



Request For Bid (RFB)

Boone County Purchasing
601 E. Walnut, Room 208
Columbia, MO 65201

Melinda Bobbitt, Purchasing Director
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Bid Data

Bid Number: 53-10AUG04
Commodity Title: **Entrance Door Replacement – Boone County Courthouse**

DIRECT BID FORMAT OR SUBMISSION QUESTIONS TO THE PURCHASING DEPARTMENT

Bid Submission Address and Deadline

Day / Date: TUESDAY, AUGUST 10, 2004
Time: 1:30 P.M. CDT (Bids received after this time will be returned unopened)
Location / Mail Address: Boone County Purchasing Department

Boone County Johnson Building
601 E. Walnut, Room 209
Columbia, MO 65201

Directions: The Johnson Building is located on the Northeast corner at 6th St. and Walnut St. Enter the building from the East Side. Wheel chair accessible entrance is available on the West side of the building.

Pre - Bid A pre-bid meeting will be held at 1:30 p.m. on July 29, at the Boone County Johnson Building.

Bid Opening

Day / Date: TUESDAY, AUGUST 10, 2004
Time: 1:30 P.M. CDT
Location / Address: Boone County Johnson Building
601 E. Walnut, Room 213
Columbia, MO 65201

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NOTICE TO BIDDERS

Boone County, Missouri is accepting sealed bids for furnishing all labor, materials, and equipment necessary to complete the following work:

**BID NUMBER 21-18MAY04
ENTRANCE DOOR REPLACEMENT- BOONE COUNTY COURTHOUSE
705 E. WALNUT STREET
COLUMBIA MO 65201**

Sealed bids will be accepted until 10:30AM CDT, on August 10, 2004 at the Boone County Purchasing Office, 601 E. Walnut, Room 209, Columbia, Missouri 65201. Bids received after the above specified time for opening will be returned to the sender unopened.

Bids will be publicly opened at 10:30AM CDT, on August 10, 2004 in the Boone County Purchasing Office, 601 E. Walnut, Room 213, Columbia, Missouri 65201.

Bid documents are available at the Boone County Purchasing Department, 601 E. Walnut, 2nd Floor, Columbia, Missouri.

A Pre-bid Conference has been scheduled for 1:30PM CDT, July 29, 2004 at the Boone Co. Johnson Building, Room 213, 601 E. Walnut St., Columbia MO 65201. The purpose of the meeting will be to address any questions or concerns regarding the bid. All bidders are urged to attend.

The County reserves the right to select and award the bid item or items which best suit its needs, whether the price is the lowest or not, and also reserves the right to reject any and all bids or waive informalities or irregularities.

Not less than the prevailing hourly rate of wages, as found by the Department of Labor and Industrial Relations of Missouri, shall be paid to all workers performing work under this contract. The contractor's bond shall include such provisions as will guarantee the faithful performance of the prevailing hourly wage rate as provided by the Contract.

BID RESPONSE

TO: COUNTY OF BOONE, MISSOURI
SUBJECT: BID NUMBER 53-10AUG04
ENTRANCE DOOR REPLACEMENT - BOONE COUNTY COURTHOUSE
705 E. WALNUT STREET
COLUMBIA MO 65201

LADIES AND GENTLEMEN:

THE UNDERSIGNED BIDDER, having examined all specifications, and other proposed contract documents, and all addenda thereto; and being acquainted with and fully understanding (a) the extent and character of the work covered by this proposal; (b) the location, arrangement, and specified requirements of the proposed work; (c) local conditions relative to labor, transportation, hauling and delivery facilities; and (d) all other factors and conditions affecting or which may be affected by the work.

HEREBY PROPOSES to furnish all required materials, supplies, equipment, tools and plant; to perform all necessary labor and supervision; and to install, erect, equip, and complete all work stipulated in, required by, and in accordance with the proposed contract documents, specifications, and other documents referred to herein (as altered, amended, or modified by all addenda hereto) for and in consideration of the prices stated herein. All prices stated herein are firm and do not include Missouri Sales and Use Tax or any other taxes which might be assessed against or in connection with the work proposed herein.

Base Bid in the Amount of _____ (\$_____).

SECTION I – ADDENDA

- 1. I hereby acknowledge receipt of the following Addenda:
Addendum No. _____ Dated _____
Addendum No. _____ Dated _____
Addendum No. _____ Dated _____

SECTION II – ALTERNATES

- 1. **Alternate No. 1:** Furnish all labor and material necessary to install a power assisted ADA door operator on the front entrance exterior vestibule pair of doors including remote bollards, push plate operators, all wiring necessary in the amount of _____ (\$_____)
- 2. **Alternate No. 2:** Furnish all labor and material necessary to install power assisted ADA door operators on both interior vestibule doors including remote bollards, push plate operators, all conductors, conduit and wiring necessary in the amount of _____ (\$_____)
- 3. **Alternate No. 3:** IF the contract amount exceeds Twenty-Five Thousand Dollars (\$25,000), furnish all labor and material necessary to provide a labor and material performance payment bond in the amount of _____ (\$_____)

SECTION III

I hereby agree to complete the work herein specified within ninety (90) consecutive calendar days commencing on the date of the Contract Award and to allow a deduction of \$100.00 dollars per calendar day from the final payment as liquidated damages for each day that completion is delayed beyond the ninety (90) consecutive calendar days. Time extensions shall be documented by Change Order.

SECTION IV

Acknowledgement of Receipt of any and all Addenda, if applicable, shall be included with the bid documents at the time of the submittal to Boone County for consideration. Bidder hereby acknowledges receipt of addenda, if applicable, by attaching a signed copy of all such addenda.

SECTION V

The undersigned agrees and understands that the County has the right to reject any and all bids, to waive informalities or other requirements for its benefit and to accept such proposal as it deems to its best interest.

Signature: Firm _____
By _____
Title _____
Address _____

Phone _____
Date _____

STATEMENT OF BIDDERS QUALIFICATIONS

Each bidder for the work included in the specifications and drawings and the Contract Documents shall submit with their bid the data requested in the following schedule of information. This data must be included in and made a part of each bid document and be contained in the sealed envelope. Failure to comply with this instruction may be regarded as justification for rejecting the Contractor's proposal.

- 1. Name of bidder: _____
- 2. Business address: _____

- 3. When organized: _____
- 4. When incorporated: _____
- 5. If not incorporated, state type of business and provide your federal tax identification number: _____
- 6. Number of years engaged in contracting business under present firm name:
- 7. If you have done business under different name, please give name and location:
- 8. Percent (%) of work done by own staff:
- 9. Have you ever failed to complete any work awarded to your company? If so, where and why?
- 10. Have you ever defaulted on a contract?
- 11. List of contracts completed within last four years, including value of each:
- 12. List of projects* currently in progress:

* Attach additional sheets as necessary *

INSTRUCTIONS TO BIDDERS

The purpose of the attached specifications is to give detailed data on the conditions under which the new overlay will be constructed, scope of Contract, quality of material and equipment required, standards used in determining its acceptability and similar data. Each Bidder shall carefully check all requirements herein set forth and shall offer material and construction which fully complies with these requirements or shall plainly set forth all points, features, conditions, specifications, etc., wherein the material and construction offered does not meet these specifications.

Such exceptions as are made shall be listed by page number in the following blanks and shall be explained in detail in a letter accompanying the bid. Failure to outline such exceptions will require the successful Bidder to comply with these specifications.

Exceptions to Specifications - Pages:

Two copies of the Bidding Package (Bid Response, Bid Bond, Statement of Bidders Qualifications and Form of Non-Collusive Affidavit) shall be submitted. All bids shall be submitted on the bid forms hereto attached. Copies of addenda, if any, shall be signed and attached to the proposal submitted. Bidders shall furnish all information requested herein by filling in the blanks in the submitted copy of these specifications.

Bidders shall visit the site of the work and inform themselves of the conditions under which the work is to be performed, concerning the site of the work, the nature of the equipment, the obstacles which may be encountered, the work to be performed and, if awarded the contract, shall not be allowed any extra compensation by reason of any matter or thing concerning which such Bidder might have fully informed himself, because of their failure to have so informed themselves prior to the bidding. The successful Contractor must employ, so far as possible, such methods and means in the carrying out their work as will not cause any interruption or interference with any other contractors.

Bidders shall not include sales or use taxes in their bid for materials incorporated or used in the work or for rentals subject to sales tax.

The Contractor assumes responsibility for all loss or damage caused by fire, windstorm, cyclone, tornado, flood or freezing, to the materials and equipment with which the work of this contract is to be done. The Contractor has the privilege of insuring in full or in part against such loss or damage, responsibility for which is here assumed. The County will not carry insurance against such loss or damage until the acceptance of the Project.

Bidders shall visit the site of the work and completely inform themselves relative to construction hazards and procedure, the availability of lands, the character and quantity of surface and subsurface materials, and utilities to be encountered, the arrangement and condition of existing structures and facilities, the procedure necessary for maintenance of uninterrupted operation of existing facilities, the character of construction equipment and facilities needed for performance of the work, and facilities for transportation, handling, and storage of materials and equipment. All such factors shall be properly investigated and considered in the preparation of the bid.

Bids of an incomplete nature, or subject to multiple interpretation may, at the option of the County, be rejected as irregular.

Bids will be evaluated by the County based on, but not limited to, the following criteria - cost, bidders qualifications and experience, and time required for completion.

On award of the Contract, the successful Contractor shall furnish a Performance Bond and a Labor and Material Payment Bond, each in an amount equal to the full Contract price, guaranteeing faithful compliance with all requirements of the Contract Documents and complete fulfillment of the Contract, and payment of all labor, material, and other bills made in carrying out this Contract.

If any person submitting a bid for this Contract is in doubt as to the true meaning of any part of the plans, specifications, or other proposed Contract documents, they may submit to the County a written request for an interpretation thereof three working days prior to the Pre-bid Conference. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by addendum duly issued or delivered to each person receiving a set of such documents. The County will not be responsible for any other explanation or interpretation of the proposed documents.

Each set of bids shall be plainly headed with the name of the Bidder and post office address. In case the bid is made by a corporation, the same shall be signed by a legally authorized agent of the corporation. The envelope containing the bids shall be sealed and plainly marked as a bid for this particular Contract.

WAGE RATES

GENERAL: This Contract shall be based upon payment by the Contractor of wage rates not less than the prevailing hourly wage rate for each craft or classification of workers engaged on the work as determined by the Industrial Commission of Missouri on behalf of the Department of Labor and Industrial Relations.

The contractor shall comply with all requirements of the prevailing wage law of Missouri, Revised Statutes of Missouri, Sections 290.210 to 290.340, including the latest amendments thereto.

The prevailing wage law does not prohibit payment of more than the prevailing rate of wages nor does it limit the hours of work which may be performed by any worker in any particular period of time.

RECORDS: The Contractor shall keep an accurate record showing the names, occupations, and crafts of all workers employed, together with the number of hours worked by each worker and the actual wages paid to each worker. At all reasonable hours, such records shall be open to inspection by the representatives of Industrial Commission of Missouri and the County. The payroll records shall not be destroyed or removed from the State for at least one year after completion of the work.

NOTICES: Throughout the life of this Contract, a copy of the wage determination and the rules promulgated by the Industrial Commission of Missouri shall be displayed in at least one conspicuous place on the project under a heading of NOTICE with the heading in letters at least one inch high.

PENALTY: Pursuant to Section 290.250 RSMo the Contractor shall forfeit to the County as penalty, ten dollars for each worker employed, for each calendar day, or portion thereof, such worker is paid less than the stipulated rates for any work done under the Contract, by them.

AFFIDAVIT OF COMPLIANCE: After completion of the work and before final payment can be made under this Contract, the Contractor must file with the County an affidavit stating that they have fully complied with the provisions and requirements of the prevailing wage law of Missouri, Sections 290.210 to 290.340 RSMo.

WAGE DETERMINATION: During the life of this Contract, the prevailing hourly rate of wages is subject to change by the Department of Labor and Industrial Relations or by court decision as provided by law. Any such change shall not be the basis of any claim by the Contractor against the County, nor will deductions be made by the County against sums due the Contractor by reason of any such change.

The most recent prevailing wage rate determination made by the Industrial Commission of Missouri is reproduced verbatim, and is applicable to this Contract.

INSURANCE REQUIREMENTS

INSURANCE REQUIREMENTS - The Contractor shall not commence work under this contract until they have obtained all insurance required under this paragraph and such insurance has been approved by the County. All policies shall be in amounts, form and companies satisfactory to the County which must carry an A-6 or better rating as listed in the A.M. Best or equivalent rating guide.

Compensation Insurance - The Contractor shall take out and maintain during the life of this contract, **Employee's Liability and Worker's Compensation** Insurance for all of their employees employed at the site of work, and in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor.

Worker's Compensation coverage shall meet Missouri statutory limits. Employers' Liability limits shall be \$500,000.00 each employee, \$500,000.00 each accident, and \$500,000.00 policy limit. In case any class of employees engaged in hazardous work under this Contract at the site of the work is not protected under the Worker's Compensation Statute, the Contractor shall provide and shall cause each subcontractor to provide Employers' Liability Insurance for the protection of their employees not otherwise protected.

Comprehensive General Liability Insurance - The Contractor shall take out and maintain during the life of this contract, such comprehensive general liability insurance as shall protect them from claims for damages for personal injury including accidental death, as well as from claims for property damages, which may arise from operations under this contract, whether such operations be by themselves or by anyone directly or indirectly employed by them. The amounts of insurance shall be not less than \$2,000,000.00 combined single limit for any one occurrence covering both bodily injury and property damage, including accidental death. If the Contract involves any underground/digging operations, the general liability certificate shall include X, C, and U (Explosion, Collapse, and Underground) coverage.

COMMERCIAL Automobile Liability – The Contractor shall maintain during the life of this contract, automobile liability insurance in the amount of not less than \$2,000,000.00 combined single limit for any one occurrence, covering both bodily injury, including accidental death, and property damage, to protect themselves from any and all claims arising from the use of the Contractor's own automobiles, teams and trucks; hired automobiles, teams and trucks; and both on and off the site of work.

Owner's Contingent or Protective Liability and Property Damage - The Contractor shall provide the County with proof of Owner's Protective Liability and Property Damage Insurance, which shall protect the County against any and all claims which might arise as a result of the operations of the Contractor in fulfilling the terms of this contract during the life of the Contract. The minimum amounts of such insurance will be \$2,000,000.00 per occurrence, combined single limits. Limits can be satisfied by using a combination of primary and excess coverages. Should any work be subcontracted, these limits will also apply.

Proof of Coverage of Insurance - The Contractor shall furnish the County with Certificate(s) of Insurance which name the County of Boone – Missouri as additional insured in an amount as required in this contract and requiring a thirty (30) day mandatory cancellation notice. In addition, such insurance shall be on an occurrence basis and shall remain in effect until such time as the County has made final acceptance of the project.

INDEMNITY AGREEMENT: To the fullest extent permitted by law, Contractor shall indemnify, hold harmless and defend the County, its directors, agents, and employees from and against all claims arising by reason of any act or failure to act, negligent or otherwise, of Contractor, (meaning anyone, including but not limited to consultants having a contract with Contractor or subcontractor for part of the services), of anyone directly or indirectly employed by Contractor, or of anyone for whose acts the Contractor may be liable, in connection with providing these services. This provision does not, however, require Contractor to indemnify, hold harmless, or defend the County of Boone from its own negligence.

CONTRACT CONDITIONS

GENERAL: The following provisions are agreed to by and between the Contractor and the County:

DEFINITIONS: "Party of the First Part" or "County" shall mean the County of Boone, Missouri, acting through its authorized County officials, or appointed representatives.

"Contractor" or "Party of the Second Part" shall mean the party having entered into contract to perform the work herein specified.

"Department" shall mean the Boone Co. Public Works Department.

"Director" shall mean the Director of Boone Co. Public Works or his/her designated representative.

"Owner's Representative" shall mean the Director or the authorized representative of the Department for whom the work is to be performed.

"Work" of the Contractor includes labor or material, or both.

"As directed", "as required", "as permitted", "acceptable to" and words of like import shall mean that the direction, requirement or permission of the Architect is intended.

"Or equal" is not intended to impose limitations preventing the free exercise of the Contractor's skill or to exclude products which are satisfactory. Materials and workmanship shall be of the best of their respective kinds. Trade or manufacturer's names where used in these specifications are intended to fix the standards of workmanship and materials. Any article or material equaling the standards fixed may be used in place of that mentioned by the specifications provided that the material or article proposed is submitted to and approved by the Architect. No substitution shall be made unless this definite approval has been obtained in advance.

PAYMENTS: The successful Contractor will be allowed payment in accordance with the following schedule:

Invoice must include bid number, service dates, description of project location, type of material used, total quantity used, unit price and total cost extension per roadway. Invoices submitted which include charges for other County Contracts or Projects will not be accepted. Not later than forty-five (45) days after receipt of invoice from the Contractor, the County will make partial payment to the Contractor on the basis of a duly certified approved estimate of the cost of materials delivered to the site and work performed at the site during the preceding calendar month by the Contractor, but the County will retain ten percent (10%) of the amount of each such estimate. Not later than forty-five days after final tests and acceptance, the County will make final payment of the retained ten percent. If, for any reason, the County should delay testing and acceptance, then final payment shall be due and payable 60 days after completion of all items of the contract unless such tests and acceptance are delayed or withheld due to defective equipment or improper operation of the equipment supplied by the Contractor.

The Contractor shall, by affidavit, submit to the Architect a sworn certification to the County that all bills and claims properly due and chargeable against the work have been satisfied and that the laws relating to the payment of prevailing wage rates have been complied with and shall release the County of Boone from all further claims, which certificate must bear the written endorsement of the Surety on the bond. The acceptance by the Contractor of the final payment shall constitute a release and waiver of any and all rights and privileges under the terms of the contract; further, the acceptance by the Contractor of final payment shall relieve the County from any and all claims or liabilities on the part of the County relating to or connected with the Contract.

The cost of all licenses and permits and other expenses and costs incidental to the fulfillment of this Contract will be paid by the Contractor, and the total amount of such costs will be included in the total cost of the work.

Assignments: no money due at the time or which may become due, and no claim of any character because of any performance or breach of the Contract shall be assigned or transferred to any other person so as to bind or affect the County without the written consent of the Surety and the County.

The Contractor shall pay for all materials, supplies, services and equipment as follows:

1. For all transportation and utility service not later than the 20th day of the calendar month following that in which the services are rendered.
2. For all materials, tools, and other expendable equipment to the extent of 90% of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools and equipment are delivered at the site of the project, and the balance of the cost thereof not later than the 30th day following the completion of that part of the work in or on which such materials, tools and equipment are incorporated or used.

EXTRA AND/OR ADDITIONAL WORK AND CHANGES: If any extra and/or additional work is to be performed or any change in the specifications is deemed necessary, the County may issue to the Contractor written instructions directing that such extra and/or additional work be performed. Compensation to the Contractor will be calculated as an addition to or deduction from the total Contract price, based upon such written terms as may be established by the Public Works Director and/or his designated representative on the basis of the contracted prices. In the event that none of the foregoing methods are agreed upon with the Contractor, the County may perform the work with its own forces or under separate contract with another contractor.

COUNTY'S RIGHT TO WITHHOLD CERTAIN AMOUNTS AND MAKE APPLICATION THEREOF: The County shall have the right to withhold from payments due to the Contractor, in addition to the retained percentages herein elsewhere provided for, such amount or amounts as may be necessary to pay just claims against the Contractor for labor and services rendered and materials furnished in or about the work covered by this contract, or for liquidated damages. The County is by this contract appointed the agent of the Contractor to apply such retained amounts to the payment of any of the foregoing.

PATENTS: The Contractor shall protect the County against all suits for patent infringement on materials, equipment, and methods used.

DISCHARGE OF EMPLOYEES: Any employee of the Contractor who is stationed at the site of the work and should prove to be quarrelsome, dishonest, incompetent or inexperienced or should not work for the good of the job shall, upon written notice from the County, be removed by the Contractor and replaced by an employee with proper qualifications.

ASSIGNMENT OF CONTRACT: No assignment by the Contractor of any principal construction contract or any part thereof or of the funds to be received thereunder by the Contractor, will be recognized unless such assignment has had the approval of the County and the Surety has been given due notice of such assignment in writing. In addition to the usual recitals in assignment contracts, the following language must be set forth:

"It is agreed that the funds to be paid to the assignee under this assignment are subject to a prior lien for services rendered or materials supplied for the performance of the work called for in said Contract in favor of all persons, firms or corporations rendering such services or supplying such materials."

SUBCONTRACTING: Contractor may subcontract services to be performed hereunder with the prior approval of the County, which shall not unreasonably withhold approval. No such approval will be construed as making the County party of, or to, such subcontract, nor shall approval be construed as subjecting the County to liability of any kind to any Subcontractor. No subcontract shall, under any circumstances, relieve the Contractor of its liability and obligation under this Contract; and despite such subcontracting the County shall deal through the Contractor, and Subcontractors will be dealt with as workmen and representatives of the Contractor. It is the Contractor's responsibility to ensure that proved Subcontractors have achieved the same insurance liability coverage as the Contractor.

ACCIDENT PREVENTION: Precaution shall be exercised at all times for the protection of persons (including employees) and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery, equipment and all hazards shall be guarded or eliminated in accordance with the safety provisions of the "Manual of Accident Prevention in Construction", published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable laws. Current standards of the Occupational Safety and Health Act shall be applied.

LEGAL REQUIREMENTS: The Contractor shall do all work in such manner as to comply with all County ordinances, and laws of the County, State and Nation as apply to the work herein outlined. The Contractor shall also obtain all necessary licenses and permits and keep necessary records as required.

The contractor shall also be responsible for acquisition of all relevant and required permits from the Missouri Department of Natural Resources to perform any of the work required in the contract.

EQUAL OPPORTUNITY: The County of Boone is an equal opportunity affirmative action employer, pursuant to federal and state law, and all respondents submitting bids shall be considered to be EEO/AA employers in compliance with federal and state laws, unless otherwise stipulated by the bidders herein.

DOMESTIC PURCHASING POLICY: Contractors are encouraged to select and use materials manufactured, assembled or produced in the United States in the performance of this contract whenever the quality and price are comparable with other goods.

By submission of this bid, the vendor certifies that they are in compliance with section 34.353 and, if applicable, section 34.359 ("Missouri Domestic Products Procurement Act") of the Revised Statutes of Missouri.

SALES/USE TAX EXEMPTION

SALES TAX EXEMPTION PROCEDURE: County will provide the contractor, when requested to do so, with a completed Missouri Project Exemption Certificate and Missouri Tax Exemption letter for Boone County, Missouri and the contractor shall be responsible for furnishing the exemption certificate and tax exemption letter to all authorized sub-contractors and suppliers providing materials incorporated in the work. All invoices issued for purchases for such materials, supplies and taxable rentals shall be in the name of Boone County and contain the project number assigned by Boone County for the contract awarded. It shall be the responsibility of the contractor to insure that no sales or use taxes are included in the invoices and that the county pays no sales/use taxes from which it is exempt. The contractor shall be responsible for obtaining revised exemption certificates and revised expiration dates if the work extends beyond the estimated project completion date or a certificate expiration date. The contractor shall also be responsible for retaining a copy of the project exemption certificate for a period of five years and for compliance with all other terms and conditions of section 144.062 RS MO not otherwise herein specified. The contractor agrees not to use or permit others to use the project exemption certificate for taxable purchases of materials or rentals and supplies not directly incorporated into or used in the work to which it applies and agrees to indemnify and hold the County harmless from all losses, expenses and costs including litigation expenses and attorney fees resulting from the unauthorized use of such project exemption certificates.

GENERAL REQUIREMENTS

MATERIAL AND WORKMANSHIP: All materials provided by Contractor shall be new material of high quality, which shall give long life and reliable operation. The workmanship shall be of high quality in every detail.

SPECIFICATIONS: The Contractor shall keep at the jobsite a copy of the specifications and shall at all times give the County and the Architect access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In any case of discrepancy between the drawings and the specifications, the matter shall be promptly submitted to the Architect, who shall promptly make a determination in writing. Any adjustment or interpretation by the Contractor without this determination shall be at the Contractor's own risk or expense. The Architect shall furnish from time to time such detail drawings and other information as may be considered necessary, unless otherwise provided.

PROTECTION OF WORK: The Contractor shall take all necessary steps to protect his own workers, the utility personnel, and the public from unnecessary danger or hazard during the prosecution of this work. Danger signs, warning signs, flares, lanterns, railings, barriers, sheeting, shoring, etc., shall be erected to prevent accidents from construction, falling objects, rotating machinery, electric lines and other conditions, which might prevent unusual hazard.

REPAIRS AND/OR REPLACEMENT OF DEFECTIVE PORTION: The Contractor shall be responsible for a period of one year from and after the date of final acceptance by the County of the work covered by this contract, for any repairs or replacements caused by defective materials, workmanship or equipment which, in the judgment of the Architect, shall become necessary during such period. The Contractor shall undertake with due diligence to make the aforesaid repairs and/or replacements within ten days after receiving written notice that such repairs or replacements are necessary. If the Contractor should neglect to begin such repairs or replacements within this period or in case of emergency, where, in the judgment of the Architect, delay would cause serious loss or damage, the repairs and/or replacements may be pursued by the County and charged to the Contractor.

INTERFERENCE: All work scheduled by the Contractor shall be planned with the consent of the Owner's Representative and shall not in any way interfere with any everyday use and function of the building. The Owner reserves the right to temporarily suspend work by the Contractor should Court Services require such temporary suspension, such as Trials, Juror Deliberation, noise or odors generated by the Contractor.

METHOD OF PAYMENT: The method of payment shall be as stipulated in the section titled "Contract Conditions" and contained elsewhere in these contract documents.

BID BOND: Each bid response shall be accompanied by a proposal guaranty equaling 5% of the total amount of the bid. The bond shall be executed by some surety company authorized to do business in the State of Missouri, as a guarantee on the part of the bidder that if his bid be accepted, he will within ten (10) days after receipt of notice of such acceptance, enter into a contract and furnish a Performance Bond/Labor and Material Payment Bond to do the work advertised; and, in case of default, forfeit such bid bond.

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we, _____

as Principal, hereinafter called Contractor, and _____

a Corporation, organized under the laws of the State of _____ and authorized to transact business in the State of Missouri, as Surety, hereinafter called Surety, are held and firmly bound unto the County of Boone, Missouri, as Obligees, hereinafter called Owner, in the amount of _____ Dollars, for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents:

WHEREAS, Contractor has, by written agreement dated _____ entered into a Contract with Owner for:

**BID NUMBER 53-10AUG04
ENTRANCE DOOR REPLACEMENT - BOONE COUNTY COURTHOUSE
705 E. WALNUT ST.
COLUMBIA MO 65201**

in accordance with drawings and specifications prepared by the County of Boone Public Works Department, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract, and shall faithfully pay all prevailing hourly wages and comply with all prevailing wage requirements as provided by such Contract and applicable prevailing wage laws, rules and rates specified by regulation there under, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Owner.

Whenever Contractor shall be, and declared by Owner to be, in default under the Contract, the Owner having performed Owner's obligations there under, the Surety may promptly remedy the default, or shall promptly:

- 1) Complete the Contract in accordance with its terms and conditions, or
- 2) Obtain a bid for submission to Owner for completing the Contract in accordance with its terms and conditions, and upon determination by Owner and Surety of the lowest responsible bidder, arrange for a Contract between such bidder and Owner, and make available as work progresses (even though there should be a default of a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract price, but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract price", as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of Owner.

IN TESTIMONY WHEREOF, the Contractor has hereunto set his hand and the Surety has caused these presents to be executed in its name, and its corporate seal to be affixed by its Attorney-In-Fact at _____, on this _____ day of _____, 2004.

(Contractor) _____
(SEAL) BY: _____

(Surety Company) _____
(SEAL) BY: _____

(Attorney-in-Fact) _____
(Missouri Representative) BY: _____

(Accompany this bond with Attorney-in-Fact's authority from the Surety Company certified to include the date of this bond).

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we, _____,
as Principal, hereinafter called Contractor, and _____,
a corporation organized under the laws of the State of _____,

and authorized to transact business in the State of Missouri, as Surety, hereinafter called Surety, are held and firmly bound unto the County of Boone, Missouri, as Obligee, hereinafter called Owner, for the use and benefit of claimants as herein below defined, in the amount of

_____ DOLLARS

(\$ _____), for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:

WHEREAS, Contractor has by written agreement dated entered into a contract with Owner for

**BID NUMBER 53-10AUG04
ENTRANCE DOOR REPLACEMENT - BOONE COUNTY COURTHOUSE
BOONE CO. COURTHOUSE
705 E. WALNUT ST.
COLUMBIA MO 65201**

in accordance with drawings and specifications prepared by the County of Boone which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Contractor shall promptly make payments to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect, subject, however, to the following conditions:

- A. A claimant is defined as one having a direct contract with the Contractor or with a subcontractor of the Contractor for labor, material, or both, used or reasonably required for use in the performance of the contract; labor and material being construed to include the part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental or equipment directly applicable to the Contract.
- B. The above named Contractor and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The owner shall not be liable for the payment of any costs or expenses of any such suit.
- C. No suit or action shall be commenced hereunder by any claimant:
 - 1. Unless claimant, other than one having a direct contract with the Contractor, shall have given written notice to any two of the following: the Contractor, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Contractor, Owner, or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.

2. After the expiration of one (1) year following the date on which Contractor ceased work on said contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
 3. Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
- D. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of Mechanic's Liens which may be filed on record against said improvement, whether or not claim for the amount of such lien be presented under or against this bond.

IN TESTIMONY WHEREOF, the Contractor has hereunto set their hand and the Surety caused these presents to be executed in its name and its corporate seal to be affixed by its Attorney-in-Fact at

_____, on this _____ day of _____, 2004.

CONTRACTOR : _____ (Seal)

BY: _____

SURETY COMPANY: _____

BY: _____ (Attorney-in-Fact) (Seal)

BY: _____ (Missouri Representative)

(Accompany this bond with Attorney-In-Fact's authority from the Surety Company certified to include the date of this bond).

SECTION 1.01 SCOPE AND SUMMARY OF WORK

It is the intention of Boone County Commission, hereinafter referred to as the Owner, to publicly advertise, receive bids and let a construction contract to Replace Front Entrance Doors and Finish Hardware, Boone County Courthouse, 705 E. Walnut Street, Columbia, MO 65201. Contractors shall field verify and match existing door size and glass dimensions.

Construction contracts will cover all work shown, contemplated and specified in the Project Manual in order to complete this project.

SECTION 1.02 INVITATION FOR BIDS

The Boone County Commission will receive sealed bids for the construction of all work incidental to Replace Entrance Doors and Finish Hardware, Boone County Courthouse, 705 E. Walnut Street, Columbia MO 65201 as described in the specifications. This project will be constructed under a single prime contract with the Owner and all bids will be received on a lump sum basis. Each proposal shall include all labor, material and services necessary to complete the project in strict accordance with the construction documents and project manual.

General prime contract consists of, but is not limited to, site work and all items as described in the bidding documents.

Complete sets of bidding documents, including plans and specifications, are on file at the Boone County Purchasing Office, Boone County Johnson Building, 601 E. Walnut, Second Floor, Columbia, MO 65201.

Copies of the bid documents may be obtained from the Purchasing Office, Boone County Johnson Building, 601 E. Walnut, Room 209, Columbia MO 65201.

Bid Guaranty or Bid Bond:

1. The bid must be accompanied by a bid guaranty which shall not be less than five percent (5%) of the amount of the bid, and at the option of the bidder, may be a certified check, bank draft, U.S. Government Bonds (at par value), or a bid bond secured by a guaranty company or a surety company in the form attached. No bid will be considered unless it is so guaranteed. Certified check or bank draft must be made payable to Boone County. Cash deposits will not be accepted. The bid guaranty shall insure the execution of the Contract and the furnishing of insurance certificates performance and payment bond or bonds by the successful bidder, all as required by the specifications
2. Revised bids, whether forwarded by mail or telegram, if representing an increase in excess of two percent (2%) of the original bid, must have the bid, guaranty adjusted accordingly; otherwise the revision of the bid will not be considered and the original bid shall remain in force.
3. In case bid guaranty is in the form of a certified check, bank draft, or U.S. Government Bonds, the Owner may make such disposition of the same as will accomplish the purpose for which submitted. Certified checks or bank drafts, or the amount thereof, and U.S. Government Bonds of successful bidders, will be returned as soon as practicable after the opening of bids.

The successful bidder will be required to furnish and pay for 100% Performance Bond and Labor and Payment bond.

The Owner reserves the right to reject any or all bids or to waive any informalities in the bidding process. The Owner is not obligated to accept the lowest or any other bid. No bid shall be withdrawn for a period of sixty (60) days subsequent to the opening of bids without the consent of the Owner.

The wage rates applicable to this project have been pre-determined as required by law and are set forth in the bid proposal. When federal wage rates are applicable and included, this contract is subject to the "Work Hours Act of 1962", (P.L. 87-581: 76 Stat. 357) and implementing regulations.

The Owner hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award. The bidder will insure that Disadvantaged Business enterprises will have the opportunity to participate in the performance of this contract and/or any subcontracts.

SECTION 1.03 SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

- A. BID FORMS: Attention is directed to the fact that these specifications include a complete set of bidding and contract forms. These are for the convenience of bidders and are NOT TO BE DETACHED FROM THE SPECIFICATIONS, FILLED OUT, OR EXECUTED. One copy of the Bidding Package (Bid Response, Bid Bond and Statement of Bidders Qualification) are furnished. Contractor shall submit two copies of the Bidding Package for the bid. One copy shall be retained by the bidder for his records. Both submitted copies shall be signed.
- B. PROPOSALS
1. ALL BIDS must be submitted on forms furnished to the Bidder and shall be subject to all requirements of these bound specifications, including all drawings, and this Supplemental Instructions to Bidders, etc.
 2. THE CONTRACTS will be based upon the completion of the work according to these bound specifications and the drawings, together with all Addenda thereto, under the lowest proposal submitted by a responsible bidder, irrespective of the options permitted by the Contract which the bidder chooses to use. The Owner has determined, by its inclusion of the options, that any of the requested options are equally acceptable. The bidders, therefore, are requested to submit only lowest proposal for the work to be performed.
- C. PERFORMANCE AND PAYMENT BONDS, EXECUTION OF CONTRACT
1. SUBSEQUENT TO THE AWARD, and within ten (10) days after the prescribed forms are presented for signature, the successful bidder(s), shall execute and deliver to the Owner, a contract in the form included in the specifications in such number of counterparts as the Owner may require. Separate contract forms, in lieu of those found in the specifications, shall be used for this purpose.
 2. HAVING SATISFIED all conditions of award as set forth elsewhere in these documents, the successful bidder(s), General Contractor(s), [and at General Contractor's option, major subcontractor(s) with contract amounts of ten thousand dollars (\$10,000) or greater], shall within the period specified in 1.03-C.1. above, furnish a Performance Bond and a Labor and Material Payment Bond, each in a principal sum of at least one hundred percent (100%) of the amount of the contract as awarded, as security for the faithful performance of the contract, and for the payment of all persons, firms or corporations to who the contractor(s) may become legally indebted for labor, materials, tools, equipment or services, of any nature, employed or used by him in performing the work. Such bonds shall be in the form of bonds included in the specifications and shall bear the same date as, or a date subsequent to, the date of the contract.
 3. ON EACH SUCH BOND, the rate of premium shall be stated, together with the total amount of the premium charged. The current power of attorney for the person who signs for any surety company shall be attached to such bond.
 4. THE FAILURE of any successful bidder(s) to execute such contract and to supply the required bonds within ten (10) days after the prescribed forms are presented for signature, or within such extended period as allowed by the Owner, shall constitute a default and the Owner may either award the contract to the next responsible bidder or re-advertise for bids and may charge against the bidder the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds that amount of the bid guaranty.

- D. DIRECTIONS FOR PREPARATION AND EXECUTION OF BID, PERFORMANCE AND PAYMENT BONDS
1. THE SURETY on the bond for any bid or for the performance of the Contract may be any corporation authorized and qualified to act as surety in the State where project is located, or two (2) responsible individual sureties. Each individual surety shall justify in sum not less than the penalty of the bond.
 2. THE NAME, including full legal name, and residence of each individual party to the bond shall be inserted in the body thereof, each party shall sign the bond with his usual signature on the line opposite the seal.
 3. IF THE PRINCIPALS are partners, their individual names shall appear in the body of the bond, with the recital that they are partners composing a firm, naming it, and all the members of the firm shall execute the bond as individuals.
 4. THE SIGNATURE of a witness shall appear in the appropriate place attesting the signature of each individual party to the bond.
 5. IF THE PRINCIPAL of surety is a corporation, the name of the state in which incorporated shall be inserted in the appropriate place in the body of the bond, and said instrument shall be executed and attested under the corporate seal the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name.
 6. THE OFFICIAL character and authority of the person or persons executing the bond for the principal, if a corporation, shall be certified by the secretary or assistant secretary, according to the form attached thereto. In lieu of such certificate, there may be attached to the bond, copies of so much of the records of the corporation as will show the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies.
 7. EACH INDIVIDUAL SURETY shall justify, under oath, according to the form appearing on the bond, before an officer having authority to administer oaths generally. If the officer has an official seal it shall be affixed, otherwise the proper certificate shall be furnished, as to his official character.
 8. THE CERTIFICATE OF SUFFICIENCY shall be signed by an officer of a bank or trust company, or by a judge or clerk of a court of record, or any other officer of the United States or the State where project is located acceptable to the Owner.
 9. THE DATE of the bond must not be prior to the date of the instrument for which it is given.
- E. AWARD OR REJECTION OF BID: The Owner reserves the right to reject any or all bids and to waive any irregularity therein.
- F. PREVAILING WAGES AND RATES: Prevailing Wage Rates **are** required for this project.
- G. REQUESTS FOR MATERIAL SUBSTITUTIONS on an approved equal basis shall be received by the Owner's Representative only during the Bidding Phase. Each request must be received in writing with catalog cuts and technical information, evaluated by the Owner's Representative, and approved or rejected on addenda. No request for material substitution will be reviewed thereafter.

SECTION 08701 GENERAL HARDWARE REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. General requirements for finish hardware related to hollow metal doors.

1.2 SUBMITTALS

- A. **Product Data**
 - 1. Manufacturer's cut sheets
 - 2. Two copies of Manufacturer's installation, adjustment, and maintenance instructions for each piece of hardware. Include one set in Operation And Maintenance Manuals and send one set with hardware when delivered.
 - 3. Copy of hardware schedule
- B. **Shop Drawings** - Submit hardware schedule indicating hardware to be supplied. Schedule shall indicate details such as proper type of strikeplates, spindle lengths, hand, backset, and bevel of locks, length of kickplates and other necessary information necessary to determine exact hardware requirements.

1.3 QUALITY ASSURANCE

- A. Suppliers bidding this work shall have two years minimum experience in providing, detailing, scheduling, and installing builders hardware and shall employ at least one full time DHI Architectural Hardware Consultant (AHC).

1.4 **DELIVERY, STORAGE, AND HANDLING**

- A. Neatly and securely package hardware items by hardware group and identify for individual door with specified group number and set number used on Supplier's hardware schedule. Include fasteners and accessories necessary for installation and operation of finish hardware in same package.

PART 2 PRODUCTS

2.1 FASTENERS

- A. Fasteners shall be of suitable types, sizes and quantities to properly secure hardware. Fasteners shall be of same material and finish as hardware unless otherwise specified. Fasteners exposed to weather shall be non-ferrous or corrosion resisting steel.

PART 3 EXECUTION

3.1 **PREPARATION**

- A. Before ordering materials, examine documents to be assured that material to be ordered is appropriate for substrate to which it is to be secured and will function as intended.

3.3 HARDWARE SCHEDULE

- A. Exterior Double Doors (Front Entrance Doors)
 - 1 each Closers
 - 1 each Handicap Power Assist Door Operators (Alternate No. 1)
 - 3 per leaf Electrified Hinges
 - 1 each Door Stops/holders (Reuse Existing)
 - 1 each Exit Device – Rim Type
 - 2 per leaf Kick Plates
 - 1 each Threshold
 - 1 each Removeable Center Mullion
 - 1 per leaf Glass Breakage Contactors (Reuse Existing)
 - 1 each Door Position Switch (Reuse Existing)
 - 1 each Card Reader (Reuse Existing)

END OF SECTION

SECTION 08111 CUSTOM STEEL DOORS

PART 1 GENERAL

1.1 SUMMARY

- A. Products Furnished and Installed Under This Section
 - 1. Hollow metal glazed doors.
- B. Related Sections
 - 1. Section 08710 Finish Hardware
 - 2. Section 08810 Glass and Glazing

1.2 RELATED DOCUMENTS include general project requirements and general conditions and Division 1 sections apply to this section.

1.3 REFERENCES SPECIFIED in this section subject to compliance as directed:

- A. ASTM-A366-95A - Specification for Steel, Sheet, Carbon, Cold-Rolled, Commercial Quality.
- B. ASTM-A568-95 - Specification for Steel, Sheet, Carbon, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled.
- C. ASTM-A 569-91A - Specification for Steel, Carbon, (0.15 Maximum Percent), Hot-Rolled Sheet and Strip Commercial Quality.
- D. ASTM-A924-95 - General Requirements for Steel Sheet, Metallic coated by the Hot-Dip Process.
- E. ASTM-D3023 – WDMA T.M.-9d, Test Method to Determine the Resistance of a Door Finish to Chemical Reagents with the following minimum results:
 - 1. Distilled Water 'Good'
 - 2. 50% Alcohol 'Good'
 - 3. Methyl Ethyl Ketone (MEK) 'Fair'
 - 4. 18% Ammonium Hydroxide 'Good'
 - 5. Hot Coffee 'Good'
 - 6. 10% Acid 'Good'
- F. ANSI A250.8-1998/SDI100 - Recommended specifications for standard steel doors.
- G. ANSI/SDI A250.6 - 1997 - Hardware on Steel Doors (reinforcement-application).
- H. ANSI-A250.4-1994 Test Procedure and acceptance criteria for physical endurance, steel doors and frames.
- I. ANSI-A224.1-1990 Test Procedure and acceptance criteria for prime painted steel surfaces for steel doors and frames.
- J. ANSI-a250.3-1999, Test Procedure and Acceptance Criteria for Factory Applied Painted Finish Painted Steel Surfaces for Steel Doors and Frames.
- K. ANSI-A117.1-1992 American National Standards Institute - Accessible and Usable Buildings and Facilities.
- L. NFPA-101-1994 - Life Safety Code.
- M. ADA, The Americans with Disabilities Act - Title III - Public Accommodations.
- N. U. L. - Underwriter's Laboratories.
- O. WHI - Warnock Hersey International, Division of Inchcape Testing Services.
- P. Local codes including Authority Having Jurisdiction.

1.4 SUBMITTALS

- A. Shop Drawings: Indicate door and frame elevations and sections, materials, gages and finishes, fabrication and erection details, locations of finish hardware by dimension and locations/details of all openings and louvers. Do not proceed with any fabrication until all details are approved.

1.5 QUALITY ASSURANCE

- A. Certification of label construction: For components exceeding Underwriters Laboratories, Inc. (UL)- furnish inspection certificate stating that component construction conforms to UL rating requirements only if Architect is aware of such a limitation and has allowed the non-labeled unit.

B. Hollow metal supplier shall be a qualified direct distributor of products to be furnished. In addition, the distributor shall have in their regular employment an A.H.C./C.D.C. or person of equivalent experience who will be available at reasonable times to consult with the Owner regarding any matters affecting the total door and frame openings.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver doors and frames cardboard wrapped, crated, palletized or otherwise protected during transit and storage.
- B. Inspect doors and frames upon delivery for damage. Minor damages may be repaired provided refinished items are equal in all respects to new work and accepted by the Owner. Otherwise remove and replace damaged items.

1.7 SEQUENCING AND SCHEDULING

- A. Deliver all doors to the jobsite in a timely manner.
- B. Issue purchase orders to frame, door and other hardware suppliers early so not to interfere with normal quoted delivery of materials.

1.8 EXTRA PARTS

- A. Provide two (2) touch-up pens for incidental nicks and scratches.

1.9 WARRANTY

- A. Hollow metal doors and frames shall be supplied with a one (1) year warranty against defects in materials and workmanship.
- B. Warranty to commence with substantial completion of the job.

PART 2 PRODUCTS

2.01 MANUFACTURER shall be:

- A. 'CurriStain' hollow metal door manufactured by CURRIES Co., Mason City, Iowa or equal.

2.02 MATERIALS

- A. Steel requirements, all doors and frames to be manufactured of commercial quality, stretcher leveled flatness, cold rolled steel per ASTM-A-366 and A-568 general requirements or galvanealed to 'A-60' minimum coating weight standard per ASTM-A924. Internal reinforcing may be manufactured of hot rolled pickled and oiled steel per ASTM-A569.
- B. Coating Materials, primer, Use manufacturer's standard rust inhibiting primer conforming to ANSI-A-224.1-1990.
- C. Core Materials: polyurethane core, self-extinguishing, non-toxic in case of fire.
- D. Glass lite frames in doors fabricated of not less than 18 ga. galvanized steel with attachment screws allowed only on the non-secure side, not visible when viewing door lite frame face. Window kits shall be Type 2 (oak grain) finished to match door. Match existing full glass size in existing entrance doors.

2.03 FABRICATION

- A. General
 - 1. Fabricate all doors in accordance with ANSI A250.8-1998/SDI-100 except where more stringent requirements are specified.
 - 2. Prepare doors to receive finish hardware per approved schedule. Include all thru-bolting holes as required per hardware template.
- B. Doors
 - 1. Classification: SDI Level 2 - Model 1
 - 2. Doors shall be Curries 707 series with continuous hinge and lock channel construction the full height of the door.
 - 3. Door thickness shall be 1-3/4".
 - 4. Top rail width shall be 4".
 - 5. Jamb rail width shall be 4".
 - 6. Bottom rail height shall be 12".
 - 7. Hinge and lock mounting preparations shall be integrally formed into these channels.
 - 8. Inverted top and bottom channel construction shall provide a full perimeter channel door infrastructure.

- 9. Face sheets: Minimum of 18 ga. galvaneal steel.
 - 10. Edge weld: 'S'.
 - 11. Door face skins shall be grained .005" deep to accent the color stain application.
 - 12. Factory Finish.
 - a. Factory prime paint shall be a urethane tinted beige to enhance staining complying with SDI Industry prime paint standards.
 - b. Stain/Glaze shall be solvent based products.
 - c. Topcoat shall be modified urethane with UV inhibitors, spray applied evenly across the surface.
 - d. Color shall be 'Cocoa'.
 - 13. Seams allowed only on edges of doors.
 - 14. Close tops of outswinging exterior doors flush by the addition of steel top channel fillers necessary.
 - 15. Astragals: 'H' grained, screw applied finished to match door.
- C. Fabrication
- 1. Mortise and reinforce doors for hinges and locks.
 - 2. Reinforce doors for closers and other surface applied hardware.
 - 3. Drill and tap on job.
 - 4. Seams along vertical edges of door need not be filled.
 - 5. Do not extend hinge cut out full width of door unless fill strip is inserted, weld filled, and ground smooth so no seam appears on back face plate.
- D. Preparation For Hardware
- 1. Reinforcement: Reinforce components for hardware installation in accordance with ANSI A250.6-1997.
 - a. All lock and closer reinforcements to be "box" or "channel" type.
 - b. All hinge and lock reinforcing on doors is to be channel type, continuous from top to bottom of door, welded to face sheets.
 - c. Hinge preparation shall be 4-1/2" handed in heavy weight.
 - 2. Factory prepared hardware locations to be in accordance with "Recommended locations for Builders' Hardware for Standard Steel Doors and Frames", as adopted by The Steel Door Institute.

PART 3 EXECUTION

3.1 DOOR INSTALLATION

- A. Install hollow metal doors in frames using hardware specified in Section 08710 Finish Hardware.
- B. Clearances at edge of doors
 - 1. Between door and frame at head and jambs: 1/8 inch.
 - 2. At meeting edges pairs of doors and at mullions: 1/8 inch.
 - 3. At transom panels, without transom bars: 1/8 inch.
 - 4. At sills with thresholds: 1/8 inch above threshold.

3.2 ADJUSTMENT AND CLEANING

- A. Remove dirt and excess sealants or glazing compounds from exposed surfaces.
- B. Adjust moving parts for smooth operation. Use shims if necessary to allow for proper closing.

END OF SECTION

SECTION 08711 HANGING DEVICES

PART 1 GENERAL

1.1 SUMMARY

- A. Products Supplied But Not Installed Under This Section
 - 1. Hinges for flush wood and hollow metal doors
- B. Related Sections
 - 1. Section [08701](#) - General Hardware Requirements

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

- A. Hinges
 - 1. Size 1-3/4 inch H.M. doors and existing wood frame.
 - a. Size - 4-1/2 inches by 4-1/2 inches.
 - 2. Use non-removable pins.
 - 3. Hinges on exterior doors shall be solid brass, oiled rubbed bronze (US10B).
 - 4. [Approved Products](#) -
 - a. Exterior -
 - 1) Hager - BB 1168

2.2 MANUFACTURERS

- A. Hager Companies, St Louis, MO (800) 255-3590 or (314) 772-4400
- B. Or approved equal.

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 08712 EXIT DEVICES

PART 1 GENERAL

1.1 SUMMARY

- A. Products Supplied But Not Installed Under This Section
 - 1. Items for custom hollow metal doors -
 - a. Exit devices
- B. Related Sections
 - 1. Section [08701](#) - General Hardware Requirements

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

- A. Exit Devices
 - 1. Use operable lever trim.
 - 2. Provide standard strikes as appropriate for exit device.
 - 3. Provide key operated cylinder dogging.
 - 4. Provide temporary rim type cylinders and temporary keys.
 - 5. Finish shall be duranodic bronze.
 - 6. [Approved Products](#) -
 - a. Von Duprin EL98-RX-08-992Lx07-EPT10-CD or approved equal.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install exit devices as per manufacturer's instructions.
- B. Remove existing if necessary, furnish and install new wiring from existing Von Duprin PS873 power supply, located above lay-in ceiling in the Marshall's Office, to new exit devices, existing door position switch and existing card reader.
- C. Interconnect exit device with existing card reader, door position switch, power assist door operator, remote push plates and existing power supply.
- D. Bidders shall familiarize themselves with and field verify existing conditions

END OF SECTION

SECTION 08715 CLOSING DEVICES

PART 1 GENERAL

1.1 SUMMARY

- A. Products Supplied But Not Installed Under This Section
 - 1. Surface Closers
- B. Related Sections
 - 1. Section [08701](#) - General Hardware Requirements

PART 2 PRODUCTS

2.1 MATERIALS

- A. Surface Closers
 - 1. General -
 - a. Provide parallel arms on closers unless door position requires otherwise.
 - b. Closers shall allow for 180 degree opening and not be used as a stop.
 - c. Furnish steel covers with US26D finish for closers.
 - 2. Handicap Access -
 - a. Closers shall have following features -
 - 1) Adjustable sweep speed
 - 2) Adjustable backcheck
 - 3) Non-handed, non-sized
 - b. Adjust closer to provide maximum opening force as required by governing code authority.
 - c. [Approved Products](#) -
 - 1) 4041 Series by LCN
 - 2) 7500 BF Series by Norton

2.2 MANUFACTURERS

- A. Dorma Architectural Hardware, Reamstown, PA (800) 523-8483 or (717) 336-3881 www.dorma-usa.com
- B. LCN Closers, Princeton, IL (800) 526-2400 or (815) 875-3311 www.lcnclosers.com
- C. Norton Door Controls, Charlotte, NC (800) 438-1951 or (704) 283-2101 www.yalesecurity.com

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install as per manufacturer's installations

3.3 ADJUSTING

- A. Closers
 - 1. Make required adjustments as directed by Owner's Representative including but not limited to-
 - a. Lateral, longitudinal, and height.
 - b. Mechanical backcheck
 - d. Closing speed

END OF SECTION

SECTION 08716 PROTECTIVE PLATES AND TRIM

PART 1 GENERAL

1.1 SUMMARY

- A. Products Supplied But Not Installed Under This Section
 - 1. Kick plates
- B. Related Sections
 - 1. Section 08701 - General Hardware Requirements

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

- A. Protective Plates
 - 1. Material - 0.050 inch thick bronze with US10B finish
 - 2. Sizes -
 - a. Kick Plates - 10 inches high by width of door less 3/4 inch on each side.
 - 3. Approved Product -
 - a. Glynn-Johnson, Indianapolis, IN (800) 525-0336 or (317) 899-9440
 - b. Hager, St Louis, MO (800) 255-3590 or (314) 772-4400
 - c. Ives, Wallingford, CT (800) 654-2708 or (203) 294-4837
 - d. Rockwood Manufacturing Co, Rockwood, PA (800) 458-2424 or (814) 926-2026

PART 3 EXECUTION - Not Used

SECTION 08746 ADA OPERATORS

PART 1 GENERAL

- 1.1 Section includes
 - A. Electromechanical low-energy powered door operators, opening force not exceeding 14 lb-force (62 N).
- 1.2 Related Sections
 - A. Section 08111 – Custom Steel Doors.
- 1.3 References
 - A. ANSI/BHMA A156.19 – American National Standard for Power Assist & Low-Energy Power Operated Doors.
 - B. UL 325 – Standard for Door, Drapery, Gate, Louver and Window Operators and Systems.
- 1.4 Submittals
 - A. Product Data: Manufacturer's catalog data, detail sheets and specifications.
 - B. Shop Drawings: prepared specifically for this project; show dimensions of operators and interface with other products.
 - C. Operating and Maintenance Data: Operating and maintenance instructions, parts lists and wiring diagrams.
- 1.5 Quality Assurance
 - A. Installer Qualifications: Factory-trained with minimum 3 years experience.

PART 2 PRODUCTS

- 2.1 Manufacturers
 - A. Senior Swing Power Door Operator manufactured by Dor-O-Matic, an Ingersoll-Rand business, 7350 W. Wilson Avenue, Harwood Heights, IL 60706, Tel: (708) 867-7400, Tel: (800) 543-4635, Fax: (708) 867-0291 or equal.
- 2.2 Operators
 - A. Operation: Push button, push plate, switch-activated, manual or field-programmable manual/electric power with Power Boost closing and holding; comply with ANSI A156.19 and UL 325.
 - 1. Close door against stop after each cycle, and hold against drafts, winds and stack pressure.
 - 2. Manual opening force: 14 lb-force maximum.
 - 3. Closing force: 9 lb-force.
 - 4. Factory-set door hold-open voltage.
 - 5. Manual "Off/Auto/Hold-Open" switch.
 - 6. Operator shall not be equipped with assisted "Push 'N' Go" opening mode.
 - 7. Fail safe: In event of power failure, make door operate manually with controlled spring close as though equipped with a #3 manual door closer, without damage to operator components.
 - 8. Provide adjustment by microprocessor control in a self-contained housing for:
 - a. Opening speed.
 - b. Back check speed.
 - c. Hold-open, from 1 to 30 seconds.
 - d. Closing speed.
 - e. Door will safely stop and reverse if an object is encountered in opening cycle.
 - f. Delayed activation to provide 1 second delay between reception of the activation signal and actual opening of the door.
 - g. Adjustable latching from 0 to 23 degrees from fully closed position.
 - h. Alternate Action single activation to keep door open until that time activation occurs again.
 - i. Logic terminal for interface with accessories and sensors.
 - j. Power Boost latching, which applies an additional 25 pounds closing force.
 - D. Equipment: Completely electromechanical; comply with ANSI A156.19 and UL 325.
 - 1. Control box and motor/gear box: Contained in aluminum housing; precision-machined gears and bearing seats and all-weather lubricant, mounted on vibration isolators. No exposed gears.
 - 2. Enclosure: Extruded header concealing all operating parts except arms and manual control switches.
 - a. 4-1/2" x 5-3/4" aluminum housing that allows for bottom loading.
 - b. Design for surface-applied application.
 - c. Design for exterior application.

3. Gears: Manufactured by operator manufacturer specifically for operators.
 - a. Gears enclosed in gearbox.
4. Motor: DC permanent magnet motor with shielded ball bearings. Stop motor when door stops or is fully open and when breakaway is operated.
5. Door operating arm: Forged steel, attached at natural pivot point of door.
6. Exposed arms: Factory-painted and finished to match operator enclosure.
7. "Off/Auto/Hold-Open" switch: Three-position rocker or key type and slide arm for top of door.
8. Control circuits for actuators and safeties: Low-voltage, NEC Class II.
9. Service conditions: Satisfactory operation between -30 degrees F (-34 degrees C) and 160 degrees F (71 degrees C).
10. Power supply required: 115 VAC (15 amp circuit breaker, one per unit).
11. Microprocessor control: 115 VAC. Do not use microswitches.
12. Surface-Applied Mounting: On surface of door frame/wall, mounted 1" (25.4 mm) above top of door.
13. Provide bottom loading header for access to controls and removable components without removal of door or operator.
14. Finish of Exposed Headers: Dark bronze anodized.

2.3 Activators

- A. Push Plate: Formed metal plate, satin finish; approximately 5" (127 mm) square with Depressed marking; two per opening.
 1. Dor-o-matic No. 95390-900.
 2. Material: Stainless steel.
 3. Marking: red Universal Wheelchair logo with red "Push to operate door" wording.
 4. Push plates shall be operated by wireless remote switch: One (1) required per each bollard post instead of Two (2) required.

2.4 Optional Accessories:

- A. Bollard Posts
 1. 6" x 6" x 36" tall aluminum post, include with concealed floor mounted bracket.
 2. Post shall accommodate Dor-o-matic wireless switches.
 3. Aluminum US 28 finish.
 4. One post for exterior and one post for interior.
 5. Features unique design for improved transmission of signals from wireless remote switches.
- B. Receivers
 1. Dor-o-matic No. 84160-600.
 2. Adjustable 10-position code switch setting that offers thousands of possible code combinations.
 3. Use with hardwired transformer.
- C. Hardwired transformers
 1. Dor-o-matic No. 8103-900.
 2. Include with mounting bracket.
 3. Electrical rating - 115v primary, 24v secondary, 50/60 Hz 25 VA.
 4. 8-1/2" long leads, with #18 gauge 1/32" cotton braid insulation.
 5. 12v or 24v output, 1 amp output.

2.5 Markings

- A. Decals: Visible from either side of door, instructing the user as to the operation and function of the door.

PART 3 EXECUTION

3.1 Examination

- A. Verify that door openings and doors are properly installed and ready for installation of door operators.
- B. Verify that electrical service is available, location of existing electric panel, properly located and of proper type.

3.2 Installation

- A. Install in accordance with manufacturer's instructions; comply with ANSI A156.19.
- B. Verify that electrical connections are made correctly and with dedicated grounding.

- C. Furnish and install one 115 VAC (15 amp circuit breaker, one per unit) single-phase, 15 amp fused circuits from existing panel to door headers, two 24 VAC Class II wires between door headers and remote activation devices, 1/2" (12 mm) conduit and electrical boxes at activators. All conduit and wiring shall be surface mounted" instead of "Furnish and install two 115 VAC (15 amp circuit breaker, one per unit) single-phase, 15 amp fused circuits from existing panel to door headers, two 24 VAC Class II wires between door headers and remote activation devices, 1/2" (12 mm) conduit and electrical boxes at activators. All conduit and wiring shall be concealed unless surface mounted wiremold is approved by the Owner's Representative.
- D. Install two bollard posts each with one wireless remote switch in exterior and interior locations as directed by the Owner's Representative. Securely fasten concealed floor mounting bracket to withstand 250 pound lateral force.
- E. Mount receiver concealed underneath Senior-Swing operators.
- F. Mount hard-wired transformer adjacent to Von Duprin power supply box above Marshall's Office lay-in ceiling.

3.3 Adjustment

- A. Adjust door operators for proper operation, without binding or scraping and without excessive noise.

End of Section

SECTION 08782 CYLINDERS

PART 1 GENERAL

1.1 SUMMARY

- A. Related Sections
 - 1. Section 08411 - Exit devices

1.2 DELIVERY, STORAGE, AND HANDLING

- A. Key Delivery
 - 1. Provide ten (10) change keys with Project removable cores.
 - 2. Immediately prior to Final Acceptance Meeting, turn change keys over to Owner.

1.3 ITEMS FURNISHED AND INSTALLED BY OWNER

- A. Permanent Cores.
- B. Installation of Permanent Cores.
- C. Permanent Keys.

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

- A. Temporary Removable Cores
 - 1. Best Mfg. Co.

PART 3 EXECUTION

3.1 FIELD QUALITY CONTROL – not used.

END OF SECTION

SECTION 08810 GLASS

PART 1 GENERAL

1.1 SUMMARY

- A. Includes But Not Limited To
 - 1. Quality of glazing used in entry doors.
- B. Related Sections
 - 1. Sections 08111 Custom Steel Doors.

1.2 REFERENCES

- A. [American Society For Testing And Materials](#)
 - 1. ASTM C 1036-91 (1997), 'Standard Specification For Flat Glass'
 - 2. ASTM C 1048-97b, 'Standard Specification For Heat-Treated Flat Glass - Kind H, Kind FT Coated and Uncoated Glass'
 - 3. ASTM E 774-97, 'Standard Specification for Sealed Insulating Glass Units'

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements - Glazing shall meet applicable requirements of Federal Consumer Product Safety Standard 16CFR1201.
- B. Manufacturer's Labels - Labels showing strength, grade, thickness, type, and quality are required on each piece of glass.

PART 2 PRODUCTS

2.1 MATERIAL

- A. Exterior Window Glazing
 - 1. Thickness - 1/8 inch minimum, Double Strength
 - 2. Glazing shall have following characteristics -
 - a. Clear - ASTM C 1036, Type I, Class I, Quality q3.
 - b. Pyrolytic Low E -
 - 1) [Acceptable Products](#) -
 - a) Energy Advantage Clear by LOF
 - b) Equal by AFG, PPG, or Visteon.
 - c) Other low E glazing system standard with window manufacturer, which meets or exceeds performance characteristics of specified glazing is acceptable.
 - c. Glazing in exterior doors shall be tempered meeting requirements of ASTM C 1048, Kind FT, Condition A, Type I, Class I, Quality q3.

2.2 MANUFACTURERS

- A. Low E Glazing
 - 1. AFG Industries, Kingsport, TN (800) 251-0441 or (423) 229-0441.
 - 2. Pilkington Libby-Owens-Ford - LOF, Toledo, OH (800) 526-6557 or (419) 247-4721.
 - 3. PPG Industries, Pittsburgh, PA (800) 377-5267 or (412) 434-2329.
 - 4. Visteon, Allen Park, MI (800) 521-6346 or (313) 845-3648.

2.3 FABRICATION

- A. Except where glass exceeds 66 inches in width, cut clear glass so any wave will run horizontally when glazed.
- B. Sealed, Insulating Glazing Units
 - 1. Double pane, sealed insulating glass units meeting requirements of ASTM E 774, Class A. Install at exterior windows and exterior aluminum-framed storefront.
 - 2. Unit Thickness - 5/8 inch minimum, one inch maximum.
 - 3. Type Seal -
 - a. Metal-to-glass bond and separated by 1/2 inch dehydrated air space.
 - b. Use non-hardening sealants.
 - 5. Approved Fabricators -
 - a. Members of Sealed Insulating Glass Manufacturer's Association.

PART 3 EXECUTION - Not Used

END OF SECTION



Textured (Oak Grain) Steel Door Product Offering Summary

Series NameCURRIStain
 Label Underwriters Laboratory, Warnock Hersey, and non-labeled
 Door Series707 (polystyrene or polyurethane core) and 727 door series
 Edge Weld 5
 Fire RatingUp to three hours
 Gauge18 and 20
 MaterialGalvannealed
 Widthup to 4'0"
 Heightup to 8'0"
 Thickness1-3/4"
 HandLeft, Right, Left-hand Reverse, Right-hand Reverse
 BevelA, B and G
 PanelsGrain direction to match door
 Window kitsType 1 or 2 (oak grain) finished to match door
 Grain Depth0.005" minimum
 Factory StainsJava, Cocoa, Cabernet, Cashew, Wheat, Natural
 Factory Topcoat ...Clear with UV Inhibitors
 Lead-times5-6 weeks
 Astragals "h" – grained, screw applied finished to match door
 HardwareTypical options and exceptions currently in place for door series, gauge, and size.

CURRIStain Finish Test Results:

CURRIStain finish has been tested in conformance with ANSI Standard A250.3-1999, *Test Procedure and Acceptance Criteria for Factory Applied Finish Painted Steel Surfaces for Steel Doors and Frames*. Test requirements and results are provided:

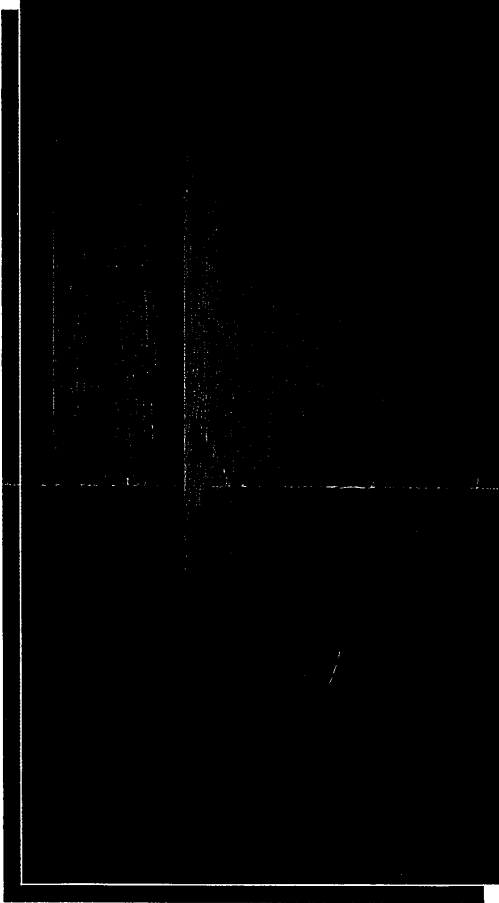
Test	Standard	Requirement	Results
Salt Spray Resistance	ASTM B117	120 hours	Passed
Condensation (Humidity) Resistance	ASTM D4585	480 hours	Passed
Accelerated Weathering Resistance	ASTM D4587	300 hours	Passed
Impact Test	ASTM D2794	1/8" maximum finish loss	Passed
Film Adhesion	ASTM D3359	3B minimum loss	Passed
Abrasion Resistance	ASTM D4060	100 or less wear index	Passed

The CURRIStain finish has also been tested to the requirements of WDMA T.M.-9d, *Test Method to Determine the Resistance of a Door Finish to Chemical Reagents*, with the following results:

Test	Standard	Material Tested	Results
Chemical Resistance	ASTM D3023	Distilled Water	Good
		50% Alcohol	Good
		Methyl Ethyl Ketone (MEK)	Fair
		18% Ammonium Hydroxide	Good
		Hot Coffee	Good
		10% Citric Acid	Good

CURRIStain™

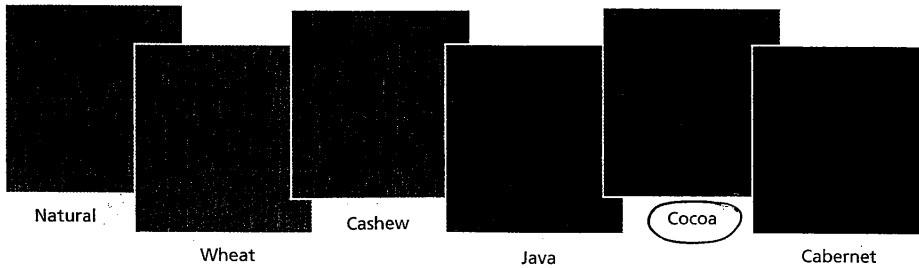
by CURRIES®



Product Features

The CURRIStain door is available with these product features:

- 707 or 727 series in singles or pairs as a handed door (non-handed design is not available).
- Polystyrene, Polyurethane, or Temperature Rise Core.
- Hinge preparation may be 4-1/2 inch or 5 inch, handed in either standard weight (.134) or heavy weight (.180) or universal 4-1/2 inch hinge preparation.
- There are no restrictions on lock preparations.
- Doors are 1-3/4 inch thick with 20 gauge or 18 gauge galvanized steel face sheets wood grain embossed .005 inch deep.
- Edges of door are available with the 'S' visible seam edge only in A bevel (beveled lock edge), B bevel (square lock edge and handed, square hinge edge), or G bevel (beveled lock and hinge edge).
- Maximum door width is 4'0", maximum door height is 8'0".
- Doors may be fire rated to 3 hours following typical fire rated door restrictions based on series, gauge, and size.
- Window preparations are available in all CURRIES standard face types.
- Astragals for pairs of doors are available in an "h" profile, screw applied to the door edge. Astragals are stain color matched to the door.



FULL MORTISE HINGES



Ball Bearing • Standard Weight • Template

For use on Medium Weight Doors or Doors Requiring Average Frequency Service

BB1279

Steel with Steel Pin ANSI A8112

BB1191

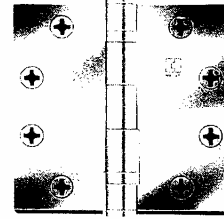
Brass ANSI A2112

Stainless Steel with
Stainless Steel Pin ANSI A5112

Five knuckle two ball bearings non-rising removable pin with button tip and plug.
Specify Screw Requirements.



For Hospital type prefix "HT" to catalog number



Size Open (Inches)	3 1/2 x 3 1/2	4 x 4	4 1/2 x 4 4 1/2 x 4 1/2	5 x 4 5 x 4 1/2 5 x 5	6 x 4 1/2 6 x 5 6 x 6
Gauge of metal	.119	.129	.134	.145	.160
Number of holes	6	8	8	8	10
Machine screw size	1/2 x 10-24	1/2 x 12-24	1/2 x 12-24	1/2 x 12-24	1/2 x 1/4-20
Wood screw size	1 x 9	1 1/4 x 12	1 1/4 x 12	1 1/4 x 12	1 1/2 x 14
Box quantity	1 pr (2 ea)	1 1/2 pr (3 ea)	1 1/2 pr (3 ea)	1 1/2 pr (3 ea)	1 1/2 pr (3 ea)
Pair in case	50	24	24	12	12
Average weight per case (lbs)					
Steel-Stainless	66	43	55	37	57
Brass	72	47	60	40	62

Ball Bearing • Heavy Weight • Template

For use on Heavy Weight Doors or Doors Requiring High Frequency Service

BB1168

Steel with Steel Pin ANSI A8111

BB1199

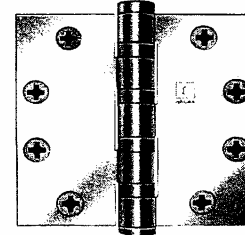
Brass ANSI A2111

Stainless Steel with
Stainless Steel Pin ANSI A5111

Five knuckle four ball bearings non-rising removable pin with button tip and plug.
Specify Screw Requirements.



For Hospital type prefix "HT" to catalog number



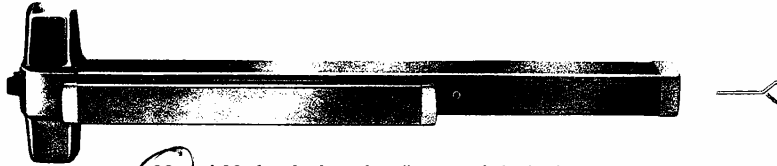
Size Open (Inches)	4 1/2 x 4 4 1/2 x 4 1/2	5 x 4 5 x 4 1/2 5 x 5	6 x 4 1/2 6 x 5 6 x 6	8 x 6 8 x 8
Gauge of metal	.180	.190	.190 Stainless Steel .203 Steel & Brass	.190 Stainless Steel .203 Steel & Brass
Number of holes	8	8	10	16
Machine screw size	1/2 x 12-24	1/2 x 12-24	1/2 x 1/4-20	1/2 x 1/4-20
Wood screw size	1 1/4 x 12	1 1/4 x 12	1 1/2 x 14	1 1/2 x 14
Box quantity	1 1/2 pr (3 ea)	1 1/2 pr (3 ea)	1 1/2 pr (3 ea)	1 1/2 pr (3 ea)
Pair in a case	12	12	12	6
Average weight per case (lbs.)				
Steel—Stainless	35	44	70	67
Brass	38	48	65	62
Stainless				

Furnished with screw hole location to conform to standards approved by (ANSI) A156.7—1988.
Hinge testing conform to ANSI - A156.1—1988.

4A

"EVERYTHING HINGES ON HAGER"

VON DUPRIN® 98/99 Rim Devices



98 and 99 rim devices for all types of single doors and double doors with mullion, UL listed for Panic Exit Hardware. Covers stock hollow metal doors with 86 or 161 cutouts.



FEATURES

- Nonhanded
- Field sizeable
- $\frac{3}{4}$ " (19mm) throw, latch bolt
- Latch bolt deadlocking
- Eight popular finishes
- Hex key dogging

DIMENSIONS

Touchbar height to finished floor	39 $\frac{13}{16}$ " (935mm) at center
Touchbar projection —	
neutral	3 $\frac{13}{16}$ " (97mm)
depressed	3 $\frac{1}{16}$ " (78mm)
Center case	8" x 2 $\frac{1}{4}$ " x 2 $\frac{3}{4}$ " (203mm x 57mm x 70mm)
Device length — Short 3'	2'6" to 3' (762mm to 914mm) door size
Long 4'	3'1" to 4' (940mm to 1219mm) door size

OUTSIDE TRIM

Standard

990NL-R/V
990TP-R/V
990DT
110NL-MD
991K-R/V
992L-R/V

Optional

990EO
696NL-R/V
696TP-R/V
696DT
697NL-R/V
697TP-R/V
697DT
KP992L-R/V
994L-R/V
110NL-WD
392-7

For complete outside trim information, see pages 18-19.

STRIKES AND FASTENERS

Device is furnished with standard 299 strike in dull black finish. All necessary fasteners are included. Optional strikes and finishes are available. For strike applications, dimensions, and minimum door stile information refer to pages 22, 23.

A combination of fasteners are included for surface mounting and through bolting to trim on 1 $\frac{3}{4}$ " (44mm) and 2 $\frac{1}{4}$ " (57mm) thick doors.

DEVICE OPTIONS

Electric latch retraction, page 24
Pneumatic latch retraction, page 27
Electric rim device, page 25
Request to exit switch, page 26
Latch bolt monitoring, page 26
Signal switch, page 26
Cylinder dogging, page 30
Double cylinder, page 27

For How-To-Order Information on all devices, see page 35.

VON DUPRIN® 98/99 Options

SIGNAL SWITCH-SS



The SS feature is used to signal the unauthorized use of an opening. These devices are equipped with two internal SPDT switches. One switch monitors both the touch bar and the latch bolt assembly, making the latch bolt tamper resistant for positive security. An additional SPDT switch is connected to the 1¹/₄" (32mm) mortise cylinder (cylinder not furnished) for alarm bypass.

The device can be connected to a security console or may be used as a single door alarm when used with a horn and power supply. A continuous current electric transfer must be used for transferring power from the frame to the door.

The **SS mortise lock device** is furnished with both the signal switch device and the **SS7500** mortise lock.

The SS7500 mortise lock has the versatility and advantages of the 7500 lock with the addition of signalling functions to monitor latch bolt operation and the trim locking function.

This lock will normally be used with the SS9975 mortise lock device, which monitors egress. Other combinations are available, consult factory.

Touchpad trim is furnished US32D only and printed red "Emergency Exit Only, Push To Open & Sound Alarm".

Electrical Ratings:

Each switch rated 0.5 Amp., 24 VDC.

To order, specify:

1. Prefix SS, example SS99NL.
2. Handing, LHR or RHR.

LATCH BOLT MONITORING-LX



The LX feature is used to signal the use of an opening. These devices are equipped with one internal SPDT switch which monitors the latch bolt.

The device can be connected to a security console or may be used as a single door alarm when used with a horn and power supply. A continuous current electric transfer must be used for transferring power from the frame to the door.

Note: The LX switch option should not be used to control a load, but as a signalling switch (5.0 amps. maximum).

Electrical Ratings:

0.5 Amp., 24 VDC

To order, specify:

1. Use prefix LX, example LX99EO.

REQUEST TO EXIT-RX ✓



The RX (Request to Exit) feature is used to signal the use of an opening. These devices are equipped with one internal SPDT switch which monitors the touch bar.

The device can be connected to a security console or may be used as a single door alarm when used with a horn and power supply. A continuous current electric transfer must be used for transferring power from the frame to the door.

Note: The RX switch option should not be used to control a load, but as a signalling switch (5.0 amps. maximum). The RX device was designed for use with the DE5101 Delayed Exit Control System; other applications should have approval by the local authority having jurisdiction.

Electrical Ratings:

0.5 Amp., 24 VDC

To order, specify:

1. Use prefix RX, example RX99EO.

VON DUPRIN® 98/99 Options

ELECTRIC MORTISE LOCK DEVICE



The electric mortise lock device has all the versatility and advantages of the standard mortise lock device, plus the advantage of being electrically controllable by a remote switching device, an access control system or an automatic fire alarm system. The device features the E7500 mortise lock. **The E7500 controls the locking of the outside trim.** When unlocked, the door remains latched, preserving the fire rating of the door and making it particularly useful where codes permit locking but require unlocking during a fire emergency.

Standard Features:

- Field reversible
- 24 VDC continuous duty solenoid
- Silent operation
- Signalling functions
- Corrosion resistant
- Tamper resistant
- Key mechanically retracts latchbolt

Optional Features:

- Fail safe (locked when energized, unlocked when de-energized or during power failure). Specify with suffix "FS".
- Fail secure (unlocked when energized, locked when de-energized or during power failure). Specify with suffix "FSE".
- 24 VAC (by adding SO option)
- 12 VDC or 12 VAC (with SO option)

Note: Some Fire codes will require "Fail Safe" (FS) operation for stairwell doors. Be sure to specify the correct operation for your application.

To order, specify:

- 1a. Use prefix E, example E9975.
- 1b. E7500 (lock only).
2. FS or FSE.
3. Voltage.
4. TP, K, or L functions only.

ELECTRIC LATCH RETRACTION-EL



The EL feature allows for the remote unlocking of exit devices. A control station operator can flip a switch to retract the latch bolt and immediately change an exit door to push-pull operation. A powerful, continuous duty solenoid retracts the latch bolt either for momentary unlocking or for extended periods of time. The EL feature is an alternative to manual dogging.

EL devices are also useful with automatic door operators, and may be applied to fire-rated devices when under the control of an **automatic fire alarm system.**

UL approved for Class II circuit applications. This feature does not include the power transfer from door to frame, nor the power supply or control operator. (Refer to page 24 for the EP-2 power transfer and the PS-872 power booster.)

Solenoid Specifications:

Continuous Duty	24 VDC
Current Inrush	16 Amps.
Current Holding (300 milliamps)	0.3 Amp.

To order, specify:

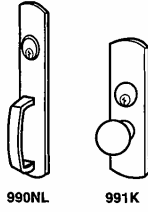
1. Prefix EL, example EL99NL.

VON DUPRIN® 98/99 Trim Selection

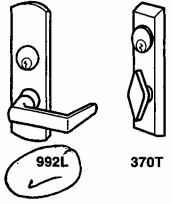
Function	01 Exit Only	02 Pull When Dogged	03 Key Retracts Latch Bolt	03 Key Retracts Latch Bolt	05 Key Locks Thumbpiece	08* Key Locks Knob	08* Key Locks Lever	11 Key Locks Thumbturn
Trim Number and Dimensions		990DT 	990NL 	110NL (Pull Required) Cylinder Only 1 1/2\" (25mm) Rim	990TP 	991K 2 5/16\" (67mm)	992L 2 5/16\" (67mm)	374T 1 3/4\" (44mm)
Device/Trim Center Line To Finished Floor								
Projection	—	2" (51mm)	2" (51mm)	—	2" (51mm)	3 1/4" (95mm)	2 3/4" (70mm)	1 3/4" (44mm)
Rim	Panic	98EO 99EO	98DT 99DT	98NL 99NL	98NL-OP 99NL-OP	98TP 99TP	98K 99K	98L 99L
	Fire	98EO-F 99EO-F	—	98NL-F 99NL-F	98NL-OP-F 99NL-OP-F	98TP-F 99TP-F	98K-F 99K-F	98L-F 99L-F
	Ctr. Line	A 39 1/16" 1011mm	—	A 39 1/16" B 33 1/16" 1011mm 860mm	A 39 1/16" B 40 1/16" 1011mm 1018mm	A 39 1/16" B 33 1/16" 1011mm 860mm	A 39 1/16" B 37 1/16" 1011mm 945mm	A 39 1/16" B 39 1/16" 1011mm 945mm
Mortise Lock	Panic	987EO 997EO	987DT 997DT	987NL 997NL	—	987TP 997TP	987K 997K	987L 997L
	Fire	987EO-F 997EO-F	—	987NL-F 997NL-F	—	987TP-F 997TP-F	987K-F 997K-F	987L-F 997L-F
	Ctr. Line	A 39 1/16" 1006mm	—	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 39 1/16" 1006mm 1012mm	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 37" 1006mm 940mm	A 39 1/16" B 37" 1006mm 940mm
Surface Mounted Vertical Rod	Panic	982EO 992EO	982DT 992DT	982NL 992NL	982NL-OP 992NL-OP	982TP 992TP	982K 992K	982L 992L
	Fire	982EO-F 992EO-F	—	982NL-F 992NL-F	982NL-OP-F 992NL-OP-F	982TP-F 992TP-F	982K-F 992K-F	982L-F 992L-F
	Ctr. Line	A 39 1/16" 1006mm	—	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 39 1/16" 1006mm 1012mm	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 37" 1006mm 940mm	A 39 1/16" B 37" 1006mm 940mm
Concealed Vertical Rod	Panic	984EO 994EO	984DT 994DT	984NL 994NL	984NL-OP 994NL-OP	984TP 994TP	984K 994K	984L 994L
	Fire	984EO-F 994EO-F	—	984NL-F 994NL-F	984NL-OP-F 994NL-OP-F	984TP-F 994TP-F	984K-F 994K-F	984L-F 994L-F
	Ctr. Line	A 39 1/16" 1006mm	—	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 39 1/16" 1006mm 1012mm	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 37" 1006mm 940mm	A 39 1/16" B 37" 1006mm 940mm
Concealed Vertical Rod Wood Door	Panic	9847WDC-EO 9947WDC-EO	9847WDC-DT 9947WDC-DT	9847WDC-NL 9947WDC-NL	9847WDC-NL-OP 9947WDC-NL-OP	9847WDC-TP 9947WDC-TP	9847WDC-K 9947WDC-K	9847WDC-L 9947WDC-L
	Fire	9847WDC-EO-F 9947WDC-EO-F	—	9847WDC-NL-F 9947WDC-NL-F	9847WDC-NL-OP-F 9947WDC-NL-OP-F	9847WDC-TP-F 9947WDC-TP-F	9847WDC-K-F 9947WDC-K-F	9847WDC-L 9947WDC-L
	Ctr. Line	A 39 1/16" 1006mm	—	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 39 1/16" 1006mm 1012mm	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 37" 1006mm 940mm	A 39 1/16" B 37" 1006mm 940mm
Three Point Latch	Panic	985EO 995EO	985DT 995DT	—	—	985TP 995TP	985K 995K	985L 995L
	Fire	985EO-F 995EO-F	—	—	—	985TP-F 995TP-F	985K-F 995K-F	985L-F 995L-F
	Ctr. Line	A 39 1/16" 1006mm	—	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 39 1/16" 1006mm 1012mm	A 39 1/16" B 33 1/16" 1006mm 856mm	A 39 1/16" B 37" 1006mm 940mm	A 39 1/16" B 37" 1006mm 940mm
Additional SNB requirements	6	2	2	6	2	2	2	2

*Refer to additional lever or knob information, page 19.

VON DUPRIN® Trim Selection



990NL 991K



992L 370T

STANDARD TRIM

SERIES 990

Heavy 10 gage (2.4mm) brass, bronze or stainless steel. DT, NL or TP functions

SERIES 991

Forged brass 3/4" (19mm) thick. Operational options — K, DT, NL or BE

SERIES 992

Forged brass 3/4" (19mm) thick. Operational options — L, DT, NL or BE

SERIES 370

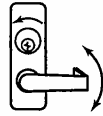
Forged brass 7/8" (22mm) thick escutcheon.

LEVER DESIGN OPTIONS

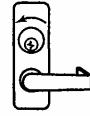
To order: Use suffix lever number, example 9927L×01.



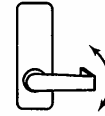
OPERATION OPTIONS — LEVER AND KNOB



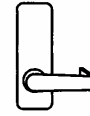
Standard operation, key locks and unlocks lever.



Night latch, key retracts latch bolt, lever is rigid. Use NL suffix, i.e., 992L-NL.



Blank escutcheon, lever always active. Use BE suffix, i.e., 992L-BE.

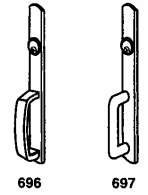


Dummy trim, lever rigid for pull operation. Use DT suffix, i.e., 992L-DT.

OPTIONAL TRIM

SERIES 696

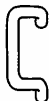
Narrow design 3/16" (5mm) thick brass, bronze or stainless steel. DT, NL or TP functions. Flat pull grip.



696 697

SERIES 697

Narrow design 3/16" (5mm) thick brass, bronze or stainless steel. DT, NL or TP functions. Round wire pull grip.



390

SERIES 390

Offset solid brass, bronze or stainless steel 3/4" (19mm) wire pulls, 7" (178mm) in length. Through bolts to Chexit.

VON DUPRIN®

98/99 Strike/Stile Information

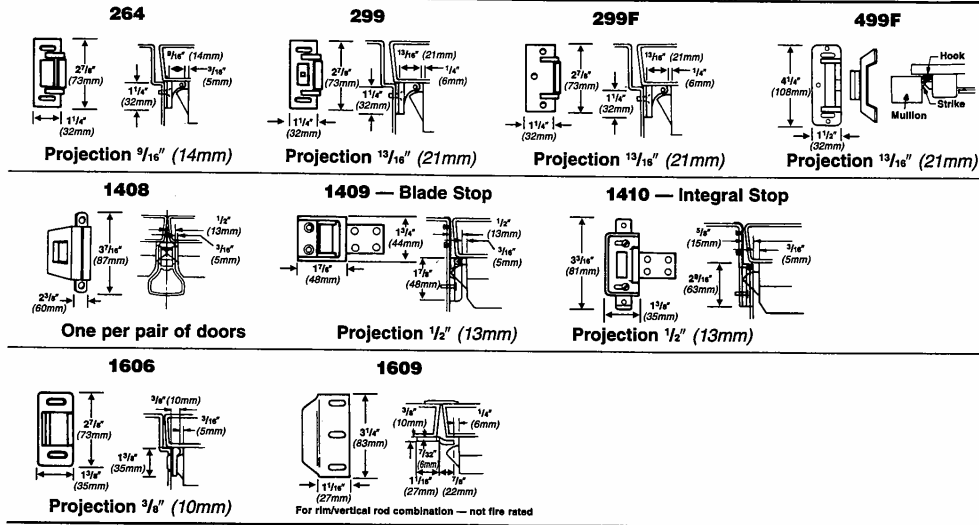
STRIKE APPLICATION/MINIMUM STILE

Device Type	Standard				Optional					
	Single door		Double door		Single door		Double door			
	Strike	Stile	Strike w/Mullion* Stile		Strike	Stile	Strike w/Mullion* Stile			
	× 990	× 696/697	× 990	× 696/697	× 990	× 696/697	× 990	× 696/697		
					1409	3 ¹³ / ₁₆ " (97mm)	3 ¹³ / ₁₆ " (97mm)	299 × 5254/5654	4 ⁷ / ₁₆ " (113mm)	4 ¹ / ₄ " (108mm)
98	299	4 ¹ / ₂ " (114mm)	4 ³ / ₈ " (111mm)	299 × 4954	4 ⁷ / ₈ " (124mm)	4 ³ / ₄ " (121mm)				
99					1410	3 ¹³ / ₁₆ " (97mm)	3 ¹³ / ₁₆ " (97mm)	299 × 5554/5754	3 ¹³ / ₁₆ " (97mm)	3 ¹³ / ₁₆ " (97mm)
					1606	4 ¹ / ₁₆ " (103mm)	3 ¹⁵ / ₁₆ " (100mm)	1606 × 1654	4 ⁷ / ₁₆ " (113mm)	4 ¹ / ₄ " (108mm)
98-F/99-F	299F	4 ¹ / ₂ " (114mm)	4 ³ / ₈ " (111mm)	499F × 9954	4 ⁷ / ₈ " (124mm)	4 ³ / ₄ " (121mm)	—	—	—	—
9875	575	4 ³ / ₄ " (121mm)	—	—	—	—	—	575-2	4 ³ / ₄ "	—
9975								576A-576B	4 ³ / ₄ "	(121mm)
9875-F	575	4 ³ / ₄ " (121mm)	—	—	—	—	—	575-2	4 ³ / ₄ "	—
9975-F								576A-576B	4 ³ / ₄ "	(121mm)
	Strike		Application	Stile	Strike		Application	Stile		
	× 990			× 990	× 696/697			× 990	× 696/697	
9827	299 (Top)		Single door	3 ¹¹ / ₁₆ " (94mm)	3 ⁵ / ₈ " (92mm)	260U (Top)		3 ¹¹ / ₁₆ " (94mm)	3 ⁵ / ₈ " (92mm)	
9927	304L/248L-4 (Bottom)					385A (Bottom)				
Latch Retraction										
PL9827/PL9927	299 (Top)		Two Vertical	3 ¹¹ / ₁₆ " (94mm)	3 ⁵ / ₈ " (92mm)	260U (Top)		3 ¹¹ / ₁₆ " (94mm)	3 ⁵ / ₈ " (92mm)	
Pullman Latch	304L/248L-4 (Bottom)		Rod Devices							
9827-F	299 (Top)		Vertical Rod	4 ³ / ₄ " (121mm)	4 ³ / ₄ " (121mm)	385A (Bottom)		4 ³ / ₄ " (121mm)	4 ³ / ₄ " (121mm)	
9927-F	304L (Bottom)		w/Mortise							
9847	338 (Top)		Lock Device			304L (Bottom)				
9947	385A (Bottom)									
9847-F	338 (Top)		Double	4 ¹ / ₄ " (108mm)	4 ¹ / ₈ " (105mm)	304L (Bottom)				
9947-F	385A (Bottom)									
9848-F										
9948-F										
9847WDC-F										
9947WDC-F										

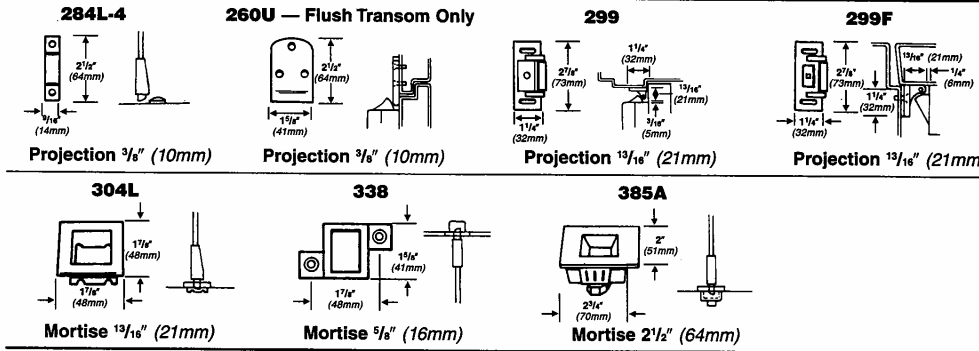
*Mullion information — refer to the General and Auxiliary catalog.

VON DUPRIN® 98/99 Strike Information

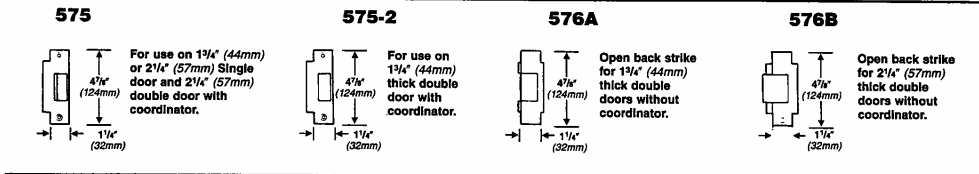
STRIKES FOR RIM DEVICES



STRIKES FOR VERTICAL ROD DEVICES

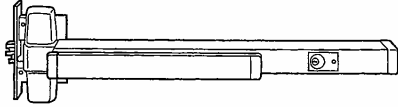


STRIKES FOR MORTISE LOCK DEVICES



VON DUPRIN® Accessories and Options

ELECTRIC MORTISE LOCK



The electric mortise lock has all the versatility and advantages of the standard mortise lock, plus being electrically controllable by a remote switching device, and access control or automatic fire alarm system.

The E7500 controls the locking of the outside trim. When unlocked the door remains latched, preserving the fire rating of the door and making it particularly useful where codes permit locking, but require unlocking during a fire emergency.

Standard Features:

- Field reversible
- 24 VDC continuous duty solenoid
- Silent operation
- Signalling functions
- Corrosion resistant
- Tamper resistant
- Key mechanically retracts latchbolt

Optional Features:

- Fail secure (unlocked when energized, locked when de-energized or during power failure).
Furnished standard.
- Fail safe (unlocked when energized, locked when de-energized or during power failure).
Specify with suffix "FS".
- 24 VAC (by adding SO option)
- 12 VDC or 12 VAC (with SO option)

Note: Some Fire codes will require "Fail Safe" (FS) operation for stairwell doors. Be sure to specify the correct operation for your application.

ELECTRICAL POWER TRANSFER



The EPT-10 provides a means to transfer power from the frame to the door stile in Chexit applications. It is used in installations with $4\frac{1}{2}'' \times 4\frac{1}{2}''$ (114mm x 114mm) butt hinges or $\frac{3}{4}''$ (19mm) offset pivots.

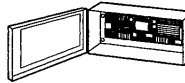
The EPT-10 is reversible and allows a full (180°) door swing. When the door is closed, the unit is concealed for tamper resistance.

UL approved component for use with listed rim, mortise and vertical rod fire devices.

Dimensions:

Housing	$9'' \times 1\frac{7}{16}'' \times 1\frac{1}{2}''$ (23mm x 37mm x 38mm)
Conductors	Ten 24 AWG UL Approved
Rating	10 Amps. at 24 VDC (Class 1 low voltage) (20 Amp. maximum surge)

POWER SUPPLIES



PS871 or PS873 are UL approved power supplies and specifically designed to handle Chexit controlled exit device.

Both PS871 and PS873 are 24 VDC, 2 Amp, regulated power supplies, 120 VAC input and can power up to four Chexits, but the rearm times must be staggered so that no two devices rearm at the same time.

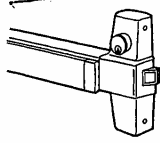
Refer to the Door Control and Security Products Catalog for complete power supply information.

Specifications:

Housing:	Surface Mount, No Lock $8\frac{1}{4}'' \times 6\frac{1}{2}'' \times 4\frac{1}{4}''$ (211mm x 166mm x 109mm)
Output:	2.0 Amperes Continuous @ 24 VDC 16.0 Amperes Surge For 300 milliseconds
Inputs (Primary):	120 VAC — 102-132 VAC @ 1 Amp. 240 VAC — 204-264 VAC @ $\frac{1}{2}$ Amp.

VON DUPRIN® Accessories and Options

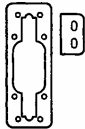
CD CYLINDER DOGGING *VCD*



Cylinder dogging option is available to allow push/pull operation of Chexit, when disarmed and used in a heavy traffic area.

For typical electronic applications see pages 14-15.

GLASS BEAD KIT



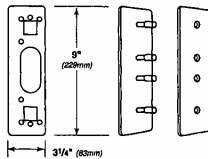
Glass bead conversion kits are available for use on doors with raised glass beads. Kit consists of 1/8" (3mm) shim sets.

DUMMY PUSH BAR



The 330 grooved and 350 smooth dummy push bars are designed as a companion unit for all 98 or 99 devices. The touch bar is rigid or non-functioning. A push/pull operation can be accomplished by using 990DT or other pull trim.

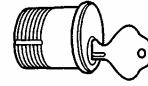
COVER PLATE KIT — 997 KIT



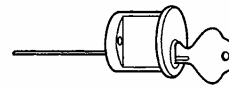
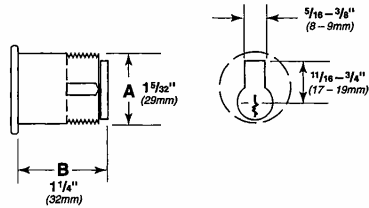
For rim device, kit contains inside and outside plates for hinge stile, an inside plate for the lock stile, and fasteners. Designed to cover most cutouts, 3 1/4" (83mm) x 9" (229mm).

CYLINDERS

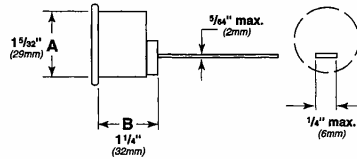
Cylinders are not furnished with device or trim and must be specified when ordering. Rim, surface vertical rod, and concealed vertical rod exit devices use rim type cylinders. Mortise lock exit devices and series 370 controls use mortise type cylinders.



Mortise - 3215 (Schlage B502-191 cam)

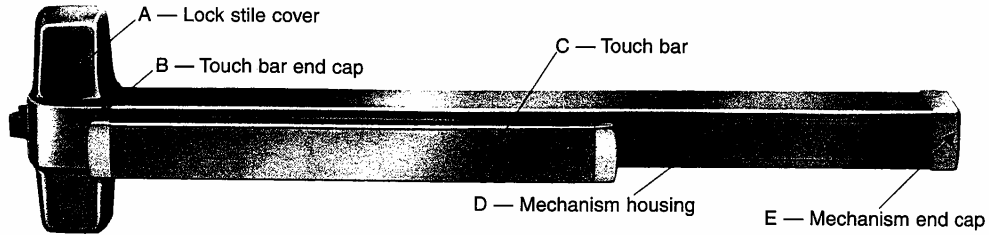


Rim - 3216



VON DUPRIN®

98/99 Additional Information



FINISHES

Color*	US Number	BHMA Number	A, B, E	C	D
Brass, Polished	US3	BHMA605	Plated	Brass, Polished US3, BHMA605	Buffed Anodized
Brass, Satin	US4	BHMA606	Plated	Brass, Dull US4, BHMA606	Anodized
Bronze, Satin	US10	BHMA612	Plated/Anodized	Bronze, Dull US10, BHMA612	Anodized
Chrome, Polished	US26	BHMA625	Plated	Stainless Steel, Polished US32, BHMA629	Buffed Anodized
Chrome, Satin	US26D	BHMA626	Plated	Stainless Steel, Satin US32D, BHMA630	Anodized
Stainless Steel, Satin	US32D	BHMA630	Stainless Steel	Stainless Steel, Satin US32D, BHMA630	Anodized
Aluminum, Anodized	US28	BHMA628	Painted	Stainless Steel, Satin US32D, BHMA630	Anodized
Duranodic Dark Bronze	313	—	Painted	Wood grain vinyl**	Anodized

Touch Bar Options — Knurled — Black vinyl — Walnut grain vinyl — Embossed "Push", brass, bronze or stainless steel

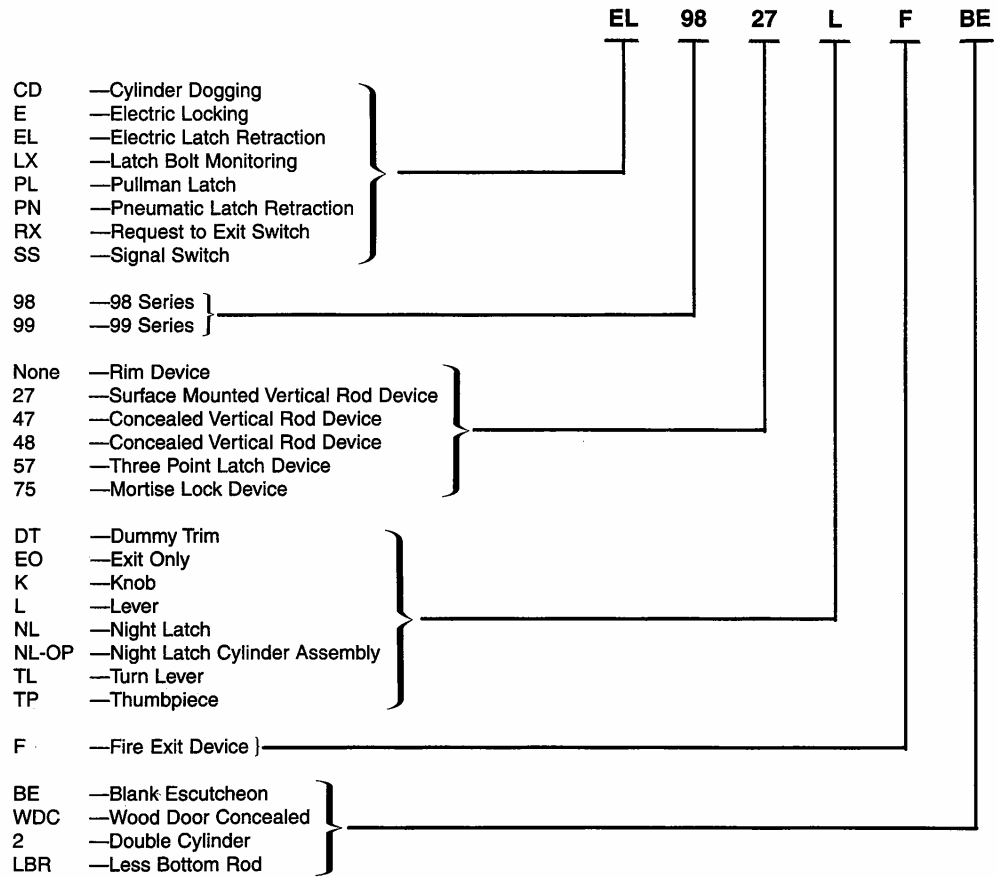
*US32D Finish — available on Series 98, consult factory.

**US10B available, consult factory.

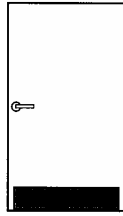
VON DUPRIN®

98/99 Additional Information

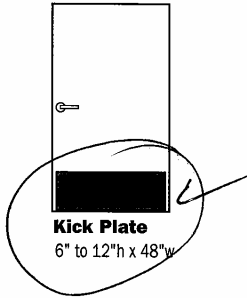
NOMENCLATURE



Door Plates



Mop Plate
Up to 8"h x 48"w



Kick Plate
6" to 12"h x 48"w



Stretcher Plate
6" to 12"h and up to 48"w



Armor Plate
Up to 48"h x 48"w and available in most finishes

Warnock Hersey
"MADE IN" US

Width of Plates:

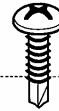
Push Side: 2" less than door width. Pull Side: 1½" less than door width.

NFPA 80 STANDARDS — 2-4.5 Protection Plates: Factory-installed protection plates shall be installed in accordance with the listing of the door. Field-installed protection plates shall be labeled and installed in accordance with their listing.

Exception: Labeling is not required where the top of the protection plate is not more than 16 in. (406 mm) above the bottom of the door.

Self-Drilling TEK Screws

Cuts Door Plate Installation Time in Half



Metal Door Plate - Economy Duty No. K1038

Material: .038" Thick Aluminum, Stainless Steel

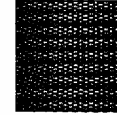
Finishes: Brass Look Aluminum (BRS LK), US32D, US32DPAT, and US3LIFETIME

Fastener: #6 x 5/8 TH SMS

Ordering: Specify height x width x finish code. Add any options.

Weight: 8" x 34" = 3.2 lbs.

- Options:**
- SA - self-adhesive mounting.
 - TEK - self-drilling screws.
 - Cutouts for locks, louvers, or windows.
 - TORX - security torx screws.



US32DPAT
Patterned Stainless Steel

Metal Door Plate - Standard Duty No. K1050, ~~K1050F~~

Material: .050" Thick Aluminum, Brass, Bronze, Stainless Steel

Finishes: Available in standard architectural finishes, US32DBIO, US32D316, and US32316 (see page 7).

Fastener: #6 x 5/8 TH SMS

Ordering: Specify height x width x finish code. Add any options.

Weight: 8" x 34" = 4.0 lbs.

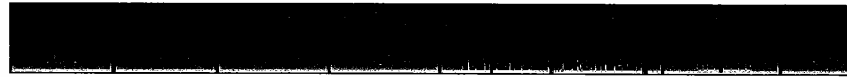
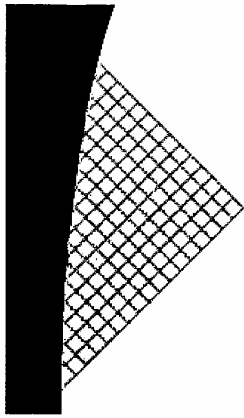
ANSI: J101 - metal armor plate, J102 - metal kick plate, J103 - metal stretcher & mop plate.

- Options:**
- SA - self-adhesive mounting.
 - TEK - self-drilling screws.
 - Beveled 3 or 4 edges, specify B3E or B4E.
 - CSK - countersunk holes.
 - Cutouts for locks, louvers, or windows.
 - TORX - security torx screws.
 - Warnock Hersey labeled plates for 3-hour metal doors K1050F.

Warnock Hersey
"MADE IN" US

C1

Rockwood Manufacturing Company
Phone: 800-458-2424



Finish Codes

Most of Rockwood's products are available in all of the following architectural finishes. This finish list is grouped by base metal. There are two basic finish codes in use today, the US code and the more complete and modern BHMA code. The following is a cross reference and description of the most frequently used finishes for our products. If you require special finish or want to match a particular sample, we would be glad to quote your requirements. Our in-house plating shop provides us with the capability to meet your specific needs. Contact factory for prices on any finishes not listed in the price list.

Products

- ▶ Full Line
- ▶ Architectural Pulls
- ▶ BioGuard
- ▼ Finish Code
- ▶ Mounting Details

Base Metal	Description	Rockwood Code	BHMA Code
Aluminum	Satin	US27	627
Aluminum	Clear Anodized	US28	628
Aluminum	Light Bronze Anodized	311	—
Aluminum	Medium Bronze Anodized	312	—
Aluminum	Dark Bronze Anodized	313	710
Aluminum	Extra Dark Bronze Anodized	314	—
Aluminum	Black Anodized	315	711
Aluminum	White Powder Coat	WPC	—
Aluminum	Red Powder Coat	RPC	—
Aluminum	Black Powder Coat	BPC	—
Brass	Polished Clear Coated	US3	605
Brass	Polished No Coating	US3NL	—
Brass	Satin Clear Coated	US4	606
Brass	Satin Oxidized Relieved	US5	609
Brass	Satin Nickel Plated Clear Coated	US15	619
Brass	Satin Nickel Blackened Relieved Clear Coated	US15A	620
Brass	Flat Black Coated	US19	622
Brass	Polished Chrome Plated	US26	625
Brass	Satin Chrome Plated	US26D	626
Bronze*	Polished Clear Coated	US9	611
Bronze	Satin Clear Coated	US10	612
Bronze	Satin Oxidized Oil Rubbed	US10B	613
Bronze	Satin Oxidized Clear Coated	US10BL	614
Bronze	Satin Dark Statuary	US20A	624
Stainless Steel	Polished	US32	629
Stainless Steel	Satin	US32D	630
Stainless Steel**	Satin BioGuard™ Coated	US32DBIO®	—

US32DBIO (BioGuard) employs AgION™ Technologies silver ion based antimicrobial science to produce a protective finish for door pulls and plates that suppresses bacterial growth on the surface of the product. The AgION antimicrobial compound is an inorganic material with the natural protection of silver. Encapsulated silver ions are slowly released from the antimicrobial compound to the treated surface where they interact with other ions in the environment. This inhibits the growth of numerous strains of bacteria, yeast, fungi, and molds. To learn more about this new material visit the AgION Technologies website at www.agion-tech.com.

Stainless Steel**	Polished 316 Alloy	US32316	—
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DOR-O-MATIC 

Handicap Access Door Operators for ADA



Senior-Swing™ • Middle-Swing™ • Junior-Swing™



DOR-O-MATIC™

Senior-Swing™

**Dor-O-Matic's
handicap
access door
operators
make the
"Americans
With
Disabilities
Act" an
easy act
to follow.**



The Senior-Swing™ handicap access door operator meets your ADA requirements for providing equal access for the handicapped at exterior and interior entryways. Senior-Swing is Dor-O-Matic's versatile, heavy duty, two-in-one door operator that is incomparable in its smooth, care-free electro-mechanical operation. It also features advanced micro processor controls. The handicap access door operator opens the door automatically for the disabled, and yet can be used in its manual mode for other traffic. Senior-Swing is concealed overhead or surface applied.

buildings, since the "right of passage" law affects many of their design aspects.

This unit provides outstanding operating benefits and the ultimate in customer satisfaction even in high use applications. Senior-Swing holds the door closed under spring pressure roughly equivalent to a #3 manual closer for an exterior door.

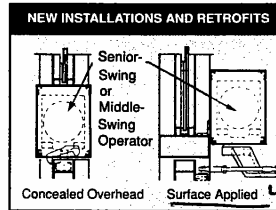
Senior-Swing installations do not require guide rails or safety carpets because they function as low energy power operated door systems.

IN FULL SWING WITH CODES

Besides being in compliance with the ADA, Senior-Swing also satisfies code requirements such as those outlined in ANSI/BHMA standard A156.19, and meets UL requirements.

The Senior-Swing operator's opening time is field adjustable in order to ensure meeting the code requirements for a handicap access door operator.

Automatic opening force is less than 15 pounds, with equally low closing force. The Senior-Swing operator also has an adjustable hold open period of 5 to 30 seconds while in the automatic mode and 1 to 30 seconds in the manual mode.



The header is available in clear, dark bronze or black anodized aluminum. Painted finishes, muntz metal or stainless steel claddings are also available. Dor-O-Matic also offers a varied selection of activating push button and push plate switches, including remote control, battery-operated switch systems. All switches are of low voltage type and are available with international handicap logo. Senior-Swing is the ideal solution for new and existing

Specifications



Senior-Swing™

Provide Dor-O-Matic Senior-Swing™ electro-mechanical low energy power door operator complying with current ANSI/BHMA A156.19 "Standard for Power Assist & Low Energy Power Operated Doors". Unit shall incorporate a microprocessor control box with "Push & Go" feature and power boost close. The power boost feature shall increase the closing force from 6 lbf to 15 lbf against wind pressure. Manual opening force shall not exceed 15 lbf. Control box and motor/gear box shall be contained in a full door-width extruded aluminum housing, 4 1/2" wide x 5 1/2" high, designed for (concealed O.H.) (surface applied) (interior) (exterior) application. Finish shall be (select from chart below). Activation shall be by (push button) (push plate) (wireless remote switch).

Work not included: electrical service of 115v. AC, 60 Hertz, single phase 15 amp. fused circuit to operators, 1/2" conduit and electrical boxes at switch plates.

Middle-Swing™

Provide Dor-O-Matic Middle-Swing electro-mechanical low energy power door operator complying with current ANSI/BHMA A156.19 "Standard for Power Assist & Low Energy Power Operated Doors". Unit shall incorporate a microprocessor control box with "Push & Go" feature. Closing force shall be 5 lbf; manual opening force shall not exceed 8 1/2 lbf. Control box and motor/gear box shall be contained in a full door-width extruded aluminum housing, 4 1/2" wide x 5 1/2" high, designed for (concealed O.H.) (surface applied) (interior) (exterior) application. Finish shall be (select from chart below). Activation shall be by (push button) (push plate) (wireless remote switch).

Work not included: electrical service of 115v. AC, 60 Hertz, single phase 15 amp. fused circuit to operators, 1/2" conduit and electrical boxes at switch plates.

Junior-Swing™

Provide Dor-O-Matic Junior-Swing electro-mechanical low energy power door operator complying with current ANSI/BHMA A156.19 "Standard for Power Assist & Low Energy Power Operated Doors". Closing force shall be not less than 3 lbf; manual opening force shall not exceed 5 lbf. Control assembly, gear speed reducer, and D.C. motor shall be contained in a paintable aluminum housing, surface-applied for (regular arm "Push" operation) (parallel arm "Pull" operation). Activation shall be by (push button) (push plate) (wireless remote switch).

Work not included: electrical service of 115v. AC, 60 Hertz, single phase 15 amp. fused circuit at convenience outlet located near top jamb (within 12" from cord end of operator). 1/2" conduit and electrical boxes at push buttons.

DOR-O-MATIC HANDICAP ACCESS PRODUCTS COMPARISON

General Features	SENIOR-SWING	MIDDLE-SWING	JUNIOR-SWING
Force to Open*	14#	8 1/2#	5#
Closing Force*	6#	5#	3#
Opening Speeds	3 pos.	3 pos.	2 pos.
Maximum Door Weight	250#	250#	150#
Standard Features			
Complies with ANSI 156.19	YES	YES	YES
Electro-Mechanical Operation	YES	YES	YES
Surface Application—All Doors	YES	YES	YES
Interior Application	YES	YES	YES
Exterior Application	YES	YES	no
Safety Stop and Close	YES	YES	no
Full Opening Width Header	YES	YES	no
O.H. Concealed—Center Hung Doors	YES	YES	no
Push-N-Go	YES	YES	no
Computer Controlled	YES	YES	no
Power Boost Closing	YES	no	no
Optional Features			
Compatible with Wireless Remotes	YES	YES	YES
Bright, Dk Bronze, Blk Alum Header	YES	YES	no
S.S. and Bronze Headers (Clad)	YES	YES	no
Painted Finishes	YES	YES	no
Compatible with Dor-O-Matic Electric Lock	YES	no	no

* Measured at 35" from spindle using laboratory apparatus. Actual installation measurements are subject to small variations.



DOR-O-MATIC®

7350 W. Wilson Avenue
Harwood Hts., IL 60656-4786
(708) 867-7400 • 1 (800) 543-4635
Fax (708) 867-0291 • Fax (708) 867-0310

Printed in U.S.A. 10/93

Senior Swing™

Senior Swing is Power!

Constructed with the very same components as Dor-O-Matic's heavy-duty high-power swing door operator Astro Swing™, Senior Swing is the most durable low-energy operator available. The leading choice of retailers for use on their front entrances, Senior Swing has been internally tested to exceed 10,000,000 cycles. That equates to an average product expectancy of 20 years!*

Standard to Senior Swing is Dor-O-Matic's Power Boost™ feature. Power Boost provides an additional 25 pounds closing force to ensure latching in severe wind or stack conditions. Power Boost is also ideal for overcoming possible closing obstacles, such as electric strikes. Power Boost is activated by a simple on/off toggle switch located on the face of the bottom-loaded control box.

Dor-O-Matic® Automatic Swing Door Operator with Push 'N Go Feature

Building codes require the provision of handicapped access on exterior and interior entryways in public buildings and institutions. The question is how to provide accessibility, without diminishing the effectiveness of the entrance design, in a low-cost, versatile manner. The answer is the Senior Swing door operator!

The Dor-O-Matic Senior Swing is a versatile two-in-one swing door operator, opening doors automatically for the handicapped but allowing manual operation for all other traffic.

Minimal Installation Costs

Senior Swing installations do not require guide rails, safety carpets and carpet trim because the Senior Swing is a low-energy power-operated door as defined in current ANSI/BHMA A156.19.

Exterior or Interior Applications

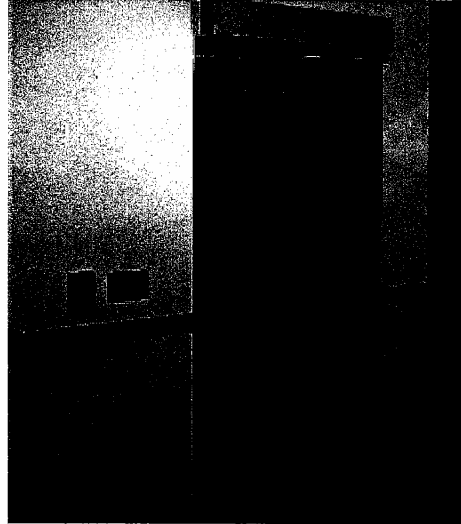
A true "first" for a handicapped door operator, Senior Swing offers rugged, dependable design and superior materials. This unit provides outstanding operating benefits and the ultimate in customer satisfaction, even in high-use applications. Senior Swing holds the door closed under spring pressure roughly equivalent to a #3 manual closer for an exterior door.

Freer Traffic Flow with Push 'N Go

Pedestrians can walk up to the Senior Swing door and push the door open as if it were a manual door. After the door is manually opened approximately 5°, the Push 'N Go feature takes over and continues to open the door—slowly and automatically to the full open position as the pedestrian walks unimpeded through the open doorway. When the door is opened with Push 'N Go, the door will stay fully open from one to 30 seconds, depending on the time delay chosen. The unit can also be ordered with no Push 'N Go feature; in this case, the unit functions like a manual door closer with no Push 'N Go feature.

*Product life cycles may be reduced greatly due to specific applications and/or abuse encountered during normal, everyday use. Dor-O-Matic proudly guarantees Senior Swing against defects in either material or workmanship for one year from date of installation, provided the equipment was installed by a factory-trained and authorized Dor-O-Matic distributor.

2



Automation as Needed

The door can be used by both handicapped and pedestrian traffic, but the door will be automated only as needed when one of the handicap push buttons or push plate actuating switches is actuated. The door will operate as a manual door for pedestrians who do not use any of the actuating switches.

Meets all Building Codes

The Senior Swing's opening time is field adjustable in order to ensure meeting the code requirements for a handicap operator. Automatic opening force is less than 15 pounds, with equally low closing force. The Senior Swing operator also has an adjustable hold-open period of 5 to 30 seconds while in the automatic mode, and one to 30 seconds in the manual mode.

Building Applications

- Handicapped Entrances
- Post Offices
- Office Buildings
- Shopping Mall
- Hospital Entrances
- Outpatient Entrances
- Colleges
- Convenience Stores



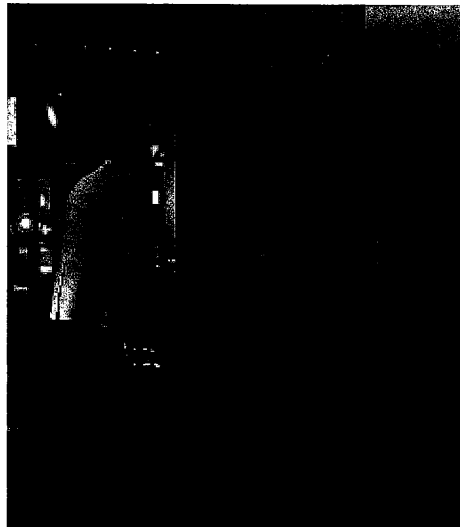
Overhead

System Operation

The system is designed to safely handle doors up to a maximum of 200 lbs. Easy to install, the durable Senior Swing functions as either an automatic door operator for the handicapped or as a manual door closer. In the automatic mode, Senior Swing meets all existing code requirements such as those outlined in current ANSI/BHMA standard A156.19.

Automatic Handicap Mode

In the automatic handicap mode, one of the push buttons on either side of the door is actuated and the door opens slowly—to backcheck (80°) in 3 to 6 seconds and to the fully open position in 4 to 7 seconds. The door will then remain open for a period of 5 seconds (the minimum allowed by ANSI standards) to 30 seconds, as determined by the setting entered into the variable time delay on the control box. After the time delay, the door closes by the spring in the door operator from 90° to 10° in 3 to 6 seconds and from 10° to fully closed in 1-1/2 to 2 seconds.



Surface-Applied ✓

~~Manual Push 'N Go Mode~~

In the manual mode, pedestrians walk up to the door and begin to push open or pull open the door. When the door is open approximately 5°, the control box takes over and continues to open the door—slowly and automatically to the full open position. When the door is opened as a result of Push 'N Go, the door will stay fully open from one to 30 seconds, depending on the time delay chosen. The unit can also be ordered with no Push 'N Go feature; in this case, the unit functions like a manual door closer.

Completely self-contained in an extruded aluminum housing with all electromechanical construction, microprocessor controls and no microswitches, the Senior Swing is exceptionally quiet and requires little energy to operate. The Senior Swing can be surface-applied or mounted overhead.

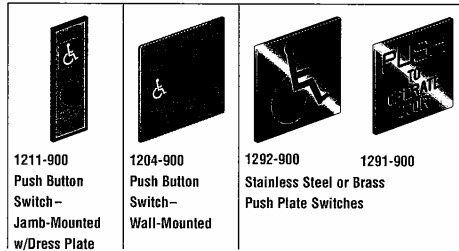
Today's Best Choice

For new or existing installations, choose Senior Swing and enjoy the benefits available from no other handicap operator. For your convenience, a sample specification is provided on the following page.

Senior Swing™

Activation Switches

All switches are of low-voltage type and are available with identification for handicap use. Jamb-mounted Push Button Switches, wall-mounted Push-Plate Switches and door decals are available.

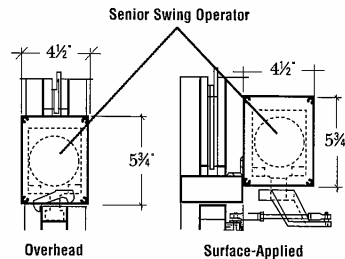


Suggested Specification

1. **Senior Swing (with Push 'N Go)**
The Low-Energy Power Operated Door operating equipment (Senior Swing) shall be fabricated and delivered by Dor-O-Matic, 7350 W. Wilson Ave., Harwood Heights, Illinois 60706.
2. **Scope of Work and Work Included**
Furnish all labor, materials, equipment and services necessary for the proper installation of the Dor-O-Matic Senior Swing handicap door system, a Low-Energy Power Operated Door system as defined in current ANSI/BHMA A156.19.
3. **Equipment**
The Senior Swing unit shall be completely electromechanical with microprocessor control, requiring no microswitches on the operator.
4. **Work Not Included**
 - A. Aluminum doors and frames as described in aluminum doors and frames section of Division 8.
 - B. Wood doors as described in wood door section or laminate plastic section of Division 8.
 - C. The electrical contractor shall provide 115V, 60 Hz., one-phase 15-amp supply to the door header. Also conduit and electrical boxes, if switches are remote.
 - D. The general contractor shall provide adequate support for the door operating equipment.
5. **Marking**
Doors shall be equipped with decal(s) visible from either side, instructing the user to the operation and function of the door.

Original Installations or Retrofits

The Senior Swing operator can be mounted overhead for center pivot doors or surface-applied for center pivot, butt-hung or offset pivot doors.



6. System Operation

- A. **Automatic Handicapped Model:** In the handicap mode, one of the activating switches on either side of the door is actuated and the door opens slowly—to backcheck (80°) in 3 to 6 seconds and to the fully open position in 4 to 7 seconds. The door will then remain open for a period of 5 seconds (the minimum allowed by the ANSI standard) to 30 seconds as determined by the setting entered into the variable time delay on the control box. After the time delay, the door closes by the spring in the door operator from 90° to 10° in 3 to 6 seconds, and from 10° to fully closed in 1-1/2 to 2 seconds.

Specify B or C below.

- B. **Manual with Push 'N Go:** Pedestrians walk up to the door and begin to push open or pull open the door. When the door is open approximately 5°, the control box takes over and continues to open the door—slowly and automatically to the full open position. When the door is opened as a result of Push 'N Go, the door will stay fully open from one to 30 seconds depending on the delay chosen.
- C. **Manual with no Push 'N Go:** The Senior Swing operator functions as a manual door closer.

7. Architectural Requirements

The operator header must be 4-1/2" wide by 5-3/4" high to meet the architectural sightline requirements of the curtain wall and jambs. Operator shall be bottom-loaded. All finishes are available.

8. Limited Warranty

The Senior Swing equipment and controls shall be warranted for one (1) year from date of installation.

9. Shop Drawings

Submit shop drawings for architect's approval.



Ingersoll-Rand Company

Dor-O-Matic
Automatic Door Products
7350 West Wilson Avenue
Harwood Heights, IL 60706-4708
708 867 7400 800 543 4635
Fax: 708 867 0291
www.doromatic.com



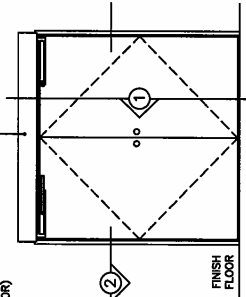
SENIOR-SWING
 DOUBLE EGRESS DOOR - RIGHT HAND
 SWING OPERATORS ON SAME SIDE
 FOR BUTT-HINGED DOORS
 WITH PUSH & PULL ARM

7350 West Wilson Ave.
 Hanwood Heights, IL 60708-4786

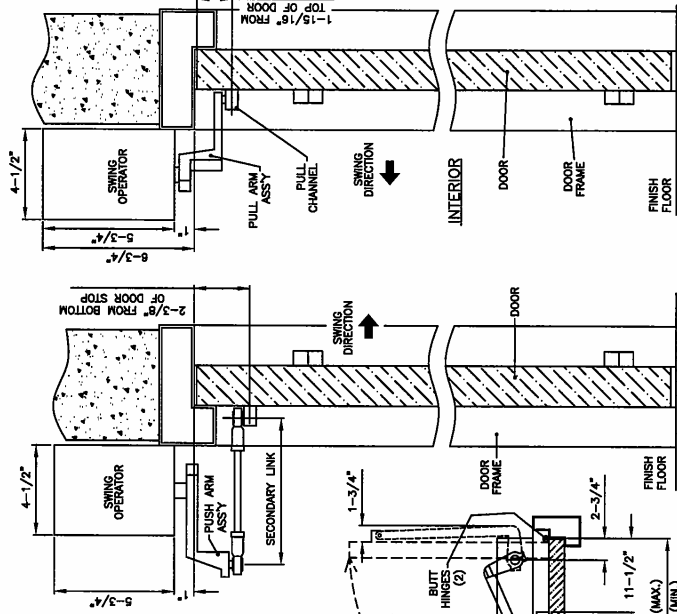
Phone: (800) 543-4635
 Fax: (708) 887-0281
 www.doromatic.com

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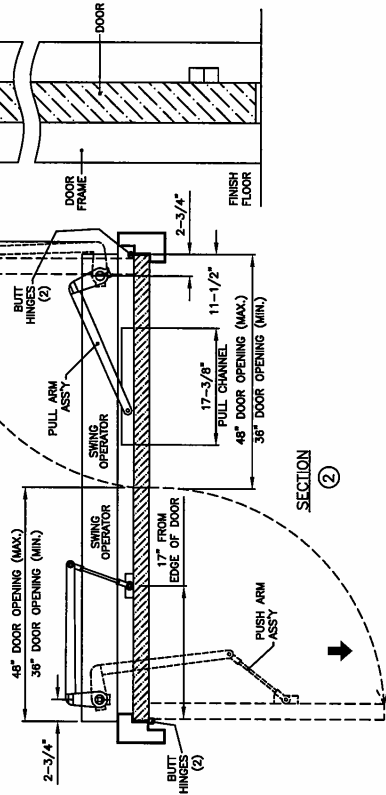
115 VOLT, 1.5 AMP
 RUNNING LOAD
 BY OTHERS
 (EACH OPERATOR)



ELEVATION



SECTION 1



SECTION 2

NOTE:
 STANDARD PACKAGE: SWING DOOR OPERATOR, WITH
 ELECTRO-MECHANICAL CONTROL BOX, AND TOP PUSH ARM
 AND PULL ARM.

STANDARD FINISH:
 CLEAR ANODIZED - US28
 DARK BRONZE ANODIZED - DC13
 SPECIAL COLORS AND GLASSING ARE AVAILABLE

- CONSULT ANSI CODES FOR SAFETY REQUIREMENTS.
- ALL WRITTEN DIMENSIONS ARE TO TAKE PREFERENCE OVER SCALED DIMENSIONS.
- OPTIONAL EQUIPMENT:
 - HEADER MOUNTED SAFETY SYSTEM
 - SAFETY SENSORS
 - GUIDE RAILS
 - THE LENGTH WILL BE IN ACCORDANCE WITH ANSI-STANDARD
- ALL ANSI DECALS ARE PROVIDED.