

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT1. CONTRACT ID CODE
UPAGE OF PAGES
1 32. AMENDMENT/MODIFICATION NO.
P000243. EFFECTIVE DATE
28-Jan-20194. REQUISITION/PURCHASE REQ. NO.
13007643715. PROJECT NO. (If applicable)
N/A

6. ISSUED BY CODE

N64498

7. ADMINISTERED BY (If other than Item 6)

CODE

S3915A

NAVAL SURFACE WARFARE CENTER PHILA
NSWCPD
Philadelphia PA 19112-1403DCMA PHILADELPHIA
700 ROBBINS AVENUE, BLDG. 4-A, P.O.
BOX 11427
PHILADELPHIA PA 19111-0427

SCD: C

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code)

McKean Defense Group, LLC
1 Crescent Drive, Suite 400
Philadelphia PA 19112-1015

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

[X]

10A. MODIFICATION OF CONTRACT/ORDER NO.

N00178-04-D-4078 / N6449817F3000

10B. DATED (SEE ITEM 13)

28-Dec-2016

CAGE CODE
OPT02

FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [] is extended, [] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

SEE SECTION G

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(*) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[]

[] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

[] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[X] D. OTHER (Specify type of modification and authority)
FAR 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor [X] is not, [] is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

SEE PAGE 2

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

BY

(Signature of Contracting Officer)

28-Jan-2019

NSN 7540-01-152-8070

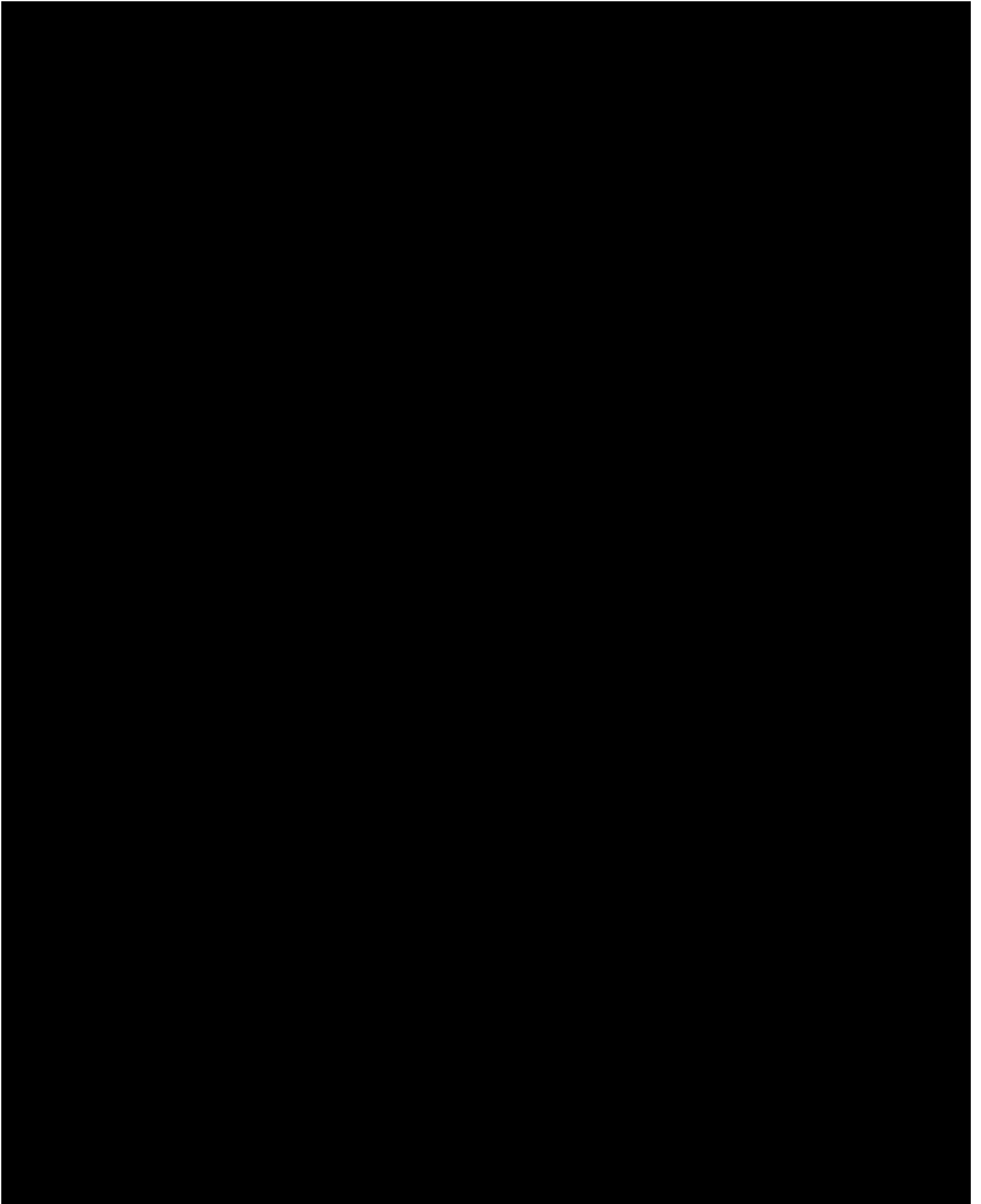
30-105

STANDARD FORM 30 (Rev. 10-83)

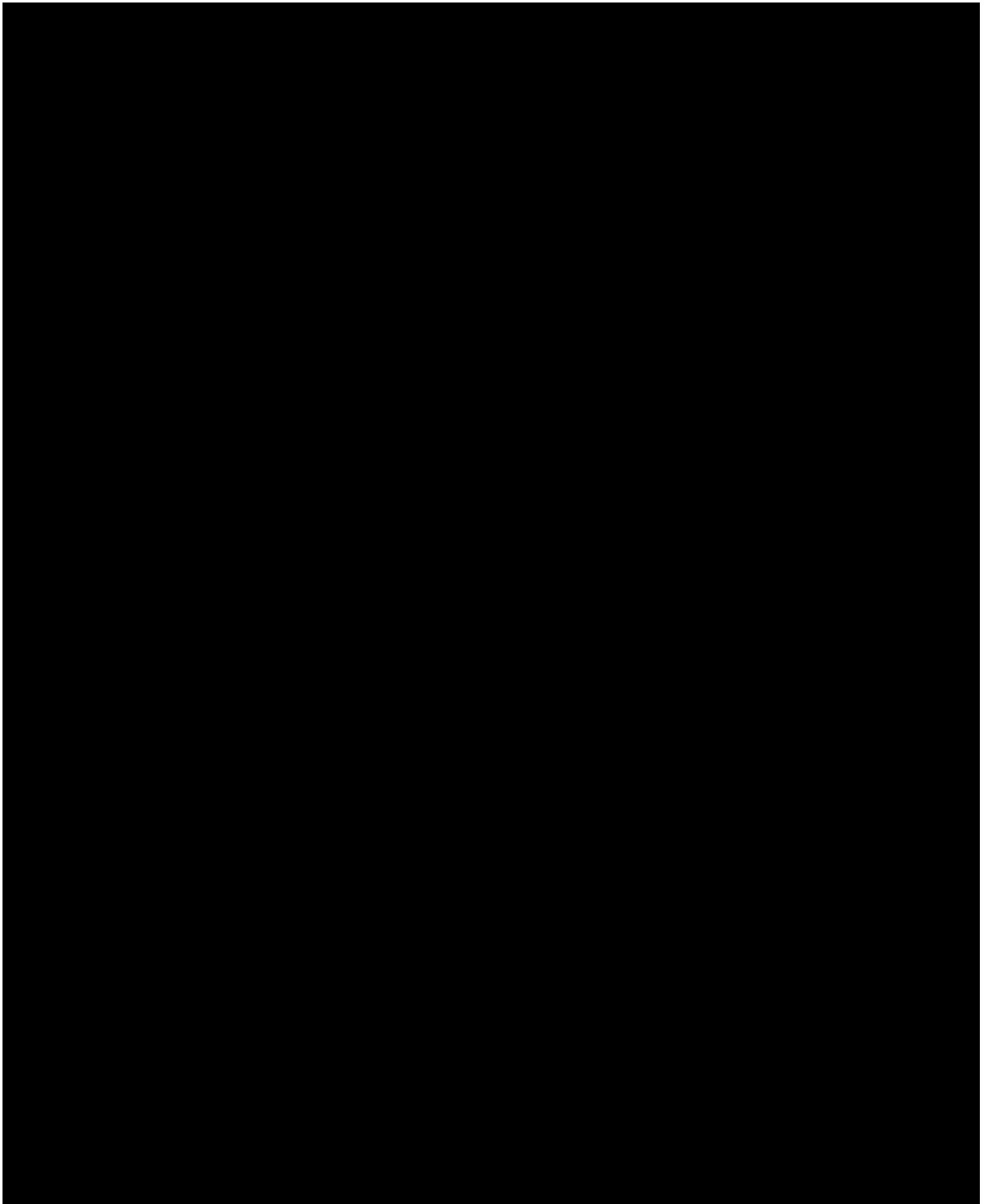
PREVIOUS EDITION UNUSABLE

Prescribed by GSA
FAR (48 CFR) 53.243

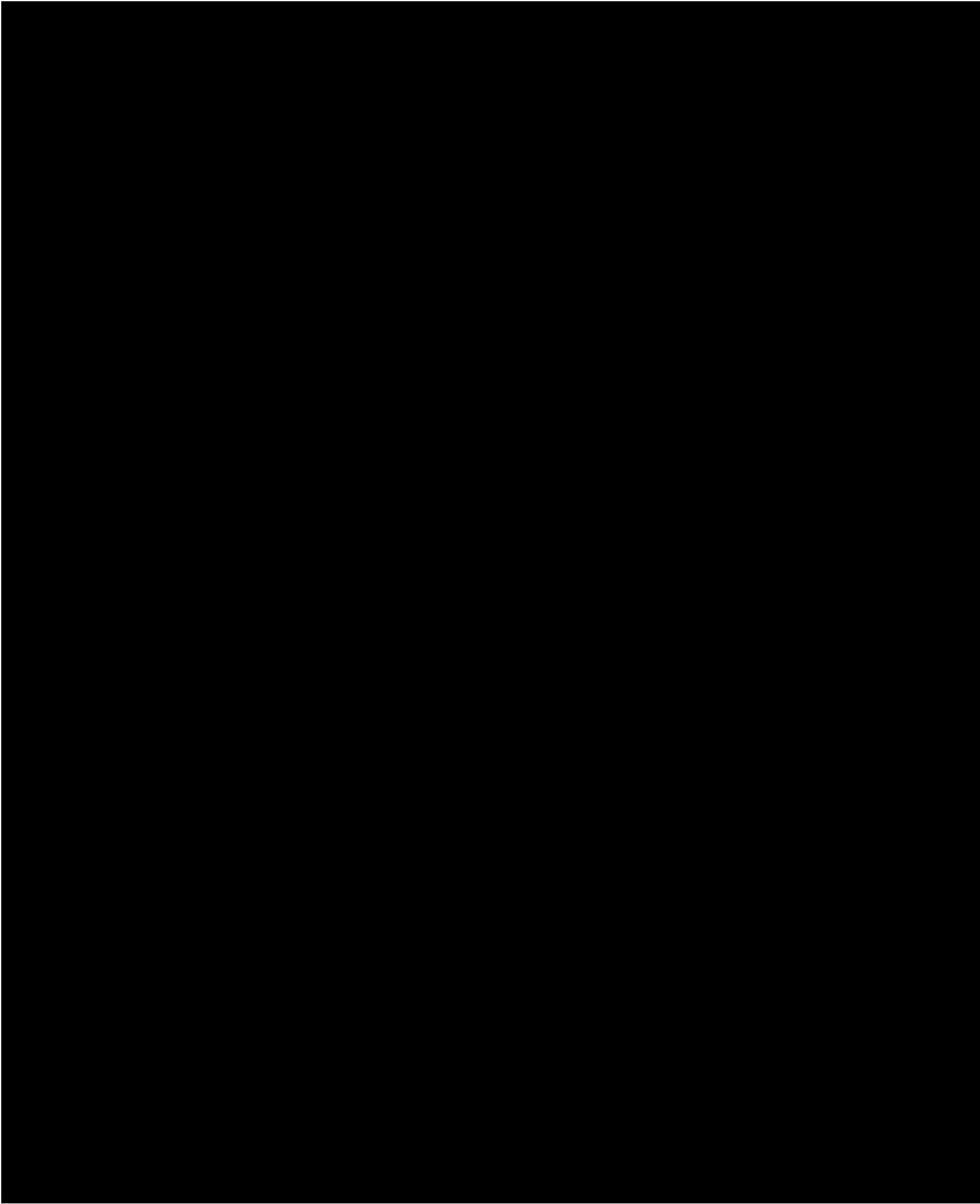
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 2 of 3	FINAL
----------------------------------	-------------------------------------	--------------------------------------	----------------	-------



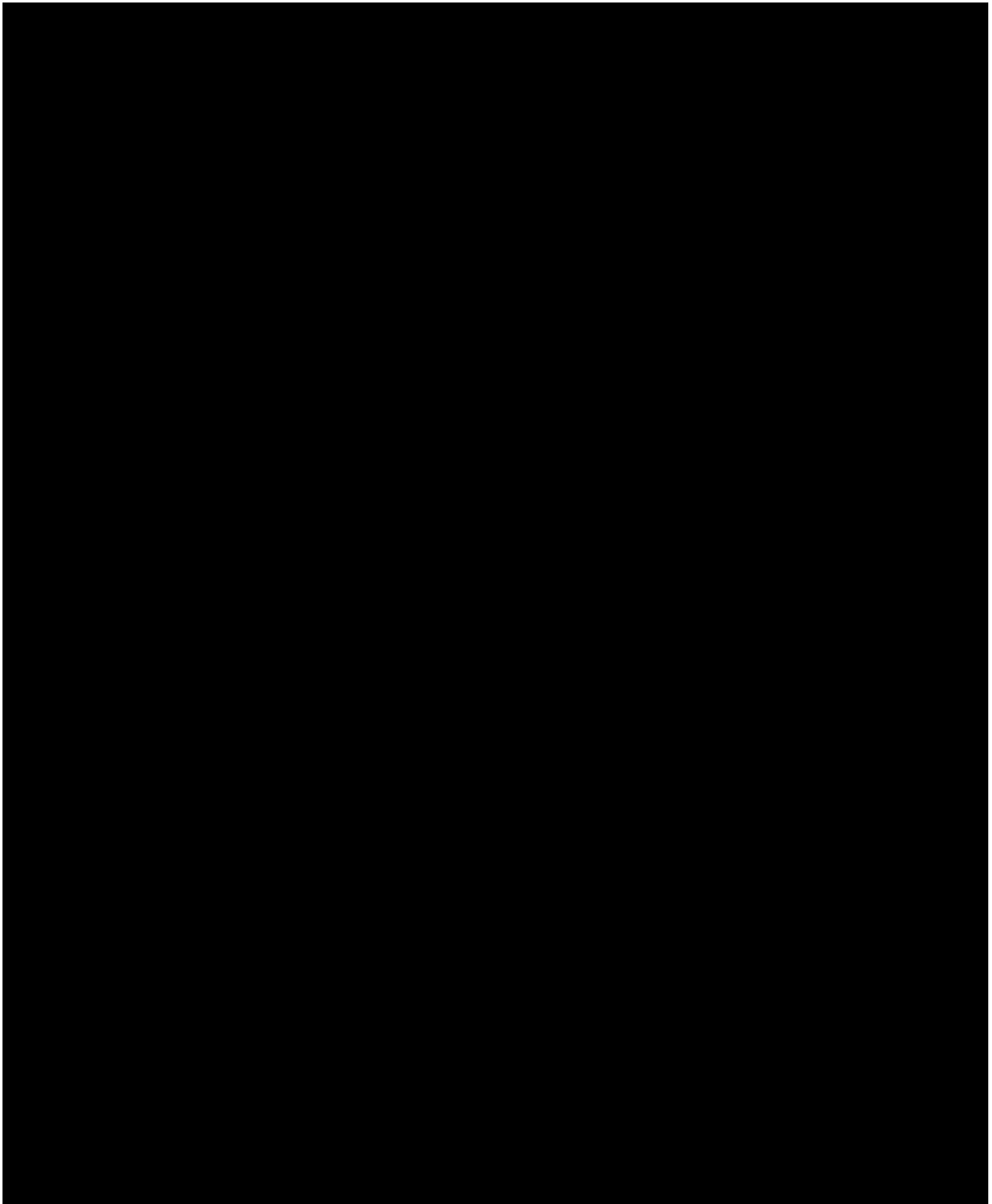
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 3 of 3	FINAL
----------------------------------	-------------------------------------	--------------------------------------	----------------	-------



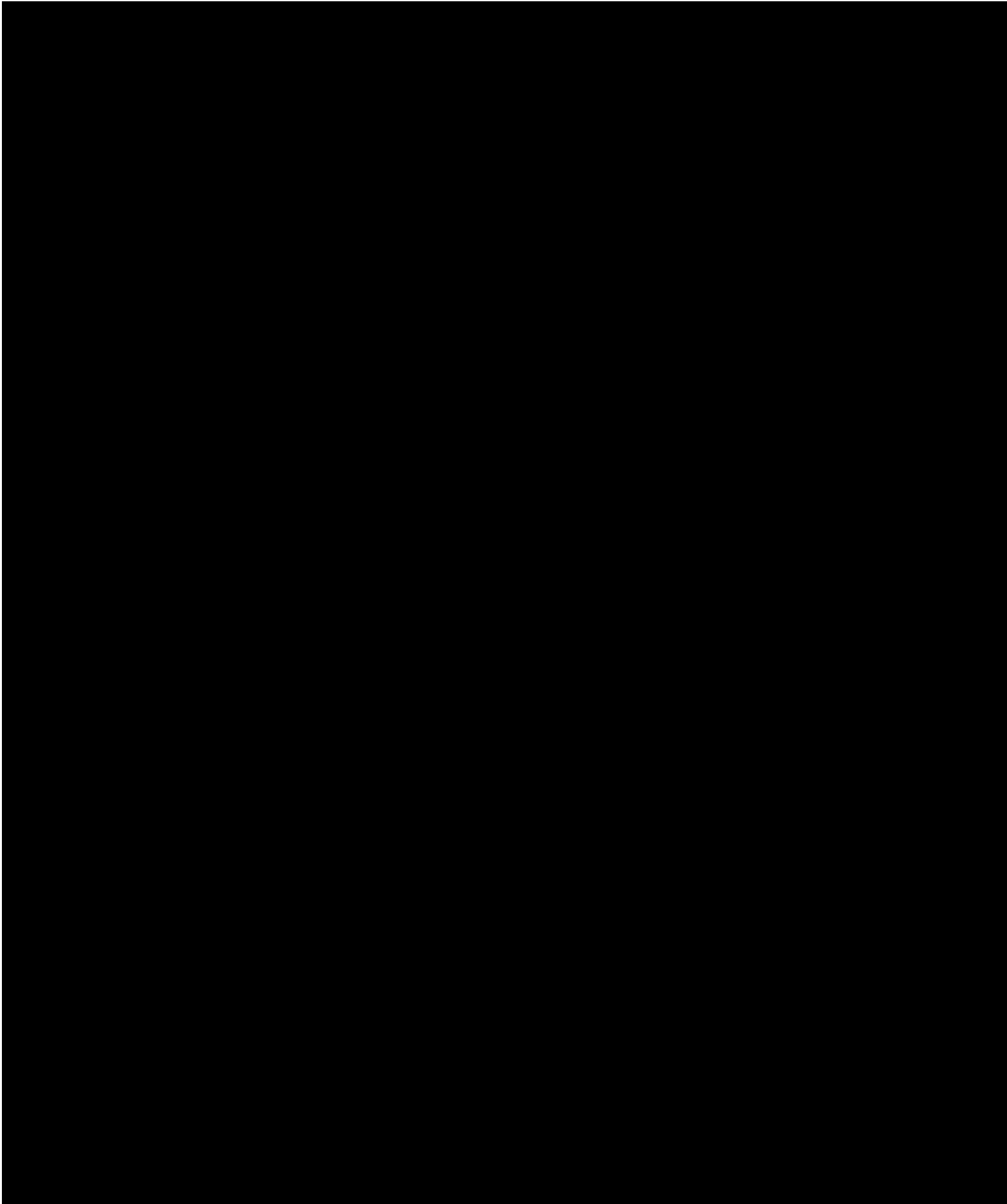
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 1 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	-----------------	-------



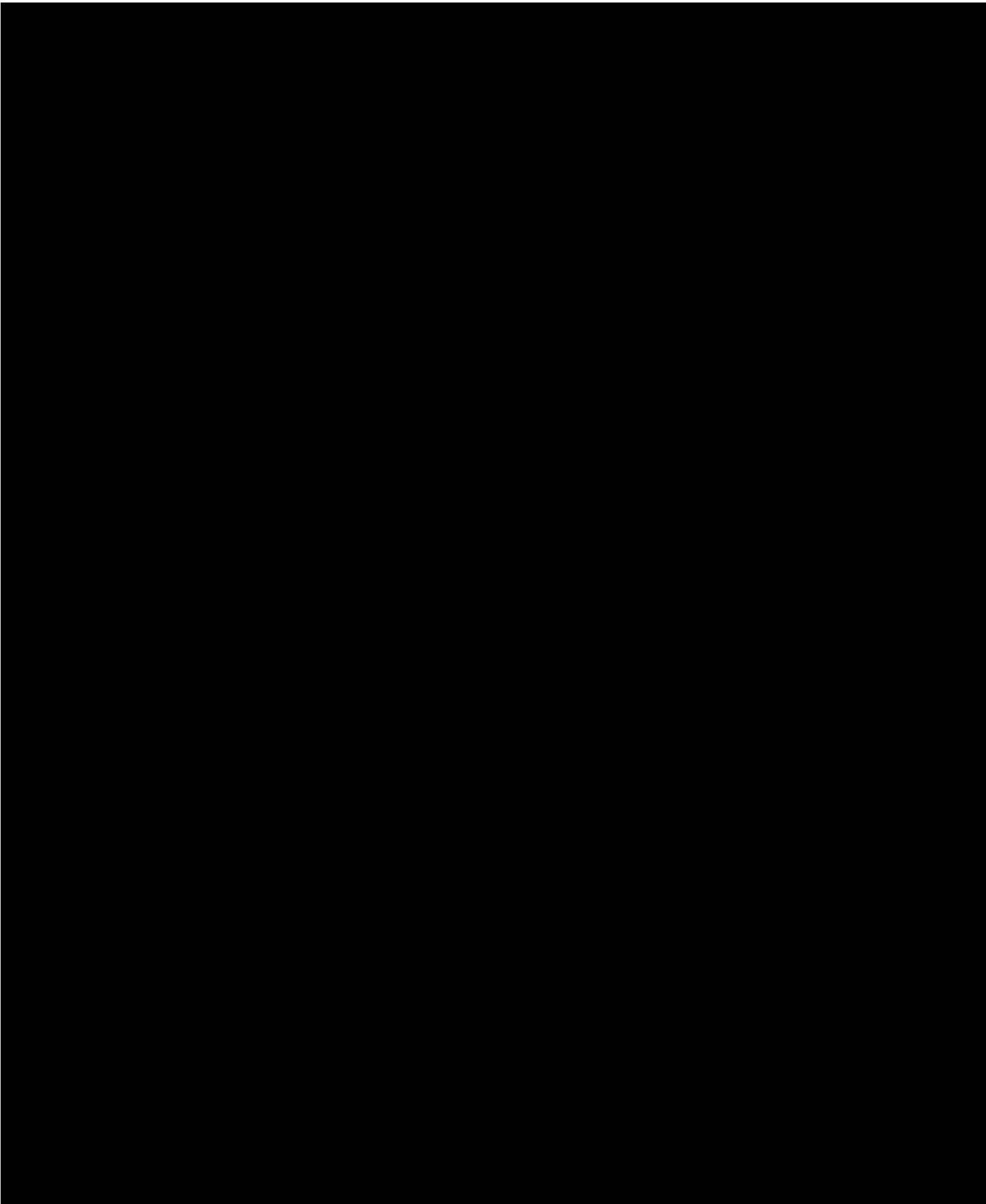
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 2 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	-----------------	-------



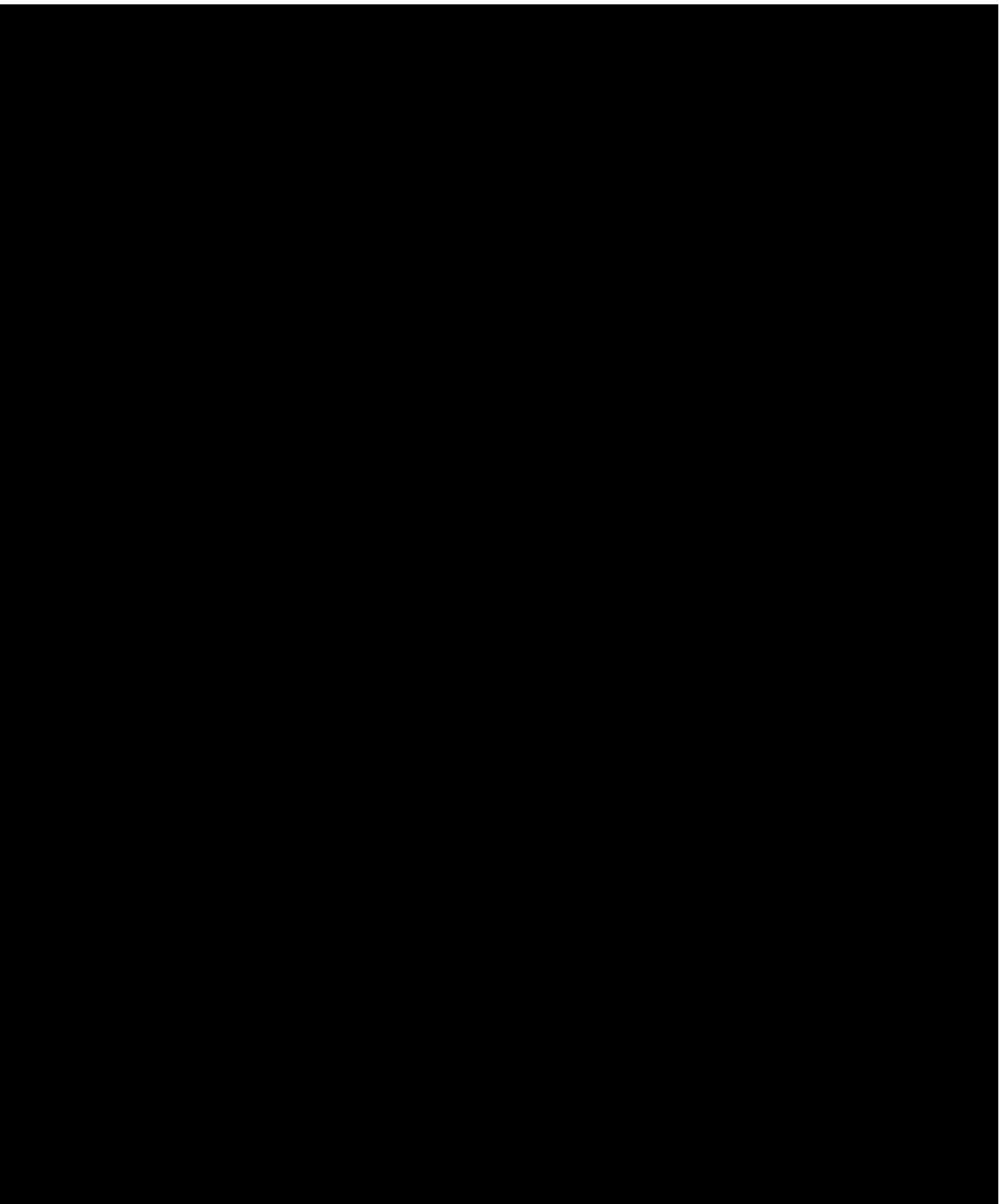
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 3 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	-----------------	-------



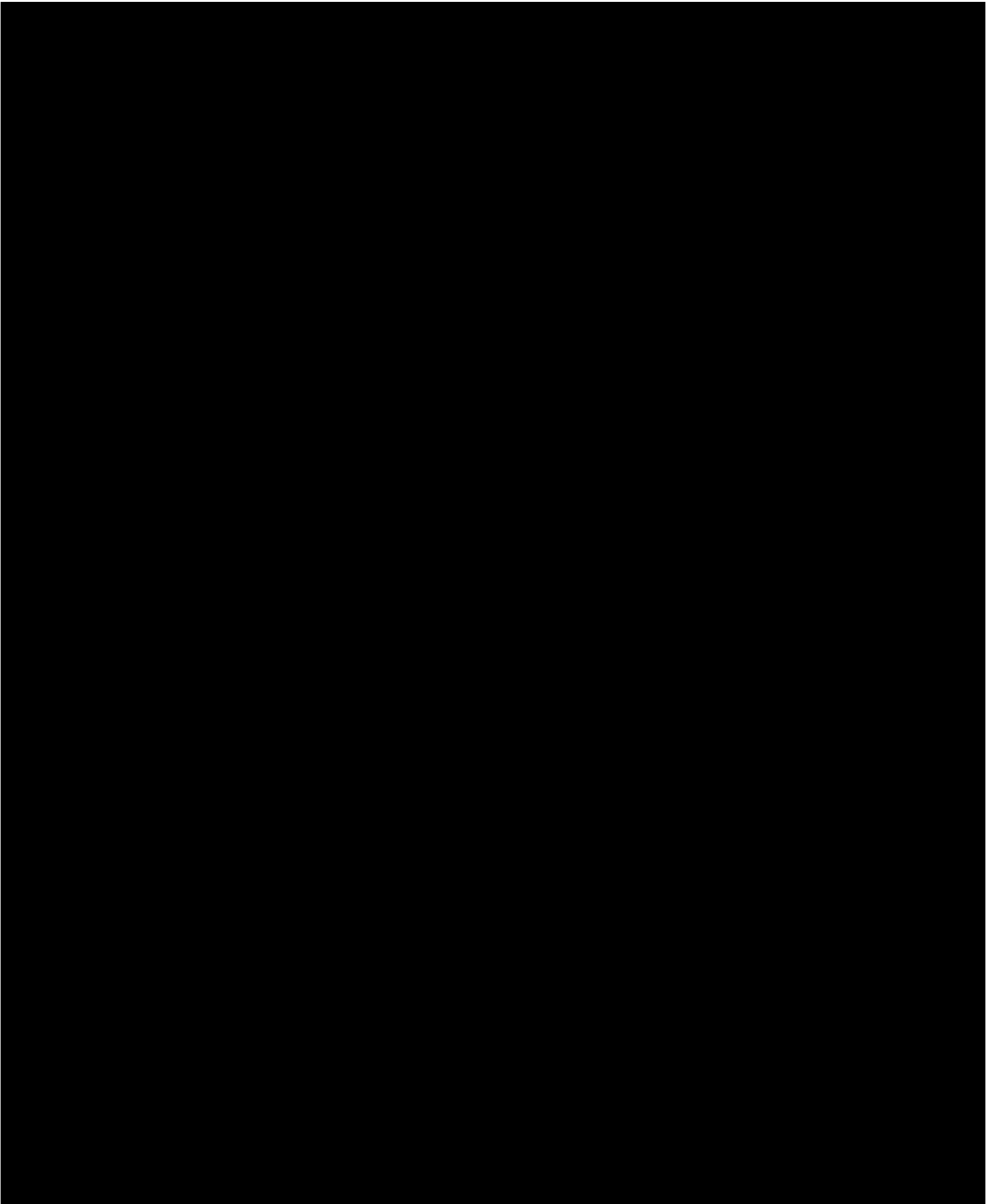
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 4 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	-----------------	-------



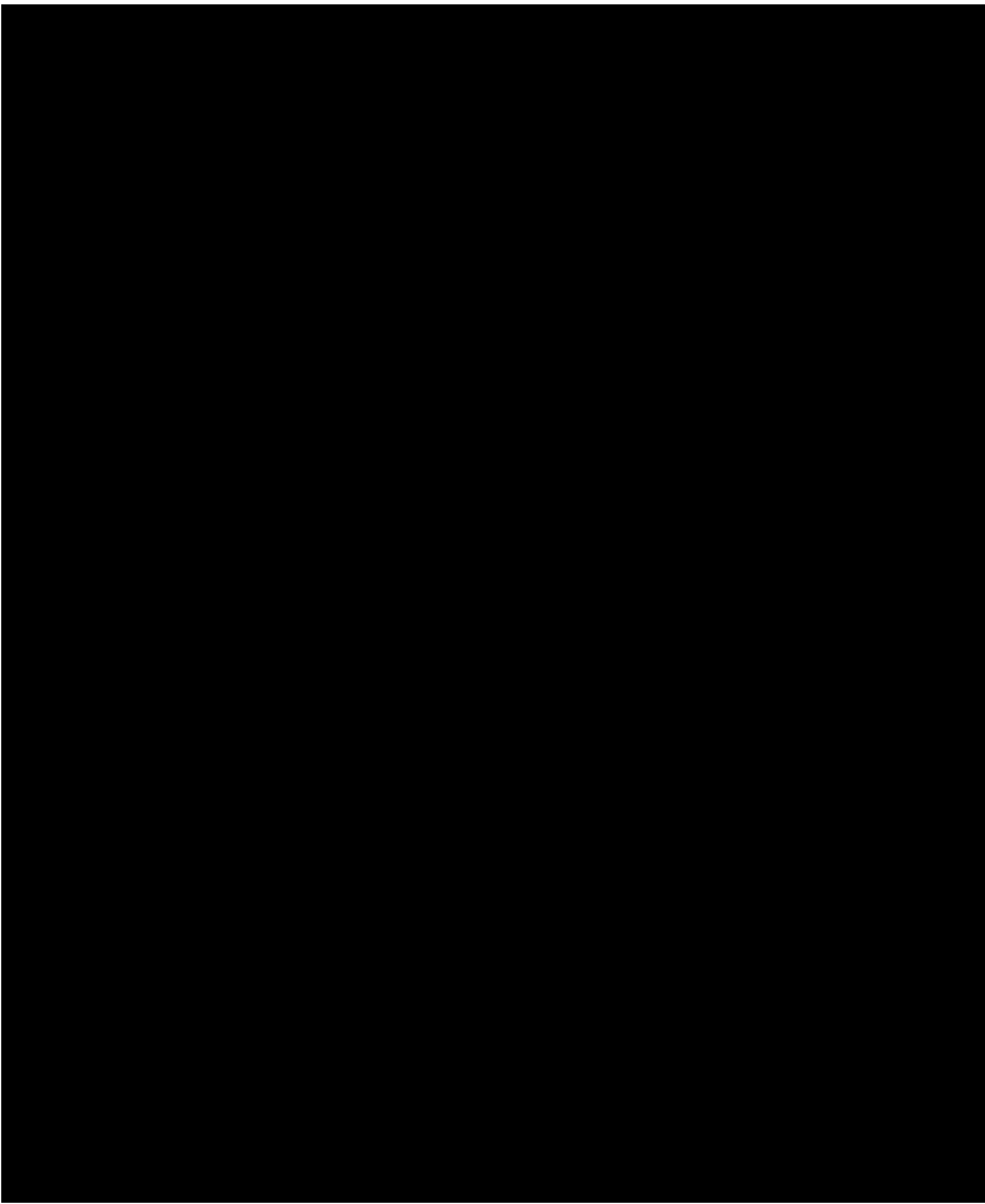
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 5 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	-----------------	-------



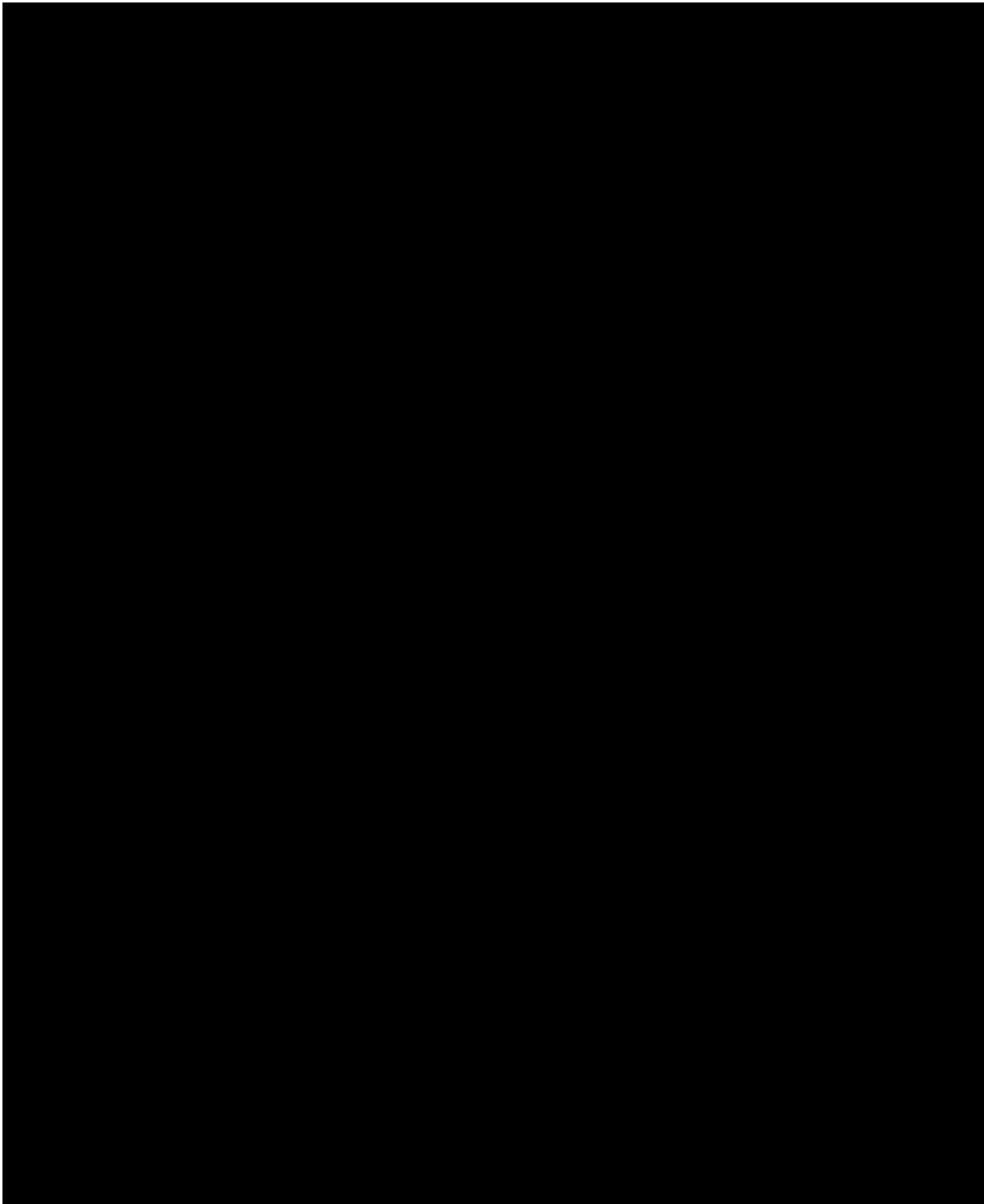
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 6 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	-----------------	-------



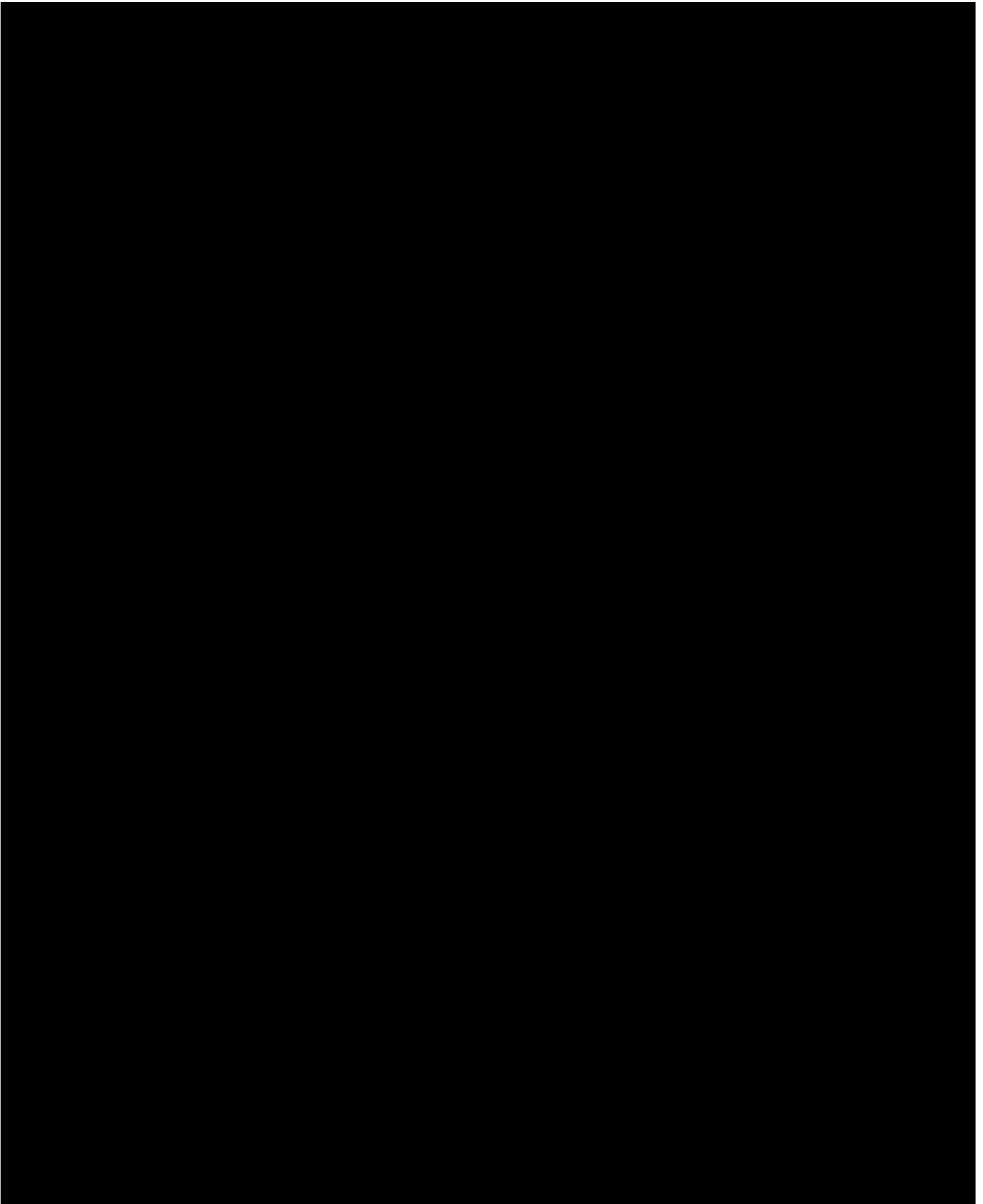
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 7 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	-----------------	-------



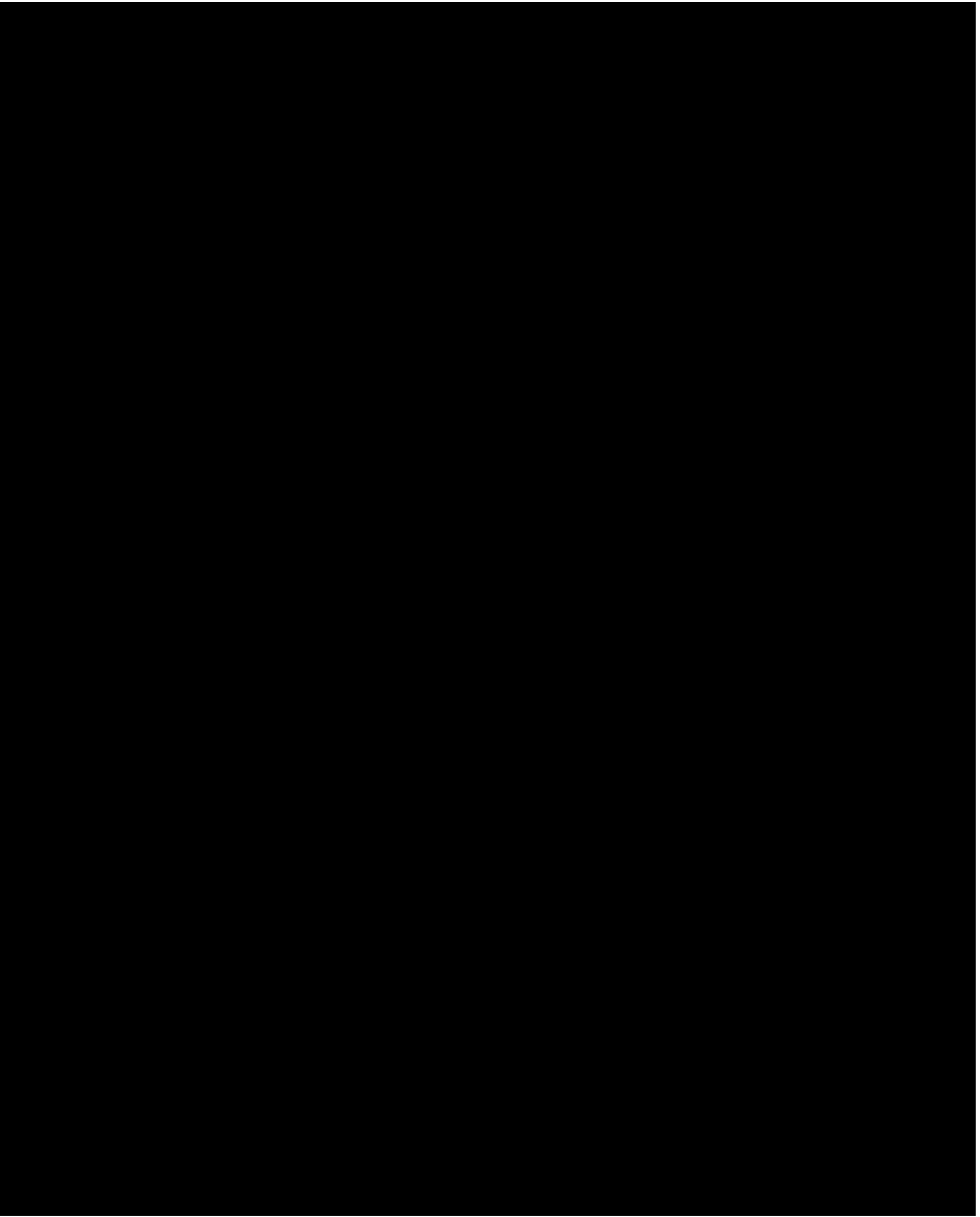
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 8 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	-----------------	-------



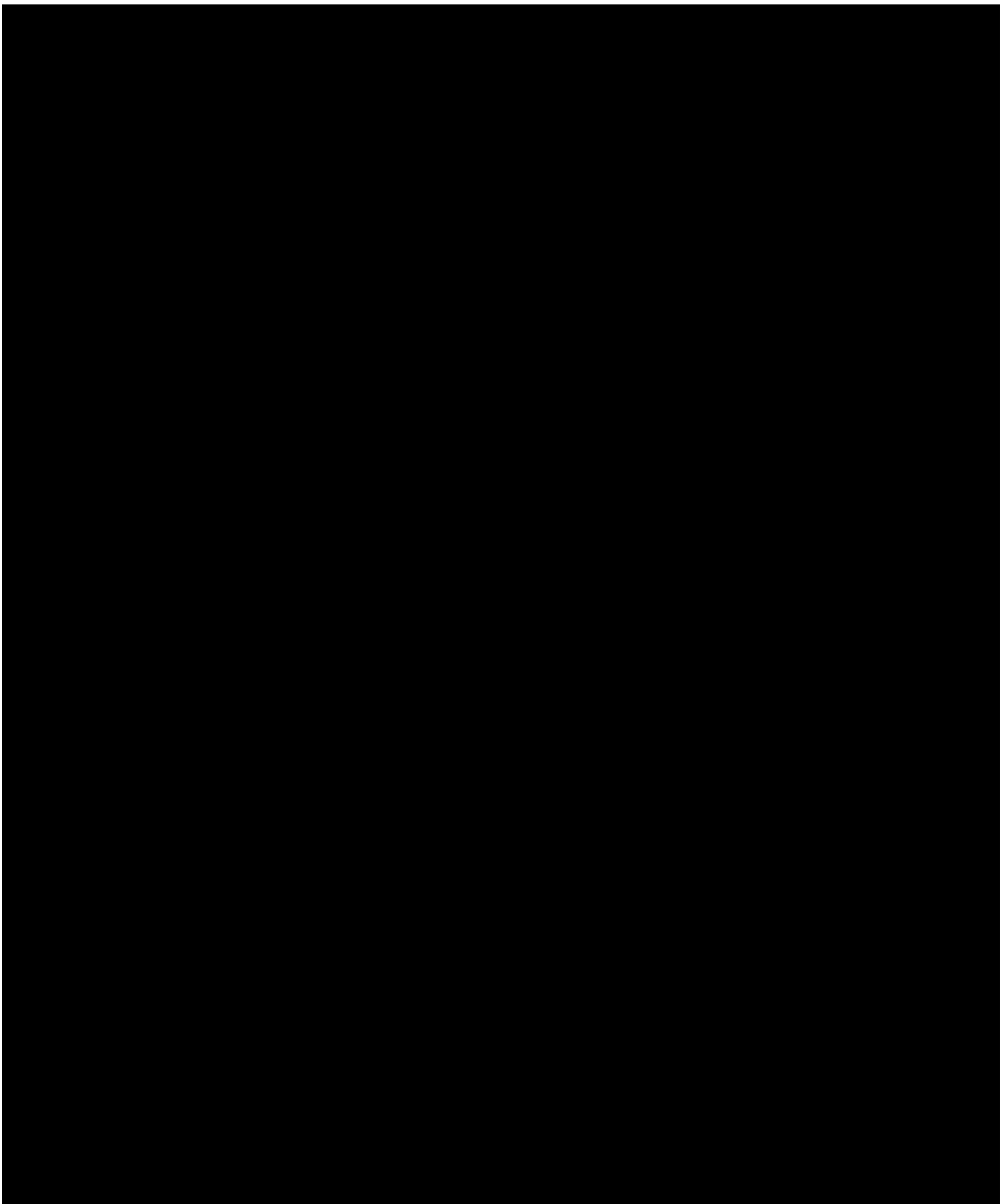
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 9 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	-----------------	-------



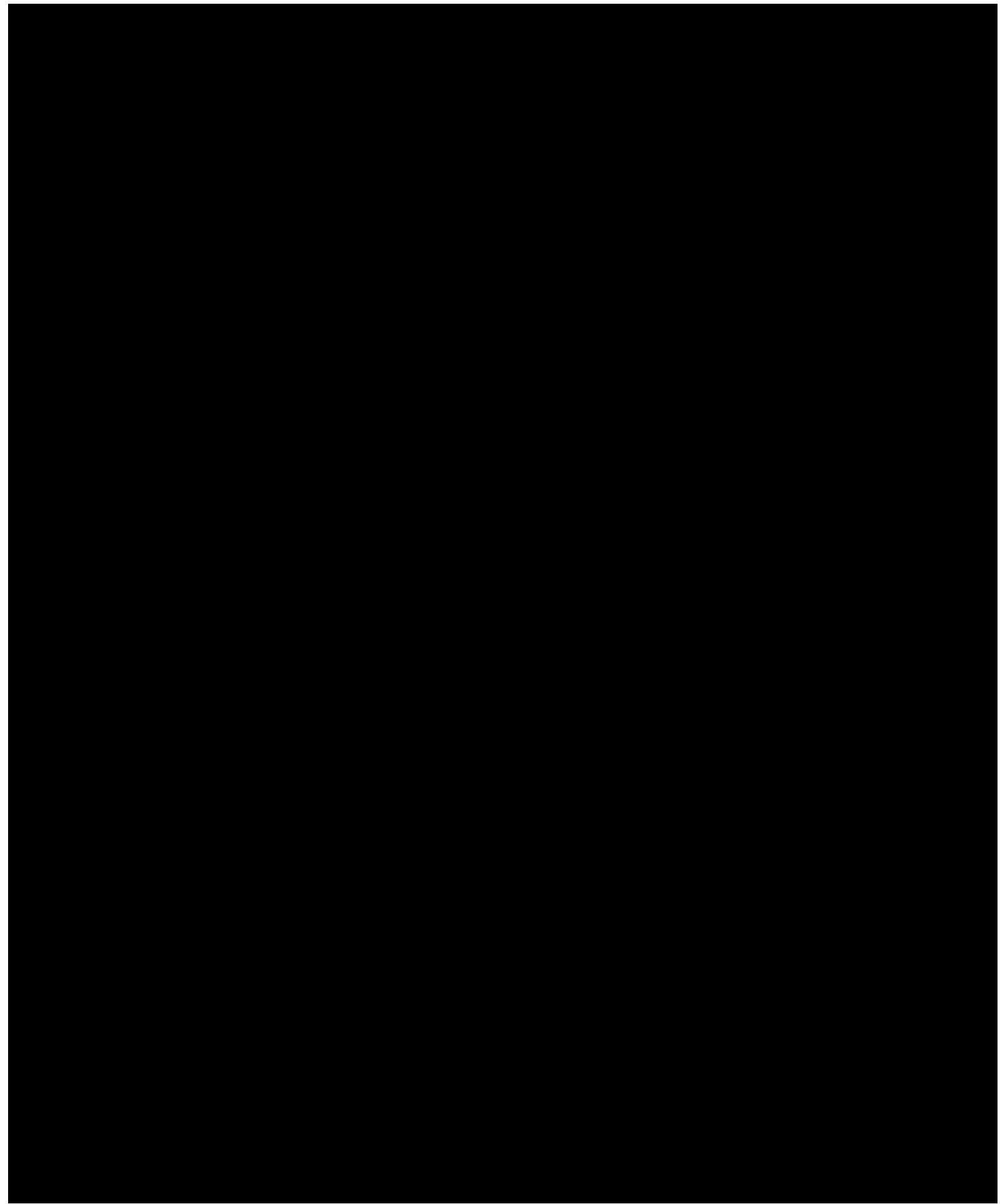
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 10 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



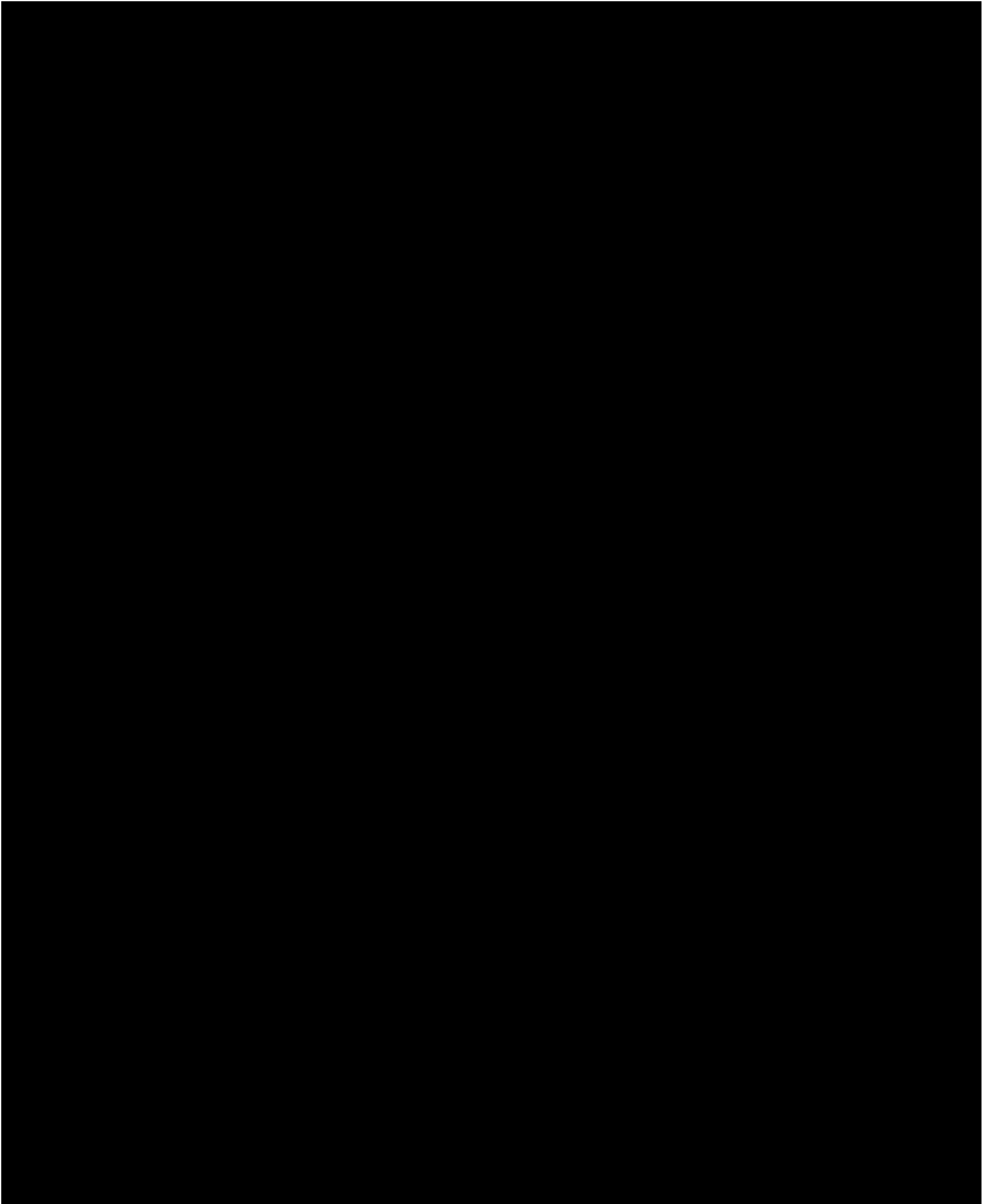
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 11 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



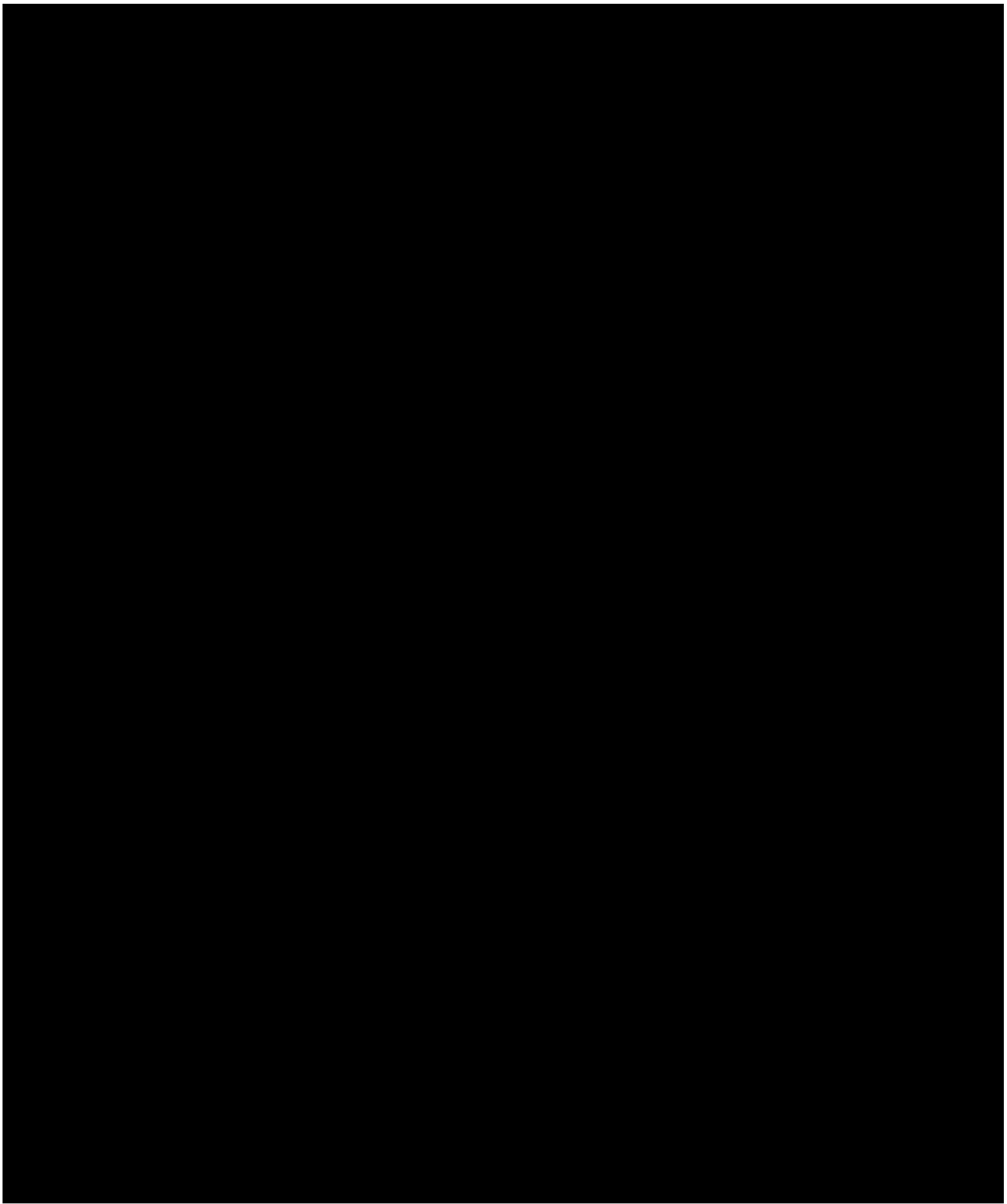
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 12 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 13 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 14 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 15 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

Contracting Officer approval shall be required prior to incurring relocation expenses and travel costs incidental to relocation.

(d) The Contractor shall not be reimbursed for the following daily local travel costs:

(i) travel at U.S. Military Installations where Government transportation is available,

(ii) travel performed for personal convenience/errands, including commuting to and from work, and

(iii) travel costs incurred in the replacement of personnel when such replacement is accomplished for the Contractor's or employee's convenience.

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 16 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

SECTION C DESCRIPTIONS AND SPECIFICATIONS

Statement of Work (SOW)

Engineering and Technical Services for Naval Surface Warfare Center Philadelphia Division (NSWCPD) Steam Systems Branch Code 412

1.0 INTRODUCTION

1.1 NSWCPD is a Department of Defense (DOD) entity responsible for research and development, test and evaluation, engineering and fleet support organization for the Navy's ships, submarines, military watercraft and unmanned vehicles. This requirement is for NSWCPD Division 41, Code 412, which is responsible for Main Propulsion Steam and Auxiliary Machinery Systems.

1.32The Contractor shall, pursuant to the Government's right and obligation to inspect, accept, or reject the work, comply with such general direction of the Contracting Officer, or the duly authorized representative of the Contracting Officer as is necessary to ensure accomplishment of the task order objectives.

2.0 SCOPE OF WORK

2.1 Purpose: NSWCPD Code 412 requires a contractor to provide the Navy and associated DOD Commands with innovative engineering, technical solutions and integrated logistics solutions (ILS) to assist in developing and managing expanding Hull, Mechanical and Electrical (HM&E) and Steam Systems Programs. This effort is to provide engineering and technical solutions and associated ILS support for the modernization, upgrade, inspection, maintenance, repair and project/program management for HM&E and Steam Systems.

2.2 Background: NSWCPD Code 412 provides engineering services and technical products needed to support Navy HM&E and Steam Systems. The overall scope of this Statement of Work (SOW) is to provide engineering services and technical products and associated ILS to help ensure Navy HM&E and Steam Systems are modern, reliable and safe. Tasks may include various types of engineering studies, developing ILS products (ILS examples: technical manuals, drawings, procedures, parts lists), systems analysis, product research and various types of program and project management support. Services will be rendered in Philadelphia, PA, other U.S. Navy and DOD locations and in Fleet Concentration Area (FCA) locations such as Norfolk VA, San Diego CA, Mayport, FL, and Sasebo/Yokosuka, Japan. Support may also be required in other Navy facilities both inside the Continental U.S. (CONUS) and Outside the Continental United States (OCONUS).

The majority of support will involve providing turnkey engineering and technical services to assist with the execution of the following NSWCPD Steam Systems engineering programs: Steam Systems Safety and Reliability Program, LHD Class Ship Steam Propulsion System Readiness and Safety Program, LCC-19 Extended Service Life Program (ESLP), Surface Ship HM&E Sustainment Program (Surface PRE/PRL), CVN-68 Class PRE/PRL, the LHD Midlife Program, and the DOD Facilities Inspection Program. Specific components and systems include: marine and stationary boilers, steam, air and fluid systems, piping and valves, blowers and fans, electronic automatic boiler and auxiliary systems controls, steam turbines, pumps, heat exchangers, steam driven generators, and various other components specific to HM&E and Steam Systems. Contractor services will include engineering support, technical products, ILS, information technology, program and project management, and include providing the personnel and resources to also support HM&E and Steam Systems engineering projects for onboard U.S. Navy ships other maritime vessels Military Sealift Command (MSC), Maritime Administration (MARAD) and DOD locations. This will include the implementation and execution of technology programs being developed and conducted by NSWCPD. These programs include support for shipboard operational assessments, Chief of Naval Operations (CNO) maintenance availabilities, and quality assurance (QA). The contractor shall also be capable of providing support in maintenance technology development and future ship maintenance concepts and strategies to NAVSEA Program Field Offices in Norfolk, VA, San Diego, CA, Sasebo/Yokosuka Japan and onboard U.S. Navy ships. In addition, the contractor shall provide support to foreign Navies via the Foreign Military Sales (FMS) program. Foreign countries currently engaged are Spain, Egypt, Australia, Turkey, Japan, Italy, Taiwan, Thailand and Greece. The following outlines Contractor requirements and will be

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 17 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

supplemented by specific work statements in individual technical instructions. Technical instructions will vary in the level and complexity of requirements, from the full scope of the technical services of this SOW to portions of the SOW only. The contractor shall provide knowledgeable and experienced engineers and technical personnel with capabilities needed to support comprehensive HM&E and Steam Systems.

3.0 APPLICABLE (REFERENCE) DOCUMENTS

Unless otherwise specified, performance shall be in accordance with the applicable provisions of the following standard. The latest edition of each reference document (including any amendments or corrigenda) shall apply.

3.1 Naval Ship's Technical Manual (NSTM) Chapter S9086-GY-STM-010, latest Revision, Ch. 231 (Steam Turbines), Ch. 221 (Boilers), Ch. 505 (Piping)

3.2 Naval Ship's Technical Manual (NSTM) Chapter S9086-GY-STM-010, 0901-LP-011- 9820, Rev 3 Ch. 221

3.3 MIL-PRF-28000 Digital representation for communication of product data; Initial Graphics

3.4 MIL-PRF-28001 Mark up requirements and Generic Style Specifications for Exchange of Text and its Presentation

3.5 MIL-STD-3034 Department of Defense Standard Practice Reliability-Centered Maintenance (RCM) Process dated 21 January 2011

3.6 MIL-PRF-28002 Requirements for Raster Graphics Representation in Binary Format

3.7 MIL-PRF-28003 Digital representation for communications of illustration data; Computer Graphics Metafile (CGM) Applications profile

3.8 MIL-STD-38784 Standard Practice for Manuals, Technical: General Style and Format Requirements

3.9 Ship Alteration Drawings Preparation Technical Specification 9090-600

3.10 General Specifications of Overhaul (GSO) (NAVSEA S9AAO-AB-GOS-010

3.11 MIL-P-24534 (21 Mar 1991): Planned Maintenance Subsystem: Development of Maintenance Requirement Cards, Maintenance Index Pages, and Associated Documents

3.12 MIL-STD-1522/1561: Provisioning Procedures and Technical Documentation (with SPCC Addendum)

3.13 TS9090-400A Technical Instruction Guidance Document Version 1.4 titled, SHIP CHANGE DOCUMENT (SCD)

3.14 EOSS Development Handbook, <http://www.navsea.navy.mil/Home/WarfareCenters/NSWCCarderock/Resources/TechnicalInformationSystems/NavyXMLSGMLRepository/DTDsSchemas/EOSS.aspx>

3.15 NAVSEA Technical Specifications 9090-310F, Ship Alterations Accomplishment by AIT

3.16 NAVSSES Quality Assurance (QA) Manual

3.17 NAVSSES Instruction 4720.2C, Process and Policy for Shipboard Industrial Work

3.18 MIL-STD-1689 (SH) Military Standard- Fabrication, Welding and Inspection of Ship Structure

3.19 MIL-STD 777F Notice 1 - Schedule of Piping, Valves, and Fittings and Associated Piping Components for Naval Surface Ships

3.20 NAVSEA S9074-AQ-GIB-010/248, Requirements for Welding and Brazing Procedure and Performance Qualification

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 18 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

- 3.21 NAVSEA 0900-LP-001-7000, Fabrication and Inspection of Brazed Piping Systems
- 3.22 NAVSEA 0948-LP-063-9010, Fabrication and Support of Piping Hangers
- 3.23 NAVSEA S9086-VD-STM-OOO/CH-631, Surface Preparation and Painting
- 3.24 NAVSEA S9AAO-AA-SPN-010 Faying Surfaces between Dissimilar Metals
- 3.25 OSHA 29 CFR part 1910.134 Respiratory Protection, https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=12716
- 3.26 OPNAVINST 4790.4F, Ship's Maintenance, Material and Management (3M)
- 3.27 NAVSEA 0948-LP-045-7010, Material Control Standard
- 3.28 NAVSEA TECH PUB S9074-AR-GIB-010/278, Welding
- 3.29 NAVSEA S9221-C1-GTP-010/020, Navy Propulsion Boiler Overhaul and Repair Manual
- 3.30 LHD/LCC-19 Propulsion Boiler Technical Manual S9221-A3-MMO-A10
- 3.31 Standard Navy Value Technical Manual NAVSEA 0948-LP-010-5000
- 3.32 Valve Actuator Technical Manual S6435-KA-MMA-010
- 3.33 NAVSEA Standard Items, <http://www.navsea.navy.mil/Home/RMC/CNRMC/Our-Programs/SSRAC/NSI/FY17-NSI/>
- 3.34 ASME Boiler and Pressure Vessel Code, <https://www.asme.org/shop/standards/new-releases/boiler-pressure-vessel-code-2013>
- 3.35 ASME Power Piping Code, <https://www.asme.org/products/codes-standards/b311-2014-power-piping>
- 3.36 The Joint Fleet Maintenance Manual (JFFM), <http://www.submepp.navy.mil/jfmm/index.htm>
- 3.37 The contractor shall have a Quality System in place equivalent to ANSI/ISO/ASQ Q9001-2008.

(Copies of the above specification, standards, and handbooks are available from the Naval Publication and Forms Center, Standardization Documents Order Desk, 700 Robbins Avenue, Building-4D, Philadelphia, PA 19111-5094 or at <http://quicksearch.dla.mil/>.)

4.0. REQUIREMENTS

4.1 HM&E and Steam Plant Readiness and Safety Support

Code 41 supports the Fleet and associated DoD Activities and Facilities and focuses on the HM&E and Steam Propulsion Plant (main steam, auxiliary steam, and steam plant support) and related systems, primarily for Amphibious Surface Ship Steam Propulsion Plants (LHDs 1-7, LCC-19), but work also includes associated NAVSEA programs such as the Steam Propulsion 2S Cognizance (COG) Program. To help execute this mission, support in the following areas is required:

4.1.1 Engineering and Technical Support: NSWCPD Code 412 provides oversight, inspection, and repair recommendations for both Navy shipboard boilers and stationary plants.

4.1.1.1. Contractor shall assist with Engineering and technical requirements for steam equipment upgrades and modernization. Work requires the contractor to provide engineering data, drawings and specifications in accordance with (IAW) Contract Data Requirements List (CDRL) A007, and development of execution Plans of Action & Milestones (POA&M's) IAW CDRL A016, "white paper" technical studies, and cost estimates and

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 19 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

preparation of engineering technical documents IAW CDRL A005.

4.1.1.2. Contractor shall provide engineering and technical analysis of marine and stationary steam systems to assess reliability, safety, and service life expectancy. Contractor shall conduct in-brief and out-brief with Government personnel at marine and stationary steam systems inspection locations. CDRLs A002, A003, and A005 apply.

4.1.1.3. Contractor shall provide ILS updates and development services for new equipment, components, and systems. Contractor shall prepare updates to the Allowance Parts Lists (APLs) and National Stock Number databases for submission to government personnel's review IAW CDRL A005 and provide CDRLs A006, A007, A010, and A011 as components of the assessments/studies.

4.1.1.4. Contractor shall assist in providing engineering and technical services, technical products for systems maintenance, repairs, and operations, and assist with engineering for Fleet Departure from Specification (DFS) adjudications. CDRL A005 applies.

4.1.1.5. Contractor shall assist in providing engineering and technical products (new technology research reports, recommendations for improving failure rates on legacy equipment, identifying equipment modifications that would improve propulsion system health) for insertion of new system technologies to include testing, reporting, and associated recommendations to improve system health and reliability. Contractor shall participate in and develop Technical Health Assessments (THAs) as instructed by NSWCPD. The THAs shall be IAW CDRL A005 and include CDRLs A002, A003, A006, A009, A010, A012, and A015 as part of the evaluation of the products/procedures/systems related to the new systems technologies.

4.1.1.6. Contractor shall support and identify shortfalls, if any exist, with Regional Maintenance Center (RMC) Intermediate Level (I-Level) capabilities that support main propulsion steam system equipment areas. Contractor shall review and provide recommended modifications to RMC capabilities as necessary IAW CDRL A009 and provide technical products IAW CDRL A005.

4.1.1.7. Develop "Lessons Learned" documents to capture ideas and suggestions from previously accomplished Class Maintenance Plan (CMP) Assessments. CDRL A012 applies.

4.1.1.8. Review of propulsion plant readiness and safety program data and metrics for mission and operational availability (A_0). Contractor shall submit information IAW CDRL A005, and provide CDRLs A007, A011, and A014 as components of the assessments/studies.

4.1.1.9. Review existing CMP tasks, Total Ship Readiness Assessment (TSRA) events, Planned Maintenance System (PMS) program requirements, and development of CMP task and Assessment Procedure (AP) Cards. Provide an analysis of findings IAW CDRL A005, and include CDRLs A007, A008, A011, and A014 as part of the study.

4.1.1.10. Evaluate potential material substitutions for obsolete equipment, components, and systems and produce CDRLs A005, A013, and A014.

4.1.1.11. Provide project management, programmatic support, engineering/technical support for Mid-Life programs, FMS programs, Machinery Alterations (MACHALTs), and/or Ship Change Documents (SCDs) in accordance with the drawings/instructions provided, including interface with Program Manager (PM), Regional Maintenance Centers (RMCs), Port Engineers, Surface Orientation (SUFOR), MSC, FMS and Fleet components. CDRLs A002 and A005 apply.

4.1.1.12. Provide technical support for identification of emerging technologies for current and future ship classes, and identify ways to enhance maintainability and supportability. The study of emerging technologies shall be IAW CDRL A005.

4.1.1.13. Assist in developing Engineering Change Proposal (ECP) documentation and assist in preparing for and participating in Configuration Control Board (CCB) meetings. CDRL A005 applies.

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 20 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

4.1.1.14. Support reviews of certification documentation and Objective Quality Evidence (OQE) in preparation of certification letters. CDRLs A005 and A015 apply.

4.1.1.15. Review historical Total Ownership Cost (TOC) data and perform logistics engineering analysis to calculate anticipated Return-On-Investment (ROI) for all proposed, planned, and implemented changes to existing ship machinery, systems, and equipment or integration of new technologies/systems to replace existing equipment. Contractor shall produce CDRL A005, and include CDRLs A006 and A011 as part of the report.

4.1.1.16. Provide engineering and design support for all ships and submarine systems. Provide engineering design solutions including conceptual designs, preliminary drawings, and final drawings. Provide drawings in 2D and 3D CAD format. CDRL A005 applies.

4.1.1.17. Formulate and modify shipboard and classroom-based Main Propulsion Steam and Auxiliary System training curriculum for Code 412 to ensure Ship's Force and shoreside commands are provided with the most current and accurate training materials. This includes the creation and implementation of steam and auxiliary system and equipment tutorials, student guides, lesson plans, and scenario based simulations to improve fleet readiness. This includes development of shipboard and classroom based training, along with training schedules for classroom, shipboard, and underway training sessions. CDRLs A002, A003, A005, and A012 apply.

4.1.1.18. Provide engineering and technical services in support of Technical Manuals, Specifications, Allowance Parts Lists (APLs), and in their review/development. Contractor shall provide CDRL A005, and include CDRLs A006 and A008 as part of the analysis.

4.1.1.19. Provide document scanning and conversion support for technical manuals in various formats, content management, and distribution.

4.1.1.20. Develop and/or update Navy Planned Maintenance Systems (PMS). Develop new PMS as necessary and technical input to existing PMS in need of update. To accomplish these tasks CDRLs A005, A007, and A011 shall be generated and delivered to the Government.

4.1.1.21. Prepare Provisioning Technical Documentation (PTD) for new, and/or changed equipment/components. Ensure electronic provisioning is acceptable to the Navy Inventory Control Point (NAVICP). Provide initial allowance recommendations for On Board Repair Parts (OBRPs). To accomplish these tasks CDRLs A005, A007, A011, and A013 shall be generated and delivered to the Government.

4.2. CNO Maintenance Availability Support:

4.2.1. Perform CMP In Service Engineering Agent (ISEA) assessments and advanced planning support for work package development. CDRLs A002, A003, and A009 apply.

4.2.2. Provide onsite ISEA assistance support during work package execution. CDRLs A002, A003, and A009 apply.

4.2.3. Coordinate with Fleet and Type Commanders (TYCOM) and N43 Financial points of contact (POCs) to validate tasking to support Steam Systems engineering programs. CDRLs A002, A003, and A009 apply.

4.2.4. Assist Regional Maintenance Centers (RMCs) and Assessment Directors to validate and coordinate CMP task execution coverage for all Main propulsion systems and equipment during Total Ship Readiness Assessment (TSRA) and pre-CNO availability assessment events. CDRLs A002, A003, and A009 apply.

4.2.5. Review CMP assessment reports and make recommendations for future maintenance availabilities. CDRLs A002, A003, and A009 apply.

4.2.6. Repair work oversight and process control support to ensure proper execution of work during CNO and Continuous Maintenance Availability (CMAV) maintenance availabilities. CDRLs A002, A003, and A009 apply.

4.3. Critical Spares Support:

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 21 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

4.3.1. Recommend necessary spares, including battle spares, of all steam system equipment and other propulsion equipment. IAW CDRL A005, and produce CRDLs A006, A007, A010, A011, A013, and A014 as part of the analysis.

4.3.2. Identify critical non-stocked parts and equipment IAW CDRL A005, and produce CDRLs A006, A007, A010, A011, A013, and A014 as part of the analysis.

4.3.3. Assist in determining solutions for obsolete parts and equipment, and assist in evaluating procurement options IAW CDRL A005, and produce CDRLs A006, A007, A010, A011, A013, and A014 as part of the analysis.

4.3.4. Identify harvesting opportunities on all decommissioned steam ships to support obsolescence and long lead time material (LLTM) issues IAW CDRL A005, and produce CDRLs A006, A007, A010, A011, A013, and A014 as part of the analysis.

4.4. Programmatic Support

4.4.1. Provide innovative and demonstrated solutions to assist in developing and managing the expansion of the Steam Propulsion Plant Readiness and Safety Program.

4.4.2. Complete metrics, technical briefs, agendas, graphical media, and other organizational tasking in support of Propulsion Executive Steering Committee (PESC) and the Steam Generating Plant Inspector (SGPI) semi-annual meetings and training refreshers. CDRLs A002 and A003 apply.

4.4.3. Provide conference and meeting support to H,M&E and Steam Systems Programs by preparing agendas, developing presentations materials and production books, recording meeting minutes, and tracking and follow up action items IAW CDRLs A002 and A003. in addition, provide training support and deliver items IAW CDRL A012.

4.4.4. Provide support for Financial Request Documents, Financial Reporting, and Financial Tracking.

4.4.5. Assist in performing cost and variance analysis to track productive spending and forecast future trends.

4.4.6. Provide metrics support including dashboard and cockpit charts, and other specialized financial reports in order to track expenditures, and remedy cost overruns and labor rejects.

4.4.7. Develop and track POM issues through the Surface TYCOM Advisory Board (STAR Board) until approved by the Surface Expeditionary Warfare Maintenance and Modernization Committee (SEWMMC).

4.4.8. Provide programmatic support to Surface Maintenance Engineering Planning Program (SURFMEPP) and Ship Systems Engineering Station (SSES) to develop and gain approval of Class Maintenance Plan (CMP) tasks that support the improvement of readiness and safety.

5.0 PLACE OF PERFORMANCE

The place of performance shall be at the Contractor's facility and also at Government sites. Occasional travel may be required to the locations listed in Section 6 below.

6.0 TRAVEL

The following travel destinations are provided. All travel must be approved by the Contracting Officer Representative (COR).

6.1 The Contractor also will provide support at NSWCPD, Philadelphia, PA, and Fleet Concentration Areas (FCA) as needed. It is anticipated that 5% of the travel will be OCONUS.

6.2 The Contractor must have the ability to travel with limited notice.

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 22 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

7.0 SECURITY REQUIREMENTS

7.1 The Contractor is not required to have a facility clearance. All personnel must have a current SECRET or higher clearance.

7.2 The Contractor is responsible for completing all required government-mandated training to maintain security and network access to government-sites and IT systems.

8. DATA REQUIREMENTS

All CDRLs shall be delivered electronically, unless otherwise stated, and while Contractor's format is acceptable, Government's approval is required from the COR.

8.1 Contract Status Report (CDRL A016) -

8.1.1 This report shall reflect both prime and Subcontractor data if applicable at the same level of detail.

8.1.2 The CDRL shall be delivered electronically, unless otherwise stated, and while Contractor's format is acceptable, Government's approval is required from the COR.

8.2 Travel Report (CDRL A002)

8.3 Other Direct Costs (ODCs) Report (CDRL A003)

8.3.1 The CDRL shall be delivered electronically, unless otherwise stated or data is being submitted in eCRAFT, and while Contractor's format is acceptable, Government's approval is required from the COR. This report shall reflect both prime and subcontractor data if applicable at the same level of detail.

8.4 Contractor's Personnel Roster (CDRL A004)

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 23 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

8.5 Technical Report Study/Services (**CDRL A005**)

8.6 Engineering Documentation Product Drawings, Modified (**CDRL A006**)

8.7 Logistics Product Data (**CDRL A007**)

8.8 Quality Conformance Inspection and Test Procedures (**CDRL A008**)

8.9 Shipboard Industrial Test Procedures (**CDRL A009**)

8.10 Equipment Inventory Records (EIRS) (**CDRL A010**)

8.11 Reliability and Maintainability Predictions Report (**CDRL A011**)

8.12 Training Materials (**CDRL A012**)

8.13 Obsolescence Alert Notice (**CDRL A013**)

8.14 Reliability-Centered Maintenance (RCM) Class Maintenance Plan (CMP) (**CDRL A014**)

8.15 Inspection Method Sheet (**CDRL A015**)

9.0 MATERIAL AND GOVERNMENT FURNISHED MATERIAL (GFM)

There is no GFM for this effort.

10. PERSONNEL

10.1 Personnel Requirements. Unless all persons proposed in key and non-key labor categories shall be U.S. citizens holding at least a current SECRET clearance, or ability to obtain one.

10.1.1 Key Personnel

The following labor categories are designated as the Key Personnel for this task order. Resumes will be submitted for each category in the quantities indicated by the key category description. Unless specified as minimums, target qualifications are listed below for each education and work experience qualifications for each key personnel labor category.

NOTE: All experience can be earned concurrently.

The Contractor shall provide individuals to fill the key positions identified below:

Program Manager (one resume required) / **Program Manager Level 2:**

Target Education: Bachelor of Science (BS) Degree in Engineering from an accredited college or university. BS in Mechanical Engineering is also acceptable. The Government will consider a BS in Marine Engineering as an acceptable education level if the Degree submitted is from an ABET accredited program.

Target Experience: Ten (10) years of experience managing depot-level maintenance planning and estimating functions related to U.S. Department of Defense ships. Ten (10) years of experience in program management and five (5) years of experience in engineering. Experience to include previous engineering experience in conducting conventional steam or nuclear propulsion modernizations. Specialized experience in preparing or approving Departure from Specifications (DFS), engineering senior management of Ship Change Documents (SCDs) and Selected Record Drawing (SRD) development for steam systems and components. Specialized experience managing engineering functions and processes for U.S. Navy Large Deck Amphibious Ship Steam Propulsion Plants and associated equipment, piping and systems is preferred. Experience with propulsion systems from surface combatants, CVNs, and other amphibious ships (LPD, LHD 8/9, LSD, etc.) will be considered acceptable.

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 24 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

Senior Project Manager (one resume required) / **Project Manager Level 2:**

Target Education: BS Degree in Engineering from an accredited college or university. BS in Mechanical Engineering is also acceptable. The Government will consider a BS in Marine Engineering as an acceptable education level if the Degree submitted is from an ABET accredited program.

Target Experience: Ten (10) years of experience with design, operation, maintenance, and testing of Navy HM&E systems. Ten (10) years of experience managing complex technical projects including engineering instructions or SCDs for LHD and Amphibious Class Ships. Specialized experience managing engineering functions and processes for US Navy Large Deck Amphibious Ship Steam Propulsion Plants and associated equipment, piping and systems is preferred and will be rated more highly. Experience with propulsion systems from surface combatants, CVNs, and other amphibious ships (LPD, LHD 8/9, LSD, etc.) will be considered acceptable. Experience with US Navy Technical procedures, and working with other organizations such as Naval Sea Systems Command, Naval Surface Warfare Center, Naval Shipyards, Supervisor of Shipbuilding, Conversion and Repair, Regional Maintenance Centers and Type Commander Organizations will be rated more highly.

Senior Project Engineer (two (2) resume required) / **Engineer Level 4:**

Minimum Education: BS Degree in Engineering from an accredited college or university. BS in Mechanical Engineering is also acceptable. The Government will consider a BS in Marine Engineering as an acceptable education level if the Degree submitted is from an ABET accredited program.

Target Experience: Ten (10) years of experience with design, operation, maintenance, testing, and managing Navy shipboard engineering projects and Navy HM&E systems. Four (4) years of experience in assessment and maintenance of Naval Ships HM&E systems and equipment to include US Navy Large Deck Amphibious Ship Steam Propulsion Plants and associated systems, piping, and equipment is preferred. Experience with propulsion systems from surface combatants, CVNs, and other amphibious ships (LPD, LHD 8/9, LSD, etc.) will be considered acceptable. Experience with US Navy Technical procedures, and working with other organizations such as Naval Sea Systems Command, Naval Surface Warfare Center, Naval Shipyards, Supervisor of Shipbuilding, Conversion and Repair, Regional Maintenance Centers and Type Commander Organizations will be rated more highly.

Engineer (Mechanical), Senior (two (2) resumes required) / **Mechanical Engineer Level 3:**

Minimum Education: BS Degree in Engineering from an accredited college or university. BS in Mechanical Engineering is also acceptable. The Government will consider a BS in Marine Engineering as an acceptable education level if the Degree submitted is from an ABET accredited program.

Target Experience: Ten (10) years of experience in the design, testing, installation, maintenance and alteration of Naval Ship HM&E systems. Five (5) years of specialized experience preparing engineering design and installation drawings and supporting calculations and instructions and processes for US Navy Amphibious Ship Steam Propulsion Plants, associated equipment, piping and systems.

Engineer (Electrical), Senior (two (2) resumes required) / **Electrical Engineer Level 3:**

Minimum Education: BS Degree in Engineering from an accredited college or university. BS in Mechanical Engineering is also acceptable. The Government will consider a BS in Marine Engineering as an acceptable education level if the Degree submitted is from an ABET accredited program.

Target Experience: Ten (10) years of experience in the design, testing, installation, maintenance and alteration of Naval Ship HM&E systems. Five (5) years of specialized experience preparing engineering design and installation drawings and supporting calculations and instructions and processes for US Navy Amphibious Ship Steam Propulsion Plants, associated equipment, piping and systems.

Engineering Technician (Mechanical), Senior (two (2) resumes required) / **Engineering Technician Level 5:**

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 25 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

Target Education: High school graduate or GED, graduate of military schools which provided an in-depth knowledge of naval shipboard systems maintenance and operation, or be a graduate of a trade, industrial or correspondence school for engineering.

Target Experience: Ten (10) years of experience in the conduct of conventional steam or nuclear propulsion modernizations. Specialized experience in preparing or approving Departure from Specifications (DFS), engineering senior management of Ship Change Documents (SCD) and Ship Selected Record (SSRDs) development for steam systems components. Specialized experience managing engineering functions and processes for U.S. Navy Large Deck Amphibious Ship Steam Propulsion Plants and associated equipment, piping and systems is preferred. Experience with propulsion systems from surface combatants, CVNs, and other amphibious ships (LPD, LHD 8/9, LSD, etc.) will be considered acceptable.

Engineering Technician (Electrical), Senior (two (2) resumes required) / Engineering Technician Level 5:

Target Education: High school graduate or GED, graduate of military schools which provided an in-depth knowledge of naval shipboard systems maintenance and operation, or be a graduate of a trade, industrial or correspondence school for engineering.

Target Experience: Ten (10) years of experience in the conduct of conventional steam or nuclear propulsion modernizations.. Specialized experience in preparing or approving Departure from Specifications (DFS), engineering senior management of SCDs and Ship Selected Record (SSRDs) development for steam systems components will be rated more highly. Specialized experience managing engineering functions and processes for U.S. Navy Large Deck Amphibious Ship Steam Propulsion Plants and associated equipment, piping and systems is preferred and will be rated more highly. Experience with propulsion systems from surface combatants, CVNs, and other amphibious ships (LPD, LHD 8/9, LSD, etc.) will be considered acceptable.

10.1.2 Non-Key Personnel

Although resumes for "Non-Key Personnel" are not required, offerors must fully demonstrate their ability to provide the non-key personnel listed below who meet the requirements that follow. The contractor shall certify in their proposal that they have these non-key personnel and provide a statement as to their ability to supply the personnel with the experience required to perform the efforts specified in the SOW. The contractor shall provide individuals to fill the non-key positions identified below, and they must meet the minimum requirements :

Logistician / Logistician Level 1:

Minimum Education: High school graduate or GED, graduate of military schools which provided an in-depth knowledge of naval shipboard systems maintenance and operation, or be a graduate of a trade, industrial or correspondence school for engineering.

Minimum Experience: Five (5) years of experience working with DoD Supply Systems or Defense Logistics Agency (DLA). Specialized experience with warehouse management. Experience with US Navy Technical documents, including development and management. Experience with procurement and delivery of US Navy material for support of repairs and alterations including Level I. Experience with material receipt inspections and problem mitigations.

Planner/Estimator / Management Analyst:

Minimum Education: High school graduate or GED, or be a graduate of a trade, industrial or correspondence school for engineering.

Minimum Experience: Five (5) years of experience in supervising preparation of Naval Industrial cost and time estimates (time, labor and material) for alterations and repairs to Naval Ship HM&E systems on surface ships and submarines. Experience in repair definitions as outlined in the Joint Fleet Maintenance Manual (JFMM), production procedures, planning procedures, material requirements, technical instructions, NAVSEA directives and

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 26 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

in preparing task order specifications and estimates for work. Five (5) years of specific experience overseeing planning and estimating experience in the operation, test, maintenance, or repair of Naval Ship HM&E, or electronic equipment and systems, with specific experience in Oil Fired Boiler Steam Plants.

Quality Assurance Inspector / Quality Control Inspector:

Minimum Education: High School Diploma, related military experience, trade/industrial school graduate or GED equivalent.

Minimum Experience: Three (3) years of experience in performing quality assurance and control inspections on Naval Ship HM&E or electronic systems for specification and engineering drawing requirement compliance. Three (3) years of experience which has provided a practical knowledge of QA programs; quality control inspection systems; and a detailed knowledge of QA procedures, processes, methods, and techniques. Specific experience with US Navy Inspection & Verification programs and evaluation of OQE.

Technical Writer / Technical, Writer:

Minimum Education: BS Degree in Engineering from an accredited college or university.

Minimum Experience: Five (5) years of experience in the planning and preparation of various types of technical documentation on naval ship Hull, Mechanical, Electrical, Electronic, systems and equipment. Experience in the detailed information search and interpretation of technical data in the preparation of technical documentation required. Three (3) years of experience developing technical documentation using either the Navy Publishing Application (NPA) or the Navy PMS Editor (NPE) or equivalent.

Typist / Clerk, General:

Minimum Education: High School Diploma, related military experience, trade/industrial school graduate or GED equivalent.

Minimum Experience: Requires a minimum of one (1) year of experience entering data into MS Access or Excel or experience in word processing in MS Word. Must also have experience in preparing reports and other types of documentation and general clerical duties (filing, mailing, etc.).

Engineering Aide / Engineering Technician Level 1:

Minimum Education: High School Diploma, related military experience, trade/industrial school graduate or GED equivalent.

Minimum Experience: Requires a minimum of one (1) year of experience entering data into MS Access or Excel or experience in word processing in MS Word. Must also have experience in preparing engineering reports and other types of technical documentation.

Technician (Electronics) / Engineering Technician Level 3:

Minimum Education: High school graduate or GED, graduate of military schools which provided an in-depth knowledge of naval shipboard systems maintenance and operation, or be a graduate of a trade, industrial or correspondence school for engineering.

Minimum Experience: Five (5) years of experience in preparing or approving DFS, engineering senior management of SCD and SSRDs development for electrical systems and components.

Engineer (Systems) / Systems Engineer Level 2:

Minimum Education: BS Degree in Engineering from an accredited college or university.

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 27 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

Minimum Experience: Five (5) years of experience in the design, testing, installation, and maintenance of Naval Ship HM&E systems. Shall include experience in all stages of the engineering process from initial design through production alterations and installation.

Analyst (Systems) / Analyst, Management :

Minimum Education: BS Degree in Engineering from an accredited college or university.

Minimum Experience: Five (5) years of experience in managing Navy shipboard engineering projects plus four years experience in assessment and maintenance of Naval Ships HM&E systems and equipment.

Business Manager/Financial Analyst / Analyst, Financial Systems:

Minimum Education: BS Degree in a financial field.

Minimum Experience: Three (3) years of experience in the financial management, forecasting, proposals, budget planning, and execution.

Analyst (Program) / Clerk, General:

Minimum Education: High School Diploma, related military experience, trade/industrial school graduate or GED equivalent.

Minimum Experience: Five (5) years of experience in supporting programs and their functions.

Programmer / Programmer, Computer:

Minimum Education: BS Degree in computer science or similar field.

Minimum Experience: Three (3) years of experience in computer programming working with computer code and database management both online and offline. Experience in technical review cycles.

CAD/CAM Operator / Drafter/CAD Operator Level 2:

Minimum Education: High School Diploma, related military experience, trade/industrial school graduate or GED equivalent.

Minimum Experience: Three (3) years of experience developing and revising engineering drawings for shipboard systems. Graduate from an accredited technical, vocational or apprentice school drafting program may be substituted for up to two years of experience.

Engineer (Junior) / Engineer Level 1:

Minimum Education: BS Degree in Engineering from an accredited college or university.

Minimum Experience: One (1) year of experience in the design, testing, installation, and maintenance of Naval Ship HM&E systems.

Inspector (Marine/Boiler) / Quality Control Inspector:

Minimum Education: High School Diploma, related military experience, trade/industrial school graduate or GED equivalent.

Required Certification(s): National Board Boiler Inspector (NBBI) License

Minimum Experience: Must have active National Board Boiler Inspector (NBBI) License (required and be a former Navy Steam Generating Plant Inspector (SGPI)).

11. ENTERPRISE-WIDE CONTRACTING MANPOWER REPORTING APPLICATION (ECMRA)

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 28 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

The Contractor shall report contractor-labor-hours (including subcontractor-labor-hours) required for performance of services provided under this task order via a secure data collection site. Contracted services excluded from reporting are based on Product Service Codes (PSCs). The excluded PSCs are:

- (1) W, Lease/Rental of Equipment;
- (2) X, Lease/Rental of Facilities;
- (3) Y, Construction of Structures and Facilities;
- (4) S, Utilities ONLY;
- (5) V, Freight and Shipping ONLY.

The Contractor is required to completely fill in all required data fields using the following web address <https://doncmra.nmci.navy.mil>.

Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year. Contractors may direct questions to the help desk, linked at <https://doncmra.nmci.navy.mil>.

12. CONTRACTOR IDENTIFICATION

Contractor-employees shall identify themselves as contractor-personnel by introducing themselves or being introduced as contractor-personnel and displaying distinguishable badges or other visible identification for meetings with government-personnel. In addition, contractor-personnel shall appropriately identify themselves as contractor-employees in telephone conversations and in formal and informal written correspondence.

13. GOVERNMENT POINTS OF CONTACT

The government points-of-contact for this task order will be determined at the time of task order award.

14. SPECIAL REQUIREMENTS

14.1 Quality System

The Contractor shall have a Quality System in place, compliant with ANSI/ISO/ASQ Q9001-2008.

14.2 Status of Forces Agreement (SOFA), Japan

The Status of Forces Agreement (SOFA) between the United States and Japan governs the rights and obligations of the United States armed forces in Japan. Only those individual Contractors who are United States nationals; not ordinarily a resident in Japan; present in Japan at the invitation of and solely for the purpose of executing task orders with the United States for the benefit of the United States armed forces; and, not present in Japan under any other SOFA status may be issued a Letter of Identification by the Procuring Contracting Officer (PCO) so that their status may be verified by Japanese authorities upon their entry into and/or departure from Japan.

15.0 NSWCPD Electronic Cost Reporting and Financial Tracking (eCRAFT) System

The Contractor agrees to upload the Contractor's Funds and Man-hour Expenditure Reports in the Electronic Cost Reporting and Financial Tracking (eCRAFT) System. The eCRAFT Reports must use the standardized labor categories identified in Section C - Statement of Work. Compliance with this requirement is a material requirement of this contract. Failure to comply with this requirement may result in contract termination.

The Contractor's Funds and Man-hour Expenditure Report reports contractor expenditures for labor, materials, travel, subcontractor usage, and other contract charges.

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 29 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

The Contracting Officer may require supporting accounting system reports based on the review of the invoice documentation submitted to eCRAFT such as the Job Summary Report (or equivalent), Labor Distribution Report (or equivalent), and General Ledger Detail Report (or equivalent).

The contractor shall submit its reports on the same day it submits an invoice in iRAP. The costs reflected in eCRAFT shall be the same as those in iRAP. eCRAFT acceptance/rejection will be indicated by e-mail notification from eCRAFT.

The eCRAFT Periodic Report Utility (ePRU) is an Excel tool used to facilitate generating reports of expenditures-against-cost contracts. The generated XML files will then be submitted by the ePRU tool via email to NUWC_NPT_eCRAFT.FCT@navy.mil for submission into the eCRAFT Database Management System.

The ePRU spreadsheet and user manual can be obtained from the NUWC Division Newport Contracts Home Page under eCRAFT information at: [http://www.navsea.navy.mil/Home/Warfare-Centers/NUWC Newport/Partnerships /Commercial-Contracts/Information-eCraft](http://www.navsea.navy.mil/Home/Warfare-Centers/NUWC%20Newport/Partnerships/Commercial-Contracts/Information-eCraft).

PD-C01 ON-SITE SAFETY AND ENVIRONMENTAL AWARENESS TRAINING (NOV 2015)

(a) The contractor shall strictly adhere to Federal Occupational Safety and Health Agency (OSHA) Regulations, Environmental Protection Agency (EPA) Regulations, and all applicable state and local requirements.

(b) The contractor shall ensure that each contractor employee reads the documents entitled, "Philadelphia Division Environmental Policy and Commitment" and "Philadelphia Division Occupational Safety and Health Policy Statement" within 30 days of commencing performance at Naval Surface Warfare Center Philadelphia Division (NSWCPD). These documents are available at: <https://navsea.portal.navy.mil/wc/pnbc-code10/Safety/default.aspx>

(c) The contractor shall ensure that each contractor employee who will be resident at NSWCPD completes the Environmental Management System (EMS) Awareness training within 30 days of commencing performance at NSWCPD. This document is available at: <https://navsea.portal.navy.mil/wc/pnbc-code10/Safety/default.aspx>

(e) The contractor shall ensure that each contractor employee who will be resident at NSWCPD completes the Voluntary Protection Program (VPP) Awareness Training within 30 days of commencing performance at NSWCPD. This document is available at: <https://navsea.portal.navy.mil/wc/pnbc-code10/Safety/default.aspx>

(g) The contractor shall submit their OSHA 300 Logs (injury/illness rates) within 30 days of commencing performance at NSWCPD for review by the OSH Office (Al D'Imperio). If a contractor's injury/illness rates are above the Bureau of Labor Statistics industry standards, a safety assessment will be performed by the OSH Office to determine if any administrative or engineering controls can be utilized to prevent further injuries/illnesses, or if any additional Personal Protective Equipment (PPE) or training will be required.

(h) The contractor shall post their OSHA 300 Logs in a conspicuous place where employee notices are customarily posted immediately upon commencing performance at NSWCPD.

(i) Applicable contractors shall submit Total Case Incident Rate (TCIR) and Days Away, Restricted and Transfer (DART) rates for the past three years within 30 days of commencing performance at NSWCPD for review by the OSH Office. A contractor meets the definition of applicable if its employees worked 1,000 hours or more in any

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 30 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

calendar quarter on site and were not directly supervised in day-to-day activities by the command.

(j) The contractor shall report all work-related injuries/illnesses that occurred while working at NSWCPD to the OSH Office.

(k) The contractor shall ensure that all contractor work at NSWCPD is in accordance with the OSH Program Manual (NAVSESINST 5100.14). The OSH Program Manual is available at <https://navsea.portal.navy.mil/wc/pnbc-code10/Safety/default.aspx>

Note:

1) Contractors must request an "iNAVY" account to access the documents online. Instructions are as follows:

a. <https://inavy.accessrequest.portal.navy.mil/>

b. select EMAIL Certificate<<<<-----

c. select Association (CIV, CTR or MILITARY)

d. enter work phone number

e. UIC number: 64498 (entering this will auto-populate the next box to "NSWC Philadelphia") – then hit "NEXT"

f. sponsor: NAVSEA

g. sponsor activity: NSWC Philadelphia

h. submit your request (you do not need to enter a justification)

HQ C-1-0001 ITEM(S) – DATA REQUIREMENTS (NAVSEA) SEP 1992)

The data to be furnished here under shall be prepared in accordance with the Contract Data Requirements List (CDRL), DD Form 1423, Exhibit__A__, attached hereto.

CDRL No.	Title	Data Item Description
A016	Contract Status Report	DI-MGMT-81991
A002	Travel Report	DI-MISC-81943
A003	Other Direct Costs (ODC's) Report	DI-FNCL-81866
A004	Contractor's Personnel Roster	DI-MGMT-81834A
A005	Technical Report Study/Services	DI-MISC-80508B
A006	Engineering Documentation Product Drawings, Modified	DI-DRPR-81681

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 31 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

A007	Logistics Product Data	DI-SSES-81758
A008	Quality Conformance Inspection and Test Procedures	DI-RELI-80322
A009	Shipboard Industrial Test Procedures	DI-QCIC-80206
A010	Equipment Inventory Records (EIRS)	DI-ILSS-81251
A011	Reliability and Maintainability Predictions Report	DI-SSES-81497
A012	Training Materials	DI-ILSS-80872
A013	Obsolescence Alert Notice	DI-MGMT-81941
A014	Reliability-Centered Maintenance (RCM) Class Maintenance Plan (CMP)	DI-SSES-81823A
A015	Inspection Method Sheet	DI-SAFT-81935

HQ C-2-0002 ACCESS TO PROPRIETARY DATA OR COMPUTER SOFTWARE (NAVSEA) (JUN 1994)

(a) Performance under this contract may require that the Contractor have access to technical data, computer software, or other sensitive data of another party who asserts that such data or software is proprietary. If access to such data or software is required or to be provided, the Contractor shall enter into a written agreement with such party prior to gaining access to such data or software. The agreement shall address, at a minimum, (1) access to, and use of, the proprietary data or software exclusively for the purposes of performance of the work required by this contract, and (2) safeguards to protect such data or software from unauthorized use or disclosure for so long as the data or software remains proprietary. In addition, the agreement shall not impose any limitation upon the Government or its employees with respect to such data or software. A copy of the executed agreement shall be provided to the Contracting Officer. The Government may unilaterally modify the contract to list those third parties with which the Contractor has agreement(s).

(b) The Contractor agrees to: (1) indoctrinate its personnel who will have access to the data or software as to the restrictions under which access is granted; (2) not disclose the data or software to another party or other Contractor personnel except as authorized by the Contracting Officer; (3) not engage in any other action, venture, or employment wherein this information will be used, other than under this contract, in any manner inconsistent with the spirit and intent of this requirement; (4) not disclose the data or software to any other party, including, but not limited to, joint venturer, affiliate, successor, or assign of the Contractor; and (5) reproduce the restrictive stamp, marking, or legend on each use of the data or software whether in whole or in part.

(c) The restrictions on use and disclosure of the data and software described above also apply to such information received from the Government through any means to which the Contractor has access in the performance of this contract that contains proprietary or other restrictive markings.

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 32 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

(d) The Contractor agrees that it will promptly notify the Contracting Officer of any attempt by an individual, company, or Government representative not directly involved in the effort to be performed under this contract to gain access to such proprietary information. Such notification shall include the name and organization of the individual, company, or Government representative seeking access to such information.

(e) The Contractor shall include this requirement in subcontracts of any tier which involve access to information covered by paragraph (a), substituting "subcontractor" for "Contractor" where appropriate.

(f) Compliance with this requirement is a material requirement of this contract.

HQ C-2-0059 UPDATING SPECIFICATIONS AND STANDARDS (NAVSEA) (AUG 1994)

If, during the performance of this or any other contract, the contractor believes that any contract contains outdated or different versions of any specifications or standards, the contractor may request that all of its contracts be updated to include the current version of the applicable specification or standard. Updating shall not affect the form, fit or function of any deliverable item or increase the cost/price of the item to the Government. The contractor should submit update requests to the Procuring Contracting Officer with copies to the Administrative Contracting Officer and cognizant program office representative for approval. The contractor shall perform the contract in accordance with the existing specifications and standards until notified of approval/disapproval by the Procuring Contracting Officer. Any approved alternate specifications or standards will be incorporated into the contract.

Clauses Included by Reference

HQ C-2-0037 ORGANIZATIONAL CONFLICT OF INTEREST (NAVSEA) (JUL 2000)

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 33 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

SECTION D PACKAGING AND MARKING

HQ D-2-0008 MARKING OF REPORTS(NAVSEA) (SEP 1990)

All reports delivered by the Contractor to the Government under this contract shall prominently show on the cover of the report:

(1) name and business address of the Contractor

(2) contract number

(3) task order number

(4) sponsor:

(Name of Individual Sponsor)

(Name of Requiring Activity)

(City and State)

Ship all Reports/Data to the Contracting Officer's Representative (COR) identified in Section G.

All Deliverables shall be packaged and marked IAW Best Commercial Practice.

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 34 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

SECTION E INSPECTION AND ACCEPTANCE

Inspection and Acceptance will be performed by the Contracting Officer Representative as identified in the Technical Instructions (TIs) issued under this Task Order.

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 35 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

SECTION F DELIVERABLES OR PERFORMANCE

The periods of performance for the following Items are as follows:

7000	12/28/2016 - 12/27/2017
7001	12/28/2016 - 12/27/2017
7002	3/28/2017 - 3/27/2018
7003	3/28/2017 - 3/27/2018
7004	3/28/2017 - 3/27/2018
7005	3/28/2017 - 3/27/2018
7006	3/28/2017 - 12/1/2017
7007	3/23/2017 - 12/1/2017
7008	3/28/2017 - 12/1/2017
7009	4/20/2017 - 12/1/2017
7010	4/20/2017 - 12/27/2017
7011	4/20/2017 - 12/1/2017
7012	4/20/2017 - 12/27/2017
7013	5/25/2017 - 5/24/2018
7014	5/25/2017 - 5/24/2018
7015	7/21/2017 - 3/27/2018
7016	7/21/2017 - 3/27/2018
7017	7/21/2017 - 3/27/2018
7018	7/21/2017 - 3/27/2018
7019	8/7/2017 - 12/1/2017
7020	8/22/2017 - 12/27/2017
7021	8/22/2017 - 7/31/2018
7022	8/22/2017 - 7/31/2018
7023	8/22/2017 - 7/31/2018
7024	9/29/2017 - 7/15/2018
7025	9/29/2017 - 7/15/2018
7026	9/29/2017 - 3/27/2018
7100	11/8/2017 - 12/27/2018
7101	11/8/2017 - 10/30/2018
7102	1/29/2018 - 1/4/2019
7103	1/29/2018 - 1/4/2019
7104	1/29/2018 - 1/4/2019
7105	1/29/2018 - 1/16/2019
7106	2/13/2018 - 1/28/2019
7107	2/13/2018 - 1/28/2019
7108	2/13/2018 - 2/5/2019
7109	3/14/2018 - 1/16/2019
7110	3/14/2018 - 1/4/2019
7111	3/14/2018 - 2/5/2019

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 36 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

7112	3/14/2018 - 1/28/2019
7113	4/18/2018 - 1/4/2019
7114	4/18/2018 - 1/4/2019
7115	4/18/2018 - 9/10/2018
7116	4/18/2018 - 1/4/2019
7117	4/18/2018 - 1/4/2019
7118	6/14/2018 - 1/28/2019
7119	6/14/2018 - 1/28/2019
7120	6/14/2018 - 6/10/2019
7121	6/14/2018 - 2/5/2019
7122	6/14/2018 - 6/10/2019
7123	7/2/2018 - 6/10/2019
7124	7/2/2018 - 6/10/2019
7125	7/2/2018 - 6/10/2019
7126	7/2/2018 - 6/10/2019
7127	7/2/2018 - 6/10/2019
7128	7/2/2018 - 6/10/2019
7129	7/2/2018 - 6/15/2019
7130	7/2/2018 - 6/20/2019
7131	7/31/2018 - 7/30/2019
7132	7/31/2018 - 7/15/2019
7133	7/31/2018 - 6/25/2019
7134	7/31/2018 - 2/28/2019
7200	8/15/2018 - 12/27/2019
7201	8/15/2018 - 7/8/2019
7202	9/21/2018 - 8/12/2019
7203	9/21/2018 - 8/22/2019
7204	9/21/2018 - 9/13/2019
7205	9/21/2018 - 9/15/2019
7206	11/29/2018 - 11/5/2019
7207	11/29/2018 - 10/30/2019
7208	1/8/2019 - 11/27/2019
7209	1/8/2019 - 12/5/2019
7210	1/8/2019 - 12/5/2019
7211	1/28/2019 - 12/27/2019
7212	1/28/2019 - 12/27/2019
7213	1/28/2019 - 12/27/2019
7214	1/28/2019 - 12/27/2019
9000	12/28/2016 - 12/27/2017
9001	12/28/2016 - 12/27/2017
9002	3/23/2017 - 3/27/2018
9003	3/28/2017 - 3/27/2018
9004	3/28/2017 - 3/27/2018

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 37 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

9005	3/28/2017 - 3/27/2018
9006	3/28/2017 - 12/1/2017
9007	4/20/2017 - 12/1/2017
9008	4/20/2017 - 12/1/2017
9009	4/20/2017 - 12/27/2017
9010	7/21/2017 - 3/27/2018
9011	8/7/2017 - 12/1/2017
9012	8/22/2017 - 12/27/2017
9013	8/22/2017 - 7/31/2018
9014	8/22/2017 - 8/21/2018
9015	8/22/2017 - 7/31/2018
9016	9/29/2017 - 7/15/2018
9017	9/29/2017 - 7/15/2018
9100	11/8/2017 - 12/27/2018
9101	11/8/2017 - 10/30/2018
9102	1/29/2018 - 1/4/2019
9103	2/13/2018 - 1/28/2019
9104	2/13/2018 - 2/5/2019
9105	3/14/2018 - 1/16/2019
9106	3/14/2018 - 1/4/2019
9107	3/14/2018 - 2/5/2019
9108	4/18/2018 - 1/4/2019
9109	4/18/2018 - 1/4/2019
9110	4/18/2018 - 1/4/2019
9111	6/14/2018 - 1/28/2019
9112	6/14/2018 - 1/28/2019
9113	6/14/2018 - 6/10/2019
9114	6/14/2018 - 2/5/2019
9115	6/14/2018 - 6/10/2019
9116	7/2/2018 - 6/10/2019
9117	7/2/2018 - 6/10/2019
9118	7/2/2018 - 6/10/2019
9119	7/2/2018 - 6/10/2019
9120	7/2/2018 - 6/10/2019
9121	7/2/2018 - 6/10/2019
9122	7/2/2018 - 6/15/2019
9123	7/2/2018 - 6/20/2019
9124	7/31/2018 - 7/30/2019
9125	7/31/2018 - 7/15/2019
9126	7/31/2018 - 6/25/2019
9200	8/15/2018 - 12/27/2019
9201	8/15/2018 - 7/8/2019
9202	9/21/2018 - 8/12/2019

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 38 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

9203	9/21/2018 - 9/13/2019
9204	9/21/2018 - 9/16/2019
9205	11/29/2018 - 10/30/2019
9206	1/8/2019 - 11/27/2019
9207	1/28/2019 - 12/27/2019
9208	1/28/2019 - 12/27/2019

The periods of performance for the following Items are as follows:

7000	12/28/2016 - 12/27/2017
9000	12/28/2016 - 12/27/2017

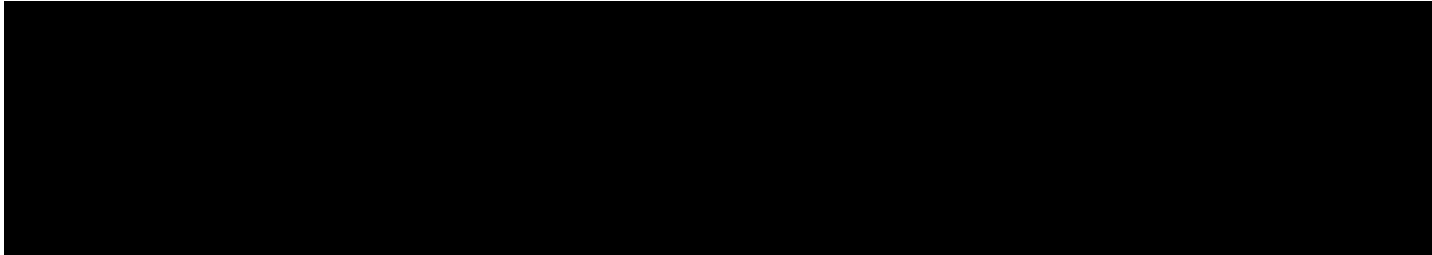
The periods of performance for the following Option Items are as follows:

7100	12/28/2017 - 12/27/2018
7200	12/28/2018 - 12/27/2019
7300	12/28/2019 - 12/27/2020
7400	12/28/2020 - 12/27/2021
9100	12/28/2017 - 12/27/2018
9200	12/28/2018 - 12/27/2019
9300	12/28/2019 - 12/27/2020
9400	12/28/2020 - 12/27/2021

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 39 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

SECTION G CONTRACT ADMINISTRATION DATA

HQ G-2-0003 CONTRACTING OFFICER'S REPRESENTATIVE



The Contractor shall forward a copy of all invoices to the Contracting Officer's Representative, who will be determined at the time of award.

252.232-7006 WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (MAY 2013)

(a) *Definitions.* As used in this clause—

“Department of Defense Activity Address Code (DoDAAC)” is a six position code that uniquely identifies a unit, activity, or organization.

“Document type” means the type of payment request or receiving report available for creation in Wide Area WorkFlow (WAWF).

“Local processing office (LPO)” is the office responsible for payment certification when payment certification is done external to the entitlements system.

(b) *Electronic invoicing.* The WAWF system is the method to electronically process vendor payment requests and receiving reports, as authorized by DFARS [252.232-7003](#), Electronic Submission of Payment Requests and Receiving Reports.

(c) *WAWF access.* To access WAWF, the Contractor shall—

(1) Have a designated electronic business point of contact in the Central Contractor Registration at <https://www.acquisition.gov>; and

(2) Be registered to use WAWF at <https://wawf.eb.mil/> following the step-by-step procedures for self-registration available at this web site.

(d) *WAWF training.* The Contractor should follow the training instructions of the WAWF Web-Based Training Course and use the Practice Training Site before submitting payment requests through WAWF. Both can be accessed by selecting the “Web Based Training” link on the WAWF home page at <https://wawf.eb.mil/>

(e) *WAWF methods of document submission.* Document submissions may be via web entry, Electronic Data Interchange, or File Transfer Protocol.

(f) *WAWF payment instructions.* The Contractor must use the following information when submitting payment requests and receiving reports in WAWF for this contract/order:

(1) *Document type.* The Contractor shall use the following document type(s).

Cost Voucher

(2) *Inspection/acceptance location.* The Contractor shall select the following inspection/acceptance location(s) in WAWF, as specified by the contracting officer.

Destination / Destination

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 40 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

(3) *Document routing.* The Contractor shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

Routing Data Table*

<i>Field Name in WAWF</i>	<i>Data to be entered in WAWF</i>
Pay Official DoDAAC	HQ0337
Issue By DoDAAC	N64498
Admin DoDAAC	S3915A
Inspect By DoDAAC	N64498
Ship To Code	See Section F
Ship From Code	N/A
Mark For Code	See Section D
Service Approver (DoDAAC)	N/A
Service Acceptor (DoDAAC)	N64498
Accept at Other DoDAAC	N/A
LPO DoDAAC	N/A
DCAA Auditor DoDAAC	HAA391
Other DoDAAC(s)	N/A

(4) *Payment request and supporting documentation.* The Contractor shall ensure a payment request includes appropriate contract line item and subline item descriptions of the work performed or supplies delivered, unit price/cost per unit, fee (if applicable), and all relevant back-up documentation, as defined in DFARS Appendix F, (e.g. timesheets) in support of each payment request.

(5) *WAWF email notifications.* The Contractor shall enter the e-mail address identified below in the "Send Additional Email Notifications" field of WAWF once a document is submitted in the system.

peter.duong@navy.mil

(g) *WAWF point of contact.*

(1) The Contractor may obtain clarification regarding invoicing in WAWF from the following contracting activity's WAWF point of contact.



(2) For technical WAWF help, contact the WAWF helpdesk at 866-618-5988.

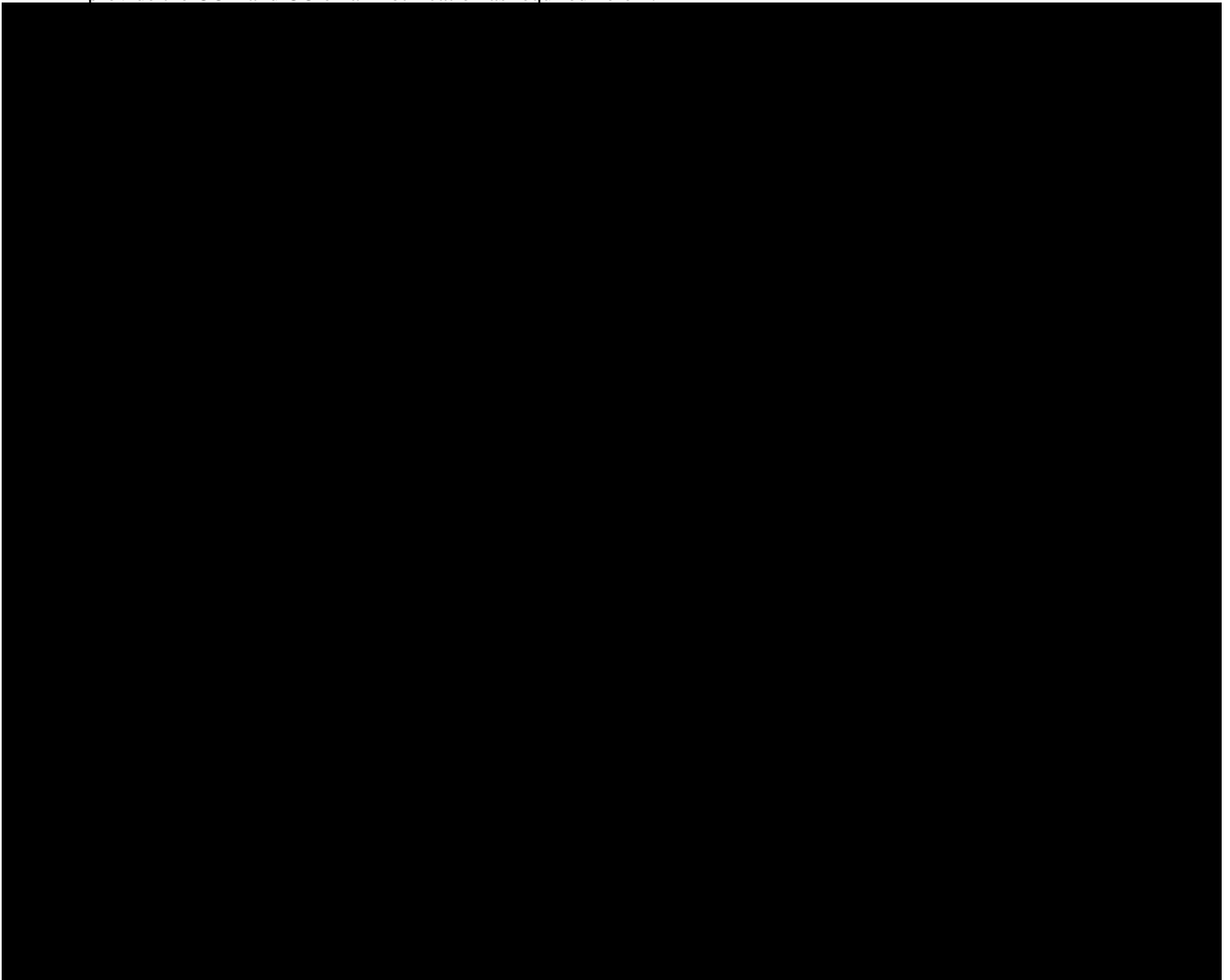
(End of clause)

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 41 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

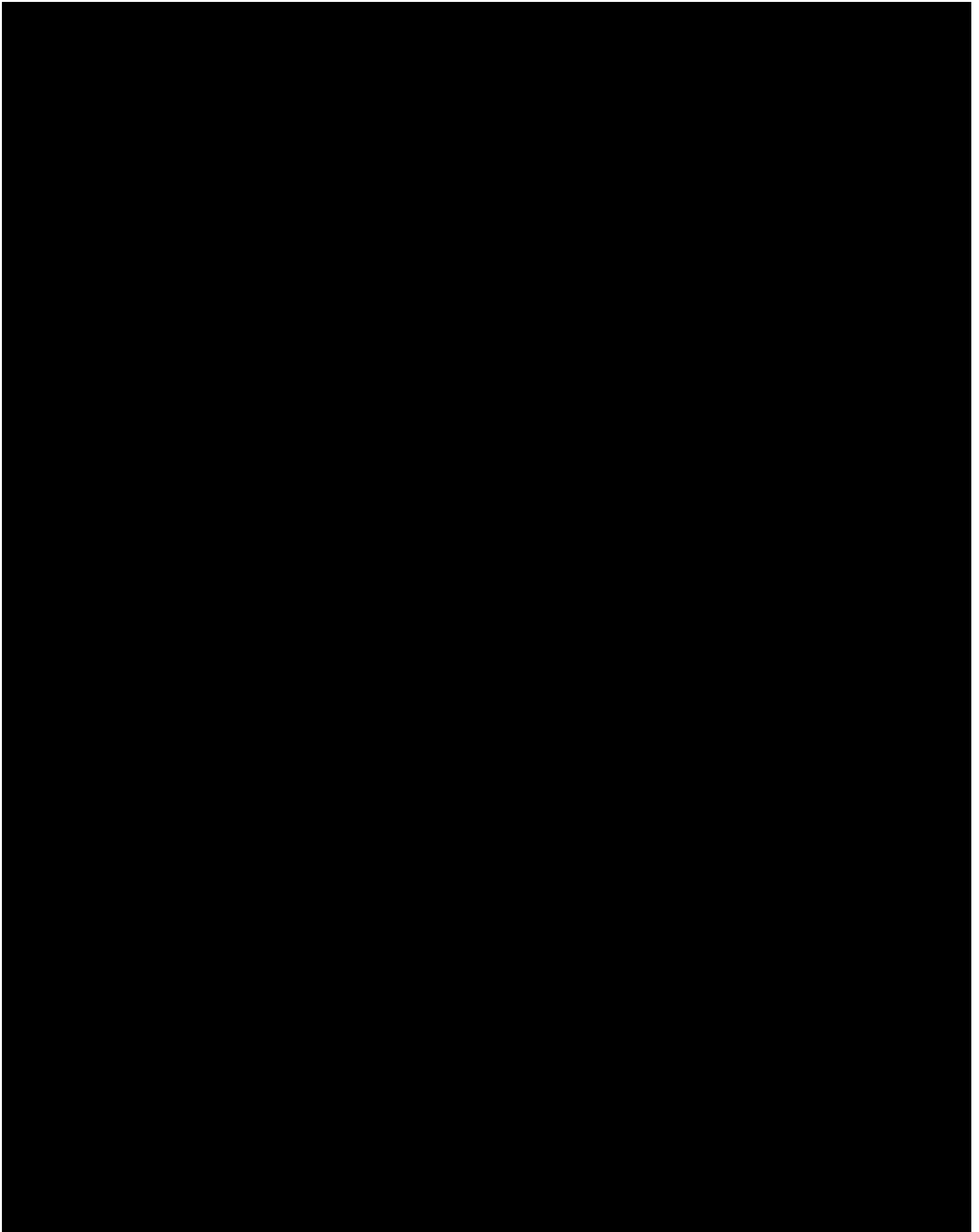
HQ G-2-0009, Supplemental Instructions Regarding Invoicing (NAVSEA) (APR 2015)

(a) For other than firm fixed priced contract line item numbers (CLINs), the Contractor agrees to segregate costs incurred under this contract/task order (TO), as applicable, at the lowest level of performance, either at the technical instruction (TI), sub line item number (SLIN), or contract line item number (CLIN) level, rather than on a total contract/TO basis, and to submit invoices reflecting costs incurred at that level. Supporting documentation in Wide Area Workflow (WAWF) for invoices shall include summaries of work charged during the period covered as well as overall cumulative summaries by individual labor categories, rates, and hours (both straight time and overtime) invoiced; as well as, a cost breakdown of other direct costs (ODCs), materials, and travel, by TI, SLIN, or CLIN level. For other than firm fixed price subcontractors, subcontractors are also required to provide labor categories, rates, and hours (both straight time and overtime) invoiced; as well as, a cost breakdown of ODCs, materials, and travel invoiced. Supporting documentation may be encrypted before submission to the prime contractor for WAWF invoice submittal. Subcontractors may email encryption code information directly to the Contracting Officer (CO) and Contracting Officer Representative (COR). Should the subcontractor lack encryption capability, the subcontractor may also email detailed supporting cost information directly to the CO and COR; or other method as agreed to by the CO.

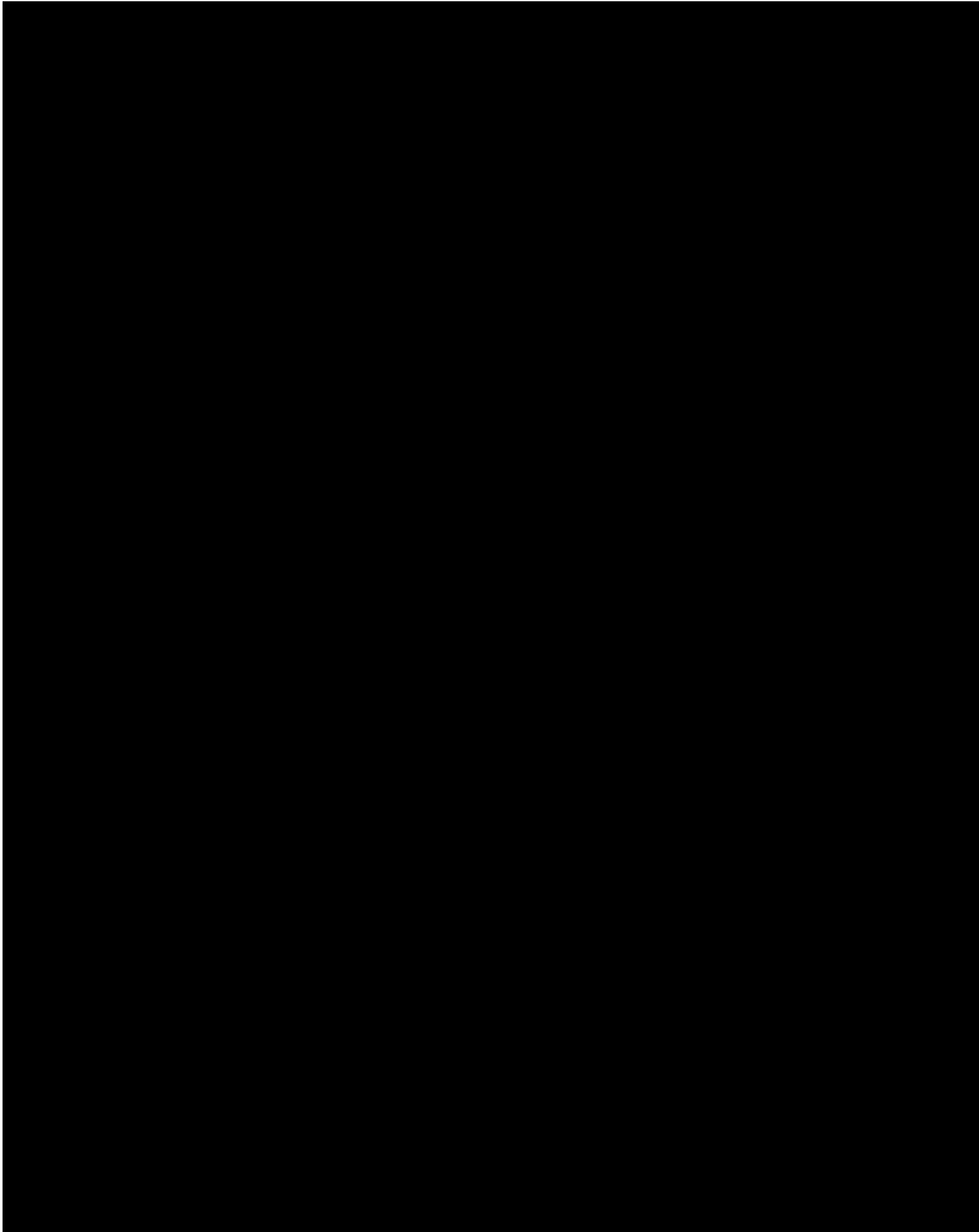
(b) Contractors submitting payment requests and receiving reports to WAWF using either Electronic Data Interchange (EDI) or Secure File Transfer Protocol (SFTP) shall separately send an email notification to the COR and CO on the same date they submit the invoice in WAWF. No payments shall be due if the contractor does not provide the COR and CO email notification as required herein.



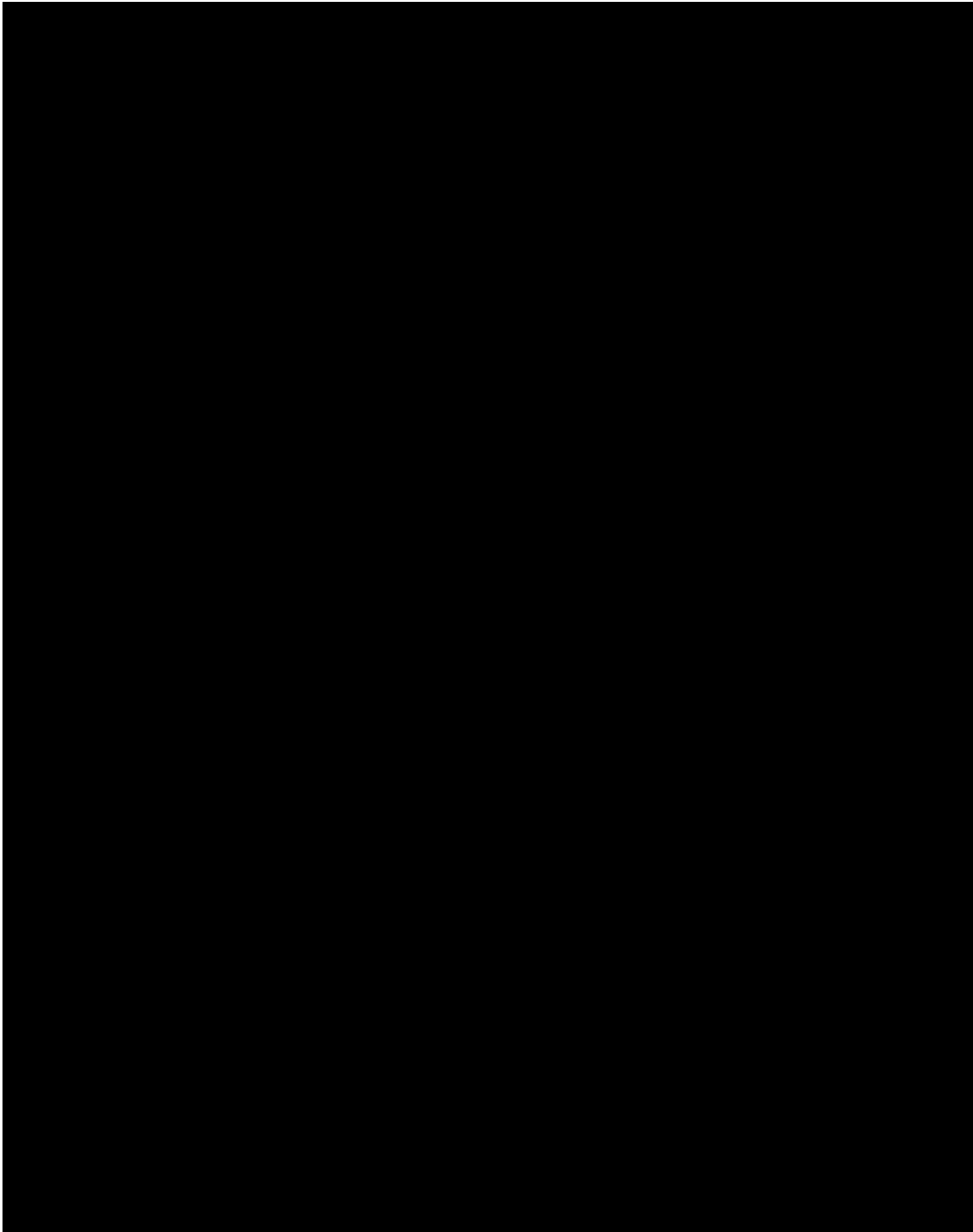
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 42 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



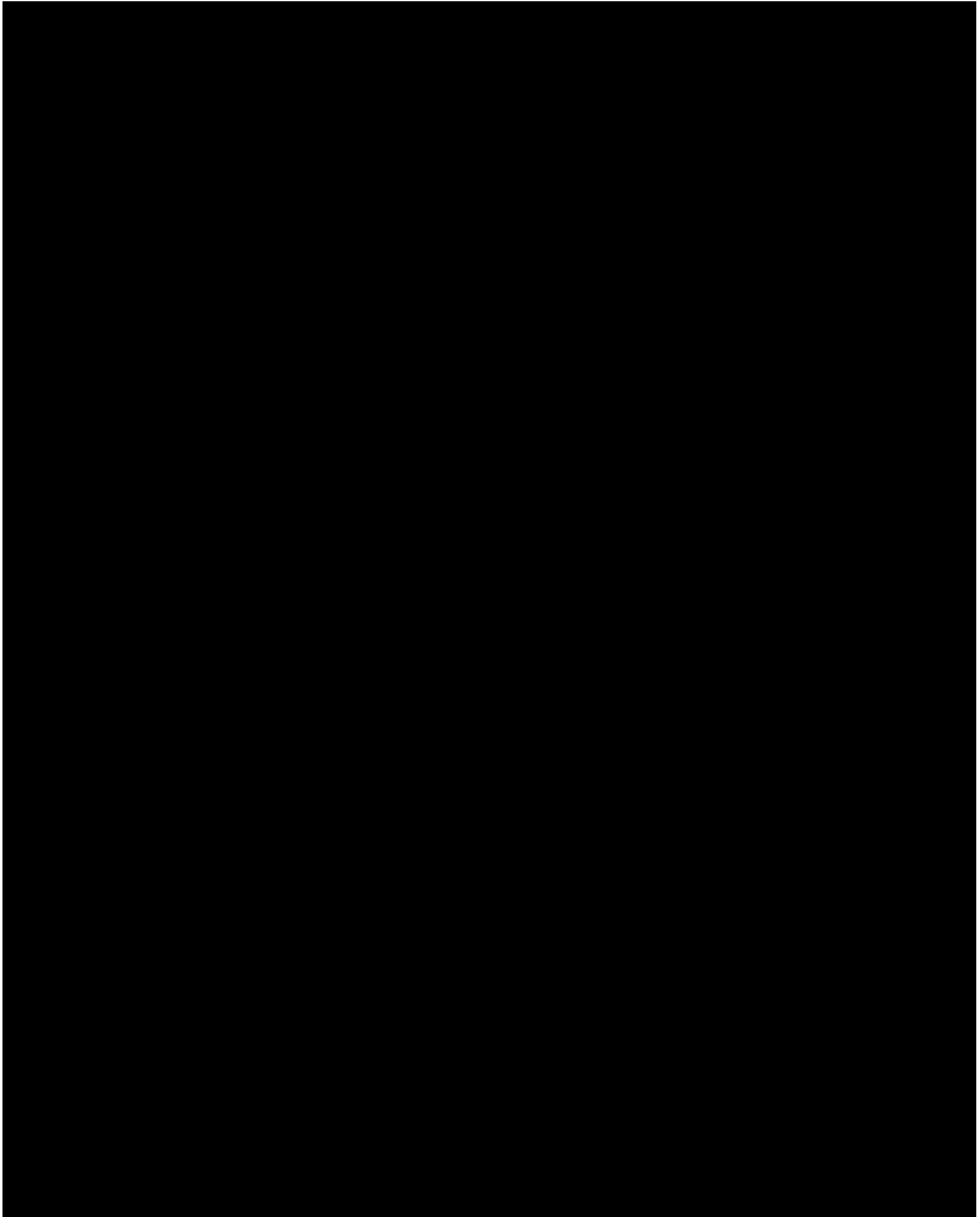
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 43 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



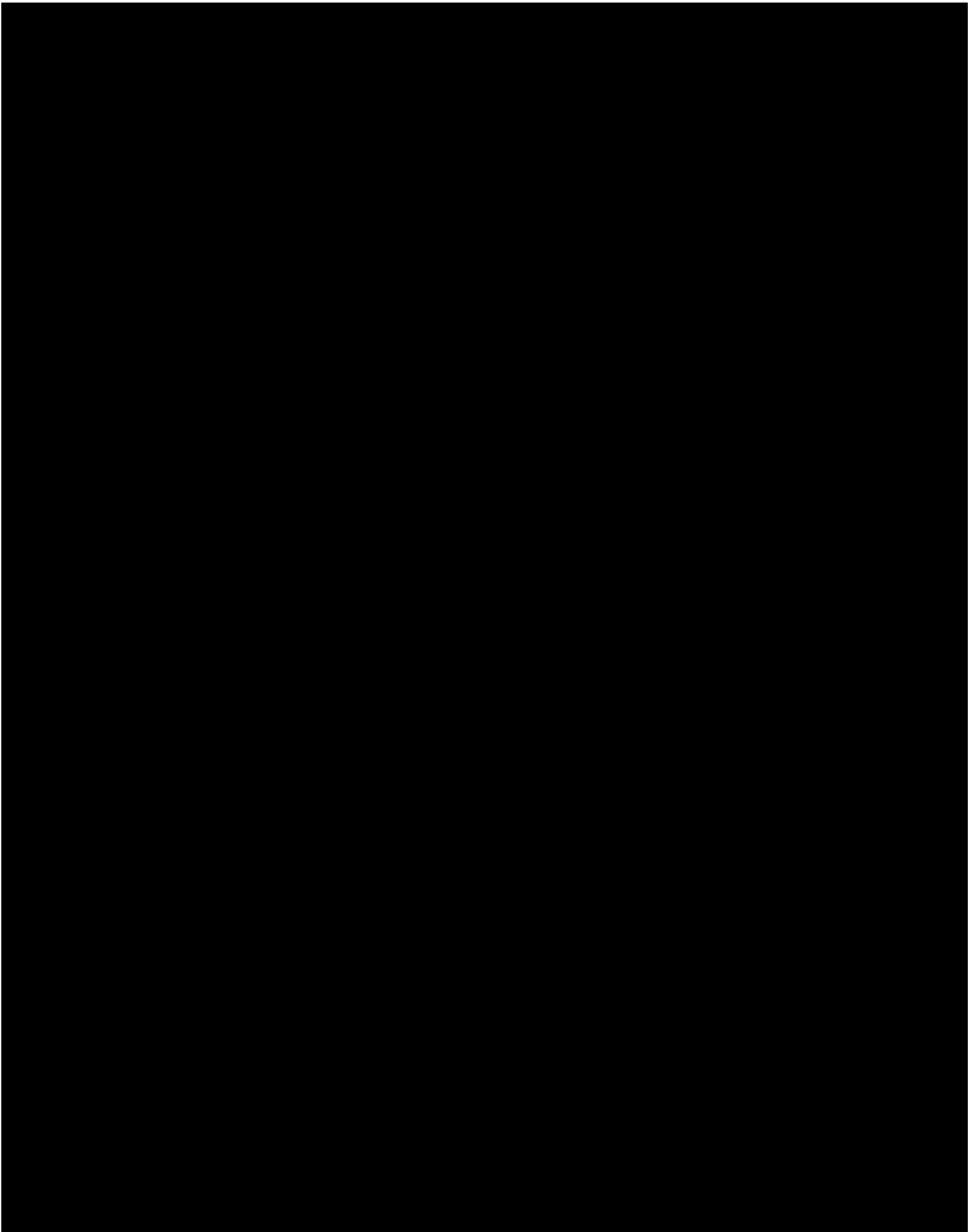
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 44 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



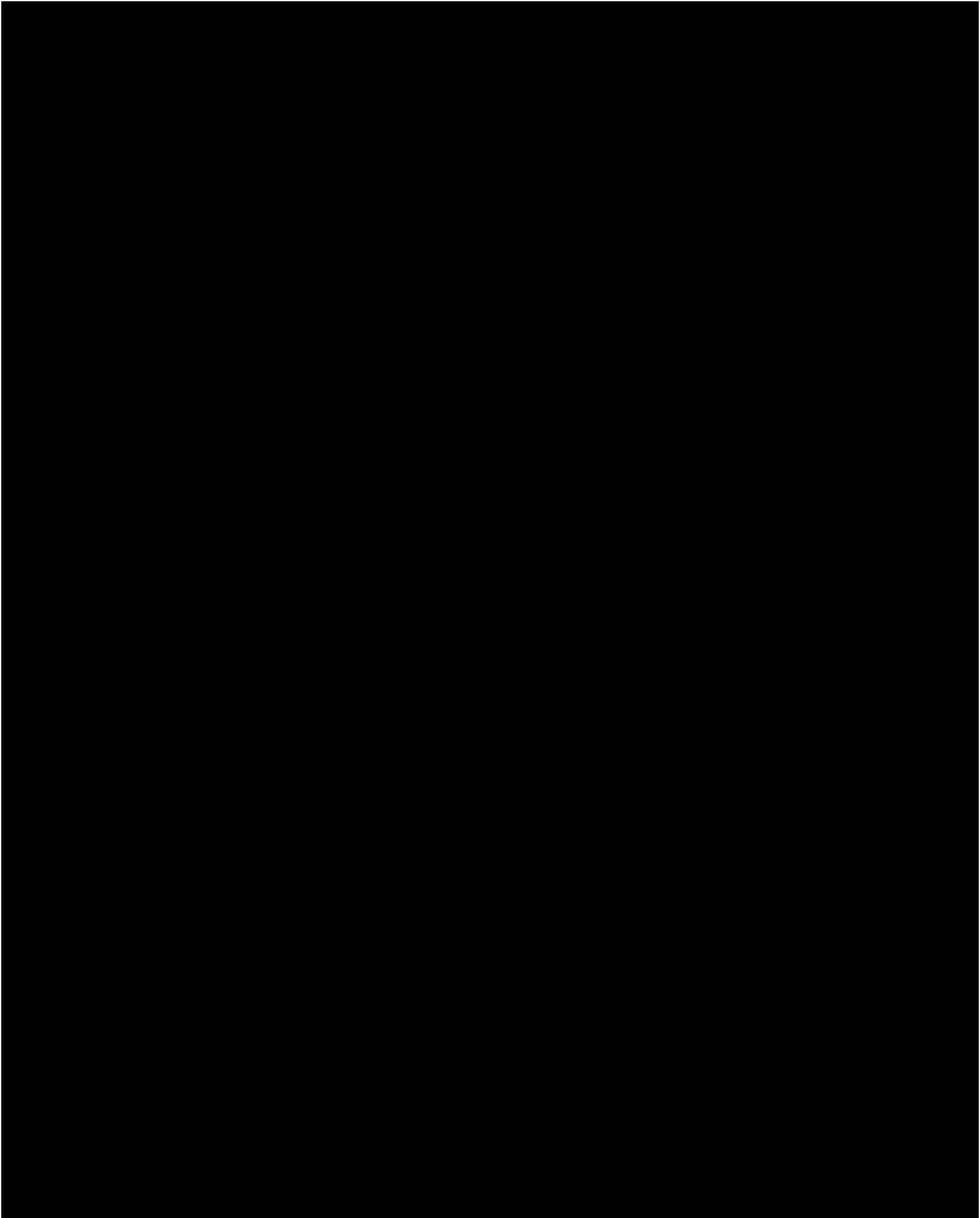
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 45 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



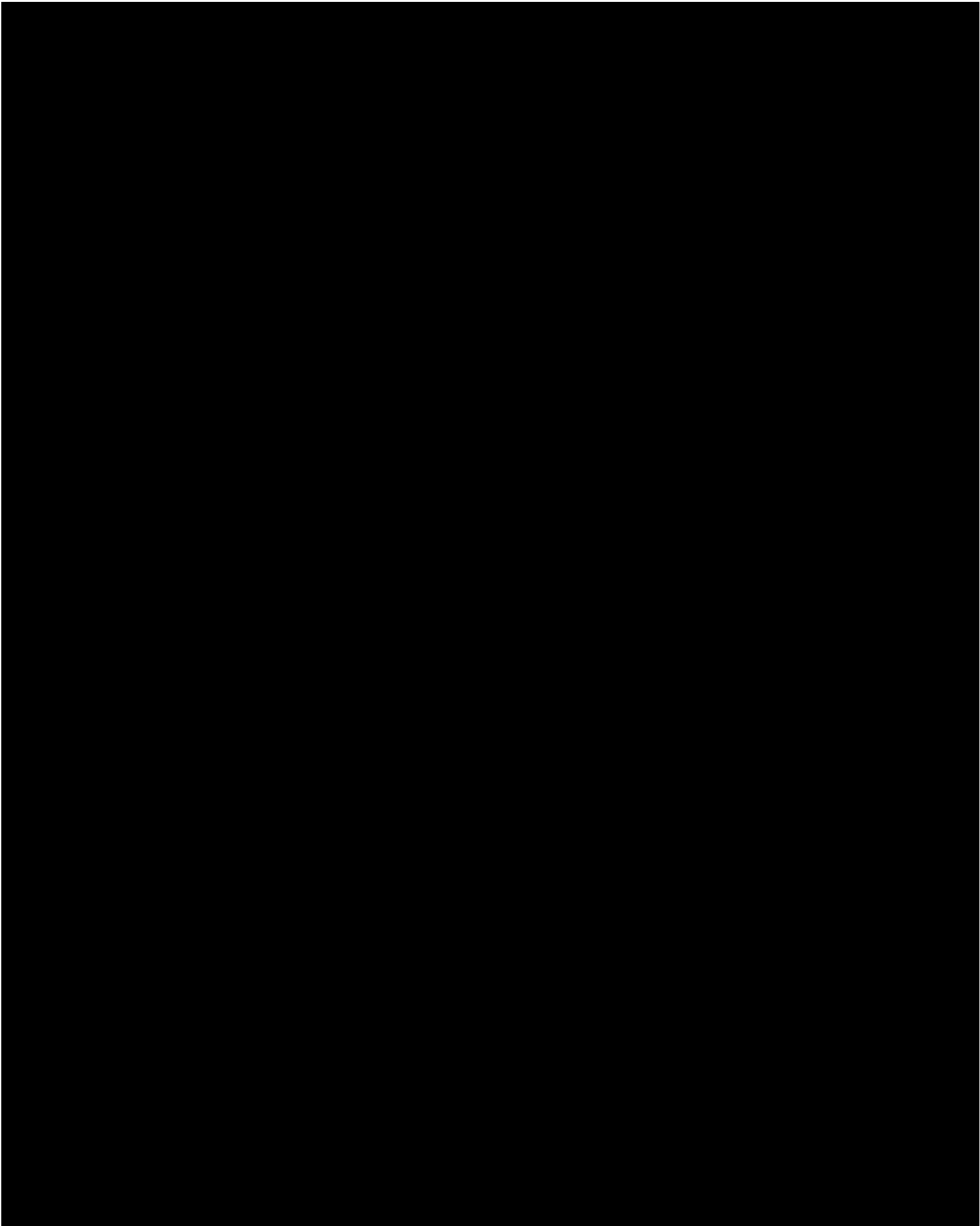
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 46 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



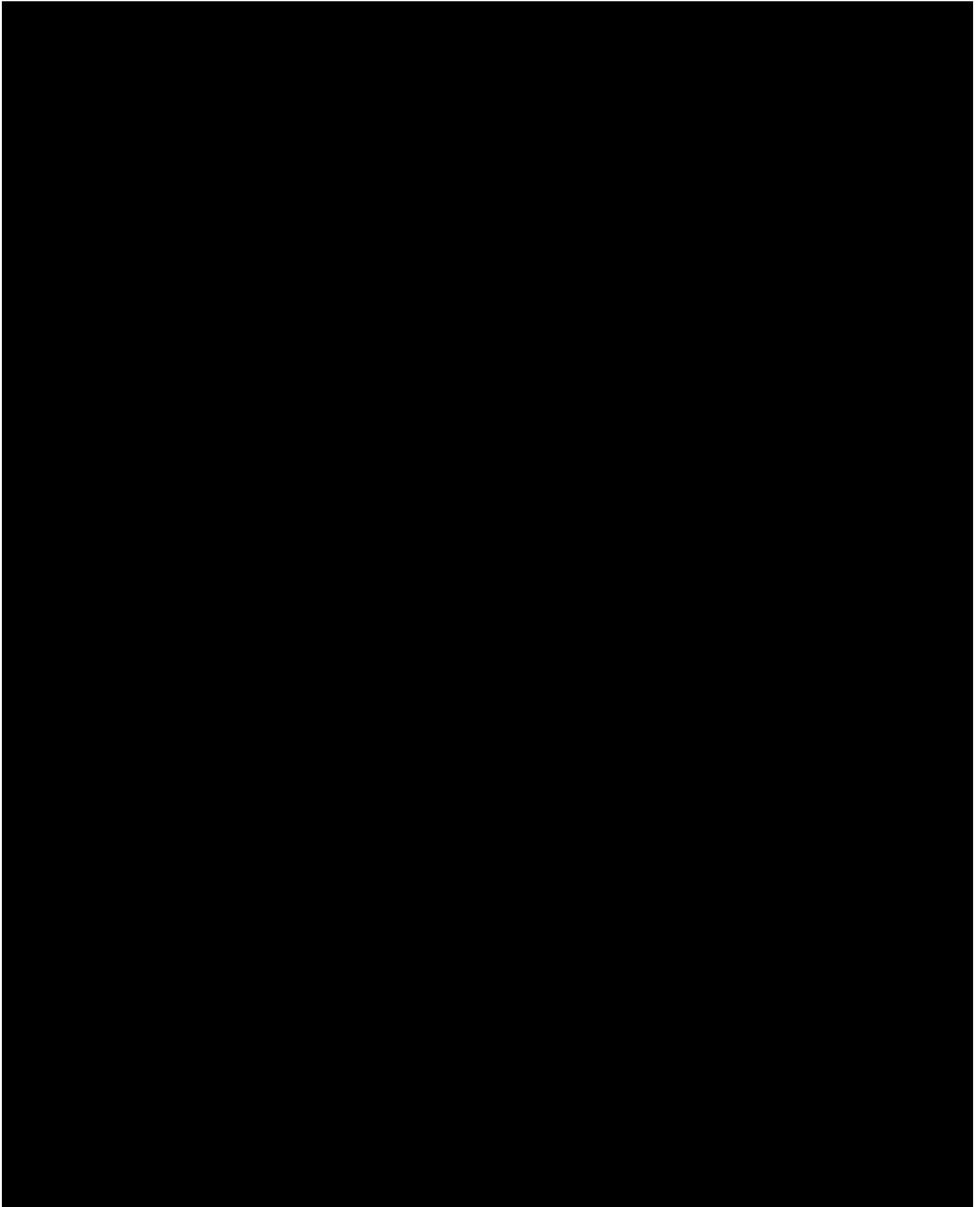
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 47 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



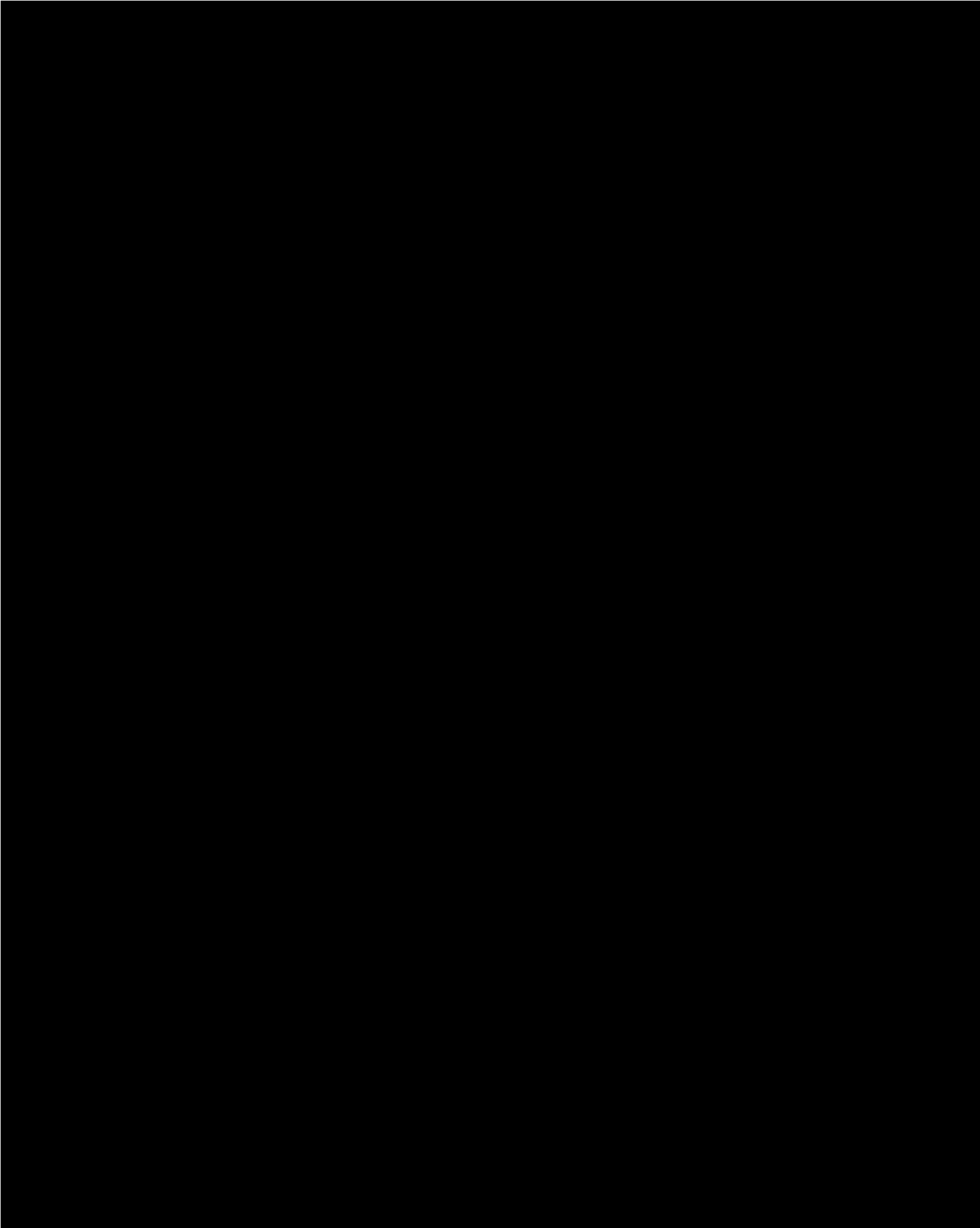
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 48 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



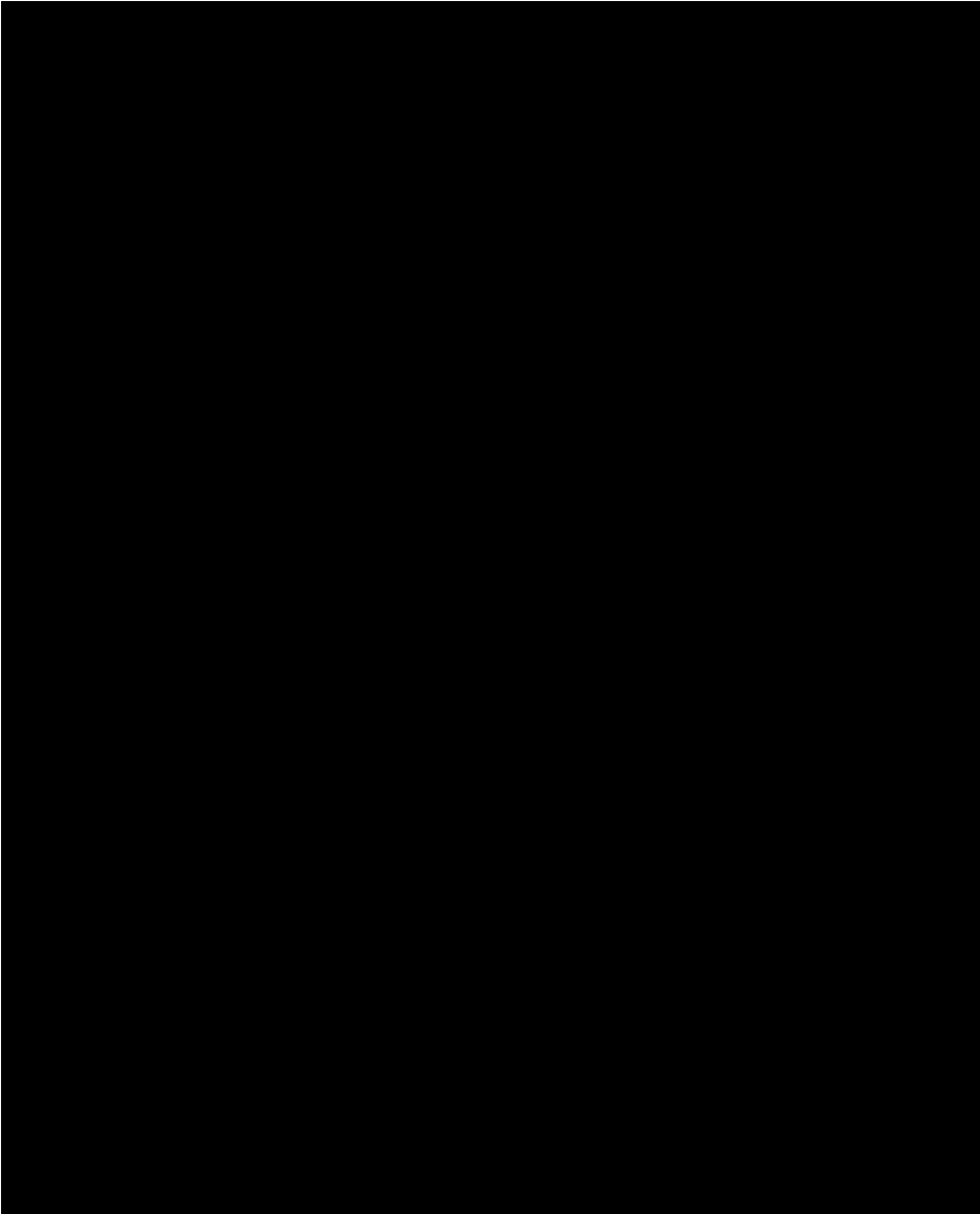
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 49 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



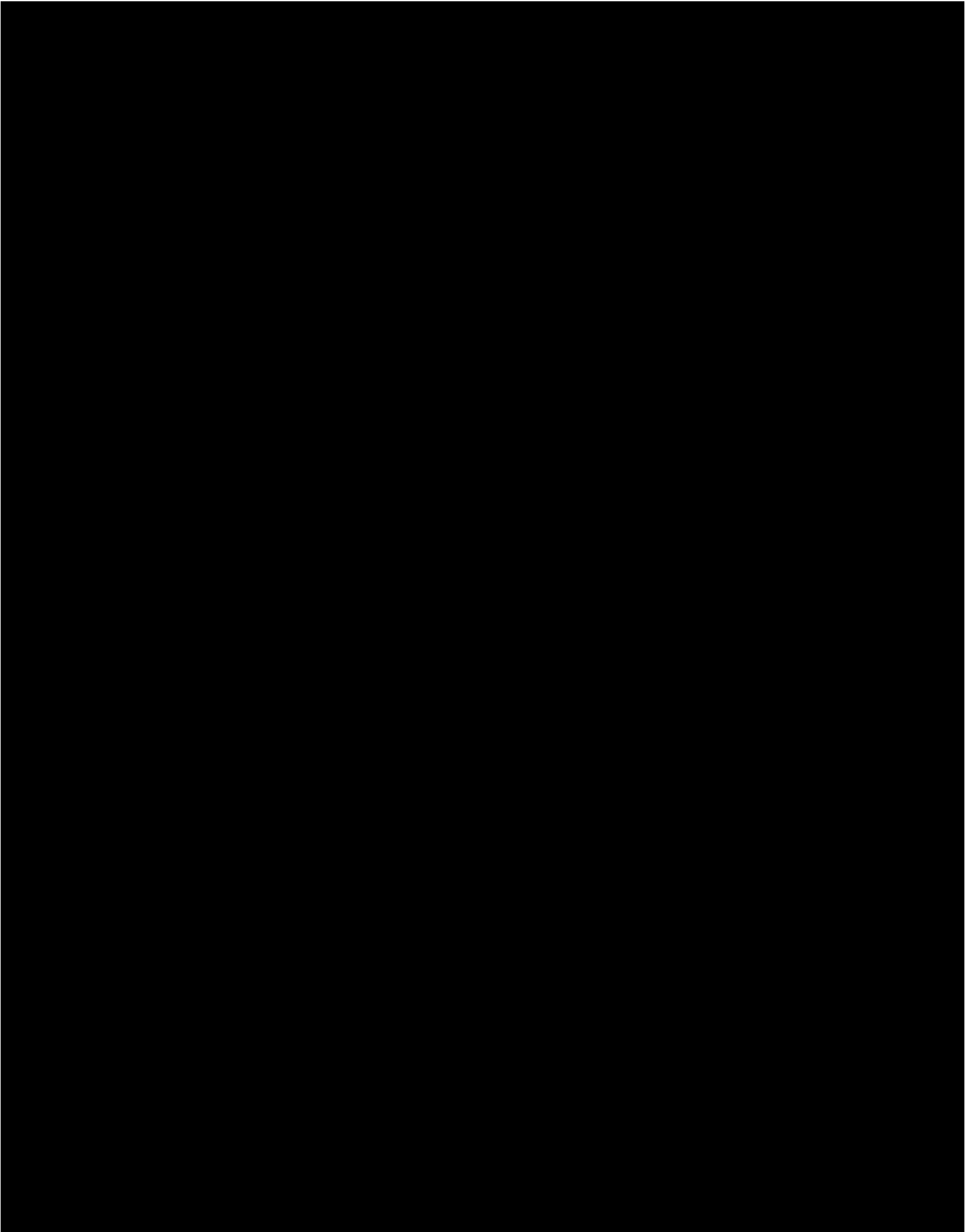
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 50 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



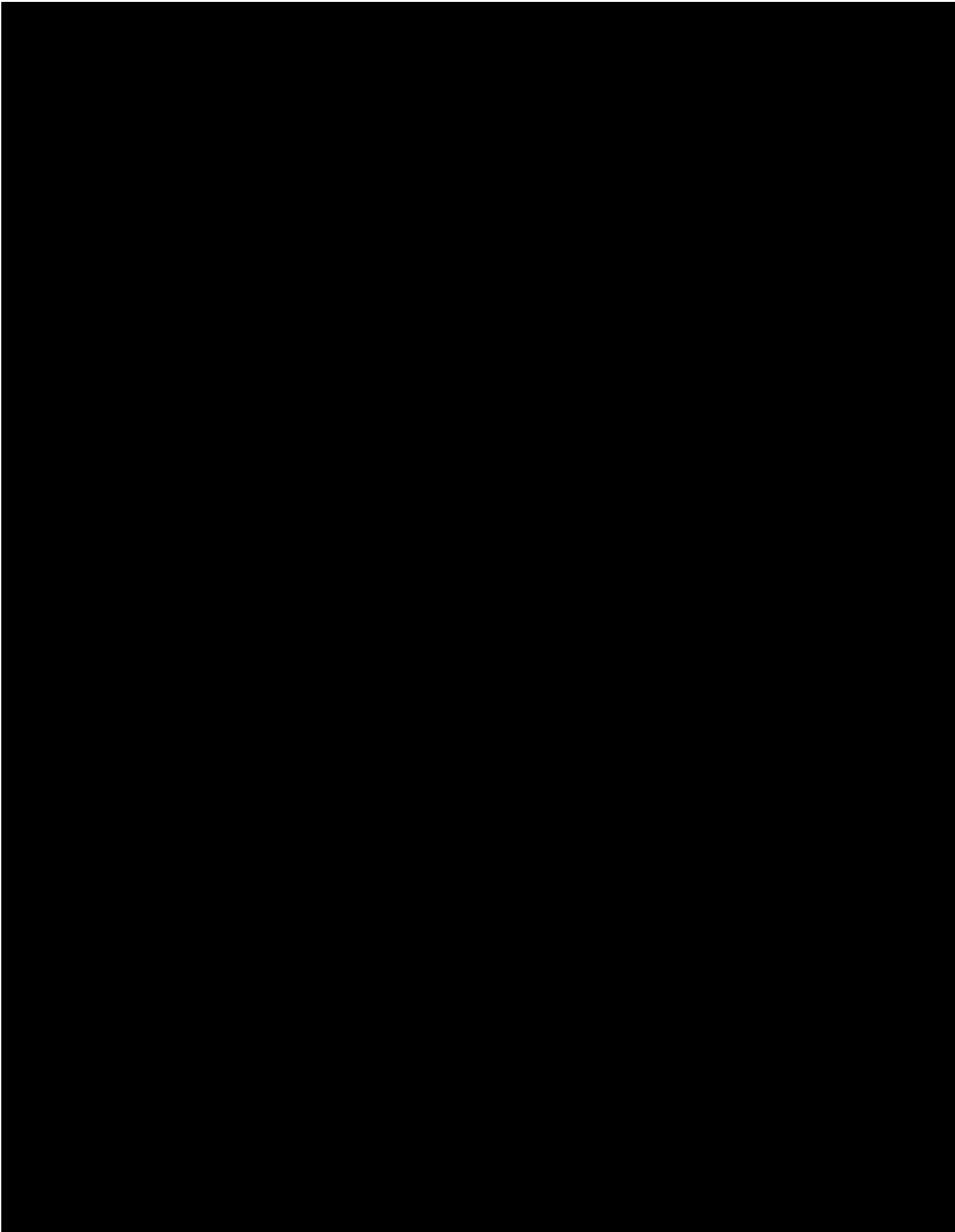
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 51 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



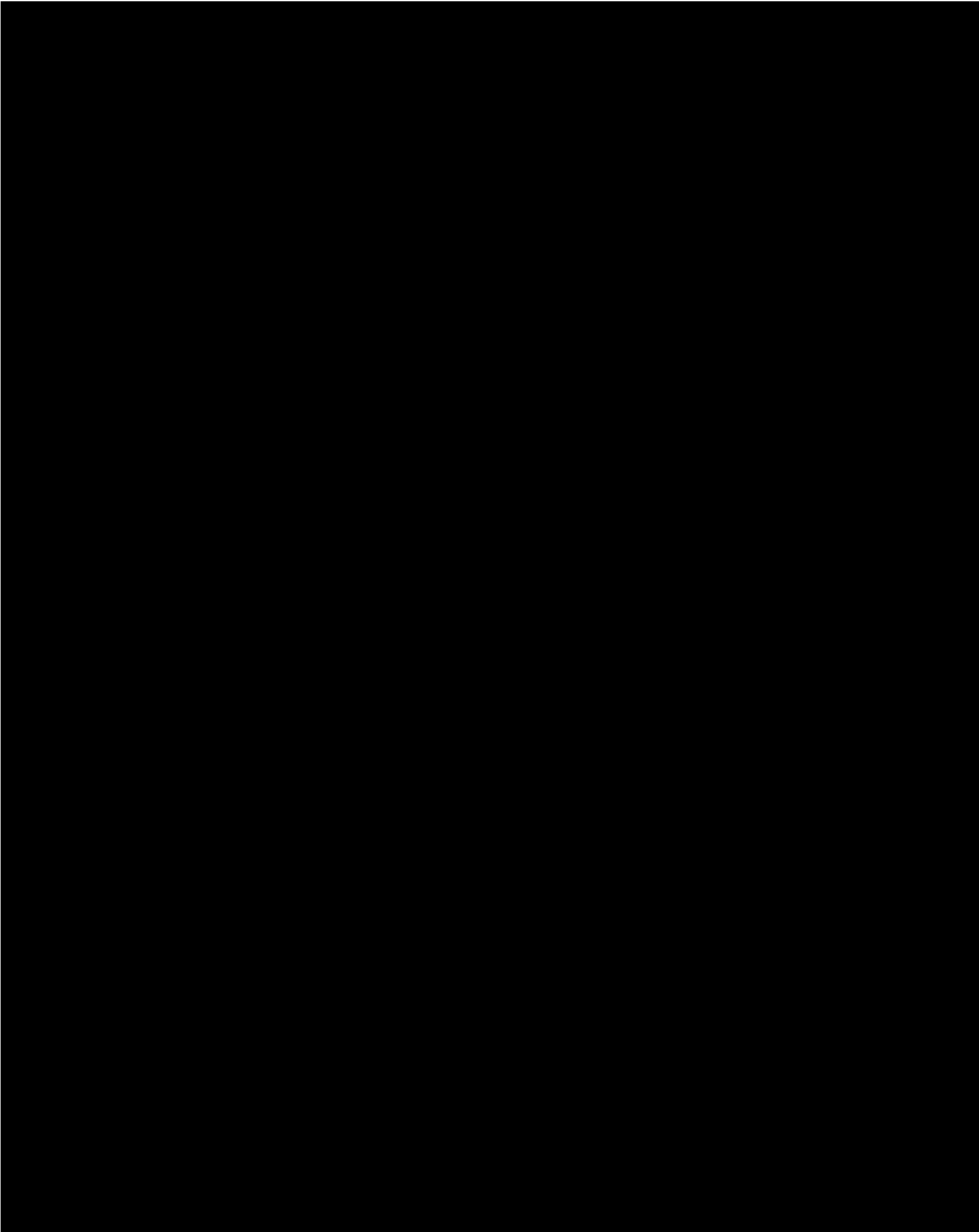
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 52 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



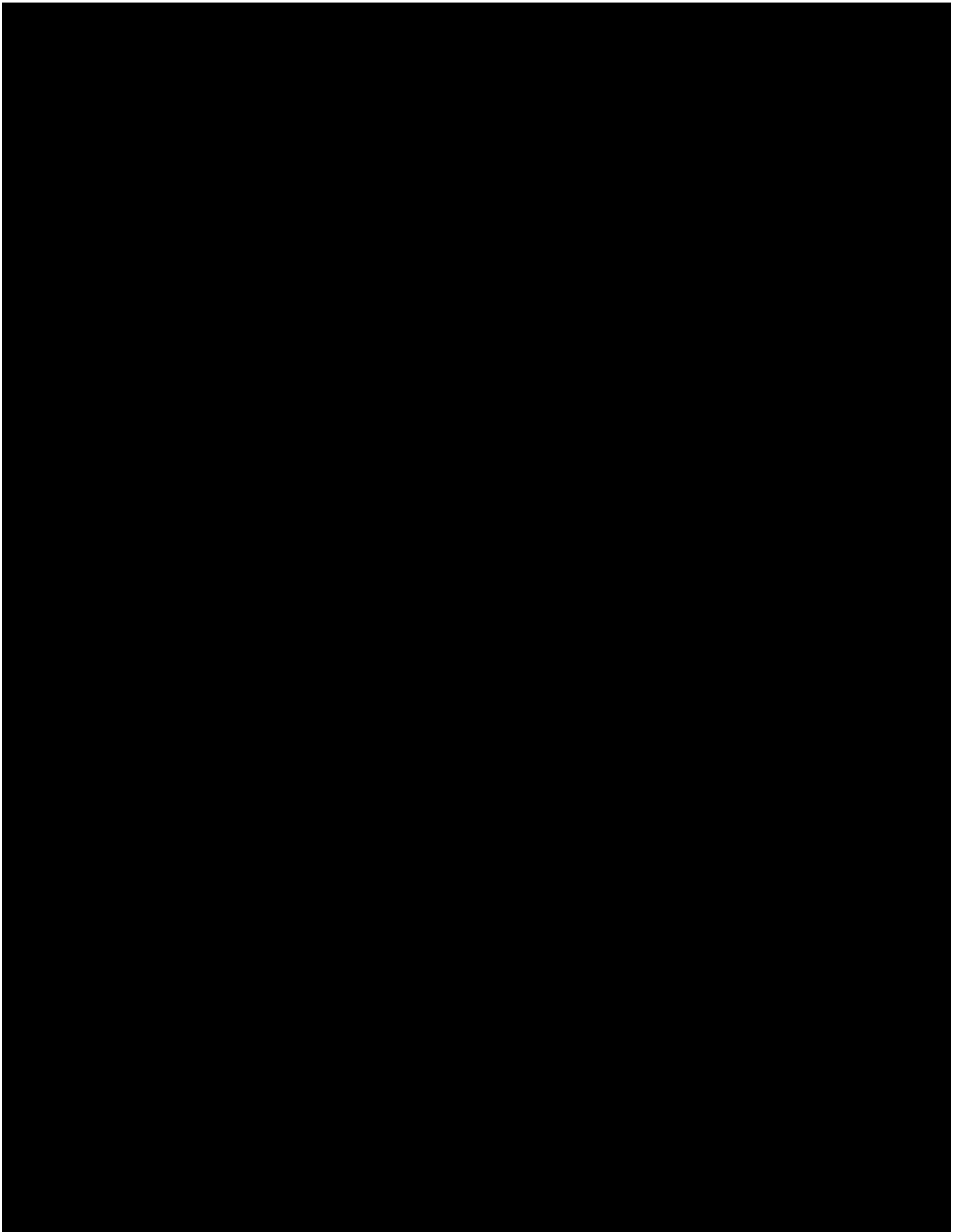
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 53 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



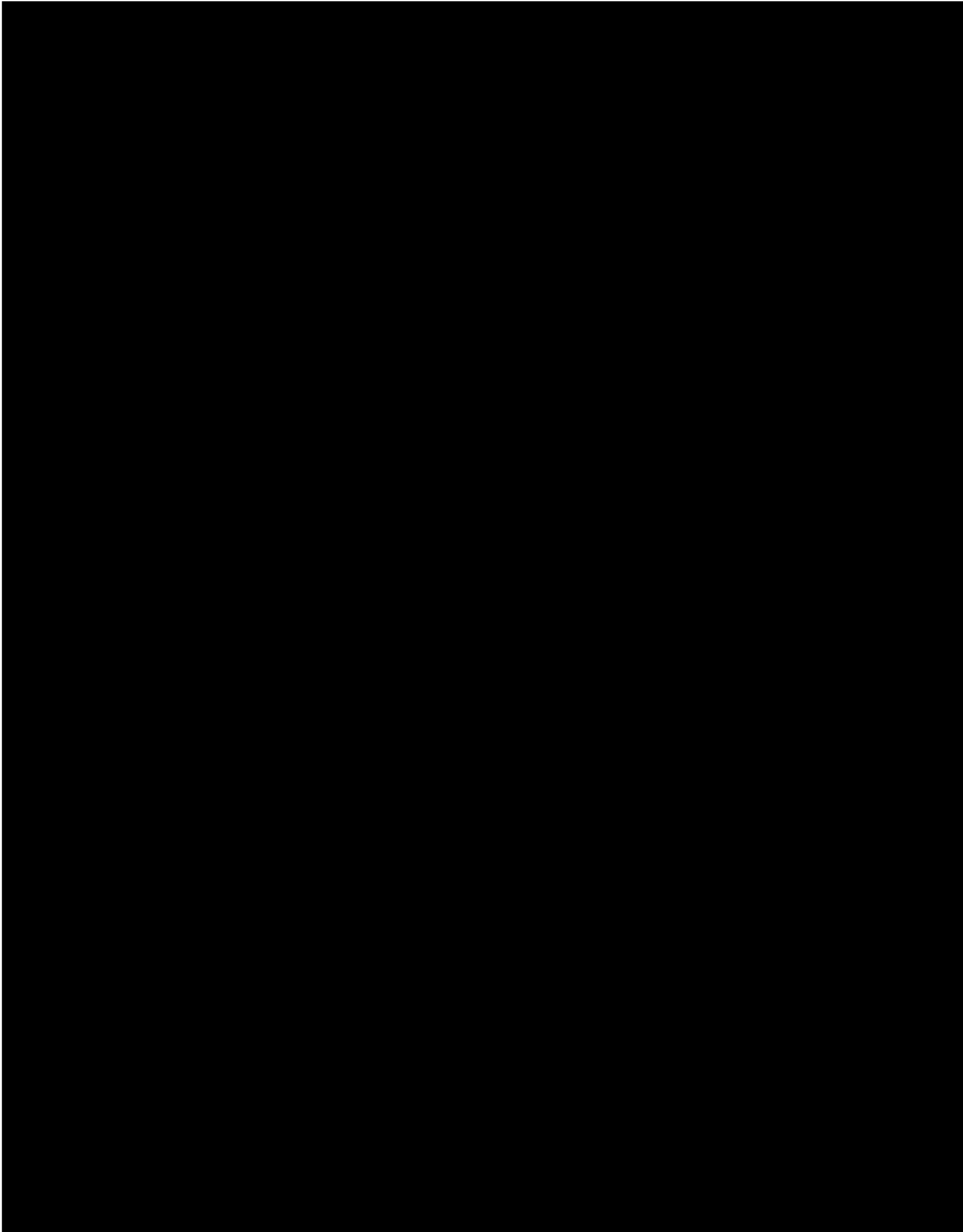
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 54 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



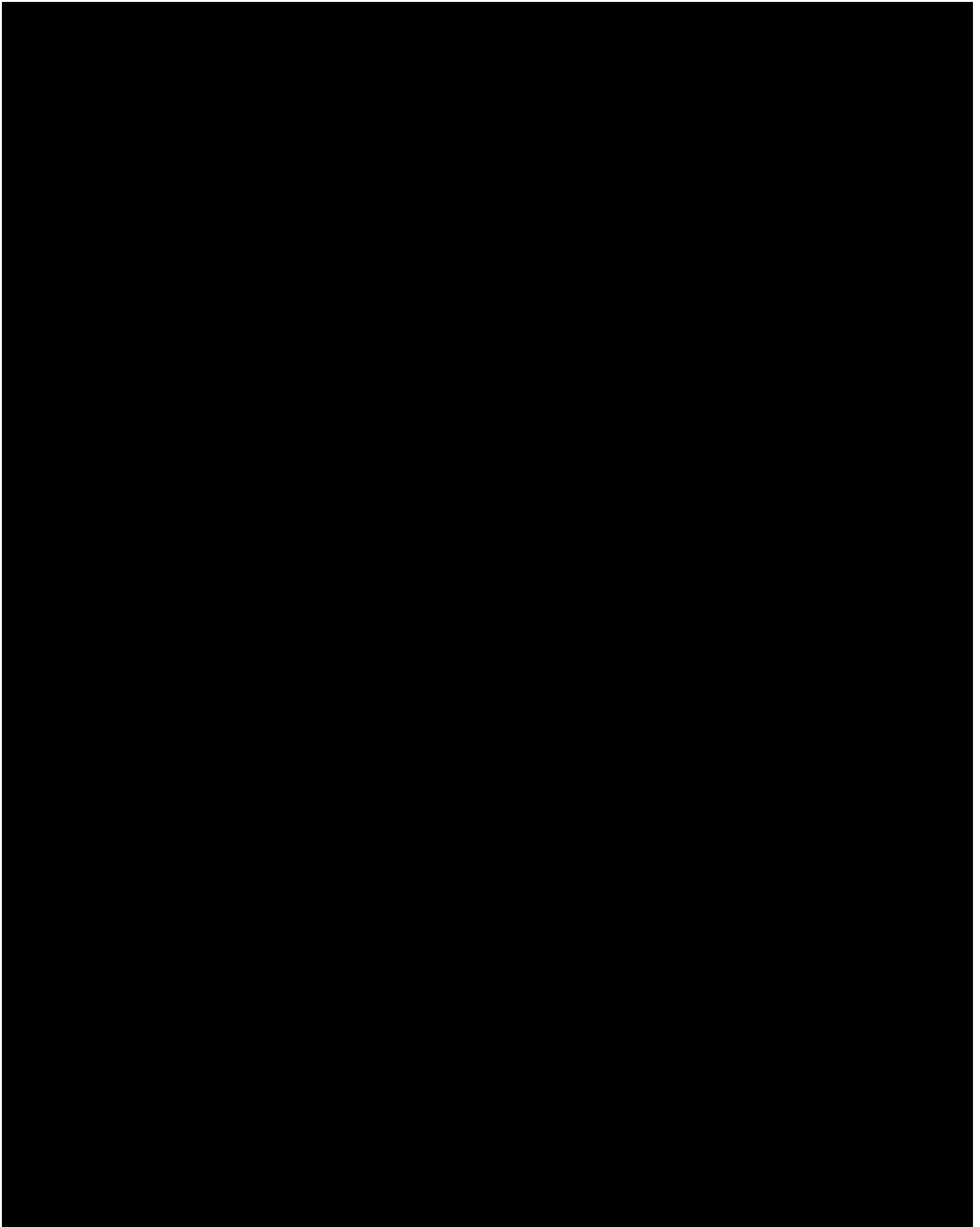
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 55 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



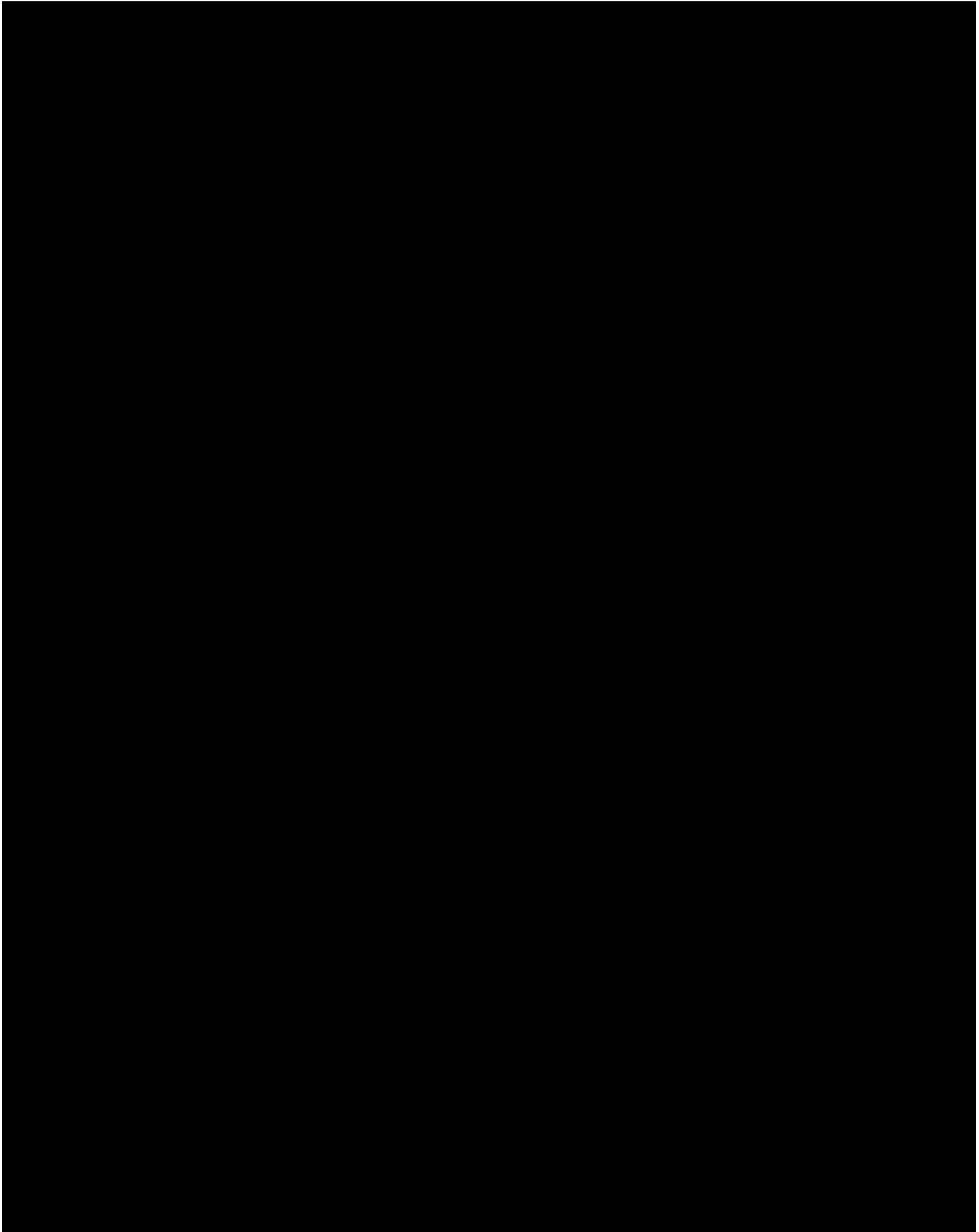
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 56 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 57 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 58 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

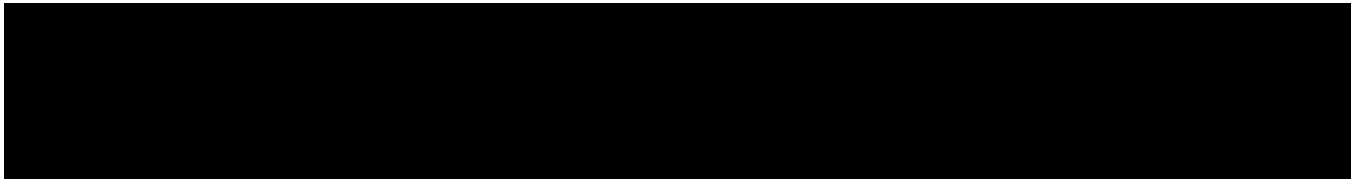


CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 59 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

SECTION H SPECIAL CONTRACT REQUIREMENTS

PD-H05 - Ombudsman Description (FEB 2016)

The Local Warfare Center Site Deputy for Small Business has been designated as the NAVSEA and related Program Executive Offices Ombudsman for this contract. The NSWCPD Ombudsman will review complaints from the contractors and ensure that all contractors are afforded a fair opportunity to be considered, consistent with the procedures in the contract. Complaints to the NSWCPD Ombudsman must be forwarded to:



PD-H04 – CONTRACTOR PERSONNEL SECURITY REQUIREMENTS (AUG 2015)

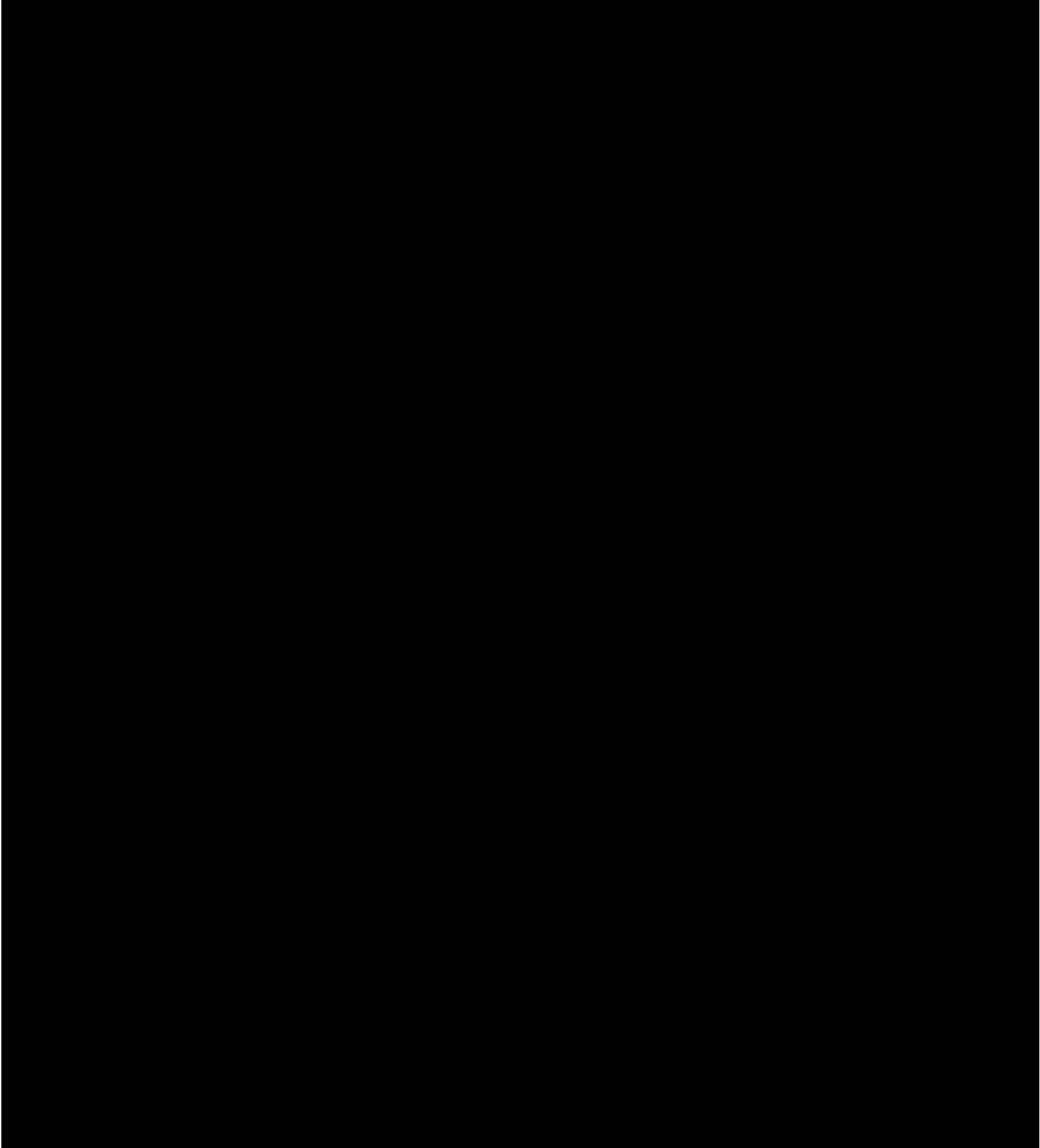
- a. In accordance with SECNAV M-5510.30 Chapters 5 and 6, all Contractor personnel that require access to Department of Navy (DON) information systems and/or work on-site are designated Non-Critical Sensitive/IT-II positions, which require an open investigation or favorable adjudicated National Agency Check (NACLC) by the Industrial Security Clearance Office (DISCO). Investigations should be completed using the SF-86 Form and the SF-87 finger print card. An interim clearance can be granted by the company Security Officer and recorded in the Joint Personnel Adjudication System (JPAS). An open or closed investigation with a favorable adjudication is required prior to issuance of a badge providing access to NSWCPD sites and buildings. If an unfavorable adjudication is determined by DISCO all access will be terminated. For Common Access Card (CAC) card you must have a completed investigation that has been favorably adjudicated or a final security clearance. A CAC Card will not be issued to contractors who have an interim security clearance.
- b. Contractor personnel that require a badge to work on-site at one of the NSWCPD sites must provide an I-9 form to verify proof of citizenship. The I-9 form should be signed by the company Facility Security Officer or the company Human Resource Department. In addition to the I-9 form, Contractors shall also bring their birth certificate, current United States Passport or naturalization certificate and state issued ID to the NSWCPD Security Officer at the time of badge request to verify citizenship. Finally, contractors shall supply a copy of their OPSEC Training Certificate or other proof that the training has been completed.
- c. Construction badges for contractor personnel that work on-site at one of the NSWCPD sites will be good for 60 days.
- d. A Facility Access Determination (FAD) will be completed on any contractor that does not have a favorable adjudicated investigation in JPAS and is requesting swipe/non-swipe access to our buildings in excess of 120 days. Any contractor that has unfavorable information that has not been favorably adjudicated by Department of Defense Central Adjudication Facility (DOD CAF) will not be issued a badge.
- e. Within 30 days after contract award, the Contractor shall submit a list of all Contractor personnel, including subcontractor employees, who will have access to DON information systems and/or work on-site at one of the NSWCPD sites to the appointed Contracting Officer Representative (COR) via email. The Contractor shall provide each employee's first name, last name, contract number, the NSWCPD technical code, work location, whether or not the employee has a CAC card and/or swipe card, the systems the employee can access (i.e., NMCI, RDT&E), and the name of the Contractor's local point of contact, phone number and email address. Throughout the period of performance of the contract, the Contractor shall immediately provide any updated information to the COR when any Contractor personnel changes occur including substitutions or departures.

SEA 5252.232-9104 ALLOTMENT OF FUNDS– ALTERNATE I (JAN 2008)

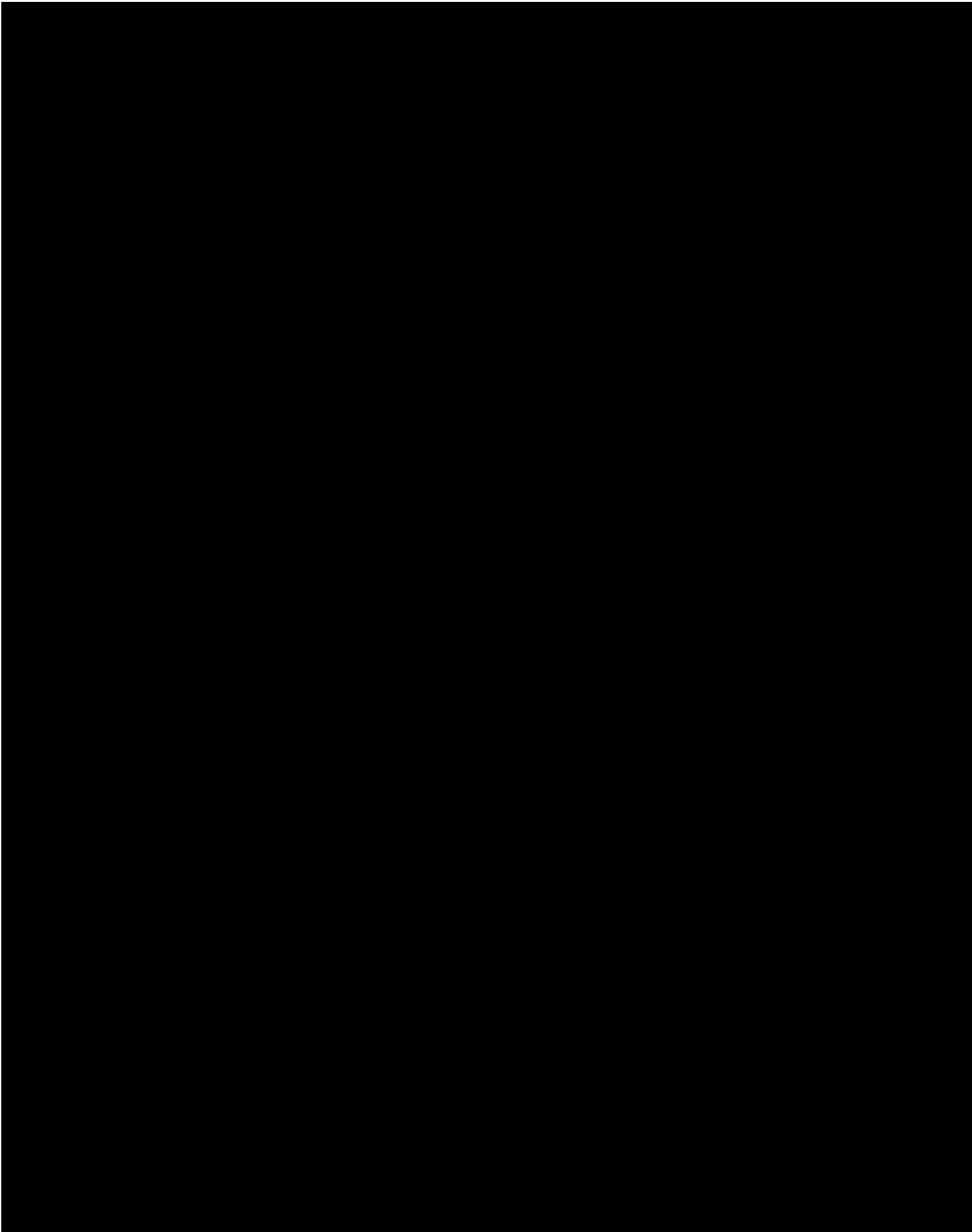
- (a) This contract is incrementally funded with respect to both cost and fee. The Amounts presently available and allotted to this contract for payment of base fee, if any, and award fee are set forth below. Base fee amount is subject to the clause entitled "FIXED FEE"(FAR 52.216-8). Award fee amount is subject to the requirements delineated in. The

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 60 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

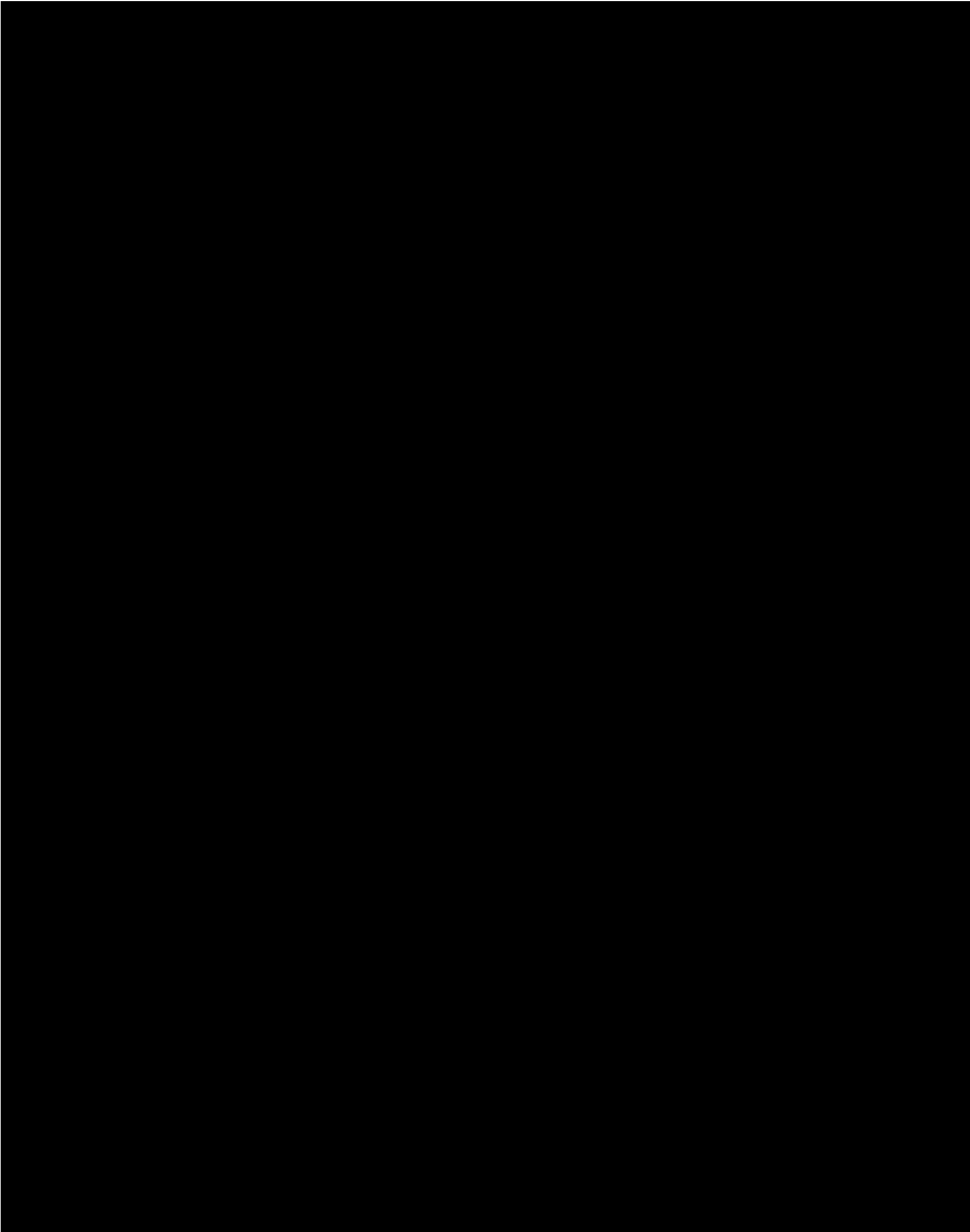
amount(s presently available and allotted to this contract for payment of cost for incrementally funded CLINs/SLINs is set forth below. As provided in the clause of this contract entitled "LIMITATION OF FUNDS" (FAR 52.232-22), the CLINs/SLINs covered thereby, and the period of performance for which it is estimated the allotted amount(s) will cover are as follows:



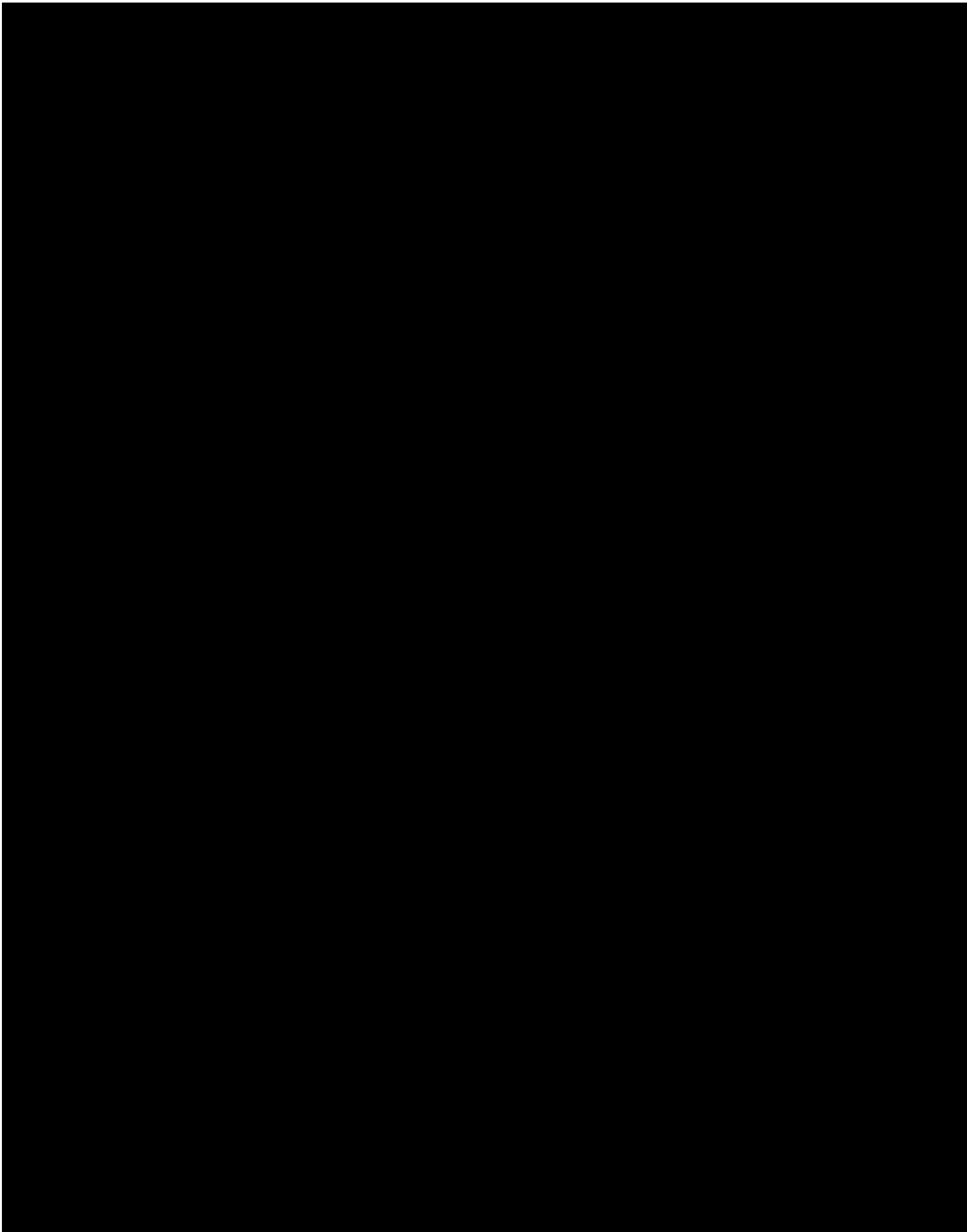
CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 61 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 62 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 63 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------



CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 64 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

5252.237-9106 SUBSTITUTION OF KEY PERSONNEL (SEP 1990)

(a) The Contractor agrees that a partial basis for award of this contract is the list of key personnel proposed. Accordingly, the Contractor agrees to assign to this contract those key persons whose resumes were submitted with the proposal necessary to fulfill the requirements of the contract. No substitution shall be made without prior notification to and concurrence of the Contracting Officer in accordance with this requirement.

(b) All proposed substitutes shall have qualifications equal to or higher than the qualifications of the person to be replaced. The Contracting Officer shall be notified in writing of any proposed substitution at least forty-five (45) days, or ninety (90) days if a security clearance is to be obtained, in advance of the proposed substitution. Such notification shall include: (1) an explanation of the circumstances necessitating the substitution; (2) a complete resume of the proposed substitute; and (3) any other information requested by the Contracting Officer to enable him/her to judge whether or not the Contractor is maintaining the same high quality of personnel that provided the partial basis for award.

5252.237-9106(A) - SUBSTITUTION OF PERSONNEL-KEY PERSONNEL LIST (PD-H05) (FEB 2016)

In accordance with "5252.237-9106 Substitution of Personnel (SEP 1990)", the list of Key Personnel for this award is as follows:

Labor Categories	Name
------------------	------

PROGRAM MANAGER (1)

SENIOR PROJECT MANAGER (1)

SENIOR PROJECT ENGINEER (2)

SENIOR MECHANICAL ENGINEER (2)

SENIOR ELECTRICAL ENGINEER (2)

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 65 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

SR. MECHANICAL ENG TECH (2)

SR. ELECTRICAL ENG TECH (2)

(End of Text)

ORGANIZATIONAL CONFLICT OF INTEREST

Clause HQ C-2-0037 "Organizational Conflict of Interest" (NAVSEA) (JUL 2000) is hereby invoked in accordance with the Basic Contract.

5252.242-9115 TECHNICAL INSTRUCTIONS (APR 2015)

(a) Performance of the work hereunder may be subject to written technical instructions signed by the Contracting Officer and the Contracting Officer's Representative specified in Section G of this contract. As used herein, technical instructions are defined to include the following:

(1) Directions to the Contractor which suggest pursuit of certain lines of inquiry, shift work emphasis, fill in details or otherwise serve to accomplish the contractual statement of work.

(2) Guidelines to the Contractor which assist in the interpretation of drawings, specifications or technical portions of work description.

(b) Technical instructions must be within the general scope of work stated in the contract. Technical instructions may not be used to: (1) assign additional work under the contract; (2) direct a change as defined in the "CHANGES" clause of this contract; (3) increase or decrease the contract price or estimated contract amount (including fee), as applicable, the level of effort, or the time required for contract performance; or (4) change any of the terms, conditions or specifications of the contract.

(c) If, in the opinion of the Contractor, any technical instruction calls for effort outside the scope of the contract or is inconsistent with this requirement, the Contractor shall notify the Contracting Officer in writing within ten (10) working days after the receipt of any such instruction. The Contractor shall not proceed with the work affected by the technical instruction unless and until the Contractor is notified by the Contracting Officer that the technical instruction is within the scope of this contract.

(d) Nothing in the foregoing paragraph shall be construed to excuse the Contractor from performing that portion of the contractual work statement which is not affected by the disputed technical instruction.

(End of Text)

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 66 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

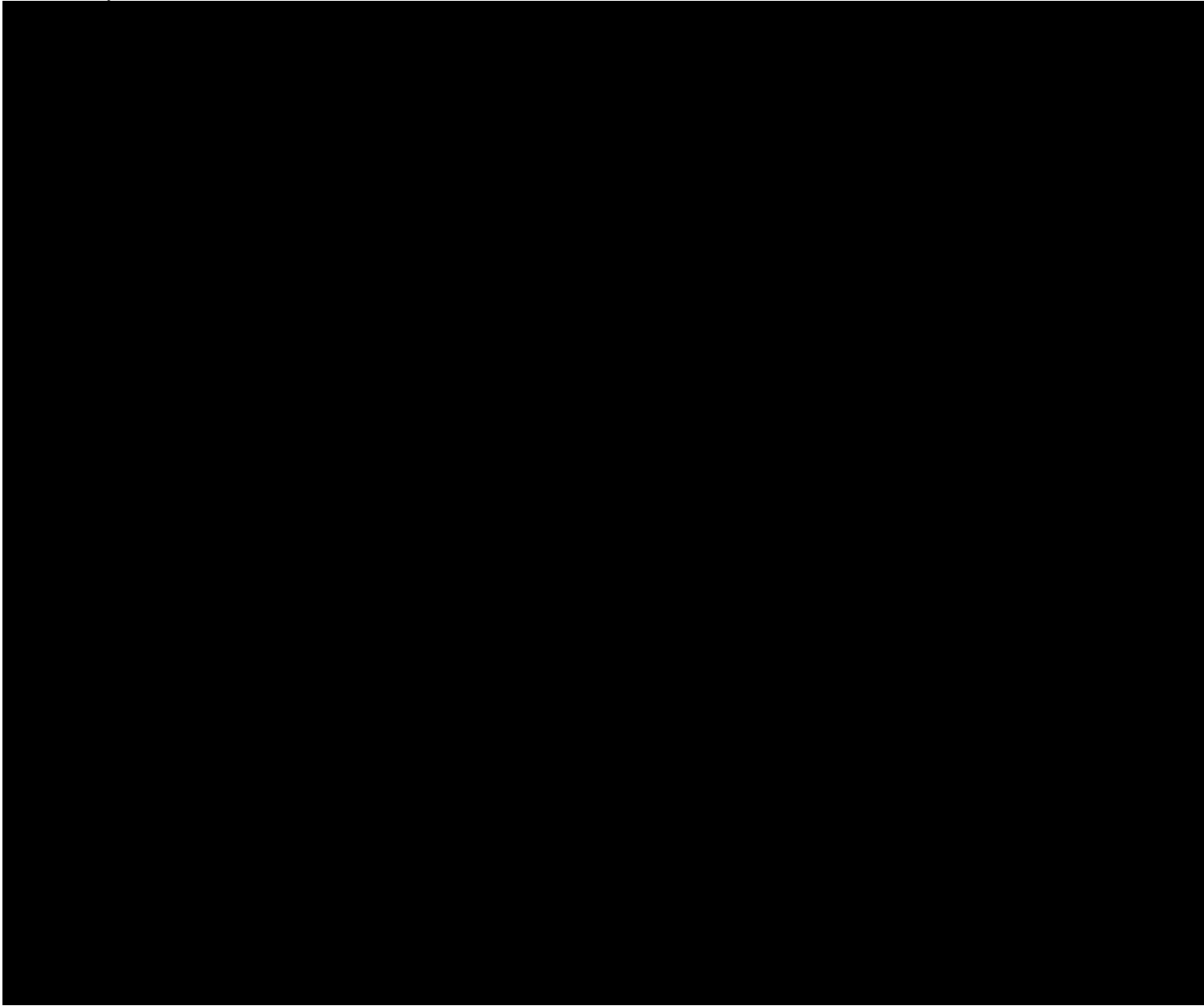
SECTION I CONTRACT CLAUSES

52.217-9 -- OPTION TO EXTEND THE TERM OF THE CONTRACT. (MAR 2008)

a) The Government may extend the term of this contract by written notice to the Contractor within 30 days prior to completion of the base period; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed five years.



252.203-7994 PROHIBITION ON CONTRACTING WITH ENTITIES THAT REQUIRE CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS—REPRESENTATION (DEVIATION 2017-O0001)(NOV 2016)

(a) In accordance with Continuing Appropriations Act, 2017 (Pub. L. 114-223), or any other Act that extends

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 67 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

to fiscal year 2017 funds the same prohibitions as contained in section 743, division E, title VII, of the Consolidated Appropriations Act, 2016 (Pub. L. 114-113), none of the funds appropriated (or otherwise made available) by this or any other Act may be used for a contract with an entity that requires employees or subcontractors of such entity seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or contactors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(b) The prohibition in paragraph (a) of this provision does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

(c) *Representation.* By submission of its offer, the Offeror represents that it does not require employees or subcontractors of such entity seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or contactors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(End of provision)

252.203-7995 PROHIBITION ON CONTRACTING WITH ENTITIES THAT REQUIRE CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS (DEVIATION 2017-O0001)(NOV 2016)

(a) The Contractor shall not require employees or subcontractors seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or contactors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(b) The Contractor shall notify employees that the prohibitions and restrictions of any internal confidentiality agreements covered by this clause are no longer in effect.

(c) The prohibition in paragraph (a) of this clause does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

(d)(1) Use of funds appropriated (or otherwise made available) by the Continuing Appropriations Act, 2017 (Pub. L. 114-223), or any other Act that extends to fiscal year 2017 funds the same prohibitions as contained in section 743, division E, title VII, of the Consolidated Appropriations Act, 2016 (Pub. L. 114-113) may be prohibited, if the Government determines that the Contractor is not in compliance with the provisions of this clause.

(2) The Government may seek any available remedies in the event the Contractor fails to perform in accordance with the terms and conditions of the contract as a result of Government action under this clause.

(End of clause)

52.244-2 Subcontracts (Oct 2010)

(a) *Definitions.* As used in this clause—

“Approved purchasing system” means a Contractor’s purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR)

“Consent to subcontract” means the Contracting Officer’s written consent for the Contractor to enter into a

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 68 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

particular subcontract.

“Subcontract” means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) of this clause.

(c) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that-

(d) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer’s written consent before placing the following subcontracts:

CONTRACTS WITH ANY FIRM NOT INCLUDED WITH THE PROPOSAL FOR THE PERFORMANCE OF SERVICES

(e)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (b), (c), or (d) of this clause, including the following information:

(f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor’s purchasing system shall constitute a determination -

- (1) Of the acceptability of any subcontract terms or conditions;
- (2) Of the allowability of any cost under this contract; or
- (3) To relieve the Contractor of any responsibility for performing this contract.

(g) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(h) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(i) The Government reserves the right to review the Contractor’s purchasing system as set forth in FAR Subpart 44.3.

(j) Paragraphs (c) and (e) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

ALL SUBCONTRACT AND TEAMING AGREEMENTS SUBMITTED WITH THE PROPOSAL

Clauses Included by Reference

52.204-2 - Security Requirements

52.209-10 - Prohibition on Contracting with Inverted Domestic Corporations (Dec 2014).

52.222-50 - Combatting Trafficking in Persons (Mar 2015).

52.237-2 - Protection of Government Buildings Equipment, and Vegetation (APR 1984)

52.247-63 - Preference for Privately Owned U.S. Flag Commercial Vessels (FEB 2006)

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 69 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

252.203-7003 - Agency Office of the Inspector General (DEC 2012)

252.204-7000 - Disclosure of Information (AUG 2013)

252.204-7005 - Oral Attestation of Security Responsibilities (NOV 2001)

252.204-7008 - Compliance with Safeguarding Covered Defense Information Controls (DEC 2015)

252.204-7012 -- Safeguarding Covered Defense Information and Cyber Incident Reporting (DEC 2015)

252.227-7025 -Limitations on the Use or Disclosure of Government-Furnished Information Marked With Restrictive Legends (MAY 2013)

CONTRACT NO. N00178-04-D-4078	DELIVERY ORDER NO. N6449817F3000	AMENDMENT/MODIFICATION NO. P00024	PAGE 70 of 70	FINAL
----------------------------------	-------------------------------------	--------------------------------------	------------------	-------

SECTION J LIST OF ATTACHMENTS

Attachment 1 - Cost Summary Report

Attachment 2 - Direct Labor Rate Substantiation Table

Attachment 3 - Seaport Standard Ratings Definitions

Attachment 4 - Burn Rate Analysis Report

Attachment 5 - Incurred Cost Report

Exhibit A - DD 1423 Contract Data Requirements List