

Santa Cruz County

Boys and Girls Club Improvements

Bid No. **B-02-20-CO02**

Community Development Block Grant
Contract No. 121-20



Release Date and Time: Friday, July 24, 2020, 9:00 A.M. Arizona
Time (MST)

Bid packets may be obtained at:

<https://www.santacruzcountyaz.gov/286/Bids-Solicitations>

bids due no later than
2 pm MST on Thursday, August 20, 2020



IMPORTANT DATES
(Dates may be subject to change. All times are in Arizona Time.)

ACTIVITY	DATE/TIME
Bid Packet Release/Advertisement	Friday, July 24, 2020 at 9:00 a.m.
MANDATORY Pre-Bid Meeting	Friday, August 7, 2020 at 9:00 a.m.
Deadline to Submit Questions on Bid Packet	Wednesday, August 12, 2020 at 3 p.m.
Deadline to Submit Bids	Thursday, August 20, 2020 at 2:00 p.m.
Award Recommendation to County Board of Supervisors	TBD

TABLE OF CONTENTS

NOTICE TO BIDDERS

INVITATION TO BID

INSTRUCTIONS TO BIDDERS

TERMS AND CONDITIONS

GENERAL SPECIFICATIONS

LIST OF EXHIBITS

EXHIBIT 1 DOCUMENTS TO BE SUBMITTED WITH BID

EXHIBIT 2 BID EXCEPTIONS / DEVIATIONS INFORMATION

EXHIBIT 3 BID FORM

EXHIBIT 4 LIST OF SUB-CONTRACTORS / MATERIAL SUPPLIERS

EXHIBIT 5 NON-COLLUSION AFFIDAVIT

EXHIBIT 6 WORKER'S COMPENSATION INSURANCE COVERAGE CERTIFICATION

EXHIBIT 7 INSURANCE COVERAGE CERTIFICATION

EXHIBIT 8 PROPOSAL SECURITY BOND CERTIFICATION

EXHIBIT 9 STATUTORY PAYMENT BOND

EXHIBIT 10 STATUTORY PERFORMANCE BOND

~~EXHIBIT 11 DISCLAIMER AND RELEASE OF AUTOCAD DRAWINGS~~

EXHIBIT 12 NOTICE OF INTENT TO AWARD CONTRACT ("NOTICE")

EXHIBIT 13 NOTICE OF AWARD OF CONTRACT (“NOTICE”)

EXHIBIT 14 NOTICE OF NON-AWARD OF CONTRACT

EXHIBIT 15 NOTICE TO PROCEED

EXHIBIT 16 APPLICATION FOR PAYMENT

EXHIBIT 17 CHANGE ORDER

EXHIBIT 18 CERTIFICATE OF COMPLETION

EXHIBIT 19 CERTIFICATE OF SUBSTANTIAL COMPLETION

EXHIBIT 20 CONTRACT

EXHIBIT 21 ADDENDA

EXHIBIT 22 SECTIONS A - D

NOTICE TO BIDDERS

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENTS
BID NUMBER: B-02-20-CO02
CDBG # 121-20

Notice is hereby given that the Office of the Clerk of the Santa Cruz County Board of Supervisors (“Clerk”) is requesting bids pursuant to an Invitation for Bids (IFB) on the following federally funded project:

BOYS AND GIRLS CLUB
IMPROVEMENTS

WHERE TO OBTAIN IFB PACKET:

You may obtain an IFB packet at the following website:

<https://www.santacruzCountyaz.gov/286/Bids-Solicitations>

MANDATORY PRE-BID MEETING:

A **MANDATORY Pre-Bid Meeting** will held on **Friday, August 7, 2020 AT 9:00 A.M.** (**ARIZONA TIME**) at the Boys & Girls Club at 590 North Tyler Avenue, Nogales, Arizona. Face coverings are required and social distancing will be maintained.

BID LABELING INSTRUCTIONS:

Bidders must label their bids on the outside of the package as follows:

CONSTRUCTION BID
BOYS AND GIRLS CLUB
IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

WHERE TO SUBMIT BID:

Bidders must submit **A THUMB DRIVE CONTAINING THE ENTIRE BID plus ONE (1) ORIGINAL AND ONE (1) COPY** of the bid to the following person and address:

Attention: Tara Hampton, Clerk Santa
Cruz County Board of Supervisors Santa
Cruz County Complex
2150 North Congress Drive, Suite 119
Nogales, Arizona 85621

Bidders are responsible for the submission of their bids and should direct their couriers or package delivery companies (e.g., UPS, FedEx, etc.) to deliver bids to the Clerk of the Santa Cruz County Board of Supervisors (“Clerk”). Bidders are responsible for ensuring their bids are received by the Clerk on or before the Bid Submittal Deadline. No oral, telegraphic, electronic, facsimile, or telephonic bids or modifications will be considered unless specified in the solicitation document. Bids that are mailed to an incorrect address or received after the Bid Submittal Deadline will be returned unopened to the sender and will not be considered for an award of contract. The governing time for the Bid Submittal Deadline is Arizona Time.

DEADLINE TO SUBMIT BID:

Bids must be submitted on or before **Thursday, August 20, 2020 BY 2:00 P.M. (ARIZONA TIME)** and they will be publicly opened and read shortly thereafter.

DEADLINE TO SUBMIT QUESTIONS ON IFB:

Any questions about this IFB must be e-mailed on or before **Wednesday, August 12, 2020 at 3 p.m. (ARIZONA TIME)** to the following person:

Mary Dahl, Special Projects
mdahl@santacruzcountyaz.gov

It is the sole responsibility of the bidder to comply with any and all addenda issued during this IFB action. Small business enterprises and disadvantaged business firms are encouraged to participate.

Mary Dahl, Special Projects
Santa Cruz County

Published: *Nogales International* Newspaper on July 24 & 31, 2020.

INVITATION TO BID¹

SANTA CRUZ COUNTY BOYS AND GIRLS CLUB IMPROVEMENTS B-02-20-CO02 CDBG #121-20

The County of Santa Cruz, hereinafter referred to as County, through a Community Development Block Grant (CDBG) from the State of Arizona Department of Housing (ADOH) will accept bids from qualified firms or individuals with the appropriate license as registered with the Arizona Registrar of Contractors to perform the following services:

Project Description

The successful bidder will perform building improvements and heating/cooling system upgrades to the Boys and Girls Club at 590 N. Tyler Avenue in Nogales, Arizona. Work to be performed includes:

Work Item	Specification
1. Roof Strengthening	Per plans by Broderick Engineering, LLC dated May 20, 2020 (See Exhibit 22, Section D)
2. Installation of fire rated Drop Ceiling	Approximately 6,500 square feet; finished ceiling to approximately 9 feet 2 inches in all spaces (Game Room, Discovery Zone, Tech Center & Teen Room)
3. Installation of New Lighting and relocation of existing emergency, exit signs and other electrical fixtures as necessary	2x4 LED lights in Game Room, Discovery Zone, Tech Center & Teen Room; includes removal and disposal of existing lights Tie to existing 120 volt circuit; work per NEC
4. Installation of Insulation above the new ceilings	12-inch unfaced R38 batts either wired to underside of roof deck where there are metal trusses or inside 2x12 framing secured with wire and nails otherwise
5. Installing new HVAC Systems for each room (Game Room, Discovery Zone, Tech Center and Teen Room) including, as necessary home run circuits for complete and operational systems; prefer natural gas-electric package systems	Contractor to size each unit; demolition and removal of five ceiling-mounted heaters and seven roof-mounted evaporative coolers; cap and seal jacks as applicable; install duct work to ceiling height

Objective/Scope of Work

The contractor shall furnish all materials, labor, equipment, services, transportation and perform all the work for the County's project known as Boys and Girls Club Improvement Project for County of Santa Cruz, Arizona as called for in the plans/specifications and this Invitation. The proposer should prepare a detailed time schedule for completion. The successful proposer will be required to lend all possible assistance in the preparation, investigation and documentation necessary for compliance with all applicable federal Labor Standards/Davis-Bacon and other requirements of ADOH. The successful proposer should be prepared to comply with all local, state and federal safety and environmental requirements. The project shall be accomplished in accordance with all federal program and state statutory requirements to include 2 CFR 200, Executive Orders and the Arizona Administrative Code.

Bids

¹ For purposes of this IFB only, the terms "bidder(s)" and "contractor(s)" have the same meaning.

To be considered, *one (1) original and one (1) copy* of the Bid plus a thumb drive containing the entire bid must be provided and in accordance with the Instructions to Bidders included in the bid package.

Sealed bids will be received in the office of the Clerk of the Board, Santa Cruz County, located at 2150 N. Congress Drive Room 119, Nogales, AZ 85621, until 2 p.m. on Thursday, August 20, 2020 at which time all bids received will be opened and the amount of the total bid read aloud. Failure of the proposer to complete all of the bid documents may result in rejection of the Bid. All bids shall be identified as:

“CONSTRUCTION BID
BOYS AND GIRLS CLUB
IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20”

Copies of the contract documents in electronic format may be obtained on the Santa Cruz County website (<https://www.santacruzcountyaz.gov/286/Bids-Solicitations>). Bidders are responsible for monitoring the website referenced above for notifications of changes and addenda related to this project.

For correspondence, questions and/or clarifications of the bidding procedure and clarifications; correspondence and/or questions concerning the plans or specs, please contact Mary Dahl at mdahl@santacruzcountyaz.gov or 520-375-7681.

A bid security in the form of a certified check, cashier's check or bid bond in the amount of ten percent (10%) of the bid shall accompany each Bid. Bonding companies issuing acceptable bonds in conjunction with this project must hold a certification of authority to transact surety business in Arizona as issued by the Director of the Department of Insurance. All bid security shall be made payable, without condition, to Santa Cruz County. Said bid security shall be considered liquidated damages and shall be forfeited to the County in the event the Bid is accepted and the successful bidder fails to execute the contract and furnish the required bonds within ten (10) working days after the notice of bid award.

The County will conduct a MANDATORY pre-bid conference and site inspection on Friday, August 7, 2020, beginning at 9:00 a.m M.S.T. at the Boys and Girls Club, 590 Tyler Avenue in Nogales. Individuals with special accessibility needs, may contact Vicki Barden, Executive Director, Boys & Girls Club at 520-287-3733 at least seventy-two (72) hours prior to the meeting. Face coverings are required and social distancing will be maintained.

The project shall be accomplished in accordance with all federal program and state statutory requirements to include Executive Orders, Administrative Rules and Regulations.

If information of a material matter is provided in response to any correspondence or question or if a clarification is issued by the County, a copy of the question and answer will be posted on the County website referenced above. This response shall serve as an addendum to the advertised call for bids.

The County of Santa Cruz reserves the right to accept the lowest, responsible bid; to consider alternatives; to reject any or all bids; and to waive irregularities or information in any bid. Bids received after the specified time of closing will be returned unopened. The County also reserves the right to hold any or all bids for a period of thirty (30) days after the date of opening. Bidders will not be allowed to withdraw submitted bids during the thirty (30) day period.

Santa Cruz County is an Affirmative Action/Equal Opportunity Employer.

INSTRUCTIONS TO BIDDERS

**CONSTRUCTION BID
BOYS AND GIRLS CLUB
IMPROVEMENT PROJECT BID
NUMBER: B-02-20-CO02
CDBG #121-20**

INTRODUCTION

Santa Cruz County is soliciting sealed bids for a Community Development Block Grant building improvement project for the Boys and Girls Club of Santa Cruz County (CDBG #121-20).

ACCEPTANCE PERIOD

Unless otherwise specified herein, bids must remain open and firm for a period of **FORTY-FIVE (45) DAYS** from the date of bid opening for inspection purposes.

ACCESSIBILITY

The Bidders must fully inform themselves regarding any peculiarities and limitations of the workspaces available for the performance of work under this contract. Bidders must exercise due and particular caution to determine that all parts of the work are made quickly and easily accessible.

ADDENDA ACKNOWLEDGMENT

Each bid must include specific acknowledgment in the space provided of the receipt of all addenda issued during the bidding period. Failure to so acknowledge may result in the bid being rejected as nonresponsive.

AFFIDAVIT OF NON-COLLUSION

Arizona Revised Statutes (A.R.S.) § 34-253 requires an "Affidavit of Non-Collusion" from each bidder. A Bidder who fails to provide this affidavit to the County shall have its bid disqualified. The form for the affidavit is provided in this solicitation. The affidavit must be signed before a Notary Public to be considered valid.

AGREEMENT

Submission of a signed bid will be interpreted to mean that Bidder has agreed to all the terms and conditions of this solicitation. Bidder's signed bid and the County's written acceptance of the bid and/or purchase order will constitute a contract.

AUTHORIZED SIGNATURES

Every bid must be signed by the person or persons legally authorized to bind the Bidder to a contract for the execution of the work. Upon request of the County, any agent submitting a bid on behalf of a Bidder must provide a current power of attorney certifying the agent's authority to bind the Bidder.

1. **Individuals.** If an individual makes the bid, his or her name, signature, and mailing address must be shown.
2. **Firms and Partnerships.** If a firm or partnership makes the bid, the name and mailing address of the firm or partnership and the signature of at least one of the general partners must be shown.
3. **Corporations.** If a corporation makes the bid, the bid must show the name of the state under the laws of which the corporation is chartered, the name and mailing address of the corporation, and the title of the person signing on behalf of the corporation. Upon request by the County, the corporation must provide a certified copy of the bylaws or resolution of the board of directors showing the authority of the officer signing the bid to execute contracts on behalf of the corporation.

AWARD OF CONTRACT

1. **Supplies, Materials, Equipment, And Contractual Services (Other Than Professional Services) Not Subject to A.R.S. Title 34, Chapter 2:** A contract will be awarded to the lowest responsible bidder whose bid conforms to the Invitation for Bids (IFB) and is most advantageous to the County in terms of price, conformity to the specifications, and other factors.
2. **Services Subject To ARS Title 34, Chapter 2:** A contract will be awarded to the lowest responsible bidder.

BID FORM

Bids must be submitted on the County's bid forms or else they will be rejected.

BID OPENING AND BID RESULTS

Bids are opened publicly in the office of the Clerk and interested parties are invited to attend. A tabulation of bids received will be available within a reasonable time after the bid opening. Bid results will be provided to interested parties upon request. You may request a tabulation of bids by calling or emailing Mary Dahl – mdahl@santacruzcountyaz.gov, 520-375-7681.

BID SUBMITTAL

Bidders must submit **ONE (1) ORIGINAL AND ONE (1) COPIES** of their bid and a thumb drive containing the complete bid to the following address:

Attention: Tara Hampton, Clerk Santa Cruz
County Board of Supervisors Santa Cruz
County Complex
2150 North Congress Drive, Suite 119
Nogales, Arizona 85621

1. Mailing/Delivery Requirements

Bids must be submitted in a sealed envelope bearing the name of the Bidder, mailing address, phone number, as well as the project name, type of construction, and bid number

(BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 – CDBG #121-20) in accordance with the instructions provided in the foregoing “Notice To Bidders.” No oral, electronic, telegraphic, or telephonic bids will be considered unless otherwise specified herein. Bidders are responsible for the submission of their bids and should direct their couriers or package delivery companies (e.g., UPS, FedEx, etc.) to deliver bids to the office of the Clerk.

2. Cover Page

The Bidder must submit a *Cover Page*, that does not exceed one page.

3. Section Separation Requirements

Do not use tabs for section separation. Instead, use 8.5 inch x 11 inch plain or colored sheets of paper for section separation and label the section separator.

BID SUBMITTAL DEADLINE

The Bid Submittal Deadline is **Thursday, August 20, 2020 AT 2:00 P.M. (ARIZONA TIME)**. The Bid Submittal Deadline is shown on the foregoing “Notice to Bidders”. Bids must arrive at the office of the Clerk before the Bid Submittal Deadline. The governing time for the Bid Submittal Deadline is Arizona Time. Bids will not be opened or revealed before this deadline. Bids received after the deadline are untimely and will not be considered for an award of contract. Bids that are mailed to an incorrect address or received after the Bid Submittal Deadline will be returned unopened to the sender and will not be considered for an award of contract. Bidders are responsible for ensuring their bids are received by the Clerk on or before the Bid Submittal Deadline.

BID SUBMITTAL DEADLINE. EXTENSION OF

The County reserves the right to change the Bid Submittal Deadline when it is in the best interest of the County.

BID WITHDRAWAL

Bidders’ authorized representatives may withdraw bids only by written request received by Mary Dahl, Special Projects at mdahl@santacruzcountyaz.gov on or before the Bid Submittal Deadline and before bids are open. Thereafter, Bidders may not withdraw their bids for a period of **FORTY-FIVE (45) DAYS** from the Bid Submittal Deadline. At no time may the successful Bidder(s) withdraw his or her bid.

BRAND NAMES

The manufacturer’s names, trade names, brand names, model numbers, and catalog numbers if used in these specifications are used for the purpose of describing and establishing general quality levels. These references are not intended to be restrictive. Bids will be considered for alternative brands that meet or exceed the quality of the specifications listed for any item.

CANCELLATION OF SOLICITATION

The County may cancel this solicitation at any time when the County deems it to be in its best interest.

COMPLIANCE OR DEVIATION TO SPECIFICATIONS

Bidder hereby agrees that the material, equipment, and services offered will meet all of the requirements of the specifications in this solicitation unless deviations from them are *clearly indicated* in the Bidder’s response. Bidder may submit an attachment entitled, “Exceptions to Specifications,” which must be signed by Bidder’s authorized representative. An explanation must be made for each item in which an exception is taken, providing—in detail—the extent of the exception and the reason why it is taken.

Bids failing to comply with this requirement will be considered non-responsive. Submittal of brochure or other manufacturer literature is desirable but may not be used as a substitution for this requirement.

CONTRACT, COMBINATION OR CONSPIRACY TO RESTRAIN TRADE OR COMMERCE: VIOLATION: CLASSIFICATION

Pursuant to A.R.S. § 34-252, a person who enters into any contract, combination, conspiracy or other act in restraint of trade or commerce which is unlawful under title 44, chapter 10, and article 1 is guilty of a class 4 felony if the contract, combination, conspiracy or other unlawful act in restraint of trade or commerce involves:

1. A contract between a governmental agency and a person for the purchase of equipment, labor or materials or for the construction or repair of highways, buildings or structures, or additions or alterations to highways, buildings or structures.
2. A subcontract with a Bidder or proposed Bidder for a governmental agency for the purchase of equipment, labor or materials or for the construction or repair of highways, buildings or structures, or additions or alterations to highways, buildings or structures.

CONTRACT LENGTH

This IFB is for awarding a lump sum price contract to cover a **SIXTY (60) CONSECUTIVE DAYS** construction period from the date of the “Notice to Proceed” on the SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)/ BOYS AND GIRLS CLUB IMPROVEMENT PROJECT/ BID NUMBER: B-02-20-CO02 – CDBG #121-20.

CORRECTIONS OR MODIFICATIONS TO BIDS

The following rules apply to corrections or modifications made to bids before the Bid Submittal Deadline:

1. ***Authorize Modification.*** All modifications must be made in ink, properly initialed by Bidder’s authorized representative, executed, and submitted in the same form and manner as the original bid. Bids that contain omissions or improper erasures or irregularities may be rejected.
2. ***Withdraw, Modify, and Resubmit.*** Any Bidder who wishes to make modifications to a bid already submitted to the County must withdraw their bid to make the modifications. A Bidder’s authorized representative may withdraw the bid only by written request received by the Clerk before the Bid Submittal Deadline. It is the responsibility of the Bidder to ensure that modified or withdrawn bids are resubmitted before the Bid Submittal Deadline.
3. ***Prohibited Modifications.*** No oral, electronic, telegraphic, or telephonic modifications will be accepted.

DISQUALIFICATION OF BIDDER

If there is reason to believe that collusion exists among the bidders, the County may refuse to consider bids from the participants in such collusion. No person, firm, or corporation under the same or different name, may make, file, or be interested in more than one bid for the same work unless alternate bids are called for. A person, firm, or corporation who has submitted a sub-bid to a bidder or who has quoted prices on materials to a bidder is not thereby disqualified from submitting a sub- bid or quoting prices to other bidders.

A reasonable ground for believing that a bidder is interested in more than one bid—for the same project—will cause the rejection of all bids by the bidder. If there is reason to believe that collusion exists among the bidders, the County may refuse to consider bids from the participants of any such collusion. Bidders must submit, as part of their bid documents, a notarized “Non-Collusion Affidavit,” attached hereto as “*Exhibit 5*”

and incorporated herein by this reference.

DOCUMENTS TO BE RETURNED WITH BID

Failure to completely execute and submit the required documents before the Bid Submittal Deadline may render a bid non-responsive. These documents are listed on the form entitled, "Documents to Be Submitted with Bid," attached hereto as "*Exhibit 1*" and incorporated herein by this reference.

EXAMINATION OF SOLICITATION DOCUMENTS

It is the responsibility of the Bidder to carefully and thoroughly examine and fully inform themselves as to the conditions and requirements of the legal and procedural documents, terms and conditions, bid forms, specifications, drawings, plans, and any addenda, hereinafter referred to as "Solicitation Documents." Bidder must be satisfied as to the character, quantity, and quality of work to be performed and the materials, labor, supervision, equipment and appurtenances necessary to perform the work as specified by the Solicitation Documents. Bidder will in no way be relieved from any obligations with respect to the bid or contract due to failure or neglect to examine the Solicitation Documents.

The submission of a bid will constitute an acknowledgment upon which the County may rely on that the bidder has thoroughly examined and is familiar with the Solicitation Documents. The failure or neglect of a bidder to receive or examine any of the Solicitation Documents will in no way relieve the bidder from any obligations with respect to the bid. No claim will be allowed for additional compensation that is based upon a lack of knowledge of the Solicitation Documents.

EXPERIENCE AND COMPETENCY

The ideal Bidder should have performed projects similar in size and scope to this project. Bidder must submit list and descriptions of applicable projects with bid. The County reserves the right to deviate from this requirement if, in its sole discretion, it is advantageous for the County to do so. Bidder must possess applicable CONTRACTOR'S License for the work called for in the Solicitation Documents.

FEDERAL AID CONTRACTS

Pursuant to A.R.S. § 34-244, if any provision or condition of this article or §§ 34-301, 34-302 or 38-481 conflicts with any provision of federal law or any rule or regulation made under federal law pertaining to federal aid contracts, such provision or condition will not apply to federal aid contracts. However, all provisions or conditions of sections that are not in conflict will apply to the federal aid contracts.

FORMS

Bids must be made on the blank forms prepared and provided by the County. Bids must give the prices proposed (both in writing and in figures when required), provide all other information requested, and must be signed by the Bidder's authorized representative. The County may provide some documents or pages in this solicitation on colored or otherwise marked pages; these pages should be completed and returned with your bid.

1. ***Notice to Bidders.*** Follow all instructions provided in the foregoing "Notice to Bidders" herein.
2. ***Lump Sum Pricing.*** This project has a lump sum pricing format that consists of separate bid items as defined in the project specifications.
3. Bidders must include in their bid all materials, labor, equipment, services, overhead, profit, taxes, bonds, and other costs required for the completion of work.
4. ***Completion of Documents.*** Bidders must complete and submit all required documents. Bidders

should refer to the “Documents to Be Submitted With Bid,” attached hereto as “*Exhibit 1*” and incorporated herein by this reference. Failure of Bidder to complete and return all required bid documents might result in the rejection of a bid.

5. **Addenda.** If changes are made to the IFB, the County will notify all plan holders by issuing addenda. Addenda to the solicitation become part of the County’s approved plans. Bidders must acknowledge addenda in the manner set forth in the “Instructions to Bidders” section of this IFB. Bidders should immediately read all correspondence they receive from the County and notice whether they are required to sign and return it by the Bid Submittal Deadline. Addenda will be distributed to Bidders either electronically via e-mail or Bidders may pick up a hard copy of addenda at the office of the Clerk if e-mail is unavailable. Addenda will not be faxed to bidders.
6. **Bids from Individuals.** If an individual makes a bid, his or her name, signature, and post office address must appear on the bid.
7. **Bids from Firms or Partnerships.** If a firm or partnership makes the bid, the name and mailing address of the firm or partnership **and** the signature of at least one of the general partners must appear on the bid.
8. **Bids from Corporations.** If a corporation makes the bid, the bid must show the name of the state under the laws of which the corporation is chartered, the name and mailing address of the corporation, **and** the title of the person who signs on behalf of the corporation. Additionally, a **certified copy** of the bylaws or resolution of the board of directors of the corporation must be furnished showing the authority of the officer signing the bid to execute contracts on behalf of the corporation.

INDELIBLE SIGNATURES, PRICES, ETC.

All information, prices, notations, signatures, and corrections must be indelible (i.e., not pencil). Mistakes may be crossed out and corrections typed or printed adjacent to the mistake and initialed in ink by the person signing the bid.

INDEPENDENT BIDDER

Bidder covenants that it presently has no interest, and must not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the services hereunder. Bidder further covenants that, in the performance of this contract, no SUB-CONTRACTOR or person having such an interest must be employed. Bidder certifies that to the best of his or her knowledge, no one who has or will have any financial interest under this contract is an officer or employee of the COUNTY. It is expressly agreed by Bidder that in the performance of the services required under this contract, Bidder, and any of its SUB- CONTRACTORS or employees, will at all times be considered independent Bidders.

Neither Bidder, nor Bidder’s officers, agents, or employees must be considered employees of the COUNTY or be entitled to receive any employment-related fringe benefits under the COUNTY Merit System. Bidder must be responsible for payment of all federal, state, and local taxes associated with the compensation received pursuant to this contract and must indemnify and hold COUNTY harmless from any and all liability which COUNTY may incur because of Bidder’s failure to pay such taxes. Bidder will be solely responsible for program development and operation.

INFORMED BIDDERS

Before submitting bids, Bidders must fully inform themselves of the conditions, requirements and specifications of the work or materials to be furnished. Failure to do so will be at Bidders’ own risk and they cannot secure relief on the plea of error.

LATE BIDS

Late bids *will not be considered* and will be returned to bidders unopened. It is the Bidder's responsibility to ensure that their bids have sufficient time to be received by the Clerk before bid opening. Additionally, it is the bidder's responsibility to ensure that its bid is delivered to the office of the Clerk will not be considered for award.

LAWS, BIDS MUST COMPLY WITH

All bids must comply with current federal, state, local, and other applicable laws. The successful bidder also must be prepared to comply with all local, state, and federal safety and environmental requirements.

COMPLIANCE REQUIREMENTS FOR A.R.S. §41-4401, GOVERNMENT PROCUREMENT: E-VERIFY REQUIREMENT

1. The CONTRACTOR warrants compliance with all Federal immigration laws and regulations relating to employees and warrants its compliance with A.R.S. §23-214, Subsection A, which states: "After December 31, 2007, every employer, after hiring an employee, shall verify the employment eligibility of the employee through the e-verify program and shall keep a record of the verification for the duration of the employee's employment or at least three years, whichever is longer."
2. A breach of a warranty regarding compliance with immigration laws and regulations shall be deemed a material breach of the contract and the CONTRACTOR maybe subject to penalties up to and including termination of the contract.
3. Failure to comply with a State audit process to randomly verify the employment records of CONTRACTORS and SUB-CONTRACTORS shall be deemed a material breach of the contract and the CONTRACTOR may be subject to penalties up to and including termination of the contract.
4. The State Agency retains the legal right to inspect the papers of any employee who works on the Contract to ensure that the CONTRACTOR or SUB-CONTRACTOR is complying with the warranty under A.R.S. §23-214, Subsection A.

MEASUREMENTS

It is the responsibility of the Bidder to make all measurements to determine his or her bid price. The County will not be responsible for determining the quantities of materials necessary to complete the work specified.

MODIFICATION OF BIDS

(See foregoing "Corrections or Modifications to Bids" section.)

NOMENCLATURES

The terms "CONTRACTOR," "Successful CONTRACTOR," and "Successful Bidder," may be used interchangeably herein, and must refer exclusively to the firm with whom the County enters into a contract because of this solicitation

NON-COLLUSION AFFIDAVIT

Bidders are required to submit a *notarized* "Non-Collusion Affidavit," attached hereto as "*Exhibit 5*" and incorporated herein by this reference, with their bids, using the attached affidavit form. Pursuant to A.R.S. § Title 34-253, the failure of a bidder to provide an affidavit is grounds for disqualification of their bid.

NOTICE OF INTENT TO AWARD

The County may issue a “Notice of Intent to Award Contract,” attached hereto as “*Exhibit 12*” and incorporated herein by this reference. The notice would advise the successful Bidder of the deadline to submit required documents, such as insurance certificates, payment and performance bonds, etc., before a contract is awarded on the bid.

NOTICE OF AWARD

The County will issue a “Notice of Award of Contract,” attached hereto as “*Exhibit 13*” and incorporated herein by this reference, that indicates the name of the Successful Bidder. The date on the notice is the start date for the project.

NOTICE TO PROCEED

The County will issue a “Notice to Proceed,” attached hereto as “*Exhibit 15*” and incorporated herein by this reference, to the Successful Bidder directing and authorizing the Bidder to start work on the project.

OPENING OF BIDS

All bids submitted before the Bid Submittal Deadline, irrespective of irregularities or informalities, will be opened and publicly read aloud at the time announced for the opening of bids. All interested persons are invited to be present at the opening and reading of bids. The public reading will include the name of each bidder and the total amount that each bidder bid. Those attending the reading of bids will be required to wear face coverings and practice social distancing.

PAYMENT/PERFORMANCE BONDS

The Payment and Performance Bond forms are included for informational purposes and will only be executed once the County makes a decision to award the construction contract. The bidder will have **TEN (10) DAYS** to submit completed a “Statutory Payment Bond,” attached hereto as “*Exhibit 9*” and incorporated herein by this reference, and a “Statutory Performance Bond,” attached hereto as “*Exhibit 10*” and incorporated herein by this reference, upon the issuance of a “Notice of Intent to Award Contract,” attached hereto as “*Exhibit 12*” and incorporated herein by this reference.

MANDATORY PRE-BID MEETING

The **MANDATORY Pre-Bid Meeting** will held on **Friday, August 7, 2020 AT 9:00 A.M. (ARIZONA TIME)** at the Boys & Girls Club at 590 North Tyler Avenue in Nogales, AZ. Face coverings are required and social distancing will be practiced.

POSTPONEMENT OF OPENING

The County reserves the right to postpone the date and time for opening of bids at any time before the date and time announced in the Invitation for Bids.

PRICE

All bids must give the prices requested in figures as indicated, and must give all other information requested herein. Each bid must be signed by a Bidder’s authorized representative.

IMPORTANT NOTICE: Bidders must use the pricing form provided on the Bid Form, attached hereto as “Exhibit 3” and incorporated herein by this reference, even if their product is not sold in the units of measure shown. The County will not be responsible for converting the Bidder’s unit of measure (e.g., per ton, cubic feet, etc.), to the pricing formula provided on the Bid Form. Failure to comply with this instruction may render a bid non-responsive and cause its rejection.

Bid prices must include everything necessary for the completion of construction and fulfillment of the

contract including but not limited to furnishing all materials, equipment, tools, facilities, and all management, superintendence, labor, services, taxes, licenses and permits required to complete the work in accordance with these Solicitation Documents, except as may be provided otherwise in these Solicitation Documents.

The work and the bid price must include providing the necessary safety precautions such as barricades, warning signs for public safety, and any necessary “cleanup” that is required to restore the work site to a satisfactory condition.

Any items shown on the plans or details or described in the specifications that are not specifically listed in the bid item are considered included in the bid item and no additional or special compensation will be allowed. In the event that there is more than one bid item in the bid schedule, the Bidder must furnish a price for all bid items in the schedule and any failure to do so will render the bid as non-responsive and may cause its rejection.

The total amount of the lump sum bid will be the sum of the total prices of all items in the bid schedule. If the price is ambiguous, unintelligible, or uncertain for any cause, or is omitted, it will be the amount obtained by dividing the amount set forth as the total price by the estimated quantity of the item.

PRICE DISCREPANCIES

The Bidder will be bound by said corrections. If there is more than one bid item in a bid schedule, and the total indicated for the schedule does not agree with the sum of prices of the individual bid items, the *prices bid on the individual items will govern* and the total for the schedule will be corrected accordingly.

PROTEST PROCEDURE

Bid protests shall be submitted in writing to: Mary Dahl, Special Projects, within seventy-two (72) hours of bid award notification. Protests must contain at a minimum the name, address and telephone number of the protester, the signature of the protester or its representative and evidence of authority to sign; a detailed statement of the legal and factual grounds of the protest including copies of relevant data; and the form of relief requested. Within three (3) business days of receipt, and after consultation with legal counsel, ADOH, or others, the County will respond to the protest. Santa Cruz County reserves the right to reject any or all bids; to waive irregularities of information in any bid; and/or to take any steps determined prudent in order to resolve the protest.

QUESTIONS

If Bidders are in doubt as to the true meaning of any part of the specifications or other Solicitation Documents or if they find discrepancies or omissions in the specifications, Bidders are responsible for submitting to the County a written request for an interpretation or correction. Written requests for interpretations must be *e-mailed* on or before **Wednesday, August 12, 2020 AT 3:00 P.M. (ARIZONA TIME)** to the following person:

Mary Dahl
Special Projects
Santa Cruz County, Arizona
mdahl@santacruzcountyz.gov

The same procedure and deadline applies to Bidders who have questions regarding bid procedures or who have questions regarding bids, plans, and/or specifications. No faxes or hand-deliveries of bid questions will be accepted.

The requesting party is responsible for prompt delivery of any requests and under no circumstances will

questions be answered if they are received by the County after **Wednesday, August 12, 2020 AT 3:00 P.M. (ARIZONA TIME)**. When the County considers interpretations necessary, interpretations will be in the form of an addendum to the Solicitation Documents, which, when issued, will be sent as promptly as is practical to all parties recorded by the County as having received Solicitation Documents. All such addenda will become a part of the contract. Oral and other interpretations or clarifications will be without legal or contractual effect. Compliance with all Addenda issued during this bid action, is the sole responsibility of the CONTRACTOR. Addenda will be posted at the following web site: <https://www.santacruzCountyaz.gov/286/Bids-Solicitations>. It is the CONTRACTOR'S responsibility to check the web site to make sure they have any and all Addenda.

It is the responsibility of each bidder to ensure the County has their correct business name and address on file. Any prospective bidder who obtained a set of Solicitation Documents from anyone other than the County is responsible for advising the County that they have a set of Solicitation Documents and wish to receive subsequent Addenda.

REJECTION OF BIDS

The County reserves the right to reject any bids, all bids, or any part of a bid. The County reserves the right to reject the bid of any Bidder who previously failed to perform adequately for the County or any other governmental agency. The County expressly reserves the right to reject the bid of any Bidder who is in default on the payment of taxes, licenses, or other monies owed to the County.

RIGHTS RESERVED IN SOLICITATION/AWARD PROCESS

1. The County reserves the right to reject any or all bids or any part of a bid, or to withhold the award for any reason the County determines. See A.R.S. §34-201(A)(4).
2. The County reserves the right to reject the bid of any bidder who previously failed to perform adequately for the County or any other governmental agency.
3. The County expressly reserves the right to reject the bid of any bidder who is in default on the payment of taxes, licenses, or other monies owed to the County.
4. The County reserves the right to waive any irregularities found in any bid(s).
5. The County reserves the right to consider each bid item separately and to accept the lowest responsive, responsible bid of any qualified bidder for one or more bid items deemed in the best interest of the County.
6. The County reserves the right *not* to award a contract.

SPECIFICATIONS, CHANGES TO

The parties will not be bound by or be liable for any statement, representation, promise, inducement or understanding of any kind or nature *not set forth herein or by written addenda*. No changes, amendments, or modifications of any of the terms or conditions of the bid specification will be valid unless reduced to writing and signed by both parties.

SPECIFICATIONS, DEFINITION

The term "specification" or "bid specification" as used in this solicitation will be interpreted to mean all the pages that make up this bid solicitation, including *but not limited* to the Invitation for Bids, Terms and Conditions, General Construction Specification, Detailed Specifications, Bid Form, Workers Compensation Insurance Certificate, and Contract form.

SUSPENSION FROM BIDDING

Pursuant to A.R.S. § 34-257, any governmental agency may suspend for a period of up to three years from the date of conviction any person and any subsidiary or affiliate of any person from further bidding to the agency and from being a SUB-CONTRACTOR to a CONTRACTOR with the agency or a supplier to the agency if that person or any officer, director, employee or agent of that person is convicted of entering into any contract, combination, conspiracy or other unlawful act in restraint of trade or commerce in the courts in this state, or of similar charges in any federal court or a court in any other state.

TAXES

Successful bidder must pay all federal, state and local taxes, levies, duties, and assessments of every nature due in connection with any work under the contract and must indemnify and hold harmless the County from any liability on account of any and all such taxes, levies, duties, assessments and deductions. Bid prices must include allowance for said taxes. The County is exempt from Federal Excise Taxes.

TERMS OF THE OFFER

County's acceptance of bidder's offer will be limited to the terms herein unless expressly agreed upon, in writing, by the County. *Bids offering terms other than those shown herein will be declared non-responsive and will not be considered.*

WITHDRAWAL OF BID

Bidder's authorized representative may withdraw their bid only by written request received before the Bid Submittal Deadline.

AMERICANS WITH DISABILITIES ACT

Bidder must comply with all applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-122313), and all applicable federal regulations under the Act, including 28 CFR Parts 35 & 36.

ASSIGNMENT OF RIGHTS AND OBLIGATIONS

Bidder must not assign, transfer, or sell any rights or obligations to the contract resulting from this bid, in whole or in part, without first obtaining the specific written approval of the County. Approval may be withheld at the sole discretion of the County, provided that such approval will not be unreasonably withheld.

In entering into an agreement or subcontract to supply goods or services pursuant to a contract, the Bidder or SUB-CONTRACTOR offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have, arising from purchases of goods or services pursuant to the contract or the subcontract. Such assignment must be made and become effective at the time the awarding body tenders final payment to the Bidder, without further acknowledgment by the parties.

ATTORNEY FEES

In the event a suit or action is instituted in connection with any controversy arising out of this contract, the prevailing party will be entitled to receive, in addition to its costs, such sum as the Court may adjudge reasonable as to attorney's fees and costs.

AUTHORITY OF THE COUNTY

Subject to the power and authority of the County as provided by law in this contract, the County will in all cases determine the quantity, quality, and acceptability of the work, materials and supplies for which payment is to be made under this contract. The County will decide the questions that may arise relative to the fulfillment of the contract or the obligations of the Bidder hereunder.

AUTHORIZED CONTRACTOR/DISTRIBUTOR

Successful Bidder must be an Authorized CONTRACTOR for the type of construction offered *or* with his or her bid and must submit documentation from an authorized distributor from whom the specified materials were purchased. Said documentation must state that the distributor will honor all manufacturers' warranties.

AWARD AND EXECUTION OF CONTRACT

Award and execution of Contract will be as provided for herein.

CHANGES IN WORK

The County may, at any time work is in progress, by written order and, with or without notice to the sureties, make alterations in the terms of work as shown in the specifications, require the performance of extra work, decrease the quantity of work, or make such other changes as the County may find necessary or desirable. Such alterations and changes shall not invalidate this Agreement or release the surety and the CONTRACTOR agrees to perform the work as altered, as if it has had been part of the original contract documents. Changes in work and the amount of compensation to be paid to the Bidder for any extra work ordered will be determined in accordance with this IFB.

County and CONTRACTOR shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for a Change Order. Upon reaching an agreement, the County and CONTRACTOR shall prepare and execute an appropriate Change Order reflecting the terms of the adjustment.

The following change orders require the approval of the County's Board of Supervisors (BOS): changes to contracts that originally required approval of the Board of Supervisors; and changes to contracts that cause the total of the contract to exceed the amount that requires BOS approval.

COMPLIANCE WITH SAFETY & HEALTH LAWS

Bidder agrees that all work performed and completed on the SANTA CRUZ COUNTY, ARIZONA ("COUNTY") / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 – CDBG #121-20 will comply with all applicable Federal and state occupational safety and health laws, standards, and regulations and that Bidder will indemnify, defend and hold the County harmless for any failure to so conform.

CONSTRUCTION ACTIVITY

All construction activity should be coordinated to limit disruption to vehicular traffic and pedestrians. The CONTRACTOR is responsible for traffic control and the safety of the public and workers.

CONSTRUCTION CLEANUP

Throughout all phases of the construction, including suspension of work, Successful Bidder shall keep the site reasonably free from debris, trash, and construction wastes to permit Bidder to perform its construction services efficiently, safely, and without interfering with the use of adjacent land areas by others. Upon Substantial completion of the work, or a portion of the work, Bidder shall remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the work or applicable portions thereof.

Bidder shall take whatever steps, procedures, or means to prevent any dust nuisance due to construction operations. The dust control measures shall be maintained at all times to the satisfaction of the County and in accordance with the requirements of the County.

Only materials and equipment which are to be used directly in the work shall be brought to and stored on

the work site by the Successful Bidder. When equipment is no longer required for the work, it shall be removed from the work site. Protection of construction materials and equipment stored at the site from weather, theft, damage and all other adversity is solely the responsibility of the Successful bidder.

CONTRACT INCORPORATION

This contract embodies the entire contract between the County and the Bidder. The complete contract will include the entire contents of this solicitation and all pages that make up this IFB, including but not limited to the General Provisions, Terms and Conditions, Special Provisions, any and all addenda, all of Bidder's successful submittals, all supplemental agreements, all change orders, all bond(s), and any and all written agreements which alter, amend, or extend the contract.

CONTRACT LENGTH

This Invitation for Bids (IFB) is for awarding a lump sum price contract to cover a **SIXTY (60) CONSECUTIVE DAYS** construction period from the issuance of the Notice to Proceed, attached hereto as "Exhibit 15" and incorporated herein by this reference, on the SANTA CRUZ COUNTY, ARIZONA ("COUNTY") / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20.

DAMAGE

The Bidder will be held responsible for any breakage, loss of the County's or City of Nogales' equipment or supplies through negligence of the Bidder or Bidder's employee or SUB-CONTRACTOR while working on the City of Nogales' premises. The Bidder must immediately report to the County any damages to the premises resulting from services performed under this contract. *The Bidder will be responsible for restoring or replacing with equivalent quality and quantity any equipment, supplies, facilities, or other City of Nogales or County assets so damaged.* The County and the City of Nogales reserve the right to deduct as liquidated damages the replacement value (including any installation costs) equivalent to the City of Nogales or the County assets that were damaged by Bidder or Bidder's employees or SUB-CONTRACTOR and which were not replaced by the Bidder before the completion of the contract.

EXECUTION OF CONTRACT

Time is of the essence of this contract. The Successful Bidder must execute the contract, including but not limited to signing all necessary documents and submitting all required bonds and evidence of insurance within **TEN (10) DAYS** from the date the "Notice Intent to Award" is *delivered* to Successful Bidder.

One copy of the contract will be returned to the Bidder after the County of Santa Cruz executes the contract. In case of failure of the Bidder to execute and return the contract and all required documents within the time allowed, the County, at its option, may consider that the bidder has abandoned the contract, in which case the bid security bond will be forfeited by the bidder and become the property of the County.

F.O.B. POINT & SHIPPING CHARGES

All prices must be quoted *F.O.B. destination, Nogales, Arizona*. The Bidder is responsible for all delivery, freight, shipping charges, and unloading of equipment.

FORCE MAJEURE

If execution of this contract will be delayed or suspended and if such failure arises out of causes beyond the control of and without fault or negligence of the Bidder, the Bidder must notify the County, in writing, within **TWENTY-FOUR (24) HOURS**, after the delay. Such causes may include but are not limited to acts of nature, war, or acts of public enemy, acts of any governmental agency in its sovereign or contractual capacity, fires, floods, epidemics, strikes, and unusually severe weather.

INDEMNIFICATION CLAUSE

The CONTRACTOR agrees to defend, indemnify, save and hold harmless the County, its officers, agents and employees, and any jurisdiction or agency issuing permits for any work included in the project, their officers, agents and employees, hereinafter referred to as "indemnitee," from all suits and claims, including attorney's fees and cost of litigation, actions, loss, damage, expense, cost or claims of any character or any nature arising out of the work done in fulfillment of the terms of this Contract or on account of any act, claim or amount arising or recovered under workers' compensation law or arising out of the failure of the CONTRACTOR to conform to any statutes, ordinances, regulation, law or court decree. It is agreed that the CONTRACTOR will be responsible for primary loss investigation, defense and judgment costs where this contract of indemnity applies. In consideration of the award of this contract, the CONTRACTOR agrees to waive all rights of subrogation against the County, its officers, officials, agents and employees for losses arising from the work performed by the CONTRACTOR for the County.

The insurance, its limits, amount and type required herein shall in no way be construed as limiting the scope of this indemnity.

INSURANCE REQUIREMENTS

CONTRACTOR and SUB-CONTRACTORS shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the CONTRACTOR, his agents, representatives, employees or SUB-CONTRACTORS.

The insurance requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract.

The County in no way warrants that the minimum limits contained herein are sufficient to protect the CONTRACTOR from liabilities that might arise out of the performance of the work under this Contract by the CONTRACTOR, his agents, representatives, employees, or SUB-CONTRACTORS. CONTRACTOR is free to purchase such additional insurance as may be determined necessary.

A. **MINIMUM SCOPE AND LIMITS OF INSURANCE** - CONTRACTOR shall provide coverage with limits of liability not less than those stated below:

1. Commercial General Liability – Occurrence Form

Policy shall include bodily injury, property damage, broad form contractual liability and XCU coverage.

- General Aggregate \$2,000,000
- Products – Completed Operations Aggregate \$1,000,000
- Personal and Advertising Injury \$1,000,000
- Each Occurrence \$1,000,000

- a. The policy shall be endorsed to include the following additional insured language: "**The County of Santa Cruz, City of Nogales and the Boys & Girls Club shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the CONTRACTOR**".

2. Automobile Liability

Bodily injury and property damage for any owned, hired, and non-owned vehicles used in the performance of this Contract.

Combined Single Limit (CSL)

\$1,000,000

- a. The policy shall be endorsed to include the following additional insured language: "**The County of Santa Cruz, City of Nogales and the Boys & Girls Club shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the CONTRACTOR, including automobiles owned, leased, hired or borrowed by the CONTRACTOR**".

3. ***Worker's Compensation and Employers' Liability***

Workers' Compensation

Statutory

Employers' Liability

Each Accident

\$1,000,000

Disease – Each Employee

\$1,000,000

Disease – Policy Limit

\$1,000,000

- a. Policy shall contain a **waiver of subrogation** against the County of Santa Cruz.

4. ***Builders' Risk Insurance or Installation Floater***

\$2,000,000

- a. The County of Santa Cruz, the City of Nogales, the CONTRACTOR, SUB-CONTRACTORS, and any others with an insurable interest in the work shall be **Insureds** on the policy.
- b. Coverage shall be written on an all risk, replacement cost basis and **shall include coverage for soft costs, flood and earth movement**.
- c. Policy shall be maintained until whichever of the following shall first occur: (1) final payment has been made; or, (2) until no person or entity, other than the City of Nogales, has an insurable interest in the property required to be covered.
- d. Policy shall be endorsed such that the insurance shall not be canceled or lapse because of any partial use or occupancy by the City of Nogales and/or its tenant.
- e. Policy must provide coverage from the time any covered property becomes the responsibility of the CONTRACTOR, and continue without interruption during construction, renovation, or installation, including any time during which the covered property is being transported to the construction installation site, or awaiting installation, whether on or off site.
- f. Policy shall contain a **waiver of subrogation** against the County of Santa Cruz and the City of Nogales.
- g. CONTRACTOR is responsible for the payment of all policy deductibles.

B. ADDITIONAL INSURANCE REQUIREMENTS: The policies shall include, or be endorsed to include, the following provisions:

1. On insurance policies where the County of Santa Cruz and the City of Nogales are named as additional insureds, the County of Santa Cruz and the City of Nogales shall be additional insureds to the full limits of liability purchased by the CONTRACTOR even if those limits of liability are in excess of those required by this Contract.
2. The CONTRACTOR'S insurance coverage shall be primary insurance and non-contributory with respect to all other available sources.
3. Coverage provided by the CONTRACTOR shall not be limited to the liability assumed under the indemnification provisions of this Contract.

C. NOTICE OF CANCELLATION: Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided, canceled, reduced in coverage or endorsed to lower limits except after **THIRTY (30) DAYS** prior written notice

has been given to the County. Such notice shall be sent directly via *Certified Mail—Return Receipt Requested* to the following person and address:

B-02-20-CO02 – CDBG #121-20
Santa Cruz County
c/o Mary Dahl, Special Projects
2150 North Congress Drive, Suite 119
Nogales, Arizona 85621

- D. ACCEPTABILITY OF INSURERS:** Insurance is to be placed with insurers duly licensed or approved unlicensed companies in the state of Arizona and with an “A.M. Best” rating of not less than B+ VI. The County in no way warrants that the above-required minimum insurer rating is sufficient to protect the CONTRACTOR from potential insurer insolvency.
- E. VERIFICATION OF COVERAGE:** CONTRACTOR shall furnish the County with certificates of insurance (ACORD form or equivalent approved by the County) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and endorsements are to be received and approved by the County before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract or to provide evidence of renewal is a material breach of contract.

All certificates required by this Contract shall be sent directly to the following person and address:

B-02-20-CO02 – CDBG #121-20
Santa Cruz County
c/o Mary Dahl, Special Projects
2150 North Congress Drive, Suite 119
Nogales, Arizona 85621

The County project/contract number and project description must be noted on the certificate of insurance. The County reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time.

- F. SUB-CONTRACTORS:** CONTRACTOR’S certificate(s) shall include all SUB-CONTRACTORS as additional insureds under its policies *or* CONTRACTOR shall furnish to the County separate certificates and endorsements for each SUB-CONTRACTOR. All coverages for SUB-CONTRACTORS shall be subject to the minimum requirements identified above.
- G. APPROVAL:** Any modification or variation from the insurance requirements in this Contract shall be made by the County Attorney, whose decision shall be final. Such action will not require a formal Contract amendment, but may be made by administrative action.

NON-EXCLUSIVE CONTRACT

Bidder understands that this Contract is nonexclusive and is for the sole convenience of the County. The County reserves the right to obtain like services from other sources for any reason.

OPTION TO EXTEND

This contract may be extended with the approval of the Santa Cruz County Board of Supervisors and the bidder(s). The bidder will be notified by the County of its intention to extend the contract period.

SAFETY STANDARDS

All item(s) offered by the bidder must conform to all safety orders of the State or Arizona.

TERMINATION OF CONTRACT

The County reserves the right to terminate this contract at any time, at its discretion and without cause, elect to terminate this contract by serving upon the CONTRACTOR **THIRTY (30) DAYS** advance written notice of such intent to terminate. In such event, County shall pay CONTRACTOR only the actual cost of its completed work and materials supplied as of the date of termination and the reasonable costs and expenses attributable to such termination. CONTRACTOR shall be entitled to profit and overhead on completed work only, but shall not be entitled to anticipated profit or anticipated overhead.

This contract may be terminated at any time without advance notice and without further obligation of the County, when the CONTRACTOR is found by County to be in default of any provision of this Contract. County retains all legal remedies in such case including but not limited to the right to perform the work with reimbursement by CONTRACTOR for costs and expenses incurred by County exceeding the contract amount.

Notwithstanding any other provision in this Contract, this Contract may be terminated if for any reason there are not sufficient appropriated and available monies for maintaining County or other public entity obligations under this Contract. In the event of such termination, County will have no further obligation to Contractor, other than to pay for services rendered before termination.

UNUSED

Unless specifically provided to the contrary, all material must be new and unused and of the current production year for the SANTA CRUZ COUNTY, ARIZONA ("COUNTY") / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20.

WARRANTY, MANUFACTURER

Time is of the essence of this contract. While under warranty, manufacturer shall repair or replace inoperable materials or equipment in a timely manner to minimize the disruption of the City of Nogales, County and Boys & Girls Club operations. A copy or description of the manufacturer's warranty shall accompany each bid for the item(s) proposed, detailing the scope and length of the warranty. Where the successful Bidder is also the manufacturer of the materials or equipment provided under this contract, the Manufacturer's Warranty requirement would supersede the Successful Bidder Warranty requirement of this solicitation.

The County will specify the particular location for delivery upon placing the order. The Bidder shall retain title and control of all goods until they are delivered and acceptance has been made. All risks of transportation and all related charges shall be the responsibility of the Bidder. All claims for visible or concealed damage shall be filed by the Bidder. The County will notify the Bidder promptly of any damaged goods and shall assist the Bidder in arranging for inspection.

WARRANTY, SUCCESSFUL BIDDER

Contractor warrants to County, City of Nogales and the Boys & Girls Club that the construction, including all material and equipment furnished as part of the construction, shall be new unless otherwise specified in the contract documents, of good quality, in conformance with the contract documents and free of defects in materials and workmanship.

Contractor's warranty obligation shall be for two years from Substantial Completion. "Substantial Completion" means when the work, or an agreed upon portion of the work, is sufficiently complete so that County, City of Nogales and/or the Boys & Girls Club can occupy and use the project or a portion thereof for its intended purposes. This may include but is not limited to i) all systems in place, functional and displayed to the County and City or its representative; (ii) all materials and equipment installed; (iii) all systems reviewed and accepted by the County and City for workmanship, materials used, and construction.

Correction of Defective Work

- A. CONTRACTOR agrees to correct any work that is found to not be in conformance with the Contract Documents including that part of the work subject to the warranty in this section within a period of **TWO (2) YEARS** from the date of Substantial Completion of the work or any portion of the work, or within such longer period to the extent required by the contract documents. A progress payment, or partial use or occupancy of the project by the County, shall not constitute acceptance of work not in accordance with the contract documents.
- B. CONTRACTOR shall take meaningful steps to commence correction of non-conforming work subject to the Warranty Section above, within **SEVEN (7) DAYS** of receipt of written notice from County or City of Nogales. This includes the correction, removal or replacement of the non-conforming work and any damage caused to other parts of the work affected by the non-conforming work. If CONTRACTOR fails to commence the necessary steps within such seven-day period, County or City of Nogales, in addition to any other remedies provided under the contract documents, may provide CONTRACTOR with written notice that County or City of Nogales will commence correction of such non-conforming work with its own forces.
- C. If County or City of Nogales does perform such corrective work, CONTRACTOR shall be responsible for all reasonable costs incurred by County or City of Nogales in performing such correction.
- D. Non-Conforming work that creates an emergency requiring an immediate response, the CONTRACTOR will respond and initiate corrections within **TWENTY-FOUR (24) HOURS**.
- E. The one-year period referenced in the Warranty section above applies only to CONTRACTOR'S obligation to correct non-conforming work and is not intended to constitute a period of limitations for any other rights or remedies County or City of Nogales may have regarding CONTRACTORS other obligations under the contract documents.

WARRANTY BY BIDDER

If applicable, Contractor must fully warrant all service against poor and inferior quality or workmanship for a periods identified above from the date of final acceptance by the County and City of Nogales. *Time is of the essence of this contract.* Contractor must repair or replace any inoperable materials or equipment, or improperly performed work, in a timely manner (not more than **SIXTY [60] DAYS**) during the warranty period.

GENERAL SPECIFICATIONS

SANTA CRUZ COUNTY, ARIZONA
("COUNTY") BOYS AND GIRLS CLUB
IMPROVEMENT PROJECT
BID NUMBER: B-02-20-
CO02
CDBG
#121-20

1.0 **SPECIFICATIONS**

Santa Cruz County desires bids to be submitted for the following project:

SANTA CRUZ COUNTY, ARIZONA ("COUNTY") / BOYS AND GIRLS CLUB
IMPROVEMENT PROJECT, BID NUMBER: B-02-20-CO02, CDBG #121-20

The successful bidder(s) shall furnish to the County one (1) 24" x 36" bond set of "As- Built Drawings" documents for the construction of the improvements. These final As- Built Drawings must be submitted within **FIFTEEN (15) DAYS** from the date all work is complete *or* the date the COUNTY accepts the work, whichever is later. A ten-percent (10%) retainer will be held until the As-Built Drawings are reviewed and accepted by the COUNTY. If the CONTRACTOR does not submit the final As-Built Drawings within this time frame, then the ten-percent (10%) retainer will be forfeited.

1.1 **GENERAL REQUIREMENTS**

All items shall be in accordance with the requirements described in this Invitation for Bids (IFB). The bid will be awarded to those who demonstrate to the County by their response to this IFB that they can supply the SANTA CRUZ COUNTY, ARIZONA ("COUNTY") / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20 in accordance with these specifications.

1.2 **DETAILED SPECIAL PROVISIONS**

The Detailed Special Provisions are included as part of the Construction Plans.

2.0 **WARRANTY**

The Bidder warrants that all items furnished hereunder, including construction, shall conform to the requirements of this contract and shall be free from defects in design materials and workmanship.

The Bidder shall indicate on a separate written sheet that is submitted with the bid the exact conditions of their warranty.

The Bidder agrees that they will, at their own expense, provide all labor and parts required to repair and/or replace any such defective workmanship and/or materials that become or are found to be defective during the term of this warranty. The Bidder shall guarantee that any products used to replace defective or non-performing products comply or exceed the requirements of the specifications and the special terms and conditions.

The County will accept the following warranty:

TWO (2) YEARS from Substantial Completion.

Guarantee shall be to replace and install any part that may break or fail in any manner because of defective material and/or workmanship (other than normal wear) within this guarantee period, free of all charges or cost to the County at delivery point. This warranty shall be inclusive at no charge to the County for the stated period.

Additionally, all bidders are invited to offer any and all extended warranty arrangements that they are prepared to offer to the County. The cost, if any, on such warranties shall be stated separately on pricing pages of the bid package.

3.0 SECTION OMITTED INTENTIONALLY

4.0 STANDARDS

All bidder(s) shall certify that the all materials used during and for construction meet or exceed the latest revised Occupational Safety and Health Administration (“OSHA”) and Federal Safety Standards.

5.0 PRICING

The Total Cash Purchase Price for the construction bid should include any equipment, delivery, installation, other costs, and taxes associated with the SANTA CRUZ COUNTY, ARIZONA (“COUNTY”) / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20. All pricing is **Nogales, Arizona**.

All bidders shall agree to hold their prices for **FORTY-FIVE (45) DAYS** from the date of bid opening.

The bidder is required to show exactly what is being offered by completing the bid form and pricing sheet. Failure to comply with this requirement may cause the bid to be disqualified.

6.0 DELIVERY

Delivery shall be on demand by purchase order only, with construction and installation to be completed within **SIXTY (60) DAYS** from the date of the “Notice to Proceed,” attached hereto as “*Exhibit 15*” and incorporated herein by this reference. The successful bidder(s) further may be required to furnish the County with periodic progress reports confirming status of delivery dates as originally shown in their bid proposal.

7.0 NON-EXCLUSIVE

The County reserves the right to purchase items/services listed herein from other vendors if it is deemed in the best interest of the County to do so.

8.0 BID FORM:

The “Bid Form,” attached hereto as “*Exhibit 3*” and incorporated herein by this reference, for the SANTA CRUZ COUNTY, ARIZONA (“COUNTY”) / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20 must be completed and signed by the Bidder. Failure to complete and sign this page may cause the Bid to be rejected. In the event the bidder is deviating or suggesting a different approach to the specifications and/or the terms and conditions they must use the Deviation/Exemption Form. Failure to fully explain exceptions taken may cause the Bid to be rejected.

9.0 EVALUATION AND AWARD:

Bids will be considered on units complying substantially with specifications provided each deviation is stated and the substitution is described, including technical data when applicable, in a letter attached to the bid. The placement of a price in the Bid Form Sheet shall be considered recognition that the Bidder is aware of what the Bid Item requires and that their Bid Price is compliant with specifications detailed in the IFB for SANTA CRUZ COUNTY, ARIZONA ("COUNTY") / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02/ CDBG #121-20. If no price is listed in a Bid Item then the County assumes the Bidder is in that item and the County reserves the right to award that Bid Item to another Bidder.

A recommendation for award will be made to the lowest responsible bidder, whose bid conforms to the invitation for bids, and in accordance Arizona law.

10.0 TIME AND LIQUIDATED DAMAGES:

It is understood and agreed that the construction of the work under the Contract Documents shall be commenced on the date stated in the Notice to Proceed issued by the COUNTY and shall be completed by the CONTRACTOR within **SIXTY (60) CONSECUTIVE DAYS**. The Contract Time is the period of time specified above, hereof running from (1) the date specified in the Notice to Proceed as the date upon which the CONTRACTOR is to commence the work (the "Start Date"), through (2) the Finish Date. The date of beginning, rate of progress, and time for completion are essential conditions of the Contract, and the CONTRACTOR agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly as such rate of progress as will insure full completion thereof within the Contract Time specified. It is expressly agreed that the Contract Time is reasonable.

If the Final Completion Date (as defined below) occurs after the expiration of the Contract Time, the CONTRACTOR shall pay the COUNTY *the sum of \$500.00 per day as liquidated damages for each calendar day* the work remains incomplete after expiration of the Contract Time. This amount is agreed upon because of the impracticability and extreme difficulty to ascertaining the actual damages the County would sustain. It is expressly agreed that the amount of liquidated damages set forth herein is reasonable. Said amounts may be retained from time to time by the County from payment due the CONTRACTOR.

The date of Completion of the work, or designated portion therefore, is the date certified in writing by the County when construction is sufficiently complete, in accordance with the Contract Documents as they may have been modified by any Change Orders agreed to by the parties, so the County may occupy the project, or a designated portion thereof, if so elected, for the use for which it is intended. Certification of a designated portion of the work by the County as being "Complete" and occupancy of that portion thereafter by Owner shall neither release, or otherwise operate to excuse, the CONTRACTOR from the duty to complete the remainder of the work within the Contract Time nor relieve the CONTRACTOR from any liability for not completing the remainder of the work within the Contract Time including liability for the liquidated damages.

The Final Completion Date is the calendar date when all items of the work are one- hundred-percent (100%) finished, including "As-Built Plans," with no items of any scope, large or small, outstanding and remaining to be constructed, and all known defective work has been corrected. When the County certifies, in writing, that the Final Completion Date has been reached and the County has approved the work, the CONTRACTOR may make application for the Final Payment.

In any case where the terms of any other provision of the Contract may be constructed to be in conflict with any term regarding time for completion of the Project, interpretation of the conflicting terms that gives precedence to the term regarding time for completion shall govern.

11.0 FINAL PAYMENT:

After Receipt of a final payment request, County shall make final payment **SIXTY (60) DAYS** after the receipt by the County, provided that CONTRACTOR has completed all of the work in conformance with the contract documents and a Final Acceptance Letter has been issued by the County.

At the time of submission of its final Payment Request, CONTRACTOR shall provide the following information:

1. An affidavit that there are no claims, obligations or liens outstanding or unsatisfied for labor, services, material, equipment, taxes or other items performed, furnished or incurred for or in connection with the work which will in any way affect County's interest.
2. A general release executed by CONTRACTOR waiving, upon receipt of final payment by CONTRACTOR, all claims, except those claims previously made in writing to County and remaining unsettled at the time of final payment; and
3. Consent of CONTRACTOR'S surety, to final payment.

11.1 PAYMENTS TO SUB-CONTRACTORS OR SUPPLIER:

CONTRACTOR shall pay its SUB-CONTRACTORS or suppliers within **SEVEN (7) DAYS** of receipt of each progress payment from the County. The CONTRACTOR shall pay for the amount of work performed or materials supplied by each SUB-CONTRACTOR or supplier as accepted and approved by the County with each progress payment. In addition, any reduction of retention by the County to the CONTRACTOR shall result in a corresponding reduction to SUB-CONTRACTORS or suppliers who have performed satisfactory work. CONTRACTOR shall pay SUB-CONTRACTORS or suppliers the reduced retention within **FOURTEEN (14) CALENDAR DAYS** of the payment of the reduction of the retention to the CONTRACTOR. No Contract between CONTRACTOR and its SUB-CONTRACTORS and suppliers may materially alter the rights of any SUB-CONTRACTOR or supplier to receive prompt payment and retention reduction as provided herein.

If the CONTRACTOR fails to make payments in accordance with these provisions, the County may take any one or more of the following actions and CONTRACTOR agrees that the County may take such actions:

1. To hold the CONTRACTOR in default under this Contract;
2. Withhold future payments including retention until proper payment has been made to SUB-CONTRACTORS or suppliers in accordance with these provisions;
3. Reject all future offers to perform work for the County from the CONTRACTOR for a period not to exceed one year from Substantial Completion date of the Project; or

4. Terminate this Contract.

Should the County fail or delay in exercising or enforcing any right, power, privilege, or remedy under this Section such failure or delay shall not be deemed a waiver, release, or modification of the requirements of this Section or of any of the terms or provisions thereof.

CONTRACTOR shall include these prompt payment provisions in every subcontract, including procurement of materials and leases of equipment for this Contract.

12.0 RECORD KEEPING AND FINANCE CONTROLS

Records of the CONTRACTOR'S direct personnel payroll, reimbursable expenses pertaining to this Project and records of accounts between the County and CONTRACTOR shall be kept on a generally recognized accounting basis and shall be available for **FIVE (5) YEARS** after Final Acceptance of the Project.

The COUNTY, its authorized representative, and/or the appropriate federal agency, reserve the right to audit the CONTRACTOR'S records to verify the accuracy and appropriateness of all pricing data, including data used to negotiate Contract Documents and any change orders.

The COUNTY reserves the right to decrease Contract Price and/or payments made on this Agreement if, upon audit of the CONTRACTOR'S records, the audit discloses the CONTRACTOR has provided false, misleading or inaccurate cost and pricing data.

The CONTRACTOR shall include a similar provision in all of its agreements with SubContractors and SUB-CONTRACTORS providing services under the Contract Documents to ensure the COUNTY, its authorized representative, and/or the appropriate federal agency, has access to the Sub-Contractors' and SUB-CONTRACTORS' records to verify the accuracy of cost and pricing data.

The COUNTY reserves the right to decrease Contract Price and/or payments made on this Agreement if the above provision is not included in SUB-CONTRACTOR'S and SUB-CONTRACTOR'S contracts, and one or more SUB-CONTRACTORS and/or SUB-CONTRACTORS do not allow the County to audit their records to verify the accuracy and appropriateness of pricing data.

13.0 CLAIMS AND DISPUTES

13.1 REQUESTS FOR CONTRACT ADJUSTMENTS AND RELIEF.

If CONTRACTOR believes that it is entitled to relief against the County for any event arising out of or related to work, the CONTRACTOR shall provide written notice to the County of the basis for its claim or relief.

Such notice shall, if possible, be made prior to incurring any cost or expense and in accordance with any specific notice requirements contained in applicable sections of the Agreement.

In the absence of any specific notice requirement, written notice shall be given to the County by the CONTRACTOR within a reasonable time, not to exceed **TWENTY-ONE (21) DAYS**, after the occurrence giving rise to the claim for relief or after the CONTRACTOR reasonably should have recognized the event or condition giving rise to the request, whichever is later.

Such notice shall include sufficient information to advise the other party of the circumstances

giving rise to the claim for relief, the specific contractual adjustment or relief requested and the basis of such request.

13.2 DISPUTE AVOIDANCE AND RESOLUTION

The parties are fully committed to working with each other throughout the Project and agree to communicate regularly with each other at all times to avoid or minimize disputes or disagreements. If disputes or disagreements do arise, CONTRACTOR and County each commit to resolving such disputes or disagreements in an amicable, professional and expeditious manner to avoid unnecessary losses, delays and disruptions to the work.

CONTRACTOR and County will first attempt to resolve disputes or disagreements at the field level through discussions between CONTRACTOR'S Representative and County's Representative.

If a dispute or disagreement cannot be resolved through CONTRACTOR'S Representative and County's Representative, CONTRACTOR'S Senior Representative and County's Senior Representative, upon the request of either party, shall meet as soon as conveniently possible, but in no case later than **THIRTY (30) DAYS** after such a request is made, to attempt to resolve such dispute or disagreement. Prior to any meetings between the Senior Representatives, the parties will exchange relevant information that will assist the parties in resolving their dispute or disagreement.

13.3 DUTY TO CONTINUE PERFORMANCE

Unless provided to the contrary in the Contract Documents, CONTRACTOR shall continue to perform the work and County shall continue to satisfy its payment obligations to CONTRACTOR, pending the final resolution of any dispute or disagreement between CONTRACTOR and County.

LIST OF EXHIBITS

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT
PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

Exhibit Number	Description
1	Documents to be Submitted With Bid
2	Bid Exceptions / Deviations Information
3	Bid Form
4	List of Sub-Contractors / Material Suppliers
5	Non-Collusion Affidavit
6	Worker's Compensation Insurance Coverage Certification
7	Insurance Coverage Certification
8	Proposal Security Bond Certification
9	Statutory Payment Bond
10	Statutory Performance Bond
11	Disclaimer & Release AutoCAD Drawings
12	Notice of Intent to Award Contract
13	Notice of Award of Contract
14	Notice of Non-Award of Contract
15	Notice to Proceed
16	Application for Payment
17	Change Order
18	Certificate of Completion
19	Certificate Of Substantial Completion
20	Contract
21	Addenda (if any)
22	Sections A - D

EXHIBIT 1

DOCUMENTS TO BE SUBMITTED WITH BID

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

The following forms *must* be completed and submitted with your bid on or before the Bid Submittal Deadline:

1. Bid Exceptions / Deviations Information - **Exhibit 2**
2. Bid Form and Bid Schedule - **Exhibit 3**
3. List of Sub-Contractors / Material Suppliers – **Exhibit 4**
4. Non-Collusion Affidavit – **Exhibit 5**
5. Worker's Compensation Insurance Coverage Certification – **Exhibit 6**
6. Insurance Coverage Certification – **Exhibit 7**
7. Proposal Security Bond Certification - **Exhibit 8**
8. LS-2 – Contractor’s Certification Concerning Labor Standards – **Exhibit 22 (Section B)**
9. Certifications and Provisions – **Exhibit 22 (Section B)**
10. Addenda (if any) – **Exhibit 21**

To assist bidders, required forms are marked. This is intended only to assist and bidders shall not place full reliance on same as an assurance of a complete bid.

Failure to complete, sign, and return the above-referenced bid documents may render your bid non-responsive.

B-02-20-CO02 – CDBG #121-20
Santa Cruz County
c/o Mary Dahl, Special Projects
2150 North Congress Drive, Suite 119
Nogales, Arizona 85621

EXHIBIT 3 BID FORM

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

**To: Tara Hampton, Clerk
Santa Cruz County Board of Supervisors**

From: _____
Firm Submitting Bid

Mailing Address

City, State, & Zip

Responding to an Invitation for Bids (“IFB”) on **Bid Number: B-02-20-CO02**, due on or before **Thursday, August 20, 2020 AT 2:00 PM (ARIZONA TIME)**, the undersigned Bidder agrees to furnish and deliver all materials and equipment necessary to perform the SANTA CRUZ COUNTY, ARIZONA (“COUNTY”) / BOYS AND GIRLS CLUB / IMPROVEMENT PROJECT / BID NUMBER: B-04-19-CO04 / CDBG #121-20 per the specifications in the IFB.

A **MANDATORY PRE-BID MEETING** will be held on **Friday, August 7, 2020 AT 9:00 A.M. (ARIZONA TIME)** at the Boys and Girls Club of Santa Cruz County, located at 590 N. Tyler Avenue, Nogales AZ 85621.

I/We have stated hereon the price(s) at which we will furnish and deliver the specified item(s) and will therefore accept as full payment the amount shown below.

Bidder agrees; in addition to all terms and conditions specified in the IFB, that:

- **F.O.B. Point.** All shipments and construction will take place at ***F.O.B. destination, Nogales, Arizona.*** F.O.B. destination indicates that the *Seller* is responsible for all shipment and delivery costs.
- **Award.** A recommendation for an award of contract will be made to the lowest responsible bidder, whose bid conforms to the IFB and is most advantageous to the County in regard to price, conformity to the IFB specifications, and other factors.
- **Signatures.** All information submitted by Bidder, including signatures, must be original. Copies will not be accepted.

This bid will be awarded based upon the total amount of the bid as written in words. Where there is discrepancy between words and figures, **words will govern**. Where there is a discrepancy between the sum of the item unit price and total price, **unit price will govern**. Please check your calculations before submitting your bid. The County is not responsible for Bidder miscalculations.

The undersigned Bidder agrees to contract with the County to provide all necessary labor, supervision, machinery, tools, apparatuses, and other means to furnish all the materials specified in the contract in the manner and time prescribed therein, and that full payment in the amount set forth herein will be accepted. In their entirety, all Addenda and the following documents are incorporated herein by this reference and made a part of this contract:

1. Bid Exceptions / Deviations Information
2. Bid Form
3. List of Sub-Contractors / Material Suppliers
4. Non-Collusion Affidavit
5. Worker's Compensation Insurance Coverage Certification
6. Insurance Coverage Certification
7. Proposal Security Bond Certification
8. Addenda (if any)
9. Sections A-E
10. Contract

Firm Submitting Bid

Date

Mailing Address

Signature of Authorized Representative

City, State, & Zip Code

Printed Name of Authorized Representative

Telephone Number

DUNS

EXHIBIT 4 LIST OF SUB-CONTRACTORS / MATERIAL SUPPLIERS

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

**To: Tara Hampton, Clerk
Santa Cruz County Board of Supervisors**

In compliance with the “Instructions to Bidders” in the IFB, the undersigned submits the following names of *all* sub-contractors and material suppliers who will be used in performing the above-referenced project. The bidder certifies that all sub-contractors listed below are eligible to perform work on public projects pursuant to A.R.S. § 34-241(B). **Note:** If additional space is needed, the back side of this sheet may be utilized.

Name of Sub-Contractor or Material Supplier	Work to be Completed OR Material to be Supplied	Contractor’s License Number

Firm Submitting Bid

Date

Mailing Address

Signature of Authorized Representative

City, State, & Zip Code

Printed Name of Authorized Representative

Telephone Number

DUNS

10. The bidder has not, directly or indirectly, divulged his or her bid price or any breakdown thereof to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid;
11. The bidder has not, directly or indirectly, divulged the contents of his or her bid to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid; AND
12. The bidder has not, directly or indirectly, paid a fee, and he or she will not pay a fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Firm Submitting Bid

Date

Mailing Address

Signature of Authorized Representative

City, State, & Zip Code

Printed Name of Authorized Representative

Telephone Number

DUNS

EXHIBIT 6
WORKER'S COMPENSATION INSURANCE
COVERAGE CERTIFICATION
(Must be completed and submitted with bid.)

SANTA CRUZ COUNTY, ARIZONA ("COUNTY")
BOYS AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

I, _____ (Name of Bidder), the owner of
_____ (Name of Firm Submitting Bid), hereby certify that I have
reviewed and understand the insurance coverage requirements specified in the Request for
Proposals (IFB) on Bid Number. B-04-19-CO04 to complete SANTA CRUZ COUNTY,
ARIZONA ("COUNTY") / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID
NUMBER: B-02-20-CO02 / CDBG #121-20. Additionally, I hereby agree to be insured against
liability for worker's compensation or to undertake self-insurance, in accordance with the
provisions of Arizona law, and comply with such provisions before commencing work on this
project.

Firm Submitting Bid

Date

Mailing Address

Signature of Authorized Representative

City, State, & Zip Code

Printed Name of Authorized Representative

Telephone Number

EXHIBIT 7
INSURANCE COVERAGE CERTIFICATION
(Must be completed and submitted with bid.)

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

I, _____ (Name of Bidder), the owner of
_____ (Name of Firm Submitting Bid), hereby certify that I have
reviewed and understand the insurance coverage requirements specified in the Request for
Proposals (IFB) on complete SANTA CRUZ COUNTY, ARIZONA (“COUNTY”) / BOYS AND
GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20.
Additionally, if I am awarded a contract to complete this project, I hereby further certify that I will
meet the specified requirements for insurance, including insurance coverage of the sub-
contractors, and name Santa Cruz County, Arizona, the City of Nogales, Arizona and the Boys &
Girls Club as an Additional Insured on this project.

Firm Submitting Bid

Date

Mailing Address

Signature of Authorized Representative

City, State, & Zip Code

Printed Name of Authorized Representative

Telephone Number

DUNS

EXHIBIT 8
PROPOSAL BID BOND CERTIFICATION
(Must be completed and submitted with bid.)

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

_____, shall hereinafter be referred to as “PRINCIPAL,”
(FIRM SUBMITTING BID)

_____, shall hereinafter be referred to as “SURETY,” and
(SURETY)

Santa Cruz County, Arizona shall hereinafter be referred to as “OBLIGEE.”

KNOW ALL PERSONS BY THESE PRESENTS THAT:

WHEREAS, PRINCIPAL is submitting a bid on the SANTA CRUZ COUNTY, ARIZONA (“COUNTY”) / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20.

THEREFORE, pursuant to A.R.S. § 34-201(A)(3):

...[E]very proposal shall be accompanied by a certified check, cashier's check or surety bond for ten per cent of the amount of the bid included in the proposal as a guarantee that the contractor will enter into a contract to perform the proposal in accordance with the plans and specifications. Notwithstanding any other statute, the surety bond shall be executed solely by a surety company or companies holding a certificate of authority to transact surety business in this state issued by the director of the department of insurance pursuant to title 20, chapter 2, article 1. The surety bond shall not be executed by an individual surety or sureties, even if the requirements of section 7-101 are satisfied. The certified check, cashier's check or surety bond shall be returned to the contractors whose proposals are not accepted, and to the successful contractor on the execution of a satisfactory bond and contract as provided in this article. The conditions and provisions of the surety bid bond regarding the surety's obligations shall follow the following form:

Now, therefore, if the obligee accepts the proposal of the principal and the principal enters into a contract with the obligee in accordance with the terms of the proposal and gives the bonds and

certificates of insurance as specified in the standard specifications with good and sufficient surety for the faithful performance of the contract and for the prompt payment of labor and materials furnished in the prosecution of the contract, or in the event of the failure of the principal to enter into the contract and give the bonds and certificates of insurance, if the principal pays to the obligee the difference not to exceed the penalty of the bond between the amount specified in the proposal and such larger amount for which the obligee may in good faith contract with another party to perform the work covered by the proposal then this obligation is void. Otherwise it remains in full force and effect provided, however, that this bond is executed pursuant to the provisions of section 34-201, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of the section to the extent as if it were copied at length herein.

IT IS HEREBY DECLARED, AGREED, AND CERTIFIED that PRINCIPAL shall transmit with their bid a certified check, cashier's check or surety bond for ten per cent of the amount of the bid included in the proposal as a guarantee that the PRINCIPAL will enter into a contract to perform the proposal in accordance with the plans and specifications.

Firm Submitting Bid

Date

Mailing Address

Signature of Authorized Representative

City, State, & Zip Code

Printed Name of Authorized Representative

Telephone Number

DUNS

EXHIBIT 9
STATUTORY PAYMENT BOND PURSUANT TO
ARIZONA REVISED STATUTES
TITLE 34, CHAPTER 2, ARTICLE 2
(For informational purposes only.)

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

(Notwithstanding any other agreement, the penalty of this bond is deemed to be 100% of the amount of the Contract mentioned herein.)

KNOW ALL MEN BY THESE PRESENTS:

That _____ (Firm Submitting Bid), hereinafter called the “PRINCIPAL,” as PRINCIPAL, and _____ (Surety), a corporation

organized and existing under the laws of the State of _____, with its principal office in the City of _____ (hereinafter called the “SURETY”), are

held and firmly bound unto Santa Cruz County, Arizona (hereinafter called the “OBLIGEE”), in the amount of _____ UNITED STATES DOLLARS (\$ _____), for the payment whereof, the said PRINCIPAL and SURETY bind

themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the PRINCIPAL has entered into a certain written contract with the OBLIGEE, dated the _____ day of _____, 2020, which is attached hereto as

“*Exhibit* _____” and incorporated herein by this reference, to complete the SANTA CRUZ

COUNTY, ARIZONA ("COUNTY") / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20.

NOW, THEREFORE, the condition of this obligation is such that, if the said PRINCIPAL promptly pays all monies due to all persons supplying labor or materials to the contactor or sub- contractors in the prosecution of the work provided for in said contract, then this obligation shall be void. Otherwise, this obligation shall remain in full force and effect.

PROVIDED, HOWEVER, THAT this bond having been required of the said PRINCIPAL in order to comply with the provisions of Arizona Revised Statutes, Title 34, Chapter 2, Article 2, all rights and remedies on this bond shall insure solely to such persons and shall be determined in accordance with the provisions, conditions and limitations of said Title, Chapter and Article, to the same extent as if they were copied at length herein.

The prevailing party or any party which recovers judgment on this bond shall be entitled to such reasonable attorney's fees as may be fixed by the court or a judgment thereof.

WITNESS OUR HANDS this ____ day of _____, 2020.

PRINCIPAL

By _____

SURETY SEAL

By _____

AGENCY OF RECORD

AGENCY ADDRESS

(ATTACH AGENT'S POWER OF ATTORNEY)

EXHIBIT 10
STATUTORY PERFORMANCE BOND
PURSUANT TO ARIZONA REVISED STATUTES
TITLE 34, CHAPTER 2, ARTICLE 2
(For informational purposes only.)

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

(Notwithstanding any other agreement, the penalty of this bond is deemed to be 100% of the amount of the Contract mentioned herein)

KNOW ALL MEN BY THESE PRESENTS:

That _____, (Firm Submitting Bid), hereinafter called the “PRINCIPAL,” as PRINCIPAL, and, _____ (Surety), a corporation organized and existing under the laws of the State _____, with its principal office in the City of, _____, (hereinafter called the “SURETY”), are held and firmly bound unto Santa Cruz County, Arizona (hereinafter called the “OBLIGEE”), in the amount of _____ UNITED STATES DOLLARS (\$_____), for the payment whereof, the said PRINCIPAL and SURETY bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, _____ the PRINCIPAL has entered into a certain written contract with the OBLIGEE, dated the ____ day of _____, 2020, which is attached hereto as “*Exhibit*____” and incorporated herein by this reference, to complete the SANTA CRUZ COUNTY, ARIZONA (“COUNTY”) / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20.

NOW, THEREFORE, the condition of this obligation is such that, if the said PRINCIPAL faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of said contract and any extension thereof, with or without notice to the SURETY, and during the life of any guaranty required under the contract, and also performs and fulfills all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the SURETY being hereby waived, then the above obligation shall be void. Otherwise, the obligation shall remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Arizona Revised Statutes, Title 34, Chapter 2, Article 2, and all liabilities on this bond shall be determined in accordance with the provisions of said Title, Chapter and Article, to the extent as if they were copied at length herein.

The prevailing party or any party which recovers judgment on this bond shall be entitled to such reasonable attorney's fees as may be fixed by the court or a judge thereof.

WITNESS OUR HANDS this _____ day of _____, 2020.

PRINCIPAL

By _____

SURETY SEAL

By _____

AGENCY OF RECORD

AGENCY ADDRESS

(ATTACH AGENT'S POWER OF ATTORNEY)

EXHIBIT 12
NOTICE OF INTENT TO AWARD CONTRACT (“NOTICE”)

Month Day, Year

Firm Submitting Bid
Mailing Address
City, State, & Zip

**RE: SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT
PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20**

Dear Firm Submitting Bid:

The County has reviewed and considered your proposal for the above-referenced project and you are hereby notified that the COUNTY accepts your proposal in the amount of **WRITTEN AMOUNT IN UNITED STATES DOLLARS** (\$_____.) and intends to extend to you a construction contract to complete the project. However, before the contract is awarded to you, you must confirm your receipt and review of this Notice by returning an original, executed copy of it to me on or before the _____ **DAY OF _____ 2020 AT 5:00 P.M. (ARIZONA TIME)** at the following address:

B-02-20-CO02 – CDBG #121-20
Santa Cruz County
c/o Mary Dahl, Special Projects
2150 North Congress Drive, Suite 119
Nogales, Arizona 85621

Upon my receipt of your executed Notice, I will send you a “Notice of Award of Contract” shortly thereafter with further instructions for you. In the meantime, you are not authorized to commence work on the project until you receive a “Notice to Proceed” from the COUNTY, which will be issued upon your and the COUNTY’s execution of the contract for this project and your furnishing of all required statutory payment and performance bonds and certificates of insurance to the COUNTY.

SANTA CRUZ COUNTY

FIRM SUBMITTING BID

Mary Dahl, Special Projects

Signature of Authorized Representative

Printed Name of Authorized Representative

Date

EXHIBIT 13
NOTICE OF AWARD OF CONTRACT (“NOTICE”)

Month Day, Year

Firm Submitting Bid
Mailing Address
City, State, & Zip

**RE: SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT
PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20**

Dear Firm Submitting Bid:

You are hereby notified that the County has awarded you the construction contract for the above-referenced project in the amount of **WRITTEN AMOUNT IN UNITED STATES DOLLARS** (\$_____). (Additionally, deduct/add alternates in the amounts for a total of \$_____).

On or before the ____ **DAY OF _____, 2020 AT 5:00 P.M. (ARIZONA TIME)**, you must provide the following to the COUNTY:

1. **THREE (3) COPIES** of the enclosed **CONTRACT**. The contract (and attachments thereto) must be signed by an authorized representative and corporate seals should be affixed where appropriate.
2. **ONE (1) COPY** of the **STATUTORY PAYMENT BOND** to the COUNTY in the amount of the construction contract.
3. **ONE (1) COPY** of the **STATUTORY PERFORMANCE BOND** to the COUNTY in the amount of the construction contract.
4. **ONE (1) COPY** of a **CERTIFICATE OF INSURANCE** that meets the minimum coverage requirements set forth in the in the contract, including Worker's Compensation. The COUNTY must be designated as additional insured on the insurance policy.

Within **TEN (10) DAYS** from the date of your compliance with all of these conditions, the COUNTY will send you one copy of the fully executed contract and keep the other two copies for itself. Please note that if you do not comply with these conditions, the COUNTY will consider your proposal abandoned and annul this Notice of Award of Contract.

In addition to complying with the conditions mentioned above, you must attend a **PRE-CONSTRUCTION CONFERENCE** on (TBD), 2020 AT 10:00 A.M. (ARIZONA TIME) at the Project Site.

I congratulate you on being selected as the recipient of this Notice of Award of Contract and look forward to having you on board to complete this project.

If you have any questions or concerns, please do not hesitate to contact me at (520) 375-7830.

Sincerely,

Mary Dahl, Special Projects
Santa Cruz County

Enclosures: Contract (3 unexecuted copies)

EXHIBIT 14

NOTICE OF NON-AWARD OF CONTRACT

Month Date, Year

Firm Submitting Bid
Mailing Address
City, State, & Zip

**RE: SANTA CRUZ COUNTY, ARIZONA
BOYS AND GIRLS CLUB IMPROVEMENT
BID NUMBER: B-02-20-CO02; CDBG #121-20**

Dear Firm Submitting Bid:

You are hereby notified that your proposal for the above-referenced project was considered but not accepted. Accordingly, I regret to inform you that you will not be awarded a contract for this project. However, I thank you for your submission and hereby notify you that the Clerk of the Santa Cruz County Board of Supervisors will return your Bid Bond to you in short order.

You have the right to protest the decision made by the County. If your firm wishes to protest either informally or formally, the deadline is within seventy-two (72) hours of bid award notification. All comments should be addressed to: Jennifer St. John, County Manager, 2150 N. Congress Drive Nogales, AZ 85621. Protests must contain at a minimum the name, address and telephone number of the protester, the signature of the protester or authorized representative, a detailed statement of legal and factual grounds of the protest including copies of relevant data, and the form of relief requested. Within three (3) business days of receipt, and after consultation with legal counsel, ADOH, or others, the County will respond to the protest.

Additionally:

- You **MUST** exhaust all administrative procedures with the County before you can appeal to the Department of Housing (ADOH), CDBG Program.
- The ADOH's review of the County's procurement process is limited to the following. All other complaints/protests will be referred directly to the County:
- Violations of the CDBG program rules **ONLY**.
- Violations of the County's own protest procedures for failure to review a complaint or protest. In all instances of a protest, the County will disclose information to the CDBG Program regarding the protest.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Mary Dahl
Special Projects

Cc: Tara Hampton, Clerk

EXHIBIT 15
NOTICE TO PROCEED

Month Date, Year

Firm Submitting Bid
Mailing Address
City, State, & Zip

**RE: SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENT
PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20**

Dear Firm Submitting Bid:

You are hereby instructed to commence work on the above-referenced project on the ____ **DAY OF _____, 2020**. You have **SIXTY (60) CONSECUTIVE DAYS** from this date to complete the project, which means that the project must be complete on or before the ____ **DAY OF _____, 2020**.

If you have any questions or concerns, please do not hesitate to contact me at

mdahl@santacruzcountyaz.gov or (520) 375-7681. Sincerely,

Mary Dahl, Special Projects

EXHIBIT 16 APPLICATION FOR PAYMENT

APPLICATION FOR PAYMENT NO. _____

To: _____ (COUNTY)

From: _____ (CONTRACTOR)

Contract: _____ Project: _____

COUNTY'S Contract No. _____ CONTRACTOR'S Project No. _____

For work accomplished through the date of: _____

1.	Original Contract Price:	\$ _____
2.	Net change by Change Orders (+ or -):	\$ _____
3.	Amended Contract Price (1 plus 2):	\$ _____
4.	Total completed and stored to date:	\$ _____
	5. Retainage (per Agreement):	
	_____ % of completed work:	\$ _____
	_____ % of stored material:	\$ _____
	Total Retainage:	\$ _____
6.	Total completed and stored to date less retainage (4 minus 5):	\$ _____
7.	Less previous Application for Payments:	\$ _____
8.	DUE THIS APPLICATION (6 MINUS 7):	\$ _____

Accompanying Documentation:

CONTRACTOR'S Certification:

The undersigned CONTRACTOR certifies that (1) all previous progress payments received from County on account of work done under the above-referenced contract have been applied on account to discharge CONTRACTOR'S legitimate obligations incurred in connection with work covered by prior Applications for Payment numbered 1 through _____ inclusive; (2) title of all work, materials and equipment incorporated in said work or otherwise listed

in or covered by this Application for Payment will pass to COUNTY at time of payment free and clear of all liens, security interests and encumbrances (except such as are covered by a Bond acceptable to County indemnifying County against any such lien, security interest or encumbrance); and (3) all work covered by this Application for Payment is in accordance with the Contract Documents and not defective.

Dated

CONTRACTOR

By: _____

Payment of the above AMOUNT DUE THIS APPLICATION is recommended.

Dated

CONTRACTOR

By: _____

EXHIBIT 17 CHANGE ORDER

No.: _____

Date of Issuance:	Effective Date:
Owner:	
Contractor:	
Contract:	
Project:	
Owner's Contract No.	Contractor's Contract No.

You are directed to make the following changes in the Contract Documents:

Description:	
Reason for Change Order:	
Attachments (List documents supporting changes)	

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIME
Original Contract Price: \$ _____	Original Contract Times Substantial Completion: _____ Ready for Final Payment: _____ (days or dates)
Net Increase (Decrease) From Previous Change Orders: \$ _____	Original Contract Times Substantial Completion: _____ Ready for Final Payment: _____ (days or dates)
Contract Price Prior to This Change Order: \$ _____	Original Contract Times Substantial Completion: _____ Ready for Final Payment: _____ (days or dates)
Net Increase (Decrease) of This Change Order: \$ _____	Original Contract Times Substantial Completion: _____ Ready for Final Payment: _____ (days or dates)
Contract Price With All Approved Change Orders: \$ _____	Original Contract Times Substantial Completion: _____ Ready for Final Payment: _____ (days or dates)

RECOMMENDED:

APPROVED:

ACCEPTED:

CONTRACTOR (Authorized)

OWNER (Authorized)

CONTRACTOR (Authorized)

Date

Date

Date

EXHIBIT 18
CERTIFICATE OF COMPLETION
(To be completed by Contractor.)

SANTA CRUZ COUNTY, ARIZONA ("COUNTY") BOYS
AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

I hereby certify that all goods and/or services required by the County have been delivered in accordance with the Contract Documents and Bid Specifications and that all activities required by the County have been completed as of _____.
(Date)

Firm Name: _____

Principal: _____

Title: _____

Signature: _____

Date: _____

EXHIBIT 19
CERTIFICATE OF SUBSTANTIAL COMPLETION

(To be completed by Engineer.)

SANTA CRUZ COUNTY, ARIZONA ("COUNTY") BOYS
AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

I hereby certify that in accordance with the Contract Documents and Bid Specifications, the work on the above-referenced project is substantially complete as of _____.
(Date)

Firm Name: _____

Principal: _____

Title: _____

Signature: _____

Date: _____

EXHIBIT 20 CONTRACT

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”) BOYS
AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

THIS Contract is entered into between Santa Cruz County, a body politic and corporate of the State of Arizona, hereinafter called COUNTY, and <CONTRACTOR>, hereinafter called CONTRACTOR, collectively referred to as the Parties.

WITNESSETH

WHEREAS, COUNTY requires, consistent with the provisions of A.R.S. Title 34, the services of a CONTRACTOR to provide all equipment, labor, and material required to construct SANTA CRUZ COUNTY, ARIZONA (“COUNTY”) / BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #120-20 and,

WHEREAS, CONTRACTOR is qualified and willing to provide such services; and

WHEREAS, CONTRACTOR submitted the low responsive, responsible bid in response to **BID NUMBER:** B-02-20-CO02 for the COUNTY for said work is qualified and willing to provide such services; and

NOW, THEREFORE, in consideration of the foregoing recitals and other valuable and good consideration the Parties hereto agree as follows:

ARTICLE 1 – TERM AND EXTENSION/RENEWAL/CHANGES

This Contract commences on the date of the signature of the Chairman of the Santa Cruz County Board of Supervisors (“Board of Supervisors”) and terminates on _____, 2020 unless sooner terminated or further extended pursuant to the provisions of this Contract.

Construction completion time for the work to be performed under this Contract will be **SIXTY (60) CONSECUTIVE DAYS** after the date of the “Notice to Proceed.” Liquidated damages will be assessed based upon the construction completion time.

COUNTY has the option to extend the Contract termination date for project completion. Any modification or extension of the Contract termination date will be by formal written amendment executed by the Parties. The Special Projects Manager, County Manager, or the County Board of Supervisors must approve change orders to the Contract or the scope of services before CONTRACTOR performs the work authorized by the Change Order.

ARTICLE 2 – SCOPE OF SERVICES

CONTRACTOR will provide for the COUNTY all labor, materials and equipment necessary to complete the project as described in the bid solicitation B-02-20-CO02, incorporated into this Contract. All work will be done per specifications called for in the bid documents as contained in the Invitation for Bids (IFB)

B-02-20-CO02 and the exhibits thereto, the general conditions to this Contract, and all exhibits and section that are a part of IFB B-02-20-CO02, which are incorporated herein by this reference.

ARTICLE 3 – COMPENSATION AND PAYMENT

In consideration of the services specified in this Contract, the COUNTY agrees to pay CONTRACTOR in the manner hereinafter specified.

CONTRACTOR will provide detailed documentation in support of requested payment. The CONTRACTOR must cite the Contract number on all invoices. Payments will be made in accordance with Arizona Revised Statutes (“A.R.S.”) § 34-221.

Total payment for this Contract will not exceed <Dollar Amount Spelled Out (\$XX,XXX.XX)>. Payment for this Contract will be made based on **BID FORM FOR LUMP SUM** hereby incorporated herein, for the lump sum amount of the base bid.

For the period of record retention required under Article 23, COUNTY reserves the right to question any payment made under this article and to require reimbursement therefor by offset or otherwise for payments determined to be improper or contrary to the Contract or law.

CONTRACTOR will not perform work in excess of the Contract Amount without prior authorization by an amendment executed by COUNTY. Work performed in excess of the Contract Amount without prior authorization by amendment is at CONTRACTOR’S own risk.

Originals of the Applications for Payment are to be submitted no later than the first day of the month to Mary Dahl, Special Projects, Santa Cruz County, mdahl@santacruzcountyaz.gov.

The COUNTY shall review and verify the percentage, progress and quality of work completed. The COUNTY will also submit a copy of the approved Application for Payment to: Keith Dennis, Community Development Program Manager, at kdennis@seago.org.

SEAGO shall verify compliant completion of all necessary documentation required by ADOH, including but not limited to, federal Labor Standards/Davis-Bacon Act. Should there be repeated non-compliance issues on the part of the CONTRACTOR, SEAGO is authorized to advise the COUNTY to withhold payment until the issues are resolved.

The COUNTY and CONTRACTOR mutually agree that the COUNTY will make a progress payment based on the estimate of the work covered by the corresponding Application for Payment, subject to those conditions stipulated below and in other parts of the contract documents.

The COUNTY will make payments in the amount equal to ninety percent (90%) of work completed (i.e. COUNTY will retain ten percent (10%) of each estimate as additional guarantee for complete performance of the work), less the aggregate of payments previously made and less such deductions as the COUNTY determines are appropriate to cover claims requiring a greater sum to be retained.

Except as qualified above, upon final completion and acceptance of the work or designated part of the work on which separate final completion and acceptance and contract price are specified and upon compliance with other terms and conditions of the contract documents, payment may be made in full, including retainage withheld less such deductions as the COUNTY may withhold to cover claims requiring a greater sum to be retained and liquidated damages.

The COUNTY may deduct from each progress payment and final payment an amount equal to the COUNTY's estimate of the liquidated damages then due or that would become due based on the COUNTY's estimate of late completion of the work if CONTRACTOR fails to submit and implement a written schedule recovery plan describing the cause of schedule slippage or delayed progress and the actions proposed to recover schedule.

ARTICLE 4 – INSURANCE REQUIREMENTS

CONTRACTOR and SUB-CONTRACTORS shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the CONTRACTOR, his agents, representatives, employees or SUB- CONTRACTORS.

The COUNTY in no way warrants that the minimum limits contained herein are sufficient to protect the CONTRACTOR from liabilities that might arise out of the performance of the work under this Contract by the CONTRACTOR, his agents, representatives, employees, or SUB-CONTRACTORS. CONTRACTOR is free to purchase such additional insurance as may be determined necessary.

The Insurance Requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. COUNTY in no way warrants that the minimum limits contained herein are sufficient to protect the CONTRACTOR from liabilities that arise out of the performance of the work under this Contract. The CONTRACTOR is free to purchase additional insurance.

A. MINIMUM SCOPE AND LIMITS OF INSURANCE: CONTRACTOR will procure and maintain, until all of their obligations have been discharged, coverage with limits of liability not less than those stated below.

1. General Liability (CGL) – Occurrence Form with limits of \$2,000,000 Each Occurrence and \$2,000,000 General Aggregate. Policy will include bodily injury, property damage, and broad form contractual liability coverage, as follows:

- Products – Completed Operations Aggregate \$ 1,000,000
- Personal and Advertising Injury \$ 1,000,000
- Blanket Contractual Liability – Written and Oral \$ 1,000,000
- Fire Legal Liability \$ 50,000

2. Automobile Liability – Bodily Injury and Property Damage for any owned, hired, and/or non- owned automobiles used in the performance of this Contract with a Combined Single Limit (CSL) of \$1,000,000.

3. Workers’ Compensation and Employers' Liability - Statutory requirements and benefits. Coverage is compulsory for employers of one or more employees. Employer’s Liability - \$1,000,000.

- Workers' Compensation Statutory
- Employers' Liability
- Each Accident \$ 1,000,000
- Disease – Each Employee \$ 1,000,000
- Disease – Policy Limit \$ 3,000,000

4. Builders' Risk Insurance or Installation Floater \$ 2,000,000

a. The County of Santa Cruz, the City of Nogales (the “CITY”), the CONTRACTOR, SUB-CONTRACTORS, and any others with an insurable interest in the work shall be Insureds on the policy.

b. Coverage shall be written on an all risk, replacement cost basis and shall include coverage for soft costs, flood and earth movement.

c. Policy shall be maintained until whichever of the following shall first occur: (1) final payment has been made; or, (2) until no person or entity, other than the CITY, has an insurable interest in the property required to be covered.

d. Policy shall be endorsed such that the insurance shall not be canceled or lapse because of any partial use or occupancy by the CITY and/or its tenant.

e. Policy must provide coverage from the time any covered property becomes the responsibility of the CONTRACTOR, and continue without interruption during construction, renovation, or installation, including any time during which the covered property is being transported to the construction installation site, or awaiting installation, whether on or off site.

f. Policy shall contain a waiver of subrogation against the COUNTY and the CITY.

g. CONTRACTOR is responsible for the payment of all policy deductibles.

B. ADDITIONAL INSURANCE REQUIREMENTS: The policies will include, or be endorsed to include, as required by this written agreement, the following provisions:

1. Additional Insured Endorsement: The General Liability, Business Automobile Liability and Builder’s Risk Policies will each be endorsed to include CITY, COUNTY, their departments, districts, boards, commissions, officers, officials, agents, and employees as additional insured’s with respect to liability arising out of the activities performed by or on behalf of the CONTRACTOR, to the full limits of liability purchased by the CONTRACTOR, even if those limits of liability are in excess of those required by this Contract.

2. Subrogation Endorsement: The General Liability, Business Automobile Liability and Workers’ Compensation Policies will each contain a waiver of subrogation

endorsement in favor of the CITY, the COUNTY, and their departments, districts, boards, commissions, officers, officials, agents, and employees for losses arising from work performed by or on behalf of the CONTRACTOR.

3. Primary Insurance Endorsement: The CONTRACTOR'S policies will stipulate that the insurance afforded the CONTRACTOR will be primary and that any insurance carried by the CITY, the COUNTY, or their agents, officials, employees, will be excess and not contributory insurance, as provided by A.R.S. § 41-621 (E).

4. Insurance provided by the CONTRACTOR will not limit the CONTRACTOR'S liability assumed under the indemnification provisions of this Contract.

C. NOTICE OF CANCELLATION: Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided, canceled, reduced in coverage or endorsed to lower limits except after **THIRTY (30) DAYS** prior written notice has been given to the COUNTY. Such notice shall be sent directly via *Certified Mail—Return Receipt Requested* to the Special Project Manager as follows:

Mary Dahl, Special Projects
Santa Cruz County
2150 North Congress Drive, Suite 119
Nogales, AZ 85621

D. VERIFICATION OF COVERAGE: CONTRACTOR will furnish COUNTY with certificates of insurance (valid ACORD form or equivalent approved by COUNTY) as required by this Contract. An authorized representative of the insurer will sign the certificates.

1. All certificates and endorsements, as required by this written agreement, are to be received and approved by COUNTY before work commences. Each insurance policy required by this Contract must be in effect at, or prior to, commencement of work under this Contract. Failure to maintain the insurance coverages or policies as required by this Contract, or to provide evidence of renewal, is a material breach of contract.

2. All certificates required by this Contract will be sent directly to the Special Project Manager. COUNTY project or contract number and project description will be noted on the certificate of insurance. The COUNTY reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time.

E. ACCEPTABILITY OF INSURERS: Insurance is to be placed with insurers duly licensed or approved unlicensed companies in the State of Arizona and with an "A.M. Best" rating of not less than B+ VI. The COUNTY in no way warrants that the above-required minimum insurer rating is sufficient to protect the CONTRACTOR from potential insurer insolvency.

F. SUB-CONTRACTORS: CONTRACTOR'S certificate(s) shall include all SUB-CONTRACTORS as additional insureds under its policies *or* CONTRACTOR shall furnish to the COUNTY separate certificates and endorsements for each SUB-CONTRACTOR. All coverages for SUB-CONTRACTORS shall be subject to the minimum requirements identified above.

G. APPROVAL: Any modification or variation from the insurance requirements in this Contract shall be made by the County Attorney, whose decision shall be final. Such action will not require a formal Contract amendment, but may be made by administrative action.

ARTICLE 5 – INDEMNIFICATION CLAUSE

The CONTRACTOR agrees to defend, indemnify, save and hold harmless the CITY, the COUNTY, and their officers, agents and employees, and any jurisdiction or agency issuing permits for any work included in the project, their officers, agents and employees, hereinafter referred to as “indemnitee,” from all suits and claims, including attorney's fees and cost of litigation, actions, loss, damage, expense, cost or claims of any character or any nature arising out of the work done in fulfillment of the terms of this Contract or on account of any act, claim or amount arising or recovered under workers' compensation law or arising out of the failure of the CONTRACTOR to conform to any statutes, ordinances, regulation, law or court decree. It is agreed that the CONTRACTOR will be responsible for primary loss investigation, defense and judgment costs where this contract of indemnity applies. In consideration of the award of this contract, the CONTRACTOR agrees to waive all rights of subrogation against the CITY, the COUNTY, and their officers, officials, agents and employees for losses arising from the work performed by the CONTRACTOR for the COUNTY.

The insurance, its limits, amount and type required herein shall in no way be construed as limiting the scope of this indemnity.

ARTICLE 6 – COMPLIANCE WITH LAWS

CONTRACTOR will comply with all applicable federal, state, and local laws, rules, regulations, standards and Executive Orders, without limitation to those designated within this Contract. The laws and regulations of the State of Arizona govern the rights of the Parties, the performance of this Contract, and any disputes hereunder. Any action relating to this Contract will be brought and maintained in Superior Court in Santa Cruz County. Any changes in the governing laws, rules, and regulations during the term of this Contract apply, but do not require an amendment.

ARTICLE 7 – INDEPENDENT CONTRACTOR STATUS

The status of CONTRACTOR is that of an independent CONTRACTOR and CONTRACTOR is not considered an employee of COUNTY and is not entitled to receive any of the fringe benefits associated with regular employment, and will not be subject to the provisions of the merit system. CONTRACTOR will be responsible for payment of all federal, state and local taxes associated with the compensation received by CONTRACTOR from COUNTY. CONTRACTOR will be responsible for program development and operation without supervision by COUNTY.

ARTICLE 8 – CONTRACTOR/SUB-CONTRACTOR PERFORMANCE

CONTRACTOR will perform the work in accordance with the terms of the Contract and with

the degree of care and skill which a licensed CONTRACTOR in Arizona would exercise under similar conditions. CONTRACTOR will employ suitably trained and skilled personnel to perform all required services under this Contract. Prior to changing any key personnel, especially those key personnel whom COUNTY relied upon in making this Contract, CONTRACTOR will obtain the approval of COUNTY.

CONTRACTOR is responsible for the professional quality, technical accuracy, timely completion, and the coordination of all its effort and other services furnished by CONTRACTOR under this Agreement. Without additional compensation, CONTRACTOR will correct or revise any errors, omissions, or other deficiencies in all products of its efforts and other services provided. This includes resolving any deficiencies arising out of the acts or omissions of CONTRACTOR found during or after the course of the services performed by or for CONTRACTOR under this Agreement, regardless of COUNTY having knowledge of or condoning or accepting the products or the services. Correction of such deficiencies will be at no cost to COUNTY.

CONTRACTOR will ensure that all SUB-CONTRACTORS have the appropriate and current license issued by the Arizona Registrar of CONTRACTORS for work they perform under this contract. CONTRACTOR will not permit any SUB-CONTRACTOR to perform work that does not fall within the scope of the SUB-CONTRACTOR'S license, except as may be permitted under the rules of the Registrar of CONTRACTORS.

CONTRACTOR will be fully responsible for all acts and omissions of its SUB-CONTRACTOR(S) and of persons directly or indirectly employed by SUB-CONTRACTOR and of persons for whose acts any of them may be liable to the same extent that CONTRACTOR is responsible for the acts and omissions of persons directly employed by it. Nothing in this Contract creates any obligation on the part of COUNTY to pay or see to the payment of any money due any SUB-CONTRACTOR, except as may be required by law.

CONTRACTOR must use the SUB-CONTRACTORS named on CONTRACTOR'S SUB-CONTRACTOR List submitted with the bid. No SUB-CONTRACTOR may be added or changed without the prior written approval of the COUNTY subsequent to review and approval by the Administering Department Director. Substitution SUB-CONTRACTORS may be approved at the discretion of the COUNTY for reasons including but not limited to, availability, insolvency or any other reason deemed to be in the best interest of the COUNTY.

ARTICLE 9 – ASSIGNMENT

CONTRACTOR will not assign its rights to this Contract in whole or in part, without prior written approval of COUNTY. COUNTY may withhold assignment at its sole discretion, provided that COUNTY will not unreasonably withhold such approval.

ARTICLE 10 – NON-DISCRIMINATION

CONTRACTOR agrees to comply with all provisions and requirements of Arizona Executive Order 2009-

09 which is hereby incorporated by this reference as if fully set forth herein *including flow down of all provisions and requirements to any SUB-CONTRACTORS*. During the performance of this Contract, CONTRACTOR shall not discriminate against any employee, client or any other individual in any way because of that person's age, race, creed, color, religion, sex, disability or national origin.

ARTICLE 11 – AMERICANS WITH DISABILITIES ACT

CONTRACTOR shall comply with all applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-12213) and all applicable federal regulations under the Act, including 28 CFR Parts 35 and 36. If CONTRACTOR is carrying out government programs or services on behalf of COUNTY, then CONTRACTOR shall maintain accessibility to the program to the same extent and degree that would be required of the COUNTY under 28 CFR Sections 35.130, 35.133, 35.149 through 35.151, 35.160, 35.161 and 35.163. Failure to do so could result in the termination of this Agreement.

ARTICLE 12 - AUTHORITY TO CONTRACT

CONTRACTOR warrants its right and power to enter into this Contract. If any court or administrative agency determines that COUNTY does not have authority to enter into this Contract, COUNTY will not be liable to CONTRACTOR or any third party by reason of such determination or by reason of this Contract.

ARTICLE 13 – NON-WAIVER

The failure of COUNTY to insist in any one or more instances upon full and complete compliance with any of the terms and provisions of this Contract or to take any action permitted as a result thereof is not a waiver or relinquishment of the right to insist upon full and complete performance of the same or any other covenant or condition either in the past or in the future. The acceptance by either party of sums less than may be due and owing it at any time is not an accord and satisfaction.

ARTICLE 14 – CANCELLATION FOR CONFLICT OF INTEREST

This Contract is subject to the provisions of A.R.S. §38-511 which provides in pertinent part:

"The state, its political subdivisions or any department of either may, within three years after its execution, cancel any contract, without penalty or further obligation, made by the state, its political subdivisions, or any of the departments or agencies of either if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the state, its political subdivisions or any of the departments or agencies of either is, at any time, while the contract or any extension of the contract is in effect, an employee or agent of any other party to the contract in any capacity or a Contractor to any other party to the contract with respect to the subject matter of the contract."

ARTICLE 15 – TERMINATION OF CONTRACT FOR DEFAULT

- A. Upon a failure by CONTRACTOR to cure a default under this Contract within **TEN (10) DAYS** of receipt of notice from COUNTY of the default, COUNTY may, in its sole discretion, terminate this Contract for default by written notice to CONTRACTOR. In this event, COUNTY may take over the work and complete it by Contract or otherwise. CONTRACTOR and its sureties, if any, will be liable for any damage to COUNTY resulting from CONTRACTOR’S default, including any increased costs incurred by COUNTY in completing the work.
- B. The occurrence of any of the following constitutes an event of default:
1. Abandonment of or refusal or failure to prosecute the work or any separable part thereof with the diligence that will insure completion within the time specified in this Contract, including any extension, or a failure to complete the work (or the separable part of the work) within the specified time;
 2. Persistent or repeated refusal or failure to supply enough properly skilled workers or materials to perform the work on schedule;
 3. Failure to provide competent supervision at the site;
 4. Failure to take down, rebuild, repair, alter or amend any defective or deficient work, or to remove any defective or deficient Material
 5. Failure to make prompt payment to SUB-CONTRACTORS or suppliers for material or labor;
 6. Loss of CONTRACTOR’S business or other required license or authority, or any curtailment or cessation for any reason of business or business operations that would substantially impair or preclude CONTRACTOR’S performance of this Contract;
 7. Disregard of laws, ordinances, or the instructions of COUNTY or its representatives, or any otherwise substantial violation of any provision of the Contract; or
 8. If a voluntary or involuntary action for bankruptcy is commenced with respect to CONTRACTOR, or CONTRACTOR becomes insolvent, makes a general assignment for the benefit of creditors, or has a receiver or liquidator appointed in respect of its assets.
- C. In the event of a termination for default:
1. All finished and unfinished as-builts, shop drawings, documents, data, studies, surveys, drawings, photographs, reports and other information in whatever form, including electronic, acquired or prepared by CONTRACTOR for this project become

COUNTY'S property and will be delivered to COUNTY not later than **FIVE (5) BUSINESS DAYS** after the effective date of the termination;

2. COUNTY may withhold payments to CONTRACTOR arising under this or any other Contract for the purpose of set-off until such time as the exact amount of damage due COUNTY from CONTRACTOR is determined; and
3. Subject to the immediately preceding subparagraph (2), COUNTY'S liability to CONTRACTOR will not exceed the reasonable value of work satisfactorily performed prior to the date of termination for which payment has not been previously made.

D. The Contract will not be terminated for default, nor CONTRACTOR charged with damages under this Article, if—

1. Excepting item (8) in paragraph B above, the event of default or delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of CONTRACTOR. Examples of such causes include—

- (i) Acts of God or of the public enemy,
- (ii) Acts of the COUNTY in either its sovereign or contractual capacity,
- (iii) Acts of another CONTRACTOR in the performance of a Contract with the COUNTY, (iv) Fires,
- (v) Floods,
- (vi) Epidemics,
- (vii) Quarantine restrictions, (viii) Strikes,
- (ix) Freight embargoes,
- (x) Unusually severe weather, or
- (xi) Delays of SUB-CONTRACTORS or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both CONTRACTOR and the SUB-CONTRACTORS or suppliers; and

2. CONTRACTOR, within **THREE (3) DAYS** from the beginning of any event of default or delay (unless extended by COUNTY), notifies COUNTY in writing of the cause(s) therefor. In this circumstance, COUNTY will ascertain the facts and the extent of the resulting delay. If, in the judgment of COUNTY, the findings warrant such action, the time for completing the work may be extended.

E. For the purposes of paragraph A above, "receipt of notice" includes receipt by hand by CONTRACTOR'S onsite project manager to the Special Projects Manager, or under the Notices clause of this Contract.

F. If, after termination of the Contract for default, it is determined that the CONTRACTOR was not in default, or that the delay was excusable, the rights and obligations of the Parties will be the same as if the termination had been issued for the convenience of the COUNTY.

G. The rights and remedies of COUNTY in this Article are cumulative and in addition to any other rights and remedies provided by law or under this Contract.

ARTICLE 16 – TERMINATION FOR CONVENIENCE OF COUNTY

COUNTY may terminate this Contract at any time by giving written notice to CONTRACTOR of such termination and specifying the effective date thereof, at least **FIFTEEN (15) DAYS** before the effective date of such termination. In that event, all finished or unfinished documents and other materials will, at the option of COUNTY, become its property. If COUNTY terminates the Contract as provided herein, COUNTY will pay CONTRACTOR an amount based on the time and expenses incurred by CONTRACTOR prior to the termination date. However, COUNTY will make no payment for anticipated profit on unperformed services.

ARTICLE 17 – NON-APPROPRIATION OF FUNDS

Notwithstanding any other provision in this Contract, COUNTY may terminate this Contract if for any reason the Santa Cruz County Board of Supervisors does not appropriate sufficient monies for the purpose of maintaining this Contract. In the event of such termination, COUNTY has no further obligation to CONTRACTOR, other than payment for services rendered prior to termination.

ARTICLE 18 – NOTICES

Any notice required or permitted to be given under this Contract will be in writing and will be served by delivery or by certified mail upon the other party as follows:

COUNTY:

Mary Dahl, Special Projects
Santa Cruz County
2150 North Congress Drive, Suite 119
Address> Nogales, Arizona 85621
Zip>
(520) 841-0111

CONTRACTOR:

CONTRACTOR
<CONTRACTOR Name>
<CONTRACTOR
<City, State, &
<Tel: (XXX) XXX-XXXX>
<Fax: (XXX) XXX-XXXX>

ARTICLE 19 - NON-EXCLUSIVE CONTRACT

CONTRACTOR understands that this Contract is Non-Exclusive and is for the sole convenience of COUNTY. COUNTY reserves the right to obtain like services from other sources for any reason.

ARTICLE 20 - CONTRACT DOCUMENTS

A. **INCORPORATION OF DOCUMENTS:** CONTRACTOR and COUNTY, in entering into this Contract, have relied upon information provided in the COUNTY’S Invitation for Bids (IFB) and the Exhibits thereto on the SANTA CRUZ COUNTY, ARIZONA

("COUNTY")

BOYS AND GIRLS CLUB IMPROVEMENT PROJECT / BID NUMBER: B-02-20-CO02 / CDBG #121-20, all bid documents, which include but are not limited to bid schedule, bonds (bid, payment, and performance), general conditions, special provisions, technical specifications, plans, construction documents, drawings, addenda, and information provided in the CONTRACTOR'S response to IFB on this project. All of these documents are hereby incorporated herein by this reference as if they were fully set forth herein.

B. ORDER OF PRECEDENCE: In the event of a conflict or inconsistency between or among the documents incorporated into this Contract, the Contract Documents shall take precedence in the following order:

1. This Contract
2. Bid Form
3. General Conditions, Special Provisions, Technical Specifications, and Plans
4. CONTRACTOR'S Response to the Solicitation
5. Instructions to Bidders
6. Invitation for Bids

The parties may, by written mutual agreement, deviate from this order of precedence in resolving inconsistencies between or among Contract Documents. Any such agreement interpreting the Contract shall be incorporated into the Contract by amendment.

In the event of any conflict between any provision in the Special Conditions, if any, and any provision of the General Conditions, or any other document incorporated herein, the provision in the Special Conditions shall take precedence.

ARTICLE 21 - BONDING REQUIREMENTS

In accordance with A.R.S. §34-221, *et. seq.*, the CONTRACTOR will provide Payment and Performance bonds for not less than **ONE HUNDRED PERCENT (100%)** of the contract amount. Copies of said bonds will be attached to and become part of this Contract.

ARTICLE 22 - OWNERSHIP OF DOCUMENTS

All original drawings, boring logs, field data, estimates, field notes, plans, specifications, documents, reports, calculations, maps and models, and other information developed by CONTRACTOR under this Contract vest in and become the property of the COUNTY and will be delivered to COUNTY upon completion or termination of the services, but CONTRACTOR may retain record copies thereof.

ARTICLE 23 - BOOKS AND RECORDS

CONTRACTOR will keep and maintain proper and complete books, records and accounts, which will be open at all reasonable times for inspection and audit by duly authorized representatives of COUNTY.

CONTRACTOR will retain all records relating to this Contract at least **FIVE (5) YEARS** after its termination or cancellation or until any related pending proceeding or litigation has been closed, if later. Alternatively, CONTRACTOR may, at its option, deliver such records to COUNTY for retention.

ARTICLE 24 – REMEDIES

Either party may pursue any remedies provided by law for the breach of this Contract, provided, however, that the procedures in ARTICLE 27 are first exhausted. No right or remedy is intended to be exclusive of any other right or remedy and each is cumulative and in addition to any other right or remedy existing at law or at equity or by virtue of this Contract.

ARTICLE 25 – SEVERABILITY

Each provision of this Contract stands alone, and any provision of this Contract found to be prohibited by law is ineffective to the extent of such prohibition without invalidating the remainder of this Contract.

ARTICLE 26 – DELAYS

Neither party hereto is in default in the performance of its obligations hereunder to the extent that the performance of any such obligation is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of such party.

ARTICLE 27 – DISPUTES

In the event of a dispute between COUNTY and CONTRACTOR regarding any part of this Contract or the Parties' obligations or performance hereunder, either Party may request a special meeting between their respective representatives to resolve the dispute. If the dispute remains unresolved, then either Party may request escalation of the issue to a meeting between the County Manager and CONTRACTOR'S counterpart official, such meeting to be held within one week of the request, unless otherwise agreed. If the dispute is still not resolved after that meeting, then either Party may pursue such remedy or remedies as may be available to them under the laws of the State of Arizona.

The Parties will continue performance of their respective obligations under this Contract notwithstanding the existence of any dispute.

ARTICLE 28 – PUBLIC INFORMATION

Pursuant to A.R.S. § 39-121 et seq., and A.R.S. §§ 34-603(H), 604(H), in the case of construction or Architectural and Engineering services procured under A.R.S. Title 34, Chapter 6, all information submitted by CONTRACTOR in any way related to this Contract, including, but not limited to, pricing, product specifications, work plans, and any supporting data becomes public information and upon request, is subject to release and/or review by the general public including competitors.

Any information submitted related to this Contract that CONTRACTOR believes constitutes proprietary, trade secret or otherwise confidential information must be appropriately and prominently marked as CONFIDENTIAL prior to submittal to COUNTY and be accompanied by an index specifically identifying and describing the general contents of each page so marked. The index is a public record and should not include any information considered confidential.

Notwithstanding the above provisions, in the event records marked CONFIDENTIAL are requested for public release pursuant to A.R.S. § 39-121 et seq., COUNTY will release records marked CONFIDENTIAL **TEN (10) BUSINESS DAYS** after the date of notice to the CONTRACTOR of the request for release, unless CONTRACTOR has, within the ten (10) day period, secured a protective order, injunctive relief or other appropriate order from a court of competent jurisdiction, enjoining the release of the records. For the purposes of this paragraph, the day of the request for release is not counted in the time calculation. CONTRACTOR will be notified of any request for such release on the same day of the request for public release or as soon thereafter as practicable.

COUNTY shall not, under any circumstances, be responsible for securing a protective order or other relief enjoining the release of records marked CONFIDENTIAL, nor shall COUNTY be in any way financially responsible for any costs associated with securing such an order.

ARTICLE 29 – LEGAL ARIZONA WORKERS ACT COMPLIANCE

CONTRACTOR hereby warrants that it will at all times during the term of this Contract comply with all federal immigration laws applicable to CONTRACTOR'S employment of its employees, and with the requirements of A.R.S. §23-214(A) (together the "State and Federal Immigration Laws"). CONTRACTOR will further ensure that each SUB-CONTRACTOR who performs any work for CONTRACTOR under this Contract likewise complies with the State and Federal Immigration Laws.

COUNTY has the right at any time to inspect the books and records of CONTRACTOR and any SUB- CONTRACTOR in order to verify such party's compliance with the State and Federal Immigration Laws.

Any breach of CONTRACTOR'S or any SUB-CONTRACTOR'S warranty of compliance with the State and Federal Immigration Laws, or of any other provision of this section, is a material breach of this Contract subjecting CONTRACTOR to penalties up to and including suspension or termination of this Contract. If the breach is by a SUB-CONTRACTOR, and the subcontract is suspended or terminated as a result, CONTRACTOR will take such steps as may be necessary to either self-perform the services that would have been provided under the subcontract or to retain a replacement SUB-CONTRACTOR (subject to COUNTY approval if SBE or DBE preferences apply), as soon as possible so as not to delay project completion.

CONTRACTOR will advise each SUB-CONTRACTOR of COUNTY'S rights, and the SUB-CONTRACTOR'S obligations, under this Article by including a provision in each subcontract substantially in the following form:

“SUB-CONTRACTOR hereby warrants that it will at all times during the term of this contract comply with all federal immigration laws applicable to SUB-CONTRACTOR’S employees, and with the requirements of A.R.S. § 23-214 (A). SUB-CONTRACTOR further agrees that COUNTY may inspect the SUB-CONTRACTOR’S books and records to insure that SUB-CONTRACTOR is in compliance with these requirements. Any breach of this paragraph by SUB-CONTRACTOR is a material breach of this contract subjecting SUB-CONTRACTOR to penalties up to and including suspension or termination of this contract.”

Any additional costs attributable directly or indirectly to remedial action under this Article are the responsibility of CONTRACTOR. In the event that remedial action under this Article results in delay to one or more tasks on the critical path of CONTRACTOR’S approved construction or critical milestones schedule, such period of delay will be excusable delay for which CONTRACTOR is entitled to an extension of time, but not costs.

ARTICLE 30 – ENTIRE AGREEMENT

This document constitutes the entire agreement between the Parties pertaining to the subject matter hereof, and all prior or contemporaneous agreements and understandings, oral or written, are hereby superseded and merged herein. This Contract may be modified, amended, altered or extended only by a written Amendment signed by the Parties.

IN WITNESS WHEREOF, the Parties have affixed their signatures to this Contract on the dates written below.

APPROVED:

CONTRACTOR:

Bruce Bracker, Chairman
Santa Cruz County Board of Supervisors

Signature of Authorized Representative

Date

Name of Authorized Representative

Date

APPROVED AS TO FORM:

Kimberly Hunley, Chief Civil Deputy County Attorney

Date

EXHIBIT 22

SECTIONS A - D

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”)
BOYS AND GIRLS CLUB IMPROVEMENTS
BID NUMBER: B-02-20-CO02
CDBG #121-20

ENVIRONMENTAL CONDITIONS	SECTION A
CDBG COMPLIANCE BID DOCUMENTS/WAGE RATE	SECTION B
GENERAL CONDITIONS & SPECIAL PROVISIONS	SECTION C
TECHNICAL SPECIFICATIONS	SECTION D

SECTION A

**ENVIRONMENTAL
CONDITIONS**

**SANTA CRUZ COUNTY
BOYS AND GIRLS CLUB
IMPROVEMENTS**

BID NUMBER: B-02-20-CO02

CDBG #121-20

ENVIRONMENTAL CONDITIONS

SANTA CRUZ COUNTY, ARIZONA (“COUNTY”) BOYS
AND GIRLS CLUB IMPROVEMENT PROJECT
BID NUMBER: B-02-20-CO02
CDBG #121-20

1. Mitigation Measures:

- a) Pursuant to ARS §41-865, if any remains or funerary objects are inadvertently uncovered as a result of this project, all work must cease within the area of the remains and the Curator of Archeology, Arizona State Museum (ASM), must be contacted immediately, as well as, notification made to other appropriate agencies.
- b) If any cultural features or deposits are encountered (i.e. village ruins or religious resources including burial grounds) during ground disturbance, work will cease and a qualified archaeologist will be consulted to evaluate the nature and significance of the find, as well as notification to the appropriate Tribes, State Historic Preservation Office, and ASM.
- c) Mitigation measures, as applicable, to reduce dust during construction of the project will be included in the construction contract, required by ADEQ, Air Quality Department:
 - i) Site Preparation and Construction –
 - (1) minimize land disturbance;
 - (2) suppress dust on traveled paths which are not paved through wetting down the area, using water trucks, chemical dust suppressants, or other reasonable precautions to prevent dust entering ambient air;
 - (3) cover trucks when hauling soil;
 - (4) minimize soil track-out by washing or cleaning truck wheels before leaving construction site;
 - (5) stabilize the surface of soil piles, if not removed immediately; and
 - (6) create windbreaks.
 - ii) Site Restoration –
 - (1) revegetate any disturbed land not used;
 - (2) remove unused material; and
 - (3) remove soil piles via covered trucks.
 - iii) Follow the attached ADEQ Arizona Administrative Code for reducing dust during construction, demolition and earth moving activities.
- d) Mitigation measures to reduce noise during construction of the project are included in the construction contract.

2. Required Permits:

All land disturbances of one acre or more require a Construction Stormwater Notice of Intent (NOI) permit from ADEQ, which must be filed on the Internet at <http://az.gov/webapp/noi/main.do> by the contractor before construction can begin. Per ADEQ, this project is subject to Santa Cruz County Floodplain Regulations.

3. Endangered Species:

The Southwestern Willow Flycatcher, Gila topminnow, lesser long-nosed bats, critical habitat for the willow flycatcher and proposed critical habitat for the yellow-billed cuckoo have all been recorded within two miles of the project. If you are uncertain about the effects of your project to these species and associated critical habitats, or if you anticipate your project will not be in compliance with the [Endangered Species Act], the Department recommends that you and/or the project proponent contact the U.S. Fish and Wildlife Service (USFWS) for their Technical Assistance

4. Native Plant Protection:

If this project results in the disturbance of over 0.25 acres of land, it will be subject to Arizona Native Plant Regulations.

ATTACHMENT

Arizona Department of State Office of the Secretary of State

ARIZONA ADMINISTRATIVE CODE

R18-2-604. Open Areas, Dry Washes, or Riverbeds

- A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.
- B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.
- C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational, institutional, educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and 3-wheelers. Any person who violated the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-604 renumbered without change as Section R18-2-604 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-604 renumbered to R18-2-804, new Section R18-2-604 renumbered from R18-2-404 and amended effective November 15, 1993 (Supp. 93-4).

R18-2-605. Roadways and Streets

- A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.
- B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-605 renumbered without change as Section R18-2-605 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-605 renumbered to R18-2-805, new Section R18-2-605 renumbered from R18-2-405 effective November 15, 1993 (Supp. 93-4).

R18-2-606. Material Handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-606 renumbered from R18-2-406 effective November 15, 1993 (Supp. 93-4).

R18-2-607. Storage Piles

- A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.
- B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

R18-2-804. Roadway and Site Cleaning Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than 10 consecutive seconds, the opaCounty of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

- B. In addition to complying with subsection (A), no person shall cause, allow or permit the cleaning of any site, roadway, or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-804 renumbered to Section R18-2-904, new Section R18-2-804 renumbered from R18-2-604 effective November 15, 1993 (Supp. 93-4).

SECTION B

**CDBG COMPLIANCE BID
DOCUMENT**

**SANTA CRUZ COUNTY
BOYS AND GIRLS CLUB IMPROVEMENTS
BID NUMBER: B-02-20-CO02
CDBG #121-20**

**(Includes Section 3 Requirements for contracts over
\$100,000)**

SEAGO COMPLIANCE BID DOCUMENT

SECTION I

This section includes documents and certifications that **MUST BE INCLUDED, FILLED OUT, AND/OR SIGNED AS PART OF THE CONTRACTOR/SUBCONTRACTOR BID SUBMITTAL OR AS STATED BELOW**, in order for the bid to be considered responsive and eligible for award:

Labor Standard (LS) Form 2, Contractor Certification – Determine Prime Contractor’s eligibility to work on federal-funded projects. **Follow attached LS-2 Instructions, sign and submit with bid.**

Certifications – Required by federal law and **must be completed, signed and submitted with bid:**

Regarding Lobbying Regarding Conflict

of Interest Procurement of Recovered

Materials

Civil Rights Provision

Section 503 Clause (Affirmative Action for Handicapped Workers)

Access to Records and Records Retention

Equal Employment Opportunity

Federal Labor Standards Provisions

Section 3



Grantee: Santa Cruz County CDBG Contract No: 121-20
Activity No: 2 Activity Name: Boys and Girls Club Improvements

**LS-2 CDBG CONTRACTOR'S CERTIFICATION
CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS**

1. I, the undersigned, am submitting a bid to (name of grantee): Santa Cruz County for the construction of the (name of project): Boys and Girls Club Improvements and hereby acknowledge that the following items are included in the bid and will also be incorporated by reference into the contract, should I be selected as the contractor for the project.
 - a. Labor Standards Provisions (HUD 4010),
 - b. Wage Decision _____, that
 - c. the correction of any infractions of the aforesaid conditions, including infractions by any of my subcontractors and any lower tier subcontractors, is my responsibility.
2. I hereby certify that:
 - a. To the best of my knowledge, neither I nor any firm, partnership or association in which I have a substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6(b) of the Regulations of the Secretary of Labor, Part 5 (29 CFR. Part 5) or pursuant to Section 3(a) of the Davis-Bacon Act, as amended [40 U.S.C. 276a-2(a)].
 - b. No part of the aforementioned contract is or will be subcontracted to any subcontractor, if such subcontractor or firm, corporation, partnership or association in which such sub-contractor has a substantial interest is, to the best of my knowledge, designated as an ineligible contractor pursuant to any of the aforementioned regulatory or statutory provisions.
3. I agree to obtain and forward to the aforementioned grantee, a Subcontractor's Certification Concerning Labor Standards and Prevailing Wage Requirements executed by each and every subcontractor, preferably prior to or where circumstances do not allow within ten days after the execution of any subcontract, including those executed by his/her subcontractors and any lower tier subcontractors.
4. I hereby acknowledge that I am aware that should I sign a subcontract with a subcontractor or should that subcontractor sign a contract with a lower tiered subcontractor who is found to be ineligible to receive federal funds, I shall subtract such costs from the amount I will bill the grantee.
5. Further, I certify that:
 - a. The demographic and business information of the undersigned are:

Contractor Information								
Amount of Contract	Type of Trade Code*	Racial Code*	Hispanic Y/N	Women Owned Y/N	IRS/Federal Tax ID # DUNS #	Sec 3 Y/N	Contractor Name Address City, State, Zip, Phone	License No.
\$								

*See Demographic and Trade Code table on next page for information

Demographic and Trade Codes	
Race	Type of Trade Code
11 – White	1 – New Construction
12 – African America	2 – Substantial Rehab
13 – Asian	3 – Repair
14 – American Indian or Alaskan Native	4 – Service
15 – Native Hawaiian or other Pacific Islander	5 – Project Management
16 – American Indian or Alaskan Native and White	6 – Professional
17 – Asian and White	7 – Tenant Services
18 – African American and White	8 – Education Training
19 – American Indian or Alaskan Native and White	9 – Architecture/Engineering
20 – Other Multi-Racial	10 – Other

b. The undersigned is:

- a sole proprietorship;
- a partnership;
- a corporation organized in the State of _____; or
- another organization (describe) _____

c. The name, title and address of the owners, partners or officers of the undersigned are:

<u>NAME</u>	<u>TITLE</u>	<u>ADDRESS</u>

d. The names and addresses of all other persons, both natural and corporate, having a substantial interest in the undersigned, and the nature of the interest, are: (Indicate if None)

<u>NAME</u>	<u>TITLE</u>	<u>NATURE OF INTEREST</u>

e. The names, addresses and trade classifications of all other building construction contractors in which the undersigned has a substantial interest are: (Indicate if None)

<u>NAME</u>	<u>TITLE</u>	<u>TRADE CLASSIFICATION</u>

6. I hereby certify that I have the legal authority to complete and submit this document on behalf of:

Name of Contractor: _____

Signature (in ink)

Type or Printed Name

Title

Date and Phones

WARNING: U.S. Criminal Code, Section 1010, Title 18, U.S.C. provides in part: "Whoever...makes, passes, utters or publishes any statement, knowing the same to be false...shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

LS-2 INSTRUCTIONS & HIGHLIGHTS

NOTICE OF AWARD WILL NOT BE ISSUED UNTIL the Contractor has been verified on www.Sam.gov as eligible to work on federally funded projects, by the Arizona Department of Housing (ADOH) or SouthEastern Arizona Governments Organization (SEAGO).

- Contractor certifies that to the best of their knowledge they are eligible to work on federal-funded projects.
- Contractor acknowledges that federal wage rates are included as part of this contract.
- Contractor agrees to provide SEAGO a **Subcontractor Certification (LS-3)**, for any subcontractor **immediately upon hire**.
- Contractor acknowledges that should a subcontractor or any lower tier subcontractor be found ineligible to receive federal funds those costs will be subtracted from the amount billed to the Grantee.
- Only the Owners/Principles listed on the LS-2 have signature authority on Labor Standard Forms. After contract award, the Owner/Principle can give signature authority to another individual to sign all remaining Labor Standard forms that may be required. The Owner/Principle must provide this authorization in writing to SEAGO.

WARNING - Falsification of any statement on the LS-2 is punishable by a fine of not more than \$5,000 or imprisonment of not more than two years or both!



**LS-3: SUB-CONTRACTOR'S CERTIFICATION
CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS**

1. I, the undersigned, having submitted a bid or having executed a contract with:
(contractor or sub-contractor):

for (name of project):

for (nature of work):

in the amount of \$ _____ certify that:

- a. The Labor Standards Provisions (HUD 4010) are included in the aforementioned contract or bid;
- b. Wage Decision # _____ are included in the aforementioned contract or bid.

2. I hereby certify that:

- a. To the best of my knowledge, neither I nor any firm, partnership or association in which I have a substantial interest, is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6(b) of the Regulations of the Secretary of Labor, Part 5 (29 CFR. Part 5) or pursuant to Section 3(a) of the Davis-Bacon Act, as amended [40 U.S.C. 276a-2(a)].
- b. No part of the aforementioned contract has been or will be sub-contracted to any sub-contractor, if such sub-contractor or firm, corporation, partnership or association in which such sub-contractor has a substantial interest is, to the best of my knowledge, designated as an ineligible contractor pursuant to any of the aforementioned regulatory or statutory provisions.

3. Further, I certify that:

a. The demographic and business information of the undersigned are:

Contractor Information									
Amount of Contract	Type of Trade Code*	Racial Code*	Hispanic (Y/N)	Women Owned (Y/N)	IRS Tax ID #	DUNS #	Section 3 (Y/N)	Construction Firm Legal Name Address, City, State, Zip	AZ License #
\$									

* See Demographic and Trade Code table below for information

Demographic and Trade Codes	
<i>Race</i>	<i>Type of Trade Code</i>
11 White	1 New Construction
12 African American	2 Education/Training
13 Asian	3 Other (i.e. rehabilitation, administration, professional, public services)
14 American Indian or Alaskan Native	
15 Native Hawaiian or other Pacific Islander	
16 American Indian or Alaskan Native and White	
17 Asian and White	
18 African American and White	
19 American Indian or Alaskan Native and White	
20 Other Multi-racial	

b. The undersigned is:

- a sole proprietorship;
 a partnership;
 a corporation organized in the State of _____; or
 another organization (describe)

c. The name, title and address of the owners, partners or officers of the undersigned are (list any other legal names/doing business as (dba)):

<u>NAME</u>	<u>TITLE</u>	<u>ADDRESS</u>
-------------	--------------	----------------

d. The names and addresses of all other persons, both natural and corporate, having a substantial interest in the undersigned and the nature of the interest, are: (indicate if NONE)

<u>NAME</u>	<u>ADDRESS</u>	<u>NATURE OF INTEREST</u>
-------------	----------------	---------------------------

e. The names, addresses and trade classifications of all other building construction contractors in which the undersigned has a substantial interest are: (indicate if NONE)

<u>NAME</u>	<u>ADDRESS</u>	<u>TRADE</u>
<u>CLASSIFICATION</u>		

4. I hereby certify that I have the legal authority to complete and submit this document on behalf of:

a. Name of Contractor:

b. Signature (**in ink**):

c. Typed or Printed Name:

d. Title: _____
e. Date: _____

WARNING: U.S. Criminal Code, Section 1010, Title 18, U.S.C. provides in part:
“Whoever...makes, passes, utters or publishes any statement, knowing the same to be false...shall be fined under this title or imprisoned not more than two (2) years, or both.”

LS-3 INSTRUCTIONS & HIGHLIGHTS

- Subcontractor certifies that to the best of their knowledge they are eligible to work on federal-funded projects.
- Subcontractor acknowledges that federal wage rates are included as part of this contract.
- Subcontractor agrees to provide the Contractor and SEAGO a **Subcontractor Certification (LS-3)**, for any lower tier subcontractor **immediately upon hire**.
- Only the Owners/Principles listed on the LS-3 have signature authority on Labor Standard Forms. After contract award, the Owner/Principle can give signature authority to another individual to sign all remaining Labor Standard forms that may be required. The Owner/Principle must provide this authorization in writing to SEAGO.

WARNING - Falsification of any statement on the LS-3 is punishable by a fine of not more than \$5,000 or imprisonment of not more than two years or both!

CERTIFICATIONS AND PROVISIONS

Required Form

Santa Cruz
County

Boys and Girls Club Improvement Project CDBG #121-20

This CONTRACT is fully or partially federally funded.
Sign and submit with Bid.

CIVIL RIGHTS

The undersigned is fully aware that this contract is wholly or partially federally funded, and further, agrees to abide by the:

Civil Rights Act of 1964, Title VI, as amended, that provides no person on the basis of Race, Color or National Origin shall be excluded from participation, denied program benefits or subjected to discrimination.

And, Civil Rights Act of 1968, Title VIII, as amended, will not discriminate in housing on the basis of Race, Color, Religion, Sex or National Origin.

And, Rehabilitation Act of 1973, Section 503, as amended, which prohibits discrimination against individuals with disabilities and requires government contractors to take affirmative action to employ and advance in employment qualified individuals with disabilities.

And, Housing and Community Development Act of 1974, Section 109, as amended, that no person shall be excluded from participation (including employment), denied program benefits or subjected to discrimination on the basis of Race, Color, National Origin, Sex, Age, Religion and Disability under any program or activity funded in whole or part under Title I (CDBG) of the Act.

And, Age Discrimination Act of 1975, as amended, that no person shall be excluded from participation, denied program benefits or subjected to discrimination on the basis of age under any program or activity receiving federal funds.

And, Americans with Disabilities Act of 1990, as amended, that no covered entity shall discriminate against a qualified individual on the basis of disability in regard to job application procedures, the hiring, advancement or discharge of employees, employee compensation, job training and other terms, conditions and privileges of employment.

And, Executive Order 11063, that no person shall, on the basis of Race, Color, Religion, Sex or National Origin, be discriminated against in housing and related facilities provided with federal assistance or lending practices with respect to residential property when such practices are connected with loans insured or guaranteed by the federal government.

And, Executive Order 11246, as amended, that no person shall be discriminated against, on the basis of Race, Color, Religion, Sex, Sexual Orientation, Gender Identity or National Origin, in any phase of employment during the performance of federal or federally assisted construction contracts awarded to contractors or subcontractors who do over \$10,000 in government business in one (1) year.

EQUAL EMPLOYMENT OPPORTUNITY

During the performance of the contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment, without regard to their race, color,

religion, sex, sexual orientation, gender identity or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advancements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity or national origin.
3. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
5. The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
6. The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
7. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
8. The contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or

vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.” [Sec. 202 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230, EO 13665 of April 8, 2014, 79 FR 20749, EO 13672 of July 21, 2014, 79 FR 42971].

EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES - SECTION 503

(if contract \$10,000 or over)

1. The Contractor will not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ and advance in employment individuals with disabilities, and to treat qualified individuals without discrimination on the basis of their physical or mental disability in all employment practices including the following:
 - a. Recruitment, advertising and job application procedures;
 - b. Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;
 - c. Rates of pay or any other form of compensation and changes in compensation;
 - d. Job assignments, job classifications, organizational structures, position descriptions, lines of progression and seniority lists;
 - e. Leaves of absence, sick leave or any other leave;
 - f. Selection and financial support for training including apprenticeship, professional meetings, conferences and other activities and selection for leaves of absence to pursue training;
 - g. Activities sponsored by the contractor including social or recreational programs; and
 - h. Any other term, condition or privilege of employment.
2. The Contractor agrees to comply with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.
3. In the event of the Contractor's non-compliance with the requirements of this clause, actions for non-compliance may be taken in accordance with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.
4. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, Office of Federal Contract Compliance Programs, provided by or through the contracting officer. Such notices shall state the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants with disabilities. The Contractor must ensure that applicants or employees with disabilities are provided the notice in a form that is accessible and understandable to the individual applicant or employee (i.e. providing Braille or large print versions of the notice or posting a copy of the notice at a lower height for easy viewing by a person using a wheelchair). With respect to

employees who do not work at a physical location of the Contractor, a Contractor will satisfy its posting obligations by posting such notices in an electronic format, provided that the Contractor provides computers, or access to computers, that can access the electronic posting to such employees or the Contractor has actual knowledge that such employees otherwise are able to access the electronically posted notices. Electronic notices for employees must be posted in a conspicuous location and format on the company's intranet or sent by electronic mail to employees. An electronic posting must be used by the Contractor to notify job applicants of their rights if the Contractor utilizes an electronic application process. Such electronic applicant notice must be conspicuously stored with, or as part of, the electronic application.

5. The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding that the Contractor is bound by the terms of Section 503 of Rehabilitation Act of 1973, as amended, and is committed to take affirmative action to employ and advance in employment and shall not discriminate against individuals with physical or mental disabilities.
6. The Contractor must include the provisions of this clause in every subcontract or purchase order in excess of \$10,000 unless exempted by rules, regulations or orders of the Secretary issued pursuant to Section 503 of the Act, as amended, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for non-compliance.
7. The Contractor must, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment and will not be discriminated against on the basis of disability.

PROCUREMENT OF RECOVERED MATERIALS

The undersigned is fully aware that this contract is wholly or partially federally funded and further by submission of this bid certifies that they will adhere to the requirements and specifications as outlined by the EPA at 40 CFR Part 247, Comprehensive Procurement Guideline for Products Containing Recovered Materials.

ACCESS TO RECORDS AND RECORDS RETENTION

The undersigned certifies, to the best of his or her knowledge and belief that:

1. The individual, sole proprietor, partnership, corporation and/or association agrees to permit the *Recipient, Contractors*, State of Arizona Department of Housing (ADOH), U. S. Department of Housing and Urban Development (HUD) and the Office of the Inspector General and/or their designated representatives to have access to all records for review, monitoring and audit during normal working hours.
2. The individual, sole proprietor, partnership, corporation and/or association agrees to retain all records for at least three (3) years following the grant contract closeout between HUD and ADOH or the resolution of all audit findings, whichever is later.

CONFLICT OF INTEREST

The undersigned is fully aware that this contract is wholly or partially federally funded and further, by submission of the bid or proposal that the individual or firm, certifies that:

1. There is no substantial interest, as defined by Arizona Revised Statute §§38-503 through 505, with any public official, employee, agency, commission or committee with the *Recipient* or *Contractors*.

2. Any substantial interest, as defined by Arizona Revised Statute §§38-503 through 505, with any public official, employee, agency, commission or committee (including members of their immediate family) with the *Recipient* or *Contractors* that develops at any time during this contract will be immediately disclosed to the *Recipient* and *Contractors*.

ANTI-LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement and the extension, continuation, renewal, amendment or modification of any federal contract, grant, loan or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress in connection with this federal contract, grant, loan or cooperative agreement, the undersigned shall complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this Certification be included in the award documents for all sub-awards to all tiers (including subcontracts, sub-grants and contracts under grants, loans and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

FEDERAL LABOR STANDARDS PROVISION

- to abide by the Davis Bacon Act, Copeland Anti-Kickback Act and Contract Work Hours and Safety Standards Act;
- to post the Wage Rate Determination (WRD) at the project work site;
- to request additional classifications when not included in the WRD;
- to submit weekly payrolls and retain all payroll and other basic records for at least five years after the completion of the project;
- to provide applicable fringe benefits in cash or appropriate plans in writing to all employees;
- to allow interviews to be conducted during working hours;
- that apprentice employees paid below the WRD are under a bona fide apprenticeship program registered with the U.S. Department of Labor;
- that trainee employees will be paid the appropriate wages stated within classification as stated in the WRD;
- that the undersigned is eligible to receive federally funded contracts and will not subcontract with any ineligible contractors or firms;

- that no employee will be discharged due to the employee's involvement of complaints, proceedings and testimony, to include protection of the identity of confidential sources (employees who make complaints) and prevention of unwarranted invasions of privacy;
- that all hours over the 40 hours per week limit will be paid at no less than one and one half time the basic hourly rate of pay;
- that there will be no unsafe, unsanitary, or hazardous conditions on the work site;
- to follow **ALL** the components of the Federal Labor Standards Provisions

SECTION 3

The premise of Section 3 is that if federal funds are being used to improve or aide a low to very low income area, then efforts must be made to higher the residents of these areas to work on the project; thereby improving the quality of life in the community and that of the individuals or families that live in them. **This is a Section 3 project and therefore all Section 3 regulations and requirements WILL be complied with.**

CERTIFICATIONS SIGNATURE

These Certifications (Civil Rights, Equal Employment Opportunity, Equal Opportunity for Workers with Disabilities - Section 503, Procurement of Recovered Materials, Access to Records and Records Retention, Conflict of Interest, Anti-Lobbying and Federal Labor Standards) are a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of these Certifications is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required Certifications shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

(Typed Name of Official)

(Signature of Official)

(Typed Name of Firm)

(Date)

Federal Labor Standards Provisions

U.S. Department of Housing and Urban Development Office of Labor Relations

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination or the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contracts subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of their registration of apprenticeship programs and certification of apprentice programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rates specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general dispute clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration . . . makes, utters or publishes any statement knowing the same to be false . . . shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

~~(3) Withholding for unpaid wages and liquidated damages.~~ HUD or its designee shall upon its own action upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety. The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96) . 40 USC 3701 et seq.

(3) The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

**SANTA CRUZ COUNTY
BOYS AND GIRLS CLUB
IMPROVEMENTS
BID NUMBER: B-02-20-CO02
CDBG #121-20**

WAGE RATE DETERMINATION

NUMBER:AZ28 (MOD #2)

TYPE:BUILDING

DATE:6/05/2020

"General Decision Number: AZ20200028 06/05/2020

Superseded General Decision Number: AZ20190028

State: Arizona

Construction Type: Building

BUILDING CONSTRUCTION, Includes Building Construction on Treatment Plants and on Industrial Sites (Chemical/Processing/Manufacturing Plants, Power Plants, Refineries, Nuclear Plants, Etc.)

County: Santa Cruz County in Arizona.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	01/24/2020
2	06/05/2020

BRAZ0003-009 07/01/2019

	Rates	Fringes
BRICKLAYER.....	\$ 25.31	8.13

ZONE PAY:

(Radius miles from the intersection of Central Ave. and Washington St., Phoenix, AZ)

- Zone A: 0-60 miles- Base Rate
- Zone B: 61-75 miles- Base Rate plus \$2.00 per hour
- Zone C: 75-100 miles- Base Rate plus \$3.00 per hour
- Zone D: 101-200 miles- Base Rate plus \$3.50 per hour
- Zone E: Over 200 miles- Base Rate plus \$6.50 per hour

 CARP1327-001 07/01/2019

	Rates	Fringes
CARPENTER (Drywall Hanging Only).....	\$ 26.24	8.86

 ELEC0570-003 12/01/2019

	Rates	Fringes
ELECTRICIAN (Includes Alarm Installation and Low Voltage Wiring).....	\$ 27.78	18% + 5.60

ZONE DEFINITIONS-

Zone A: the area within a twenty-nine (29) mile radius from a basing point at the Tucson Town Hall.

Zone B: 29 to 46 mile radius from the town hall in Tucson- an additional \$ 1.25 per hour

Zone C: 47 mile radius from the town hall in Tucson to the outer limits of the geographic jurisdiction- an additional \$ 3.75 per hour

* ENGI0428-003 06/01/2020

	Rates	Fringes
POWER EQUIPMENT OPERATOR (CRANE)		
(2) under 15 tons.....	\$ 31.31	11.72
(3) 15 tons to 100 tons, Tower Crane.....	\$ 32.39	11.72
(4) 100 tons and over.....	\$ 33.42	11.72

IRON0075-002 08/01/2019

	Rates	Fringes
IRONWORKER, REINFORCING AND STRUCTURAL.....	\$ 27.80	19.05

- Zone 1: 0 to 50 miles from City Hall in Phoenix or Tucson
- Zone 2: 050 to 100 miles - Add \$4.00
- Zone 3: 100 to 150 miles - Add \$5.00
- Zone 4: 150 miles & over - Add \$6.50

* LABO1184-010 06/01/2020

	Rates	Fringes
LABORER (MASON TENDER-BRICK).....	\$ 21.63	6.06

PAIN0086-006 04/01/2017

	Rates	Fringes
DRYWALL FINISHER/TAPER		

ZONE A.....	\$ 20.05	6.68
ZONE B.....	\$ 23.55	6.68

ZONE PAY:

ZONE A: Free Zone: A distance of 0 to 100 miles from the old Phoenix courthouse.

ZONE B: A distance of 101 miles and over from the old Phoenix courthouse: \$3.50 per hour over ZONE A

 SUAZ2012-017 05/30/2012

	Rates	Fringes
CARPENTER, Excludes Drywall		
Hanging.....	\$ 22.00	1.31
CEMENT MASON/CONCRETE FINISHER....	\$ 17.71	2.60
FLOOR LAYER: Hardwood and		
Resilient Flooring.....	\$ 17.98	6.50
GLAZIER.....	\$ 15.98	0.79
LABORER: Common or General.....	\$ 15.50	4.50
LABORER: Landscape &		
Irrigation.....	\$ 9.31	0.00
LABORER: Mason Tender -		
Cement/Concrete.....	\$ 16.05	1.49
OPERATOR: Backhoe.....	\$ 14.00	1.80
PAINTER: Brush, Roller and		
Spray.....	\$ 16.13	0.00
PIPEFITTER.....	\$ 22.21	6.12
PLUMBER.....	\$ 19.04	3.07

ROOFER, Includes Installation of Metal Roofs.....	\$ 17.46	4.47
SHEET METAL WORKER.....	\$ 18.68	4.91
SPRINKLER FITTER (Fire Sprinklers).....	\$ 16.48	2.94
TILE SETTER.....	\$ 15.93	0.45

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007

in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"

SEAGO COMPLIANCE BID DOCUMENT

SECTION II

This section includes required forms that **MUST BE COMPLETELY FILLED OUT AND SUBMITTED PRIOR TO BEGINNING WORK ON SITE OR AS STATED BELOW.** The Contractor/Subcontractor do not complete any of these forms as part of the Bid submittal, HOWEVER, ALL DOCUMENTS IN THIS SECTION ARE PART OF THE OVERALL CONTRACT DOCUMENT. Noncompliance with any Labor Standards requirements may result in debarment or suspension from future CDBG or any HUD-assisted contracts.

SEAGO Labor Standard (SLS) Form B: Point of Contact Information Sheet – Information provided will help in the administration of the overall contract, specifically in meeting labor standards requirements. Form must be completed and submitted to SEAGO upon receipt of "Notice of Award."

SLS-E/SF1444: Project Wage Rate Classification & Additional Classification– The **Prime Contractor** must submit a completed form listing **ALL classifications needed for the project**, especially those NOT listed in the WRD and submit to SEAGO at the pre-construction conference. Contractors should check with the local union (if the classification is union) for the rate. If the classification is non-union, complete a survey of 3 like-contractors in the area for the rate. Make note of how rate was determined.

LS-3, Subcontractor Certification – Determine Subcontractor's eligibility to work on federal-funded projects. **Upon receipt of "Notice of Award" the Contractor assures that all subcontractors follow attached LS-3 instructions, sign and submit form at the Pre-Construction Conference or within 10 days of contracting with the subcontractor.** *(If additional subcontractors are hired during construction, this form must be submitted prior to those subcontractors beginning work.)*

LS-4: Weekly Payroll Reports – Contractor/Subcontractor must submit a completed payroll report documenting the hours and pay rate of its employees, within seven days of the end of each work week. Copies of time cards or time sheets SIGNED by employees, verifying dates and hours documented are correct, may also required. HUD 4010 states that failure to submit payrolls in a timely manner can be grounds for withholding funds and being placed on debarment by the Department of Labor (DOL). **FEDERAL FUNDS WILL NOT BE RELEASED UNTIL RECEIVED AND VERIFIED BY ADOH/SEAGO.**

LS-5: Statement of Compliance – Contractor/Subcontractor must submit a completed statement of compliance **along with each weekly payroll report.** HUD 347 requires documentation that appropriate fringe benefits (predetermined by DOL) are paid in cash or to a plan, in addition to payment of minimum rates stated in the WRD. Falsification of the LS-5 is grounds for civil and/or criminal prosecution.

NOTE: If someone other than the owner will be certifying payrolls (signing the LS-5), a letter authorizing the individual (by name and title) and signed by the owner, must accompany the

first payroll submission.

LS-7: Notice to All Employees – Notice must be **posted** at the job site. Notice outlines employee's rights, i.e., as minimum wage, overtime, apprentices, name of compliance officer, as required by FLSA.

Standard Form 1444 (SF-1444), Request For Authorization of Additional Classification(s) and Rate – To request additional job classification(s) not included in the current Wage Rate Determination (WRD) for this project. If additional job classifications are needed, this form must be completed and submitted to SEAGO **prior to but no later than the 1st payroll.**

LS-15: Authorization for Deductions –To authorize deductions from employee's paycheck for other than required state/federal taxes. Employees must sign prior to the deduction and form must be submitted to SEAGO **prior to but no later than with employees' first payroll.** **FUNDS WILL NOT BE RELEASED UNTIL RECEIVED AND VERIFIED BY SEAGO.**

SLS-17: Certification for Applicable Fringe Benefit Payments – To document fringe benefits plan(s) information. Copies of remittances/invoices/ statements documenting the contribution for each employee must accompany the SLS-17. Form must be submitted to SEAGO **prior to but no later than with employees' first payroll.** **FUNDS WILL NOT BE RELEASED UNTIL RECEIVED AND VERIFIED BY SEAGO.**

Discrimination Poster – Required by the Arizona Attorney General's Office, Civil Rights Division and Governor's Office of Housing Development to be **posted** at all federally funded job sites.

EEO Certification Poster – Required by the Arizona Housing and Urban Development and Governor's Office of Housing Development to be **posted** at all federally funded job sites and filled in with: **Employer's Name and Address; Equal Employment Opportunity Officer and/or Complaints Officer.**

EEO is the Law – Required by federal law to be **posted** on all job sites.

Section 3 Requirements: The premise of Section 3 is that if federal funds are being used to improve or aide a low to very low income area, then efforts must be made to higher the residents of these areas to work on the project; thereby improving the quality of life in the community and that of the individuals or families that live in them. **IF this is a Section 3 project, all Section 3 regulations and requirements must be complied with.**

- **S3B-1:** Section 3 Assurance – Provides assurance that the Contractor/ Subcontractor will comply with Section 3 requirements. **Complete, sign and submit as part of the bid package or within 3 days following award of contract.**
- **S3B-2,** Estimated Project Work Force Breakdown – Identifies additional positions needed to complete the Section 3 covered project. **Complete, sign and submit as part of the bid package or within 3 days following award of contract.**
- **S3B-3,** Section 3 Business Self-Certification – Required in order to qualify as Section 3 business concern. **Complete, sign and submit as part of the bid package, or within 3 days following award of contract. If you DON'T qualify, submit with N/A filled in.**

REQUIRED ONLY WHEN APPLICABLE (*forms will be provided to the awarded contractor if needed*):

- **S3P-1:** JOBS! JOBS! JOBS! Section 3 Notice, Employment and Training Positions Available – When hiring additional help, post at public housing facilities, facilities providing assisted housing, social services agencies, i.e. Headstart, WIC, AFDC; city/County halls or county buildings, employment offices, commonly used locations, i.e. libraries, post offices, grocery stores, employment offices, etc.; and job site.
- **S3P-2:** Preliminary Resident Eligibility Determination – To be used as part of the hiring process or with the Employment Survey Form (S3P-2), by the grantee, contractor/subcontractors.
- **S3P-3:** Employment Survey – The Grantee should work with the PHA or other social service agencies to distribute the Survey to determine if there may be qualified persons with the necessary skills.

REQUIRED WHETHER OR NOT NEW EMPLOYEES ARE HIRED TO WORK ON THIS PROJECT:

- **S3R-1:** Notice Documentation – Documents how the Employment and Training Positions Available (S3P-1) form was distributed and where it was posted. **The Contractor/Subcontractor must to SEAGO with final payroll.**
- **S3R-2,** Business Utilization Report – Identifies Contractor/Subcontractor, vendors that are Section 3 Businesses. **Complete and submit this form with the final payroll.**
- **S3R-3,** Applicant and New Hire Employment Report – Identifies the actual number of Section 3 residents employed on the project. **Complete and submit this form with the final payroll.**

SEAGO LABOR STANDARDS – FORM B (SLS-B)

POINT OF CONTACT INFORMATION
SHEET

(Engineers, Architects, Contractors, Subcontractors, etc.)

1. Name of Firm/Corporation/Company: _____

2. Name, Title, Address, Phone/Cell Numbers of Project Manager:

3. Name, Title, Address, Phone/Cell Numbers of Payroll Clerk:

4. Name, Title, Address, Phone/Cell Numbers of on-site Supervisor/Foreman:

5. Name, Title, Address, Phone/Cell Numbers for other:

Send to:
SEAGO, ATTN: Keith Dennis, CDBG Program Manager
1403 W. Hwy 92, Bisbee, AZ 85603

LS-4 - PAYROLL REPORT

NAME OF CONTRACTOR () OR SUBCONTRACTOR ()	ADDRESS
---	---------

PAYROLL NO.	FOR WEEK ENDING	PROJECT AND LOCATION Santa Cruz County – Boys and Girls Club Improvements	PROJECT/CONTRACT NO. 121-20
-------------	-----------------	---	---------------------------------------

(1) NAME, ADDRESS AND SOCIAL SECURITY NUMBER OF EMPLOYEE	No. of WH Exe m	(2) WORK CLASSIFICATION	O T or S T	(3) DAY AND DATE							(4) TOTAL HOURS	(5) RATE OF PAY	(6) GROSS AMOUNT EARNED	(7) DEDUCTIONS					(8) NET WAGES PAID
				HOURS WORKED EACH DAY										FICA	FEDERAL WITH- HOLD- ING	STATE WITH- HOLD- ING	OTHER	TOTAL DEDUCT- IONS	
			O																
			S																
			O																
			S																
			O																
			S																
			O																
			S																
			O																
			S																

GRANTEE USE ONLY		
Date Received: _____	Date Reviewed: _____	Reviewed By: _____
Grantee Name: Santa Cruz County	CDBG Contract No: 121-20	

LS-5 - STATEMENT OF COMPLIANCE

Date _____

I, _____
 (Name of signatory party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by on the _____
 (Contractor or subcontractor) (Building or work)
 that during the payroll period commencing on the _____ day of _____,
 20____, and ending the _____ day of _____, 20____, all
 persons employed on said project have been paid the full weekly wages earned, that no
 rebates have been or will be made either directly or indirectly to or on behalf of said
 _____ from the full weekly wages earned by
 (Contractor or subcontractor)

person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations. Part 3 (29 CFR Subtitle A), Issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948.63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

- In addition to the basic hourly wage rates paid to each laborer or mechanic

listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION
REMARKS	
NAME AND TITLE	SIGNATURE
SIGNATURE MUST BE THAT OF AN OWNER OR OFFICER OR BY AN EMPLOYEE DESIGNATED IN WRITING BY THE OWNER/OFFICER AS AUTHORIZED TO SIGN. THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION (SEE TITLE 18, SECTION 1001 AND TITLE 31, SECTION 231 OF THE UNITED STATES CODE).	
GRANTEE USE ONLY	
Date Received: _____ Date Reviewed: _____ CDBG No: _____	
Reviewed By: _____	Grantee: _____

INSTRUCTIONS FOR PREPARATION OF STATEMENT OF COMPLIANCE

This statement of compliance meets needs resulting from the amendment of the Davis-Bacon Act to include fringe benefits provisions. Under this amended law, the contractor is required to pay fringe benefits as predetermined by the Department of Labor in addition to payment of the minimum rates. The contractor's obligation to pay fringe benefits may be met by payment of the fringes to the various plans, funds, or programs or by making these payments to the employees as cash in lieu of fringes.

The contractor should show on the face of his payroll all monies paid to the employees whether as basic rates or as cash in lieu of fringes. The contractor shall represent in the statement of compliance that he is paying to others fringes required by the contract and not paid as cash in lieu of fringes. Detailed instructions follow.

Contractors Who Pay All Required Fringe Benefits

A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of Labor shall continue to show on the face of his payroll the basic cash hourly rate and overtime rate paid to his employees, just as he has always done. Such a contractor shall check paragraph 4(a) of the statement to indicate that he is also paying to approved plans, funds, or programs not less than the amount predetermined as fringe benefits for each craft. Any exception shall be noted in Section 4(c).

Contractors Who Pay No Fringe Benefits

A contractor who pays no fringe benefits shall pay to the employee and insert in the straight time hourly rate column of his payroll an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringes, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on the basic or regular rate plus the required cash in lieu of fringes at the straight time rate. To simplify computation of overtime, it is suggested that the straight time basic rate and cash in lieu of fringes be separately stated in the hourly rate column, thus \$3.25/.40. In addition, the contractor shall check paragraph 4(b) of the statement to indicate that he is paying fringe benefits in cash directly to his employees. Any exceptions shall be noted in Section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the employees as cash in lieu of fringes. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in Section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employees as cash in lieu of fringes, and the hourly amount paid to plans, funds, or programs as fringes.

REQUEST FOR AUTHORIZATION OF

CHECK APPROPRIATE BOX
 SERVICE CONTRACT

OMB Number: 9000-0089

ADDITIONAL CLASSIFICATION AND RATE

CONSTRUCTION CONTRACT

Expiration Date: 10/31/2019

PAPERWORK REDUCTION ACT STATEMENT: Public reporting burden for this collection of information is estimated to average .5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspects of this collection of information, including suggestions for reducing this burden, to U.S. General Services Administration, Regulatory Secretariat (MVCB)/IC 9000-0089, Office of Governmentwide Acquisition Policy, 1800 F Street, NW, Washington, DC 20405.

INSTRUCTIONS: THE CONTRACTOR SHALL COMPLETE ITEMS 3 THROUGH 16, KEEP A PENDING COPY, AND SUBMIT THE REQUEST, IN QUADRUPLICATE, TO THE CONTRACTING OFFICER.

1. TO: ADMINISTRATOR, WAGE AND HOUR DIVISION U.S. DEPARTMENT OF LABOR WASHINGTON, DC 20210	2. FROM: (REPORTING OFFICE)
---	------------------------------------

3. CONTRACTOR	4. DATE OF REQUEST
----------------------	---------------------------

5. CONTRACT NUMBER	6. DATE BID OPENED (SEALED BIDDING)	7. DATE OF AWARD	8. DATE CONTRACT WORK STARTED	9. DATE OPTION EXERCISED (IF APPLICABLE) (SERVICE CONTRACT ONLY)
---------------------------	--	-------------------------	--------------------------------------	---

10. SUBCONTRACTOR (IF ANY)

11. PROJECT AND DESCRIPTION OF WORK (ATTACH ADDITIONAL SHEET IF NEEDED)

12. LOCATION (CITY, COUNTY AND STATE)

13. IN ORDER TO COMPLETE THE WORK PROVIDED FOR UNDER THE ABOVE CONTRACT, IT IS NECESSARY TO ESTABLISH THE FOLLOWING RATE(S) FOR THE INDICATED CLASSIFICATION(S) NOT INCLUDED IN THE DEPARTMENT OF LABOR DETERMINATION

NUMBER: _____	DATED: _____	
a. LIST IN ORDER: PROPOSED CLASSIFICATION TITLE(S); JOB DESCRIPTION(S); DUTIES; AND RATIONALE FOR PROPOSED CLASSIFICATIONS (Service contracts only) <i>(Use reverse or attach additional sheets, if necessary)</i>	b. WAGE RATE(S)	c. FRINGE BENEFITS PAYMENTS

14. SIGNATURE AND TITLE OF SUBCONTRACTOR REPRESENTATIVE (IF ANY)	15. SIGNATURE AND TITLE OF PRIME CONTRACTOR REPRESENTATIVE
---	---

16. SIGNATURE OF EMPLOYEE OR REPRESENTATIVE	TITLE	CHECK APPROPRIATE BOX-REFERENCING BLOCK 13. <input type="checkbox"/> AGREE <input type="checkbox"/> DISAGREE
--	--------------	---

TO BE COMPLETED BY CONTRACTING OFFICER (CHECK AS APPROPRIATE - SEE FAR 22.1019 (SERVICE CONTRACT LABOR STANDARDS) OR FAR 22.406-3 (CONSTRUCTION WAGE RATE REQUIREMENTS))

- THE INTERESTED PARTIES AGREE AND THE CONTRACTING OFFICER RECOMMENDS APPROVAL BY THE WAGE AND HOUR DIVISION. AVAILABLE INFORMATION AND RECOMMENDATIONS ARE ATTACHED.
- THE INTERESTED PARTIES CANNOT AGREE ON THE PROPOSED CLASSIFICATION AND WAGE RATE. A DETERMINATION OF THE QUESTION BY THE WAGE AND HOUR DIVISION IS THEREFORE REQUESTED. AVAILABLE INFORMATION AND RECOMMENDATIONS ARE ATTACHED.
(Send 3 copies to the Department of Labor)

SIGNATURE OF CONTRACTING OFFICER OR REPRESENTATIVE	TITLE AND COMMERCIAL TELEPHONE NUMBER	DATE SUBMITTED
---	--	-----------------------

Prescribed by GSA-FAR (48
CFR) 53.222(f)

LS-15. AUTHORIZATION FOR DEDUCTIONS

The undersigned authorize deductions, as noted, to be made from his/her wages. It is understood that:

- the deduction(s) are in the interest of the employee,
- the deduction(s) are not a condition of employment,
- there is no direct or indirect financial benefit accruing to the employer,
- it is not otherwise forbidden by law; and
- if the deduction(s) are for fringe benefits, information regarding the fringe benefit plan has been provided to me in writing

1.a. EMPLOYEE NAME	b. FROM/TO DATE(s) (may cover for entire project if no changes)	c. AMOUNT	d. PURPOSE
--------------------	--	-----------	------------

 Printed
 Employee Name

 Signature

	\$	
	\$	
	\$	

Note: One form per employee, due to confidentiality.

2. Name of Contractor/Sub: _____

 Signature of Authorized Representative

 Date

 Typed Name

 Phone Number

SLS-17 – CERTIFICATION FOR APPLICABLE FRINGE BENEFIT PAYMENTS

NAME OF CONTRACTOR/SUBCONTRACTOR: _____

Provide the name, address, and telephone number of each Plan for fringe benefits provided. If plans differ between classifications, use separate forms and specify the classification.

1.	Health and Welfare:
	Address:
	Plan #, Group #, etc.:
	Phone/FAX Numbers:
	Point of Contact:
2.	Penson/401K:
	Address:
	Plan #, Group #, etc.:
	Phone/FAX Numbers:
	Point of Contact:
3.	Dental/Vision:
	Address:
	Plan #, Group #, etc.:
	Phone/FAX Numbers:
	Point of Contact:
4.	Supplemental (AFLAC, etc.):
	Address:
	Plan #, Group #, etc.:
	Phone/FAX Numbers:
	Point of Contact:

I hereby certify that I make payments to the fringe benefit plans, funds, or programs identified above.

Signature

Date

Typed Name/Title

SECTION 3 ASSURANCE

THIS FORM MUST BE SUBMITTED BY THE CONTRACTOR/SUB CONTRACTOR WITH THE BID OR WITHIN 3 DAYS FOLLOWING AWARD OF CONTRACT.

1. I, the undersigned, _____, as official representative of
(printed name)
_____ agree to comply with Section 3 requirements,
(contractor/subcontractor)
to include record keeping and reporting, for the _____ . It is
(project)
understood that failure to comply may result in the following sanctions: cancellation, termination or suspension of this contract in whole or in part.
2. Prime Contractor/Subcontractor
 - a. The number of positions needed in this project: _____
Details of occupational categories provided in Attachment A _____ (yes)
 - b. The number of these positions to be filled by regular, permanent employees: _____
 - c. The number of positions projected to be filled by low income area residents: _____
Details of occupational categories provided in Attachment A _____ (yes)
3. Subcontractors/Vendors/Lower-Tier Subcontractors
 - a. The number of subcontractors projected to be utilized for this project: _____
 - b. The number of subcontractors projected to be Section 3 businesses: _____
 - c. The number of businesses/suppliers projected to be utilized: _____
Dollar amount: \$ _____
 - d. The number of businesses/suppliers projected to be Section 3 businesses/suppliers: _____
Dollar amount: \$ _____

Signature/Title Date

Attachment A

**SECTION 3
 ESTIMATED PROJECT WORK FORCE BREAKDOWN**

THIS FORM MUST BE SUBMITTED BY THE CONTRACTOR WITH THE BID OR WITHIN 3 DAYS FOLLOWING AWARD OF CONTRACT.

1.	2.	3.	4.	5.	6.
Job Category	Total Estimated Positions Needed for Project	No. of Positions Occupied by Permanent Employees	Number of Positions Not Occupied	No. of Positions to be Filled with Section 3 Residents	Approximate Hiring Date
Supervisor					
Professional					
Technical					
Office/Clerical					
Others					
TRADE:					
Journeyman					
Apprentices					
Trainees					
Others					
TRADE:					
Journeyman					
Apprentices					
Trainees					
Others					
TOTALS					

Section 3 Resident

Individual residing within the Section 3 Area whose family income does not exceed 80% of the median income in the Metropolitan Statistical Area or the County where the project is located, if not within a MSA in which the Section 3 covered project is located.

Company

Company Address

Phone Number E-mail

Person Completing Form

Date

SECTION 3 BUSINESS SELF-CERTIFICATION

THIS FORM MUST BE SUBMITTED BY THE CONTRACTOR WITH THE BID OR WITHIN 3 DAYS FOLLOWING AWARD OF CONTRACT IF APPLICABLE

A. Basis for Self-Certification

The _____, located at _____
(name of business) (address)

hereby certifies that it is a Section 3 business, as defined by HUD, on the basis of the following:

(check all applicable)

- 1) _____ 51% or more ownership by Section 3 residents;
- 2) _____ At least 30% of the current permanent, full-time employees are Section 3 residents or were Section 3 residents at the time they were hired (within the past three years);
- 3) _____ Is committed to subcontracting more than 25% of the total dollars awarded by _____ to business concerns that meet the qualifications indicated in 1) or 2) above.
(name of grantee)

B. Certifications

I, the undersigned, hereby certify that:

- 1) I have the legal authority to make these certifications on behalf of _____;
(name of business)
- 2) Documentation exists to verify the basis for the Self-Certification indicated in A. above;
- 3) This documentation will be made available to the grantee, the State of Arizona Department of Housing, HUD or its designated representatives, during normal business hours, upon request;
- 4) This documentation will be maintained for at least five years after completion of the requirements of the contract provided by the recipient;
- 5) The information provided in A. above is true and accurate to the best of my knowledge; and
- 6) I am aware that both I and the business identified above, are liable to civil and criminal penalties for willful falsification of any of the information provided in this document.

Signature

Date

Printed Name

Title

SECTION 3 NOTICE DOCUMENTATION

THIS FORM MUST BE COMPLETED BY THE CONTRACTOR AND SUBMITTED WITH FINAL PAYROLL AND FILED IN THE GRANTEE'S SECTION 3 FILE IF THE CONTRACTOR INDICATED THAT THEY WOULD BE HIRING AS A RESULT OF THE CDBG PROJECT.

1. The Section 3 Employment and Training Notice (Form S3P-1) was mailed to the following entities (e.g. labor organizations, community based groups, social service agencies, Headstart Programs) on the date indicated:

Entity	Date

2. The Section 3 Employment and Training Notice (Form S3P-1) was posted as follows:

Location	Date

3. The Section 3 Employment and Training Notice (Form S3P-1) was printed in the following publications and copies of each are attached:

Publication	Date

4. Other actions taken to disseminate the Section 3 Employment and Training Notice (Form S3P-1) (include dates):

Signature

Date

Printed Name/Title

Phone No.

E-mail

THIS REPORT MUST BE COMPLETED BY THE CONTRACTOR (SUBCONTRACTOR WHEN APPLICABLE) AND SUBMITTED WITH FINAL PAYROLL.
 A COPY OF THE COMPLETED FORM MUST ALSO BE SUBMITTED TO ADOH WITH THE CONTRACTOR'S FINAL REQUEST FOR PAYMENT

SECTION 3 BUSINESS UTILIZATION REPORT

Total Dollar Amount of Contract: _____

Prime/Subcontractor Contractor: _____ Federal ID No.: _____

Address: _____

1. Name of Subcontractor/ Vendor	2 √ Check if Sec. 3	3. Address (zip + last 4 digits) & Telephone	4 Trade/Service or Supply	5. Contract Amount	6. Award Date	7. Federal Identification No.

Total Dollar Amount Awarded to Section 3 Businesses:
 \$ _____

 Person Completing Form

 Company

 Phone E-mail

 Date

Report Date: ___/___/___ to ___/___/___

Activity No: **2** Activity Name: **Boys and Girls Club Improvements**

REPORT MUST BE COMPLETED BY THE GRANTEE (W/A) AND CONTRACTOR/SUBCONTRACTOR AND SUBMITTED WITH FINAL PAYROLL

SECTION 3 APPLICANT AND NEW HIRE EMPLOYMENT REPORT

1. Job Category	2. Total Positions Needed to Complete Job	3. No. Occupied by Permanent Employees	4. No. of Positions Not Occupied	5. No. of Section 3 Applicants	6. No. of Section 3 Applicants Hired	7. Gender/ Other ¹	8. Ethnicity ²	9. Section 3 Status ³
Supervisor								
Professional								
Technical								
Office/Clerical								
Others								
TRADE:								
Journeyman								
Apprentices								
Trainees								
Others								
TOTALS								

¹ M = Male F = Female D = Disabled

² 1 = White 2 = Black African-Am 3 = Asian 4 = Am-Indian/Alaskan 5 = American Indian/Alaskan 6 = Hawaiian Pacific Islander 7 = Am-Indian/Alaskan Native & White 8 = Asian & White 9 = Black/African-Am & White 10 = Am-Indian/Alaskan & Black African-Am 11 = Other Single or Multi-Racial Category

³ 1 = LM living in Service Area 2 = PHA resident living in Service Area 3 = Income Qualified for other LM Program (name program) 4 = Youthbuild Participant 5 = Homeless Person 6 = PHA or LM person regardless of residence

Certification: This company hereby certifies that the information provided above is an accurate report of its Section 3 efforts.

Grantee/Contractor/Subcontractor: _____ Phone: _____ E-mail: _____ Address: _____

Date: _____ Signature: _____ Printed Name/Title: _____

SEAGO COMPLIANCE BID DOCUMENT

SECTION III

LABOR STANDARDS VERIFICATION ITEMS

The forms listed below are not included herein, but **ARE CONSIDERED PART OF THE OVERALL CONTRACT DOCUMENT**. These forms are used by SEAGO only to verify Contractor's/Subcontractor's labor standards compliance or to conduct Labor Standards Enforcement during construction.

LS-6: Pre-Construction Conference Report – Items required by the State to be discussed during the pre-construction conference.

LS-8: Construction Status Report – Informs the State when construction will begin and end and to stop sending WRDs.

SF1445/LS-9: Record of Employee Interview – Verify that the contractor is paying its employees Davis- Bacon wages, overtime pay, fringe benefits, appropriate deductions, no kickbacks, safe working conditions, no discrimination, etc. At least 75% of all employees (contractor and subcontractors) will be interviewed the first and last month of construction—more often if there are problems, non-consistencies, non-compliance, etc. with the project or paperwork.

LS-10: On-site Inspection Report – Determine whether the WRD, Notice to Employees and Equal Employment Opportunity Non-Discrimination poster are posted in a visible place to the Contractor's/Subcontractor's employees.

LS-11: Labor Standards Investigation Report – Investigate a potential or alleged violation of federal labor standards.

LS-12: Labor Standards Enforcement Report – Report findings of willful non-compliance and underpayment, based on the LS-11 report, to the Department of Labor.

LS-14: Fringe Benefit Documentation Form – Verify reported fringe benefit plans.

SECTION C

GENERAL CONDITIONS & SPECIAL PROVISIONS

SANTA CRUZ COUNTY BOYS AND GIRLS CLUB IMPROVEMENTS

**BID NUMBER: B-02-20-CO02
CDBG #121-20**

GENERAL CONDITIONS

ARTICLE 1

DEFINITIONS AND GENERAL PROVISIONS

1.1 PROJECT ADMINISTRATOR, OWNER AND LESSEE

1.1.1 PROJECT ADMINISTRATOR. The Project Administrator shall be Santa Cruz County Special Projects Coordinator Mary Dahl or other designee who has been tasked with the duties of being the principal point of contact representing the County with the Contractor. All final decisions concerning Change Orders, Payments, Substantial Completion, Final Completion, Liquidated Damages and Contract Time shall be reserved to the Project Administrator and this provision of the Contract shall take precedence over any other term hereof

1.1.2 OWNER is City of Nogales and is a third party beneficiary of the Contract.

1.1.3 LESSEE is Boys and Girls Club of Santa Cruz County, Inc.

1.2 CONTRACTOR

1.2.1 The Contractor is the person or organization identified as such in the Contract and the term "Contractor" means the Contractor or his authorized representative.

1.3 PROJECT MATERIALS

1.3.1 All materials and articles of any kind necessary for this Work are subject to the approval of the Project Administrator and his judgment and decision shall be final and conclusive.

1.3.2 After execution of the Contract, changes of brand named, trade named, trademarked, patented articles, or any other substitutions will be allowed only by written order signed by the Project Administrator, in which case the County shall receive all benefit of the difference in cost involved, except where choice of material or method is designated "or equal" in the specifications.

1.4 WORK

1.4.1 WORK is all of the improvements to be made to the building known as the Boys and Girls Club, 590 Taylor Street, Nogales, Arizona, as more fully set forth in the Contract Documents. Any changes to the Scope of Work must be pursuant to a written Change Order in accordance with these General Conditions.

ARTICLE 2

REVIEW OF CONTRACT DOCUMENTS AND SITE CONDITIONS

2.1 By executing this Contract the Contractor warrants that he has carefully studied and compared the Contract, General Conditions, Drawings, Specifications, Addenda, all other Contract Documents and the existing structure and has determined that the Contract Documents describe

a completely buildable and functional Project. The Contractor shall at once report to the Project Administrator any error, inconsistency or omission he may discover.

- 2.2 The Contractor shall verify all dimensions shown and check all measurements in connection with any present improvements, driveways, or other existing conditions, before executing any work.
- 2.3 The Contractor agrees to comply fully with all applicable state, federal and local laws. Contractor agrees to indemnify and hold harmless the County and Owner from all claims or whatever nature involving failure of the Contractor or any of its Subcontractors to comply with any federal, state or local law or ordinance in connection with this Project.
- 2.4 It is the Contractor's responsibility to inspect the site of the work to identify any surface or subsurface conditions or underground facilities that can be reasonably identified and that are materially different than what may be indicated in the Contract Documents prior to beginning the Work.
- 2.5 If the Contractor believes that any surface, subsurface or physical condition at the work site that is uncovered or revealed is of such a nature as to require a Change Order, because it either differs materially from that which is specifically designated on the Contract Documents or is of an unusual nature and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character required by the Contract at this location, then the Contractor shall promptly notify the Project Administrator in writing prior to further disturbing the site and performing the Work. The Project Administrator shall promptly review such notice and the conditions and advise the Contractor whether additional tests may be required or a revision of the plans may be appropriate. The Contractor shall not be entitled to an adjustment in the Contract Price or Contract Time if the Contractor knew or should have known of the existence of such conditions at the time of the Bid was submitted; the existence of the condition could reasonably have been discovered or revealed as a result of the investigation or study of the site as required of the Contractor, or the Contractor failed to provide written notice of condition, as required in this section.
- 2.6 The Contractor is required to verify the location any utilities and to comply with all applicable laws and regulation regarding the location and protection of utilities. No additional compensation shall be provided for complying with these obligations.
- 2.7 **SANITATION.** The Contractor shall provide temporary sanitation facilities for the use of employees on this construction. Following the period of necessity for such facilities, they shall be removed and all evidence thereof effaced.
- 2.8 **USE OF PREMISES.** Lessee will vacate the Premises for the duration of Work. The Contractor shall confine his equipment and plant, the storage of materials, and the operations of his workmen to limits indicated by law, ordinances, permits, or directions of the Project Administrator, shall not unreasonably encumber the premises with materials or equipment and shall complete the Work promptly and leave the Premises in same condition as prior to the Work to allow LESSEE to resume its operations.
- 2.9 The Contractor shall enforce the Project Administrator's instructions regarding signs, advertisement, fires, and smoking.

**ARTICLE 3
SUPERVISION AND CONSTRUCTION PROCEDURES**

- 3.1 The Contractor shall supervise the Work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.
- 3.2 Contractor shall hold periodic meetings with the Project Administrator as often as reasonably required to keep the Project Administrator fully informed of the progress of the Work.

**ARTICLE 4
LABOR AND MATERIALS**

- 4.1 Unless otherwise specifically noted, the Contractor shall provide and pay for all labor, material, equipment, tools, construction equipment, machinery, waste and refuse disposal, transportation and any other facilities and services necessary for the proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- 4.2 Any work necessary to be performed after regular working hours, on Sundays, or legal holidays, shall be performed without additional expense to the County or Owner.
- 4.3 The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him. When requested in writing by the Project Administrator, the Contractor shall remove from the Project any person who commits trespass or is, in the reasonable opinion of the Project Administrator, disorderly, dangerous, insubordinate, incompetent, or otherwise objectionable. The Contractor shall keep the County and Owner harmless from damages or claims for compensation that may occur in the enforcement of this requirement.

**ARTICLE 5
WARRANTY**

- 5.1 The Contractor warrants to the County and Owner that all material and equipment furnished under this Contract will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents.
 - 5.1.1 Faults or defects are considered to be any aspect of the Work that is found not to be in conformance with the Contract Documents at any stage of the Work or upon inspection, or any aspect of the Work that materially deteriorates, becomes non-functional or otherwise fails, in some functional or aesthetic manner, to meet the requirements of the Contract Documents within two years after issuance of Certificate of Completion, normal wear and tear excepted, as further set forth in Article 36 hereof.
 - 5.1.2 All Work not so conforming to these standards may be considered defective. If required by the Project Administrator, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

- 5.2 The warranty provided in this article shall be in addition to and not in limitation of any other warranty or remedy required by law or by the Contract Documents.

ARTICLE 6 TAXES

- 6.1 The Contractor shall pay all sales, consumer, use, transaction privilege and other taxes required by law arising out of construction or other business activities of the Contractor in connection with the Project and in connection with the performance of this Contract, whether in force as of the date of this Contract or later imposed.

ARTICLE 7 RESERVED.

ARTICLE 8 SUPERINTENDENT

- 8.1 The Contractor shall employ a competent Superintendent and necessary assistants who shall be in attendance at the Project site during the progress of the Work.
- 8.2 The Superintendent shall be satisfactory to the Project Administrator and shall not be changed except with the consent of the Project Administrator.
- 8.3 The Superintendent shall represent the Contractor, and all communications given to the Superintendent shall be as binding as if given to the Contractor. Important communications will be confirmed in writing. Other communications will be so confirmed on written request in each case.

ARTICLE 9 RESPONSIBILITY FOR THOSE PERFORMING THE WORK

- 9.1 The Contractor shall be responsible to the County and Owner for the acts and omissions of all his employees and all Subcontractors, their agents and employees, and all other persons performing any of the Work or supplying any material or equipment to be incorporated in the Work under a contract of any nature with the Contractor.

ARTICLE 10 PROGRESS SCHEDULE AND REPORTS

- 10.1 The Contractor, immediately after being awarded the Contract, shall prepare and submit for the Project Administrator's approval an estimated Progress Schedule for the Work.
- 10.1.1 The progress schedule shall be related to the entire Project and shall indicate the dates for the starting and completion of the various components and phases of construction and shall be revised as required by the conditions of the Work, upon request of and subject to the approval of the Project Administrator.
- 10.1.2 The Contractor agrees to promptly respond to all inquiries by the Project Administrator concerning substantial deviation of the progress of construction from the Progress Schedule.

Failure to timely respond to such request or substantial delay from the schedule may result in progress payments being withheld.

10.1.3 The Progress Schedule shall include projected dates of submittal of all items of material for which submittals are required and shall include delivery dates of all items of material and equipment that are considered critical or long lead time.

10.1.4 The Contractor shall submit a biweekly report summarizing all deviations from the Progress Schedule that will or may result in delay of the Project.

10.2 The Contractor shall furnish sufficient labor force, materials, plant, and equipment to ensure the prosecution of the Work in accordance with the approved Progress Schedule.

10.2.1 If the Contractor's prosecution of the Work falls behind the Progress Schedule, Contractor shall take such steps as may be necessary to regain compliance with the Progress Schedule including additional labor or services or work such overtime as may be necessary to bring his operations up to schedule.

10.2.2 Failure to maintain schedule or to take the above steps to regain the agreed Progress Schedule shall constitute default under this Contract.

ARTICLES 11 and 12 RESERVED.

**ARTICLE 13
CLEANING UP**

13.1 The Contractor at all times during the progress of the Work shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work he shall remove all his waste materials and rubbish from and about the Project as well as all his tools, construction equipment, machinery and surplus materials specified to be left at the site, and shall clean all glass surfaces.

13.2 If the Contractor fails to satisfactorily clean up, the Owner will do so and the cost thereof shall be charged to the Contractor or Subcontractors as the Owner shall determine to be just.

**ARTICLE 14
COMMUNICATIONS**

14.1 The Contractor shall forward all communications to the Project Administrator except where otherwise required herein or otherwise directed by the County.

14.2 The Contractor shall provide a point of contact to the Project Administrator including a phone number at which he may be reached at all times.

14.3 All email communications shall be deemed to be written communications, received at or about the time they were sent.

ARTICLES 15 through 17 RESERVED.

ARTICLE 18

PAYMENTS TO SUBCONTRACTORS AND SUPPLIERS

- 18.1 The Project Administrator may, on request and at discretion, furnish to any Subcontractor, if practicable, information regarding percentages of completion certified to the Contractor on account of work done by such Subcontractors.
- 18.2 The County and Owner shall have no obligation to pay or to see to the payment of any monies to any Subcontractor or Supplier except as may otherwise be provided in this Contract.

ARTICLES 19 and 20 RESERVED.

ARTICLE 21

MISCELLANEOUS PROVISION

- 21.1 **LAW OF THE PLACE.** The contract shall be governed by the law of Arizona and any action relating to this Contract shall be brought in an Arizona court of competent jurisdiction located in the County of Santa Cruz.
- 21.2 **SUCCESSORS AND ASSIGNS.** The County, Owner and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants' agreements and obligations contained in the Contract Documents. The Contractor shall not assign the Contract or any part hereof or sublet it as a whole or in part without the previous written consent of the Owner, nor shall the Contractor assign or pledge any monies due or to become due to him hereunder, without the previous written consent of the Owner.
- 21.3 **WRITTEN NOTICE.** Written notice shall be deemed to have been duly served if delivered in person to the individual for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to him who gives the notice as appropriate. Notice to the Project Administrator is notice to the Owner except for notice of inconsistencies, error or omission in the Contract Documents, request for extension of time, request for changes in the Contract Amount, appeal of decisions by Project Administrator and notice of claim or legal process. All such notices shall be given to both Project Administrator and Owner's Public Works Director if he is not designated the Project Administrator.
- 21.4 **CLAIMS FOR DAMAGES.** Should either party of the Contract suffer injury or damage to person or property because of any act or omission of the other party or of any of his employees, agents or others for whose acts he is legally liable, claim shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage. All claims made by the Contractor under this Contract are subject to the limitations set forth in Paragraph 33.7 herein.
- 21.5 **PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND.** The Contractor shall furnish performance and labor and material payment bonds covering the faithful performance of the Contract and the payment of all obligations arising there under in such form and amount as the County may prescribe and with such sureties as may be agreeable to the County. The premiums shall be paid by the Contractor. The Contractor shall, prior to commencement of the Work, submit such bonds to the County.

- 21.6 **COUNTY'S RIGHT TO COMPLETE THE WORK.** If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, or fails to perform any provision of the Contract, the County may, after seven (7) days written notice to the Contractor and his surety, and without prejudice to any other remedy he may have, proceed to make such other necessary and reasonable arrangements to carry out the Work in accordance with the Contract Documents, all at the expense of the Contractor, including the attorneys' fees and other costs incurred by County.
- 21.7 **ROYALTIES AND PATENTS.** The Contractor shall pay all royalties and license fees and shall defend all suits or claims from infringement of any patent right and shall save the Owner harmless from loss of account thereof, including Owner's attorneys' fees and court costs, except that Owner shall be responsible for all such loss when a particular design, process or product of a particular manufacturer or manufacturers is specified. But, if the Contractor has reason to believe that the design, process or products specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives information to the Project Administrator prior to starting the Work.
- 21.8 **LEGAL FEES AND COSTS.** The party substantially prevailing shall be entitled to recover its attorneys' fees, any costs of suit, any expert witness fees and the actual cost of any test or inspection incurred in connection with any effort undertaken to enforce any of the terms of this Contract.
- 21.9 **SEVERABILITY.** In the event any provision in this contract is held invalid by any court of competent jurisdiction, the remaining provision in this Contract shall be deemed severable and shall remain in full force and effect.
- 21.10 **CONTRACT AMOUNT.** The Contract Amount is as stated in this Contract and General Conditions and is the total amount payable by the Owner to the Contractor for the performance of the Work under the Contract Documents, subject to credits or increases resulting from Change Orders. In no event shall County or Owner be responsible for more than the Contract Amount.
- 21.11 **CANCELLATION FOR CONFLICT.** Pursuant to A.R.S. § 38-511, Owner reserves the right to cancel this Agreement, within three years after the effective date of this Agreement, without penalty or further obligation, if any person significantly involved in initiating, negotiating, securing, drafting or creating the Agreement on behalf of Owner is, at any time while this Agreement or any extension of this Agreement is in effect, an employee or agent of Contractor in any capacity or a sub-contractor to Contractor with respect to the subject matter of this Agreement. Cancellation under this section by Owner shall be effective when written notice from the City Manager is received by Contractor. The Owner may recoup any fee or commission paid or due to any person significantly involved in initiating, negotiating, securing, drafting or creating the Agreement on behalf of the Owner from Contractor arising as the result of the Agreement.
- 21.12 **COMPLIANCE WITH IMMIGRATION LAWS and E-VERIFY REQUIREMENT.** As mandated by Arizona Revised Statutes ("A.R.S.") Section 41-4401, the Owner is prohibited from awarding a contract to any contractor or subcontractor that fails to comply with A.R.S. Section 23-214(A). (That subsection reads: "After December 31, 2007, every employer, after hiring an employee, shall verify the employment eligibility of the employee through the E-

Verify program.) The Owner must also ensure that every contractor and subcontractor complies with federal immigration laws and regulations that relate to their employees and A.R.S. Section 23-214(A). Therefore, in signing or performing any Contract (including this Agreement) for the Owner, the Contractor fully understands that:

1. It warrants that both it and any subcontractors it may use comply with all federal immigration laws and regulations that relate to their employees and their compliance with A.R.S. Section 23-214(A);
2. A breach of the warranty regarding compliance with immigration laws and regulations shall be deemed a material breach of the Contract that is subject to penalties up to and including termination of the Contract; and
3. The Owner or its designee retains the legal right to inspect the papers or any contractor or subcontractor employee who works on the Contract to ensure that the contractor or subcontractor is complying with the warranty under paragraph (a).

21.13 SCRUTINIZED BUSINESS OPERATIONS. Pursuant to A.R.S. Sections 35-391.06 and 35-393.06, the contractor certifies that it does not have a scrutinized business operation in Sudan or Iran. For the purpose of this Section the term “scrutinized business operations” shall have the meanings set forth in A.R.S. Section 35-391 and/or 35-393 as applicable. If the Owner determines that the contractor submitted a false certification, the Owner may impose remedies as provided by law including termination of this Contract.

ARTICLE 22

TESTS

- 22.1 Where the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any of the Work to be inspected, tested or approved, the Contractor shall give the Project Administrator timely notice of its readiness and of the date arranged so the Project Administrator may observe such inspection, testing or approval.
- 22.2 The Contractor shall be responsible that all equipment and materials used in the construction of the Project, especially those upon which the strength and durability of the structure may depend, shall be subject to adequate inspection and testing in accordance with accepted standards to establish conformity with Specifications, applicable codes and standards and suitability for use intended.
- 22.3 If after the commencement of the Work the Project Administrator determines that any of the Work requires special inspection, testing, or approval, which subparagraph 22.1 does not include, she will order such special inspection, testing or approval, and the Contractor shall give notice of readiness as in Subparagraph 22.1.
- 22.4 If such special inspection or testing reveals a failure of the Work to comply:
 - a. With the requirements of the Contract Documents, or
 - b. With respect to the performance of the Work, with laws, ordinances, rules regulations or orders of any public authority having jurisdiction over the Work,then the Contractor shall bear all costs thereof, including any additional professional services made necessary by such failure, and the costs of such inspection or testing; otherwise the Owner shall bear such costs of special inspection.

- 22.5 Required certificates of re-inspections or testing to secure compliance with this article shall be paid for by the Contractor.
- 22.6 If the Project Administrator wishes to observe the inspections, tests or approvals required by this article, he will do so promptly and, where appropriate, at the source of supply.
- 22.7 Neither the observations of the Project Administrator in the administration of the Contract, nor inspections, tests or approvals by person other than the Contractor shall relieve the Contractor from the obligations to perform the Work in accordance with the Contract Documents.

ARTICLE 23

TIME AND LIQUIDATED DAMAGES

- 23.1 It is understood and agreed that the construction of the Work under the Contract Documents shall be commenced on the date stated in the Notice to Proceed issued by the Project Administrator and shall be completed by the Contractor within the number of calendar days specified in Article III of the Contract (the "Finish Date").
- 23.1.1 The Contract Time is the period of time specified in Article III running from (1) the date specified in the Notice to Proceed as the date upon which the Contractor is to commence the Work (the "Start Date"), through (2) the Finish Date.
- 23.1.2 The date of beginning, rate of progress, and time for completion are essential conditions of the Contract, and the Contractor agrees that said Work shall be prosecuted regularly, diligently, and uninterruptedly as such rate of progress as will insure full completion thereof within the Contract Time specified. It is expressly agreed that the Contract Time is reasonable.
- 23.2 If the Final Completion Date as defined in Subparagraph 23.4 occurs after the expiration of the Contract Time, the Contractor shall pay the Owner the sum specified in Article III as liquidated damages for each calendar day the Work remains incomplete after expiration of the Contract Time. This amount is agreed upon because of the impracticability and extreme difficulty of ascertaining the actual damages the Owner would sustain. It is expressly agreed that the amount of liquidated damages set forth herein is reasonable. Said amounts may be retained from time to time by the Owner from payments due the Contractor.
- 23.3 The date of Completion of the Work, or designated portion thereof, is the date certified in writing by the Project Administrator when construction is sufficiently complete, in accordance with the Contract Documents as they may have been modified by any Change Orders agreed to by the parties, so that the Owner may occupy the project, or a designated portion thereof, if he so elects, for the use for which it is intended. Certification of a designated portion of the Work by the Project Administrator as being "Complete" and occupancy of that portion thereafter by the Owner shall neither release, or otherwise operate to excuse, the Contractor from his duty to complete the remainder of the Work within the Contract Time nor relieve the Contractor from any liability for not completing the remainder of Work within the Contract Time including liability for liquidated damages.
- 23.4 The Final Completion Date is the calendar date when all items of the Work are one hundred percent (100%) finished, with no items of any scope, large or small, outstanding and remaining to be constructed, and all known defective work has been corrected. When the Project

Administrator certifies in writing, pursuant to the terms of article 29 that the Final Completion Date is reached and it is approved by the Owner, the Contractor may make application for final payment pursuant to article 29.

- 23.5 In any case where the terms of any other provision of the Contract may be construed to be in conflict with any term regarding time for completion of the Project, interpretation of the conflicting terms which gives precedence to the term regarding time for completion shall govern.

ARTICLE 24 PROGRESS AND COMPLETION

- 24.1 All time limits stated in the Contract Documents are of the essence of the Contract.
- 24.2 The Contractor shall begin the Work on the Start Date as defined in Subparagraph .1 and shall carry the Work forward expeditiously, uninterruptedly and with adequate forces and shall complete it within the Contract Time.

ARTICLE 25 DELAYS AND EXTENSION OF TIME

- 25.1 If the Contractor is delayed at any time in the progress of the Work by any cause which the County determines may justify the delay, including, but not limited to, acts of God, acts of the public enemy, acts of the County or Owner, acts of another contract in performance of a contract with the Owner, fires, floods, epidemics, quarantine restriction, freight embargoes and adverse weather detrimental to completion of the Work and, in the aggregate, materially different than weather normally experienced during the entire Contract Time, then the Contract Time shall be extended by Change Order for such reasonable time as the County may determine.
- 25.2 All claims for extension of time shall be made in writing to the Project Administrator no more than fourteen (14) days after the occurrence of the delay; otherwise, they shall be waived. In the case of a continuing cause of delay, only one claim is necessary. The Contractor shall promptly notify the Project Administrator in writing of the date of the termination of the continuing cause of delay.
- 25.3 If no schedule or agreement is made stating the dates upon which written interpretations as set forth in Subparagraph 1.2.5 shall be furnished, then no claim for delay shall be allowed on account of failure to furnish such interpretations until fifteen (15) days after demand is made for them, and not then unless such claim is reasonable.

ARTICLE 26 PROGRESS PAYMENTS

- 26.1 On or about the twenty-fifth day of each calendar month during the course of construction, the Contractor shall submit to the Project Administrator an itemized Application for Payment supported by such data substantiating the Contractor's right to payment as the Project Administrator may require. Contractor shall also submit a release of claim and lien waiver covering all work performed to date, including the work of each Subcontractor and material supplier.

- 26.2 Payments shall be based on the Work actually performed during the preceding calendar month. Payment may be made for materials not incorporated in the Work but delivered and suitably stored at the site, or at some other location under such conditions agreed upon in writing by the Project Administrator to be transported to the site and installed at a later date.
- 26.3 Material delivered and suitably stored at the site, or at some other agreed upon location by the Contractor, subcontractors, sub-subcontractors, or material suppliers shall remain the responsibility of the Contractor until incorporated into the Work, shall be insured for the benefit of the Owner to the full value of the material and shall be suitably stored and protected. Only such material that is in accordance with the Contract Documents shall be installed into the Work. Until the final completion and acceptance of the Work by the Owner, it shall be the Contractor's responsibility to protect all materials to be installed in or delivered to the Project.
- 26.4 The Contractor warrants and guarantees that title for all work, materials and equipment covered by an Application for Payment shall pass to the Owner either by incorporation in the Project or upon receipt of payment by the Contractor, whichever occurs first and that such work, materials and equipment shall be free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this article as "claims."

ARTICLE 27

APPROVALS FOR PAYMENT

- 27.1 If the Contractor has made application for payment pursuant to article 26, then not later than seven (7) days after the date of submission, the Project Administrator shall issue approval of the Application for Payment and forward his approval of the Application for such amount as she determines to be properly due, or state in writing his reasons for withholding, in whole or in part, the amount applied for as provided in article 28.
- 27.2 After the Project Administrator has approved an Application for Payment and has forwarded this approval, County shall thereafter promptly issue payment to Contractor.
- 27.2.1 Payment will be based on ninety percent (90%) of the value of the Work actually performed during the preceding calendar month and approved by Project Administrator until the contract is fifty percent (50%) completed.
- 27.2.2 If the Contractor is making satisfactory progress when the contract is fifty (50%) completed, the Contractor shall be entitled to a reduction in the retention amount, as required by ARS § 34-221(C).
- 27.2.3 Any amounts retained by County shall be paid to the Contractor, as previously specified, after the Final Completion Date, provided the Contractor has by that time duly furnished the County and Owner consent of surety, lien waivers, any and all operating manuals, wiring diagrams, control diagrams, maintenance manuals, equipment and appliance warranties, record drawings, warranties and other documents of any nature called for in the Contract Documents or required for the proper functioning of the Work as a whole and has otherwise performed all of Contractors' obligations under the Contract Documents. In lieu of this retention, the Contractor may provide alternative security in the manner authorized by law.

- 27.3 In the Application for Payment, or in a separate notice, the Contractor shall include and itemize, and furnish such supporting particulars as the Project Administrator shall require, all claims for additional compensation against the County arising under the Contract Documents or any covenant thereof, express or implied, or from any cause whatsoever, within the time limits prescribed in Subparagraph 33.7. It is expressly covenanted that the purpose of this provision is to guard the County against surprise claims and to permit the County and/or Owner to investigate claims as the same may arise. It is expressly covenanted that neither the County nor Owner shall have no liability on any claim unless such claim was approved by the Project Administrator and was submitted in writing at the time and in the manner required hereby.
- 27.4 No certificate for a progress payment, nor any progress payment, nor any partial or entire use or occupancy of the Project by the Owner or Lessee shall constitute an acceptance of any Work not in accordance with the Contract Documents.

ARTICLE 28

PAYMENT WITHHELD

- 28.1 The Project Administrator or Owner may decline to approve an Application for Payment and the Project Administrator may withhold his Certificate in whole or in part if in his opinion he is unable to certify the work for which payment is requested has been performed. The Project Administrator may also decline to approve any Applications for Payment or, because of subsequently discovered evidence or subsequent inspections, he may nullify the whole or any part of any Certificate for Payment previously issued to such extent as may be necessary in his opinion to protect the Owner from loss because of:
1. Defective work not remedied,
 2. Claims filed or reasonable evidence indicating probable filing of claims,
 3. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount,
 4. Damage to another contractor,
 5. Reasonable indication that the Work will not be completed within the Contract Time, or
 6. Unsatisfactory prosecution of the Work by the Contractor or other material breach of this Contract.
 7. Failure to complete all Labor Standards requirements
- 28.2 When the above grounds are removed or in the case of Subparagraph 28.1.3 above, when the Owner is satisfied that the Contractor will complete the Project at the agreed upon price, payment shall be made for amounts withheld because of them.

ARTICLE 29

COMPLETION AND FINAL PAYMENT

- 29.1 Upon receipt of written notice that the Work is ready for final inspection and acceptance, the Project Administrator will promptly make such inspection and, when the Project Administrator finds (1) the Work in accordance with and acceptable under the Contract Documents, (2) the Work completed under the Contract fully performed and (3) the Final Completion Date has been reached, then, and only then, the Project Administrator shall promptly certify in writing that, to the best of his knowledge, information and belief, and on the basis of observations and inspections, the Work has been fully completed in accordance with the terms and conditions of

the Contract Documents, that the entire balance found to be due the Contractor is payable. The Project Administrator's written notice required by this paragraph shall state the Date of Final Completion.

- 29.2 The making of final payment shall constitute a waiver of all claims by the Owner except those arising from:
1. Unsettled claims,
 2. Faulty or defective Work,
 3. Failure of the Work to comply with the requirements of the Contract Documents, or
 4. Terms of any guarantees required by the Contract Documents.
- 29.3 The acceptance of final payment shall constitute a waiver of all claims by the Contractor.
- 29.4 No earlier than three weeks before the expiration of the warranty period for the Work specified in article 36 herein, or at such other additional earlier time or times as the Owner may agree, the Project Administrator, in company with the Contractor, shall make an inspection of the Project and certify that all defects in material and workmanship occurring during this period have been satisfactorily corrected.

ARTICLE 30

PROTECTION OF PERSONS AND PROPERTY

- 30.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work in compliance with all local, state and federal laws and regulations.
- 30.2 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss, to:
1. All employees engaged in the Work and all other persons who may be affected thereby;
 2. All the Work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Contractor or any of his Subcontractors or Sub-subcontractors; and
 3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- 30.3 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. He shall erect and maintain, as required by existing conditions and the progress of the Work, all reasonable safeguards for safety and protection, including, but not limited to, posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities and property.
- 30.4 When the use or storage of explosives or other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

- 30.5 All damage or loss to any property caused in whole or in part by the Contractor, any Subcontractor, any Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, shall be remedied by the Contractor, except damage or loss attributable to faulty Drawings or Specifications or the acts or omissions of the Owner or engineer, if any, or anyone employed by either of them or for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor.
- 30.6 The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's Superintendent unless otherwise designated in writing by the Contractor.
- 30.7 The Contractor shall not load or permit any part of the Work to be loaded so as to endanger its safety.
- 30.8 **EMERGENCIES.** In any emergency affecting the safety of persons or property, the Contractor shall act to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided by the applicable provision of the Contract Documents.

ARTICLES 31 and 32 RESERVED.

**ARTICLE 33
CHANGES IN THE WORK AND CLAIMS**

33.1 CHANGE ORDERS

33.1.1 The County, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions. The Contract Amount and/or the Contract Time shall be adjusted pursuant to the terms of the Contract Documents.

33.1.2 A Change Order is a written amendment to the Contract Documents signed by the County and the Contractor, issued after the execution of the Contract, authorizing a Change in the Work or an adjustment in the Contract Amount or the Contract Time. The Contract amount and the Contract Time may be changed only by Change Order.

33.1.3 The cost or credit, as the case may be, to County resulting from a Change in the Work shall be determined in one or more of the following ways as mutually agreed:

1. By a lump sum properly itemized in a form acceptable to County including sufficient supporting substantiating data to permit evaluation.
2. By actual cost and the specified percentage fees covering overhead and profit, less applicable trade discounts, rebates, credits or other such reductions in cost made available to Contractor.
3. Unit price as stated in the Contract, subject to the provisions of Subparagraph 33.3 herein. Unit prices proposed on the bid form and included in the Contract are not subject to further overhead and profit adjustments. The Contract sum will be adjusted by the direct extension of the number of units and unit price.

- 33.2 If none of the methods set forth in Subparagraph 33.1.3 is agreed upon to calculate a charge or credit to County, the Contractor, provided he otherwise receives a Change Order, shall promptly proceed with the Work involved. The cost of such Work shall then be estimated in good faith by the Project Administrator on the basis of the Contractor's reasonable expenditures and savings. The Project Administrator shall use the unit price basis if available and, if not, then the actual cost basis for this determination. The Project Administrator shall then submit that estimate, with all supporting information, for approval by the County Public Works Director. In such case, and also under Subparagraph 33.1.3.1 above, the Contractor shall keep and present, in such form as the Project Administrator may prescribe, an itemized accounting together with appropriate supporting data. The amount of credit to be allowed by the Contractor to the County for any deletion or change which results in a net decrease in cost will be the amount of the actual net decrease.
- 33.3 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in proposed Change Order that application of the agreed unit prices to the quantities or Work proposed will create a hardship on the County or the Contractor, the applicable unit prices shall be equitably adjusted to prevent such hardship.
- 33.4 If the Contractor claims that additional cost or time is involved because of:
1. Any order by the Project Administrator to stop the Work where the Contractor was not at fault, or
 2. Any written order for a minor change in the Work issued pursuant to Paragraph 33.8, the Contractor shall make such claim as provided in Paragraph 33.7.
- 33.5 **IMPACT COSTS.** No claim for impact costs resulting from performance of a Change Order will be permitted against the County, any engineer or any other party in privity of contract with the County with respect to the project subsequent to the time that the Change Order is signed by the Contractor.
- 33.6 **FINAL SETTLEMENT.** Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work which is the subject of the Change Order, including, but not limited to, all direct and indirect costs associated with such change, any impact such change may have on the unchanged Work, and any and all adjustments to the Contract Sum or the Contract Time. In the event a Change Order increases the Contract Sum, the Contractor shall include the Work covered by such Change Orders in Application for Payment as if such Work were originally part of the Contract or in separate notice as provided in Paragraph 27.3. Agreement on any Change Order releases the County, and any other party in privity of contract with the County with respect to the Project from all claims or liabilities arising in any way in the connection with, or in any way associated with, such change.
- 33.7 **CLAIMS FOR ADDITIONAL COST OR TIME.** If the Contractor is entitled, under the terms of the Contract, to make a claim for an increase in the Contract Amount or any other claim, he shall give the Project Administrator written notice thereof within fourteen (14) days after the occurrence of the event giving rise to such claim or include such notice in the Application for Payment for the month in which the event giving rise to the claim occurred, whichever is earlier. Any notice other than one made for an extension of the Contract Time shall be given by the Contractor before proceeding to execute the Work which is the subject matter of the claim,

except in an emergency endangering life or property, in which case the Contractor shall proceed in accordance with Paragraph 27.3 within the time limits prescribed herein and no such claim shall be valid unless so made. Any change in the Contract Amount or Contract Time resulting from such claim to be effective shall be approved by the County and authorized by Change Order.

- 33.8 **MINOR CHANGES IN THE WORK.** The Project Administrator shall have authority to order minor changes in the Work not involving an adjustment in the Contract Amount or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents.
- 33.9 **FIELD ORDERS.** The Project Administrator may issue written Field Orders which interpret the Contract Documents or which order minor changes in the Work in accordance with Paragraph 33.8 without change in Contract Amount or Contract Time. The Contractor shall carry out such Field Orders promptly.

ARTICLE 34 UNCOVERING AND CORRECTION OF WORK

- 34.1 **UNCOVERING OF WORK.** If any Work should be covered contrary to the request of the Project Administrator, it must, if required by the Project Administrator, be uncovered for his observation and replaced all at the Contractor's expense.
- 34.2 If any other Work has been covered which the Project Administrator has not requested to observe prior to being covered, the Project Administrator may request to see such Work and it shall be uncovered by the Contractor.
- 34.2.1 If such Work is found to be in accordance with the Contract Documents, the cost of uncovering and replacement after approval by the Owner shall, by appropriate Change Order, be charged to the County.
- 34.2.2 If such Work is found not to be in accordance with the Contract Documents, the Contractor shall pay such costs unless it is found that this condition was caused by a separate contractor, and in that event the Owner shall be responsible for the payment of such costs.
- 34.3 **CORRECTION OF WORK.** The Contractor shall promptly correct all Work rejected by the Project Administrator as defective or as failing to conform to the Contract Documents whether observed before or after Final Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including the cost of any additional professional or testing services thereby made necessary.
- 34.3.1 If, within the time provided in Article 36 herein or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, including the original conformance with the Contractor Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall, at his sole expense, correct it promptly after receipt of a written notice from the County or Owner to do so. The County or Owner shall give such notice promptly after discovery of the condition.
- 34.3.2 All such defective or non-conforming Work shall be removed from the site where necessary, and the Work shall be corrected to comply with the Contract Documents without cost to the County or Owner.

- 34.3.3 The Contractor shall bear the cost of making good all work of separate contractors destroyed or damaged by such removal or correction.
- 34.4 If the Contractor does not remove such defective or non-conforming Work within a reasonable time fixed by written notice from the Project Administrator, the County may remove it and may store the materials or equipment at the expense of the Contractor.
- 34.4.1 If the Contractor does not pay the cost of such removal and storage within ten (10) days after receipt of a statement of charges therefore, the Owner may, upon ten (10) additional days written notice, sell such Work at auction or at private sale and shall account for the net proceeds thereof after deducting all the costs that should have been borne by the Contractor, including compensation for additional services and any attorneys, fees incurred by Owner in connection therewith.
- 34.4.2 If such proceeds of sale do not cover all costs that the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner, and all attorneys, fees and other costs that the Owner may incur in collecting same.
- 34.5 If the Contractor fails to correct such defective or non-conforming work, the Owner may correct it, assessing all costs to do so to Contractor.
- 34.6 The obligations of the Contractor under this article shall be in addition to and not in limitation of any obligations imposed upon him by special guarantees required by the Contract Documents or otherwise prescribed by law.
- 34.7 **ACCEPTANCE OF DEFECTIVE OR NON-CONFORMING WORK.** If the Owner prefers to accept defective or non-conforming Work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect an appropriate reduction in the Contract Amount, or, if the amount is determined after final payment, it shall be paid by the Contractor.

ARTICLE 35

TERMINATION OF THE CONTRACT

- 35.1 **TERMINATION BY THE CONTRACTOR.** If the work is stopped for a period of sixty (60) days, and the Owner is immediately notified of such stopping, under an order of any court or other public authority having jurisdiction through no act or fault of the Contractor or any Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, and by reason of some act or omission of Owner, then the Contractor may, upon seven day's written notice to the Owner and the Engineer as its sole remedy hereunder, terminate the Contract and recover from the Owner payment for all Work approved by Owner and for any proven loss sustained upon any materials for Work accomplished through the date the notice of termination is given and approved and accepted by Owner.
- 35.2 **TERMINATION BY THE COUNTY.** If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner the Contractor's obligations under this Contract, or if the

Contractor shall violate any of the covenants, agreements, or stipulations of the Contract, the County shall thereupon have the right to terminate this Contract by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared by the Contractor under this Contract shall, at the option of the Owner, become its property and the Contractor shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

35.2.1 Notwithstanding the above, the Contractor shall not be relieved of liability to the County for damages sustained by the County, Owner or Lessee by virtue of any breach of the Contract by the Contractor, and the County may withhold any payments to the Contractor for the purpose of set-off until such time as the exact amount of damages due the County from the Contractor is determined.

35.2.2 The County may terminate this Contract at any time by giving at least Ten (10) days notice in writing to the Contractor. If the Contract is terminated by the County, the Contractor will be paid for the time provided and expenses incurred up to the termination date. If this Contract is terminated due to the fault of the Contractor, the aforementioned clause relative to termination shall apply.

35.2.3 If the Contractor refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workmen or sufficient and proper materials to complete the Work in accord with the Progress Schedule and Contract Time, or he fails to make prompt payments to Subcontractors or for materials or labor, or disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or fails to uninterruptedly complete the Work once he has the Notice to Proceed, or otherwise is guilty of a material breach of any provision of the Contract Documents, then County may, without prejudice to any other right or remedy and after giving the Contractor and his surety seven (7) days written notice, terminate the employment of the Contractor and take possession of the site and all materials, and may finish the Work by whatever method he may deem expedient.

35.2.3.1 In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished. Termination of the Contract under this Paragraph shall not relieve the Contractor of any warranty obligations on Work performed hereunder, and such obligations shall survive termination of this Contract.

35.2.3.2 If the unpaid balance of the Contract Amount is exceeded by the costs of finishing the Work, including compensation for additional services, attorneys' fees and all other costs incurred by Owner in completion of the Contractor's obligations, the Contractor shall pay the difference to the Owner. The costs incurred by the Owner as herein provided shall be certified by an engineer.

ARTICLE 36

WARRANTY AND SITE CONDITIONS

36.1 **TWO-YEAR WARRANTY.** The Contractor shall warrant all Work under this Contract to be in accordance with the Contract Documents against defects of material and workmanship for a

period of two years from the date of Substantial Completion; provided, however, that those items of the Work specified as having longer warranties shall be warranted for the period specified.

- 36.2 The Contractor shall be responsible for the total cost of repairing and restoring any Work found not in compliance with the Contract Documents or any defective Work to a new condition, at no cost to County or Owner.
- 36.3 In any case where the subject matter of the non-compliance or defect relates to Work done under a subcontract between the Contractor and any subcontractor, it is the responsibility of the Contractor, not the County or Owner, to secure the Subcontractor's performance in compliance with this paragraph and, in the event of the Subcontractor's failure or refusal within a reasonable time to perform after notice, it shall be the Contractor's responsibility to repair and restore such non-complying or defective Work to a new condition, at no cost to County or Owner.
- 36.4 In any case where the failure in complying or defective Work has been brought to the attention of the Contractor by the County or Owner and the Contractor fails or refuses to correct it within five (5) days of such notice, the County or Owner may elect, without precluding any other remedy it may have available to it, to have the defective Work repaired and restored to a new condition in whatever reasonable manner it deems appropriate, regardless of the cost, and the Contractor shall be liable to the Owner for the total cost thereof, including, by way of example only, any engineering and legal fees related to effecting the repair, plus 10% of the total costs incurred.
- 36.5 Material and workmanship made good through compliance with such warranty shall be subject to the same warranty period as the original materials and workmanship. Such warranty period shall begin on the date the replaced material and work is certified as acceptable in writing by the Project Administrator.

ARTICLE 37

CONFLICTING TERMS

- 37.1 If there is any conflict between the terms of these General Conditions and the terms of the Contract, the Contract shall prevail unless these General Conditions expressly state that they override the Contract terms.

SPECIAL PROVISIONS

1. PROJECT SIGN

A project sign shall be erected in a location as directed by the Owner prior to commencement of construction activities and will contain at a minimum the following text.

**BOYS AND GIRLS CLUB IMPROVEMENTS
FUNDED THROUGH THE ARIZONA DEPARTMENT OF
HOUSING COMMUNITY DEVELOPMENT BLOCK GRANT
FUNDS
CDBG CONTRACT #121-20
SANTA CRUZ COUNTY BID #B-02-20-CO02**

The sign shall be a minimum 24 inches high by 36 inches wide and the text above shall be a minimum 72-point font. The sign shall also include the ADOH and SEAGO logos. Logos are available, upon written request to the Engineer, in bitmap and Word format, respectively. Logos shall be a minimum 5 inches in height.

Project sign, sign support and foundation shall be constructed in accordance with the Technical Specifications.

2. WORK DAY, WORK WEEK, OVERTIME HOURS

WORK DAY: A work day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least 6 hours toward completion of the contract, unless work is suspended for causes beyond the Contractor's control. Saturdays, Sundays and holidays on which the Contractor's forces engage in regular work, after obtaining written permission from the Boys & Girls Club Executive Director, or her authorized representative, which requires the presence of an inspector, will be considered and applied as working days.

SECTION D

TECHNICAL SPECIFICATIONS

ROOF STRENGTHENING PLANS

SANTA CRUZ COUNTY BOYS AND GIRLS CLUB IMPROVEMENTS

BID NUMBER: B-02-20-CO02

CDBG #121-20

STRUCTURAL NOTES:

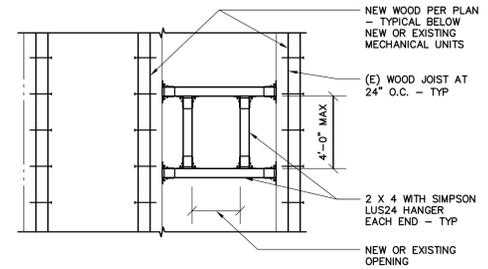
1. DESIGN CRITERIA:
 - A. ALL CONSTRUCTION SHALL CONFORM TO THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE.
 - B. ROOF:
 - ROOF LIVE LOAD = 20 PSF (REDUCIBLE)
 - ROOF DEAD LOAD = 16 PSF (20 PSF AT STEEL JOISTS)
 - D. WIND:
 - ULTIMATE WIND SPEED - 120 MPH (3 SEC GUST.)
 - ASD WIND SPEED - 95 MPH (3 SEC GUST.)
 - EXPOSURE - "C"
 - RISK CATEGORY - III
 - E. SEISMIC:
 - RISK CATEGORY - III
 - IMPORTANCE FACTOR - "1.25"
 - SPECTRAL RESPONSE COEFFICIENTS:
 - SDS - 0.208
 - SD1 - 0.096
 - R - 3.5
 - SITE CLASS - "D"
 - SEISMIC DESIGN CATEGORY - "B"
 - BASIC SEISMIC FORCE RESISTANCE SYSTEM:
 - INTERMEDIATE REINFORCED MASONRY SHEAR WALLS.
2. DETAILS AND NOTES ON DRAWINGS SHALL TAKE PRECEDENCE OVER STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.
3. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS WITH EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION. FOR CLARITY, ALL WALL, FLOOR AND ROOF OPENINGS MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS.
4. DETAILS MARKED "TYPICAL" MAY OR MAY NOT BE CUT ON PLANS, BUT SHALL APPLY UNLESS NOTED OTHERWISE.
5. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT THE STRUCTURE DURING CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, SHORING, BRACING, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHORING, BRACING, AND SCAFFOLDING. OBSERVATION VISITS OR SPECIAL INSPECTION TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SITE SAFETY, OR THE SAFETY PRECAUTIONS AND PROGRAMS.
6. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED ROOF OR FLOORS. THE LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.
7. THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHOD OF CONSTRUCTION.
8. ALL NAILS SHALL BE COMMON NAILS. ALL NAILING NOT NOTED SHALL BE ACCORDING TO THE FASTENING SCHEDULE IN TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE. SIZE AND NUMBER OF NAILS IN JOIST HANGERS AND MISCELLANEOUS FRAMING ANCHORS SHALL BE ACCORDING TO THE MANUFACTURER'S LATEST CATALOG.
9. MATERIALS SPECIFICATIONS:

BOLTS IN WOOD - ASTM A307

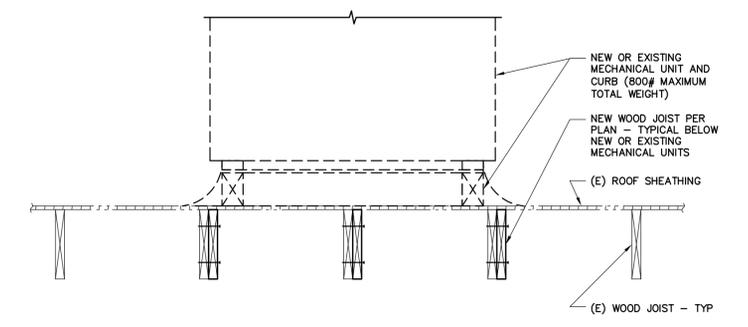
ALL THREAD BOLTS - ASTM A307

FRAMING LUMBER - WWP or WCLIB STAMPED, 19% MAXIMUM MOISTURE CONTENT, DOUGLAS FIR-LARCH OF THE FOLLOWING GRADES: TYPICAL U.N.O. - #2

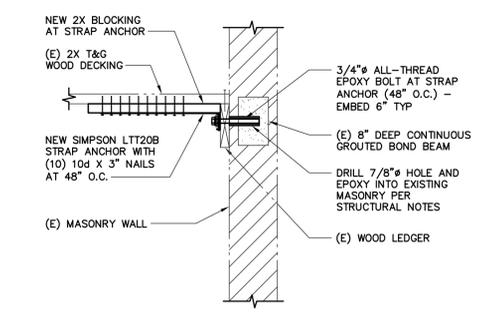
GLULAMS (GLB) - DOUGLAS FIR-LARCH 24F COMBINATION WITH $F_b = 2400$ PSI, $F_v = 240$ PSI, F_c (PERPENDICULAR) = 650 PSI AND $E = 1,800,000$ PSI MINIMUM. PROVIDE MANUFACTURER'S STANDARD CAMBER USING A RADIUS OF 2000 FEET AT SIMPLE SPAN CONDITIONS. DO NOT CAMBER MULTI-SPAN BEAMS AND CANTILEVER BEAMS U.N.O.
10. SPECIAL INSPECTIONS SHALL BE PERFORMED BY BRODERICK ENGINEERING, LLC OR A QUALIFIED INSPECTOR AS APPROVED BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A MINIMUM OF 24 HOURS NOTICE TO THE SPECIAL INSPECTOR AND THE TESTING LABORATORY PRIOR TO BEGINNING ANY WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE ENGINEER OR ARCHITECT OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ENGINEER OR ARCHITECT OF RECORD AND THE BUILDING OFFICIAL. SPECIAL INSPECTION IS REQUIRED DURING THE FOLLOWING OPERATIONS PER IBC CHAPTER 17:
 - A. EPOXY INSTALLATIONS: DURING INSTALLATION OF ALL REINFORCING BARS OR ALL-THREAD RODS TO ENSURE THAT INSTALLATION AND EMBEDMENT REQUIREMENTS HAVE BEEN MET.
 - B. WOOD ROOF STRENGTHENING - REVIEW OF WOOD ROOF STRENGTHENING MEMBERS AND ATTACHMENT - PERIODIC.



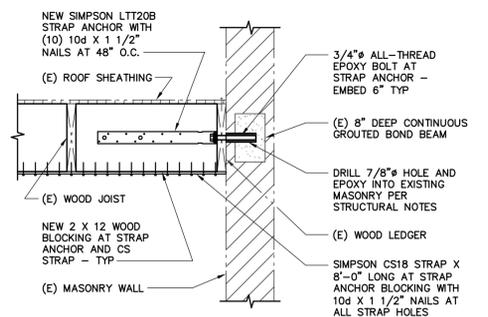
TYPICAL SUPPORT BENEATH MECHANICAL UNITS AND FRAMING AROUND SMALL WOOD ROOF OPENING (102)
TYPICAL DETAIL



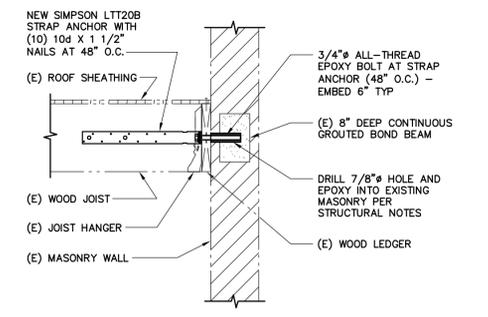
NEW OR EXISTING ROOF TOP MECHANICAL UNIT SUPPORT DETAIL (101)
TYPICAL DETAIL



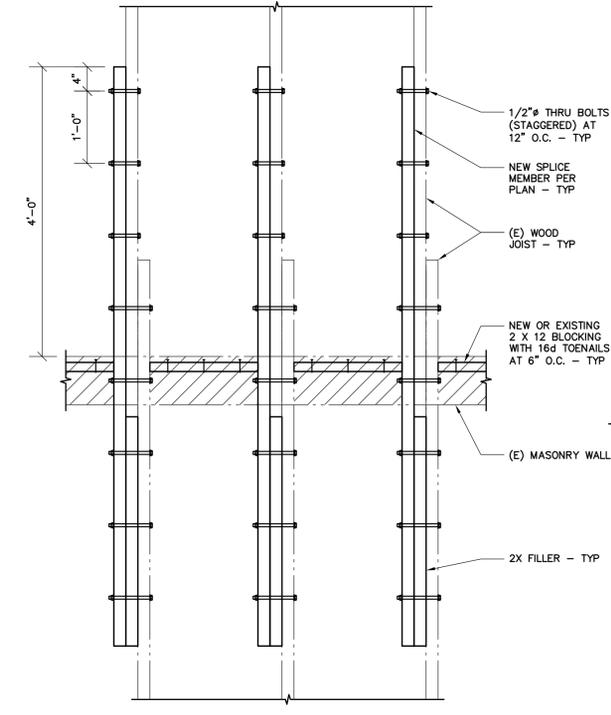
(105)



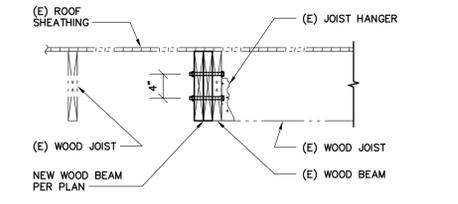
(104)



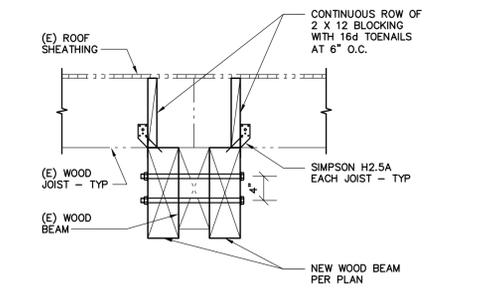
(103)



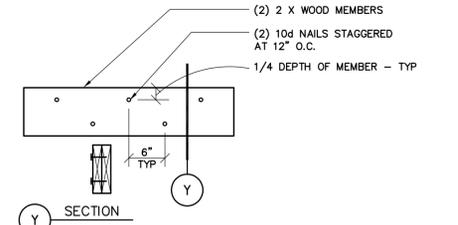
TYPICAL SPLICE CONNECTION AT CONTINUOUS WOOD JOISTS OVER INTERIOR MASONRY WALL (108)
TYPICAL DETAIL



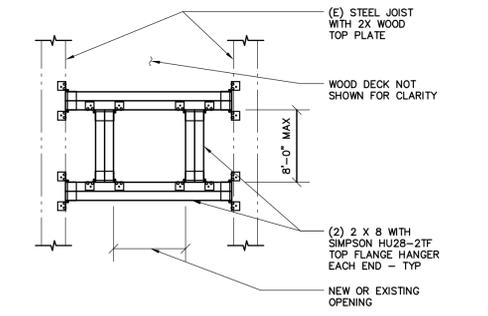
(107)



(106)



BUILT-UP WOOD MEMBERS (109)
TYPICAL DETAIL



TYPICAL SUPPORT BENEATH MECHANICAL UNITS AND FRAMING AROUND WOOD DECK ROOF OPENING (109)
TYPICAL DETAIL

REVISIONS:

PROJECT NAME: BOYS & GIRLS CLUB OF SANTA CRUZ COUNTY EXISTING ROOF STRENGTHENING
PROJECT ADDRESS: 590 N TYLER ST NOGALES, AZ 85621

JOB No.: 20097
DRAWN: JG
CHECKED: RMW
SCALE: AS SHOWN
DATE: 05.20.20

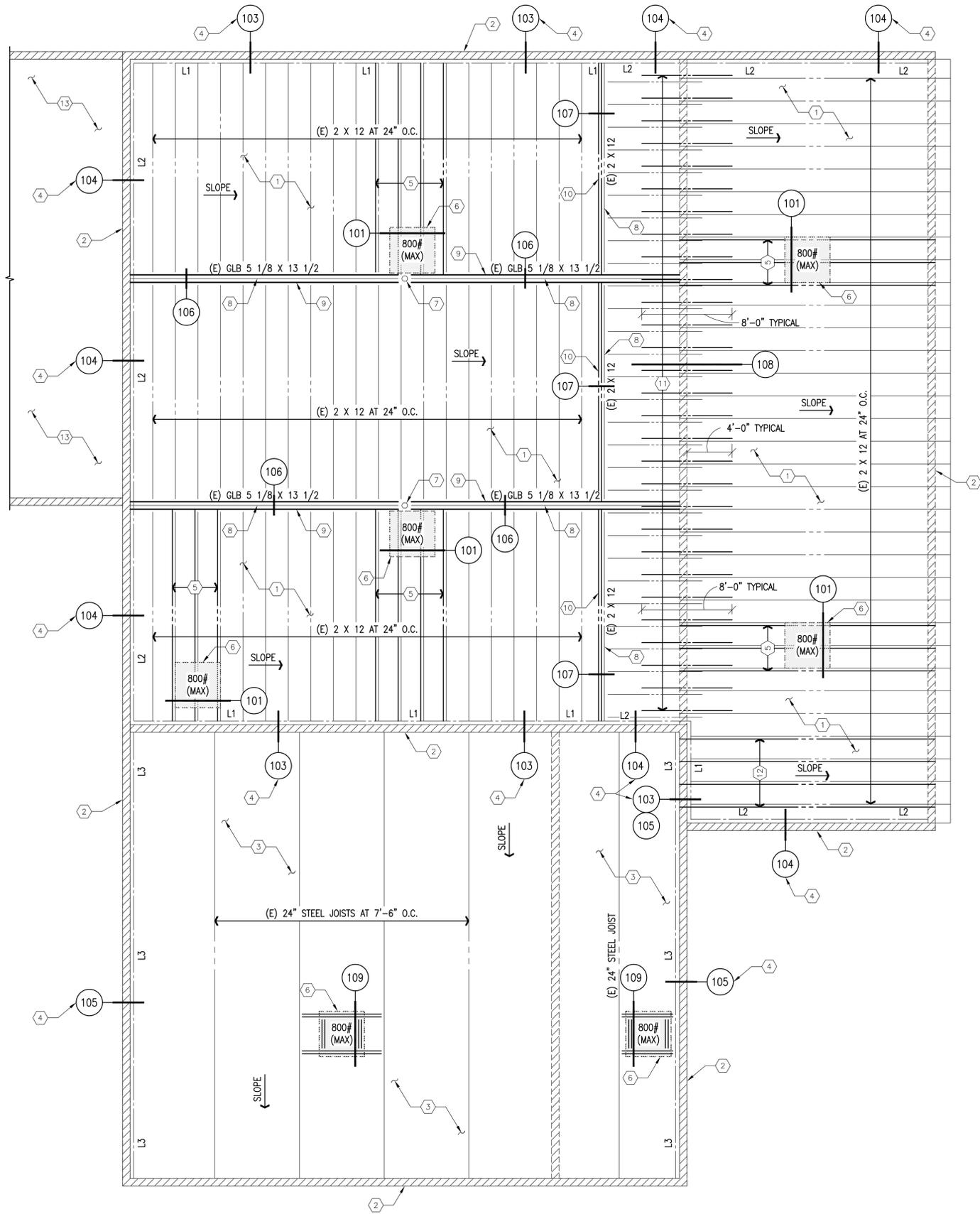


THIS DRAWING AND DATA CONTAINED HEREON ARE THE PROPERTY OF BRODERICK ENGINEERING, LLC AND MAY NOT BE REPRODUCED, COPIED OR TRANSFERRED, WITHOUT THE EXPRESS WRITTEN CONSENT OF THE PROPRIETOR AND OR COMPANY REPRESENTATIVE. NOR SHALL ANY DATA OR INFORMATION CONTAINED HEREON BE USED IN PART OR IN FULL FOR ANY OTHER PURPOSE THAN THAT DESCRIBED WITHIN THESE DOCUMENTS.

BRODERICK ENGINEERING, LLC.

BRODERICK ENGINEERING, LLC.
3275 W. INA RD., SUITE 211
TUCSON, AZ 85741
PH 520-887-9416
FAX 520-887-9486

SHEET TITLE:
STRUCTURAL NOTES AND DETAILS



PARTIAL ROOF FRAMING PLAN

SCALE: 3/16"=1'-0"



ROOF FRAMING PLAN NOTES

- 1 EXISTING PLYWOOD ROOF SHEATHING OVER WOOD JOISTS AND BLOCKING TO REMAIN - TYPICAL.
- 2 - INDICATES EXISTING MASONRY WALL TO REMAIN - TYPICAL.
- 3 EXISTING 2X T&G WOOD DECKING OVER STEEL JOISTS AND BRIDGING TO REMAIN - TYPICAL.
- 4 PROVIDE WALL BRACING STRAPS AT EXISTING JOISTS/DECKING PER THE FRAMING DETAILS NOTED - TYPICAL.
- 5 NEW CONTINUOUS 2 X 12 WOOD JOIST ATTACHED TO SIDE OF EXISTING WOOD JOIST WITH (2) 10d NAILS STAGGERED AT 12" O.C. AND SIMPSON A35 EACH END - TYPICAL AT MECHANICAL UNIT.
- 6 NEW OR EXISTING MECHANICAL UNIT - TYPICAL. PROVIDE ADDITIONAL JOISTS AS REQUIRED BY THE TYPICAL DETAILS.
- 7 EXISTING STEEL COLUMN TO REMAIN - TYPICAL.
- 8 EXISTING WOOD BEAM TO REMAIN - TYPICAL.
- 9 STRENGTHEN EXISTING BEAM WITH (2) GLB 5 1/8 X 15 - ATTACH (1) NEW BEAM TO EACH SIDE OF EXISTING BEAM WITH (2) 3/4" THRU BOLTS STAGGERED AT 24" O.C. PER DETAIL 106.
- 10 STRENGTHEN EXISTING BEAM WITH (2) 2 X 12 ATTACHED TO SIDE OF EXISTING BEAM WITH (2) 1/2" THRU BOLTS STAGGERED AT 24" O.C. AND (2) SIMPSON H2.5A EACH END PER DETAIL 107.
- 11 NEW 2 X 12 X 8'-0" SPLICE MEMBER AT 24" O.C. ATTACHED TO SIDE OF EXISTING JOISTS WITH (2) 1/2" THRU BOLTS STAGGERED AT 24" O.C. PER DETAIL 108.
- 12 NEW CONTINUOUS 2 X 12 WOOD JOIST ATTACHED TO SIDE OF EXISTING WOOD JOIST WITH (2) 10d NAILS STAGGERED AT 12" O.C. AND SIMPSON A35 EACH END.
- 13 EXISTING BUILDING TO REMAIN - TYPICAL.

LEDGER (L) SCHEDULE		
LEDGER DESIGNATION	LEDGER SIZE	CONNECTION
L1	EXISTING 2 X 12	NEW SIMPSON LTT20B WITH 3/4" EPOXY BOLT AT 48" O.C. (EVERY OTHER JOIST)
L2	EXISTING 2 X 12	NEW SIMPSON LTT20B WITH 3/4" EPOXY BOLT AT 48" O.C. (INTO NEW 2 X 12 BLOCKING)
L3	EXISTING 2 X 8	NEW SIMPSON LTT20B WITH 3/4" EPOXY BOLT AT 48" O.C. (INTO EXISTING DECKING)

NOTES:
 1. EVERY EFFORT HAS BEEN MADE TO DETERMINE AS-BUILT CONDITIONS PRIOR TO THIS PHASE OF CONSTRUCTION. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY AS-BUILT CONDITIONS AND NOTIFY THE ENGINEER OF RECORD IF IT IS DETERMINED THAT THE ACTUAL CONDITIONS VARY FROM WHAT IS NOTED AND REFERENCED ON THESE DRAWINGS.
 2. EXISTING WALL OPENINGS NOT SHOWN FOR CLARITY.
 3. FRAME AROUND NEW OR EXISTING ROOF OPENINGS PER TYPICAL DETAILS 102 AND 109.

REVISIONS:

PROJECT NAME:
**BOYS & GIRLS CLUB OF SANTA CRUZ COUNTY
 EXISTING ROOF STRENGTHENING**
 PROJECT ADDRESS:
 590 N TYLER ST
 NOGALES, AZ 85621

JOB No.: 20097
 DRAWN: JG
 CHECKED: RMW
 SCALE: AS SHOWN
 DATE: 05.20.20



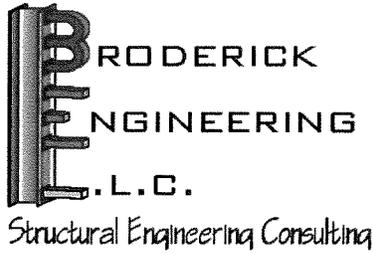
THIS DRAWING AND DATA CONTAINED HEREON ARE THE PROPERTY OF BRODERICK ENGINEERING LLC AND MAY NOT BE USED, REPRODUCED, COPIED OR TRANSFERRED, WITHOUT THE EXPRESS WRITTEN CONSENT OF THE PROPRIETOR AND OR COMPANY REPRESENTATIVE. NOR SHALL ANY DATA OR INFORMATION CONTAINED HEREON BE USED IN PART OR IN FULL FOR ANY OTHER PURPOSE THAN THAT DESCRIBED WITHIN THESE DOCUMENTS.

**BRODERICK
 ENGINEERING
 LLC.**

BRODERICK ENGINEERING LLC,
 3275 W. INA RD., SUITE 211
 TUCSON, AZ 85741
 PH 520-887-9416
 FAX 520-887-9466

SHEET TITLE:
**PARTIAL ROOF
 FRAMING PLAN**

S200
 SHEET OF



**Structural Calculations – Roof Strengthening
For
Boys & Girls Club of Santa Cruz County
590 N. Tyler Street
Nogales, Arizona**

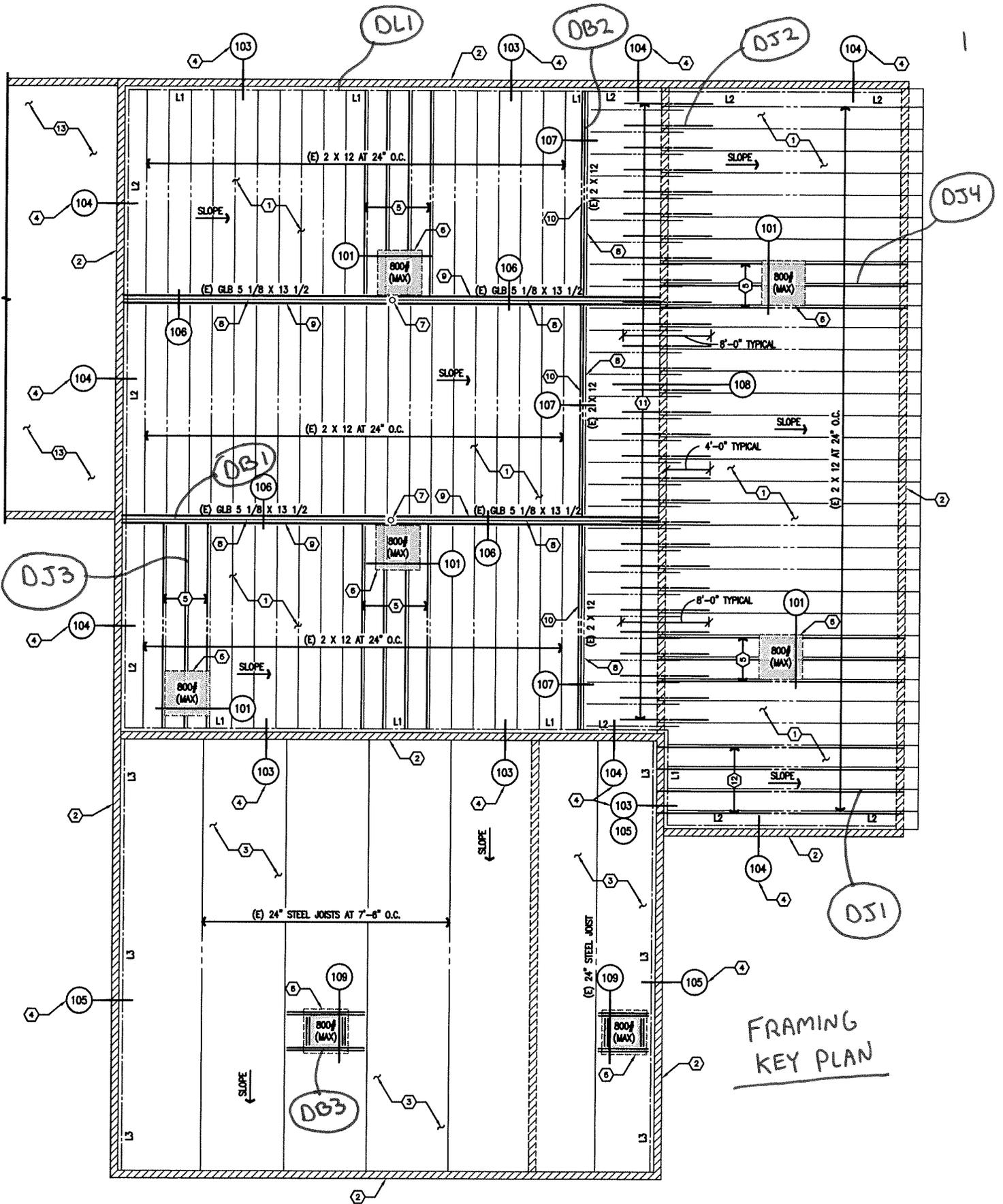
INDEX

Framing Key Plan	1
Roof Strengthening Design	2 - 21



PREPARED FOR: Santa Cruz County Public Works
275 Rio Rico Drive
Rio Rico, Arizona 85648

6859 E. Rembrandt Ave. #124 • Mesa, Arizona 85212 • 480.926.6333 • Fax 480.926.3999
3275 W. Ina Rd. #211 • Tucson, Arizona 85741 • 520.887.9416 • Fax 520.887.9486



PARTIAL ROOF FRAMING PLAN

SCALE: 3/16"=1'-0"



FRAMING
KEY PLAN



PROJECT: Santa Cruz County Boys & Girls Club SHEET NO: 2
JOB NO: 20097 DATE: May-20
BY: RMW

2012 IBC LOADS:

Roof Loads - Wood Joists

Built-up roofing	=	2.5	psf
1/2" plywood sheathing	=	1.5	psf
Wood joists	=	3.0	psf
New insulation	=	2.5	psf
New gyp. bd. ceiling	=	3.0	psf
Existing M.P.E.	=	1.0	psf
New added M.P.E.	=	0.5	psf
Misc	=	2.0	psf
<hr/>			
Roof DL	=	16	psf
Roof LL	=	20	psf
Roof Top Mechanical Unit	=	800	lbs

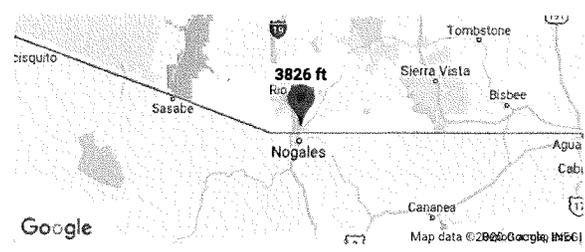
Roof Loads - Steel Joists

Built-up roofing	=	2.5	psf
2x T&G wood decking	=	4.5	psf
Steel joists	=	4.0	psf
New insulation	=	2.5	psf
New gyp. bd. ceiling	=	3.0	psf
Existing M.P.E.	=	1.0	psf
New added M.P.E.	=	0.5	psf
Misc	=	2.0	psf
<hr/>			
Roof DL	=	20	psf
Roof LL	=	20	psf
Roof Top Mechanical Unit	=	800	lbs

ATC Hazards by Location

Search Information

Address: 590 N Tyler St, Nogales, AZ 85621, USA
Coordinates: 31.3427411, -110.928592
Elevation: 3826 ft
Timestamp: 2020-05-15T04:22:23.547Z
Hazard Type: Wind



ASCE 7-16

MRI 10-Year	71 mph
MRI 25-Year	78 mph
MRI 50-Year	83 mph
MRI 100-Year	89 mph
Risk Category I	96 mph
Risk Category II	104 mph
Risk Category III	110 mph
Risk Category IV	115 mph

ASCE 7-10

MRI 10-Year	76 mph
MRI 25-Year	84 mph
MRI 50-Year	90 mph
MRI 100-Year	96 mph
Risk Category I	105 mph
Risk Category II	115 mph
Risk Category III-IV	120 mph

ASCE 7-05

ASCE 7-05 Wind Speed 90 mph

$$ASD = \sqrt{0.6 \times 120^2} = 95 \text{ mph}$$

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Disclaimer

Hazard loads are interpolated from data provided in ASCE 7 and rounded up to the nearest whole integer. Per ASCE 7, islands and coastal areas outside the last contour should use the last wind speed contour of the coastal area – in some cases, this website will extrapolate past the last wind speed contour and therefore, provide a wind speed that is slightly higher. NOTE: For queries near wind-borne debris region boundaries, the resulting determination is sensitive to rounding which may affect whether or not it is considered to be within a wind-borne debris region.

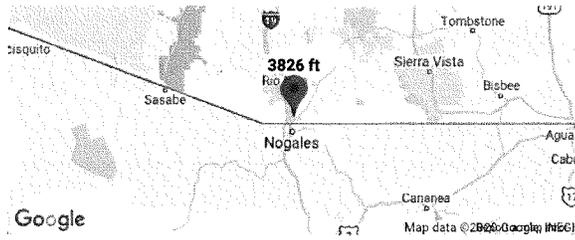
Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

While the information presented on this website is believed to be correct, ATC and its sponsors and contributors assume no responsibility or liability for its accuracy. The material presented in the report should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. ATC does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the report provided by this website. Users of the information from this website assume all liability arising from such use. Use of the output of this website does not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the report.

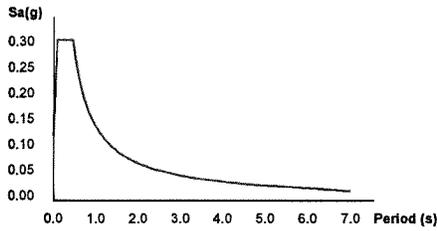
ATC Hazards by Location

Search Information

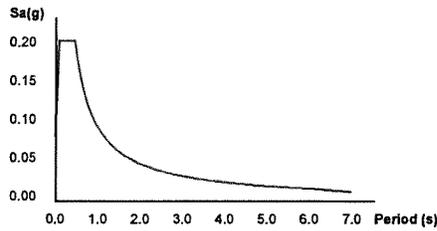
Address: 590 N Tyler St, Nogales, AZ 85621, USA
Coordinates: 31.3427411, -110.928592
Elevation: 3826 ft
Timestamp: 2020-05-15T04:24:52.467Z
Hazard Type: Seismic
Reference Document: ASCE7-10
Risk Category: III
Site Class: D



MCER Horizontal Response Spectrum



Design Horizontal Response Spectrum



Basic Parameters

Name	Value	Description
S _s	0.195	MCE _R ground motion (period=0.2s)
S ₁	0.06	MCE _R ground motion (period=1.0s)
S _{MS}	0.312	Site-modified spectral acceleration value
S _{M1}	0.144	Site-modified spectral acceleration value
S _{Ds}	0.208	Numeric seismic design value at 0.2s SA
S _{D1}	0.096	Numeric seismic design value at 1.0s SA

Additional Information

Name	Value	Description
SDC	B	Seismic design category
F _s	1.6	Site amplification factor at 0.2s
F _v	2.4	Site amplification factor at 1.0s
CR _s	0.9	Coefficient of risk (0.2s)
CR ₁	0.922	Coefficient of risk (1.0s)
PGA	0.081	MCE _G peak ground acceleration
F _{PGA}	1.6	Site amplification factor at PGA
PGA _M	0.13	Site modified peak ground acceleration
T _L	6	Long-period transition period (s)
SsRT	0.195	Probabilistic risk-targeted ground motion (0.2s)
SsUH	0.216	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	1.5	Factored deterministic acceleration value (0.2s)
S1RT	0.06	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.065	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	0.6	Factored deterministic acceleration value (1.0s)
PGA _d	0.5	Factored deterministic acceleration value (PGA)

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Disclaimer

DS1 - STRENGTHENING

$$L = 22'-0"$$

$$DL = 16 \times 2' = 32 \text{ pIF}$$

$$LLr = 20 \times 2' = 40 \text{ pIF}$$

USE (2) 2x12 DFL#2 @ 24" O.C.

- SEE PRINTOUT

DS2 - STRENGTHENING

$$M_{max} = 1575 \text{ FT-LB}$$

USE 2x12 DFL#2 x 8'-0" LONG
SPLICE MEMBER @ 24" O.C. w/ 1/2" ϕ
THRU BOLTS @ 12" O.C.

$$V_{bolt} = 1575 / 4' \times 3 = 132^{\#}$$

$$V_{allow} = 1.25 \times 220 = 275^{\#} > 132^{\#} \quad \underline{OK}$$

DS3 - STRENGTHENING

$$L = 20'-0"$$

$$DL = 16 \times 2' = 32 \text{ pIF}$$

$$LLr = 20 \times 2' = 40 \text{ pIF}$$

$$P_{mech} = 800/3 = 267^{\#} @ 6'-0"$$

USE (2) 2x12 DFL#2 @ 24" O.C.

- SEE PRINTOUT

DS4 - STRENGTHENING

$$L = 22'-0" + 7'-0"$$

$$DL = 16 \times 2' = 32 \text{ pIF}$$

$$LLr = 20 \times 2' = 40 \text{ pIF}$$

$$P_{mech} = 800/3 = 267^{\#} @ 11'-0"$$

USE (2) 2x12 DFL#2 @ 24" O.C.

- SEE PRINTOUT

DB1 - STRENGTHENING

$$L = 25'-0"$$

$$DL = 16 \times 40/2 = 320 \text{ pIF}$$

$$A = 25' \times 40/2 = 500 \text{ FT}^2$$

$$LLr = 14 \times 40/2 = 280 \text{ pIF}$$

$$P_{mech} = 800/2 = 400^{\#} @ 8'-0" \& 21'-0"$$

USE (E) GLB 5'8" x 13'2" + (2) GLB 5'8" x 15

- SEE PRINTOUT

DB2 - STRENGTHENING

$$L = 20'-0"$$

$$DL = -106/2 + 16 \times 1' = -37 \text{ pIF}$$

$$LLr = -264/2 + 20 \times 1' = -112 \text{ pIF}$$

USE (3) 2x12 DFL#2

- SEE PRINTOUT

DB3 - STRENGTHENING

$$L = 8'-0''$$
$$DL = 20 \times 8 \frac{1}{2} = 80 \text{ pIF}$$
$$LLr = 20 \times 8 \frac{1}{2} = 80 \text{ pIF}$$
$$P_{\text{mech}} = \frac{800}{2} = 400 \text{ H} \approx 4'-0''$$

USE (2) 2x8 DFL #2

-SEE PRINTOUT

DL1 - STRENGTHENING

$$DL = 16 \times 20 \frac{1}{2} = 160 \text{ pIF}$$
$$LLr = 20 \times 20 \frac{1}{2} = 200 \text{ pIF}$$
$$TL = 360 \text{ pIF}$$

USE (E) 2x LEDGER w/(E) $\frac{3}{4}$ " ϕ
ANCHOR BOLTS @ 48" O.C. \downarrow NEW
 $\frac{3}{4}$ " ϕ ANCHOR BOLTS @ 48" O.C.

$$V_{\text{allow}} = 1.25 \times (590 + 590) / 4'$$

$$V_{\text{allow}} = 368 \text{ pIF} > 360 \text{ pIF} \quad \underline{\text{OK}}$$

Wood Beam

g = \NAS-TUCSON\AmazonCloudDrive\BX3WMS-TT4094B-725FAKC-C22EAPO-5EHTC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020. Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DJ1 - Strengthened

Load Combination	Segment Length	Span #	Max Stress Ratios		C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	Moment Values			Shear Values		
			M	V								M	fb	F'b	V	fv	Fv
Length = 22.0 ft	1	0.313	0.061	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.00	2.38	451.04	1440.00	0.40	17.68	288.00
+D+0.70E+H					1.000	1.00	1.00	1.00	1.00	1.00	1.00		0.00	0.00	0.00	0.00	0.00
Length = 22.0 ft	1	0.313	0.061	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.00	2.38	451.04	1440.00	0.40	17.68	288.00
+D+0.750Lr+0.750L+0.450W+H					1.000	1.00	1.00	1.00	1.00	1.00	1.00		0.00	0.00	0.00	0.00	0.00
Length = 22.0 ft	1	0.552	0.108	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.00	4.19	795.22	1440.00	0.70	31.17	288.00
+D+0.750L+0.750S+0.450W+H					1.000	1.00	1.00	1.00	1.00	1.00	1.00		0.00	0.00	0.00	0.00	0.00
Length = 22.0 ft	1	0.313	0.061	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.00	2.38	451.04	1440.00	0.40	17.68	288.00
+D+0.750L+0.750S+0.5250E+H					1.000	1.00	1.00	1.00	1.00	1.00	1.00		0.00	0.00	0.00	0.00	0.00
Length = 22.0 ft	1	0.313	0.061	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.00	2.38	451.04	1440.00	0.40	17.68	288.00
+0.60D+0.60W+0.60H					1.000	1.00	1.00	1.00	1.00	1.00	1.00		0.00	0.00	0.00	0.00	0.00
Length = 22.0 ft	1	0.188	0.037	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.00	1.43	270.63	1440.00	0.24	10.61	288.00
+0.60D+0.70E+0.60H					1.000	1.00	1.00	1.00	1.00	1.00	1.00		0.00	0.00	0.00	0.00	0.00
Length = 22.0 ft	1	0.188	0.037	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.00	1.43	270.63	1440.00	0.24	10.61	288.00

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H	1	0.7383	11.080		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	0.872	0.872
Overall MINimum	0.440	0.440
+D+H	0.432	0.432
+D+L+H	0.432	0.432
+D+Lr+H	0.872	0.872
+D+S+H	0.432	0.432
+D+0.750Lr+0.750L+H	0.762	0.762
+D+0.750L+0.750S+H	0.432	0.432
+D+0.60W+H	0.432	0.432
+D+0.70E+H	0.432	0.432
+D+0.750Lr+0.750L+0.450W+H	0.762	0.762
+D+0.750L+0.750S+0.450W+H	0.432	0.432
+D+0.750L+0.750S+0.5250E+H	0.432	0.432
+0.60D+0.60W+0.60H	0.259	0.259
+0.60D+0.70E+0.60H	0.259	0.259
D Only	0.432	0.432
Lr Only	0.440	0.440
L Only		
S Only		
W Only		
E Only		
H Only		

Wood Beam

\\NAS-TUCSON\AmazonCloudDrive\BX3WMS-T1T4094B-7125FAKC-C122EAP0-5EHTEC6-Q120097.ec6
 Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

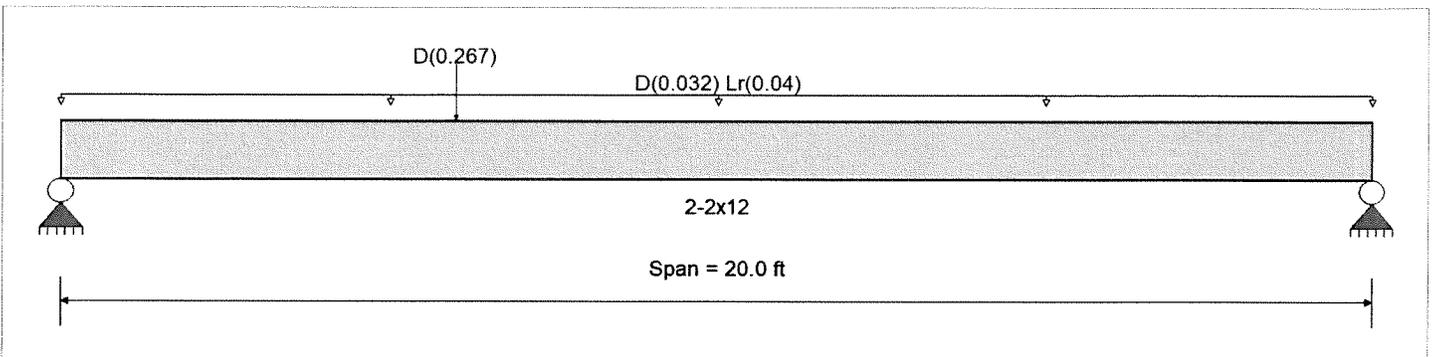
DESCRIPTION: DJ3 - Strengthened

CODE REFERENCES

Calculations per NDS 2012, IBC 2012, CBC 2013, ASCE 7-10
 Load Combination Set : IBC 2012

Material Properties

Analysis Method : Allowable Stress Design	Fb +	900.0 psi	E : Modulus of Elasticity
Load Combination IBC 2012	Fb -	900.0 psi	Ebend-xx
	Fc - Prll	1,350.0 psi	Eminbend-xx
Wood Species : Douglas Fir-Larch	Fc - Perp	625.0 psi	
Wood Grade : No.2	Fv	180.0 psi	
	Ft	575.0 psi	Density
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling			31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loads
 Uniform Load : D = 0.0320, Lr = 0.040, Tributary Width = 1.0 ft
 Point Load : D = 0.2670 k @ 6.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.810 : 1	Maximum Shear Stress Ratio	=	0.180 : 1
Section used for this span	=	2-2x12	Section used for this span	=	2-2x12
	=	911.58psi		=	40.47 psi
	=	1,125.00psi		=	225.00 psi
Load Combination	=	+D+Lr+H	Load Combination	=	+D+Lr+H
Location of maximum on span	=	8.978ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1
Maximum Deflection					
Max Downward Transient Deflection		0.254 in	Ratio =	943	>=360
Max Upward Transient Deflection		0.000 in	Ratio =	0	<360
Max Downward Total Deflection		0.612 in	Ratio =	392	>=240
Max Upward Total Deflection		0.000 in	Ratio =	0	<240

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Max Stress Ratios								Moment Values			Shear Values								
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	fv	Fv					
+D+H	Length = 20.0 ft	1	0.667	0.150	0.90	1.000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.85	540.13	810.00	0.00	0.00	0.00	0.55	24.25	162.00
+D+L+H	Length = 20.0 ft	1	0.600	0.135	1.00	1.000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.85	540.13	900.00	0.00	0.00	0.00	0.55	24.25	180.00
+D+Lr+H	Length = 20.0 ft	1	0.810	0.180	1.25	1.000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.81	911.58	1125.00	0.00	0.00	0.00	0.91	40.47	225.00
+D+S+H	Length = 20.0 ft	1	0.522	0.117	1.15	1.000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.85	540.13	1035.00	0.00	0.00	0.00	0.55	24.25	207.00
+D+0.750Lr+0.750L+H	Length = 20.0 ft	1	0.727	0.162	1.25	1.000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.31	817.88	1125.00	0.00	0.00	0.00	0.82	36.41	225.00
+D+0.750L+0.750S+H	Length = 20.0 ft	1	0.522	0.117	1.15	1.000	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.85	540.13	1035.00	0.00	0.00	0.00	0.55	24.25	207.00

Wood Beam

3 = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS~T1T4094B~725FAKC~C122EAP0~5EHTEC6~Q120097.ec6
Software copyright ENERCALG, INC. 1983-2020. Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DJ3 - Strengthened

Load Combination Segment Length	Span #	Max Stress Ratios		C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	Moment Values			Shear Values		
		M	V								M	f _b	F' _b	V	f _v	F' _v
+D+0.60W+H Length = 20.0 ft	1	0.375	0.084	1.60	1.000	1.00	1.00	1.00	1.00	1.00	2.85	540.13	1440.00	0.55	24.25	288.00
+D+0.70E+H Length = 20.0 ft	1	0.375	0.084	1.60	1.000	1.00	1.00	1.00	1.00	1.00	2.85	540.13	1440.00	0.55	24.25	288.00
+D+0.750Lr+0.750L+0.450W+H Length = 20.0 ft	1	0.568	0.126	1.60	1.000	1.00	1.00	1.00	1.00	1.00	4.31	817.88	1440.00	0.82	36.41	288.00
+D+0.750L+0.750S+0.450W+H Length = 20.0 ft	1	0.375	0.084	1.60	1.000	1.00	1.00	1.00	1.00	1.00	2.85	540.13	1440.00	0.55	24.25	288.00
+D+0.750L+0.750S+0.5250E+H Length = 20.0 ft	1	0.375	0.084	1.60	1.000	1.00	1.00	1.00	1.00	1.00	2.85	540.13	1440.00	0.55	24.25	288.00
+0.60D+0.60W+0.60H Length = 20.0 ft	1	0.225	0.051	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.71	324.08	1440.00	0.33	14.55	288.00
+0.60D+0.70E+0.60H Length = 20.0 ft	1	0.225	0.051	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.71	324.08	1440.00	0.33	14.55	288.00

Overall Maximum Deflections

Load Combination	Span	Max. "+" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H	1	0.6122	9.854		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	0.980	0.873
Overall MINimum	0.400	0.400
+D+H	0.580	0.473
+D+L+H	0.580	0.473
+D+Lr+H	0.980	0.873
+D+S+H	0.580	0.473
+D+0.750Lr+0.750L+H	0.880	0.773
+D+0.750L+0.750S+H	0.580	0.473
+D+0.60W+H	0.580	0.473
+D+0.70E+H	0.580	0.473
+D+0.750Lr+0.750L+0.450W+H	0.880	0.773
+D+0.750L+0.750S+0.450W+H	0.580	0.473
+D+0.750L+0.750S+0.5250E+H	0.580	0.473
+0.60D+0.60W+0.60H	0.348	0.284
+0.60D+0.70E+0.60H	0.348	0.284
D Only	0.580	0.473
Lr Only	0.400	0.400
L Only		
S Only		
W Only		
E Only		
H Only		

Wood Beam

3 = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS-T\T4094B-7\25FAKC-C\22EAP0-5\EHTEC6-Q\20097.ec6
Software copyright.ENERCALC. INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

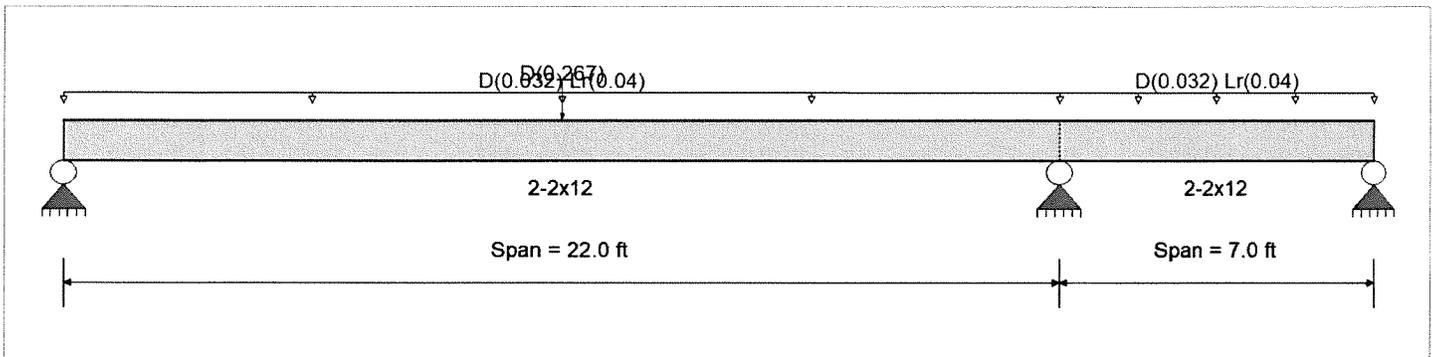
DESCRIPTION: DJ4 - Strengthened

CODE REFERENCES

Calculations per NDS 2012, IBC 2012, CBC 2013, ASCE 7-10
Load Combination Set : IBC 2012

Material Properties

Analysis Method : Allowable Stress Design	Fb +	900.0 psi	E : Modulus of Elasticity
Load Combination IBC 2012	Fb -	900.0 psi	Ebend-xx
	Fc - Prll	1,350.0 psi	Eminbend - xx
Wood Species : Douglas Fir-Larch	Fc - Perp	625.0 psi	
Wood Grade : No.2	Fv	180.0 psi	
	Ft	575.0 psi	Density
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling			31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loads
Load for Span Number 1
Uniform Load : D = 0.0320, Lr = 0.040, Tributary Width = 1.0 ft
Point Load : D = 0.2670 k @ 11.0 ft
Load for Span Number 2
Uniform Load : D = 0.0320, Lr = 0.040, Tributary Width = 1.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.774	1	Maximum Shear Stress Ratio	=	0.226	: 1
Section used for this span	=	2-2x12		Section used for this span	=	2-2x12	
	=	870.98psi			=	50.96 psi	
	=	1,125.00psi			=	225.00 psi	
Load Combination	=	+D+Lr+H, LL Comb Run (LL)		Load Combination	=	+D+Lr+H, LL Comb Run (LL)	
Location of maximum on span	=	22.000ft		Location of maximum on span	=	21.140 ft	
Span # where maximum occurs	=	Span # 1		Span # where maximum occurs	=	Span # 1	
Maximum Deflection							
Max Downward Transient Deflection		0.207 in	Ratio =	1278	>=	360	
Max Upward Transient Deflection		-0.018 in	Ratio =	4728	>=	360	
Max Downward Total Deflection		0.509 in	Ratio =	518	>=	240	
Max Upward Total Deflection		-0.040 in	Ratio =	2088	>=	240	

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Max Stress Ratios								Moment Values			Shear Values						
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	fv	Fv			
+D+H	Length = 22.0 ft	1	0.632	0.180	0.90	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	810.00	0.00	0.00	0.00	0.65	29.10	162.00
	Length = 7.0 ft	2	0.632	0.180	0.90	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	810.00	0.49	29.10	162.00			
+D+L+H, LL Comb Run (*L)	Length = 22.0 ft	1	0.568	0.162	1.00	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	900.00	0.00	0.00	0.00	0.65	29.10	180.00
	Length = 7.0 ft	2	0.568	0.162	1.00	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	900.00	0.49	29.10	180.00			
+D+L+H, LL Comb Run (L*)	Length = 22.0 ft	1	0.568	0.162	1.00	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	900.00	0.00	0.00	0.00	0.65	29.10	180.00
	Length = 7.0 ft	2	0.568	0.162	1.00	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	900.00	0.49	29.10	180.00			

Wood Beam

\\NAS-TUCSON\AmazonCloudDrive\BX3WMS-TT4094B-725FAKC-C22EAP0-5IEHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DJ4 - Strengthened

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values				
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	fv	Fv		
+D+0.750L+0.750S+0.5250E+H, LL						1.000	1.00	1.00	1.00	1.00	1.00								
Length = 22.0 ft	1		0.355	0.101	1.60	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	1440.00	0.65	29.10	288.00		
Length = 7.0 ft	2		0.355	0.101	1.60	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	1440.00	0.49	29.10	288.00		
+D+0.750L+0.750S+0.5250E+H, LL						1.000	1.00	1.00	1.00	1.00	1.00				0.00	0.00	0.00		
Length = 22.0 ft	1		0.355	0.101	1.60	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	1440.00	0.65	29.10	288.00		
Length = 7.0 ft	2		0.355	0.101	1.60	1.000	1.00	1.00	1.00	1.00	1.00	2.70	511.63	1440.00	0.49	29.10	288.00		
+0.60D+0.60W+0.60H						1.000	1.00	1.00	1.00	1.00	1.00				0.00	0.00	0.00		
Length = 22.0 ft	1		0.213	0.061	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.62	306.98	1440.00	0.39	17.46	288.00		
Length = 7.0 ft	2		0.213	0.061	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.62	306.98	1440.00	0.29	17.46	288.00		
+0.60D+0.70E+0.60H						1.000	1.00	1.00	1.00	1.00	1.00				0.00	0.00	0.00		
Length = 22.0 ft	1		0.213	0.061	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.62	306.98	1440.00	0.39	17.46	288.00		
Length = 7.0 ft	2		0.213	0.061	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.62	306.98	1440.00	0.29	17.46	288.00		

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H, LL Comb Run (L*)	1	0.5091	10.078		0.0000	0.000
	2	0.0000	10.078	+D+Lr+H, LL Comb Run (L*)	-0.0402	2.933

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2	Support 3
Overall MAXimum	0.800	2.148	-0.510
Overall MINimum	0.354	0.937	-0.248
+D+H	0.443	1.212	-0.248
+D+L+H, LL Comb Run (*L)	0.443	1.212	-0.248
+D+L+H, LL Comb Run (L*)	0.443	1.212	-0.248
+D+L+H, LL Comb Run (LL)	0.443	1.212	-0.248
+D+Lr+H, LL Comb Run (*L)	0.441	1.363	-0.116
+D+Lr+H, LL Comb Run (L*)	0.800	1.997	-0.510
+D+Lr+H, LL Comb Run (LL)	0.797	2.148	-0.379
+D+S+H	0.443	1.212	-0.248
+D+0.750Lr+0.750L+H, LL Comb Run (*)	0.441	1.325	-0.149
+D+0.750Lr+0.750L+H, LL Comb Run (L)	0.711	1.801	-0.445
+D+0.750Lr+0.750L+H, LL Comb Run (L)	0.709	1.914	-0.346
+D+0.750L+0.750S+H, LL Comb Run (*L)	0.443	1.212	-0.248
+D+0.750L+0.750S+H, LL Comb Run (L*)	0.443	1.212	-0.248
+D+0.750L+0.750S+H, LL Comb Run (LL)	0.443	1.212	-0.248
+D+0.60W+H	0.443	1.212	-0.248
+D+0.70E+H	0.443	1.212	-0.248
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.441	1.325	-0.149
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.711	1.801	-0.445
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.709	1.914	-0.346
+D+0.750L+0.750S+0.450W+H, LL Comb	0.443	1.212	-0.248
+D+0.750L+0.750S+0.450W+H, LL Comb	0.443	1.212	-0.248
+D+0.750L+0.750S+0.450W+H, LL Comb	0.443	1.212	-0.248
+D+0.750L+0.750S+0.450W+H, LL Comb	0.443	1.212	-0.248
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.443	1.212	-0.248
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.443	1.212	-0.248
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.443	1.212	-0.248
+0.60D+0.60W+0.60H	0.266	0.727	-0.149
+0.60D+0.70E+0.60H	0.266	0.727	-0.149
D Only	0.443	1.212	-0.248
Lr Only, LL Comb Run (*L)	-0.003	0.151	0.132
Lr Only, LL Comb Run (L*)	0.357	0.786	-0.262
Lr Only, LL Comb Run (LL)	0.354	0.937	-0.131
L Only, LL Comb Run (*L)			
L Only, LL Comb Run (L*)			
L Only, LL Comb Run (LL)			
S Only			
W Only			
E Only			
H Only			

Wood Beam

\\NAS-TUCSON\AmazonCloudDrive\BX3WMS~T\T4094B~7\25FAKC~Q\22EAP0~5\EHTEC6~Q\20097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DB1a - Strengthened

Load Combination	Segment Length	Span #	Max Stress Ratios								Moment Values			Shear Values		
			M	V	C _d	C _{FN}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	fv
Length = 25.0 ft	1	0.231	0.085	1.15	0.971	1.00	1.00	1.00	1.00	1.00	8.02	618.44	2680.54	1.20	26.00	304.75
+D+0.60W+H					0.971	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.166	0.061	1.60	0.971	1.00	1.00	1.00	1.00	1.00	8.02	618.44	3729.44	1.20	26.00	424.00
+D+0.70E+H					0.971	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.166	0.061	1.60	0.971	1.00	1.00	1.00	1.00	1.00	8.02	618.44	3729.44	1.20	26.00	424.00
+D+0.750Lr+0.750L+0.450W+H					0.971	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.251	0.092	1.60	0.971	1.00	1.00	1.00	1.00	1.00	12.12	934.58	3729.44	1.80	38.99	424.00
+D+0.750L+0.750S+0.450W+H					0.971	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.166	0.061	1.60	0.971	1.00	1.00	1.00	1.00	1.00	8.02	618.44	3729.44	1.20	26.00	424.00
+D+0.750L+0.750S+0.5250E+H					0.971	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.166	0.061	1.60	0.971	1.00	1.00	1.00	1.00	1.00	8.02	618.44	3729.44	1.20	26.00	424.00
+0.60D+0.60W+0.60H					0.971	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.099	0.037	1.60	0.971	1.00	1.00	1.00	1.00	1.00	4.81	371.07	3729.44	0.72	15.60	424.00
+0.60D+0.70E+0.60H					0.971	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.099	0.037	1.60	0.971	1.00	1.00	1.00	1.00	1.00	4.81	371.07	3729.44	0.72	15.60	424.00

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H	1	0.8098	12.500		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	2.146	2.178
Overall MINimum	0.875	0.875
+D+H	1.271	1.303
+D+L+H	1.271	1.303
+D+Lr+H	2.146	2.178
+D+S+H	1.271	1.303
+D+0.750Lr+0.750L+H	1.928	1.960
+D+0.750L+0.750S+H	1.271	1.303
+D+0.60W+H	1.271	1.303
+D+0.70E+H	1.271	1.303
+D+0.750Lr+0.750L+0.450W+H	1.928	1.960
+D+0.750L+0.750S+0.450W+H	1.271	1.303
+D+0.750L+0.750S+0.5250E+H	1.271	1.303
+0.60D+0.60W+0.60H	0.763	0.782
+0.60D+0.70E+0.60H	0.763	0.782
D Only	1.271	1.303
Lr Only	0.875	0.875
L Only		
S Only		
W Only		
E Only		
H Only		

Wood Beam

a = I:\NAS-TUCSON\AmazonCloudDrive\BX3WMS-T1T4094B-7125FAKC-C122EAPO-51EHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DB1b - Strengthened

Load Combination	Segment Length	Span #	Max Stress Ratios								Moment Values			Shear Values		
			M	V	C _d	C _{FN}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	fv
Length = 25.0 ft	1	0.292	0.110	1.15	0.897	1.00	1.00	1.00	1.00	1.00	23.16	722.97	2474.82	3.44	33.56	304.75
+D+0.60W+H					0.897	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.210	0.079	1.60	0.897	1.00	1.00	1.00	1.00	1.00	23.16	722.97	3443.22	3.44	33.56	424.00
+D+0.70E+H					0.897	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.210	0.079	1.60	0.897	1.00	1.00	1.00	1.00	1.00	23.16	722.97	3443.22	3.44	33.56	424.00
+D+0.750Lr+0.750L+0.450W+H					0.897	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.322	0.120	1.60	0.897	1.00	1.00	1.00	1.00	1.00	35.46	1,107.06	3443.22	5.22	50.95	424.00
+D+0.750L+0.750S+0.450W+H					0.897	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.210	0.079	1.60	0.897	1.00	1.00	1.00	1.00	1.00	23.16	722.97	3443.22	3.44	33.56	424.00
+D+0.750L+0.750S+0.5250E+H					0.897	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.210	0.079	1.60	0.897	1.00	1.00	1.00	1.00	1.00	23.16	722.97	3443.22	3.44	33.56	424.00
+0.60D+0.60W+0.60H					0.897	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.126	0.047	1.60	0.897	1.00	1.00	1.00	1.00	1.00	13.89	433.78	3443.22	2.06	20.14	424.00
+0.60D+0.70E+0.60H					0.897	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 25.0 ft	1	0.126	0.047	1.60	0.897	1.00	1.00	1.00	1.00	1.00	13.89	433.78	3443.22	2.06	20.14	424.00

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H	1	0.8657	12.500		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	6.294	6.390
Overall MINimum	2.625	2.625
+D+H	3.669	3.765
+D+L+H	3.669	3.765
+D+Lr+H	6.294	6.390
+D+S+H	3.669	3.765
+D+0.750Lr+0.750L+H	5.637	5.733
+D+0.750L+0.750S+H	3.669	3.765
+D+0.60W+H	3.669	3.765
+D+0.70E+H	3.669	3.765
+D+0.750Lr+0.750L+0.450W+H	5.637	5.733
+D+0.750L+0.750S+0.450W+H	3.669	3.765
+D+0.750L+0.750S+0.5250E+H	3.669	3.765
+0.60D+0.60W+0.60H	2.201	2.259
+0.60D+0.70E+0.60H	2.201	2.259
D Only	3.669	3.765
Lr Only	2.625	2.625
L Only		
S Only		
W Only		
E Only		
H Only		

Wood Beam

☞ = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS-T\T4094B-7\25FAKC-C\22EAP0-5E\HEC6-Q\20097.ec6
Software copyright ENERCALC, INC. 1983-2020. Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DB2 - Strengthened

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values		
			M	V	C _d	C _{FN}	C _i	C _r	C _m	C _t	C _L	M	f _b	F _b	V	f _v	F _v
Length = 20.0 ft	1	0.114	0.024	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.00	1.30	164.52	1440.00	0.24	7.04	288.00
+D+0.70E+H					1.000	1.00	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 20.0 ft	1	0.114	0.024	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.30	164.52	1440.00	0.24	7.04	288.00	
+D+0.750Lr+0.750L+0.450W+H					1.000	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.483	0.103	1.60	1.000	1.00	1.00	1.00	1.00	1.00	5.50	695.48	1440.00	1.00	29.75	288.00	
+D+0.750L+0.750S+0.450W+H					1.000	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.114	0.024	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.30	164.52	1440.00	0.24	7.04	288.00	
+D+0.750L+0.750S+0.5250E+H					1.000	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.114	0.024	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.30	164.52	1440.00	0.24	7.04	288.00	
+0.60D+0.60W+0.60H					1.000	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.069	0.015	1.60	1.000	1.00	1.00	1.00	1.00	1.00	0.78	98.71	1440.00	0.14	4.22	288.00	
+0.60D+0.70E+0.60H					1.000	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.069	0.015	1.60	1.000	1.00	1.00	1.00	1.00	1.00	0.78	98.71	1440.00	0.14	4.22	288.00	

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
	1	0.0000	0.000	+D+Lr+H	-0.5850	10.073

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	-1.380	-1.380
Overall MINimum	-0.260	-0.260
+D+H	-0.260	-0.260
+D+L+H	-0.260	-0.260
+D+Lr+H	-1.380	-1.380
+D+S+H	-0.260	-0.260
+D+0.750Lr+0.750L+H	-1.100	-1.100
+D+0.750L+0.750S+H	-0.260	-0.260
+D+0.60W+H	-0.260	-0.260
+D+0.70E+H	-0.260	-0.260
+D+0.750Lr+0.750L+0.450W+H	-1.100	-1.100
+D+0.750L+0.750S+0.450W+H	-0.260	-0.260
+D+0.750L+0.750S+0.5250E+H	-0.260	-0.260
+0.60D+0.60W+0.60H	-0.156	-0.156
+0.60D+0.70E+0.60H	-0.156	-0.156
D Only	-0.260	-0.260
Lr Only	-1.120	-1.120
L Only		
S Only		
W Only		
E Only		
H Only		

Wood Beam

g = \NWAS-TUCSON\AmazonCloudDrive\BX3WMS-T1T4094B-7125FAKC-C12EAP0-5IEHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020. Build:12.20.2.28

Lic. # : KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DB3 - Strengthened

Load Combination Segment Length	Span #	Max Stress Ratios		C _d	C _{FN}	C _i	C _r	C _m	C _t	C _L	Moment Values			Shear Values			
		M	V								M	fb	F'b	V	fv	Fv	
+D+0.60W+H Length = 8.0 ft	1	0.390	0.117	1.60	1.200	1.00	1.00	1.00	1.00	1.00	1.48	674.72	1728.00	0.00	0.49	33.75	288.00
+D+0.70E+H Length = 8.0 ft	1	0.390	0.117	1.60	1.200	1.00	1.00	1.00	1.00	1.00	1.48	674.72	1728.00	0.00	0.49	33.75	288.00
+D+0.750Lr+0.750L+0.450W+H Length = 8.0 ft	1	0.517	0.166	1.60	1.200	1.00	1.00	1.00	1.00	1.00	1.96	893.89	1728.00	0.00	0.69	47.89	288.00
+D+0.750L+0.750S+0.450W+H Length = 8.0 ft	1	0.390	0.117	1.60	1.200	1.00	1.00	1.00	1.00	1.00	1.48	674.72	1728.00	0.00	0.49	33.75	288.00
+D+0.750L+0.750S+0.5250E+H Length = 8.0 ft	1	0.390	0.117	1.60	1.200	1.00	1.00	1.00	1.00	1.00	1.48	674.72	1728.00	0.00	0.49	33.75	288.00
+0.60D+0.60W+0.60H Length = 8.0 ft	1	0.234	0.070	1.60	1.200	1.00	1.00	1.00	1.00	1.00	0.89	404.83	1728.00	0.00	0.29	20.25	288.00
+0.60D+0.70E+0.60H Length = 8.0 ft	1	0.234	0.070	1.60	1.200	1.00	1.00	1.00	1.00	1.00	0.89	404.83	1728.00	0.00	0.29	20.25	288.00

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H	1	0.1488	4.029		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	0.859	0.859
Overall MINimum	0.320	0.320
+D+H	0.539	0.539
+D+L+H	0.539	0.539
+D+Lr+H	0.859	0.859
+D+S+H	0.539	0.539
+D+0.750Lr+0.750L+H	0.779	0.779
+D+0.750L+0.750S+H	0.539	0.539
+D+0.60W+H	0.539	0.539
+D+0.70E+H	0.539	0.539
+D+0.750Lr+0.750L+0.450W+H	0.779	0.779
+D+0.750L+0.750S+0.450W+H	0.539	0.539
+D+0.750L+0.750S+0.5250E+H	0.539	0.539
+0.60D+0.60W+0.60H	0.323	0.323
+0.60D+0.70E+0.60H	0.323	0.323
D Only	0.539	0.539
Lr Only	0.320	0.320
L Only		
S Only		
W Only		
E Only		
H Only		



Structural Engineering Consulting

May 4, 2020

Ms. Mary Dahl
Santa Cruz County Public Works
275 Rio Rico Drive
Rio Rico, AZ 85648

Re: Boys & Girls Club of Santa Cruz County - 590 N. Tyler St.; Nogales, Arizona
BE#20097

Mary,

As requested, we have performed a structural analysis to determine the capability of the existing building to support new added drop ceilings, insulation, and HVAC systems from a portion of the existing roof framing (approximately 6,500 S.F. interior renovation at the southeastern portion of the existing building). Existing construction documents were not available, and it is our understanding that this portion of the existing building was constructed in the 1950's. Our analysis is based on a visual investigation performed on April 23, 2020 to determine as-built conditions.

Building Description

The southeastern portion of existing building to be renovated is a rectangular-shaped, single-story masonry structure with parapet walls surrounding shed roofs (wood joist and steel joist) and a concrete floor slab on grade (see existing building key plan in the attached calculations).

Roof framing at the southeast sloping wood joist shed roof (northeast portion of the renovation) consists of plywood roof sheathing over 2x12 wood joists at 24" o.c., spanning 20'-0" in the northeast-southwest direction between exterior 8" masonry walls and interior 5 1/8 x 13 1/2" glulam beam lines. The glulam beams span 25'-0" in the northwest-southeast direction between interior 8" masonry walls and interior 6" standard steel pipe columns. Wood joists (2x12 at 24" o.c.) also span 22'-0" in the northwest-southeast direction between exterior 8" masonry walls and interior 8" masonry walls (joists extend continuous over the top). All masonry walls and steel columns are assumed to bear on cast-in-place concrete footings.

Roof framing at the southwest sloping steel joist shed roof (southwest portion of the renovation) consists of 2x6 T&G wood decking over 24" deep steel bar joists at 7'-6" o.c., spanning 39'-0" in the northeast-southwest direction between interior and exterior 8" masonry walls; both walls assumed to bear on cast-in-place concrete footings.

Existing Roof Loads

Per the attached structural calculations, and in coordination with the 2012 International Building Code, the existing roof dead load equals 10psf at wood joist shed roof areas and 14psf at the steel joist shed roof areas. The roof live load equals 20psf for the existing building. There are also existing roof top mechanical unit loads (assumed 400lbs each) as shown on the key plans of the attached structural calculations.

New Renovation Roof Loads

It is our understanding that the proposed renovation at the southeastern portion of the existing building will add new drop ceilings, new insulation, and new HVAC systems; all which will increase the existing roof loads.

Per the attached structural calculations, and in coordination with the 2012 International Building Code, the new roof dead load (as a result of the proposed renovation) equals 16psf at wood joist shed roof areas and 20psf at the steel joist shed roof areas. The roof live load remains equal to 20psf for the existing building. The new roof top mechanical unit loads (to replace existing) are assumed to equal 800lbs each and are assumed to be located at similar locations as the existing units (to be removed).

Structural Analysis

Structural calculations have been provided verifying the ability of the existing roof framing members (wood joists, steel joists, wood beams, wood ledgers, wood decking, and steel columns) to support the new design loads as a result of the proposed renovation.

Per the calculations, certain building components of the existing roof structures are not capable of supporting existing design loads and/or any additional loads as a result of the proposed renovation.

Structural Inadequacy Item 1 (wood joist shed roof areas): The analysis determined that the existing 2x12 wood joists at 24" o.c. supporting new/existing mechanical units (at 5 current locations) and spanning both 20'-0" in the

northeast-southwest direction and 22'-0" in the northwest-southeast direction are structurally inadequate (18% overstressed in bending and 7% over allowable deflection limits) when subjected to the new design loads from the proposed renovation at new/existing mechanical unit locations.

Structural Inadequacy Item 2 (wood joist shed roof areas): The analysis determined that the (4) existing 5 1/8 x 13 1/2 glulam beams spanning 25'-0" in the northwest-southeast direction are structurally inadequate (6% overstressed in bending and 44% over allowable deflection limits) when subjected to the existing design loads or any additional loads from the proposed renovation.

Structural Inadequacy Item 3 (wood joist shed roof areas): The analysis determined that the existing 2x12 wood beams spanning 20'-0" in the northeast-southwest direction and supporting the 7'-0" spanning ends of the continuous northwest-southeast spanning joists are structurally inadequate (121% overstressed in bending and 32% over allowable deflection limits) when subjected to the existing design loads or any additional loads from the proposed renovation.

Structural Inadequacy Item 4 (wood joist shed roof areas): The analysis determined that the existing 2x12 wood bearing ledgers with 5/8" diameter anchors bolts at various spacing (between 4'-0" o.c. and 8'-0" o.c.) are structurally inadequate (81% overstressed in shear) when subjected to the existing design loads or any additional loads from the proposed renovation.

Structural Inadequacy Item 5 (wood joist and steel joist shed roof areas): It was observed that there is not adequate horizontal anchorage (i.e. strap ties and blocking) as required at the attachment of the existing roof framing diaphragm to the existing exterior masonry parapet walls per sections 1615.4 and 2113.3 of the 2012 International Building Code.

Structural Inadequacy Item 6 (wood joist shed roof areas): There is a joist splice with an approximate 2'-0" joist lap where the northwest-southeast spanning 2x12 wood joists at 24" o.c. run continuous over the interior masonry wall. The joist splice appears to be nailed and is most likely not adequate to transfer shear forces to act as a continuous member.

Structural Inadequacy Item 7 (steel joist shed roof areas): The existing 2x6 T&G wood decking is not continuous and is not supported vertically at the existing roof penetrations.

Based on our analysis, the remaining building components of the existing roof

framing are structurally adequate to support the new renovation roof loads at the southeast portion of the existing building as proposed.

Recommendations:

We recommend strengthening the existing 2x12 wood joists supporting mechanical units (new or existing) at the wood joist shed roof areas to resolve structural inadequacy item 1. Strengthening could be achieved by attaching new continuous 2x wood joists at 24" o.c. to the sides of each existing 2x12 wood joist to provide additional bending strength and stiffness at mechanical unit locations. It is estimated that the new strengthening members will be 2x12's at 24" o.c. – typical at all (5) mechanical unit locations at the wood joist shed roof areas.

We recommend strengthening the existing 5 1/8 x 13 1/2 glulam beams at the wood joist shed roof areas to resolve structural inadequacy item 2. Strengthening could be achieved by bolting additional wood beams to each side of the existing wood beams full length from interior masonry wall support to interior steel column support. This will provide additional bending strength and stiffness so that the existing beam is not overstressed and does not exceed allowable deflection limits. It is estimated that the new strengthening members will be (2) continuous 5 1/8 x 15 glulam beams (1-each side of existing beam) with (2) 3/4" diameter thru bolts staggered at 24" o.c.. – typical at all (4) existing glulam beam locations.

We recommend strengthening the existing 2 x 12 wood beams at the existing wood joist shed roof areas to resolve structural inadequacy item 3. Strengthening could be achieved by bolting a continuous wood beam to one side of each existing wood beam full length from beam/ledger support to beam support. This will provide additional bending strength and stiffness so that the existing beam is not overstressed and does not exceed allowable deflection limits. It is estimated that the new strengthening members will be (2) additional 2x12's at each existing 2x12, with (2) 1/2" diameter thru bolts staggered at 24" o.c.. – typical at all (3) existing 2x12 beam locations.

We recommend strengthening the existing 2x12 wood ledger attachment at the parapet wall conditions of the wood joist shed roof areas to resolve structural inadequacy item 4. Strengthening could be achieved by adding epoxy bolts from the existing ledger to the existing masonry wall. It is estimated that the new additional epoxy bolts will be 3/4" diameter at 24" o.c.

We recommend providing adequate horizontal anchorage between the existing roof diaphragm and existing masonry parapet walls to resolve structural inadequacy item 5. Strengthening could be achieved by adding Simpson LTT

tension ties, wood blocking (as required), and epoxy bolts from the existing joists (at the existing ledger) to the existing masonry wall. It is estimated that the new attachment will consist of Simpson LTT tension ties at 48" o.c. (to either existing joists at bearing conditions or to 2x12 blocking at non-bearing conditions) with 3/4" diameter epoxy bolts into the existing masonry parapet wall at each strap tie.

We recommend increasing the joist splice length and attachment for the continuous 2x12 wood joists at 24" o.c. over the interior masonry bearing wall at the wood joist shed roof areas to resolve structural inadequacy item 6. It is estimated that the new strengthening splice members will be 2x12 x 8'-0" long wood joists at 24" o.c. with (2) 1/2" diameter thru bolts staggered at 12" o.c.

We recommend adding wood framing around roof penetrations at the steel joist shed roof areas for deck support to resolve structural inadequacy item 7. It is estimated that the wood framed openings will consist of 2x8's around the opening and spanning between steel joists for support – typical all penetrations through the existing 2x6 T&G roof decking.

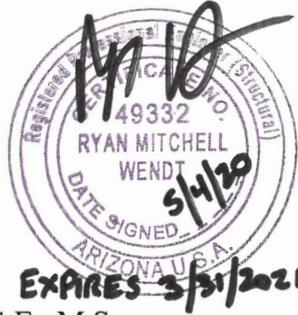
All recommended strengthening (including sealed drawings and calculations) shall be designed by a licensed Structural Engineer, registered in the State of Arizona. The recommended strengthening is necessary to provide adequate support for the proposed renovation loads but is also necessary to limit the chances of a roof failure under current conditions as a result of existing structurally inadequate building components. A roof failure could result in damage to the building, but more importantly, could result in serious injury or fatality. Therefore, until strengthening of the existing roof structure occurs, roof live load must be limited in order to prevent roof failure. The existing building shall be posted with placards indicating that no one shall be permitted on the existing roof areas described above (for construction, maintenance, etc.) until strengthening of the existing roofs has been completed.

Disclaimer

Broderick Engineering, LLC is not the original engineer of record for the existing building and did not inspect the structure for signs of distress other than those items mentioned in this report. As with any existing structure, the structural integrity cannot be warranted, and no warranty is given, either expressed or implied. The owner assumes the responsibility for correcting deficient items that are brought to their attention, and for performing any ongoing monitoring to assure the structure is maintained, and signs of deterioration or distress are evaluated and corrected immediately as items occur. Owner responsibilities specifically include placing the described placards, enforcing the placards, and

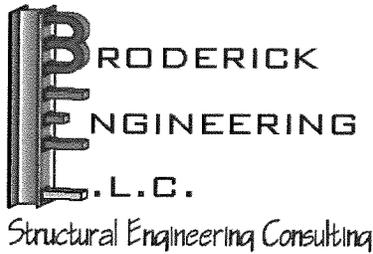
strengthening the existing roof structure as required. If existing building conditions vary from what is noted and referenced in this analysis, the contractor and/or owner shall notify the engineer of record.

Sincerely,



Ryan Wendt, S.E., M.S.
Senior Engineer

Attachments: Structural Calculations including Key Plan



**Structural Calculations
For
Boys & Girls Club of Santa Cruz County
590 N. Tyler Street
Nogales, Arizona**

INDEX

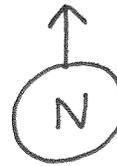
Existing Building Key Plan	s1
Existing Building Renovation Calculations	s2 - s39



EXPIRES 3/31/2021

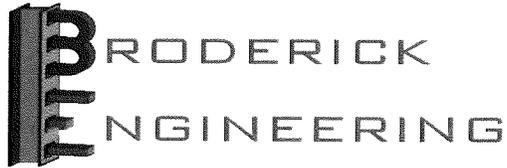
PREPARED FOR: Santa Cruz County Public Works
275 Rio Rico Drive
Rio Rico, Arizona 85648

EXISTING BUILDING KEY PLAN



SI





PROJECT: Santa Cruz County Boys & Girls Club SHEET NO: 52
 JOB NO: 20097 DATE: May-20
 BY: RMW

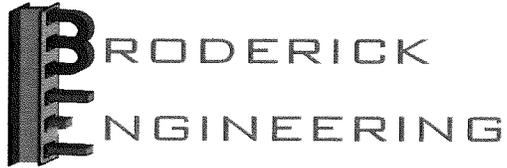
2012 IBC LOADS:

Existing/New Roof Loads - Wood Joists

Built-up roofing	=	2.5	psf
1/2" plywood sheathing	=	1.5	psf
Wood joists	=	3.0	psf
New insulation	=	2.5	psf
New gyp. bd. ceiling	=	3.0	psf
Existing M.P.E.	=	1.0	psf
New added M.P.E.	=	0.5	psf
Misc	=	2.0	psf
<hr/>			
Existing Roof DL	=	10	psf
New Roof DL	=	16	psf
Existing/New Roof LL	=	20	psf
New Mech (assumed)	=	800	lbs

Existing/New Roof Loads - Steel Joists

Built-up roofing	=	2.5	psf
2x T&G wood decking	=	4.5	psf
Steel joists	=	4.0	psf
New insulation	=	2.5	psf
New gyp. bd. ceiling	=	3.0	psf
Existing M.P.E.	=	1.0	psf
New added M.P.E.	=	0.5	psf
Misc	=	2.0	psf
<hr/>			
Existing Roof DL	=	14	psf
New Roof DL	=	20	psf
Existing/New Roof LL	=	20	psf
New Mech (assumed)	=	800	lbs



PROJECT: Santa Cruz County Boys & Girls Club SHEET NO: 52
JOB NO: 20097 DATE: May-20
BY: RMW

2012 IBC LOADS:

Existing/New Roof Loads - Wood Joists

Built-up roofing	=	2.5	psf
1/2" plywood sheathing	=	1.5	psf
Wood joists	=	3.0	psf
New insulation	=	2.5	psf
New gyp. bd. ceiling	=	3.0	psf
Existing M.P.E.	=	1.0	psf
New added M.P.E.	=	0.5	psf
Misc	=	2.0	psf

Existing Roof DL = 10 psf

New Roof DL = 16 psf

Existing/New Roof LL = 20 psf

Existing Mech (assumed) = 400 lbs

New Mech (assumed) = 800 lbs

Existing/New Roof Loads - Steel Joists

Built-up roofing	=	2.5	psf
2x T&G wood decking	=	4.5	psf
Steel joists	=	4.0	psf
New insulation	=	2.5	psf
New gyp. bd. ceiling	=	3.0	psf
Existing M.P.E.	=	1.0	psf
New added M.P.E.	=	0.5	psf
Misc	=	2.0	psf

Existing Roof DL = 14 psf

New Roof DL = 20 psf

Existing/New Roof LL = 20 psf

Existing Mech (assumed) = 400 lbs

New Mech (assumed) = 800 lbs

DJ1 -

$l = 20'-0"$

$DL = 16 \times 2' = 32 \text{ pIF}$

$LLr = 20 \times 2' = 40 \text{ pIF}$

(E) $2 \times 12 @ 24" \text{ O.C. } \underline{OK}$

- SEE PRINTOUT

DJ2 -

$l = 22'-0" + 7'-0"$

$DL = 16 \times 2' = 32 \text{ pIF}$

$LLr = 20 \times 2' = 40 \text{ pIF}$

(E) $2 \times 12 @ 24" \text{ O.C. } \underline{OK}$

- SEE PRINTOUT

DJ3 -

$l = 20'-0"$

$DL = 16 \times 2' = 32 \text{ pIF}$

$LLr = 20 \times 2' = 40 \text{ pIF}$

$P_{\text{mech}} = \frac{800}{3} = 267^{\#} @ 6'-0"$

(E) $2 \times 12 @ 24" \text{ O.C. } \underline{NG}$

- SEE PRINTOUT

DJ4 -

$l = 22'-0" + 7'-0"$

$DL = 16 \times 2' = 32 \text{ pIF}$

$LLr = 20 \times 2' = 40 \text{ pIF}$

$P_{\text{mech}} = \frac{800}{3} = 267^{\#} @ 11'-0"$

(E) $2 \times 12 @ 24" \text{ O.C. } \underline{NG}$

- SEE PRINTOUT

DJ5 -

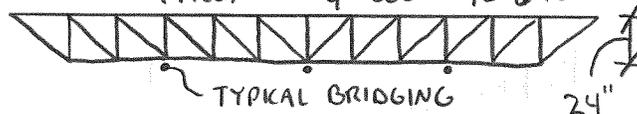
$l = 39'-0"$ SELF WT

$DL = (20 - 4) \times 15\frac{1}{2} = 120 \text{ pIF}$

$A = 39' \times 15\frac{1}{2} = 293 \text{ Ft}^2$

$LLr = 18 \times 15\frac{1}{2} = 135 \text{ pIF}$

$P_{\text{mech}} = \frac{800}{4} = 200^{\#} @ 13' \& 16'$



(2) JL $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{16}$ TOP CHRD = $0.93 < 1.0 \underline{OK}$

(2) JL $2 \times 2 \times \frac{3}{16}$ BOTTOM CHRD = $0.96 < 1.0 \underline{OK}$

(2) JL $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ END DIAGONAL WEBS = $0.35 < 1.0 \underline{OK}$

(2) JL $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{3}{16}$ VERTICAL WEBS = $0.34 < 1.0 \underline{OK}$

$2" \times \frac{1}{4}"$ 2ND BAY DIAGONAL WEBS = $0.74 < 1.0 \underline{OK}$

$1\frac{1}{2}" \times \frac{1}{4}"$ TYPICAL DIAGONAL WEBS = $0.79 < 1.0 \underline{OK}$

$\Delta_{\text{MAX}} = 1.62" = \frac{L}{288} < \frac{L}{240} \underline{OK}$

- SEE RISA PRINTOUT

Wood Beam

g = \\NAS-TUCSON\AmazonCloudDrive\BX3\WMS-T\T4094B-7\25FAKC-C\22EAP0-5\EHTEC6-Q\20097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DJ1

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values					
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	f _v	F'v			
+D+0.70E+H	Length = 20.0 ft	1	0.330	0.090	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.60	606.81	1840.00	0.00	0.00	0.00	0.00	288.00	
+D+0.750Lr+0.750L+0.450W+H	Length = 20.0 ft	1	0.639	0.175	1.60	1.000	1.00	1.15	1.00	1.00	1.00	3.10	1,175.70	1840.00	0.00	0.00	0.00	0.57	50.28	288.00
+D+0.750L+0.750S+0.450W+H	Length = 20.0 ft	1	0.330	0.090	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.60	606.81	1840.00	0.00	0.00	0.00	0.29	25.95	288.00
+D+0.750L+0.750S+0.5250E+H	Length = 20.0 ft	1	0.330	0.090	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.60	606.81	1840.00	0.00	0.00	0.00	0.29	25.95	288.00
+0.60D+0.60W+0.60H	Length = 20.0 ft	1	0.198	0.054	1.60	1.000	1.00	1.15	1.00	1.00	1.00	0.96	364.09	1840.00	0.00	0.00	0.00	0.18	15.57	288.00
+0.60D+0.70E+0.60H	Length = 20.0 ft	1	0.198	0.054	1.60	1.000	1.00	1.15	1.00	1.00	1.00	0.96	364.09	1840.00	0.00	0.00	0.00	0.18	15.57	288.00

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H	1	0.8617	10.073		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	0.720	0.720
Overall MINimum	0.400	0.400
+D+H	0.320	0.320
+D+L+H	0.320	0.320
+D+Lr+H	0.720	0.720
+D+S+H	0.320	0.320
+D+0.750Lr+0.750L+H	0.620	0.620
+D+0.750L+0.750S+H	0.320	0.320
+D+0.60W+H	0.320	0.320
+D+0.70E+H	0.320	0.320
+D+0.750Lr+0.750L+0.450W+H	0.620	0.620
+D+0.750L+0.750S+0.450W+H	0.320	0.320
+D+0.750L+0.750S+0.5250E+H	0.320	0.320
+0.60D+0.60W+0.60H	0.192	0.192
+0.60D+0.70E+0.60H	0.192	0.192
D Only	0.320	0.320
Lr Only	0.400	0.400
L Only		
S Only		
W Only		
E Only		
H Only		

Wood Beam

⇒ \\NAS-TUCSON\AmazonCloudDrive\BX3\WMS-TIT4\094B-7\25FAKC-C22EAP0-5EHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DJ2

Load Combination	Segment Length	Span #	Max Stress Ratios								Moment Values			Shear Values			
			M	V	C _d	C _{FN}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	f _v	F _v
Length = 7.0 ft	2		0.500	0.194	1.00	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1150.00	0.30	34.97	180.00
+D+Lr+H, LL Comb Run (*L)						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.416	0.163	1.25	1.000	1.00	1.15	1.00	1.00	1.00	1.58	597.39	1437.50	0.41	36.65	225.00
Length = 7.0 ft	2		0.416	0.163	1.25	1.000	1.00	1.15	1.00	1.00	1.00	1.58	597.39	1437.50	0.41	36.65	225.00
+D+Lr+H, LL Comb Run (L*)						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.884	0.349	1.25	1.000	1.00	1.15	1.00	1.00	1.00	3.35	1,271.22	1437.50	0.88	78.44	225.00
Length = 7.0 ft	2		0.884	0.349	1.25	1.000	1.00	1.15	1.00	1.00	1.00	3.35	1,271.22	1437.50	0.56	78.44	225.00
+D+Lr+H, LL Comb Run (LL)						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.900	0.350	1.25	1.000	1.00	1.15	1.00	1.00	1.00	3.41	1,293.65	1437.50	0.89	78.68	225.00
Length = 7.0 ft	2		0.900	0.350	1.25	1.000	1.00	1.15	1.00	1.00	1.00	3.41	1,293.65	1437.50	0.67	78.68	225.00
+D+S+H						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.435	0.169	1.15	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1322.50	0.39	34.97	207.00
Length = 7.0 ft	2		0.435	0.169	1.15	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1322.50	0.30	34.97	207.00
+D+0.750Lr+0.750L+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.412	0.156	1.25	1.000	1.00	1.15	1.00	1.00	1.00	1.56	591.78	1437.50	0.40	35.15	225.00
Length = 7.0 ft	2		0.412	0.156	1.25	1.000	1.00	1.15	1.00	1.00	1.00	1.56	591.78	1437.50	0.38	35.15	225.00
+D+0.750Lr+0.750L+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.763	0.300	1.25	1.000	1.00	1.15	1.00	1.00	1.00	2.89	1,097.16	1437.50	0.76	67.57	225.00
Length = 7.0 ft	2		0.763	0.300	1.25	1.000	1.00	1.15	1.00	1.00	1.00	2.89	1,097.16	1437.50	0.50	67.57	225.00
+D+0.750Lr+0.750L+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.775	0.301	1.25	1.000	1.00	1.15	1.00	1.00	1.00	2.94	1,113.98	1437.50	0.76	67.75	225.00
Length = 7.0 ft	2		0.775	0.301	1.25	1.000	1.00	1.15	1.00	1.00	1.00	2.94	1,113.98	1437.50	0.58	67.75	225.00
+D+0.750L+0.750S+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.435	0.169	1.15	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1322.50	0.39	34.97	207.00
Length = 7.0 ft	2		0.435	0.169	1.15	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1322.50	0.30	34.97	207.00
+D+0.750L+0.750S+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.435	0.169	1.15	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1322.50	0.39	34.97	207.00
Length = 7.0 ft	2		0.435	0.169	1.15	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1322.50	0.30	34.97	207.00
+D+0.750L+0.750S+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.435	0.169	1.15	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1322.50	0.39	34.97	207.00
Length = 7.0 ft	2		0.435	0.169	1.15	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1322.50	0.30	34.97	207.00
+D+0.60W+H						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.39	34.97	288.00
Length = 7.0 ft	2		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.30	34.97	288.00
+D+0.70E+H						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.39	34.97	288.00
Length = 7.0 ft	2		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.30	34.97	288.00
+D+0.750Lr+0.750L+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.322	0.122	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.56	591.78	1840.00	0.40	35.15	288.00
Length = 7.0 ft	2		0.322	0.122	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.56	591.78	1840.00	0.38	35.15	288.00
+D+0.750Lr+0.750L+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.596	0.235	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.89	1,097.16	1840.00	0.76	67.57	288.00
Length = 7.0 ft	2		0.596	0.235	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.89	1,097.16	1840.00	0.50	67.57	288.00
+D+0.750Lr+0.750L+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.605	0.235	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.94	1,113.98	1840.00	0.76	67.75	288.00
Length = 7.0 ft	2		0.605	0.235	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.94	1,113.98	1840.00	0.58	67.75	288.00
+D+0.750L+0.750S+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.39	34.97	288.00
Length = 7.0 ft	2		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.30	34.97	288.00
+D+0.750L+0.750S+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.39	34.97	288.00
Length = 7.0 ft	2		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.30	34.97	288.00
+D+0.750L+0.750S+0.5250E+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.39	34.97	288.00
Length = 7.0 ft	2		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.30	34.97	288.00
+D+0.750L+0.750S+0.5250E+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.39	34.97	288.00

Wood Beam

☞ = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS-TIT4094B-725FAKC-C122EAP0-5EHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build: 12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DJ2

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values		
			M	V	C _d	C _{FN}	C _i	C _r	C _m	C _t	C _L	M	fb	Fb	V	f _v	F _v
Length = 7.0 ft	2		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.30	34.97	288.00
+D+0.750L+0.750S+0.5250E+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.39	34.97	288.00
Length = 7.0 ft	2		0.312	0.121	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.52	574.96	1840.00	0.30	34.97	288.00
+0.60D+0.60W+0.60H						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.187	0.073	1.60	1.000	1.00	1.15	1.00	1.00	1.00	0.91	344.97	1840.00	0.24	20.98	288.00
Length = 7.0 ft	2		0.187	0.073	1.60	1.000	1.00	1.15	1.00	1.00	1.00	0.91	344.97	1840.00	0.18	20.98	288.00
+0.60D+0.70E+0.60H						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.187	0.073	1.60	1.000	1.00	1.15	1.00	1.00	1.00	0.91	344.97	1840.00	0.24	20.98	288.00
Length = 7.0 ft	2		0.187	0.073	1.60	1.000	1.00	1.15	1.00	1.00	1.00	0.91	344.97	1840.00	0.18	20.98	288.00

Overall Maximum Deflections

Load Combination	Span	Max. "+" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H, LL Comb Run (L*)	1	0.6920	9.955		0.0000	0.000
	2	0.0000	9.955	+D+Lr+H, LL Comb Run (L*)	-0.0555	2.933

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2	Support 3
Overall MAXimum	0.640	1.686	-0.367
Overall MINimum	0.354	0.937	-0.131
+D+H	0.283	0.749	-0.105
+D+L+H, LL Comb Run (*L)	0.283	0.749	-0.105
+D+L+H, LL Comb Run (L*)	0.283	0.749	-0.105
+D+L+H, LL Comb Run (LL)	0.283	0.749	-0.105
+D+Lr+H, LL Comb Run (*L)	0.280	0.901	0.027
+D+Lr+H, LL Comb Run (L*)	0.640	1.535	-0.367
+D+Lr+H, LL Comb Run (LL)	0.637	1.686	-0.235
+D+S+H	0.283	0.749	-0.105
+D+0.750Lr+0.750L+H, LL Comb Run (*L)	0.281	0.863	-0.006
+D+0.750Lr+0.750L+H, LL Comb Run (L)	0.551	1.339	-0.301
+D+0.750Lr+0.750L+H, LL Comb Run (LL)	0.548	1.452	-0.203
+D+0.750L+0.750S+H, LL Comb Run (*L)	0.283	0.749	-0.105
+D+0.750L+0.750S+H, LL Comb Run (L*)	0.283	0.749	-0.105
+D+0.750L+0.750S+H, LL Comb Run (LL)	0.283	0.749	-0.105
+D+0.60W+H	0.283	0.749	-0.105
+D+0.70E+H	0.283	0.749	-0.105
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.281	0.863	-0.006
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.551	1.339	-0.301
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.548	1.452	-0.203
+D+0.750L+0.750S+0.450W+H, LL Comb	0.283	0.749	-0.105
+D+0.750L+0.750S+0.450W+H, LL Comb	0.283	0.749	-0.105
+D+0.750L+0.750S+0.450W+H, LL Comb	0.283	0.749	-0.105
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.283	0.749	-0.105
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.283	0.749	-0.105
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.283	0.749	-0.105
+0.60D+0.60W+0.60H	0.170	0.450	-0.063
+0.60D+0.70E+0.60H	0.170	0.450	-0.063
D Only	0.283	0.749	-0.105
Lr Only, LL Comb Run (*L)	-0.003	0.151	0.132
Lr Only, LL Comb Run (L*)	0.357	0.786	-0.262
Lr Only, LL Comb Run (LL)	0.354	0.937	-0.131
L Only, LL Comb Run (*L)			
L Only, LL Comb Run (L*)			
L Only, LL Comb Run (LL)			
S Only			
W Only			
E Only			
H Only			

Wood Beam

3 = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS-TIT4094B-725FAKC-C22EAP0-5EHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

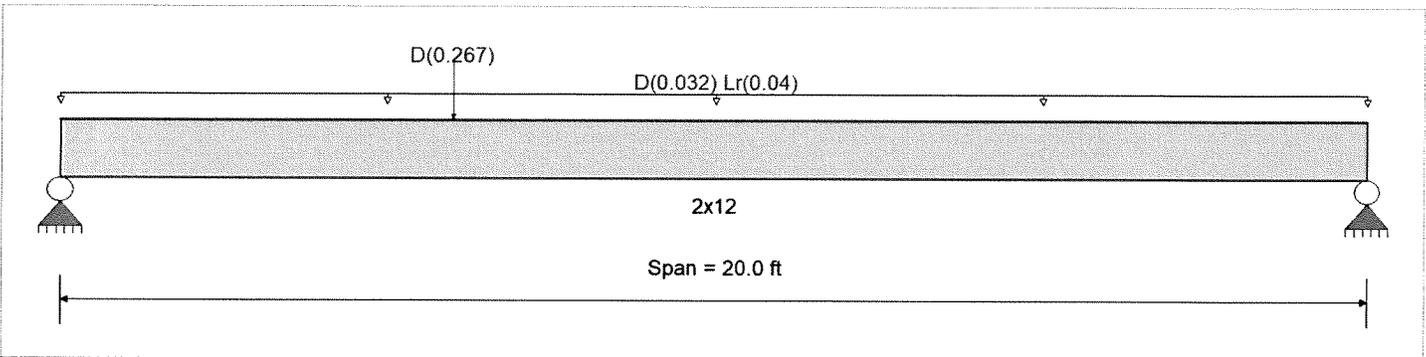
DESCRIPTION: DJ3

CODE REFERENCES

Calculations per NDS 2012, IBC 2012, CBC 2013, ASCE 7-10
Load Combination Set : IBC 2012

Material Properties

Analysis Method : Allowable Stress Design	Fb +	1,000.0 psi	E : Modulus of Elasticity
Load Combination IBC 2012	Fb -	1,000.0 psi	Ebend-xx
	Fc - Prll	1,500.0 psi	Eminbend - xx
Wood Species : Douglas Fir-Larch	Fc - Perp	625.0 psi	
Wood Grade : No.1	Fv	180.0 psi	
	Ft	675.0 psi	Density
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling			Repetitive Member Stress Increase



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Uniform Load : D = 0.0320, Lr = 0.040, Tributary Width = 1.0 ft
Point Load : D = 0.2670 k @ 6.0 ft

DESIGN SUMMARY

				Design N.G.			
Maximum Bending Stress Ratio	=	1.173	1	Maximum Shear Stress Ratio	=	0.333	1
Section used for this span	=	2x12		Section used for this span	=	2x12	
	=	1,686.01	psi		=	75.01	psi
	=	1,437.50	psi		=	225.00	psi
Load Combination	=	+D+Lr+H		Load Combination	=	+D+Lr+H	
Location of maximum on span	=	8.905ft		Location of maximum on span	=	0.000ft	
Span # where maximum occurs	=	Span # 1		Span # where maximum occurs	=	Span # 1	
Maximum Deflection							
Max Downward Transient Deflection		0.479	in	Ratio =		501	>=360
Max Upward Transient Deflection		0.000	in	Ratio =		0	<360
Max Downward Total Deflection		1.065	in	Ratio =		225	<240
Max Upward Total Deflection		0.000	in	Ratio =		0	<240

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Max Stress Ratios								Moment Values			Shear Values				
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	fv	F'v	
+D+H	Length = 20.0 ft	1	0.917	0.263	0.90	1.000	1.00	1.15	1.00	1.00	1.00	2.50	948.62	1035.00	0.00	0.00	0.00	0.00
+D+L+H	Length = 20.0 ft	1	0.825	0.236	1.00	1.000	1.00	1.15	1.00	1.00	1.00	2.50	948.62	1150.00	0.00	0.00	0.00	0.00
+D+Lr+H	Length = 20.0 ft	1	1.173	0.333	1.25	1.000	1.00	1.15	1.00	1.00	1.00	4.45	1,686.01	1437.50	0.00	0.00	0.00	0.00
+D+S+H	Length = 20.0 ft	1	0.717	0.206	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.50	948.62	1322.50	0.00	0.00	0.00	0.00
+D+0.750Lr+0.750L+H	Length = 20.0 ft	1	1.043	0.297	1.25	1.000	1.00	1.15	1.00	1.00	1.00	3.95	1,499.11	1437.50	0.00	0.00	0.00	0.00
+D+0.750L+0.750S+H	Length = 20.0 ft	1	0.717	0.206	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.50	948.62	1322.50	0.00	0.00	0.00	0.00
+D+0.60W+H						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	0.00

Wood Beam

3 = I:\NAS-TUCSON\AmazonCloudDrive\BX3WMS-T\T4094B-7\25FAKC-C\22EAPO-5\EHTEC6-Q\20097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DJ3

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values		
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	fb	Fb	V	fv	Fv
Length = 20.0 ft	1	0.516	0.148	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.50	948.62	1840.00	0.48	42.57	288.00	
+D+0.70E+H					1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.516	0.148	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.50	948.62	1840.00	0.48	42.57	288.00	
+D+0.750Lr+0.750L+0.450W+H					1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.815	0.232	1.60	1.000	1.00	1.15	1.00	1.00	1.00	3.95	1,499.11	1840.00	0.75	66.90	288.00	
+D+0.750L+0.750S+0.450W+H					1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.516	0.148	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.50	948.62	1840.00	0.48	42.57	288.00	
+D+0.750L+0.750S+0.5250E+H					1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.516	0.148	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.50	948.62	1840.00	0.48	42.57	288.00	
+0.60D+0.60W+0.60H					1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.309	0.089	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.50	569.17	1840.00	0.29	25.54	288.00	
+0.60D+0.70E+0.60H					1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 20.0 ft	1	0.309	0.089	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.50	569.17	1840.00	0.29	25.54	288.00	

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H	1	1.0648	9.854		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	0.907	0.800
Overall MINimum	0.400	0.400
+D+H	0.507	0.400
+D+L+H	0.507	0.400
+D+Lr+H	0.907	0.800
+D+S+H	0.507	0.400
+D+0.750Lr+0.750L+H	0.807	0.700
+D+0.750L+0.750S+H	0.507	0.400
+D+0.60W+H	0.507	0.400
+D+0.70E+H	0.507	0.400
+D+0.750Lr+0.750L+0.450W+H	0.807	0.700
+D+0.750L+0.750S+0.450W+H	0.507	0.400
+D+0.750L+0.750S+0.5250E+H	0.507	0.400
+0.60D+0.60W+0.60H	0.304	0.240
+0.60D+0.70E+0.60H	0.304	0.240
D Only	0.507	0.400
Lr Only	0.400	0.400
L Only		
S Only		
W Only		
E Only		
H Only		

Wood Beam

a = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS-TT4094B-7125FAKC-C122EAP0-51EHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

BRODERICK ENGINEERING LLC

Lic. #: KW-06008386

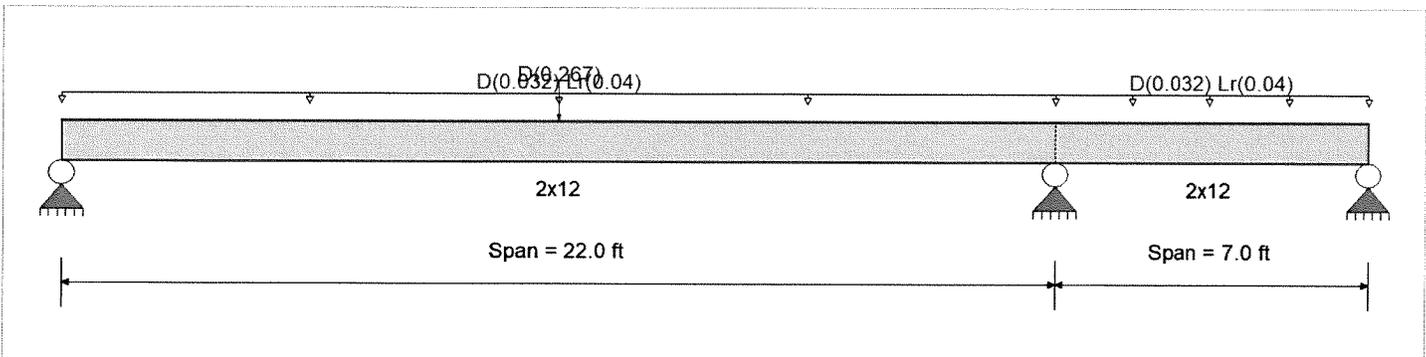
DESCRIPTION: DJ4

CODE REFERENCES

Calculations per NDS 2012, IBC 2012, CBC 2013, ASCE 7-10
Load Combination Set : IBC 2012

Material Properties

Analysis Method : Allowable Stress Design	Fb +	1,000.0 psi	E : Modulus of Elasticity
Load Combination IBC 2012	Fb -	1,000.0 psi	Ebend-xx
	Fc - Prll	1,500.0 psi	Eminbend -xx
Wood Species : Douglas Fir-Larch	Fc - Perp	625.0 psi	
Wood Grade : No.1	Fv	180.0 psi	Density
	Ft	675.0 psi	Repetitive Member Stress Increase
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling			



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Load for Span Number 1
Uniform Load : D = 0.0320, Lr = 0.040, Tributary Width = 1.0 ft
Point Load : D = 0.2670 k @ 11.0 ft
Load for Span Number 2
Uniform Load : D = 0.0320, Lr = 0.040, Tributary Width = 1.0 ft

DESIGN SUMMARY

Design N.G.

Maximum Bending Stress Ratio	=	1.120 : 1	Maximum Shear Stress Ratio	=	0.417 : 1
Section used for this span	=	2x12	Section used for this span	=	2x12
	=	1,610.53psi		=	93.92 psi
	=	1,437.50psi		=	225.00 psi
Load Combination	=	+D+Lr+H, LL Comb Run (LL)	Load Combination	=	+D+Lr+H, LL Comb Run (LL)
Location of maximum on span	=	22.000ft	Location of maximum on span	=	21.140 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1
Maximum Deflection					
Max Downward Transient Deflection		0.389 in	Ratio =		678 >=360
Max Upward Transient Deflection		-0.033 in	Ratio =		2512 >=360
Max Downward Total Deflection		0.889 in	Ratio =		296 >=240
Max Upward Total Deflection		-0.071 in	Ratio =		1188 >=240

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Max Stress Ratios								Moment Values			Shear Values				
			M	V	C _d	C _{F/V}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	fv	F'v	
+D+H																		
	Length = 22.0 ft	1	0.862	0.310	0.90	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1035.00	0.00	0.00	0.00	0.00
	Length = 7.0 ft	2	0.862	0.310	0.90	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1035.00	0.42	50.21	162.00	162.00
+D+L+H, LL Comb Run (*L)																		
	Length = 22.0 ft	1	0.776	0.279	1.00	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1150.00	0.00	0.00	0.00	0.00
	Length = 7.0 ft	2	0.776	0.279	1.00	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1150.00	0.42	50.21	180.00	180.00
+D+L+H, LL Comb Run (L*)																		
	Length = 22.0 ft	1	0.776	0.279	1.00	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1150.00	0.00	0.00	0.00	0.00
	Length = 7.0 ft	2	0.776	0.279	1.00	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1150.00	0.56	50.21	180.00	180.00
+D+L+H, LL Comb Run (LL)																		
						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	0.00

Wood Beam

3 = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS-T\T4094B-7\25FAKC-C\22EAPO-5\EHTEC6-Q\20097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DJ4

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values		
			M	V	C _d	C _{FN}	C _i	C _r	C _m	C _t	C _L	M	f _b	F _b	V	f _v	F _v
Length = 22.0 ft	1		0.776	0.279	1.00	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1150.00	0.56	50.21	180.00
Length = 7.0 ft	2		0.776	0.279	1.00	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1150.00	0.42	50.21	180.00
+D+Lr+H, LL Comb Run (*L)						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.636	0.224	1.25	1.000	1.00	1.15	1.00	1.00	1.00	2.41	914.27	1437.50	0.57	50.45	225.00
Length = 7.0 ft	2		0.636	0.224	1.25	1.000	1.00	1.15	1.00	1.00	1.00	2.41	914.27	1437.50	0.53	50.45	225.00
+D+Lr+H, LL Comb Run (L*)						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		1.105	0.416	1.25	1.000	1.00	1.15	1.00	1.00	1.00	4.19	1,588.11	1437.50	1.05	93.68	225.00
Length = 7.0 ft	2		1.105	0.416	1.25	1.000	1.00	1.15	1.00	1.00	1.00	4.19	1,588.11	1437.50	0.68	93.68	225.00
+D+Lr+H, LL Comb Run (LL)						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		1.120	0.417	1.25	1.000	1.00	1.15	1.00	1.00	1.00	4.25	1,610.53	1437.50	1.06	93.92	225.00
Length = 7.0 ft	2		1.120	0.417	1.25	1.000	1.00	1.15	1.00	1.00	1.00	4.25	1,610.53	1437.50	0.79	93.92	225.00
+D+S+H						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.674	0.243	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1322.50	0.56	50.21	207.00
Length = 7.0 ft	2		0.674	0.243	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1322.50	0.42	50.21	207.00
+D+0.750Lr+0.750L+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.632	0.224	1.25	1.000	1.00	1.15	1.00	1.00	1.00	2.40	908.66	1437.50	0.57	50.39	225.00
Length = 7.0 ft	2		0.632	0.224	1.25	1.000	1.00	1.15	1.00	1.00	1.00	2.40	908.66	1437.50	0.50	50.39	225.00
+D+0.750Lr+0.750L+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.984	0.368	1.25	1.000	1.00	1.15	1.00	1.00	1.00	3.73	1,414.04	1437.50	0.93	82.81	225.00
Length = 7.0 ft	2		0.984	0.368	1.25	1.000	1.00	1.15	1.00	1.00	1.00	3.73	1,414.04	1437.50	0.62	82.81	225.00
+D+0.750Lr+0.750L+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.995	0.369	1.25	1.000	1.00	1.15	1.00	1.00	1.00	3.77	1,430.86	1437.50	0.93	82.99	225.00
Length = 7.0 ft	2		0.995	0.369	1.25	1.000	1.00	1.15	1.00	1.00	1.00	3.77	1,430.86	1437.50	0.70	82.99	225.00
+D+0.750Lr+0.750S+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.674	0.243	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1322.50	0.56	50.21	207.00
Length = 7.0 ft	2		0.674	0.243	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1322.50	0.42	50.21	207.00
+D+0.750Lr+0.750S+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.674	0.243	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1322.50	0.56	50.21	207.00
Length = 7.0 ft	2		0.674	0.243	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1322.50	0.42	50.21	207.00
+D+0.750Lr+0.750S+H, LL Comb R						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.674	0.243	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1322.50	0.56	50.21	207.00
Length = 7.0 ft	2		0.674	0.243	1.15	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1322.50	0.42	50.21	207.00
+D+0.60W+H						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.56	50.21	288.00
Length = 7.0 ft	2		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.42	50.21	288.00
+D+0.70E+H						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.56	50.21	288.00
Length = 7.0 ft	2		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.42	50.21	288.00
+D+0.750Lr+0.750L+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.494	0.175	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.40	908.66	1840.00	0.57	50.39	288.00
Length = 7.0 ft	2		0.494	0.175	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.40	908.66	1840.00	0.50	50.39	288.00
+D+0.750Lr+0.750L+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.768	0.288	1.60	1.000	1.00	1.15	1.00	1.00	1.00	3.73	1,414.04	1840.00	0.93	82.81	288.00
Length = 7.0 ft	2		0.768	0.288	1.60	1.000	1.00	1.15	1.00	1.00	1.00	3.73	1,414.04	1840.00	0.62	82.81	288.00
+D+0.750Lr+0.750L+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.778	0.288	1.60	1.000	1.00	1.15	1.00	1.00	1.00	3.77	1,430.86	1840.00	0.93	82.99	288.00
Length = 7.0 ft	2		0.778	0.288	1.60	1.000	1.00	1.15	1.00	1.00	1.00	3.77	1,430.86	1840.00	0.70	82.99	288.00
+D+0.750Lr+0.750S+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.56	50.21	288.00
Length = 7.0 ft	2		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.42	50.21	288.00
+D+0.750Lr+0.750S+0.450W+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.56	50.21	288.00
Length = 7.0 ft	2		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.42	50.21	288.00
+D+0.750Lr+0.750S+0.5250E+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 22.0 ft	1		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.56	50.21	288.00
Length = 7.0 ft	2		0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.42	50.21	288.00
+D+0.750Lr+0.750S+0.5250E+H, LL						1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00

Wood Beam

3 = I:\NAS-TUCSON\AmazonCloudDrive\BX3WMS-T1T4094B-7125FAKC-C122EAPO-5IEHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DJ4

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values		
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	f _v	F _v
Length = 22.0 ft	1	0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.56	50.21	288.00	
Length = 7.0 ft	2	0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.42	50.21	288.00	
+D+0.750L+0.750S+0.5250E+H, LL					1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 22.0 ft	1	0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.56	50.21	288.00	
Length = 7.0 ft	2	0.485	0.174	1.60	1.000	1.00	1.15	1.00	1.00	1.00	2.35	891.84	1840.00	0.42	50.21	288.00	
+0.60D+0.60W+0.60H					1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 22.0 ft	1	0.291	0.105	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.41	535.10	1840.00	0.34	30.13	288.00	
Length = 7.0 ft	2	0.291	0.105	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.41	535.10	1840.00	0.25	30.13	288.00	
+0.60D+0.70E+0.60H					1.000	1.00	1.15	1.00	1.00	1.00			0.00	0.00	0.00	0.00	
Length = 22.0 ft	1	0.291	0.105	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.41	535.10	1840.00	0.34	30.13	288.00	
Length = 7.0 ft	2	0.291	0.105	1.60	1.000	1.00	1.15	1.00	1.00	1.00	1.41	535.10	1840.00	0.25	30.13	288.00	

Overall Maximum Deflections

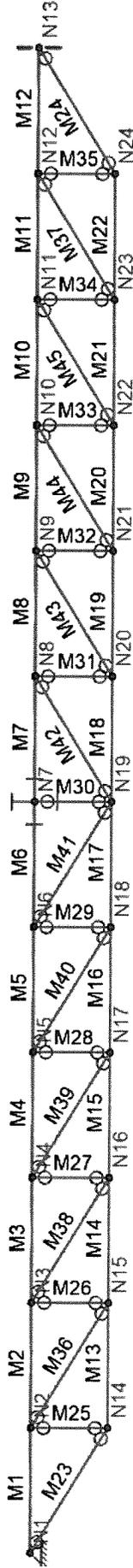
Load Combination	Span	Max. "+" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H, LL Comb Run (L*)	1	0.8890	10.078		0.0000	0.000
	2	0.0000	10.078	+D+Lr+H, LL Comb Run (L*)	-0.0707	2.933

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2	Support 3
Overall MAXimum	0.735	1.977	-0.486
Overall MINimum	0.354	0.937	-0.224
+D+H	0.379	1.040	-0.224
+D+L+H, LL Comb Run (*L)	0.379	1.040	-0.224
+D+L+H, LL Comb Run (L*)	0.379	1.040	-0.224
+D+L+H, LL Comb Run (LL)	0.379	1.040	-0.224
+D+Lr+H, LL Comb Run (*L)	0.376	1.191	-0.092
+D+Lr+H, LL Comb Run (L*)	0.735	1.826	-0.486
+D+Lr+H, LL Comb Run (LL)	0.732	1.977	-0.355
+D+S+H	0.379	1.040	-0.224
+D+0.750Lr+0.750L+H, LL Comb Run (*)	0.377	1.154	-0.125
+D+0.750Lr+0.750L+H, LL Comb Run (L)	0.646	1.630	-0.421
+D+0.750Lr+0.750L+H, LL Comb Run (L)	0.644	1.743	-0.322
+D+0.750L+0.750S+H, LL Comb Run (*L)	0.379	1.040	-0.224
+D+0.750L+0.750S+H, LL Comb Run (L*)	0.379	1.040	-0.224
+D+0.750L+0.750S+H, LL Comb Run (LL)	0.379	1.040	-0.224
+D+0.60W+H	0.379	1.040	-0.224
+D+0.70E+H	0.379	1.040	-0.224
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.377	1.154	-0.125
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.646	1.630	-0.421
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.644	1.743	-0.322
+D+0.750L+0.750S+0.450W+H, LL Comb	0.379	1.040	-0.224
+D+0.750L+0.750S+0.450W+H, LL Comb	0.379	1.040	-0.224
+D+0.750L+0.750S+0.450W+H, LL Comb	0.379	1.040	-0.224
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.379	1.040	-0.224
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.379	1.040	-0.224
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.379	1.040	-0.224
+0.60D+0.60W+0.60H	0.227	0.624	-0.134
+0.60D+0.70E+0.60H	0.227	0.624	-0.134
D Only	0.379	1.040	-0.224
Lr Only, LL Comb Run (*L)	-0.003	0.151	0.132
Lr Only, LL Comb Run (L*)	0.357	0.786	-0.262
Lr Only, LL Comb Run (LL)	0.354	0.937	-0.131
L Only, LL Comb Run (*L)			
L Only, LL Comb Run (L*)			
L Only, LL Comb Run (LL)			
S Only			
W Only			
E Only			
H Only			



Broderick Engineering LLC

RMW

20097

Santa Cruz Boys & Girls Club - DJ5

May 04, 2020 at 11:00 AM

DJ5.r3d



Company : Broderick Engineering LLC
 Designer : RMW
 Job Number : 20097
 Model Name : Santa Cruz Boys & Girls Club -...

Checked By : _____

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. C...	Density [k...	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	Top Chord	LL2.5x2.5...	Beam	None	A36 Gr.36	Typical	1.8	1.91	1.07	0.023
2	Bottom C...	LL2x2x3x0	Beam	None	A36 Gr.36	Typical	1.44	0.994	0.542	0.018
3	Vertical W...	LL1.25X1....	VBrace	None	A36 Gr.36	Typical	0.869	0.249	0.123	0.009
4	End Diag...	LL1.5X1.5...	VBrace	None	A36 Gr.36	Typical	1.375	0.576	0.277	0.025
5	2nd Bay...	2X1/4	VBrace	None	A36 Gr.36	Typical	0.5	0.003	0.167	0.01
6	Diagonal...	1.5X1/4	VBrace	None	A36 Gr.36	Typical	0.375	0.002	0.07	0.007

Nodes

	Label	X [ft]	Y [ft]	Z [ft]	Temp [deg F]	Detach From Dia...
1	N1	0	2	0		
2	N2	3.25	2	0		
3	N3	6.5	2	0		
4	N4	9.75	2	0		
5	N5	13	2	0		
6	N6	16.25	2	0		
7	N7	19.5	2	0		
8	N8	22.75	2	0		
9	N9	26	2	0		
10	N10	29.25	2	0		
11	N11	32.5	2	0		
12	N12	35.75	2	0		
13	N13	39	2	0		
14	N14	3.25	0	0		
15	N15	6.5	0	0		
16	N16	9.75	0	0		
17	N17	13	0	0		
18	N18	16.25	0	0		
19	N19	19.5	0	0		
20	N20	22.75	0	0		
21	N21	26	0	0		
22	N22	29.25	0	0		
23	N23	32.5	0	0		
24	N24	35.75	0	0		

Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N1	Reaction	Reaction	Reaction			
2	N13		Reaction	Reaction			
3	N16			Reaction			
4	N19			Reaction			
5	N22			Reaction			
6	N7			Reaction	Reaction	Reaction	

Primary Member Properties

	Label	I Node	J Node	K Node	Rotate(deg)	Section/S...	Type	Design List	Material	Design Rule
1	M1	N1	N2			Top Chord	Beam	None	A36 Gr.36	Typical
2	M2	N2	N3			Top Chord	Beam	None	A36 Gr.36	Typical
3	M3	N3	N4			Top Chord	Beam	None	A36 Gr.36	Typical
4	M4	N4	N5			Top Chord	Beam	None	A36 Gr.36	Typical
5	M5	N5	N6			Top Chord	Beam	None	A36 Gr.36	Typical
6	M6	N6	N7			Top Chord	Beam	None	A36 Gr.36	Typical
7	M7	N7	N8			Top Chord	Beam	None	A36 Gr.36	Typical



Company : Broderick Engineering LLC
 Designer : RMW
 Job Number : 20097
 Model Name : Santa Cruz Boys & Girls Club - ...

516

Checked By : _____

Primary Member Properties (Continued)

	Label	I Node	J Node	K Node	Rotate(deg)	Section/S...	Type	Design List	Material	Design Rule
5	M5	N5	N6			Top Chord	Beam	None	A36 Gr.36	Typical
6	M6	N6	N7			Top Chord	Beam	None	A36 Gr.36	Typical
7	M7	N7	N8			Top Chord	Beam	None	A36 Gr.36	Typical
8	M8	N8	N9			Top Chord	Beam	None	A36 Gr.36	Typical
9	M9	N9	N10			Top Chord	Beam	None	A36 Gr.36	Typical
10	M10	N10	N11			Top Chord	Beam	None	A36 Gr.36	Typical
11	M11	N11	N12			Top Chord	Beam	None	A36 Gr.36	Typical
12	M12	N12	N13			Top Chord	Beam	None	A36 Gr.36	Typical
13	M13	N14	N15		180	Bottom C...	Beam	None	A36 Gr.36	Typical
14	M14	N15	N16		180	Bottom C...	Beam	None	A36 Gr.36	Typical
15	M15	N16	N17		180	Bottom C...	Beam	None	A36 Gr.36	Typical
16	M16	N17	N18		180	Bottom C...	Beam	None	A36 Gr.36	Typical
17	M17	N18	N19		180	Bottom C...	Beam	None	A36 Gr.36	Typical
18	M18	N19	N20		180	Bottom C...	Beam	None	A36 Gr.36	Typical
19	M19	N20	N21		180	Bottom C...	Beam	None	A36 Gr.36	Typical
20	M20	N21	N22		180	Bottom C...	Beam	None	A36 Gr.36	Typical
21	M21	N22	N23		180	Bottom C...	Beam	None	A36 Gr.36	Typical
22	M22	N23	N24		180	Bottom C...	Beam	None	A36 Gr.36	Typical
23	M23	N1	N14		180	End Diag...	VBrace	None	A36 Gr.36	Typical
24	M24	N13	N24		180	End Diag...	VBrace	None	A36 Gr.36	Typical
25	M25	N2	N14			Vertical W...	VBrace	None	A36 Gr.36	Typical
26	M26	N3	N15			Vertical W...	VBrace	None	A36 Gr.36	Typical
27	M27	N4	N16			Vertical W...	VBrace	None	A36 Gr.36	Typical
28	M28	N5	N17			Vertical W...	VBrace	None	A36 Gr.36	Typical
29	M29	N6	N18			Vertical W...	VBrace	None	A36 Gr.36	Typical
30	M30	N7	N19			Vertical W...	VBrace	None	A36 Gr.36	Typical
31	M31	N8	N20			Vertical W...	VBrace	None	A36 Gr.36	Typical
32	M32	N9	N21			Vertical W...	VBrace	None	A36 Gr.36	Typical
33	M33	N10	N22			Vertical W...	VBrace	None	A36 Gr.36	Typical
34	M34	N11	N23			Vertical W...	VBrace	None	A36 Gr.36	Typical
35	M35	N12	N24			Vertical W...	VBrace	None	A36 Gr.36	Typical
36	M36	N2	N15			2nd Bay...	VBrace	None	A36 Gr.36	Typical
37	M37	N12	N23			2nd Bay...	VBrace	None	A36 Gr.36	Typical
38	M38	N3	N16			Diagonal...	VBrace	None	A36 Gr.36	Typical
39	M39	N4	N17			Diagonal...	VBrace	None	A36 Gr.36	Typical
40	M40	N5	N18			Diagonal...	VBrace	None	A36 Gr.36	Typical
41	M41	N6	N19			Diagonal...	VBrace	None	A36 Gr.36	Typical
42	M42	N8	N19			Diagonal...	VBrace	None	A36 Gr.36	Typical
43	M43	N9	N20			Diagonal...	VBrace	None	A36 Gr.36	Typical
44	M44	N10	N21			Diagonal...	VBrace	None	A36 Gr.36	Typical
45	M45	N11	N22			Diagonal...	VBrace	None	A36 Gr.36	Typical

Dead Load

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (... Inactive [(k, k-ft), (in,...
1	N5	L	Y	-0.2 Active
2	N6	L	Y	-0.2 Active

Dead Load (Continued)

	Member Label	Direction	Start Magnitud...	End Magnitude...	Start Location [...	End Location [(... Inactive [(k, k-f...
1	M1	Y	-0.12	-0.12	0	%100 Active
2	M2	Y	-0.12	-0.12	0	%100 Active
3	M3	Y	-0.12	-0.12	0	%100 Active
4	M4	Y	-0.12	-0.12	0	%100 Active
5	M5	Y	-0.12	-0.12	0	%100 Active
6	M6	Y	-0.12	-0.12	0	%100 Active
7	M7	Y	-0.12	-0.12	0	%100 Active
8	M8	Y	-0.12	-0.12	0	%100 Active

Dead Load (Continued)

	Member Label	Direction	Start Magnitud...	End Magnitude...	Start Location [...]	End Location [...]	Inactive [(k, k-f...
9	M9	Y	-0.12	-0.12	0	%100	Active
10	M10	Y	-0.12	-0.12	0	%100	Active
11	M11	Y	-0.12	-0.12	0	%100	Active
12	M12	Y	-0.12	-0.12	0	%100	Active

Roof Live Load

	Member Label	Direction	Start Magnitud...	End Magnitude...	Start Location [...]	End Location [...]	Inactive [(k, k-f...
1	M1	Y	-0.135	-0.135	0	%100	Active
2	M2	Y	-0.135	-0.135	0	%100	Active
3	M3	Y	-0.135	-0.135	0	%100	Active
4	M4	Y	-0.135	-0.135	0	%100	Active
5	M5	Y	-0.135	-0.135	0	%100	Active
6	M6	Y	-0.135	-0.135	0	%100	Active
7	M7	Y	-0.135	-0.135	0	%100	Active
8	M8	Y	-0.135	-0.135	0	%100	Active
9	M9	Y	-0.135	-0.135	0	%100	Active
10	M10	Y	-0.135	-0.135	0	%100	Active
11	M11	Y	-0.135	-0.135	0	%100	Active
12	M12	Y	-0.135	-0.135	0	%100	Active

Basic Load Cases

	BLC Desc...	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Point	Distributed	Area(Me...	Surface(P...
1	Dead Load	DL		-1		2		12		
2	Roof Live...	RLL						12		

Load Combinations

	De...	So...	PD...	SR...	BLC Fa...								
1	DL...	Yes	Y		DL	1	RLL	1					

Load Combination Design

	Descript...	ASIF	Service	Hot Rolled	Cold Fo...	Wood	Concrete	Masonry	Aluminum	Stainless	Connecc...
1	DL + RLL			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Node Reactions

	LC	Node Label	X [k]	Y [k]	Z [k]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N1	0	5.498	0	0	0	0
2	1	N13	0	5.398	0	0	0	0
3	1	N16	0	0	0	0	0	0
4	1	N19	0	0	0	0	0	0
5	1	N22	0	0	0	0	0	0
6	1	N7	0	0	0	0	0	0
7	1	Totals:	0	10.896	0			
8	1	COG (ft):	X: 19.321	Y: 1.957	Z: 0			

Node Deflections

	LC	Node Label	X [in]	Y [in]	Z [in]	X Rotation [r...	Y Rotation [r...	Z Rotation [r...
1	1	N1	0	0	0	0	0	-1.135e-02
2	1	N2	-0.008	-0.396	0	0	0	-9.971e-03
3	1	N3	-0.022	-0.795	0	0	0	-9.911e-03
4	1	N4	-0.041	-1.145	0	0	0	-7.952e-03
5	1	N5	-0.064	-1.408	0	0	0	-5.47e-03
6	1	N6	-0.088	-1.565	0	0	0	-2.592e-03
7	1	N7	-0.114	-1.611	0	0	0	1.336e-04
8	1	N8	-0.139	-1.556	0	0	0	2.792e-03
9	1	N9	-0.163	-1.394	0	0	0	5.484e-03

Node Deflections (Continued)

	LC	Node Label	X [in]	Y [in]	Z [in]	X Rotation [r...	Y Rotation [r...	Z Rotation [r...
10	1	N10	-0.186	-1.133	0	0	0	7.863e-03
11	1	N11	-0.204	-0.786	0	0	0	9.807e-03
12	1	N12	-0.218	-0.392	0	0	0	9.864e-03
13	1	N13	-0.226	0	0	0	0	1.126e-02
14	1	N14	-0.223	-0.39	0	0	0	-1.051e-02
15	1	N15	-0.214	-0.79	0	0	0	-9.809e-03
16	1	N16	-0.196	-1.141	0	0	0	-8.001e-03
17	1	N17	-0.172	-1.405	0	0	0	-5.473e-03
18	1	N18	-0.144	-1.563	0	0	0	-2.62e-03
19	1	N19	-0.113	-1.61	0	0	0	1.381e-04
20	1	N20	-0.082	-1.554	0	0	0	2.81e-03
21	1	N21	-0.054	-1.391	0	0	0	5.487e-03
22	1	N22	-0.031	-1.129	0	0	0	7.916e-03
23	1	N23	-0.014	-0.782	0	0	0	9.706e-03
24	1	N24	-0.004	-0.386	0	0	0	1.04e-02

Member Section Forces

	LC	Member La...	Sec	Axial [k]	y Shear [k]	z Shear [k]	Torque [k-ft]	y-y Momen...	z-z Momen...
1	1	M1	1	8.311	0.328	0	0	0	0
2			2	8.311	0.116	0	0	0	-0.18
3			3	8.311	-0.096	0	0	0	-0.188
4			4	8.311	-0.309	0	0	0	-0.024
5			5	8.311	-0.521	0	0	0	0.313
6	1	M2	1	15.036	0.478	0	0	0	0.313
7			2	15.036	0.265	0	0	0	0.011
8			3	15.036	0.053	0	0	0	-0.118
9			4	15.036	-0.159	0	0	0	-0.075
10			5	15.036	-0.371	0	0	0	0.14
11	1	M3	1	20.405	0.433	0	0	0	0.14
12			2	20.405	0.221	0	0	0	-0.126
13			3	20.405	0.009	0	0	0	-0.219
14			4	20.405	-0.203	0	0	0	-0.14
15			5	20.405	-0.416	0	0	0	0.112
16	1	M4	1	24.368	0.429	0	0	0	0.112
17			2	24.368	0.217	0	0	0	-0.151
18			3	24.368	0.005	0	0	0	-0.241
19			4	24.368	-0.207	0	0	0	-0.159
20			5	24.368	-0.419	0	0	0	0.096
21	1	M5	1	26.584	0.427	0	0	0	0.096
22			2	26.584	0.214	0	0	0	-0.165
23			3	26.584	0.002	0	0	0	-0.253
24			4	26.584	-0.21	0	0	0	-0.168
25			5	26.584	-0.422	0	0	0	0.089
26	1	M6	1	27.075	0.416	0	0	0	0.089
27			2	27.075	0.204	0	0	0	-0.163
28			3	27.075	-0.008	0	0	0	-0.243
29			4	27.075	-0.22	0	0	0	-0.15
30			5	27.075	-0.432	0	0	0	0.115
31	1	M7	1	27.075	0.43	0	0	0	0.115
32			2	27.075	0.218	0	0	0	-0.149
33			3	27.075	0.006	0	0	0	-0.24
34			4	27.075	-0.206	0	0	0	-0.159
35			5	27.075	-0.418	0	0	0	0.095
36	1	M8	1	26.102	0.422	0	0	0	0.095
37			2	26.102	0.21	0	0	0	-0.162
38			3	26.102	-0.003	0	0	0	-0.246
39			4	26.102	-0.215	0	0	0	-0.158
40			5	26.102	-0.427	0	0	0	0.103



Company : Broderick Engineering LLC
 Designer : RMW
 Job Number : 20097
 Model Name : Santa Cruz Boys & Girls Club -...

519

Checked By : _____

Member Section Forces (Continued)

	LC	Member La...	Sec	Axial [k]	y Shear [k]	z Shear [k]	Torque [k-ft]	y-y Momen...	z-z Momen...
41	1	M9	1	23.725	0.422	0	0	0	0.103
42			2	23.725	0.209	0	0	0	-0.153
43			3	23.725	-0.003	0	0	0	-0.237
44			4	23.725	-0.215	0	0	0	-0.149
45			5	23.725	-0.427	0	0	0	0.112
46	1	M10	1	19.919	0.415	0	0	0	0.112
47			2	19.919	0.203	0	0	0	-0.139
48			3	19.919	-0.009	0	0	0	-0.218
49			4	19.919	-0.221	0	0	0	-0.124
50			5	19.919	-0.434	0	0	0	0.142
51	1	M11	1	14.713	0.372	0	0	0	0.142
52			2	14.713	0.16	0	0	0	-0.074
53			3	14.713	-0.052	0	0	0	-0.118
54			4	14.713	-0.265	0	0	0	0.011
55			5	14.713	-0.477	0	0	0	0.312
56	1	M12	1	8.15	0.52	0	0	0	0.312
57			2	8.15	0.308	0	0	0	-0.025
58			3	8.15	0.096	0	0	0	-0.189
59			4	8.15	-0.116	0	0	0	-0.181
60			5	8.15	-0.328	0	0	0	0
61	1	M13	1	-8.385	-0.017	0	0	0	0
62			2	-8.385	-0.013	0	0	0	0.012
63			3	-8.385	-0.009	0	0	0	0.021
64			4	-8.385	-0.005	0	0	0	0.027
65			5	-8.385	0	0	0	0	0.029
66	1	M14	1	-15.088	-0.017	0	0	0	0.029
67			2	-15.088	-0.013	0	0	0	0.042
68			3	-15.088	-0.009	0	0	0	0.051
69			4	-15.088	-0.005	0	0	0	0.057
70			5	-15.088	-0.001	0	0	0	0.059
71	1	M15	1	-20.44	-0.011	0	0	0	0.059
72			2	-20.44	-0.007	0	0	0	0.066
73			3	-20.44	-0.003	0	0	0	0.07
74			4	-20.44	0.001	0	0	0	0.071
75			5	-20.44	0.005	0	0	0	0.068
76	1	M16	1	-24.386	-0.011	0	0	0	0.068
77			2	-24.386	-0.007	0	0	0	0.075
78			3	-24.386	-0.003	0	0	0	0.079
79			4	-24.386	0.001	0	0	0	0.079
80			5	-24.386	0.005	0	0	0	0.077
81	1	M17	1	-26.589	-0.004	0	0	0	0.077
82			2	-26.589	0	0	0	0	0.078
83			3	-26.589	0.004	0	0	0	0.076
84			4	-26.589	0.008	0	0	0	0.071
85			5	-26.589	0.012	0	0	0	0.063
86	1	M18	1	-26.108	-0.011	0	0	0	0.063
87			2	-26.108	-0.007	0	0	0	0.07
88			3	-26.108	-0.003	0	0	0	0.074
89			4	-26.108	0.001	0	0	0	0.075
90			5	-26.108	0.005	0	0	0	0.072
91	1	M19	1	-23.742	-0.005	0	0	0	0.072
92			2	-23.742	-0.001	0	0	0	0.075
93			3	-23.742	0.003	0	0	0	0.074
94			4	-23.742	0.007	0	0	0	0.07
95			5	-23.742	0.011	0	0	0	0.063
96	1	M20	1	-19.953	-0.007	0	0	0	0.063
97			2	-19.953	-0.003	0	0	0	0.067
98			3	-19.953	0.001	0	0	0	0.067

Member Section Forces (Continued)

	LC	Member La...	Sec	Axial [k]	y Shear [k]	z Shear [k]	Torque [k-ft]	y-y Momen...	z-z Momen...
99			4	-19.953	0.005	0	0	0	0.065
100			5	-19.953	0.009	0	0	0	0.059
101	1	M21	1	-14.765	0.001	0	0	0	0.059
102			2	-14.765	0.005	0	0	0	0.056
103			3	-14.765	0.009	0	0	0	0.05
104			4	-14.765	0.013	0	0	0	0.041
105			5	-14.765	0.017	0	0	0	0.029
106	1	M22	1	-8.222	0	0	0	0	0.029
107			2	-8.222	0.005	0	0	0	0.026
108			3	-8.222	0.009	0	0	0	0.021
109			4	-8.222	0.013	0	0	0	0.012
110			5	-8.222	0.017	0	0	0	0
111	1	M23	1	-9.859	-0.008	0	0	0	0
112			2	-9.856	-0.004	0	0	0	0.005
113			3	-9.854	0	0	0	0	0.007
114			4	-9.851	0.004	0	0	0	0.005
115			5	-9.849	0.008	0	0	0	0
116	1	M24	1	-9.667	-0.008	0	0	0	0
117			2	-9.664	-0.004	0	0	0	0.005
118			3	-9.662	0	0	0	0	0.007
119			4	-9.66	0.004	0	0	0	0.005
120			5	-9.657	0.008	0	0	0	0
121	1	M25	1	5.127	0	0	0	0	0
122			2	5.128	0	0	0	0	0
123			3	5.13	0	0	0	0	0
124			4	5.131	0	0	0	0	0
125			5	5.133	0	0	0	0	0
126	1	M26	1	4.131	0	0	0	0	0
127			2	4.132	0	0	0	0	0
128			3	4.134	0	0	0	0	0
129			4	4.135	0	0	0	0	0
130			5	4.137	0	0	0	0	0
131	1	M27	1	3.35	0	0	0	0	0
132			2	3.352	0	0	0	0	0
133			3	3.353	0	0	0	0	0
134			4	3.355	0	0	0	0	0
135			5	3.356	0	0	0	0	0
136	1	M28	1	2.51	0	0	0	0	0
137			2	2.512	0	0	0	0	0
138			3	2.513	0	0	0	0	0
139			4	2.515	0	0	0	0	0
140			5	2.516	0	0	0	0	0
141	1	M29	1	1.462	0	0	0	0	0
142			2	1.464	0	0	0	0	0
143			3	1.465	0	0	0	0	0
144			4	1.467	0	0	0	0	0
145			5	1.468	0	0	0	0	0
146	1	M30	1	0.976	0	0	0	0	0
147			2	0.977	0	0	0	0	0
148			3	0.979	0	0	0	0	0
149			4	0.98	0	0	0	0	0
150			5	0.982	0	0	0	0	0
151	1	M31	1	1.552	0	0	0	0	0
152			2	1.554	0	0	0	0	0
153			3	1.555	0	0	0	0	0
154			4	1.557	0	0	0	0	0
155			5	1.558	0	0	0	0	0
156	1	M32	1	2.404	0	0	0	0	0



Company : Broderick Engineering LLC
 Designer : RMW
 Job Number : 20097
 Model Name : Santa Cruz Boys & Girls Club -...

521

Checked By : _____

Member Section Forces (Continued)

	LC	Member La...	Sec	Axial [k]	y Shear [k]	z Shear [k]	Torque [k-ft]	y-y Momen...	z-z Momen...
157			2	2.405	0	0	0	0	0
158			3	2.407	0	0	0	0	0
159			4	2.408	0	0	0	0	0
160			5	2.41	0	0	0	0	0
161	1	M33	1	3.248	0	0	0	0	0
162			2	3.249	0	0	0	0	0
163			3	3.251	0	0	0	0	0
164			4	3.252	0	0	0	0	0
165			5	3.254	0	0	0	0	0
166	1	M34	1	4.031	0	0	0	0	0
167			2	4.032	0	0	0	0	0
168			3	4.034	0	0	0	0	0
169			4	4.035	0	0	0	0	0
170			5	4.037	0	0	0	0	0
171	1	M35	1	5.027	0	0	0	0	0
172			2	5.028	0	0	0	0	0
173			3	5.03	0	0	0	0	0
174			4	5.031	0	0	0	0	0
175			5	5.033	0	0	0	0	0
176	1	M36	1	-7.886	0.003	0	0	0	0
177			2	-7.885	0.001	0	0	0	-0.002
178			3	-7.884	0	0	0	0	-0.003
179			4	-7.884	-0.001	0	0	0	-0.002
180			5	-7.883	-0.003	0	0	0	0
181	1	M37	1	-7.697	0.003	0	0	0	0
182			2	-7.696	0.001	0	0	0	-0.002
183			3	-7.695	0	0	0	0	-0.003
184			4	-7.694	-0.001	0	0	0	-0.002
185			5	-7.693	-0.003	0	0	0	0
186	1	M38	1	-6.296	0.002	0	0	0	0
187			2	-6.296	0.001	0	0	0	-0.001
188			3	-6.295	0	0	0	0	-0.002
189			4	-6.294	-0.001	0	0	0	-0.001
190			5	-6.294	-0.002	0	0	0	0
191	1	M39	1	-4.642	0.002	0	0	0	0
192			2	-4.642	0.001	0	0	0	-0.001
193			3	-4.641	0	0	0	0	-0.002
194			4	-4.64	-0.001	0	0	0	-0.001
195			5	-4.64	-0.002	0	0	0	0
196	1	M40	1	-2.592	0.002	0	0	0	0
197			2	-2.591	0.001	0	0	0	-0.001
198			3	-2.59	0	0	0	0	-0.002
199			4	-2.59	-0.001	0	0	0	-0.001
200			5	-2.589	-0.002	0	0	0	0
201	1	M41	1	-0.573	0.002	0	0	0	0
202			2	-0.572	0.001	0	0	0	-0.001
203			3	-0.572	0	0	0	0	-0.002
204			4	-0.571	-0.001	0	0	0	-0.001
205			5	-0.57	-0.002	0	0	0	0
206	1	M42	1	-1.139	0.002	0	0	0	0
207			2	-1.138	0.001	0	0	0	-0.001
208			3	-1.138	0	0	0	0	-0.002
209			4	-1.137	-0.001	0	0	0	-0.001
210			5	-1.136	-0.002	0	0	0	0
211	1	M43	1	-2.782	0.002	0	0	0	0
212			2	-2.782	0.001	0	0	0	-0.001
213			3	-2.781	0	0	0	0	-0.002
214			4	-2.78	-0.001	0	0	0	-0.001

Member Section Forces (Continued)

	LC	Member La...	Sec	Axial [k]	y Shear [k]	z Shear [k]	Torque [k-ft]	y-y Momen...	z-z Momen...
215			5	-2.78	-0.002	0	0	0	0
216	1	M44	1	-4.458	0.002	0	0	0	0
217			2	-4.457	0.001	0	0	0	-0.001
218			3	-4.457	0	0	0	0	-0.002
219			4	-4.456	-0.001	0	0	0	-0.001
220			5	-4.456	-0.002	0	0	0	0
221	1	M45	1	-6.104	0.002	0	0	0	0
222			2	-6.103	0.001	0	0	0	-0.001
223			3	-6.103	0	0	0	0	-0.002
224			4	-6.102	-0.001	0	0	0	-0.001
225			5	-6.102	-0.002	0	0	0	0

Member Section Stresses

	LC	Member L...	Sec	Axial [ksj]	y Shear [ksj]	z Shear [ksj]	y top Ben...	y bot Ben...	z top Ben...	z bot Ben...
1	1	M1	1	4.617	0.42	0	0	0	0	0
2			2	4.617	0.148	0	1.389	-3.666	0	0
3			3	4.617	-0.123	0	1.45	-3.827	0	0
4			4	4.617	-0.395	0	0.183	-0.483	0	0
5			5	4.617	-0.666	0	-2.413	6.367	0	0
6	1	M2	1	8.353	0.611	0	-2.413	6.367	0	0
7			2	8.353	0.34	0	-0.087	0.23	0	0
8			3	8.353	0.068	0	0.91	-2.402	0	0
9			4	8.353	-0.203	0	0.579	-1.528	0	0
10			5	8.353	-0.475	0	-1.08	2.85	0	0
11	1	M3	1	11.336	0.554	0	-1.08	2.85	0	0
12			2	11.336	0.283	0	0.967	-2.552	0	0
13			3	11.336	0.011	0	1.686	-4.45	0	0
14			4	11.336	-0.26	0	1.077	-2.842	0	0
15			5	11.336	-0.532	0	-0.86	2.27	0	0
16	1	M4	1	13.538	0.549	0	-0.86	2.27	0	0
17			2	13.538	0.278	0	1.163	-3.069	0	0
18			3	13.538	0.006	0	1.858	-4.903	0	0
19			4	13.538	-0.265	0	1.225	-3.232	0	0
20			5	13.538	-0.537	0	-0.737	1.944	0	0
21	1	M5	1	14.769	0.546	0	-0.737	1.944	0	0
22			2	14.769	0.274	0	1.269	-3.35	0	0
23			3	14.769	0.003	0	1.947	-5.138	0	0
24			4	14.769	-0.269	0	1.297	-3.422	0	0
25			5	14.769	-0.54	0	-0.682	1.8	0	0
26	1	M6	1	15.042	0.533	0	-0.682	1.8	0	0
27			2	15.042	0.261	0	1.259	-3.324	0	0
28			3	15.042	-0.01	0	1.873	-4.943	0	0
29			4	15.042	-0.282	0	1.158	-3.056	0	0
30			5	15.042	-0.554	0	-0.885	2.335	0	0
31	1	M7	1	15.042	0.551	0	-0.885	2.335	0	0
32			2	15.042	0.279	0	1.146	-3.024	0	0
33			3	15.042	0.008	0	1.849	-4.879	0	0
34			4	15.042	-0.264	0	1.223	-3.228	0	0
35			5	15.042	-0.535	0	-0.731	1.928	0	0
36	1	M8	1	14.501	0.54	0	-0.731	1.928	0	0
37			2	14.501	0.268	0	1.246	-3.288	0	0
38			3	14.501	-0.003	0	1.894	-4.999	0	0
39			4	14.501	-0.275	0	1.214	-3.205	0	0
40			5	14.501	-0.546	0	-0.794	2.095	0	0
41	1	M9	1	13.181	0.54	0	-0.794	2.095	0	0
42			2	13.181	0.268	0	1.182	-3.118	0	0
43			3	13.181	-0.003	0	1.829	-4.826	0	0
44			4	13.181	-0.275	0	1.148	-3.029	0	0



Company : Broderick Engineering LLC
 Designer : RMW
 Job Number : 20097
 Model Name : Santa Cruz Boys & Girls Club -...

523

Checked By : _____

Member Section Stresses (Continued)

LC	Member L...	Sec	Axial [ksi]	y Shear [ksi]	z Shear [ksi]	y top Ben...	y bot Ben...	z top Ben...	z bot Ben...
45		5	13.181	-0.547	0	-0.861	2.273	0	0
46	1	M10	1	11.066	0.531	0	-0.861	2.273	0
47		2	11.066	0.26	0	1.074	-2.833	0	0
48		3	11.066	-0.012	0	1.68	-4.434	0	0
49		4	11.066	-0.283	0	0.959	-2.53	0	0
50		5	11.066	-0.555	0	-1.091	2.879	0	0
51	1	M11	1	8.174	0.476	0	-1.091	2.879	0
52		2	8.174	0.204	0	0.573	-1.512	0	0
53		3	8.174	-0.067	0	0.909	-2.398	0	0
54		4	8.174	-0.339	0	-0.084	0.221	0	0
55		5	8.174	-0.61	0	-2.404	6.345	0	0
56	1	M12	1	4.528	0.666	0	-2.404	6.345	0
57		2	4.528	0.394	0	0.189	-0.499	0	0
58		3	4.528	0.123	0	1.454	-3.837	0	0
59		4	4.528	-0.149	0	1.391	-3.671	0	0
60		5	4.528	-0.42	0	0	0	0	0
61	1	M13	1	-5.823	-0.027	0	0	0	0
62		2	-5.823	-0.021	0	-0.151	0.386	0	0
63		3	-5.823	-0.014	0	-0.261	0.67	0	0
64		4	-5.823	-0.008	0	-0.331	0.85	0	0
65		5	-5.823	-0.002	0	-0.361	0.927	0	0
66	1	M14	1	-10.478	-0.028	0	-0.361	0.927	0
67		2	-10.478	-0.021	0	-0.516	1.323	0	0
68		3	-10.478	-0.015	0	-0.63	1.617	0	0
69		4	-10.478	-0.009	0	-0.704	1.807	0	0
70		5	-10.478	-0.002	0	-0.738	1.894	0	0
71	1	M15	1	-14.194	-0.017	0	-0.738	1.894	0
72		2	-14.194	-0.01	0	-0.825	2.115	0	0
73		3	-14.194	-0.004	0	-0.87	2.233	0	0
74		4	-14.194	0.002	0	-0.876	2.248	0	0
75		5	-14.194	0.009	0	-0.842	2.16	0	0
76	1	M16	1	-16.935	-0.017	0	-0.842	2.16	0
77		2	-16.935	-0.011	0	-0.931	2.387	0	0
78		3	-16.935	-0.004	0	-0.979	2.511	0	0
79		4	-16.935	0.002	0	-0.987	2.532	0	0
80		5	-16.935	0.008	0	-0.955	2.45	0	0
81	1	M17	1	-18.465	-0.006	0	-0.955	2.45	0
82		2	-18.465	0	0	-0.971	2.491	0	0
83		3	-18.465	0.007	0	-0.947	2.43	0	0
84		4	-18.465	0.013	0	-0.883	2.265	0	0
85		5	-18.465	0.02	0	-0.778	1.997	0	0
86	1	M18	1	-18.13	-0.017	0	-0.778	1.997	0
87		2	-18.13	-0.011	0	-0.869	2.228	0	0
88		3	-18.13	-0.005	0	-0.919	2.356	0	0
89		4	-18.13	0.002	0	-0.928	2.381	0	0
90		5	-18.13	0.008	0	-0.898	2.304	0	0
91	1	M19	1	-16.488	-0.008	0	-0.898	2.304	0
92		2	-16.488	-0.002	0	-0.929	2.383	0	0
93		3	-16.488	0.005	0	-0.92	2.36	0	0
94		4	-16.488	0.011	0	-0.871	2.234	0	0
95		5	-16.488	0.017	0	-0.781	2.004	0	0
96	1	M20	1	-13.856	-0.011	0	-0.781	2.004	0
97		2	-13.856	-0.004	0	-0.829	2.128	0	0
98		3	-13.856	0.002	0	-0.837	2.148	0	0
99		4	-13.856	0.008	0	-0.805	2.065	0	0
100		5	-13.856	0.015	0	-0.733	1.879	0	0
101	1	M21	1	-10.253	0.002	0	-0.733	1.879	0
102		2	-10.253	0.009	0	-0.699	1.792	0	0

Member Section Stresses (Continued)

LC	Member L...	Sec	Axial [ksi]	y Shear [ksi]	z Shear [ksi]	y top Ben...	y bot Ben...	z top Ben...	z bot Ben...	
103		3	-10.253	0.015	0	-0.624	1.601	0	0	
104		4	-10.253	0.021	0	-0.51	1.308	0	0	
105		5	-10.253	0.028	0	-0.355	0.911	0	0	
106	1	M22	1	-5.71	0.001	0	-0.355	0.911	0	0
107		2	-5.71	0.008	0	-0.327	0.838	0	0	
108		3	-5.71	0.014	0	-0.258	0.662	0	0	
109		4	-5.71	0.02	0	-0.149	0.382	0	0	
110		5	-5.71	0.027	0	0	0	0	0	
111	1	M23	1	-7.17	-0.012	0	0	0	0	0
112		2	-7.168	-0.006	0	-0.11	0.244	0	0	
113		3	-7.166	0	0	-0.146	0.325	0	0	
114		4	-7.165	0.006	0	-0.11	0.244	0	0	
115		5	-7.163	0.012	0	0	0	0	0	
116	1	M24	1	-7.03	-0.012	0	0	0	0	0
117		2	-7.029	-0.006	0	-0.11	0.244	0	0	
118		3	-7.027	0	0	-0.146	0.325	0	0	
119		4	-7.025	0.006	0	-0.11	0.244	0	0	
120		5	-7.024	0.012	0	0	0	0	0	
121	1	M25	1	5.897	0	0	0	0	0	0
122		2	5.899	0	0	0	0	0	0	0
123		3	5.901	0	0	0	0	0	0	0
124		4	5.903	0	0	0	0	0	0	0
125		5	5.904	0	0	0	0	0	0	0
126	1	M26	1	4.752	0	0	0	0	0	0
127		2	4.754	0	0	0	0	0	0	0
128		3	4.755	0	0	0	0	0	0	0
129		4	4.757	0	0	0	0	0	0	0
130		5	4.759	0	0	0	0	0	0	0
131	1	M27	1	3.854	0	0	0	0	0	0
132		2	3.855	0	0	0	0	0	0	0
133		3	3.857	0	0	0	0	0	0	0
134		4	3.859	0	0	0	0	0	0	0
135		5	3.861	0	0	0	0	0	0	0
136	1	M28	1	2.887	0	0	0	0	0	0
137		2	2.889	0	0	0	0	0	0	0
138		3	2.891	0	0	0	0	0	0	0
139		4	2.893	0	0	0	0	0	0	0
140		5	2.894	0	0	0	0	0	0	0
141	1	M29	1	1.682	0	0	0	0	0	0
142		2	1.684	0	0	0	0	0	0	0
143		3	1.685	0	0	0	0	0	0	0
144		4	1.687	0	0	0	0	0	0	0
145		5	1.689	0	0	0	0	0	0	0
146	1	M30	1	1.123	0	0	0	0	0	0
147		2	1.124	0	0	0	0	0	0	0
148		3	1.126	0	0	0	0	0	0	0
149		4	1.128	0	0	0	0	0	0	0
150		5	1.129	0	0	0	0	0	0	0
151	1	M31	1	1.786	0	0	0	0	0	0
152		2	1.787	0	0	0	0	0	0	0
153		3	1.789	0	0	0	0	0	0	0
154		4	1.791	0	0	0	0	0	0	0
155		5	1.793	0	0	0	0	0	0	0
156	1	M32	1	2.765	0	0	0	0	0	0
157		2	2.767	0	0	0	0	0	0	0
158		3	2.768	0	0	0	0	0	0	0
159		4	2.77	0	0	0	0	0	0	0
160		5	2.772	0	0	0	0	0	0	0



Company : Broderick Engineering LLC
 Designer : RMW
 Job Number : 20097
 Model Name : Santa Cruz Boys & Girls Club -...

Checked By : _____

Member Section Stresses (Continued)

	LC	Member L...	Sec	Axial [ksi]	y Shear [ksi]	z Shear [ksi]	y top Ben...	y bot Ben...	z top Ben...	z bot Ben...
161	1	M33	1	3.736	0	0	0	0	0	0
162			2	3.738	0	0	0	0	0	0
163			3	3.74	0	0	0	0	0	0
164			4	3.741	0	0	0	0	0	0
165			5	3.743	0	0	0	0	0	0
166	1	M34	1	4.637	0	0	0	0	0	0
167			2	4.638	0	0	0	0	0	0
168			3	4.64	0	0	0	0	0	0
169			4	4.642	0	0	0	0	0	0
170			5	4.643	0	0	0	0	0	0
171	1	M35	1	5.782	0	0	0	0	0	0
172			2	5.784	0	0	0	0	0	0
173			3	5.786	0	0	0	0	0	0
174			4	5.788	0	0	0	0	0	0
175			5	5.789	0	0	0	0	0	0
176	1	M36	1	-15.772	0.008	0	0	0	0	0
177			2	-15.771	0.004	0	0.142	-0.142	0	0
178			3	-15.769	0	0	0.19	-0.19	0	0
179			4	-15.767	-0.004	0	0.142	-0.142	0	0
180			5	-15.765	-0.008	0	0	0	0	0
181	1	M37	1	-15.393	0.008	0	0	0	0	0
182			2	-15.392	0.004	0	0.142	-0.142	0	0
183			3	-15.39	0	0	0.19	-0.19	0	0
184			4	-15.388	-0.004	0	0.142	-0.142	0	0
185			5	-15.386	-0.008	0	0	0	0	0
186	1	M38	1	-16.79	0.008	0	0	0	0	0
187			2	-16.788	0.004	0	0.19	-0.19	0	0
188			3	-16.787	0	0	0.253	-0.253	0	0
189			4	-16.785	-0.004	0	0.19	-0.19	0	0
190			5	-16.783	-0.008	0	0	0	0	0
191	1	M39	1	-12.38	0.008	0	0	0	0	0
192			2	-12.378	0.004	0	0.19	-0.19	0	0
193			3	-12.376	0	0	0.253	-0.253	0	0
194			4	-12.375	-0.004	0	0.19	-0.19	0	0
195			5	-12.373	-0.008	0	0	0	0	0
196	1	M40	1	-6.911	0.008	0	0	0	0	0
197			2	-6.909	0.004	0	0.19	-0.19	0	0
198			3	-6.908	0	0	0.253	-0.253	0	0
199			4	-6.906	-0.004	0	0.19	-0.19	0	0
200			5	-6.904	-0.008	0	0	0	0	0
201	1	M41	1	-1.528	0.008	0	0	0	0	0
202			2	-1.526	0.004	0	0.19	-0.19	0	0
203			3	-1.524	0	0	0.253	-0.253	0	0
204			4	-1.523	-0.004	0	0.19	-0.19	0	0
205			5	-1.521	-0.008	0	0	0	0	0
206	1	M42	1	-3.037	0.008	0	0	0	0	0
207			2	-3.035	0.004	0	0.19	-0.19	0	0
208			3	-3.034	0	0	0.253	-0.253	0	0
209			4	-3.032	-0.004	0	0.19	-0.19	0	0
210			5	-3.03	-0.008	0	0	0	0	0
211	1	M43	1	-7.419	0.008	0	0	0	0	0
212			2	-7.418	0.004	0	0.19	-0.19	0	0
213			3	-7.416	0	0	0.253	-0.253	0	0
214			4	-7.414	-0.004	0	0.19	-0.19	0	0
215			5	-7.413	-0.008	0	0	0	0	0
216	1	M44	1	-11.888	0.008	0	0	0	0	0
217			2	-11.886	0.004	0	0.19	-0.19	0	0
218			3	-11.885	0	0	0.253	-0.253	0	0



Company : Broderick Engineering LLC
 Designer : RMW
 Job Number : 20097
 Model Name : Santa Cruz Boys & Girls Club -...

Checked By : _____

Member Section Stresses (Continued)

LC	Member L...	Sec	Axial [ksi]	y Shear [ksi]	z Shear [ksi]	y top Ben...	y bot Ben...	z top Ben...	z bot Ben...
219		4	-11.883	-0.004	0	0.19	-0.19	0	0
220		5	-11.881	-0.008	0	0	0	0	0
221	1	M45	-16.278	0.008	0	0	0	0	0
222		2	-16.276	0.004	0	0.19	-0.19	0	0
223		3	-16.274	0	0	0.253	-0.253	0	0
224		4	-16.273	-0.004	0	0.19	-0.19	0	0
225		5	-16.271	-0.008	0	0	0	0	0

Asd360

LC	Member	Shape	UC Max	Loc [ft]	Shear...	Loc [ft]	Dir	Pnc/o...	Pnt/o...	Mnyy/...	Mnzz/...	Cb	Eqn	
1	1	M1	LL2.5x...	0.509	3.25	0.043	3.25	y	33.762	38.802	2.196	1.06	1	H1-1a
2	1	M2	LL2.5x...	0.708	0	0.039	0	y	33.762	38.802	2.196	1.06	1	H1-1a
3	1	M3	LL2.5x...	0.722	0	0.036	0	y	33.762	38.802	2.196	1.06	1	H1-1a
4	1	M4	LL2.5x...	0.848	1.659	0.035	0	y	33.762	38.802	2.196	1.696	1	H1-1a
5	1	M5	LL2.5x...	0.920	1.625	0.035	0	y	33.762	38.802	2.196	1.696	1	H1-1a
6	1	M6	LL2.5x...	0.929	1.591	0.036	3.25	y	33.762	38.802	2.196	1.696	1	H1-1a
7	1	M7	LL2.5x...	0.928	1.659	0.036	0	y	33.762	38.802	2.196	1.696	1	H1-1a
8	1	M8	LL2.5x...	0.902	1.625	0.035	3.25	y	33.762	38.802	2.196	1.696	1	H1-1a
9	1	M9	LL2.5x...	0.827	1.625	0.035	3.25	y	33.762	38.802	2.196	1.696	1	H1-1a
10	1	M10	LL2.5x...	0.709	3.25	0.036	3.25	y	33.762	38.802	2.196	1.06	1	H1-1a
11	1	M11	LL2.5x...	0.697	3.25	0.039	3.25	y	33.762	38.802	2.196	1.06	1	H1-1a
12	1	M12	LL2.5x...	0.503	0	0.043	0	y	33.762	38.802	2.196	1.06	1	H1-1a
13	1	M13	LL2x2...	0.308	3.25	0.002	0	y	25.093	31.042	1.429	0.677	1	H1-1a
14	1	M14	LL2x2...	0.564	3.25	0.002	0	y	25.093	31.042	1.429	0.677	1	H1-1a
15	1	M15	LL2x2...	0.751	2.133	0.001	0	y	25.093	31.042	1.429	0.677	1	H1-1a
16	1	M16	LL2x2...	0.890	2.201	0.001	0	y	25.093	31.042	1.429	0.677	1	H1-1a
17	1	M17	LL2x2...	0.959	0.745	0.001	3.25	y	25.093	31.042	1.429	0.677	1	H1-1a
18	1	M18	LL2x2...	0.939	2.234	0.001	0	y	25.093	31.042	1.429	0.677	1	H1-1a
19	1	M19	LL2x2...	0.863	1.049	0.001	3.25	y	25.093	31.042	1.429	0.677	1	H1-1a
20	1	M20	LL2x2...	0.732	1.388	0.001	3.25	y	25.093	31.042	1.429	0.677	1	H1-1a
21	1	M21	LL2x2...	0.553	0	0.002	3.25	y	25.093	31.042	1.429	0.677	1	H1-1a
22	1	M22	LL2x2...	0.302	0	0.002	3.25	y	25.093	31.042	1.429	0.677	1	H1-1a
23	1	M23	LL1.5...	0.346	1.908	0.001	3.816	y	17.137	29.641	1.103	0.481	1	H1-1a
24	1	M24	LL1.5...	0.339	1.908	0.001	3.816	y	17.137	29.641	1.103	0.481	1	H1-1a
25	1	M25	LL1.25...	0.339	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1a
26	1	M26	LL1.25...	0.273	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1a
27	1	M27	LL1.25...	0.222	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1a
28	1	M28	LL1.25...	0.166	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1b*
29	1	M29	LL1.25...	0.097	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1b*
30	1	M30	LL1.25...	0.065	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1b*
31	1	M31	LL1.25...	0.103	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1b*
32	1	M32	LL1.25...	0.159	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1b*
33	1	M33	LL1.25...	0.215	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1a
34	1	M34	LL1.25...	0.267	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1a
35	1	M35	LL1.25...	0.333	2	0.000	2	y	15.131	18.74	0.574	0.408	1	H1-1a
36	1	M36	2X1/4	0.738	1.868	0.001	3.816	y	0.187	10.778	0.056	0.348	1.136	H1-1a
37	1	M37	2X1/4	0.721	1.868	0.001	3.816	y	0.187	10.778	0.056	0.348	1.136	H1-1a
38	1	M38	1.5X1/4	0.787	1.908	0.001	3.816	y	0.14	8.084	0.042	0.219	1.136	H1-1a
39	1	M39	1.5X1/4	0.582	1.908	0.001	3.816	y	0.14	8.084	0.042	0.219	1.136	H1-1a
40	1	M40	1.5X1/4	0.328	1.908	0.001	3.816	y	0.14	8.084	0.042	0.219	1.136	H1-1a
41	1	M41	1.5X1/4	0.044	1.908	0.001	3.816	y	0.14	8.084	0.042	0.219	1.136	H1-1b
42	1	M42	1.5X1/4	0.079	1.908	0.001	3.816	y	0.14	8.084	0.042	0.219	1.136	H1-1b
43	1	M43	1.5X1/4	0.352	1.908	0.001	3.816	y	0.14	8.084	0.042	0.219	1.136	H1-1a
44	1	M44	1.5X1/4	0.559	1.908	0.001	3.816	y	0.14	8.084	0.042	0.219	1.136	H1-1a
45	1	M45	1.5X1/4	0.763	1.908	0.001	3.816	y	0.14	8.084	0.042	0.219	1.136	H1-1a

DB1 -

$$l = 25'-0''$$

$$DL = 10 \times 40\frac{1}{2} = 200 \text{ pIF}$$

$$A = 25' \times 40\frac{1}{2} = 500 \text{ ft}^2$$

$$LLr = 14 \times 40\frac{1}{2} = 280 \text{ pIF}$$

$$P_{\text{mech}} = 400\frac{1}{2} = 200^{\#} @ 8'-0'' \& 21'-0''$$

(E) GLB $5\frac{1}{8} \times 13\frac{1}{2}$ NG

- SEE PRINTOUT

DB2 -

$$l = 20'-0''$$

$$DL = -10\frac{1}{2} + 16 \times 1' = -37 \text{ pIF}$$

$$LLr = -26\frac{1}{2} + 20 \times 1' = -112 \text{ pIF}$$

(E) 2×12 NG

- SEE PRINTOUT

Wood Beam

\\NAS-TUCSON\AmazonCloudDrive\BX3WMS-T\T4094B-7\25FAKC-C\22EAPO-5\EHTEC6-Q\20097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DB1

CODE REFERENCES

Calculations per NDS 2012, IBC 2012, CBC 2013, ASCE 7-10
Load Combination Set : IBC 2012

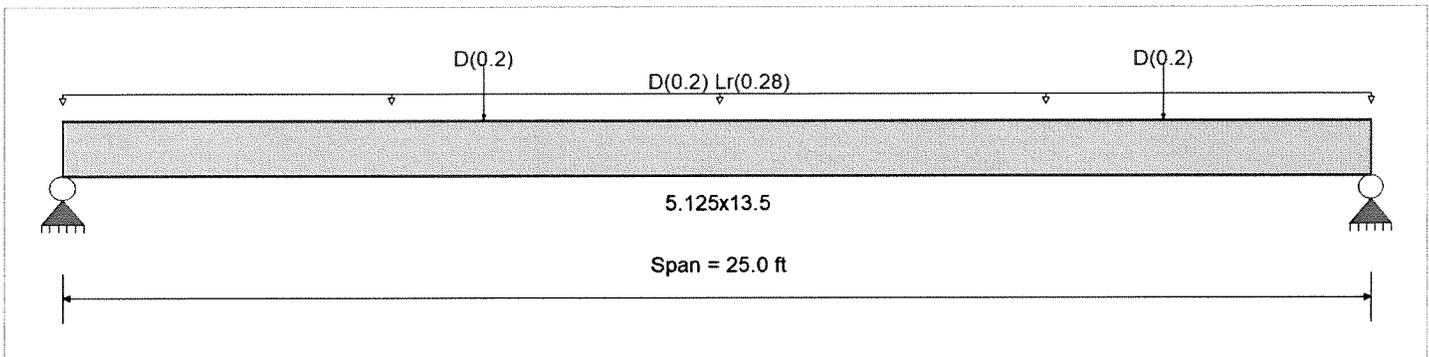
Material Properties

Analysis Method : Allowable Stress Design
Load Combination IBC 2012

Wood Species : DF/DF
Wood Grade : 24F-V8

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	2,400.0 psi	E : Modulus of Elasticity	
Fb -	2,400.0 psi	Ebend- xx	1,800.0 ksi
Fc - Prll	1,650.0 psi	Eminbend - xx	950.0 ksi
Fc - Perp	650.0 psi	Ebend- yy	1,600.0 ksi
Fv	265.0 psi	Eminbend - yy	850.0 ksi
Ft	1,100.0 psi	Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loads
Uniform Load : D = 0.20, Lr = 0.280, Tributary Width = 1.0 ft
Point Load : D = 0.20 k @ 8.0 ft
Point Load : D = 0.20 k @ 21.0 ft

DESIGN SUMMARY

Design N.G.

Maximum Bending Stress Ratio	=	1.055 : 1	Maximum Shear Stress Ratio	=	0.385 : 1
Section used for this span	=	5.125x13.5	Section used for this span	=	5.125x13.5
	=	3,073.57 psi		=	127.42 psi
	=	2,913.63 psi		=	331.25 psi
Load Combination	=	+D+Lr+H	Load Combination	=	+D+Lr+H
Location of maximum on span	=	12.409 ft	Location of maximum on span	=	23.905 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1
Maximum Deflection					
Max Downward Transient Deflection		1.309 in	Ratio =		229 < 240
Max Upward Transient Deflection		0.000 in	Ratio =		0 < 240
Max Downward Total Deflection		2.391 in	Ratio =		125 < 180
Max Upward Total Deflection		0.000 in	Ratio =		0 < 180

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Max Stress Ratios										Moment Values			Shear Values			
		Span #	M	V	C _d	C _{F/V}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	fv	F'v	
+D+H	Length = 25.0 ft	1	0.661	0.244	0.90	0.971	1.00	1.00	1.00	1.00	1.00	18.00	1,387.44	2097.81	0.00	0.00	0.00	238.50
+D+L+H	Length = 25.0 ft	1	0.595	0.220	1.00	0.971	1.00	1.00	1.00	1.00	1.00	18.00	1,387.44	2330.90	0.00	0.00	0.00	265.00
+D+Lr+H	Length = 25.0 ft	1	1.055	0.385	1.25	0.971	1.00	1.00	1.00	1.00	1.00	39.87	3,073.57	2913.63	0.00	0.00	0.00	331.25
+D+S+H	Length = 25.0 ft	1	0.518	0.191	1.15	0.971	1.00	1.00	1.00	1.00	1.00	18.00	1,387.44	2680.54	0.00	0.00	0.00	304.75
+D+0.750Lr+0.750L+H	Length = 25.0 ft	1	0.910	0.332	1.25	0.971	1.00	1.00	1.00	1.00	1.00	34.40	2,652.03	2913.63	0.00	0.00	0.00	331.25
+D+0.750L+0.750S+H						0.971	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00	

Wood Beam

3 = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS-TT4094B-7125FAKC-C122EAPO-5IEHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DB1

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values		
			M	V	C _d	C _{FN}	C _i	C _r	C _m	C _t	C _L	M	fb	F'b	V	f _v	F _v
Length = 25.0 ft	1	0.518	0.191	1.15	0.971	1.00	1.00	1.00	1.00	1.00	18.00	1,387.44	2680.54	2.68	58.19	304.75	
+D+0.60W+H					0.971	1.00	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 25.0 ft	1	0.372	0.137	1.60	0.971	1.00	1.00	1.00	1.00	1.00	18.00	1,387.44	3729.44	2.68	58.19	424.00	
+D+0.70E+H					0.971	1.00	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 25.0 ft	1	0.372	0.137	1.60	0.971	1.00	1.00	1.00	1.00	1.00	18.00	1,387.44	3729.44	2.68	58.19	424.00	
+D+0.750Lr+0.750L+0.450W+H					0.971	1.00	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 25.0 ft	1	0.711	0.260	1.60	0.971	1.00	1.00	1.00	1.00	1.00	34.40	2,652.03	3729.44	5.08	110.12	424.00	
+D+0.750L+0.750S+0.450W+H					0.971	1.00	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 25.0 ft	1	0.372	0.137	1.60	0.971	1.00	1.00	1.00	1.00	1.00	18.00	1,387.44	3729.44	2.68	58.19	424.00	
+D+0.750L+0.750S+0.5250E+H					0.971	1.00	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 25.0 ft	1	0.372	0.137	1.60	0.971	1.00	1.00	1.00	1.00	1.00	18.00	1,387.44	3729.44	2.68	58.19	424.00	
+0.60D+0.60W+0.60H					0.971	1.00	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 25.0 ft	1	0.223	0.082	1.60	0.971	1.00	1.00	1.00	1.00	1.00	10.80	832.46	3729.44	1.61	34.91	424.00	
+0.60D+0.70E+0.60H					0.971	1.00	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 25.0 ft	1	0.223	0.082	1.60	0.971	1.00	1.00	1.00	1.00	1.00	10.80	832.46	3729.44	1.61	34.91	424.00	

Overall Maximum Deflections

Load Combination	Span	Max. "+" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H	1	2.3909	12.500		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	6.355	6.419
Overall MINimum	3.500	3.500
+D+H	2.855	2.919
+D+L+H	2.855	2.919
+D+Lr+H	6.355	6.419
+D+S+H	2.855	2.919
+D+0.750Lr+0.750L+H	5.480	5.544
+D+0.750L+0.750S+H	2.855	2.919
+D+0.60W+H	2.855	2.919
+D+0.70E+H	2.855	2.919
+D+0.750Lr+0.750L+0.450W+H	5.480	5.544
+D+0.750L+0.750S+0.450W+H	2.855	2.919
+D+0.750L+0.750S+0.5250E+H	2.855	2.919
+0.60D+0.60W+0.60H	1.713	1.752
+0.60D+0.70E+0.60H	1.713	1.752
D Only	2.855	2.919
Lr Only	3.500	3.500
L Only		
S Only		
W Only		
E Only		
H Only		

Wood Beam

3 = IINAS-TUCSONAmazonCloudDrive\BX3WMS-T1T4094B-7125FAKC-C122EAP0-5IEHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

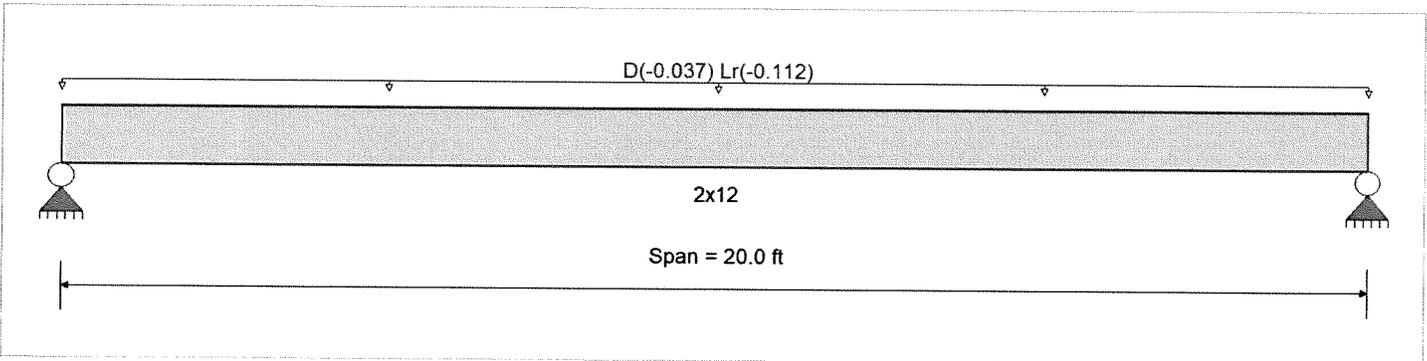
DESCRIPTION: DB2

CODE REFERENCES

Calculations per NDS 2012, IBC 2012, CBC 2013, ASCE 7-10
Load Combination Set : IBC 2012

Material Properties

Analysis Method : Allowable Stress Design	Fb +	1,000.0 psi	E : Modulus of Elasticity
Load Combination IBC 2012	Fb -	1,000.0 psi	Ebend- xx
	Fc - Prll	1,500.0 psi	Eminbend - xx
Wood Species : Douglas Fir-Larch	Fc - Perp	625.0 psi	
Wood Grade : No.1	Fv	180.0 psi	Density
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling	Ft	675.0 psi	31.210pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loads
Uniform Load : D = -0.0370, Lr = -0.1120, Tributary Width = 1.0 ft

DESIGN SUMMARY

				Design N.G.			
Maximum Bending Stress Ratio	=	2.205	1	Maximum Shear Stress Ratio	=	0.524	1
Section used for this span	=	2x12		Section used for this span	=	2x12	
	=	2,756.13 psi			=	117.88 psi	
	=	1,250.00 psi			=	225.00 psi	
Load Combination	=	+D+Lr+H		Load Combination	=	+D+Lr+H	
Location of maximum on span	=	10.000ft		Location of maximum on span	=	0.000ft	
Span # where maximum occurs	=	Span # 1		Span # where maximum occurs	=	Span # 1	
Maximum Deflection							
Max Downward Transient Deflection		0.000 in	Ratio = 0 < 240				
Max Upward Transient Deflection		-1.340 in	Ratio = 179 < 240				
Max Downward Total Deflection		0.000 in	Ratio = 0 < 180				
Max Upward Total Deflection		-1.739 in	Ratio = 137 < 180				

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values					
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	f _b	F _b	V	f _v	F _v			
+D+H	Length = 20.0 ft	1	0.703	0.167	0.90	1.000	1.00	1.00	1.00	1.00	1.00	1.67	632.27	900.00	0.00	0.00	0.00	0.00	0.00	162.00
+D+L+H	Length = 20.0 ft	1	0.632	0.150	1.00	1.000	1.00	1.00	1.00	1.00	1.00	1.67	632.27	1000.00	0.00	0.00	0.00	0.00	0.00	0.00
+D+Lr+H	Length = 20.0 ft	1	2.205	0.524	1.25	1.000	1.00	1.00	1.00	1.00	1.00	7.27	2,756.13	1250.00	0.00	0.00	0.00	0.00	0.00	180.00
+D+S+H	Length = 20.0 ft	1	0.550	0.131	1.15	1.000	1.00	1.00	1.00	1.00	1.00	1.67	632.27	1150.00	0.00	0.00	0.00	0.00	0.00	0.00
+D+0.750Lr+0.750L+H	Length = 20.0 ft	1	1.780	0.423	1.25	1.000	1.00	1.00	1.00	1.00	1.00	5.87	2,225.16	1250.00	0.00	0.00	0.00	0.00	0.00	207.00
+D+0.750L+0.750S+H	Length = 20.0 ft	1	0.550	0.131	1.15	1.000	1.00	1.00	1.00	1.00	1.00	1.67	632.27	1150.00	0.00	0.00	0.00	0.00	0.00	0.00
+D+0.60W+H						1.000	1.00	1.00	1.00	1.00	1.00			0.00		0.00	0.00	0.00	0.00	0.00

Wood Beam

3 = I:\NAS-TUCSON\AmazonCloudDrive\BX3WMS-TT4094B-7125FAKC-C122EAP0-51EHTEC6-Q120097.ec6

Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

BRODERICK ENGINEERING LLC

Lic. #: KW-06008386

DESCRIPTION: DB2

Load Combination	Segment Length	Span #	Max Stress Ratios									Moment Values			Shear Values		
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	f _b	F _b	V	f _v	F _v
Length = 20.0 ft	1		0.395	0.094	1.60	1.000	1.00	1.00	1.00	1.00	1.00	1.67	632.27	1600.00	0.30	27.04	288.00
+D+0.70E+H						1.000	1.00	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00
Length = 20.0 ft	1		0.395	0.094	1.60	1.000	1.00	1.00	1.00	1.00	1.67	632.27	1600.00	0.30	27.04	288.00	
+D+0.750Lr+0.750L+0.450W+H						1.000	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 20.0 ft	1		1.391	0.330	1.60	1.000	1.00	1.00	1.00	1.00	5.87	2,225.16	1600.00	1.07	95.17	288.00	
+D+0.750L+0.750S+0.450W+H						1.000	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 20.0 ft	1		0.395	0.094	1.60	1.000	1.00	1.00	1.00	1.00	1.67	632.27	1600.00	0.30	27.04	288.00	
+D+0.750L+0.750S+0.5250E+H						1.000	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 20.0 ft	1		0.395	0.094	1.60	1.000	1.00	1.00	1.00	1.00	1.67	632.27	1600.00	0.30	27.04	288.00	
+0.60D+0.60W+0.60H						1.000	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 20.0 ft	1		0.237	0.056	1.60	1.000	1.00	1.00	1.00	1.00	1.00	379.36	1600.00	0.18	16.23	288.00	
+0.60D+0.70E+0.60H						1.000	1.00	1.00	1.00	1.00		0.00		0.00	0.00	0.00	
Length = 20.0 ft	1		0.237	0.056	1.60	1.000	1.00	1.00	1.00	1.00	1.00	379.36	1600.00	0.18	16.23	288.00	

Overall Maximum Deflections

Load Combination	Span	Max. "+" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
	1	0.0000	0.000	+D+Lr+H	-1.7394	10.073

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2
Overall MAXimum	-1.453	-1.453
Overall MINimum	-0.333	-0.333
+D+H	-0.333	-0.333
+D+L+H	-0.333	-0.333
+D+Lr+H	-1.453	-1.453
+D+S+H	-0.333	-0.333
+D+0.750Lr+0.750L+H	-1.173	-1.173
+D+0.750L+0.750S+H	-0.333	-0.333
+D+0.60W+H	-0.333	-0.333
+D+0.70E+H	-0.333	-0.333
+D+0.750Lr+0.750L+0.450W+H	-1.173	-1.173
+D+0.750L+0.750S+0.450W+H	-0.333	-0.333
+D+0.750L+0.750S+0.5250E+H	-0.333	-0.333
+0.60D+0.60W+0.60H	-0.200	-0.200
+0.60D+0.70E+0.60H	-0.200	-0.200
D Only	-0.333	-0.333
Lr Only	-1.120	-1.120
L Only		
S Only		
W Only		
E Only		
H Only		

DECK 1 - STEEL JOISTS

$$l = 7'-6" \quad (2\text{-SPAN MIN})$$

$$DL = (20-4) \times \frac{6}{12} = 8 \text{ PIF}$$

$$LLr = 20 \times \frac{6}{12} = 10 \text{ PIF}$$

$$PLlr = \frac{300}{2.5'} \times \frac{6}{12} = 60^{\#} @ 3'-9" \text{ (CONTROLS)}$$

(E) 2x T&G DECKING OK

- SEE PRINTOUT

Wood Beam

Path: \\NAS-TUCSON\AmazonCloudDrive\BX3WMS-TT4094B-7125FAK-C12EAP0-51EHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

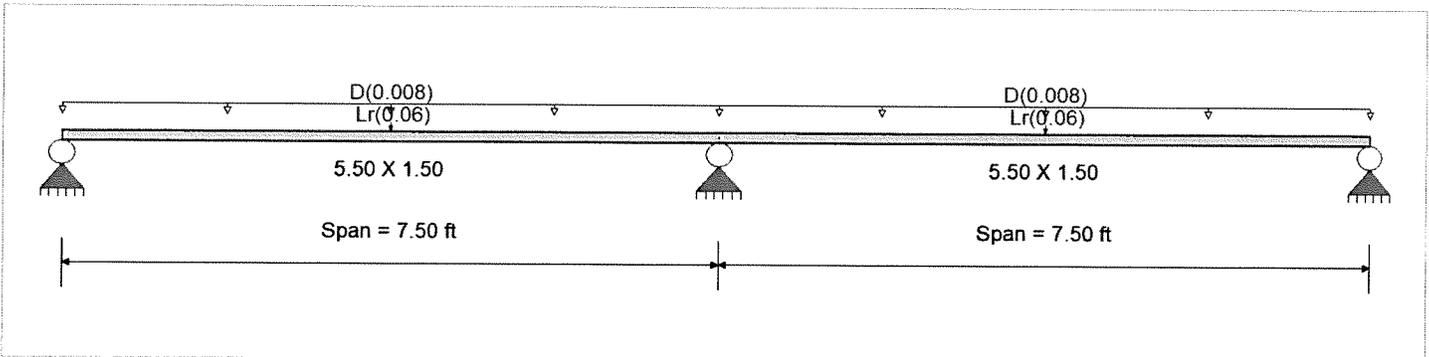
DESCRIPTION: DDeck1

CODE REFERENCES

Calculations per NDS 2012, IBC 2012, CBC 2013, ASCE 7-10
Load Combination Set : ASCE 7-10

Material Properties

Analysis Method : Allowable Stress Design	Fb +	900.0 psi	E : Modulus of Elasticity
Load Combination ASCE 7-10	Fb -	900.0 psi	Ebend-xx
	Fc - Prll	1,350.0 psi	Eminbend -xx
Wood Species : Douglas Fir-Larch	Fc - Perp	625.0 psi	
Wood Grade : No.2	Fv	180.0 psi	Density
	Ft	575.0 psi	31.210pcf
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling			



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Load for Span Number 1
Uniform Load : D = 0.0080 , Tributary Width = 1.0 ft
Point Load : Lr = 0.060 k @ 3.750 ft
Load for Span Number 2
Uniform Load : D = 0.0080 , Tributary Width = 1.0 ft
Point Load : Lr = 0.060 k @ 3.750 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.559 < 1	Maximum Shear Stress Ratio	=	0.063 < 1
Section used for this span	=	5.50 X 1.50	Section used for this span	=	5.50 X 1.50
	=	818.18psi		=	14.20 psi
	=	1,462.50psi		=	225.00 psi
Load Combination	=	+D+Lr+H, LL Comb Run (LL)	Load Combination	=	+D+Lr+H, LL Comb Run (LL)
Location of maximum on span	=	7.500ft	Location of maximum on span	=	7.500 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1
Maximum Deflection					
Max Downward Transient Deflection		0.268 in	Ratio =		336 >= 240
Max Upward Transient Deflection		-0.108 in	Ratio =		834 >= 240
Max Downward Total Deflection		0.363 in	Ratio =		248 >= 180
Max Upward Total Deflection		-0.050 in	Ratio =		1783 >= 180

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Max Stress Ratios								Moment Values			Shear Values						
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	f _b	F'b	V	f _v	F _v			
+D+H	Length = 7.50 ft	1	0.311	0.041	0.90	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1053.00	0.00	0.00	0.00	0.04	6.70	162.00
	Length = 7.50 ft	2	0.311	0.041	0.90	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1053.00	0.00	0.00	0.00	0.04	6.70	162.00
+D+L+H, LL Comb Run (*L)	Length = 7.50 ft	1	0.280	0.037	1.00	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1170.00	0.00	0.00	0.00	0.04	6.70	180.00
	Length = 7.50 ft	2	0.280	0.037	1.00	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1170.00	0.00	0.00	0.00	0.04	6.70	180.00
+D+L+H, LL Comb Run (L*)	Length = 7.50 ft	1	0.280	0.037	1.00	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1170.00	0.00	0.00	0.00	0.04	6.70	180.00
	Length = 7.50 ft	2	0.280	0.037	1.00	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1170.00	0.00	0.00	0.00	0.04	6.70	180.00

Wood Beam

3 = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS-T1T4094B-725FAKC-C122EAPO-5IEHTEC6-Q120097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DDeck1

Load Combination		Max Stress Ratios										Moment Values			Shear Values		
Segment	Length	Span #	M	V	C _d	C _{FN}	C _i	C _r	C _m	C _t	C _L	M	f _b	F _b	V	f _v	F _v
+D+L+H, LL Comb Run (LL)																	
Length = 7.50 ft	1	0.280	0.037	1.00	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1170.00	0.04	6.70	180.00
Length = 7.50 ft	2	0.280	0.037	1.00	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1170.00	0.04	6.70	180.00
+D+Lr+H, LL Comb Run (*L)																	
Length = 7.50 ft	1	0.392	0.059	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.10	572.73	1462.50	0.07	13.17	225.00
Length = 7.50 ft	2	0.474	0.059	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.12	693.39	1462.50	0.07	13.17	225.00
+D+Lr+H, LL Comb Run (L*)																	
Length = 7.50 ft	1	0.474	0.059	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.12	693.39	1462.50	0.07	13.17	225.00
Length = 7.50 ft	2	0.392	0.059	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.10	572.73	1462.50	0.04	13.17	225.00
+D+Lr+H, LL Comb Run (LL)																	
Length = 7.50 ft	1	0.559	0.063	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.14	818.18	1462.50	0.08	14.20	225.00
Length = 7.50 ft	2	0.559	0.063	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.14	818.18	1462.50	0.08	14.20	225.00
+D+S+H																	
Length = 7.50 ft	1	0.243	0.032	1.15	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1345.50	0.04	6.70	207.00
Length = 7.50 ft	2	0.243	0.032	1.15	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1345.50	0.04	6.70	207.00
+D+0.750Lr+0.750L+H, LL Comb R																	
Length = 7.50 ft	1	0.350	0.051	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.09	511.36	1462.50	0.06	11.55	225.00
Length = 7.50 ft	2	0.384	0.051	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.10	561.18	1462.50	0.06	11.55	225.00
+D+0.750Lr+0.750L+H, LL Comb R																	
Length = 7.50 ft	1	0.384	0.051	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.10	561.18	1462.50	0.06	11.55	225.00
Length = 7.50 ft	2	0.350	0.051	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.09	511.36	1462.50	0.04	11.55	225.00
+D+0.750Lr+0.750L+H, LL Comb R																	
Length = 7.50 ft	1	0.476	0.055	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.12	695.45	1462.50	0.07	12.32	225.00
Length = 7.50 ft	2	0.476	0.055	1.25	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.12	695.45	1462.50	0.07	12.32	225.00
+D+0.750L+0.750S+H, LL Comb R																	
Length = 7.50 ft	1	0.243	0.032	1.15	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1345.50	0.04	6.70	207.00
Length = 7.50 ft	2	0.243	0.032	1.15	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1345.50	0.04	6.70	207.00
+D+0.750L+0.750S+H, LL Comb R																	
Length = 7.50 ft	1	0.243	0.032	1.15	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1345.50	0.04	6.70	207.00
Length = 7.50 ft	2	0.243	0.032	1.15	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1345.50	0.04	6.70	207.00
+D+0.750L+0.750S+H, LL Comb R																	
Length = 7.50 ft	1	0.243	0.032	1.15	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1345.50	0.04	6.70	207.00
Length = 7.50 ft	2	0.243	0.032	1.15	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1345.50	0.04	6.70	207.00
+D+0.60W+H																	
Length = 7.50 ft	1	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
Length = 7.50 ft	2	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
+D+0.70E+H																	
Length = 7.50 ft	1	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
Length = 7.50 ft	2	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
+D+0.750Lr+0.750L+0.450W+H, LL																	
Length = 7.50 ft	1	0.273	0.040	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.09	511.36	1872.00	0.06	11.55	288.00
Length = 7.50 ft	2	0.300	0.040	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.10	561.18	1872.00	0.06	11.55	288.00
+D+0.750Lr+0.750L+0.450W+H, LL																	
Length = 7.50 ft	1	0.300	0.040	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.10	561.18	1872.00	0.06	11.55	288.00
Length = 7.50 ft	2	0.273	0.040	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.09	511.36	1872.00	0.04	11.55	288.00
+D+0.750Lr+0.750L+0.450W+H, LL																	
Length = 7.50 ft	1	0.372	0.043	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.12	695.45	1872.00	0.07	12.32	288.00
Length = 7.50 ft	2	0.372	0.043	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.12	695.45	1872.00	0.07	12.32	288.00
+D+0.750L+0.750S+0.450W+H, LL																	
Length = 7.50 ft	1	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
Length = 7.50 ft	2	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
+D+0.750L+0.750S+0.450W+H, LL																	
Length = 7.50 ft	1	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
Length = 7.50 ft	2	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
+D+0.750L+0.750S+0.450W+H, LL																	
Length = 7.50 ft	1	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
Length = 7.50 ft	2	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
+D+0.750L+0.750S+0.5250E+H, LL																	
Length = 7.50 ft	1	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
Length = 7.50 ft	2	0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00

Wood Beam

\\NAS-TUCSON\AmazonCloudDrive\BX3\WMS-T\T4\094B-7\25FAKC-C\22EAP0-5\EHTEC6-Q\20097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DDeck1

Load Combination	Segment Length	Span #	Max Stress Ratios								Moment Values			Shear Values			
			M	V	C _d	C _{FV}	C _i	C _r	C _m	C _t	C _L	M	fb	Fb	V	fv	Fv
+D+0.750L+0.750S+0.5250E+H, LL						1.300	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 7.50 ft	1		0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
Length = 7.50 ft	2		0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
+D+0.750L+0.750S+0.5250E+H, LL						1.300	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 7.50 ft	1		0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
Length = 7.50 ft	2		0.175	0.023	1.60	1.300	1.00	1.00	1.00	1.00	1.00	0.06	327.27	1872.00	0.04	6.70	288.00
+0.60D+0.60W+0.60H						1.300	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 7.50 ft	1		0.105	0.014	1.60	1.300	1.00	1.00	1.00	1.00	1.00	0.03	196.36	1872.00	0.02	4.02	288.00
Length = 7.50 ft	2		0.105	0.014	1.60	1.300	1.00	1.00	1.00	1.00	1.00	0.03	196.36	1872.00	0.02	4.02	288.00
+0.60D+0.70E+0.60H						1.300	1.00	1.00	1.00	1.00	1.00			0.00	0.00	0.00	0.00
Length = 7.50 ft	1		0.105	0.014	1.60	1.300	1.00	1.00	1.00	1.00	1.00	0.03	196.36	1872.00	0.02	4.02	288.00
Length = 7.50 ft	2		0.105	0.014	1.60	1.300	1.00	1.00	1.00	1.00	1.00	0.03	196.36	1872.00	0.02	4.02	288.00

Overall Maximum Deflections

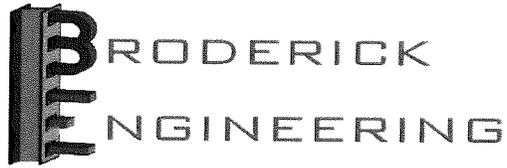
Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr+H, LL Comb Run (L*)	1	0.3628	3.520		0.0000	0.000
+D+Lr+H, LL Comb Run (*L)	2	0.3610	4.022	Lr Only, LL Comb Run (L*)	-0.0031	0.042

Vertical Reactions

Support notation : Far left is #1

Values in KIPS

Load Combination	Support 1	Support 2	Support 3
Overall MAXimum	0.047	0.157	0.047
Overall MINimum	0.019	0.082	0.019
+D+H	0.023	0.075	0.023
+D+L+H, LL Comb Run (*L)	0.023	0.075	0.023
+D+L+H, LL Comb Run (L*)	0.023	0.075	0.023
+D+L+H, LL Comb Run (LL)	0.023	0.075	0.023
+D+Lr+H, LL Comb Run (*L)	0.017	0.116	0.047
+D+Lr+H, LL Comb Run (L*)	0.047	0.116	0.017
+D+Lr+H, LL Comb Run (LL)	0.041	0.157	0.041
+D+S+H	0.023	0.075	0.023
+D+0.750Lr+0.750L+H, LL Comb Run (*)	0.018	0.106	0.041
+D+0.750Lr+0.750L+H, LL Comb Run (L)	0.041	0.106	0.018
+D+0.750Lr+0.750L+H, LL Comb Run (L)	0.037	0.137	0.037
+D+0.750L+0.750S+H, LL Comb Run (*L)	0.023	0.075	0.023
+D+0.750L+0.750S+H, LL Comb Run (L*)	0.023	0.075	0.023
+D+0.750L+0.750S+H, LL Comb Run (LL)	0.023	0.075	0.023
+D+0.60W+H	0.023	0.075	0.023
+D+0.70E+H	0.023	0.075	0.023
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.018	0.106	0.041
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.041	0.106	0.018
+D+0.750Lr+0.750L+0.450W+H, LL Comb	0.037	0.137	0.037
+D+0.750L+0.750S+0.450W+H, LL Comb	0.023	0.075	0.023
+D+0.750L+0.750S+0.450W+H, LL Comb	0.023	0.075	0.023
+D+0.750L+0.750S+0.450W+H, LL Comb	0.023	0.075	0.023
+D+0.750L+0.750S+0.450W+H, LL Comb	0.023	0.075	0.023
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.023	0.075	0.023
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.023	0.075	0.023
+D+0.750L+0.750S+0.5250E+H, LL Comb	0.023	0.075	0.023
+0.60D+0.60W+0.60H	0.014	0.045	0.014
+0.60D+0.70E+0.60H	0.014	0.045	0.014
D Only	0.023	0.075	0.023
Lr Only, LL Comb Run (*L)	-0.006	0.041	0.024
Lr Only, LL Comb Run (L*)	0.024	0.041	-0.006
Lr Only, LL Comb Run (LL)	0.019	0.082	0.019
L Only, LL Comb Run (*L)			
L Only, LL Comb Run (L*)			
L Only, LL Comb Run (LL)			
S Only			
W Only			
E Only			
H Only			



PROJECT: Santa Cruz Boys & Girls Club

SHEET NO: 536

JOB NO 20097

DATE: Apr-20

BY: RMW

Description:

DL1 - EXISTING ROOF BEARING

Uniform Loads

Dead load = 100 lb/ft

Live Load = 200 lb/ft

Lateral Load = 200 lb/ft

Wood Ledger

Width = 1.5 in

Depth = 11.3 in

Anchor bolt

Diameter = 5/8 in

Spacing = 48 in

Load Combinations

Dead + Live

Vertical Force = 1200 lbs

Allowable Force = 663 lbs **N.G.**

Dead + Live + Short Term

Vertical Force = 1200 lbs

Horizontal Force = 800 lbs

Resultant Force = 1442 lbs

Angle of Resultant = 56.3 Deg

Allow Diagonal force = 977 lbs **N.G**

Bolt values for (Douglas Fir-Larch)

Parallel = 930 lbs

Perpendicular = 530 lbs

Duration factors

Dead + live load = 1.25

Dead + Short Term = 1.6

Dead + Live + Short Term = 1.6 (applies for Floor load)

Dead + Short Term

Vertical Force = 400 lbs

Horizontal Force = 800 lbs

Resultant Force = 894 lbs

Angle of Resultant = 26.6 Deg

Allow Diagonal force = 1293 lbs **OK**

DC1 -

$$H = 15'-0"$$

$$OL = 16 \times 50\frac{1}{2} \times 40\frac{1}{2} = 8000 \#$$

$$A = 50\frac{1}{2} \times 40\frac{1}{2} = 500 \text{ ft}^2$$

$$LL_r = 14 \times 50\frac{1}{2} \times 40\frac{1}{2} = 7000 \#$$

(E) 6" ϕ STD PIPE COLUMN OK

- SEE PRINTOUT

Steel Column

\\NAS-TUCSON\AmazonCloudDrive\BX3\WMS-TYT4094B-7125FAKC-C122EAP0-5IEHTEC6-Q120097.ec6

Software copyright ENERCALC, INC. 1983-2020, Build:12.20.2.28

BRODERICK ENGINEERING LLC

Lic. #: KW-06008386

DESCRIPTION: DC1

Code References

Calculations per AISC 360-10, IBC 2012, CBC 2013, ASCE 7-10
Load Combinations Used : ASCE 7-10

General Information

Steel Section Name :	Pipe6STD	Overall Column Height	15.0 ft
Analysis Method :	Allowable Strength	Top & Bottom Fixity	Top & Bottom Pinned
Steel Stress Grade		Brace condition for deflection (buckling) along columns :	
Fy : Steel Yield	35.0 ksi	X-X (width) axis :	
E : Elastic Bending Modulus	29,000.0 ksi	Unbraced Length for buckling ABOUT Y-Y Axis =	15.0 ft, K = 1.0
		Y-Y (depth) axis :	
		Unbraced Length for buckling ABOUT X-X Axis =	15.0 ft, K = 1.0

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 285.0 lbs * Dead Load Factor

AXIAL LOADS . . .

Axial Load at 15.0 ft, D = 8.0, LR = 7.0 k

BENDING LOADS . . .

Lat. Uniform Load creating Mx-x, W = 0.10 k/ft

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio =	0.1946 : 1	Maximum Load Reactions . .	
Load Combination	+D+Lr	Top along X-X	0.0 k
Location of max. above base	0.0 ft	Bottom along X-X	0.0 k
At maximum location values are . . .		Top along Y-Y	0.750 k
Pa : Axial	15.285 k	Bottom along Y-Y	0.750 k
Pn / Omega : Allowable	78.541 k	Maximum Load Deflections . . .	
Ma-x : Applied	0.0 k-ft	Along Y-Y	0.08989 in at 7.550 ft above base
Mn-x / Omega : Allowable	18.513 k-ft	for load combination : +D+0.60W	
Ma-y : Applied	0.0 k-ft	Along X-X	0.0 in at 0.0 ft above base
Mn-y / Omega : Allowable	18.513 k-ft	for load combination :	
PASS Maximum Shear Stress Ratio =	0.01376 : 1		
Load Combination	+D+0.60W		
Location of max. above base	0.0 ft		
At maximum location values are . . .			
Va : Applied	0.450 k		
Vn / Omega : Allowable	32.695 k		

Load Combination Results

Load Combination	Maximum Axial + Bending Stress Ratios				Maximum Shear Ratios						
	Stress Ratio	Status	Location	Cbx	Cby	KxLx/Rx	KyLy/Ry	Stress Ratio	Status	Location	
D Only	0.105	PASS	0.00 ft	1.14	1.00	80.00	80.00	0.000	PASS	0.00 ft	
+D+Lr	0.195	PASS	0.00 ft	1.14	1.00	80.00	80.00	0.000	PASS	0.00 ft	
+D+0.750Lr	0.172	PASS	0.00 ft	1.14	1.00	80.00	80.00	0.000	PASS	0.00 ft	
+D+0.60W	0.144	PASS	7.45 ft	1.14	1.00	80.00	80.00	0.014	PASS	0.00 ft	
+D+0.750Lr+0.450W	0.172	PASS	0.00 ft	1.14	1.00	80.00	80.00	0.010	PASS	0.00 ft	
+D+0.450W	0.121	PASS	7.45 ft	1.14	1.00	80.00	80.00	0.010	PASS	0.00 ft	
+0.60D+0.60W	0.123	PASS	7.45 ft	1.14	1.00	80.00	80.00	0.014	PASS	0.00 ft	
+0.60D	0.063	PASS	0.00 ft	1.14	1.00	80.00	80.00	0.000	PASS	0.00 ft	

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Axial Reaction	X-X Axis Reaction		Y-Y Axis Reaction		Mx - End Moments		My - End Moments	
	@ Base	@ Base	@ Top	@ Base	@ Top	@ Base	@ Top	@ Base	@ Top
D Only	8.285								
+D+Lr	15.285								
+D+0.750Lr	13.535								
+D+0.60W	8.285			0.450	0.450				
+D+0.750Lr+0.450W	13.535			0.338	0.337				

Steel Column

g = \\NAS-TUCSON\AmazonCloudDrive\BX3WMS~TT4094B~725FAKC~C122EAPO~5EHTEC6~Q\20097.ec6
Software copyright ENERCALC, INC. 1983-2020, Build: 12.20.2.28

Lic. #: KW-06008386

BRODERICK ENGINEERING LLC

DESCRIPTION: DC1

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	Axial Reaction @ Base	X-X Axis Reaction		k	Y-Y Axis Reaction		Mx - End Moments		k-ft	My - End Moments	
		@ Base	@ Top		@ Base	@ Top	@ Base	@ Top		@ Base	@ Top
+D+0.450W	8.285				0.338	0.337					
+0.60D+0.60W	4.971				0.450	0.450					
+0.60D	4.971										
Lr Only	7.000										
W Only					0.750	0.750					

Extreme Reactions

Item	Extreme Value	Axial Reaction @ Base	X-X Axis Reaction		k	Y-Y Axis Reaction		Mx - End Moments		k-ft	My - End Moments	
			@ Base	@ Top		@ Base	@ Top	@ Base	@ Top		@ Base	@ Top
Axial @ Base	Maximum	15.285										
"	Minimum					0.750	0.750					
Reaction, X-X Axis Base	Maximum	8.285										
"	Minimum	8.285										
Reaction, Y-Y Axis Base	Maximum					0.750	0.750					
"	Minimum	8.285										
Reaction, X-X Axis Top	Maximum	8.285										
"	Minimum	8.285										
Reaction, Y-Y Axis Top	Maximum	8.285										
"	Minimum	8.285										
Moment, X-X Axis Base	Maximum	8.285										
"	Minimum	8.285										
Moment, Y-Y Axis Base	Maximum	8.285										
"	Minimum	8.285										
Moment, X-X Axis Top	Maximum	8.285										
"	Minimum	8.285										
Moment, Y-Y Axis Top	Maximum	8.285										
"	Minimum	8.285										

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+Lr	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750Lr	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.60W	0.0000 in	0.000 ft	0.090 in	7.550 ft
+D+0.750Lr+0.450W	0.0000 in	0.000 ft	0.067 in	7.550 ft
+D+0.450W	0.0000 in	0.000 ft	0.067 in	7.550 ft
+0.60D+0.60W	0.0000 in	0.000 ft	0.090 in	7.550 ft
+0.60D	0.0000 in	0.000 ft	0.000 in	0.000 ft

Steel Section Properties : Pipe6STD

Depth	=	6.630 in	I xx	=	26.50 in^4	J	=	52.900 in^4
			S xx	=	7.99 in^3			
Diameter	=	6.630 in	R xx	=	2.250 in			
Wall Thick	=	0.280 in	Zx	=	10.600 in^3			
Area	=	5.200 in^2	I yy	=	26.500 in^4			
Weight	=	19.000 plf	S yy	=	7.990 in^3			
			R yy	=	2.250 in			
Ycg	=	0.000 in						