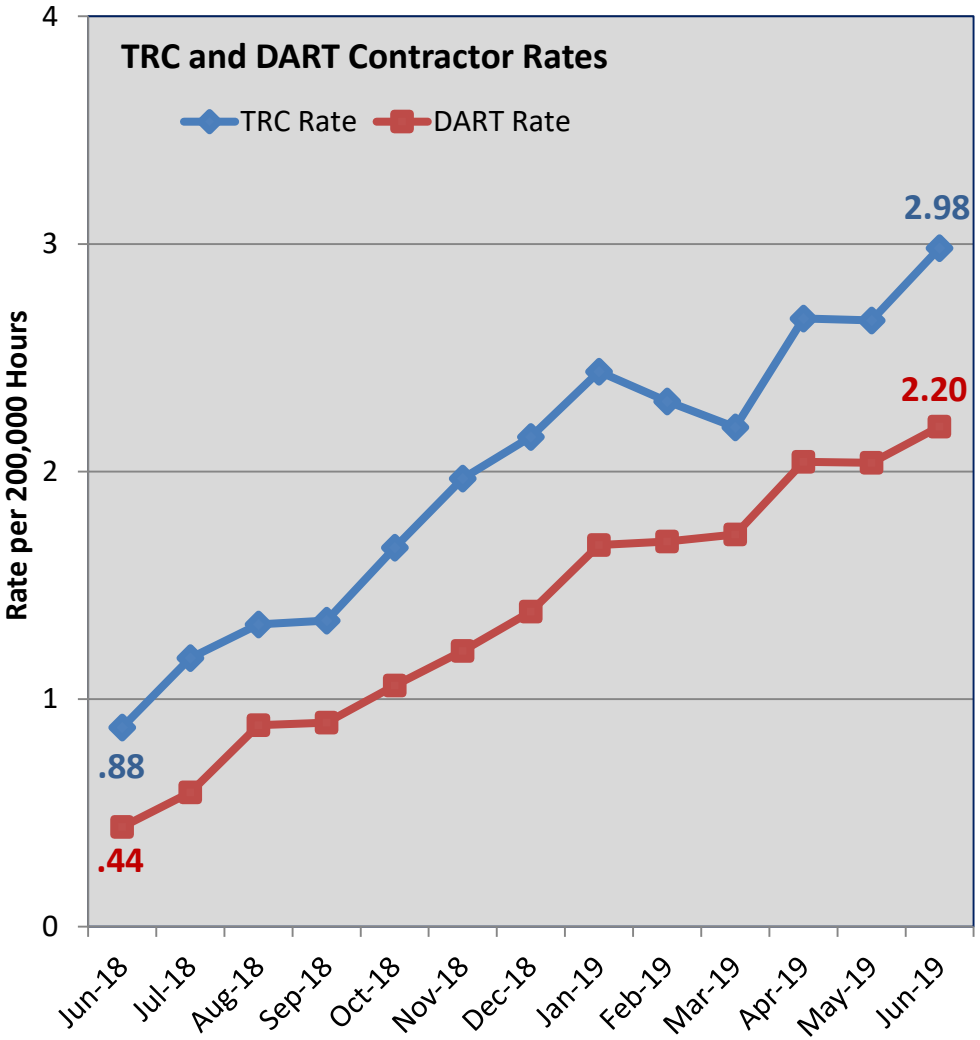
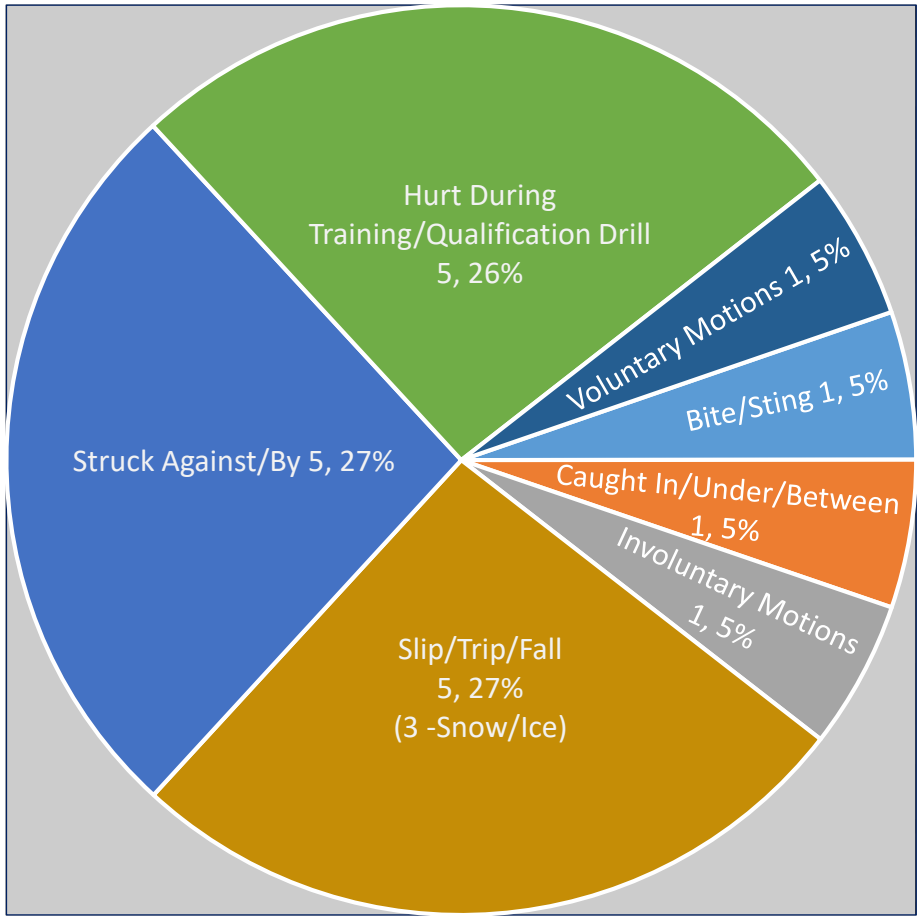
# Bottom line up front: let's be safe and successful TOGETHER

# 19 Recordable Subcontractor Injuries – July 2018 thru June 2019




***We have to do better – but how?***

# Goal: LANL – The safest place to work in New Mexico

**Three factors get us to our goal:**

1. **Leadership (Foreman/Supervisor)**
   - **Am I in the field enough?**

2. **Worker Engagement**
   - **Am I personally committed to everyone's safety?**
   - **Do I speak up when I have a concern?**

3. **Continuous Learning**
   - **Do we seek to improve our work?**
   - **Do we ask "what must go right"?**

***The supervisor/worker learning interaction = a sustained safety culture***

# Triad's approach is to partner with all subcontractors for:

1. **Success**

2. **Careers free of injury**

3. **Operational excellence**
   - **Delivery of quality projects and services, on time, within budget, and with exemplary safety and security**

# Capital Projects

Kathye Segala

Associate Laboratory Director
for Capital Projects

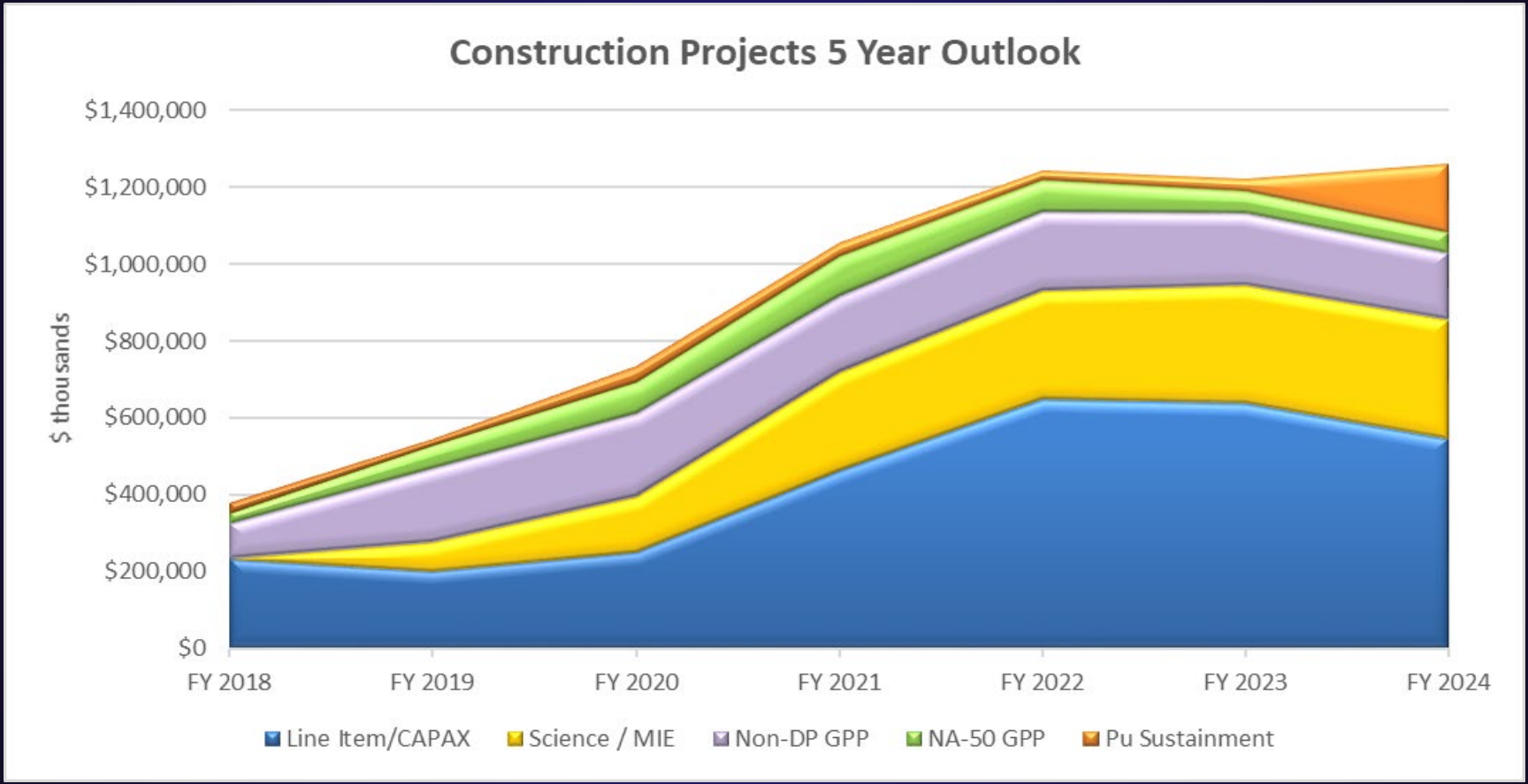
# LANL Construction Program Bottom Line

- **Five-year future workload warrants a comprehensive construction execution strategy**

- **Provides the framework for implementing fundamental long term changes to improve construction execution**

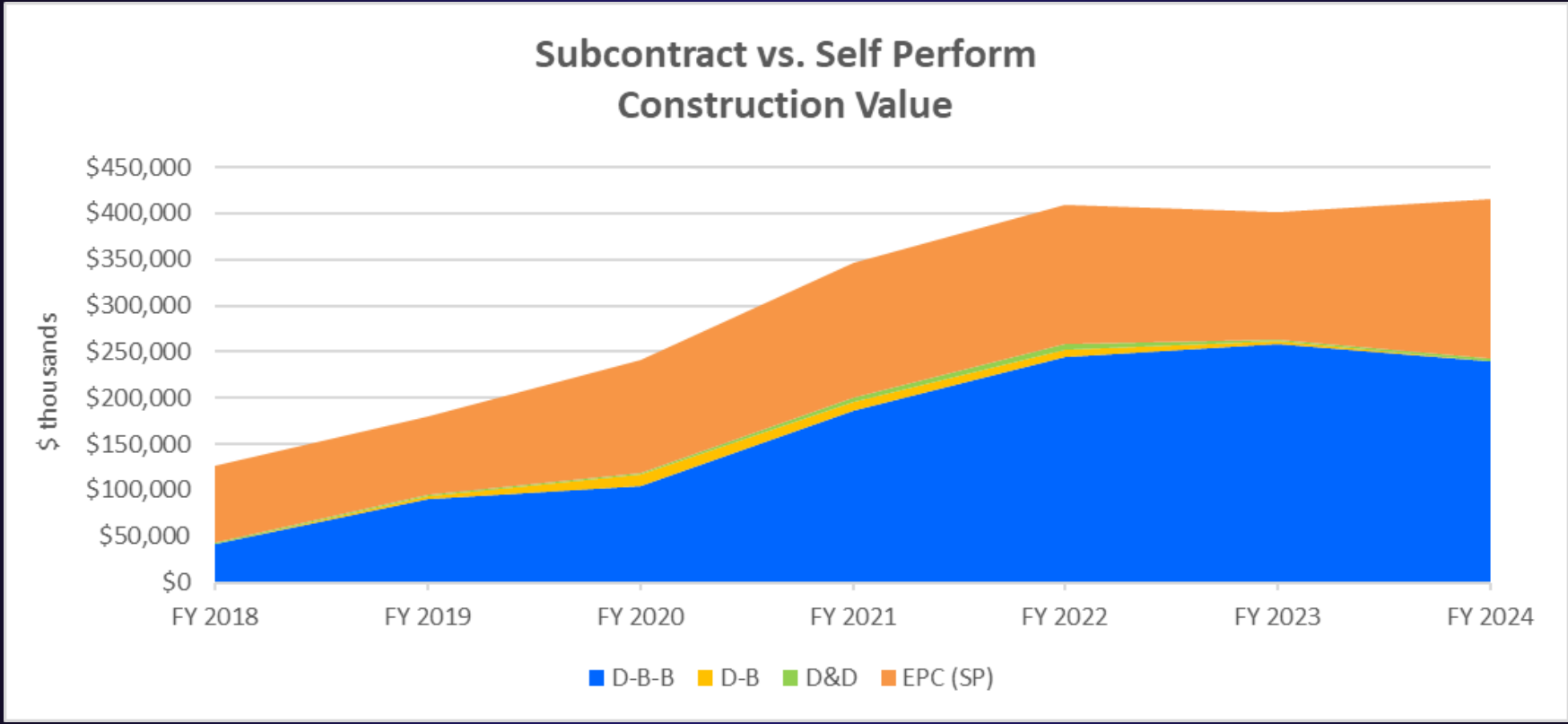
- **Strategy is aligned to job size and project requirements**
  - Includes a framework for mentoring Small Business and Northern New Mexico entities
  - Engages existing TRIAD integrated subcontractors in targeted roles
  - MTOA awardees would perform work in respective areas
  - Work inside Limited Areas (e.g. PF-4 and RLUOB) would primarily be accomplished as self-perform with LANL craft

# LANL Future Workload Supports a New Strategy




- TEC of all projects = $11.2B thru FY30
- $5.5B performed in FY20 to FY24 window

# Subcontract vs. Self-Perform (Parametric-Derived, Construction Value Only)



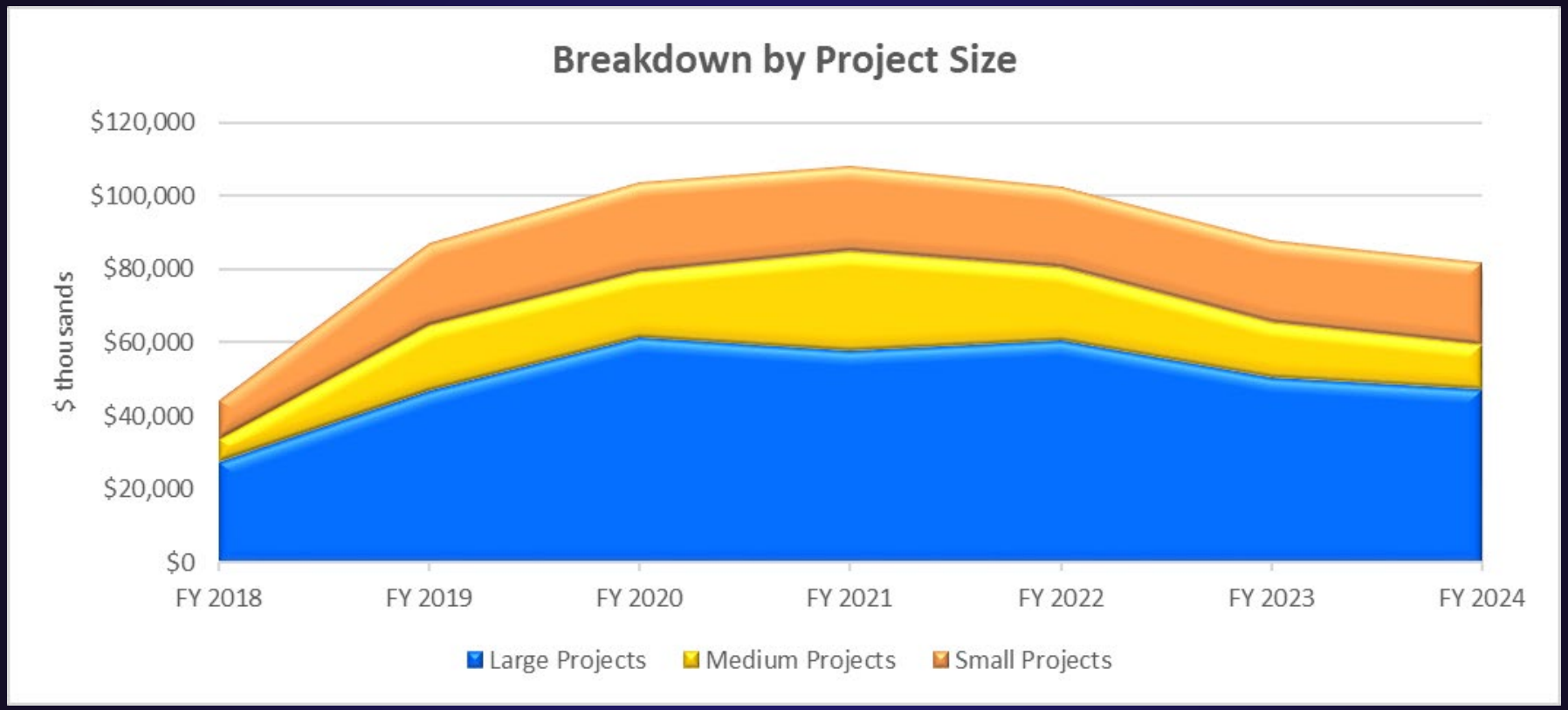

**Total Construction Value thru FY30**

- S/C = $2.5B
- S-P = $1.2B

**Total Construction Value thru FY24**

- S/C = $1.1B
- S-P = $0.73B (driven by Pit Production mission)

# Subcontracted Work (Construction Value Only)




**5 Year Planning Window (FY20 to FY24)**

| Small Projects (<$1.5M) | Medium Projects (>$1.5M and <$10M) | Large Projects (>$10M and <$50M) |
|---|---|---|
| $113M | $92M | $277M |
| 200 projects | 45 projects | 37 projects |

# We are changing the way we do business

- Best value
- Quality
- Partnering
- Safety
- Pre-agreed terms and conditions

- Culture/HPI
- SAFE/LOSA
- Timeline for RFPs
- Accountability
- Core values

- Training and development
- Repeatable execution
- Benchmarking/best practices
- Learning organization
- Feedback

**No longer business as usual!**

# Improvement Initiatives

- **Culture Change**
  - Develop a culture of accountability and ownership
  - Set clear understanding of expectations
  - Evolve from singular ‘cost & schedule’ mindset to include ‘safety and quality’ as core values
  - Promote awareness and training that fosters a learning organization
  - Rewards and incentives

# Improvement Initiatives

- **Human Capital**
  - Invest in the development of our workforce through training, mentoring, and development
  - HPI Awareness sessions for TRIAD and subcontractor personnel, including craft
  - Identify needs through skill-gap assessments and resource needs for the portfolio of projects, right size, and right skill (PM, CM, STR)
  - Emphasis on recruitment, hiring, and retention. Particular focus on craft labor pipeline and engagement

# Improvement Initiatives

- **Project Execution**
  - Build and deploy the people, processes, and tools for repeatable execution of large and small construction at Los Alamos
  - Align and improve customer and stakeholder roles (PMO model, alignment with the FODs)
  - Improved quality and safety performance—emphasize the identification of hazards and the monitoring of work with enhanced field presence
  - Streamline engineering process and reviews—earlier involvement in the planning process

# Improvement Initiatives

- **Subcontract Management/Small Business**
  - Develop a stable long term supply chain, rebuild the relationship with the subcontractors
  - Attract new subcontractors and develop and mentor the current subcontractor community
  - Increase efficiencies in procurement through streamlined contract vehicles
  - Best value vs. low price technically acceptable posture

# Subcontracting Strategy

- **Achieves critical outcomes aligned with overall Lab Agenda**

- **Systematic Process Improvement Benefits**
  - Develop a stable, long term contracting community with repeat work
  - Increased efficiencies in procurement
  - Incentivized contract structures
  - Reductions in project schedules
  - Improved safety performance
  - Streamlined contract vehicles—pre-agreed terms and conditions

# The Master Task Order Agreement (MTOA)—A Vehicle for Incentivizing Performance

## Best practices being implemented at LANL to support this strategy

Long-range work planning identifies work, creates multi-year mindset

Focus on LANL engagement on all aspects of subcontractor performance
- Subcontract management to drive accountability
- Enhance field presence with clearly defined roles and responsibilities
- Increased daily engagement and observation

**MTOA Life Cycle**

| Planning | Solicitation | Evaluation / Award | Execution | Close-Out |
|---|---|---|---|---|

**LANL values and expectations set early**
- Best value selection criteria
- Incentives for performance
- Motivation to earn multi-year work

**Assessments that lead to the right behaviors**
- Trending and analysis
- Feedback to and from subcontractors
- Sharing of lessons learned, performance indicators

**Subcontracting model that positions a small set (2-3) of qualified subcontractors in three job size ranges for a known set of work over five years**
- Incentives to align expectations, priorities, values
- Multi-year development of relationship (performance feedback, best practices)
- Leverage for LANL to correct undesirable behaviors
- Lower cost of ownership (both sides)
  - Streamlined paperwork
  - Multi-year commitment allows a Northern NM presence/office
  - Continuity across POCs from job to job

# MTOA Breakdown by Project Size

| | Small Projects <$1.5M contract value | Midsize Projects <$10M contract value | Large Projects $10M - $50M contract value | Specialty Services |
|---|---|---|---|---|
| General Contractor | Multiple Awards | Multiple Awards | 5 Awards:<br>2 NQA1<br>3 ML3/4 | ▪ Modular design-build<br>▪ Trailers<br>▪ D&D<br>▪ ES&H<br>▪ Fire protection<br>▪ Hoisting & rigging<br>▪ QC Inspection<br>▪ Engineering<br>▪ Shop fabrication |
| Renovations/ D&D | N/A | Multiple Awards | N/A | |
| Electrical | N/A | Multiple Awards | N/A | |
| Fire Protection | N/A | Multiple Awards | N/A | |
| Modular Buildings | N/A | Multiple Awards | N/A | |

# Small Project Execution

Andy Tisler
Director
Small Project Execution Division

Managed by Triad National Security, LLC for the U.S. Department of Energy's NNSA

# What We Do

- **Responsible for executing projects up to $50M**
- **Execute in all areas of the Laboratory except TA-55**
- **Annual portfolio is approximately $200M**
  - Subcontract ~80%

# Small Project Future Workload FY2020 – FY2024

- **Building Modifications and Upgrades**
  - Mechanical (HVAC, Fire Protection, Utility Upgrades)
  - Electrical (Fire Detection, Modernization, Security, Communications)
  - General (Office Renovations, Building Renovations)
  - Structural (Seismic Upgrades)
- **New Buildings** (Offices, Fire Station, Parking Structures, Laboratories, Maintenance Shops)
  - Modular
  - Prefabricated
  - Stick Built
- **Demolition and Dismantlement (D&D)**
  - Radiologically contaminated, clean, Beryllium contaminated, HE contaminated

# What We Need

- **Partners**
  - Help us get the work done
- **Safety**
  - Workers go home the way they arrived
- **Quality**
  - Getting the right things right the first time
- **Timeliness**
  - Completing the work on schedule

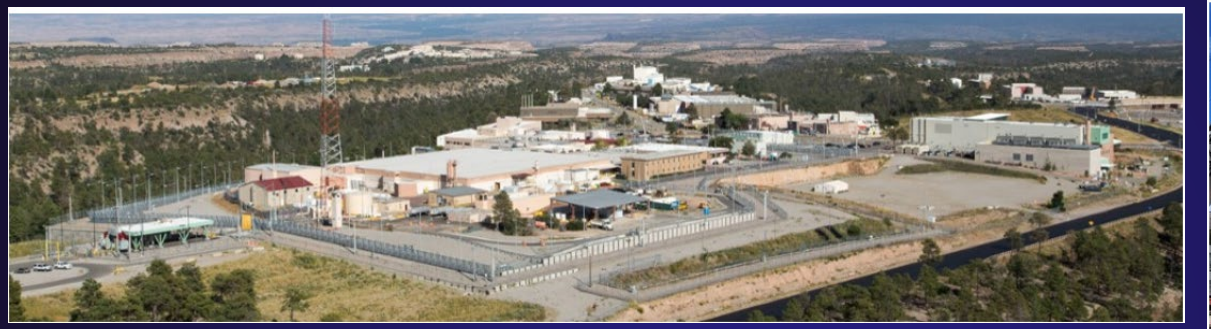
# Large Capital Project Execution

Paul Kreitz
Division Director

Managed by Triad National Security, LLC for the U.S. Department of Energy's NNSA

# What We Do

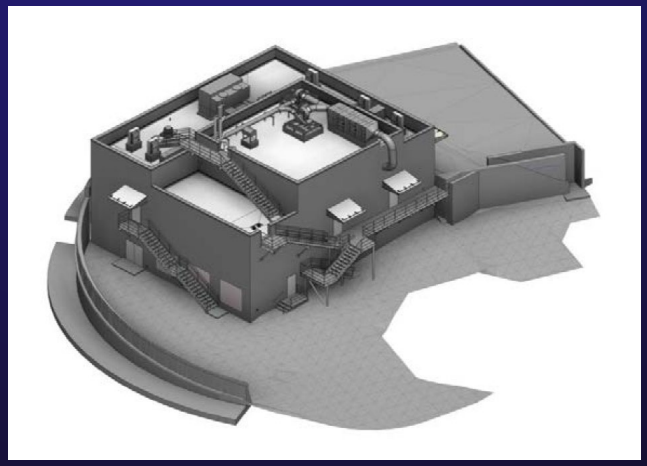
***Enabling LANL's mission through the execution of Capital Line-Item Construction Projects greater than $50M site-wide***



**Portfolio Approximately $560M/Year**

# What is Coming

- D&D / Facility Upgrades (PF-4, RLUOB)
- New Buildings (Parking Structure, Training Center, Offices, Cafeteria, Liquid Waste Treatment Facility, Integrated HE Facility)



# 30 Pit Per Year Upgrade Initiative

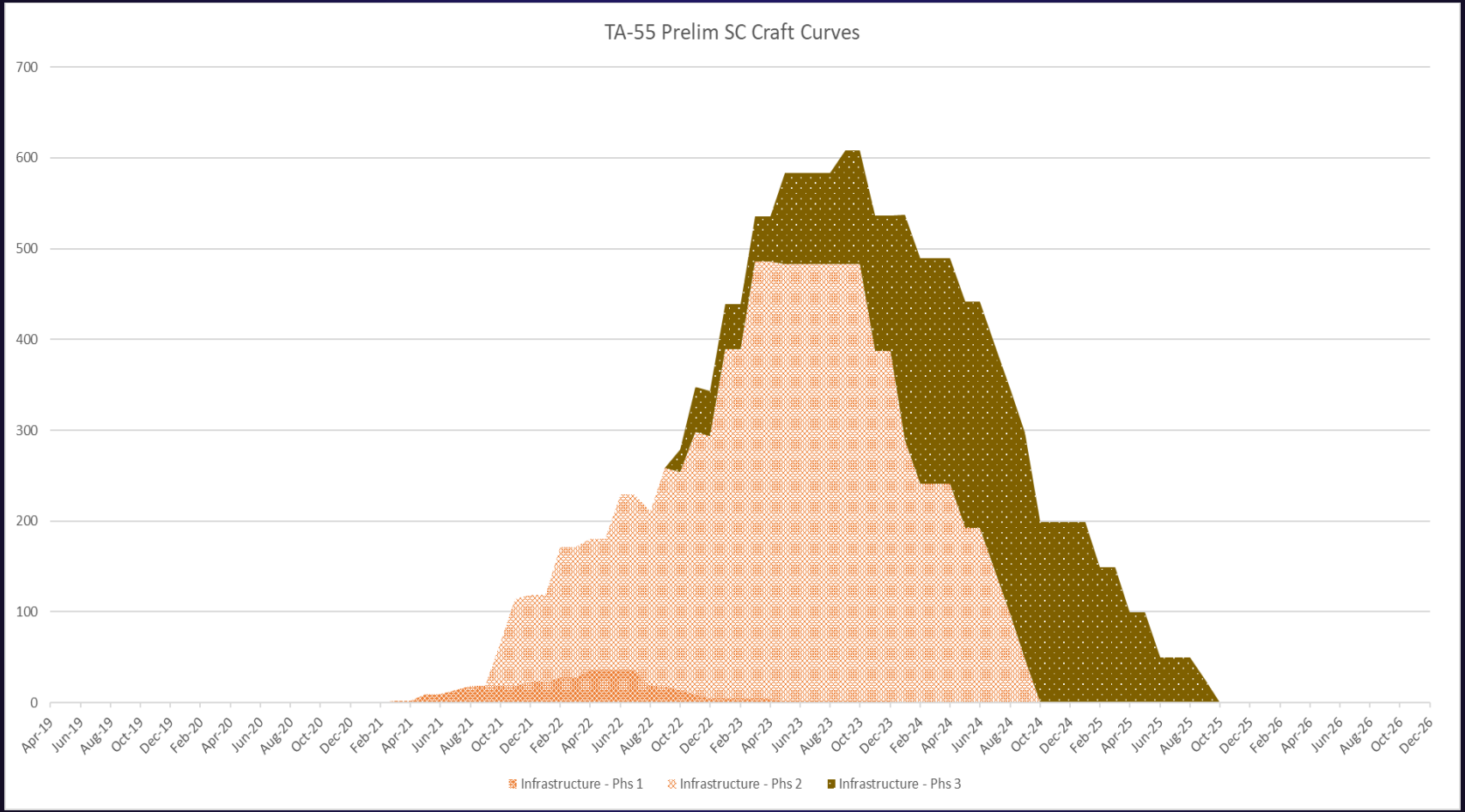
## Facility Upgrades

- Install approx. 145 Gloveboxes/Enclosures
- Facility upgrades to meet Haz Cat 3 requirements
- D&D and install of approx. 170 Gloveboxes and associated equipment
- ECF expansions
- Post upgrades
- New change rooms

## New Building Construction

- Parking Structure – 6 levels with a footprint of 120,000 SF
- Office/Training/Cafeteria Building – 5 floors totaling approx. 320,000 SF
- Office building – 4 floors totaling over 280,000 SF
- Warehouse(s) to increase storage capacity (non-nuclear)
- Road modifications/construction to accommodate new facilities
- New waste haul road construction from TA-55 to TA-63 to TA-54
- Utility upgrades (water, sewer, power, etc.) to support new construction efforts

# Subcontract Craft Curves



# What We Need

- **Professional Services**
  - Engineering
  - Fabrication
  - QC Inspection
- **Trades**
  - Pipefitters
  - Electricians
  - Sheet Metal
  - Laborers
  - Carpenters
- **NQA-1 Qualified Vendors**
  - Upgrading the LANL Supply Chain
  - Quality + Execution = Success

# Backlog of Maintenance Tasks Offers Challenges and Opportunities

Reed Sharp
Division Leader
Maintenance & Site Services

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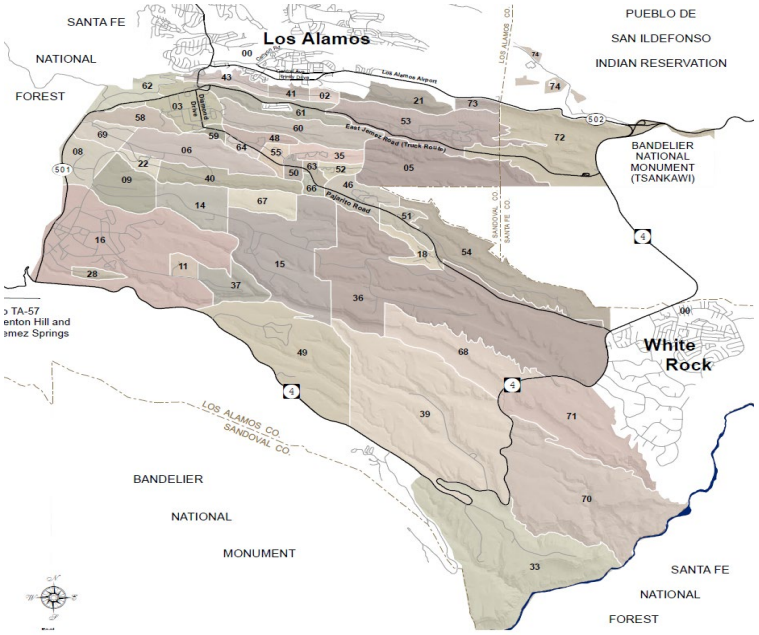
# Infrastructure Portfolio – By The Numbers

941 Buildings
40 Sq. Miles
49 Technical Areas
Elevation 7,500 ft.




Legacy of under-funded maintenance investment
~$1B in existing maintenance and repair needs
Regional craft resource challenges

Property Assets – **1,392**

Real Property Buildings, Trailers, Transportables – **854**
(7,897,179 sq. ft.)

Real Property OSFs - **500**

Leased Assets – **38**
(362,756 sq. ft.)

RTBF # of Assets. - **294**
(2,604,116 sq. ft.)

SS # of Assets. – **1,098**
(5,655,819 sq. ft.)

**11,738** Staff, Guard Force, Contractors, Students, Craft Workers & Post Docs

| | | |
|---|---|---|
| 16.9B | $ | RPV |
| 8.2M | SQ FT | Gross |

**2** Fire Stations

268 Miles primary and secondary roads

219 Parking Lots

894,555 Sq. Yds. Pavement Surface

32 Miles Primary Electrical Lines

168 Miles Secondary Electrical Lines

55 Miles Natural Gas Distribution Lines

112 Miles Water Distribution Lines

14 Miles Steam Distribution Lines

63 Miles Waste Water Lines

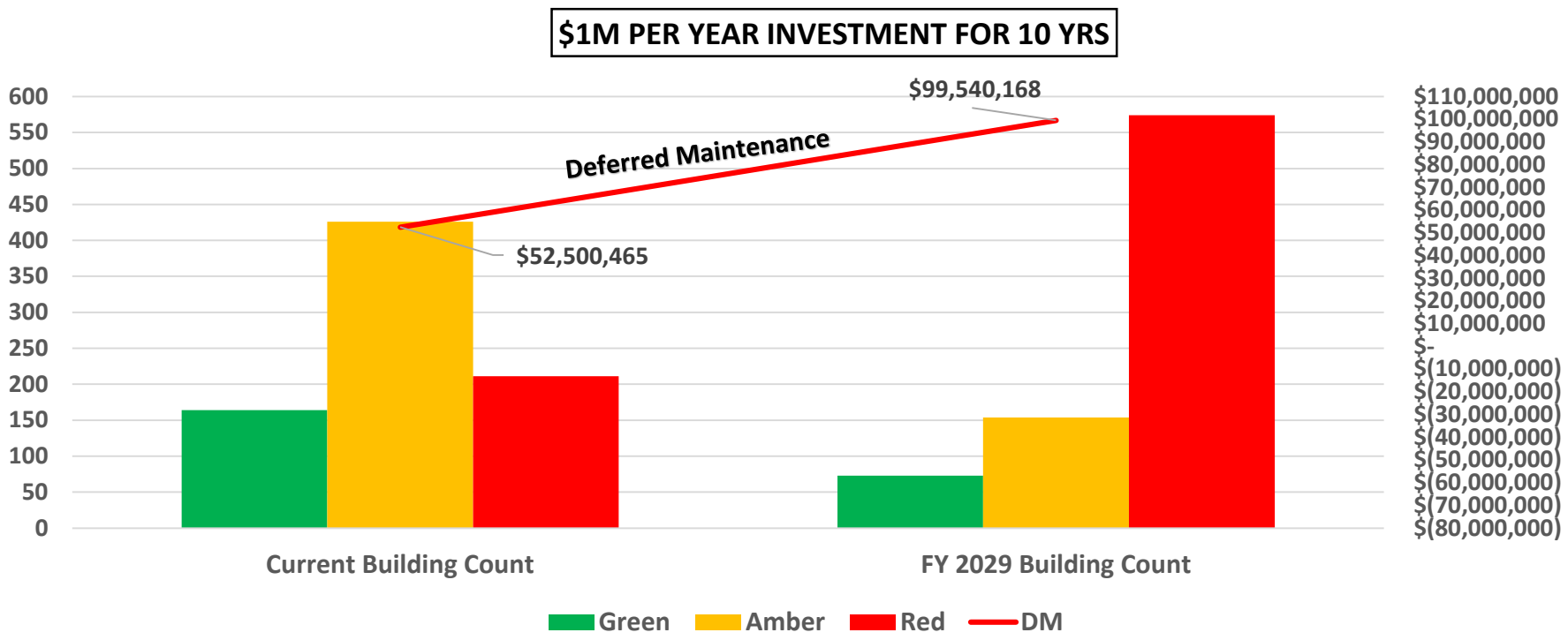
# The Maintenance Challenge

- Budgets have been constrained for years
  - http://www.santafenewmexican.com/news/local_news/congressional-subcommittee-grills-lanl-chief-over-backlog-of-repairs/article_f2ec942b-846b-5abc-b4be-98036d8ab6d0.html
  - Recent external review noted “a sustained lack of investment in facilities & equipment”
- A growing number of our assets may not meet all mission needs
- Existing backlog of repair needs = ~$900M and growing
- We need your help

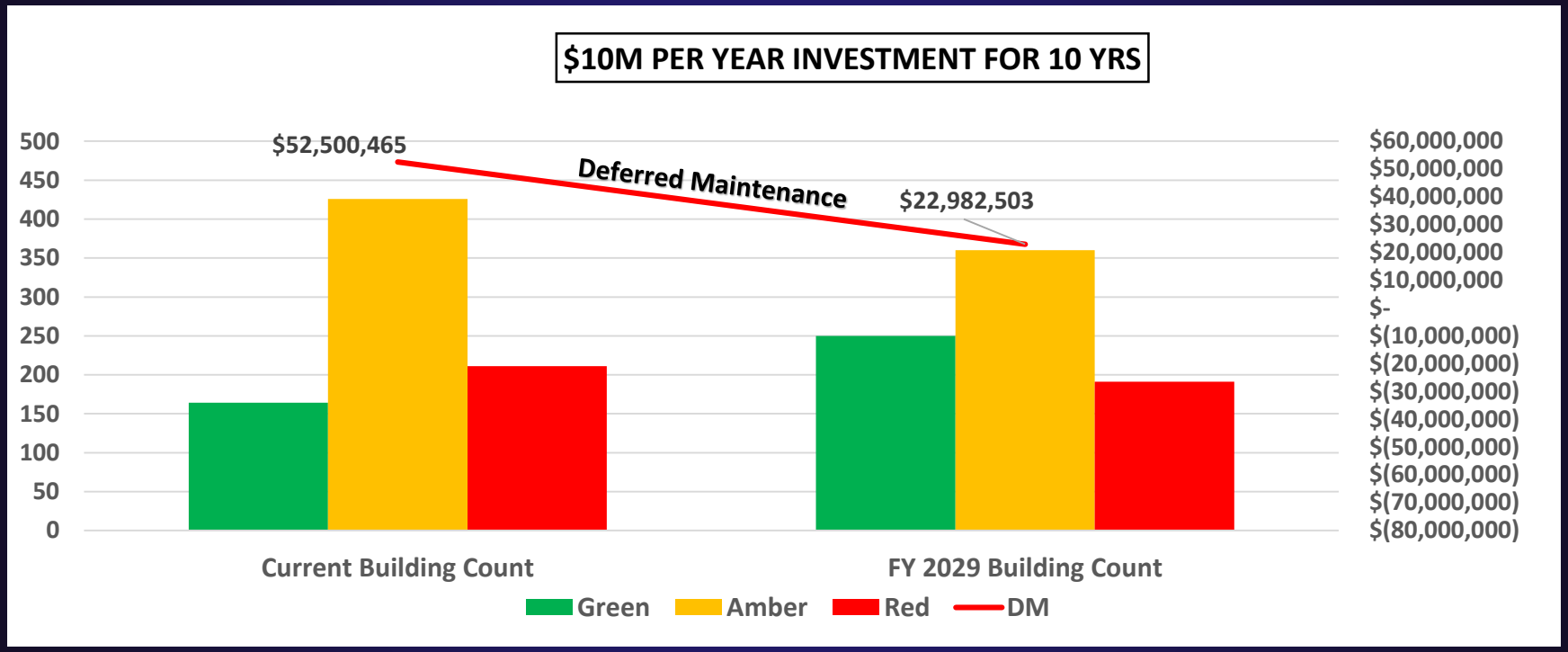
# Key Systems/Items Requiring Attention

- Roofs
- HVAC (air handlers, chillers, RTUs)
- Breakers, switchgear & MCCs
- Steam generation and distribution
- Roads and parking lots
- Walking surfaces
- Utility infrastructure
- Routine CM
- Planned equipment replacement

# What happens if we don't—
# roof condition at current funding level



# Roof condition at proposed funding level



# Enabling Actions / Conclusion

- Increased maintenance funding has been identified
- Strengthen contracted maintenance capabilities—we need to build enduring partnerships
- Consistent and reliable funding levels
- Develop maintenance investment plans (5 & 10 year plans) in alignment with Laboratory Agenda
- As funding becomes available, shift attention to areas not addressed by initial increase with a focus on roofs, HVAC, roads, and utility infrastructure
- Remember—maintenance increase alone will not resolve existing immediate needs

# Subcontractor Forum

**LeAnne Stribley**
**Associate Laboratory Director for Business Management**
**Drew Fuller**
**Division Leader for Acquisition Services Management**
**Chris Fresquez**
**Small Business Manager**

August 8, 2019

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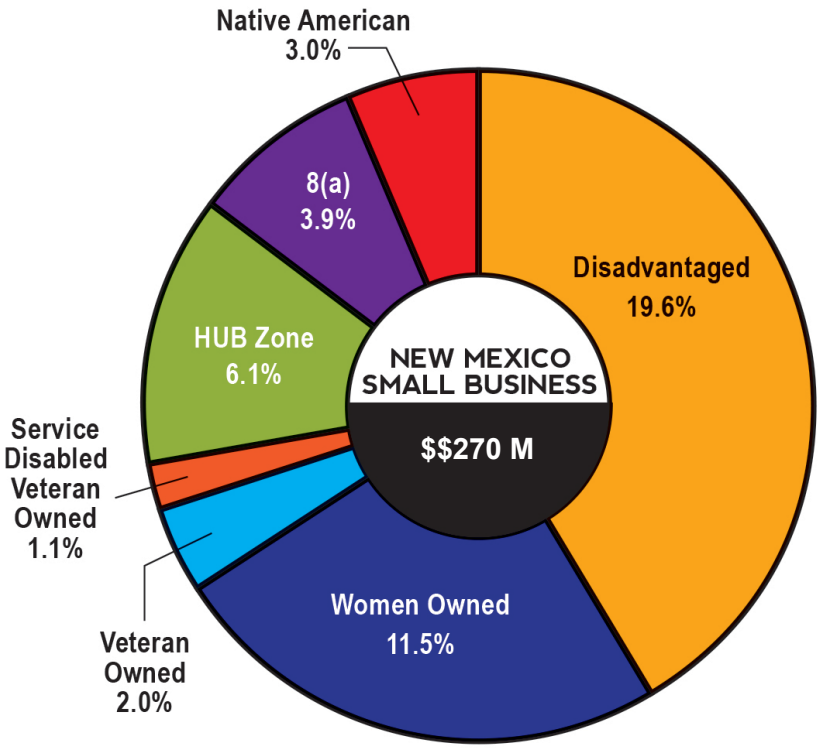
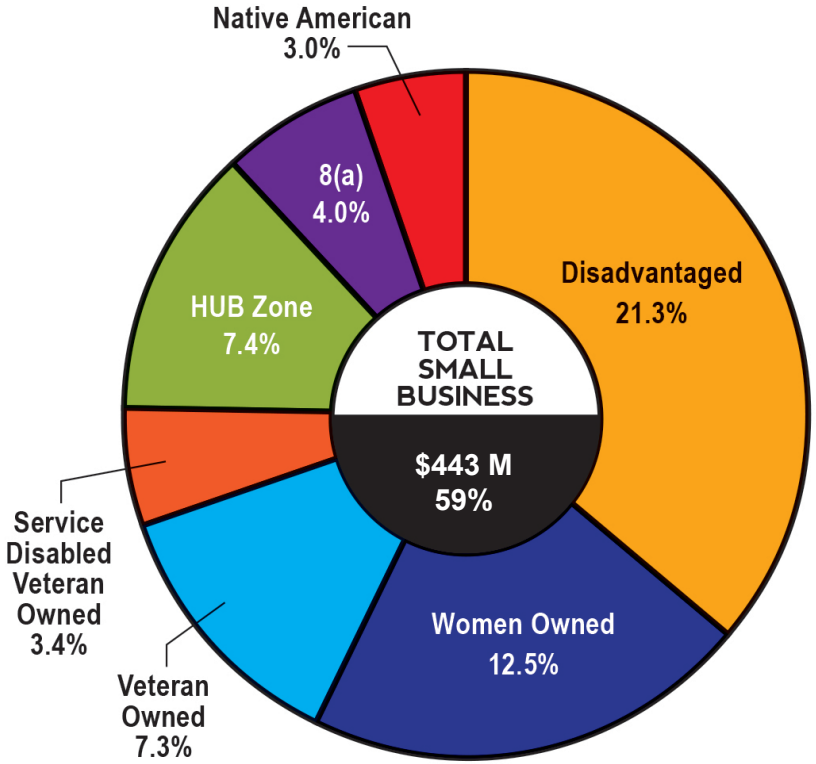
# Economic Impact Facts

- LANL currently spends around $2.7 billion annually
- Nearly three-quarters, a total of **$1.9 billion**, is spent in New Mexico
- LANL's annual payroll is over **$1.5 billion**, with direct employment of over **14,000**
- LANL purchased **$756** million in goods and services in 2018, **$420 million** from New Mexico businesses
- Expenditures supported by LANL* creates **9,400** jobs with a combined payroll of **$350 million**, generating **$1.2 billion** in receipts for New Mexico businesses

*Includes indirect expenditures of employees and vendors

# Small Business Procurement




Total LANL Awards - $756.4 million
Total New Mexico Awards - $420.5 million

# Acquisition Services Management

*Changes are coming….and some are here*

- **New management**
  - Getting to Yes
  - The right team
- **New approach to customer support**
  - Partnership
  - Understanding the needs
  - Better knowledge of upcoming procurements and timing
- **New tools**
  - Redesigned processes
  - Automation
  - Transparency

# Together we'll experience a modern procurement toolset

- **LANL will leverage the world's leading commercial procurement software**
  - SAP Ariba and SAP Fieldglass will be implemented in late 2019 through 2020
    - Fieldglass will be used for services procurements
    - Ariba will be used for the procurement of goods, equipment, and materials
- **We will integrate and simplify LANL's "source-to-pay" process**

- **And make transactions actionable and transparent via the Ariba Network**
  - By extending the capabilities of our new platform to your organization via a network
  - And by enabling your organization to interact with LANL real-time and digitally

# What are the expected benefits to our suppliers?

- **ASM's Commitments**
  - Get a little bit better every day
  - Focus on outcome and partnership
  - Remove self-imposed hurdles
  - Speed, Transparency, and Certainty
- **Suppliers may use the Ariba Network for free**
- **Business interactions become digital and integrated**
- **All your LANL procurement documents at your fingertips**

Ariba Network Suppliers realize:

- 20% faster payment
- 80% increase in order accuracy
- 75% gain in order processing productivity via cXML
- 6-day reduction in days sales outstanding (DSO)
- 35% increase in new business

Source: SAP customer case studies

# Half of LANL's suppliers are on the Ariba Network

| | Suppliers | Spend | Invoices |
|---|---|---|---|
| **Total analyzed** | 2,593 | $522M | 48,741 |
| **Automation eligible** | 2,394 | $486M | 45,317 |
| **Matched on Ariba Network** | 1,194 | $381M | 34,209 |
| **Percentage** | 50% | 78% | 75% |

## PROFILE OF LOS ALAMOS NATIONAL LABORATORY'S MATCHED SUPPLIERS ON ARIBA NETWORK

**11**
Average number of trading relationships

**2,452**
Total number of catalogs

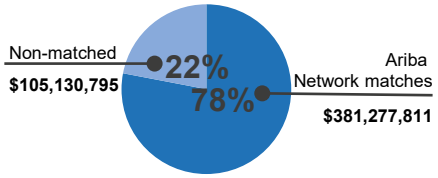
**$6.2B**
Total commerce conducted annually

**$5M**
Average commerce conducted annually

**958**
Average POs received annually

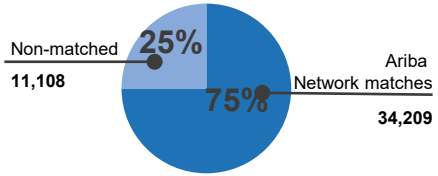
**923**
Average invoices sent annually

**Spend match**



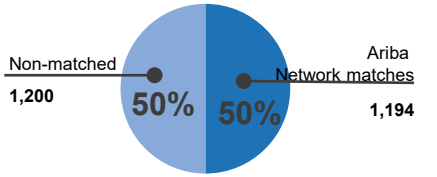

**$381 million in spend on Ariba Network**

**Invoice match**




**34K invoices on Ariba Network**

**Supplier match**




**1,194 suppliers already on Ariba Network**

# LANL's Small Business Program

- **We have a robust small business program with aggressive goals, and we are committed to meeting them**
- **Enhance capabilities to serve the mission**
  - Drive improved subcontractor safety performance
  - Broaden small business supplier base
- **Drive culture change**
  - Leverage relationship with the Pueblo business alliance
  - Establish mentoring and training relationships across the laboratory
- **Increase economic impact and encourage partnership to support LANL's mission needs**
  - Doubled the Northern New Mexico Small Business Pricing Preference from 5% to 10%
  - Established a Tribal Business Alliance and the Alliance receives an additional 5% preference
- **Case Study: LANL's successful mentees**
- **Visit our website and register as a supplier: https://www.lanl.gov/business/**