

City of Springfield Public Improvement Project

Invitation to Bid for:

P21050 Island Park

The information provided is an abridged version of the complete Invitation to Bid and is provided for review and informational purposes only. This document does not contain all of the documents required for submission of a responsive bid. To submit a responsive bid for consideration, a complete set of bid documents, along with any subsequent addenda issued, is required.

A complete set of bid documents may be viewed or purchased at the address shown below:

City of Springfield
Development and Public Works Department
225 Fifth Street
NW Quad
Springfield, OR 97477

To purchase or view bid documents contact: Jolie Smith at 541-726-3687 or jrsmith@springfield-or.gov

All other questions regarding this project should be addressed to: Terri White at twhite@springfield.or.gov



**City of Springfield
Community Development Division**

SPECIFICATIONS

for

P21050

Island Park

MANDATORY PRE-BID MEETING

Date: June 26, 2013

Time: 10:00 a.m.

Location: Project Site located directly south of the intersection of C and Water Streets, Springfield, Oregon

BID OPENING

Date: July 10, 2013

Time: 2:00 p.m.

**Location: City of Springfield
City Hall**

**Room: Jesse Maine Room
225 Fifth Street
Springfield, OR 97477**

The deadline for submission of project specific questions prior to bid opening is July 1, 2013 at 1:00 p.m. as specified in Section 3.3 of the Instruction to Bidders.

This Project is funded in full or in part with:

Neither State nor Federal Funds

Please Take Note: All information required must be submitted as directed.

For your Bid to be considered responsive by the City of Springfield you must include all documents included in the Invitation to Bid with your Bid. Additionally, any addendums or revisions must be acknowledged and submitted with your Bid. *The only exception to this is any plans or drawings, which are not required to be submitted as a part of your Bid.*

All documents requesting information must be completed in full and signed where appropriate. *The only exceptions to this requirement are the sample Performance Bond, Payment Bond, Statutory Public Works Bond and Contract documents which are provided here as a reference. However, if you are awarded the Bid, you will be required to submit fully executed copies of these documents upon request.*

A complete description of submittal requirements can be found in the Instruction to Bidders document included in this request for bid under the heading; **5. Bid.**

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**CITY OF SPRINGFIELD, OREGON
Invitation to Bidders**

Public Works Improvement Project

Sealed bids will be received at the office of the Finance Director, Robert Duey at the City of Springfield Finance Department, 225 Fifth Street, Springfield, OR 97477, until, but no later than, 2:00 p.m. Local Time, the 10th day of July, 2013 and opened at 2:05 p.m. the same day at the same location, for the construction of the following public works improvement project in the City of Springfield:

Project No. P21050 Title: Island Park

Description: The project consists of the installation of three (3) manholes in the Water Street right-of-way, one (1) of which is a water quality manhole. The work will include the removal and installation of pipe, replacement of a portion of curb and gutter, the removal and reconstruction of two (2) driveway aprons and the removal and replacement of A.C. pavement.

Bid documents are available from the Department of Development and Public Works, City of Springfield, 225 Fifth Street, Springfield, OR 97477, for a non-refundable fee of \$25.00 and are available for viewing at this location. Bid documents available on line at <http://www.springfield-or.gov/dpw/InvitationBid.htm> and those on file at plan centers are incomplete and cannot be used to submit bids. The 1994 edition, as most recently amended, of the City's Standard Construction Specifications, with subsequent revisions, are available for a fee of \$40.00 or can be viewed on-line at <http://www.springfield-or.gov/dpw/StandardConstructionSpecifications.htm> .

A **MANDATORY** pre-bid meeting will be held on Wednesday, June 26, 2013 at 10 a.m. at the project site, directly south of the intersection of C and Water Streets, Springfield, Oregon.

All questions should be addressed to Terri White, Engineering Assistant, at twhite@springfield-or.gov. The deadline for submission of questions regarding this Invitation to Bid is Monday, July 1, 2013 at 1 p.m. Contact with any other City officials may be grounds for disqualification of bid.

No Bid will be received or considered by the City unless the bidder has a current, valid certificate of registration issued by the Construction Contractor's Board as defined in ORS 701.005 and/or a valid landscape contractors license as defined in ORS 671.520 by the State Landscape Contractor's Board, as applicable, at the time the Bid is made and unless the bid contains a statement by the bidder as part of his/her bid that the provisions required by ORS 279C.838 through ORS 279C.870 shall be included in his/her contract. In accordance with ORS 279C.365, the City of Springfield will require that each bid must contain a statement as to whether the bidder is a resident bidder, as defined in ORS 279A.120.

The City of Springfield encourages contractors, sub-contractors and vendors who are minority, woman-owned and emerging small businesses to participate in City projects.

The City of Springfield may reject any or all bids not in compliance with all prescribed public bidding procedures and requirements, including the requirement to demonstrate the bidder's responsibility under ORS 279C.375, or waive minor irregularities not affecting substantial rights and may reject for good cause any or all bids upon a finding of the City of Springfield it is in the public interest to do so and accept such bids that in the opinion of the Springfield City Council are in the best interest of the City.

Bids will be accepted and awarded in accordance with the City of Springfield's document on general conditions and standard specifications for public works construction.

Note: If applicable to this project, the First-Tier Subcontractor Form must be completed in full and submitted by the specified deadline or the bid will be rejected.



ROBERT J. DUEY
Finance Director

Published: Daily Journal June 21, 2013
 Register Guard Publishing June 21, 2013



City of Springfield
225 Fifth Street
Springfield, OR 97477

Bid Submittal

Project No. P21050

Project Title: Island Park

We _____ submit a lump sum bid for the construction of the above referenced project in the amount of \$_____. The undersigned Contractor agrees to construct a functionally complete project, in accordance with the terms and conditions as specified in the Request for Invitation to Bid documents, and to provide all resources that are required and that may reasonably be inferred to produce the intended result. The bid amount may only be modified by a Change Order or Contract Amendment.

Terms, Declarations and Bid Submittal

Bidder's Understanding

Bidders shall determine for themselves all the conditions and circumstances affecting the projected cost of the proposed work by personal examination of the site, Contract documents, and by such other means they may deem to be necessary. It is understood and agreed that in the event the City has obtained information from data at hand regarding underground or other conditions or obstructions depicted in the Contract documents, there is no expressed or implied agreement that such conditions are fully or correctly shown, and the Bidder must take into consideration the possibility that conditions affecting the cost or quantity of work may differ from those indicated.

The Bidder is familiar with and is satisfied as to all federal, state and local laws and regulations that may affect cost, progress, and performance of the work.

Bid

The undersigned Bidder having examined the Specifications and Contractual Documents and having satisfied themselves as to all conditions to be encountered, hereby proposes to furnish all labor, material and equipment and perform all work necessary to complete Project No P21050 in accordance with this bid, the Contract Plans, City of Springfield Standard Construction Specifications, 1994 Edition, and all subsequent modifications, the Special Provisions, and all other Contractual Documents at the prices and on the terms herein contained.

Bid Guarantee

As required by ORS 279C.365(4) each bid shall be accompanied by a Bid Bond, cash, or a certified or cashier's check written upon a bank in good standing and in a form acceptable to the City, payable to the Finance Director of the City of Springfield, Oregon, in an amount equal to at least 10 percent of the total amount of the Bid. Bid Bonds shall be issued by a surety company registered to issue bonds in the State of Oregon, and utilizing a bond form acceptable to the City. The City will accept AIA Document A310-2010. The Bid Bond may not be altered.

Such Bid Guarantee shall be forfeited and become the property of the City in case the Bidder shall fail or neglect to furnish a satisfactory Performance and/or Payment Bond issued by a viable bond company acceptable to the City as required by ORS 279C.380 and to execute the Contract within ten (10) days (Saturday, Sunday, and holidays excepted) after receiving Contract from the City for execution. For information regarding Performance and Payment Bond requirements see City of Springfield Contract document, Section 5. City Bonding.

Bid Acceptance Period

This bid will remain subject to acceptance for a period of 60 days after the bid opening, or for such longer period of time that the Bidder may agree to in writing upon request of the City.

Liquidated Damages

The City of Springfield and the Contractor agree that; (a) the amounts so fixed are reasonable forecasts of just compensation for the harm that is caused by the breach; (b) the harm that is caused by the breach is one that is incapable of or very difficult of accurate estimation; and, (c) the amount so fixed is not fixed as a penalty to coerce performance of the Contract but is rather intended to be a genuine pre-estimation of injury to the City of Springfield in lieu of performance within the contract time by the Contractor.

a. Delay

It is agreed by the City of Springfield and by the Contractor that the need exists for a damage provision in the event the Contractor fails to complete the work within the Contract time specified, or any extension thereof, by the City of Springfield. The City of Springfield and the Contractor further agree that the Contractor shall be liable to the City of Springfield for fixed, agreed and liquidated damages for each and every calendar day of delay in the amount of \$400.00 per day in accordance with Subsection 108.07 of the Standard Construction Specifications.

b. Failure to Report Spills

The Contractor also agrees to liquidated damages in the amount of \$500.00 per incident for failure to report sewage spills plus an amount sufficient to reimburse the City for any civil and administrative penalties paid by the City as a result of the contractor's failure to report. Failure to report sewage spills may subject the City to (1) civil penalties of up to \$32,500.00 per day of violation pursuant to Section 309(d) of the Clean Water Act, 33 U.S.C. § 1319(d); (2) administrative penalties of up to \$11,000.00 per day for each violation, pursuant to Section 309(g) of the Clean Water Act, 33 U.S.C. § 1319(g); or (3) civil action in federal court for injunctive relief pursuant to Section 309(b) of the Clean Water Act, 33 U.S.C. § 1319(b).

Contract Time of Completion

The Contractor shall not begin work under this bid until written Notice to Proceed has been received and no earlier than August 19, 2013 and shall complete all work under this bid no later than October 15, 2013. The Contractor shall apply for any extensions of time as specified in Subsection 108.06 of the Standard Construction Specifications.

Certifications

The undersigned hereby certifies that:

- 1.) If awarded the Contract, that they shall fully comply with all provisions regarding the prevailing wage rates as required by ORS 279C.800 to 279C.870 and/or 40 U.S.C. 2762 as applicable.
- 2.) The Contractor, Subcontractor, suppliers of materials or services, and others engaged by the contractors, shall comply at all times with and observe all such laws, ordinances, regulations, orders, and decrees; and shall hold harmless and indemnify the City of Springfield and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree.
- 3.) In accordance with ORS 279C.505, the Contractor will;
 - a) Make payment promptly, as due, to all persons supplying to the Contractor labor or material for the performance of the work provided for in the Contract.
 - b) Promptly pay all contributions or amounts due the State Industrial Accident Fund, or private carrier of accident insurance, from such Contractor or Subcontractor incurred in the performance of the Contract. If a private carrier is used, the Contractor shall notify the Engineer as to the carrier's name and address before commencement of work.

- c) Not permit any lien or claim to be filed or prosecuted against the state or a county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished.
 - d) Pay to the Department of Revenue all sums withheld from employees under ORS 316.167.
 - e) Have an employee drug testing program in place at the time of signing the contract and will maintain such drug testing program in place over the life of the Contract.
- 4.) In accordance with ORS 279C.530, the Contractor will;
- a) Promptly, as due, make payments to any person, co-partnership, association or corporation, furnishing medical, surgical, and hospital care or other needed care and attention, incidental to sickness or injury, to the employees of such Contractor, of all sums which the Contractor agrees to pay for such services and all monies and sums which the Contractor:
 - 1. May or shall have deducted from the wages of his employees for such services pursuant to the terms of Oregon Revised Statutes and any contract entered in pursuant thereto; or
 - 2. Collected or deducted from the wages of his employees pursuant to any law, contract, or agreement for the purpose of providing or paying for such service; and
 - 3. All employers working under the Contract are either employers that will comply with ORS 656.017 or employers that are exempt under ORS 656.126.
- 5.) They have not, and will not, discriminate against a Subcontractor in the awarding of a subcontract because the Subcontractor is a minority, women or emerging small business enterprise certified under ORS 200.055 as required by ORS 279A.110.
- 6.) No Contractor, Subcontractor or any firm, corporation, partnership or association in which the Contractor or Subcontractor has a financial interest who appears on the *List of Contractors Ineligible to Receive Public Works Contracts*, as established by the Bureau of Labor and Industries, will perform work under this Contract, as specified in ORS 279C.860.
- 7.) No Contractor, Subcontractor or any firm, corporation, partnership or association in which the Contractor or Subcontractor has a financial interest who appears on the Construction Contractor's Board *Not Qualified to Hold Public Contracts* list, will perform work under this Contract, as specified in ORS 701.227(4).
- 8.) The Contractor shall have a current, valid certificate of registration issued by the Construction Contractor's Board as defined in ORS 701.005(2) and/or a valid landscape contractor's license as defined in ORS 671.520(2) by the State Landscape Contractor's Board, as applicable, in place at the time the bid is presented.
- 9.) All Subcontractors shall have a current, valid certificate of registration issued by the Construction Contractor's Board as defined in ORS 701.005(2) and/or a valid landscape contractors license as defined in ORS 671.520(2) by the State Landscape Contractor's Board, as applicable in place prior to performing any work under the Contract.
- 10.) The Contractor shall function as an independent contractor for the purposes of this Contract and shall not be considered an employee of the City of Springfield for any purpose. The Contractor shall assume sole responsibility for any debts or liabilities that may be incurred by the Contractor in fulfilling the terms of this Contract and shall be solely responsible for the payment of all federal, state, and local taxes which may accrue because of this Contract.

Bid Addenda

All Addenda issued are considered to be part of the specifications of the Invitation to Bid and, as such, are as incorporated into the Contract as specified in Section 104.02 of the Standard Construction Specifications.

By signing below, I acknowledge the receipt of the following Addenda documents and certify that the specifications contained in each have been considered and incorporated into the bid as presented. All Addenda must be included with the bid submitted.

Addenda Number	Addenda Date

Declarations

The undersigned Bidder declares that the only persons or parties interested in the bid are those named herein, that this bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the City, and that the bid is made without any connection or collusion with any person submitting another bid on this project.

I have read, fully understand, and agree that as Bidder I, and all Subcontractors, will comply with all of the terms and conditions of the contract for which this bid is presented. By signing below I attest that I am an officer or a duly authorized representative of the business listed below and that I possess the legal authority to submit this bid for consideration.

Bidder's Signature _____

Bidder's Name *(Please Print)* _____

Title _____

Business Name _____

Business Address _____

City _____ State _____ Zip _____

Phone Number _____ Cell Phone _____

E-mail Address _____ Fax Number _____

Date _____

The award of this Contract shall be made to the responsible Bidder with the lowest responsive bid.



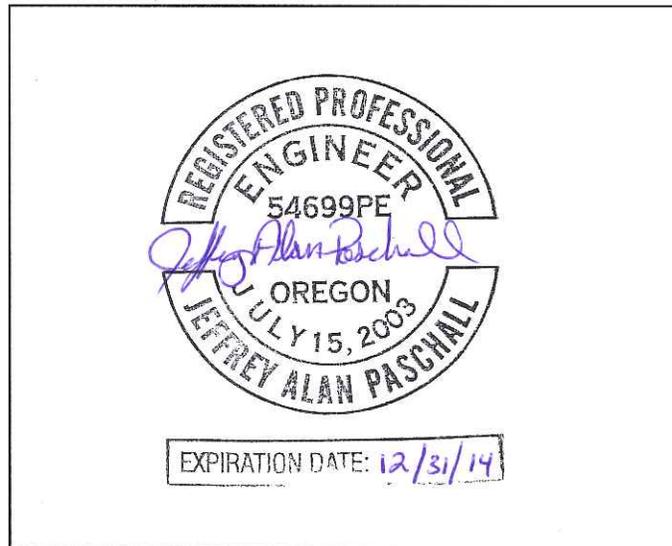
CITY OF SPRINGFIELD

Special Provisions

for

P21050 Island Park

Engineer's Seal



SPECIAL PROVISIONS

References to number of Divisions, Section, Sub-Section and the like shall mean the 1994 Edition of the Standard Construction Specifications, including all Addenda, Standard Drawings, and other Contractual Documents of the City of Springfield, Lane County, Oregon.

These Special Provisions supplement and amplify certain sections of the City of Springfield, Oregon, [Standard Construction Specifications](#). The Standard Construction Specifications shall apply except as modified herein. These Special Provisions and additional technical specifications may contain occasional requirements not pertinent to the project. However, these specifications shall apply in all particulars insofar as they are applicable to this project.

SECTION A – General Requirements

P21050 Island Park

A1.1 Applicable Standard Specifications

The 1994 Edition of the Standard Construction Specifications of the City of Springfield, Oregon, Standard Construction Specifications (including all revisions at date of bid opening), shall apply to this Invitation to Bid and construction contract except as may be modified herein. In the case of discrepancy, unless noted otherwise herein, the more restrictive provisions shall apply.

A1.2 Form of Proposal

REPLACE SECTION 102.02 "FORM OF PROPOSAL" OF THE STANDARD CONSTRUCTION SPECIFICATIONS:

"The Proposal and the proposal guarantee in the form of a bid bond, certified check, or cashier's check, shall be enclosed in a sealed, labeled and addressed envelope, as required in the Instructions to Bidders and filed as required therein. The outside of the envelope shall plainly identify: (1) The project name and (2) The bid opening date.

All Proposals must be clearly and distinctly typed or written with ink or indelible pencil.

All Proposals shall be on the form furnished by Owner, and in addition to necessary unit price items and total prices in the column of totals to make a complete Bid, all applicable blanks giving general information must be filled in and the Bids signed by an officer or duly authorized representative of the Bidder. Any statement accompanying and tending to qualify a Bid may cause rejection of such Bid, unless such statement is required, in a Proposal embracing alternate Bids. All bid documents except plans must be returned with the Bid.

Unless otherwise specified, Bidders shall bid on all Bid items included in the Proposal, and the low Bidder shall be determined as noted in Subsection 103.01 AWARD OF CONTRACT. Except as provided herein Proposals which are incomplete or fail to comply to all items required in the Proposal may be rejected."

INSERT IN ITS PLACE THE FOLLOWING:

"ALL BID DOCUMENTS, EXCEPT PLANS, MUST BE RETURNED WITH THE BID. This includes all documents contained in the original bid book, whether they require the completion of information or not, and any addendum that may be issued pertaining to the bid in question. The

only exceptions to this are any plans or drawings, which are not required to be submitted as a part of your Bid.

The Bid Submittal, Bid Bond, Certified Check, or Cashier's Check shall be enclosed in a sealed and labeled envelope. The outside of the envelope shall plainly identify: (1) The project name and project number and (2) The Bid opening date. All Bids must be clearly and distinctly typed or written with ink or indelible pencil. Unless otherwise specified, Bidders shall bid on all Bid items, and must include in their Bid prices the entire cost of each item of work set forth in the Bid.

Sealed Bids shall be addressed to and received at the Office of the Finance Director, City Hall, 225 Fifth St. Springfield, Oregon, 97477 at, or before, the time and date noted on the Invitation to Bidders, after which time the Bids will be publicly opened and read aloud.

All Bids shall be on the form furnished by the City, and in addition to necessary unit price items and total prices in the column of totals to make a complete Bid, all applicable blanks giving general information must be filled in and the Bids signed by an officer or duly authorized representative of the Bidder. The only exceptions to this requirement are the Performance Bond, Payment Bond, Statutory Public Works Bond and the Contract documents which are provided here as a reference. However, if you are awarded the Bid, you will be required to submit fully executed copies of these documents upon request. Any statement accompanying and tending to qualify a Bid may cause rejection of such Bid, unless such statement is required in a Bid embracing alternate Bids.

If, in the opinion of the City, the items or prices in any Bid appear unbalanced, incomplete, or fail to comply with all the terms required, the Bid may be rejected."

A1.3 Proposal Guaranty and Organization

REPLACE SECTION 102.05 "PROPOSAL GUARANTY AND ORGANIZATION" OF THE STANDARD CONSTRUCTION SPECIFICATIONS:

"Each Bid must be accompanied by a Bid Bond, cash or a certified or cashier's check upon a bank in good standing, payable to the Finance Director of the City of Springfield, Oregon, in an amount equal to at least 10% of the total amount of the bid. Such Proposal guaranty shall be forfeited and become the property of the City in case the Bidder shall fail or neglect to furnish a satisfactory Performance Bond and Payment Bond and to execute the Contract within 10 days (Saturday, Sunday and holidays excepted) after receiving said Contract from the City for execution. Bid bonds submitted shall be on the form provided by the City in the Bid document."

INSERT IN ITS PLACE THE FOLLOWING:

"As required by ORS 279C.365(4) each Bid shall be accompanied by a Bid Bond, cash, or a certified or cashier's check written upon a bank in good standing and in a form acceptable to the City, payable to the Finance Director of the City of Springfield, Oregon, in an amount equal to at least 10 percent of the total amount of the Bid. Bid Bonds shall be issued by a surety company registered to issue bonds in the State of Oregon, and utilizing a bond form acceptable to the City. The City will accept AIA Document A310-2010 Bid Bond (sample form enclosed). The Bid Bond may not be altered.

Such Bid Guarantee shall be forfeited and become the property of the City in case the Bidder shall fail or neglect to furnish a satisfactory Performance and/or Payment Bond issued by a viable bond company acceptable to the City as required by ORS 279C.380 and to execute the Contract within ten (10) days (Saturday, Sunday, and holidays excepted) after receiving Contract from the City for execution. For information regarding Performance and Payment Bond requirements see City of Springfield Contract document, Section 5. City Bonding."

A1.4 Addenda to Contract Documents

REPLACE SECTION 102.08 "ADDENDA TO CONTRACT DOCUMENTS" OF THE STANDARD CONSTRUCTION SPECIFICATIONS:

"Any addenda issued by the Owner, which may include changes, corrections, additions, interpretations, or information, and issued 48 hours or more before the scheduled closing time for filing the Bids, Saturday, Sunday and legal holidays not included, shall be binding upon the Bidder. Owner shall supply copies of such addenda to all Contractors who have obtained copies of the Contract Documents for the purposes of bidding thereon. Failure of the Contractor to receive or obtain such addenda shall not excuse him from compliance therewith, if he is awarded the Contract."

INSERT IN ITS PLACE THE FOLLOWING:

"Any addenda issued by the City, which may include changes, corrections, additions, interpretations, or information issued 72 hours or more before the scheduled closing time for filing the Bids shall be binding upon the Bidder. Addenda will be posted to the City's website at www.springfield-or.gov/DPW/InvitationBid.htm. The Contractor should check the website frequently for new postings during the open quote period. The City shall make a reasonable effort to notify all individuals, firms, and corporations listed on the Plan Holders List and those individuals that attended the Pre-Bid Meeting and provided contact information on the sign-in sheet when addenda are issued. Failure of the Contractor to receive or obtain such addenda shall not excuse them from compliance, if they are awarded the Contract."

A1.5 Insurance

REPLACE SECTION 107.06 "INSURANCE" OF THE STANDARD CONSTRUCTION SPECIFICATIONS:

The Contractor shall provide and maintain general liability, auto liability, property, and workers' compensation insurance for life of this Contract.

General Liability Insurance

The Contractor shall maintain an ISO Commercial General Liability insurance policy (or an equivalent policy approved by Owner) with combined single limits of at least \$1,000,000 per occurrence for bodily injury, personal injury, and property damage and an aggregate limit of at least \$2,000,000. The policy shall include coverage for contractual liabilities.

Comprehensive Automobile Liability Insurance

The Contractor shall maintain an automobile liability insurance policy with combined single limits of at least \$1,000,000 per occurrence for bodily injury, personal injury, and property damage.

Additional Insured Endorsement

The general and automobile insurance policies specified above shall include endorsements naming as an additional insured "the City of Springfield, its agents, employees and officials all while acting within their official capacity as such."

Property Insurance

Depending on the nature of the construction contemplated under this contract, Owner may require Contractor to provide property insurance. Refer to Special Provisions section of this Contract.

Workers' Compensation Insurance

Contractor, its subcontractors, if any, and all employers working under this agreement are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers.

Contractor is responsible for maintaining workers' compensation insurance for his employees and assuring that his subcontractors, if any, also maintain workers' compensation insurance. Contractor shall defend, indemnify, and hold Owner harmless from any liability for any workers' compensation claims costs, fines, or costs whatsoever arising from Contractor's or his subcontractors' failure to comply with ORS 656.017.

Additional Policies and Special Coverages

Refer to the Special Provisions section of this Contract for additional coverages that may be required.

Certificates of Insurance

Certificates of insurance evidencing all policies required by this Contract shall be delivered to the Owner prior to the commencement of any work. All certificates shall include a 30-day notice of cancellation clause and required additional insured endorsements. The Owner has the right to reject any certificate for unacceptable coverage and/or companies.

INSERT IN ITS PLACE THE FOLLOWING:

"INSURANCE

All insurance shall be approved by the City as to terms, conditions and form prior to beginning work.

Public Liability and Property Damage

The Contractor shall maintain in force for the duration of this Contract a Commercial General Liability insurance policy written on an occurrence basis with limits not less than \$2,000,000 per occurrence and \$3,000,000 in the aggregate. The policy will be endorsed with a "per project" aggregate endorsement. The City, its employees, officials and agents will be named as Additional Insured's where operations are being conducted related to this Contract, on the General Liability policy as respects to work or services performed under this agreement to the extent that the death or bodily injury to persons or damage to property arises out of the fault of the Contractor or the fault of the Contractor's agents, representatives or subcontractors. The following statement will appear on the face of the certificate; "The City, its employees, officials and agents are all named as additional insured while acting in their capacity as such." The City's additional insured status for Products and Completed Operations hazards shall extend for at least one year beyond the completion of the project. Automobile Liability (owned, non-owned, and hired) insurance with limits not less than \$1,000,000 per occurrence shall be maintained. This insurance will be primary over any insurance the City may carry on its own.

Workers' Compensation

The Contractor shall provide and maintain Workers' Compensation coverage with limits no less than \$500,000 for its employees, officers, agents, or partners, as required by applicable Workers' Compensation laws. If the Contractor is exempt from this coverage a written statement, signed by the Contractor, explaining the reason for the exemption will be provided to the City prior to commencement of any work.

Course of Construction and/or Installation Floater

The Contractor shall maintain in full force for the duration of this contract an All Risk insurance policy approved by the City as to terms, conditions and form covering the replacement cost of the work during the course of construction. The policy shall include the interests of the City and Architect/Engineer, as applicable, and the first two layers of Subcontractors. The amount of insurance shall equal the completed value of the Contract. The City, at its option, may elect to supply this coverage.

Asbestos Abatement (only applicable to Asbestos Specific Contracts)

If applicable to this Contract, the Contractor shall maintain in full force a Commercial General Liability policy approved by the City as to terms, conditions and form that is Asbestos Specific with a minimum limit of \$2,000,000 per occurrence and \$3,000,000 in the aggregate written on a form that meets the following criteria as follows:

- a. A full occurrence form, or
- b. A limited occurrence form with at least a three-year (3) tail, or
- c. A claims made form with a three-year (3) tail.

Pollution Liability Coverage (only applicable to Pollution Specific Contracts)

If applicable to this Contract, the Contractor shall maintain in full force a Commercial General Liability policy approved by the City as to terms, conditions and form that is Pollution Specific with a minimum limit of \$2,000,000 per occurrence and \$3,000,000 in the aggregate written on a form that meets the following criteria as follows:

- a. A full occurrence form, or
- b. A limited occurrence form with at least a three-year (3) tail, or
- c. A claims made form with a three-year (3) tail.

Professional Liability Coverage (only applicable to Contracts if specified)

If Professional Liability insurance is required, the City must approve the terms, conditions and limits prior to commencement of any work.

Railroad Protective Liability Coverage

If work being performed under this Contract is near railroad tracks or a railroad right of way and the Railroad requires special insurance (for example: Railroad Protective Liability Coverage) Contractor will be responsible for meeting the Railroad insurance requirements before any work commences. Any insurance required to be purchased by the Railroad is in addition to the insurance required by the City.

Subcontractors

The Contractor shall require all Subcontractors to provide and maintain General Liability, Auto Liability and Workers' Compensation insurance and, as applicable, Professional, Asbestos and Pollution Liability with coverage's equivalent to those required of the General Contractor in this Contract. The Contractor shall require certificates of insurance from all Subcontractors as evidence of coverage.

Additional Insured Endorsement

All certificates of insurance, with the exception of Professional Liability and Railroad Protective Liability, must include an endorsement which lists the City of Springfield as a named additional

insured. The following statement will appear on the face of the certificate; "The City, its employees, officials and agents are all named as additional insured while acting in their capacity as such."

Evidence of Coverage and Notice of Cancellation or Material Change in Coverage

Evidence of the required coverages issued by a company satisfactory of the City shall be provided to the City by way of a certificate of insurance before any work or services commence. A 30-day notice of cancellation or material change in coverage clause shall be included.

If the approved insurance company will not provide this 30 day notice, it shall be the responsibility of the Contractor to provide written notice to the City within two (2) days of the Contractor becoming aware that their coverage has been cancelled or materially changed. The Contractor shall e-mail notification directly to Bob Duey, Finance Director at rduey@springfield-or.gov . Regardless of the circumstances causing the Contractor's insurance coverage to cease or be modified, it is the Contractor's responsibility to notify the City as described above.

Failure to maintain the proper insurance or provide notice of cancellation or material change shall, at the City's option, be grounds for immediate termination of this Contract.

(Contractor initials)

Equipment and Material

The Contractor shall be responsible for any loss, damage, or destruction of its own property, equipment, and materials used in conjunction with the work."

A1.6 Progress Payment

REPLACE THE 6TH PARAGRAPH OF SECTION 109.07 OF THE STANDARD CONSTRUCTION SPECIFICATIONS:

Progress payment will be made by the Owner on a monthly basis no later than the 20th day of the subsequent month of work performed, except that, additional days may be required when a payment is accompanied by one or more of the following: an extension of completion time, change order or extra bill. Payment may be made via use of checks or warrants at the option of the Owner for the amount of the approved estimate, less retainage.

INSERT IN ITS PLACE THE FOLLOWING:

"The scheduled release of payment will depend upon the method of payment selected by the Contractor. If the Contractor elects to receive payment by check, payment will be released no later than the 20th day of the month. If the Contractor elects to receive payment by electronic Automated Clearing House (ACH) transfer, the funds will be transferred no later than the fourth Friday of the month. City will endeavor to honor Contractor's election to receive payment by ACH transfer, however, City reserves the right to make payment via use of check at the sole discretion of the City."

A1.7 Oregon Products

Contractor's attention is directed to the provisions of Oregon Law, ORS 279A.120 regarding the preference for products that have been manufactured or produced in Oregon. Contractor shall use Oregon-produced or manufactured materials with respect to common building materials such as cement, sand, crushed rock, gravel, plaster, etc., and Oregon-manufactured products in all cases where price, fitness, availability and quality are otherwise equal.

A1.8 Salvage and Debris

Unless otherwise indicated on the drawings or in the specifications, all castings, pipe, equipment, demolition debris, fences, trees, shrubs, spoil or any other discarded material or equipment shall become the property of the Contractor and shall be salvaged or disposed of in a manner compliant with applicable Federal, State and local laws and regulations governing disposal of such waste products. No burning of debris or any other discarded material will be permitted. The Contractor shall perform any demolition for the completion of this project and shall salvage and recycle all construction and demolition debris as is feasible and cost effective, in accordance with ORS 279C.510.

A1.9 Brand Name or Equal Specification

Brand Name or Equal Specification means a specification that uses one or more manufacturers' names, makes, catalog numbers or similar identifying characteristics to describe the standard of quality, performance, functionality or other characteristics needed to meet the contracting agency's requirements. Such specification authorizes Contractors to offer goods or services that are equivalent or superior to those brands named or described in the specification.

END OF SECTION

SPECIAL PROVISIONS

SECTION B – Scope of Work

P21050 Island Park

B1.0 Seeding/Mulching

Seeding:

Seeding may be performed in any manner that provides soil amendments, broadcast seed in an acceptable delivery system and rate as described below to provides a compost blanket. A tackifier may be required if seed is not expected to germinate and fully mature before the rainy season.

The seeding rates are given by the supplier but should be adjusted based on a minimum acceptable pure live seed (PLS) of 80%. When PLS is below 80% adjust rates accordingly.

- The seedbed should be firm but not compact. The top 3 inches of soil should be loose, moist and free of large clods and stones. For most applications, all stones larger than 2 inches in diameter, roots, litter and any foreign matter should be raked and removed.
- The topsoil surface should be in reasonably close conformity to the lines, grades and cross sections shown on the grading plans.
- Seed should be applied as soon after seedbed preparation as possible, when the soil is loose and moist.
- Always apply seed before mulch, unless seed is applied with a hydraulic matrix.
- Apply seed at the rates specified using calibrated spreaders or hydroseeders so the seed is applied uniformly on the site.
- Apply fertilizer. Seed and fertilizer should be incorporated into the soil by raking or chain dragging, or otherwise floated, then lightly compacted to provide good seed-soil contact.
- After November 1 or if the wet season has started prior to that date, tackifiers/soil binders shall be applied over the seeded areas in addition to a compost blanket or coconut mat.
- Newly seeded areas need to be inspected frequently to ensure the grass is growing. Areas that fail to establish cover adequate to prevent sheet and rill erosion will be reseeded as soon as such areas are identified. Spot seeding can be done on small areas to fill in bare spots where grass did not grow properly.

The seeding rate shall be at least the minimum rate recommended by the supplier for the mix.

Fertilizer:

Fertilizer shall be slow release nitrogen and low phosphorus.

Criteria for designation as an earth-friendly fertilizer:

Slow-release nitrogen:

- Natural organic fertilizer; or
- Synthetic fertilizer with 50% or more W.I.N. or controlled-release component

Low-phosphorus or no-phosphorus:

- Ratio of nitrogen-to-phosphate is 5:1 or greater
Free of all pesticides (including herbicides); no weed-and-feed.

BRAND NAME	N-P-K	% Slow-Release Nitrogen
Corn Gluten Products	9-0-0	85%
Clean Green Soy Fertilizer	7-0-0	High
Fertrell Lawn Fertilizers	9-1-4 or 8-1-8	70% - 85%
Lesco Professional Turf Fertilizer	32-0-10	67%
Ringer Lawn Restore	10-2-6	76%
Scotts Organic Choice Lawn Food	11-2-2	91%
Soil Science	5-0-7	High
Sustane (Lesco product)	18-1-8	79%
Turf Nurture	15-2-7	75%

Other products meeting these criteria may be available.

Compost Blanket:

A compost blanket 2” thick min. may be used in lieu of coconut matting (see coconut mat below). The carbon content shall exceed 40% min. Compost must be weed and pesticide free, with manmade materials comprising less than 1%. The “Rexius EcoBlanket” or similar would be acceptable.

Compost Quality: Use sanitized, mature compost to ensure that the compost blanket performs as designed and has no identifiable feedstock constituents or offensive odors. The compost used in compost blankets shall meet all local, state, and Federal quality requirements. Biosolids compost must meet the Standards for Class A biosolids outlined in 40 Code of Federal Regulations (CFR) Part 503. The U.S. Composting Council (USCC) certifies compost products under its Seal of Testing Assurance (STA) Program. Compost producers whose products have been certified through the STA Program provide customers with a standard product label that allows comparison between compost products. *The compost blanket shall be installed promptly after the seeding has occurred.*

Installation:

The compost should be applied to the soil surface in a uniform thickness, usually between 1 and 3 inches thick. A typical application depth is 2 inches. The compost can be distributed by hand using a shovel or by mechanical means such as a spreader unit (e.g., bulldozer or manure spreader) or pneumatic blower. The compost blanket should extend at least 3 feet over the shoulder of the slope to ensure that stormwater runoff does not flow under the blanket. The pneumatic blower is best for applying compost to steep, rocky, or difficult to reach locations because the worker can stand below the slope and blow the compost up onto the slope in an even thickness or use a vehicle to reach higher slopes. Very coarse compost should be avoided on slopes that will be landscaped or seeded, as it will make planting and crop establishment more difficult. Thicker and/or coarser compost blankets are recommended for areas with higher annual precipitation or rainfall intensity, and coarser compost is recommended for areas subject to wind erosion.

Erosion Control Blanket:

- **Coconut Fiber Mat:** Coconut fiber blanket should be machine-produced mats of 100 percent coconut fiber with biodegradable netting on the top and bottom. The coconut fiber should be attached to the netting with biodegradable thread or glue strips. The coconut fiber blanket should be of consistent thickness. The coconut fiber should be evenly distributed over the entire area of the blanket. Coconut fiber blanket should be furnished in rolled strips with a minimum of 6.5 feet (2 meters) wide, a minimum of 80 feet (25 meters) long and a minimum of 0.05 lbs/ft² (0.27 kg/m²). Coconut fiber blankets should be secured in place with wire staples. Staples should be made of 0.12 inches (3.05-mm) steel wire and should be U-shaped with 8 inches (20 cm) legs and 2 inches (5 cm) crown.

- **Coconut Fiber Mesh:** Coconut fiber mesh is a thin permeable membrane made from coconut or corn fiber that is spun into a yarn and woven into a biodegradable mat. It is designed to be used in conjunction with vegetation and typically has longevity of several years. The material is supplied in rolled strips, which should be secured to the soil with U-shaped staples or stakes in accordance with manufacturers’ recommendations

Seeding products, equipment and labor are incidental to installation and shall be included in the lump sum price.

B2.0 Pavement

B2.1 Scope

This section covers the work necessary to furnish and install asphalt concrete roadway paving. All work shall conform to the specifications of this Section, Lane County Standards, and City of Springfield Standard Specifications except as modified herein. In the case of discrepancy the more stringent provisions shall apply.

B2.2 Reference Standards

- a. Refer to the revised 1994 City of Springfield Standard Construction Specifications, Section 310 Asphalt Concrete Pavement, and Section 407 Resurfacing Trench Areas, with 1998 revisions. The following temporary amendments to the City of Springfield Standard Construction Specifications will also apply.
- b. Refer to the latest version of the Oregon Department of Transportation (ODOT) Standard Specifications for Construction, Sections as listed in these special provisions including 00745 – Hot Mixed Asphalt Concrete (HMAC).
- c. Refer to the revised 1994 City of Springfield Standard Construction Specifications, Section 317 Permanent Traffic Control, with 1998 revisions and the Plans for pavement marking, striping and legend requirements.

B2.3 Submittals

Job mix Certification from Lane County Materials Laboratory.

B2.4 HMAC Mix Classifications

Where "Class C" mix is identified on the Plans and in the City of Springfield Standard Construction Specifications, it is understood to be Level 3, 1/2-Inch Dense HMAC, as defined in the ODOT Standard Specifications for Construction.

B2.5 Replacement Language

Replace the City of Springfield Standard Construction Specifications, Sub-Section 310.2.00 MATERIALS with the ODOT Standard Specifications for Construction Sub-Sections 00745.10 through 00745.30 as modified below.

00745.10 Aggregate - In the paragraph that begins "Provide and stockpile...", remove the words "and RAP aggregates".

Add the following paragraph:

Production crushing and stockpiling of aggregate for use in HMAC will be at the sole discretion of the Contractor in accordance to Section 00165 of these Special Provisions.

00745.10(a-1) Separated Sizes – Delete the third sentence from the first paragraph.

00745.10(a-2) Scalping – Delete this subsection.

00745.10(b-2) Separated Sizes – Delete this subsection.

00745.10(b-3) Grading – Delete all but the first sentence of this subsection.

00745.10(c-2) Separated Sizes – Delete this subsection.

00745.10(c-3) Grading – Delete all but the first sentence of this subsection.

00745.10(c-4) Combination of Fine Aggregate for Testing – Delete this subsection.

00745.10(f) Aggregate Production Quality Control – Delete the second sentence.

00745.10(g) Preproduced Aggregate – Replace this subsection, except for the subsection number and title, with the following:

The material shall meet the requirements of 00745.10.

00745.11(a) Asphalt Cement – Add the following:

Use PG 70-22 grade asphalt for dense graded HMAC, or grade approved by Engineer.

Use PG 64-22ER for open graded HMAC, or grade approved by Engineer.

In addition to the requirements in the ODOT Standard Specifications for Asphalt Materials, the PG 64-22ER grade for HMAC shall meet the following limit when tested according to AASHTO T 301 “Standard Method of Test for Elastic Recovery Test of Asphalt Materials by Means of Durometer”. The samples will be conditioned per AASHTO T 240 “Standard Method of Test for Effect of Heat and Air on a Moving Film of Asphalt (RTFOT) prior to testing per AASHTO T 301. The specified Temperature for section 3.3 of the AASHTO T 301 procedure shall be 77°F.

% Elastic Recovery – **50** minimum.

00745.11(b) Asphalt Cement Additives - Replace this subsection, except for the subsection number and title, with the following:

Use standard recognized asphalt cement additive products of known value for the intended purpose and approved for use on the basis of laboratory tests. Asphalt cement additives shall have no deleterious effect on the asphalt material and be completely miscible. Do not use silicones as an additive. Add the following asphalt cement additives when required by the JMF (Job Mix Formula):

Anti-stripping asphalt cement additives to prevent stripping or separation of asphalt coatings from aggregates to satisfy the TSR (Tensile Strength Ratio) specified in 00745.13.

Asphalt cement admixtures used to aid in the mixing or use of asphalt mixes or for experimental purposes.

00745.13(a) Contractor Provided JMF – Delete first paragraph and add the following:

A CMDT will prepare, sign and submit a JMF to the Engineer for each mixture according to ODOT Contractor Mix Design Guidelines for Asphalt Concrete. The Engineer will verify the performance characteristics of all Contractor provided JMF. Submit material samples for verification testing no later than March 1 of the calendar year of the anticipated use of HMAC mixture. Furnish representative samples of materials to be used in the JMF verification testing as follows:

<u>Materials</u>	<u>Amount</u>
New Coarse Aggregate	100 lbs *
New Fine Aggregate	100 lbs
Reclaimed Asphalt Concrete	45 lbs
Hydrated Lime	5 lbs
Mineral Filler	5 lbs
Asphalt Cement (without antistrip)	3 gal in 1-qt cans
Antistrip Additive	1 qt

* If coarse or fine aggregate is in multiple stockpiles, divide the submittal evenly between stockpiles.

Verification testing will use Gyrotory compaction methods.

00745.13(b) JMF Requirements – Add the following:

A request for an adjustment to the JMF targets may be made to the Engineer by the Contractor's CAT-II. The requested change will be reviewed and documented by the Engineer. If acceptable, a revised JMF will be allowed. Clearly document the subplot test for which the adjusted targets are in effect. Adjustments for gradation shall not exceed the tolerances specified below. Adjustments for AC content shall be within 0.5% of the original JMF, but shall not exceed the requirements of 00745.03. Regardless of these tolerances, the adjusted JMF shall be within the mixture specification control points of 00745.12. If a redesign of the mixture becomes necessary, submit a new JMF according to the requirements of the Specifications.

Aggregate Passing Sieve Size	(%) From JMF
No. 4	+/- 2
No. 8	+/- 1
No. 30	+/- 1
No. 200	+/- 0.5

Field adjustments will not be made unless the change produces material of equal or better quality. Adjustments beyond these limits will require development of a new JMF according to 00745.13(b). The adjusted JMF, plus or minus the allowed tolerances, shall be within the broadband limits specified in 00745.12(b).

00745.13(c) Performance Test – Delete this subsection.

00745.14 Tolerances and Limits - Replace the tolerance list with the following tolerance list:

Gradation Constituent	Dense-Graded HMAC Type				Open-Graded HMAC Type		
	1"	3/4"	1/2"	3/8"	3/4"	1/2"	ATPB
1 1/2"	JMF ± 5%*						
1"	90 - 100%	JMF ± 5%*			99 - 100%		99 - 100%
3/4"	JMF ± 5%	90 - 100%	JMF ± 5%*		85 - 96%	99 - 100%	85 - 95%
1/2"	JMF ± 5%	JMF ± 5%	90 - 100%	JMF ± 5%*	55 - 71%	90 - 98%	35 - 68%
3/8"***	-	-	-	90 - 100%	-	-	-
No. 4	JMF ± 5%	JMF ± 5%	JMF ± 5%	JMF ± 5%	JMF ± 5%	JMF ± 5%	JMF ± 5%
No. 8	JMF ± 4%	JMF ± 4%	JMF ± 4%	JMF ± 4%	JMF ± 4%	JMF ± 4%	JMF ± 4%
No. 16**	-	-	-	-	-	-	-
No. 30	JMF ± 4%	JMF ± 4%	JMF ± 4%	JMF ± 4%	JMF ± 4%	JMF ± 4%	-
No. 50**	-	-	-	-	-	-	-
No. 100**	-	-	-	-	-	-	-
No. 200	JMF ± 2.0%	JMF ± 2.0%	JMF ± 2.0%	JMF ± 2.0%	JMF ± 2.0%	JMF ± 2.0%	JMF ± 2.0%

* Maximum not to exceed 100%

** Report percent passing sieve when no tolerance is listed

In the "Constituent of Mixture" table; Moisture content at time of discharge test, delete "WAQTC TM6" and replace with "AASHTO T329; or AASHTO T255, Microwave method".

00745.16 HMAC Production QC/QA – Delete subsections (a) and (b) in their entirety and add the following:

Quality control sampling and testing by the Contractor, as defined by the Standard Specifications, is suggested but not required. The Contractor is advised to perform sufficient testing to insure compliance to the material requirements.

00745.16(c) Quality Assurance and Acceptance – Replace this subsection, except for the subsection number and title, with the following:

The Engineer, according to Section 00165.40 and the following, will perform acceptance sampling and testing of HMAC:

(1) Random Sampling – Random sampling of HMAC shall be performed by Lane County according to the following:

(a) Grade Samples – A minimum of one grade sample from each lot or subplot after placing and before rolling. Samples will not be taken within 1 foot of the edge of the panel. Samples will be obtained according to AASHTO T168.

(b) Plant Samples – A minimum of one sample from each lot or subplot from the discharge of the paving plant mixer and before placing into a storage silo or hopper when:

- The nominal compacted thickness as shown on the typical section of the plans, for an entire pavement panel will be less than 1 1/2 inches.
- The paving panel being placed is less than 8 feet wide.
- Paving miscellaneous areas, such as driveways, approaches, guardrail flares, and areas of restricted width or limited length.
- Paving temporary surfacing or leveling courses.
- Paving open-graded mixtures.

(c) Moisture Samples – Moisture samples will be taken from the discharge of the paving plant mixer a minimum once each day, or as directed.

(d) Partial Sublots – Each day, at the end of the production shift, regardless of the project size, the quantity exceeding the 750-ton subplot increment by 250 ton, or less, shall be represented by the previous 750-ton subplot. If the quantity exceeds the 750-ton subplot increment by more than 250 ton, the quantity shall be considered an independent subplot.

(2) Testing – HMAC testing shall be performed by the Engineer according to the following:

(a) Asphalt Cement Content – Test according to “Asphalt Content by Ignition Method, Lane County Procedure” (a modified AASHTO T308). The test procedure is available from the Project Manager.

(b) Aggregate Gradation – Test according to AASHTO T27 test method.

(c) Moisture Content – Test according to AASHTO T255 test method, Microwave Method.

(d) Compaction – Acceptance testing for compaction will be according to Section 00745.49. For any failing subplot of pavement, the Contractor may request one new backup compaction test on the same day. New nuclear gauge tests will be obtained at new randomly selected sites. The average of these five new nuclear density tests will constitute the backup in-place density of the subplot. The higher of the original and backup test results will prevail.

The Engineer may test any area that appears defective in compaction and require further compaction or corrective action on any area that does not meet specifications.

(e) Backup Testing – If the gradation test result of the sieve analysis varies from the JMF by 1.5 times or more from the tolerance limits specified in 00745.14, a backup sample from the random grade sample will be tested. The test result, which yields the highest CPF for that subplot, will be used. If the original and backup test results yield the same CPF, the original test results will be used.

(f) Minimum Pay Factor for Each Constituent – Stop production when the pay factor for any constituent with a weighting factor greater than 1 falls below 0.75. Resume production when the Engineer accepts a plan for correction.

00745.17 Small Quantity Acceptance – Replace this subsection, except for the subsection number and title, with the following:

When the quantity of HMAC on a Project is less than 1,750 tons or less than three test results are obtained, the Engineer may accept the HMAC according to Section 00745.16(c) of these Special Provisions. The test results will be evaluated in accordance to 00745.95(a) of these Special Provisions.

00745.17(b) Outside Specifications Limits – Replace the first sentence with the following: If a subplot sample test result for any constituent is 1.5 times or more outside the specification limit, the Engineer will have the backup sample tested.

00745.17(b-2) Backup Out of Specification – Replace this subsection, except for the subsection number and title, with the following:

If the backup sample test results are out of specification, an adjustment will be calculated according to 00745.95(a-1). The test results that produce the lowest Cumulative Weighted Deviation will be used in the price adjustment calculation.

00745.17(b-3) In Place Samples – Delete this subsection:

00745.24(a) Steel-Wheeled Rollers - Replace this subsection with the following subsection:

(a) Steel-Wheeled Rollers - Provide steel-wheeled rollers with a minimum gross static weight as follows:

	Level 1 and Level 2	Level 3	Level 4
Breakdown and Intermediate	8 ton	10 ton	12 ton
Finish	6 ton	8 ton	10 ton

B2.6 Replacement Language

Replace the City of Springfield Standard Construction Specifications, Sub-Section 310.3.00 CONSTRUCTION with the ODOT Standard Specifications for Construction Sub-Sections 00745.40 through 00745.93 as modified below.

00745.40 Season and Temperature Limitations In the table, for Surface Temperature of Dense Graded Mixes 2 inches to 2 1/2 inches, replace "50 °F" with 40 °F".

00745.46 Control of Line and Grade - Add the following paragraphs to the end of this subsection:

The Contractor shall establish references at reasonable intervals for line and grade control of placement operations for the following:

- Before placing each leveling lift.
- Before placing the top base course for new construction.

If grade controls are established, line and grade for the top base course of new construction and top leveling lift shall be within 1/2 inch of existing line and grade.

00745.48(c) Placing – Add the following:

The Engineer will establish leveling locations and paving needs.

Paving equipment used shall be sized appropriately for the size roads listed in the contract. Equipment that is either undersize or oversize for the intended work, which will not produce satisfactory workmanship, will be replaced with appropriately sized equipment.

Change the reference in the last paragraph from 00745.16(b-1) to 00745.13(b) of these Special Provisions.

00745.49 Compaction, QC – Add the following:

The QC program as described in this section of the Standard Specifications will not be used. The Engineer will perform acceptance compaction testing using procedures as modified or added in these Special Provisions. The Contractor is responsible to perform sufficient compaction testing to insure minimum compaction requirements have been attained.

00745.49(b) Normal Pavement (Nominal Thickness 2 inch or Greater) – Replace the subsection heading with the following:

00745.49(b) Normal Pavement (Nominal Thickness 1 1/2 inch or Greater)

00745.49(b-1) General - In the paragraph that begins "Compliance with the density...", replace the sentence that begins "Use the MAMD method..." with the following sentence: Use the MAMD method of compaction measurement.

Replace the paragraph that begins "For Level 3 and Level 4..." with the following two paragraphs:

For Level 2, Level 3, and Level 4 mixes, construct a control strip at the beginning of work on each JMF on the project according to ODOT TM306. The purpose of the control strip is to determine the maximum density that can be achieved for the JMF, paving conditions, and equipment on the project. Additional control strips are necessary when there is a change in compaction equipment or when JMF targets are adjusted according to 00745.16(b-1-a). The Engineer may waive the control strip for irregular areas or areas too small to establish a reasonable roller pattern.

Stop paving if three consecutive control strips fail to achieve the specified density. Take all actions necessary to resolve compaction problems. Do not resume paving until allowed by the Engineer.

Add the following to the third paragraph:

Pneumatic tired roller will be required on Level 2 HMAC, unless waived by the Engineer.

00745.49(b-2) Random Testing – Delete reference to "QC" in the first sentence.

00745.49(b-2-a) Testing – Add the following:

Sanding of test locations will not be required.

00745.49(b-2-b) Core Correlations of Nuclear Gauge Readings – Replace this subsection, except for the subsection number and title, with the following:

Core correlation of the nuclear gauge readings is not required. If core correlations are requested, and approved, determine the core correlation factors according to WAQTC TM8 and ODOT TM327. Cut the required cores and patch the core holes with dense graded HMAC.

The party requesting core correlations will pay the costs of coring and lab testing of cores. The costs of nuclear gauge testing performed by each party will be paid by each party.

00745.49(b-3) Moving Average Maximum Density (MAMD) Method - Replace the MAMD list with the following list:

Course of Construction	HMAC
First HMAC lift less than 3 inches placed on aggregate base	91.0 *
All other	92.0

* If any part of the width of a lift at a station requires 91.0%, then the entire width of that lift at that station shall be 91.0%

Delete the last paragraph of this subsection.

00745.49(b-4) Control Strip Method - Delete this subsection.

00745.49(b-5) Test Results – Renumber this subsection to b-4, delete the sentence and replace with the following:

The Engineer will provide density test results to the Contractor by the middle of the following work shift.

00745.49(c) Thin Pavement – Replace this subsection, except for the subsection number and title, with the following:

Compaction to a specified density will not be required for leveling, patches, or where the nominal compacted thickness of a course of dense graded mixtures will be less than 1 ½ inches. Perform breakdown and intermediate rolling until the entire surface has been compacted by at least four coverages of the roller(s). Perform additional coverages, as directed, to obtain finish rolling of the HMAC. In areas where pre-leveling is greater than 1 ½ inches, the HMAC shall be compacted to a minimum of 91.0 of the JMF's most recent Maximum Density result.

00745.70 Pavement Smoothness - Replace this subsection with the following subsection:

00745.70 Pavement Smoothness - Construct the pavement wearing surface of travel lanes to a profile that does not deviate from longitudinal and transverse smoothness more than the specified limits of 00745.73.

Perform smoothness testing under the supervision of the Engineer with equipment furnished and operated by the Contractor at the Contractor's expense. Complete all required smoothness testing no later than seven calendar days following final completion of all travel lane paving on the Project. The Contractor accepts the risk that the smoothness may be affected by exposure to traffic between the date the travel lanes are paved and the date the smoothness testing is completed. If the Contractor elects to perform smoothness measurements on a day other than the day the pavement is placed, additional traffic control required for smoothness measurement, and not required for other work, will be at the Contractor's expense.

Add the following subsection:

00745.72 Smoothness Testing Equipment - Furnish all equipment and supplies for determining smoothness.

(a) Straightedge - Provide one 12 foot straightedge.

(b) Rolling Straightedge – Provide one 12 foot rolling straightedge capable of measuring, on an exaggerated scale, deviations in the paved surface, at the center of the scale, to accuracy of 0.002 foot or less. If requested by the Engineer, the Contractor shall demonstrate the accuracy of the measuring device by setting the equipment up on a flat surface and passing the sensing mechanism over an item of known height. In all cases, the equipment shall be subject to acceptance by the Engineer.

Add the following subsection:

00745.73 Smoothness Testing and Surface Tolerances - Test according to the following:

(a) General - Test the base and wearing courses with a 12 foot straightedge and a 12 foot rolling straightedge as directed.

(b) Base Course Surface Test:

(1) Transverse - Test with the 12 foot straightedge perpendicular to the centerline, as directed. The pavement surface shall not vary by more than 0.02 foot.

(2) Longitudinal - Test with the 12 foot rolling straightedge parallel to the centerline, as directed. The pavement surface shall not vary by more than 0.02 foot.

(c) Wearing Course Surface Test:

(1) Transverse - Test with the 12 foot straightedge perpendicular to the centerline, as directed. The pavement surface shall not vary by more than 0.02 foot.

(2) Longitudinal – Test with the 12 foot rolling straightedge over the full width of travel lanes for the entire length of the project, or as directed by the Engineer. The pavement surface shall not vary by more than 0.015 foot.

(3) Transverse Joints - Test with the 12 foot straightedge parallel to the centerline, as directed. The pavement surface shall not vary by more than 0.02 foot.

(d) Utility Appurtenances - If the Contractor is required to construct or adjust utility appurtenances, such as manhole covers and valve boxes, the pavement surface shall not vary by more than 0.02 foot.

(e) Shoulders and Paved Medians - Test the base and wearing course with the 12 foot straightedge parallel to and perpendicular to the centerline for shoulders and paved medians. The pavement surface shall not vary by more than 0.02 foot.

00745.75 Correction of Pavement Roughness - Replace this subsection with the following subsection:

00745.75 Correction of Pavement Roughness - Should testing described in 00745.73 show the pavement does not conform to the prescribed limits of deviation, the following shall apply:

(a) General - The Contractor, under the supervision of the Engineer, is responsible for locating areas that require corrective work.

(b) Base Course - If the requirements of 00745.73(b) are not met, correct according to one of the following and retest.

(1) Cold Plane Removal - Profile with equipment meeting the requirements of Section 00620.20 to a maximum depth of 0.03 foot.

(2) Grinder - Profile with abrasive grinder(s), equipped with a cutting head comprised of multiple diamond blades to a maximum depth of 0.03 foot.

(c) Wearing Course - After the Contractor has located and staked all individual deviations exceeding 0.02 foot, the Engineer and the Contractor shall meet at a mutually agreed upon time and drive the Project together. Each deviation will be evaluated during the drivethrough to determine what corrective work will be required. Disagreements will be resolved by the Engineer.

Correct all individual deviations identified for corrective work during the drive-through and any transverse joint that exceeds the requirements of 00745.73(c-3) by one of the methods listed below to the specified limits.

(1) Remove and Replace - Remove and replace the wearing surface lift. Removal and replacement is required when in the opinion of the Engineer a durable long-term repair of the defect cannot be accomplished by conventional means.

(2) Grind - Profile with abrasive grinder(s) equipped with a cutting head comprised of multiple diamond blades to a maximum depth of 0.3 inch and apply an emulsion fog seal as directed.

Under the observation of the Engineer, retest each location requiring corrective work according to 00745.73 with a 12 foot rolling straightedge to verify that the deviation has been corrected to within the 0.02 foot tolerance. Perform all corrective work and surface tolerance testing at the Contractor's expense, including traffic control.

(d) Utility Appurtenances – If the requirements of 00745.73(d) are not met, the Contractor shall perform sawcutting, removal and readjustment of the utility appurtenance(s) to the required elevation(s) and/or perform other corrective measures to the satisfaction of the Engineer.

(e) Time Limit - Complete correction of all surface roughness within 14 calendar days following notification, unless otherwise directed.

00745.80 Measurement – Delete this section and add the following:

The accepted quantities of HMAC will be measured by the ton according to Section 00190. No separate measure will be made for the asphalt cement used in the asphalt concrete mixture. No deduction will be made for lime or any other additive used in the mixture.

The quantities of HMAC shown in the Schedule of Items were computed on the basis of aggregates having a Specific Gravity of 2.65. The provisions of 00140.20 and 00195.20 will apply.

00745.90 Payment - Add the following paragraph to the end of this subsection:

No separate or additional payment will be made for asphalt cement used in the mixture.

00745.93 Other Items – Add to the fifth bulleted item:

No payment will be made for anti-stripping additives required to supplement the JMF to attain minimum mixture performance characteristics. If anti-stripping additives are required by them contract, payment will be at the unit bid price included in the schedule of items.

B2.7 Pre-paving Meeting

A pre-paving meeting shall be required 48 hours prior to paving.

B2.8 Trip Tickets

Trip tickets shall normally be given to the Engineer by the end of the day delivery is made, but in no event shall they be given to the Engineer later than 12 noon the following calendar day (Saturday, Sunday, and legal holidays excluded). Trip tickets will be considered as valid only when received by the Engineer in accordance with this special provision. All other requirements of the above referenced sub-sections shall apply. Trip tickets are to be provided for record keeping purposes and will not be used as a basis for payment.

B2.9 Geotextile Installation

In the event that the City's wet weather construction standard is invoked on this project, refer to Standard Construction Specification 301.1.01. Generally, the use of geotextile fabric and an additional eight (8) inches of rock substructure will be required. Where specified, geotextile shall be woven and conform to Standard Construction Specification for Subgrade Geotextile. Contractor shall comply with Standard Construction Specification 308, Geotextile Installation.

B2.10 Final A.C. Cut

The final A.C. saw cut is "Tee Cut".

B3.0 Restoration and Clean-up

All work areas must be returned to original or better condition or to the satisfaction of the Engineer.

B4.0 Work Zone

All work shall be performed within City Right-Of-Way indicated on the plan set. The city will provide construction staking with 48 hours advance notification.

B5.0 Completion Time Limit

All work shall start on or after August 19, 2013 and be completed by October 15, 2013.

B6.0 Stormwater Treatment Device

(a) General

(1) Description

Scope

The Contractor shall furnish all labor, equipment and materials necessary to install the storm water treatment device(s) (SWTD) and appurtenances specified in the Drawings and these specifications.

Related Sections

Section 02240: Dewatering
Section 02260: Excavation Support and Protection
Section 02315: Excavation and Fill
Section 02340: Soil Stabilization

(2) Quality Assurances

Inspection

All components shall be subject to inspection by the engineer at the place of manufacture and/or installation. All components are subject to being rejected or identified for repair if the quality of materials and manufacturing do not comply with the requirements of this specification. Components which have been identified as defective may be subject for repair where final acceptance of the component is contingent on the discretion of the Engineer.

Warranty

The manufacturer shall guarantee the SWTD components against all manufacturer originated defects in materials or workmanship for a period of twelve (12) months from the date the components are delivered to the owner for installation. The manufacturer shall upon its determination repair, correct or replace any manufacturer originated defects advised in writing to the manufacturer within the referenced warranty period. The use of SWTD components shall be limited to the application for which it was specifically designed.

Manufacturer's Performance Certificate

The SWTD manufacturer shall submit to the Engineer of Record a "Manufacturer's Performance Certification" certifying that each SWTD is capable of achieving the specified removal efficiencies listed in these specifications. The certification shall be supported by independent third-party research.

(3) Submittals

Shop Drawings

The Contractor shall prepare and submit shop drawings in accordance with Attachment 1 of the contract documents. The shop drawings shall detail horizontal and vertical dimensioning as well as joint type and locations.

(b) Products

(1) Materials and Design

Precast concrete components shall conform to applicable sections of ASTM C 478, ASTM C 857 and ASTM C 858 and the following:

1. Concrete shall achieve a minimum 28-day compressive strength of 4,000 pounds per square-inch (psi);
2. Unless otherwise noted, the precast concrete sections shall be designed to withstand lateral earth and AASHTO H-20 traffic loads;
3. Cement shall be Type III Portland Cement conforming to ASTM C 150;
4. Aggregates shall conform to ASTM C 33;
5. Reinforcing steel shall be deformed billet-steel bars, welded steel wire or deformed welded steel wire conforming to ASTM A 615, A 185, or A 497.
6. Joints shall be sealed with preformed joint sealing compound conforming to ASTM C 990.
7. Shipping of components shall not be initiated until a minimum compressive strength of 4,000 psi is attained or five (5) calendar days after fabrication has expired, whichever occurs first.

Internal Components and appurtenances shall conform to the following:

1. Screen and support structure shall be manufactured of Type 316 and 316L stainless steel conforming to ASTM F 1267-01;
2. Hardware shall be manufactured of Type 316 stainless steel conforming to ASTM A 320;
3. Fiberglass components shall conform to the National Bureau of Standards PS-15 and coated with an isophalic polyester gelcoat and
4. Access system(s) conform to the following:
 - a. Manhole castings shall be designed to withstand AASHTO H-20 loadings and manufactured of cast-iron conforming to ASTM A 48 Class 30.

(2) Performance

Removal Efficiencies

1. The SWTD shall be sized to either achieve an 80 percent average annual reduction in the total suspended solid load or treat a flow rate designated by the jurisdiction in which the project is located.
2. The SWTD shall be capable of capturing and retaining 100 percent of pollutants greater than or equal to **2.4 millimeters (mm)** regardless of the pollutant's specific gravity (i.e.: floatable and neutrally buoyant materials) for flows up to the device's rated-treatment capacity. The SWTD shall be designed to retain all previously captured pollutants addressed by this subsection under all flow conditions. The SWTD shall be fitted with a **2400 micron** stainless steel screen.
3. The SWTD shall be capable of capturing and retaining total petroleum hydrocarbons. The SWTD shall be capable of achieving a removal efficiency of 92 and 78 percent when the device is operating at 25 and 50 percent of its rated-treatment capacity. These removal efficiencies shall be based on independent third-party research for influent oil concentrations representative of storm water runoff (20 ± 5 mg/L). The SWTD shall be greater than 99 percent effective in controlling dry-weather accidental oil spills.

Hydraulic Capacity

1. The SWTD shall provide verified treatment performance up to and including the rated treatment capacity of **14** cubic-feet per second. The treatment performance shall be verified through a nationally or regionally accredited testing protocol.
2. The SWTD shall convey the flow from the peak storm event of the drainage network, in accordance with required hydraulic upstream conditions as defined by the Engineer. If a substitute SWTD is proposed, supporting documentation shall be submitted that demonstrates equal or better upstream hydraulic conditions compared to that specified herein. This documentation shall be signed and sealed by a Professional Engineer registered in the State of the work. All costs associated with preparing and certifying this documentation shall be born solely by the Contractor.

Storage Capacity

1. The SWTD shall be designed with a sump chamber for the storage of captured sediments and other negatively buoyant pollutants in between maintenance cycles. The unit shall have a minimum storage capacity of **8.7 cubic yards**. The boundaries of the sump chamber shall be limited to that which does not degrade the SWTD's treatment efficiency as captured pollutants accumulate. The sump chamber shall be separate from the treatment processing portion(s) of the SWTD to minimize the probability of fine particle re-suspension. In order to not restrict the Owner's ability to maintain the SWTD, the minimum dimension providing access from the ground surface to the sump chamber shall be 20 inches in diameter.

2. The SWTD shall be designed to capture and retain Total Petroleum Hydrocarbons generated by wet-weather flow and dry-weather gross spills and have a capacity of **965 gallons**.

(3) Manufacturer

The manufacturer of the SWTD shall be one that is regularly engaged in the engineering design and production of systems deployed for the treatment of storm water runoff for at least five (5) years and which have a history of successful production, acceptable to the Engineer.

1. In accordance with the Drawings, the SWTD(s) shall be a **CDS® 5653-C** device manufactured by:

CONTECH Engineered Solutions, LLC
9025 Centre Pointe Drive, Suite 400
West Chester, OH 45069
(800) 338-1122

email: Andreea Simescu at asimescu@conteches.com or Sig Fransen at SFransen@conteches.com

2. Or Approved Equal.

(c) Execution

(1) Handling and Storage

1. The Contractor shall exercise care in the storage and handling of the SWTD components prior to and during installation. Any repair or replacement costs associated with events occurring after delivery is accepted and unloading has commenced shall be borne by the Contractor.

(2) Installation

1. The SWTD shall be installed in accordance with the manufacturer's recommendations and related sections of the contract documents. The manufacturer shall provide the Contractor installation instructions and offer on-site guidance during the important stages of the installation as identified by the manufacturer at no additional expense. A minimum of 72 hours notice shall be provided to the manufacturer prior to their performance of the services included under this subsection.
2. The Contractor shall fill all voids associated with lifting provisions provided by the manufacturer. These voids shall be filled with non-shrinking grout providing a finished surface consistent with adjacent surfaces. The Contractor shall trim all protruding lifting provisions flush with the adjacent concrete surface in a manner, which leaves no sharp points or edges.
3. The Contractor shall remove all loose material and pooling water from the SWTD prior to the transfer of operational responsibility to the Owner.

B7.0 Stop Logs

(a) General

(1) Summary

This Section includes all Stop Log systems required for the complete installation of the work.

(2) References

Design, fabricate and test stop log systems and materials in accordance with manufacturer's recommended procedures and the following codes and standards:

- | | | | |
|-----|--------------|---|---|
| 1. | ASTM A193 | - | Stainless Steel Anchor Bolts |
| 2. | ASTM A276 | - | Stainless Steel Bars |
| 3. | ASTM B584 | - | Alloy 865 Manganese Bronze |
| 4. | ASTM D256 | - | Izod Impact Strength |
| 5. | ASTM D570 | - | Water Absorption Rate |
| 6. | ASTM D638 | - | Tensile Strength |
| 7. | ASTM D695 | - | Compressive Properties of Rigid Plastic |
| 8. | ASTM D696 | - | Coefficient of Linear Expansion |
| 9. | ASTM D790 | - | Flexural Properties |
| 10. | ASTM D792 | - | Density and Specific Gravity at 23 ⁰ C |
| 11. | ASTM D1056 | - | Polymer Grade |
| 12. | ASTM D2583 | - | Indentation Hardness |
| 13. | ASTM D2563-0 | - | Visual Defects |
| 14. | ASTM D2584 | - | Resin, Glass & Filler Content |
| 15. | AWWA C-563 | - | Leakage Rate |
| 16. | NSF-61 | - | Potable Water |

Composition of the stop log laminate shall be in accordance with the recommendations shown in the Quality Assurance Report for Reinforced Thermoset Plastic (RTP) Corrosion Resistant Equipment prepared under the sponsorship of the Society of the Plastics Industry, Inc. (SPI), and the Material Technology Institute (MTI) of the Chemical Process Industry for "Hand Lay-UP Laminates," and shall meet the specifications for Type I, Grade 10 laminates shown in Appendix M-1 of said report.

Manufacturer shall be experienced in the design and manufacture of specific valves and accessories for a minimum period of 20 years. Manufacturer must provide warranty for 25 years against corrosion.

(3) Submittals

Submit the following for acceptance:

Approval Drawings

1. Showing all critical dimensions.
2. Showing principal parts and materials.

Spare parts list (when applicable).

(4) Delivery, Storage and Handling

Ship all stop logs with suitable packaging to protect products from damage. Protect stop logs, lifting pins, guide frames, lifting devices and storage racks from damage.

(b) Products

(1) Materials

Stop log panels shall be:

1. Engineered composite fiberglass reinforced plastic (FRP) completely encapsulating an internal steel reinforcing structure.
 - Infusion molded to create a seamless corrosion barrier impervious to moisture.
 - FRP resin shall be polyester.

- Internal Steel Reinforcing: Carbon Steel as needed for deflection requirements.
 - Sandwich design for superior strength.
 - Foam core between steel reinforcing.
2. Guide Frames
 - Guide Frame Rails to be: T-304L stainless steel.
 3. Lifting Pins/Eyes
 - Lifting Pins/Eyes to be: Type T-304L stainless steel.
 4. Anchor Bolts (when applicable)
 - Anchor Bolts to be: Type T-304L stainless steel.
 5. Lifting Beam/Poles
 - Lifting Beam/Poles to be: Type T-304L stainless steel.

(2) Stop logs

Acceptable Manufacturers:

1. Plasti-Fab Inc
 - Shall be Model HDSL 3648.
2. Or approved equal. Pre-approved by Engineer at least 10 business days prior to bid date.
 - Manufacturer must have a qualified Engineer on staff with at least 5 years experience with hydraulic control stop logs.

Stop Log systems shall exceed AWWA C-563:

1. Leakage:
 - Maximum allowable leakage of stop logs with seating head shall not exceed 0.10 GPM/ft (1.24 LPM/m) of wetted linear seal area under full design head when installed in manufacturer's Guide Frames.

(3) Design Criteria

Composition of the stop log laminate shall be in accordance with the recommendations shown in the Quality Assurance Report for Reinforced Thermostat Plastic (RTP) Corrosion Resistant Equipment prepared under the sponsorship the Society of the Plastics Industry, Inc. (SPI) and the Material Technology Institute of the Chemical Process Industries, Inc. (MTI) for "Hand Lay-up Laminates" and shall meet the specifications for Type 1, Grade 10 laminates shown in Appendix M-1 of said report.

1. Visual inspection for defects shall be made without the aid of magnification and defects shall be classified as to type and level as shown in Table 1 of ANSI/ASTM D2563-0, approved 1977, (or any subsequent revision). Allowable surface tolerances are as follows:

DEFECTS	ALLOWABLE TOLERANCE
Cracks Crazing Blisters Chips Pits Dry Spots Fish Eyes Burned Areas Entrapped Air	None

Wrinkles and solid blisters, not to exceed 1/8"	Maximum Deviation: 10% of thickness, but not to exceed 1/8 inch (0.3mm)
Surface porosity (pinholes or pores in the laminate surface)	None
Exposed Glass Exposure of cut edges	None
Scratches	None more than .002" deep (.05mm)
Foreign Matter	None

Maximum Fiber Stress

Ultimate or yield, whichever applies, does not exceed 2.5 times the working stress.

Deflection

Deflection across the stop log width shall be limited to: $L/360$ or $1/4"$ (6mm), whichever is less, at the maximum operating head.

Head Pressure

Stop log system shall be designed for a maximum head pressure of 48 inches.

Stop Log Panel Size

1. Channel Width: 36 inches.
2. Stop Log System Height (max fluid level): 48 inches.
3. Channel Invert Elevation: 435.00 feet.
4. Top of Wall Elevation: 439.00 feet
5. Number of Stop Log Panels: (6), Panel Height: 8 inches.

Surface Conditions

1. All stop log panels shall be flat and level.
2. Warpage throughout the entire stop log panel shall not produce a crown of more than $1/16"$ (1.6mm) in any direction.

(4) Construction

Stop Log Panels

1. The stop log shall be fabricated by means of vacuum infusion so as to totally encapsulate the internal structural matrix and protect it against corrosion from moisture or chemical deterioration with a minimum thickness of $1/4"$ (6mm) FRP on the front and back facings, and $3/4"$ (19mm) FRP on the remaining perimeter. Stop logs shall be designed so that the maximum fiber stress (ultimate or yield, whichever applies) does not exceed 2.5 times the working stress. Stop logs shall be suitably reinforced to withstand the maximum seating head with a deflection less than $L/360$ of the stop log width, or $1/4"$ (6mm), whichever is less. Stop log covers that are fabricated from pressed or laminated sheet material and/or glued/bonded to a substructure shall not be acceptable. No seams or joints that may delaminate, allow seepage, or provide an avenue to collect debris will be acceptable. Each Stop Log shall be molded individually to the exact dimensions specified.
2. Stop Log shall be manufactured of reinforced thermoset plastic in the form of FRP.
3. Stop Log shall have UV Stabilizing pigment in the Resin to provide long-term protection from UV.
4. The surface shall be resin rich to a depth of .010 inches (2.5mm) to .020 inches (5mm) and reinforced with C-glass or polymeric fiber surfacing material.

5. The surface shall be free of exposed reinforcing fibers.
6. The composition of these layers shall be approximately 95% (by weight) resin. The remaining laminate shall be made up of copolymer composite and reinforcing fibers in a form, orientation and position to meet the mechanical requirements.
7. Structural reinforcing shall be utilized to attain the necessary stiffness to meet deflection requirements, and shall be well encapsulated with a laminate not less than ¼" (6mm) thick on each side to ensure against any permeation by water to the core areas. Internal steel structure to be welded per ASME/ASTM standards, sandblasted and coated with vinyl ester resin immediately prior to vacuum infusion in order to ensure complete bonding with external corrosion barrier.
8. Type T-304L stainless steel lifting pins shall be attached to the Stop Log by passing completely through the log. Stainless steel lifting pin shall be fastened to the log with sufficient reinforcing to withstand the lifting force. Lifting pins assemblies shall pass completely through the stop log, and shall be entirely encapsulated with a minimum thickness of ¼ inch (6mm) of FRP. Lifting pins attached to the surface of the log are not acceptable. The through holes shall not pass through or be in contact with the internal steel reinforcing.
9. Core material must be 100% resistant to decay and attack by fungus and bacteria and be resistant to hydrocarbons.
10. To assure maximum service life, the copolymer composite shall be ultraviolet stabilized and seamless to protect inner structural members from corrosion.
11. Metal, concrete, or wood stop logs subject to corrosion / bacterial breakdown / rot shall not be acceptable alternatives to composite FRP material.
12. Stop Log panels shall be manufactured using advanced technology vacuum infusion resin transfer processes. The closed mold vacuum process must completely evacuate all air from the mold prior to infusing the mold with premium quality resin as specified. The vacuum infusion process must eliminate the potential of air entrapment and/or voids in the matrix of the stop log panel (which cause defects and performance-detracting irregularities) thus producing a finished product that is one-piece, seamless and uniformly impenetrable by fluids eliminating interior corrosion as is produced by techniques that employ adhesives or mechanical fasteners to attach individual panels to a pre-fabricated framework resulting in seams along vertical and horizontal axes of the stop log which create stress-potential areas, portals for fluid infiltration, subsequent de-lamination and product failure due to corrosion.

Seals

The stop logs shall be equipped with elastomeric bottom seals to seal between the logs. A special labyrinth seal shall also be fastened to the guide to form a watertight joint with the stop logs. Seals shall be made of molded virgin Neoprene, per ASTM D-2000 having a hardness of 55 – 65 Shore A Durometer, conforming to ASTM D-2000, with a maximum compression set of 25%, and low temperature brittleness to meet suffix F-17 (-40°F/C).

Guide Frames

1. Guide frames shall be styled for embedment mounting as shown on the contract drawings and/or stop log schedule.
2. Guide frames shall be fabricated from T-304L stainless steel and shall have a slot suitable for mating with the stop log panels.

3. Guides shall be fitted with molded virgin Neoprene, per ASTM D-2000 seal having two raised seating points fastened to the guide with a UHMW clamping bar and stainless steel flat head machine screws. Seals shall be on each side of the guide groove.

(5) Physical Properties

Structural characteristics for a 1/8" (3mm) glass mat laminate shall meet the following minimum physical properties:

Tensile Strength	15,000 psi (1034 ksc)
Flexural Modulus	1,000,000 psi (70307 ksc)
Flexural Strength	20,000 psi (1406 ksc)
Compressive Strength	22,000 psi (1547 ksc)
Impact Strength	9.0 ft-lbs/in. (1.24 kgf.m/25mm)
Water Absorption	0.13% (in 24 hours)

Seals: Extruded Virgin Neoprene Seals shall have the following physical characteristics:

Specific Gravity	1.25
Hardness	55 – 65 Shore A Durometer
Tensile Strength	1500 psi min. (0.07ksc)
Elongation	300%
Low Temperature Brittleness	- 40°

(c) Execution

(1) Installation

Thoroughly clean and remove all shipping materials prior to setting. Install stop log systems per Manufacturer's recommendations.

B8.0 Traffic Items

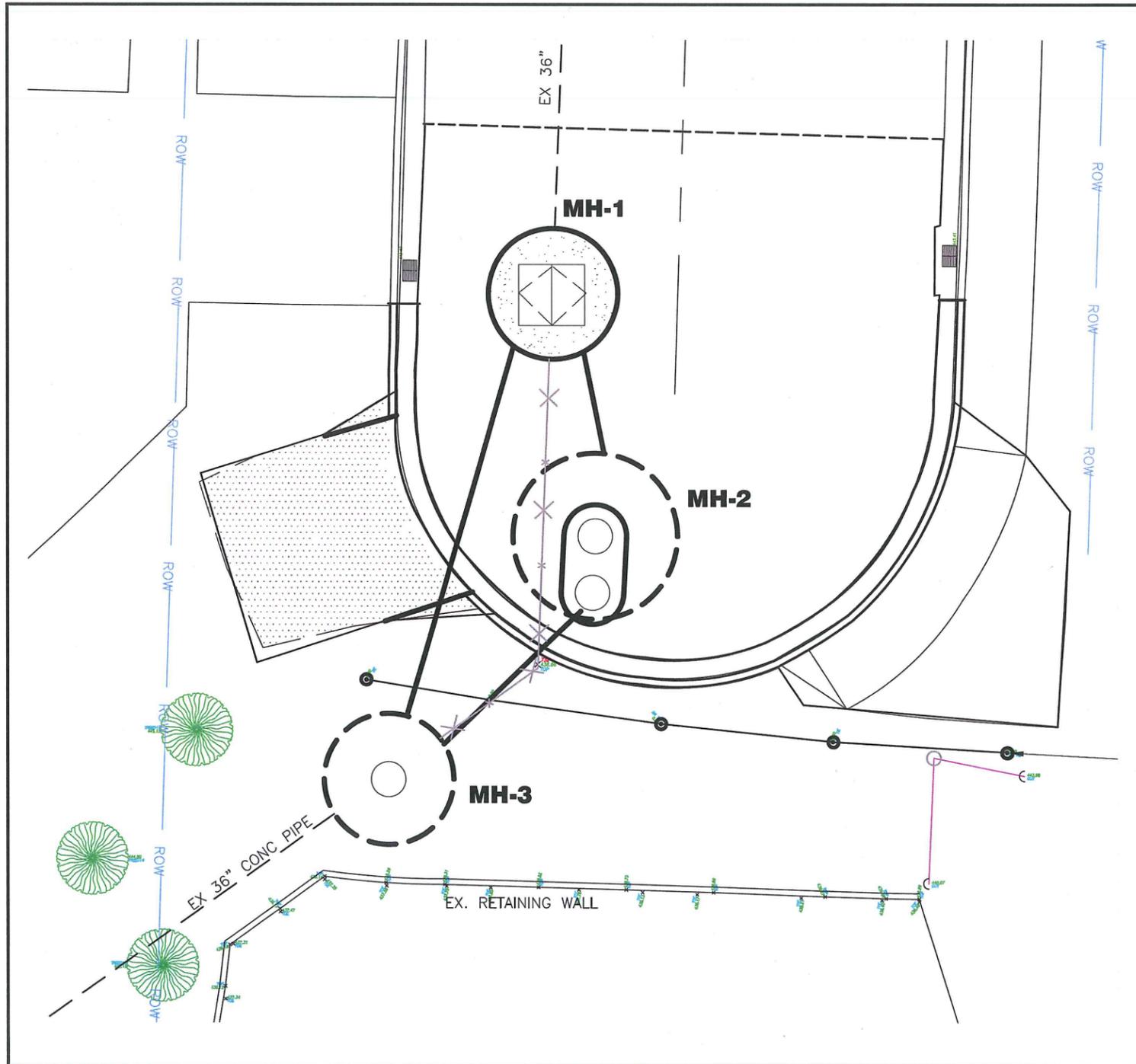
Submit traffic control plan prior to preconstruction meeting.

END OF SECTION

P21050 ISLAND PARK

PROJECT DESCRIPTION

This project will consist of installing three manholes in the Water Street right of way, one of which is a water quality MH. The work will include removing pipe, installing pipe, replacing a portion of curb and gutter, removing (2) driveway aprons and constructing (2) driveway aprons, removing guardrail, installing new guardrail, removing existing A.C. pavement as shown and paving A.C. as shown.



VICINITY MAP



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No.	Revision/Issue	Date

NOTE:

UTILITY LOCATIONS ARE APPROXIMATE
DO NOT
 SCALE OR LOCATE UTILITY LINES OR MAINS
 FROM THESE DRAWINGS
 CALL FOR UTILITY LOCATES
 811 or (1-800-332-2344)
 THE CONTRACTOR SHALL BE RESPONSIBLE
 FOR DETERMINING UTILITY LOCATIONS PRIOR TO
 BEGINNING OF CONSTRUCTION.
 THESE PLANS MAY NOT SHOW ALL UTILITIES OR
 THE CORRECT LOCATIONS.

P21050 ISLAND PARK

City of Springfield
PUBLIC WORKS / ENGINEERING
 225 FIFTH STREET, SPRINGFIELD, OR 97477
 PHONE (541) 726-3753 FAX (541) 736-1021
 INTERNET www.ci.springfield.or.us



EXPIRATION DATE: 12/31/2014

Scale

SHEET
1

GENERAL CONSTRUCTION NOTES CONTINUED:

GENERAL CONSTRUCTION NOTES

- A. ALL MATERIALS AND WORKMANSHIP WITHIN THE PUBLIC RIGHT-OF-WAY OR PUBLIC EASEMENTS SHALL MEET CITY OF SPRINGFIELD DEPARTMENT OF PUBLIC WORKS "STANDARD CONSTRUCTION SPECIFICATIONS, 1994" AS AMENDED IN 1998 (OR CURRENT EDITION), IN ADDITION TO THESE PLANS.
- B. OREGON LAW REQUIRES THE CONTRACTOR TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0100. THE CONTRACTOR MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (800) 332-2344.
- C. LOCATION AND/OR DEPTH OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE. ALL UTILITIES MAY NOT APPEAR ON PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES FOR UNDERGROUND LOCATION OF FACILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATING OR "POTHOLING". THE "ONE-CALL" NUMBER (800) 332-2344
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITY COMPANIES ON THE TIMING OF INSTALLATION OF THEIR FACILITIES.
- E. SPRINGFIELD CODE 10.2.1 REQUIRES NOTIFICATION OF OPEN TRENCHING FOR THE PROJECT TO ALLOW POSSIBLE COMMUNICATION CABLE INSTALLATION.
- F. THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL DEVICES NECESSARY TO PROTECT AND SAFEGUARD THE PUBLIC AND WORKERS AGAINST INJURY AND PROTECT THE WORK AGAINST DAMAGE. ALL TEMPORARY TRAFFIC CONTROL SIGNING AND DEVICES SHALL BE IN PLACE PRIOR TO BEGINNING WORK. ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD), CURRENT EDITION, AS SUPPLEMENTED AND AMENDED BY THE OREGON SUPPLEMENTS. FLAGGING SHALL BE PERFORMED AS SHOWN IN THE THE "OREGON TEMPORARY TRAFFIC CONTROL HANDBOOK FOR OPERATIONS OF THREE DAYS OR LESS", 2006 OR CURRENT EDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REQUIRED TRAFFIC CONTROL AS FIELD CONDITIONS WARRANT. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN AT THE PRE-CONSTRUCTION CONFERENCE FOR CITY REVIEW AND APPROVAL.
- G. ALL SANITARY AND STORM SEWER CONNECTIONS TO EXISTING CITY OWNED FACILITIES (PIPE, CATCH BASINS, MANHOLES, ETC.) SHALL BE INSPECTED BY THE CONTRACTOR AND THE CITY'S PUBLIC WORKS MAINTENANCE DEPARTMENT PRIOR TO HOOK UP. CONTACT MIKE RISLEY (726-3615) OR DENNY WRIGHT (736-1010) NO LESS THAN 48 HOURS PRIOR TO DESIRED INSPECTION TIME.
- H. BEFORE BACK-FILLING THE END OF A MAINLINE PIPE. NOT ENDING AT A MANHOLE OR A CLEAN OUT, THE CONTRACTOR SHALL PERFORM THE T.V. INSPECTION AS REQUIRED BY THE STANDARD SPECIFICATIONS AND ALLOW THE ENGINEER TO DETERMINE THE EXACT LOCATION AND ELEVATION OF THE END OF THE PIPE.
- I. WHERE CONNECTING TO AN EXISTING PIPE. THE CONTRACTOR SHALL EXPOSE THE END OF THE EXISTING PIPE AND ALLOW THE ENGINEER TO VERIFY EXACT LOCATION AND ELEVATION, CONDITION, AND POSITIVE FLOW BEFORE LAYING ANY NEW PIPE ON THAT SYSTEM.
- J. THE SEWER GRADE SHALL BE PER THE PLANS SPECIFICATIONS AND WITH THE MINIMUM COVER AS SHOWN ON THE PLANS
- K. THE CONTRACTOR SHALL INTERNALLY TELEVISION INSPECT THE SEWER AFTER ALL BACKFILL AND BEFORE THE FINAL LIFT OF ASPHALT PAVING. THE CONTRACTOR SHALL SUPPLY THE CITY WITH A WRITTEN T.V. REPORT AND VIDEO TAPE OR DVD FOR CITY APPROVAL AT LEAST 2 WORKING DAYS BEFORE THE PRE-PAVING MEETING.
- L. CONTRACTOR TO SCHEDULE A PRE-PAVING CONFERENCE 24 HOURS PRIOR TO PAVING. CONTACT DENNY WRIGHT (736-1010).
- M. ALL JOINTS BETWEEN EXISTING and NEW ASPHALT PAVING SHALL BE SEALED WITH POLYMERIZED ASPHALT AND SANDED TO PREVENT PICK UP.
- N. COMPACTION REQUIREMENTS:
- | LAYER | RATE | TEST |
|------------------------------|------|------|
| SUBGRADE | 95% | T99 |
| CRUSHED ROCK | 95% | T180 |
| TRENCH BACK FILL ROCK | 95% | T180 |
| ASPHALT (LOCAL) | 90% | RICE |
| ASPHALT (COLLECTOR/ARTERIAL) | 92% | RICE |
- O. CONCRETE COMPRESSIVE STRENGTH REQUIREMENTS (PSI):
- | CONCRETE USE | FIELD | LABORATORY |
|--------------------|-------|------------|
| SIDEWALK/ADA RAMPS | 3000 | 3450 |
| CURBS/GUTTERS | 3500 | 4025 |
| DRIVEWAYS | 3500 | 4025 |
| PAVEMENT | 4000 | 4600 |
- P. THIS PROJECT SHALL COMPLY WITH THE AMERICAN DISABILITIES ACT REQUIREMENTS SUCH AS INCORPORATION OF DESIGN CRITERIA FOR HANDICAP RAMPS, MAXIMUM PROFILE AND CROSS SECTION SLOPES FOR SIDEWALKS, UPGRADING EXISTING HANDICAP FACILITIES WHERE MAJOR CONSTRUCTION IS OCCURRING, AND BUILDING WARNING FOR OBJECTS IN SIDEWALK SUCH AS CURBING OR LANDSCAPING AROUND MAILBOXES.
- Q. CONTRACTOR IS RESPONSIBLE TO OBTAIN APPLICABLE PERMITS FROM OTHER AGENCIES WITH JURISDICTIONS SUCH AS LANE COUNTY, OREGON DEPARTMENT OF TRANSPORTATION, OREGON DIVISION OF STATE LANDS, THE ARMY CORPS OF ENGINEERS, OR THE DEPARTMENT OF ENVIRONMENTAL QUALITY.
- R. ALL IMPROVEMENTS THAT WILL BE PRIVATELY OWNED AND MAINTAINED WILL BE BOUND BY THE CURRENT REQUIREMENTS OF THE STATE OF OREGON STRUCTURAL SPECIALTY CODE, PLUMBING SPECIALTY CODE, AND/OR CITY OF SPRINGFIELD BUILDING DIVISION REQUIREMENTS. CONTRACTOR IS RESPONSIBLE TO OBTAIN APPLICABLE PERMITS FROM OTHER CITY DEPARTMENTS PRIOR TO DOING PRIVATE WORK.
- S. EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION. SEE EROSION CONTROL PLAN.
- T. STREET TREES: ONLY STREET TREES WITH A MINIMUM TRUNK CALIPER OF 2 IN. MEASURED 6 IN. ABOVE THE ROOT STEM SHALL BE SELECTED FOR PLANTING.
- U. A PRE-CONSTRUCTION CONFERENCE IS REQUIRED BEFORE START OF CONSTRUCTION. ALL UTILITIES, CONTRACTORS and CITY REPRESENTATIVES SHALL HAVE RECEIVED THE FINAL APPROVED PLANS AT LEAST 5 WORKING DAYS PRIOR TO THE PRE CONSTRUCTION CONFERENCE.
- V. THE ENGINEER AND/OR CITY HAVE THE RIGHT TO REQUIRE ADDITIONAL WORK NOT SHOWN HEREIN BUT NECESSARY FOR THE SUCCESSFUL COMPLETION OF THE PROJECT.
- W. REQUESTS BY THE CONTRACTOR FOR CHANGES SHALL BE APPROVED BY THE ENGINEER AND THE CITY IN WRITING PRIOR TO IMPLEMENTATION.
- X. CONTRACTOR SHALL SUBMIT EVIDENCE OF INSURANCE IN ACCORDANCE WITH THE STANDARD SPECIFICATION TO THE CITY FOR APPROVAL PRIOR TO BEGINNING WORK.
- Y. CONTRACTOR SHALL BE AWARE IF PAVING IS NOT SCHEDULED OR DOES NOT OCCUR PRIOR TO OCTOBER 15TH, WET WEATHER PROVISIONS INCLUDING ADDITIONAL ROCK SUBSTRUCTURE AND GEOTEXTILE FABRIC SHALL USED. REFER TO STANDARD SPECIFICATION SECTION 301.1.01 AND THE TYPICAL CROSS SECTIONS CONTAINED HEREIN FOR DETAILS
- Z.. THE CONTRACTOR SHALL VERIFY EACH EXISTING SANITARY AND STORM CONNECTION.

No.	Revision/Issue	Date
DRAWN: RBK		

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P21050 ISLAND PARK

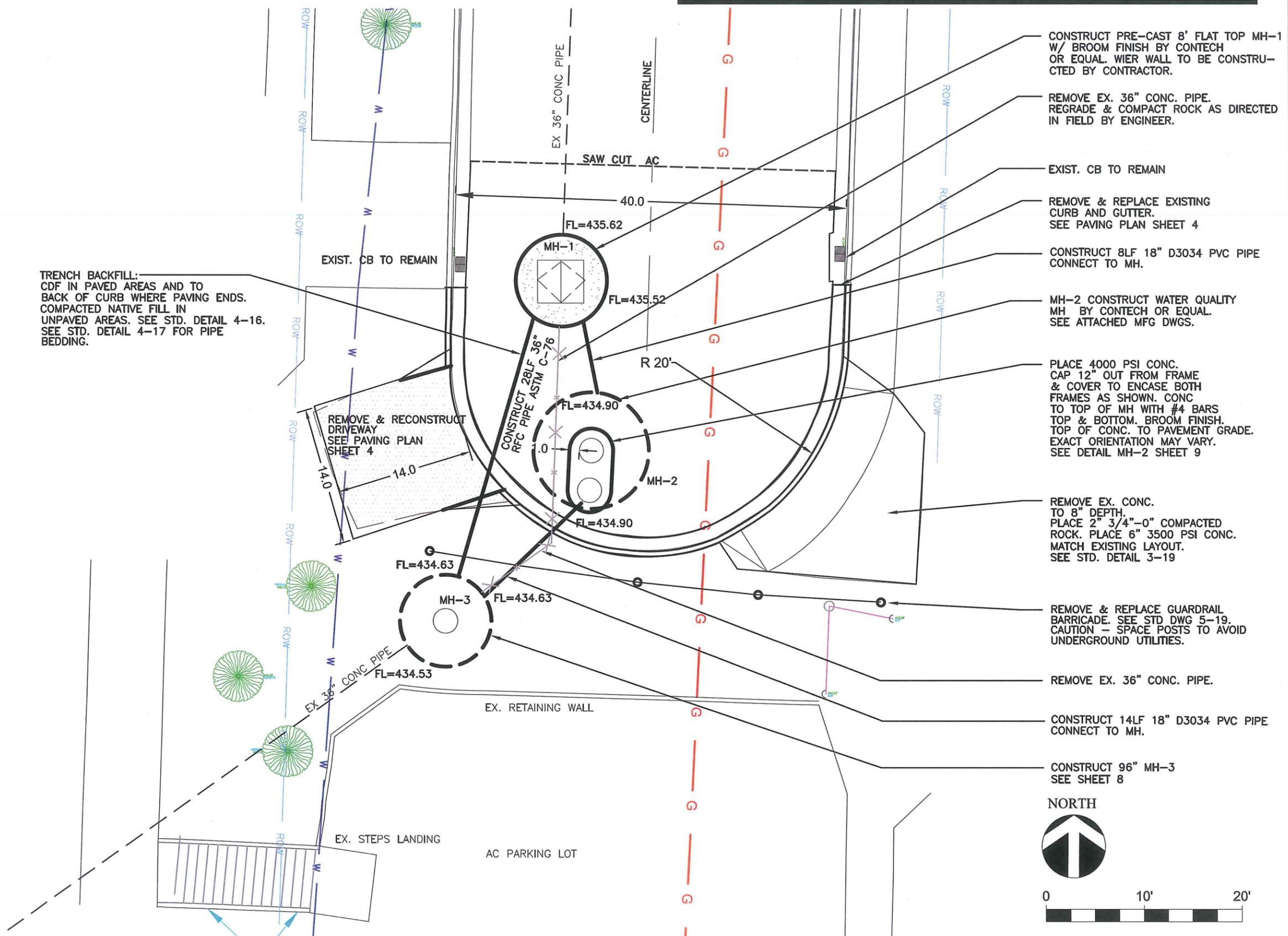
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EXPIRATION DATE: 12/31/2014

CONSTRUCTION PLAN



No.	Revision/Issue	Date

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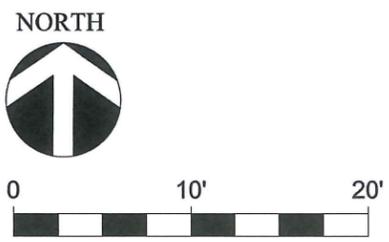
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- CONSTRUCT PRE-CAST 8' FLAT TOP MH-1 W/ BROOM FINISH BY CONTECH OR EQUAL. WIER WALL TO BE CONSTRUCTED BY CONTRACTOR.
- REMOVE EX. 36" CONC. PIPE. REGRADE & COMPACT ROCK AS DIRECTED IN FIELD BY ENGINEER.
- EXIST. CB TO REMAIN
- REMOVE & REPLACE EXISTING CURB AND GUTTER. SEE PAVING PLAN SHEET 4
- CONSTRUCT 8LF 18" D3034 PVC PIPE CONNECT TO MH.
- MH-2 CONSTRUCT WATER QUALITY MH BY CONTECH OR EQUAL. SEE ATTACHED MFG DWGS.
- PLACE 4000 PSI CONC. CAP 12" OUT FROM FRAME & COVER TO ENCASE BOTH FRAMES AS SHOWN. CONC TO TOP OF MH WITH #4 BARS TOP & BOTTOM. BROOM FINISH. TOP OF CONC. TO PAVEMENT GRADE. EXACT ORIENTATION MAY VARY. SEE DETAIL MH-2 SHEET 9
- REMOVE EX. CONC. TO 8" DEPTH. PLACE 2" 3/4"-0" COMPACTED ROCK. PLACE 6" 3500 PSI CONC. MATCH EXISTING LAYOUT. SEE STD. DETAIL 3-19
- REMOVE & REPLACE GUARDRAIL BARRICADE. SEE STD DWG 5-19. CAUTION - SPACE POSTS TO AVOID UNDERGROUND UTILITIES.
- REMOVE EX. 36" CONC. PIPE.
- CONSTRUCT 14LF 18" D3034 PVC PIPE CONNECT TO MH.
- CONSTRUCT 96" MH-3 SEE SHEET 8

TRENCH BACKFILL:
 CDF IN PAVED AREAS AND TO BACK OF CURB WHERE PAVING ENDS. COMPACTED NATIVE FILL IN UNPAVED AREAS. SEE STD. DETAIL 4-16. SEE STD. DETAIL 4-17 FOR PIPE BEDDING.

REMOVE & RECONSTRUCT DRIVEWAY SEE PAVING PLAN SHEET 4



EXPIRATION DATE: 12/31/2014

Scale	SHEET
	3

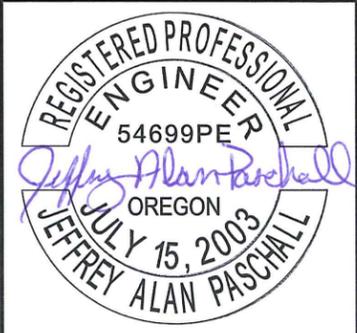
No.	Revision/Issue	Date

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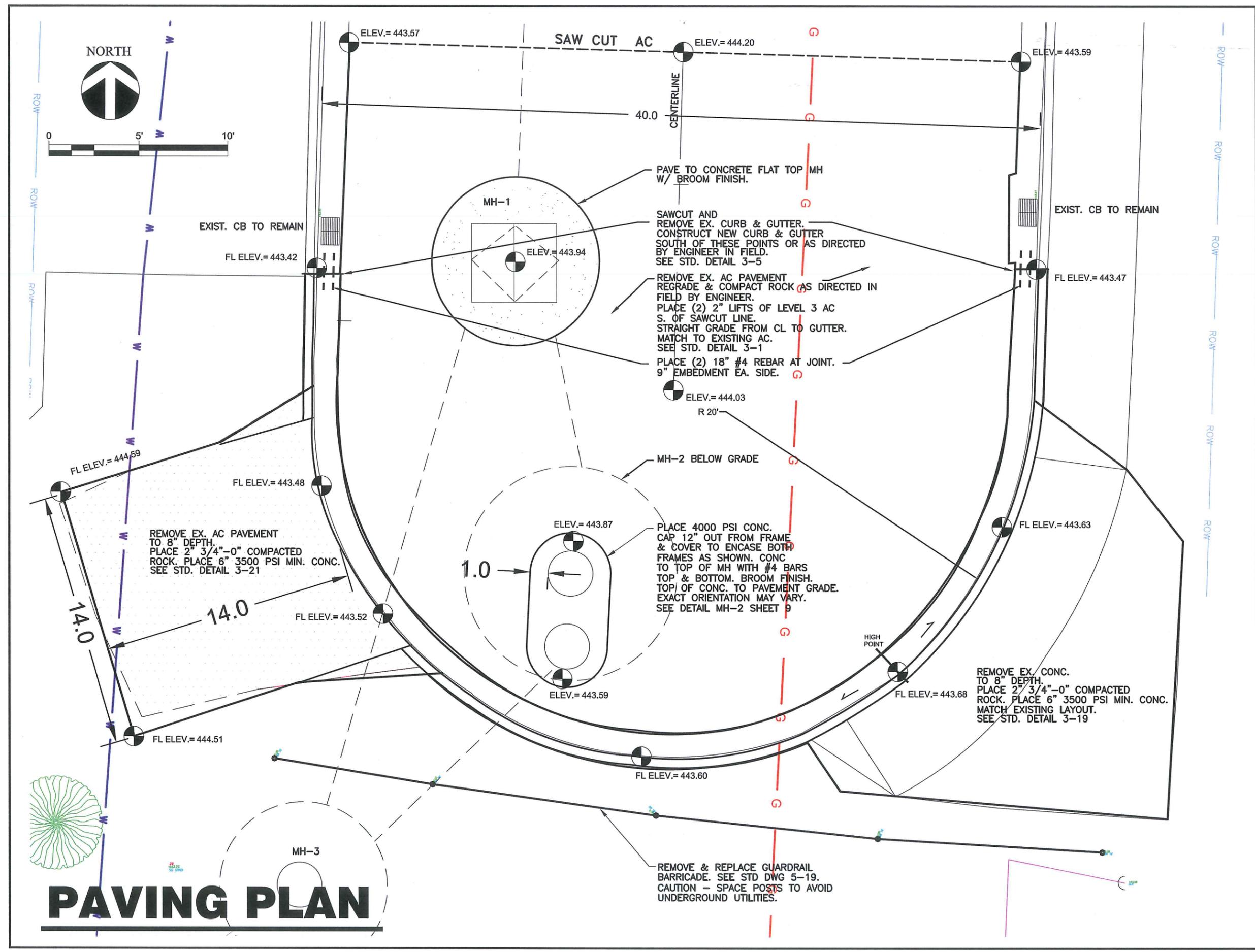
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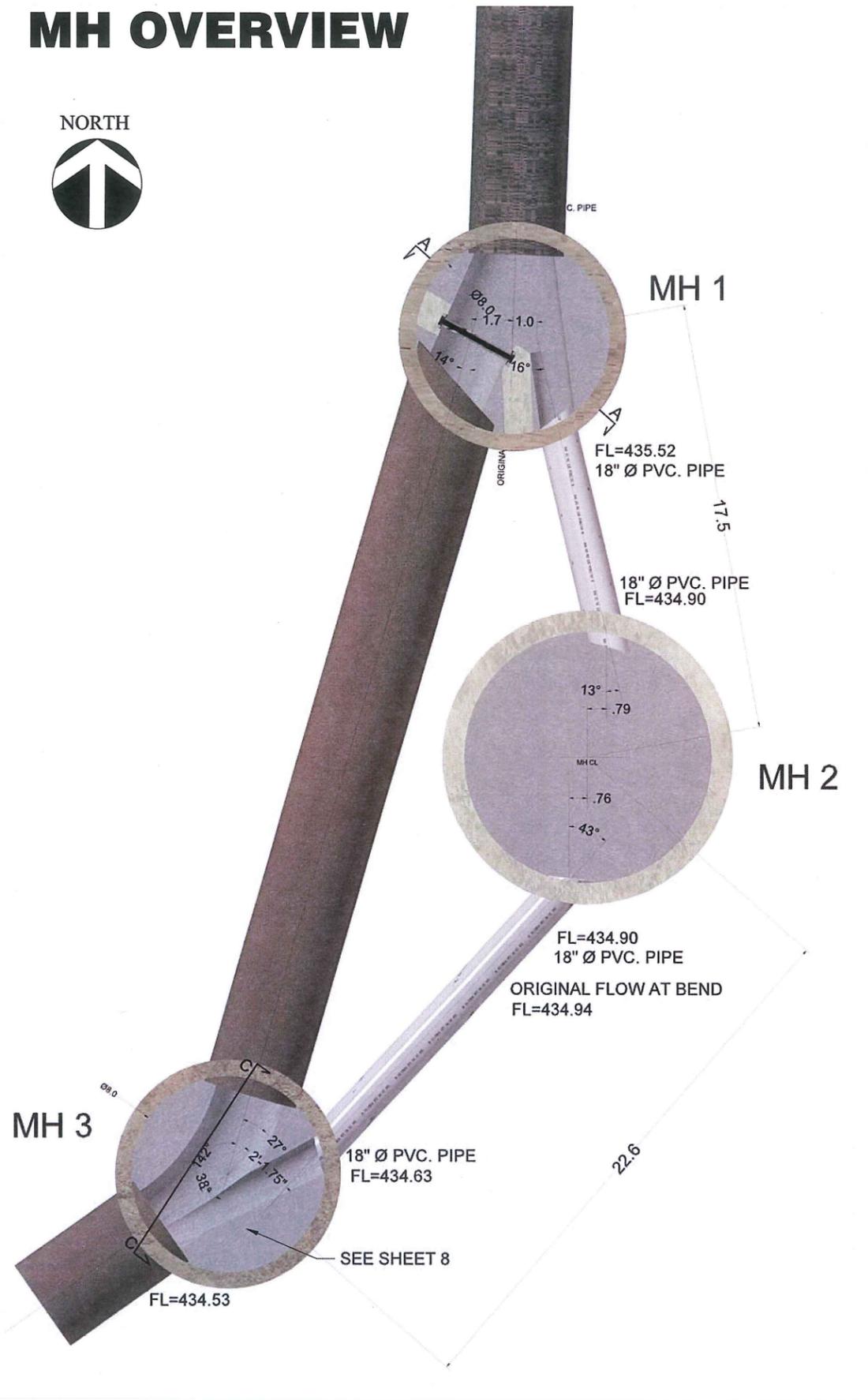


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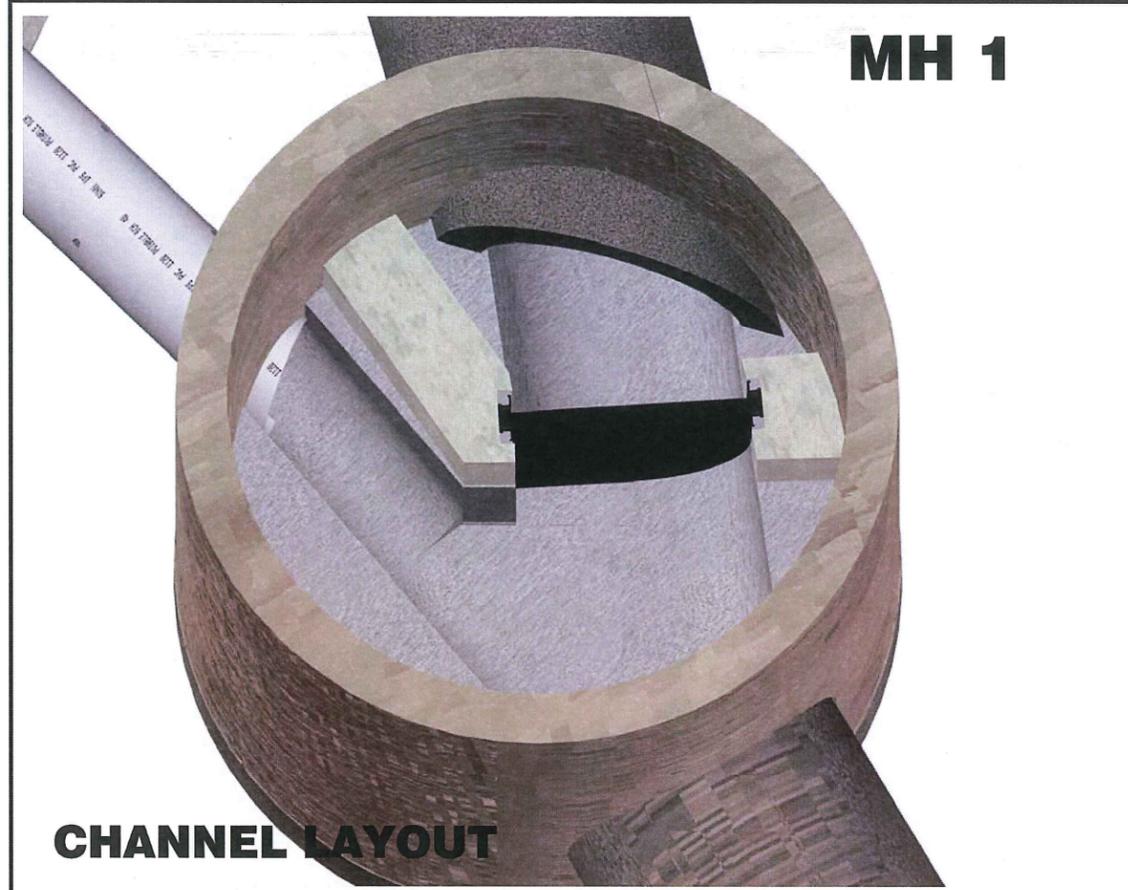
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	4



MH OVERVIEW

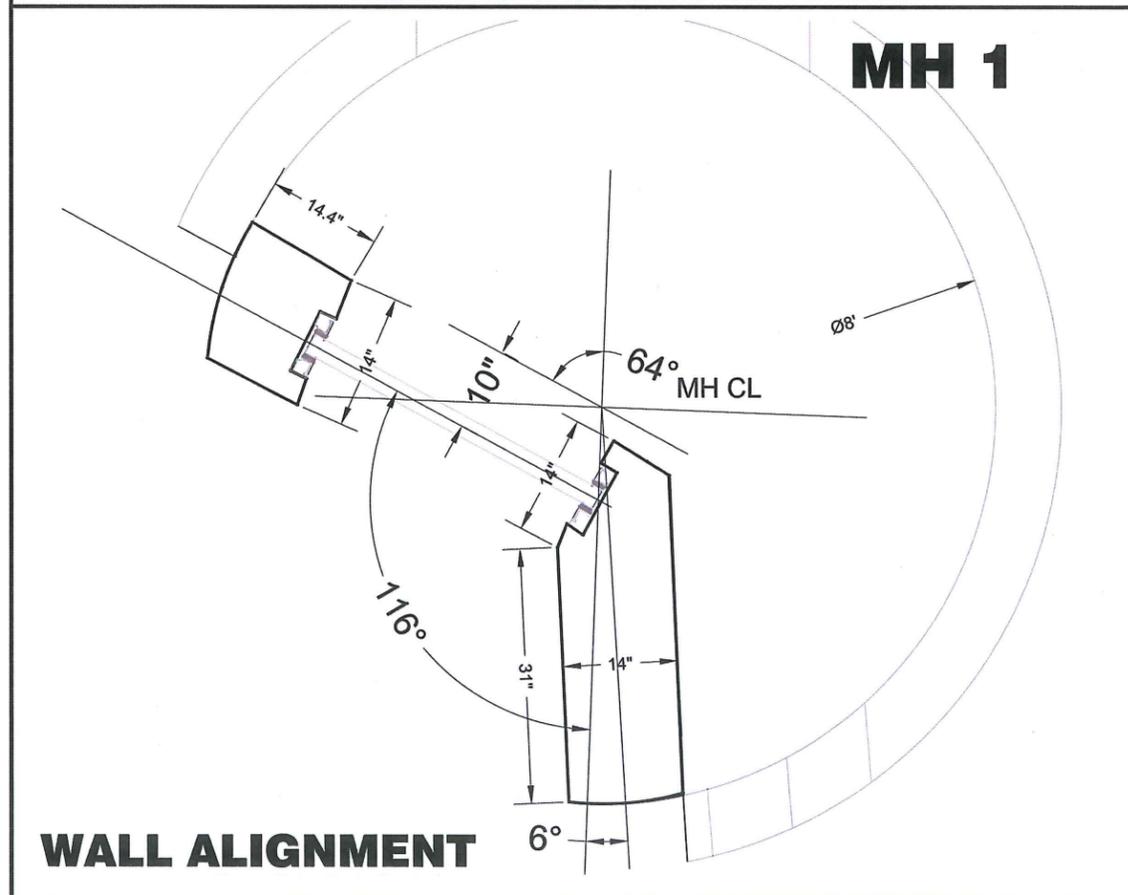


MH 1



CHANNEL LAYOUT

MH 1



WALL ALIGNMENT

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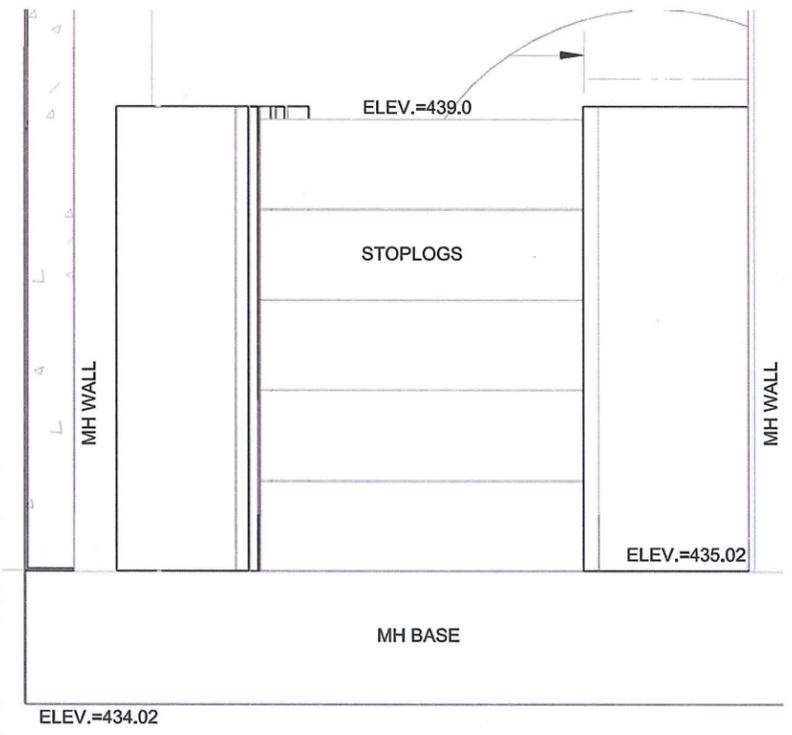
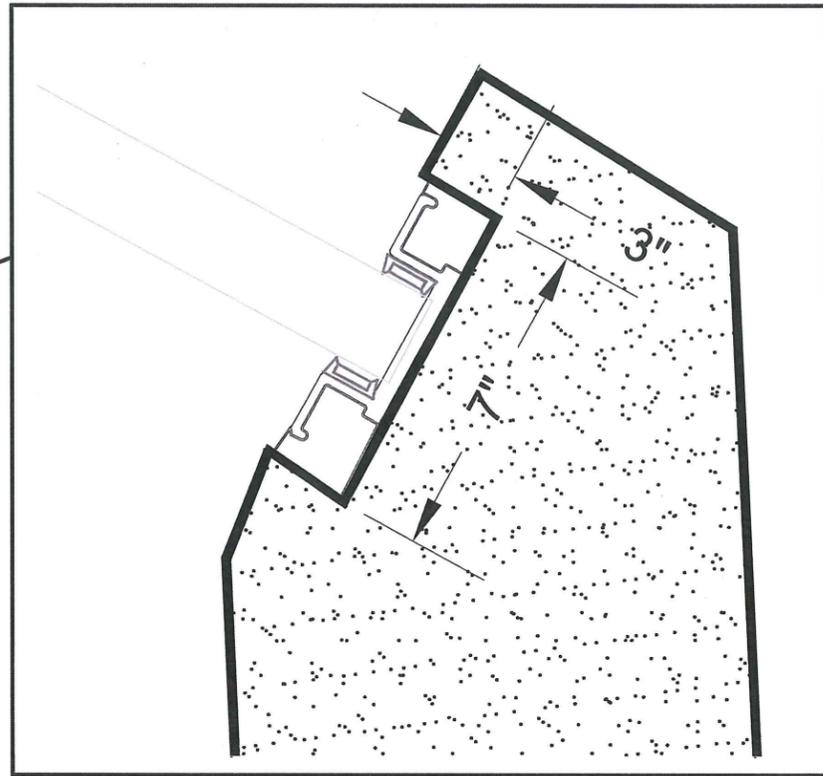
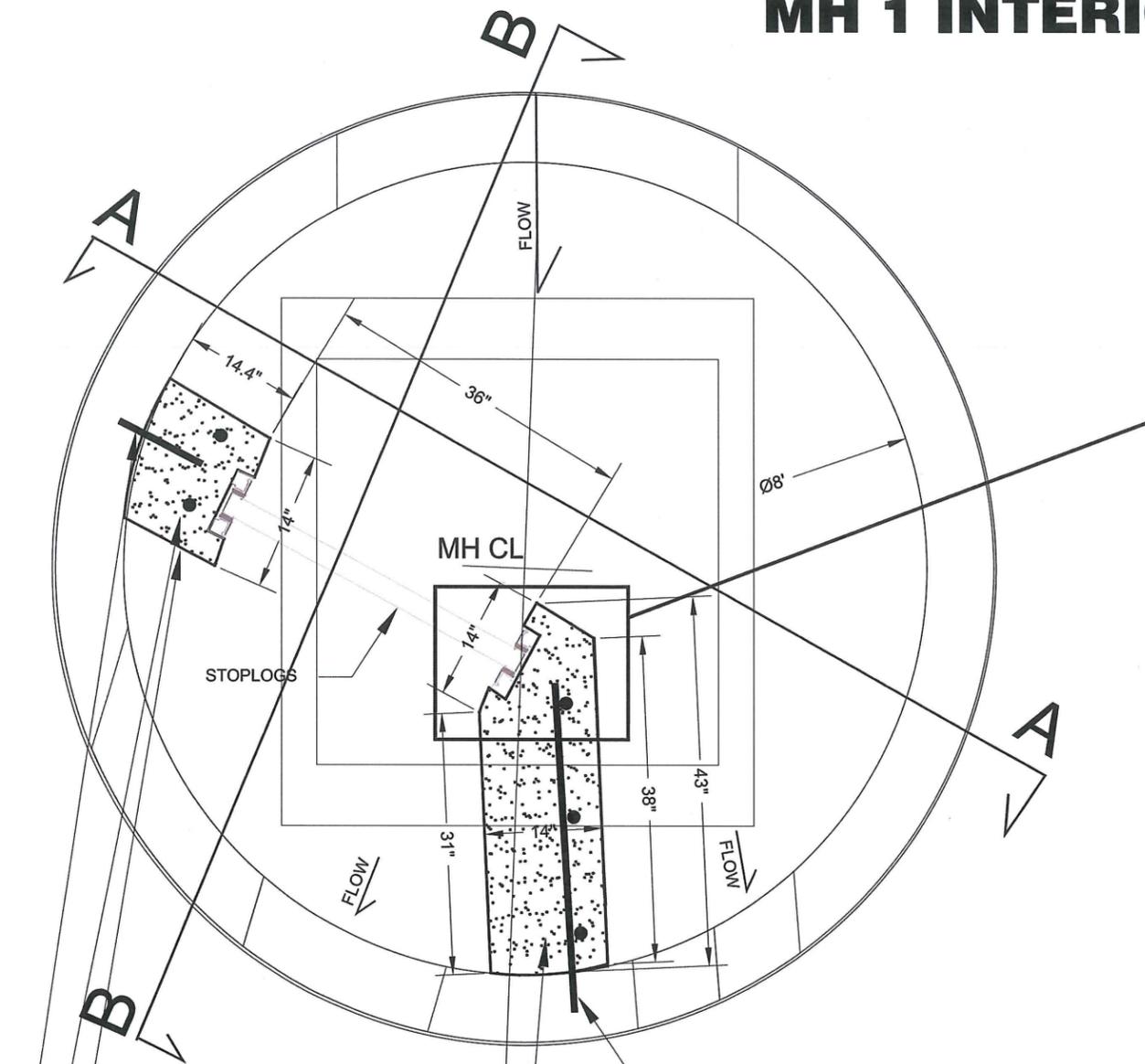
EXPIRATION DATE: 12/31/2014

Scale

SHEET

5

MH 1 INTERIOR WALLS



INTERIOR CONC WALL 2500 PSI MIN. 40" HIGH
SEE MANUFACTURER INSTALLATION GUIDE
FOR STOP LOG PLACEMENT.

(2) #4 REBAR VERTICAL 3" CL OF EDGE TYP.
WITH 6" EPOXY EMBEDMENT IN MH BASE.

(2) #4 REBAR 4" EPOXY EMBEDMENT INTO
8" MH WALL @ 24" HT & 36" HT TYP.

(3) #4 REBAR EA. WAY 3" CL OF EDGE.
VERTICAL WITH 6" EPOXY EMBEDMENT IN MH BASE.
HORIZONTAL WITH 4" EPOXY EMBEDMENT IN MH WALL.

SECTION A-A

No.	Revision/Issue	Date

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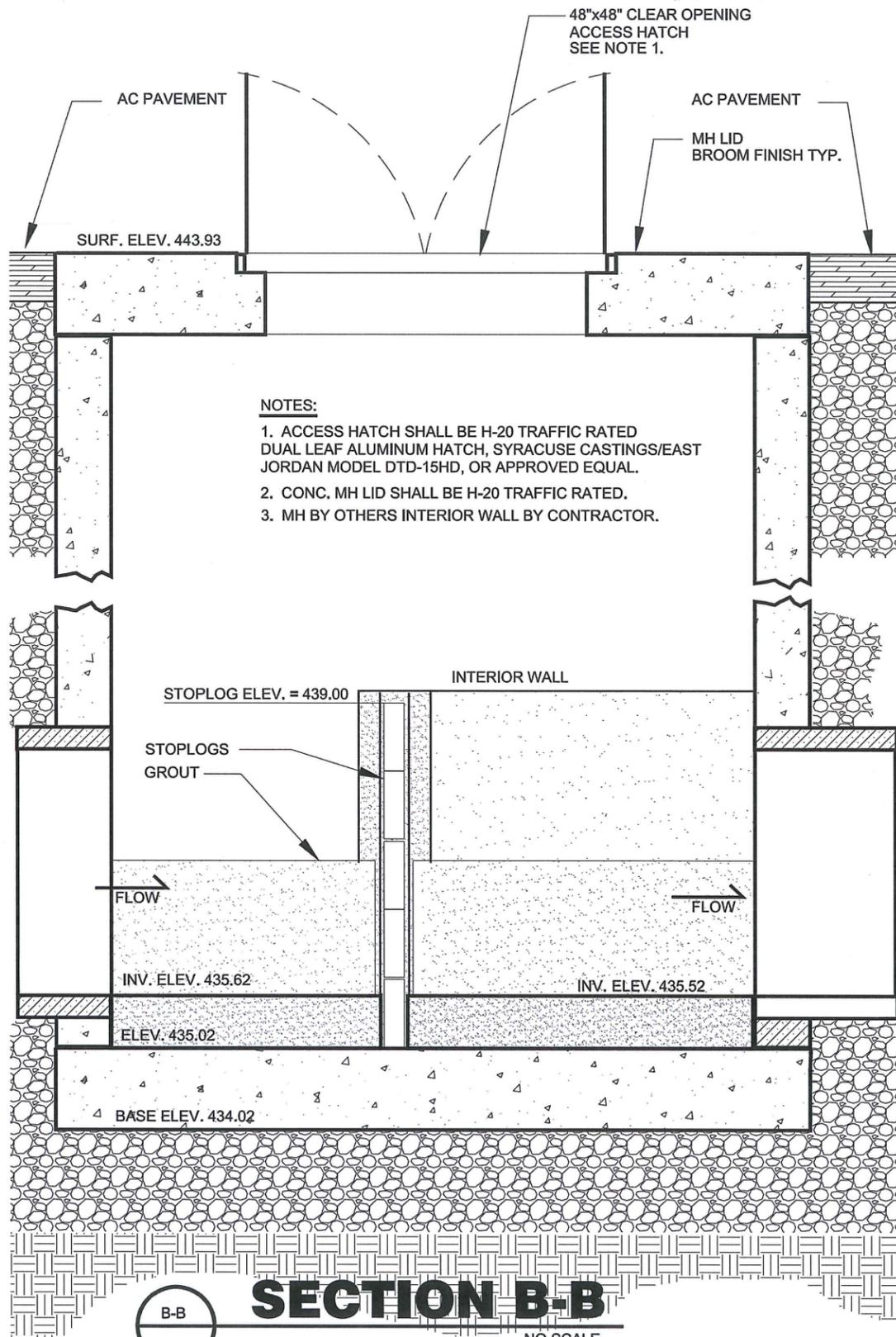
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Scale	SHEET
	6

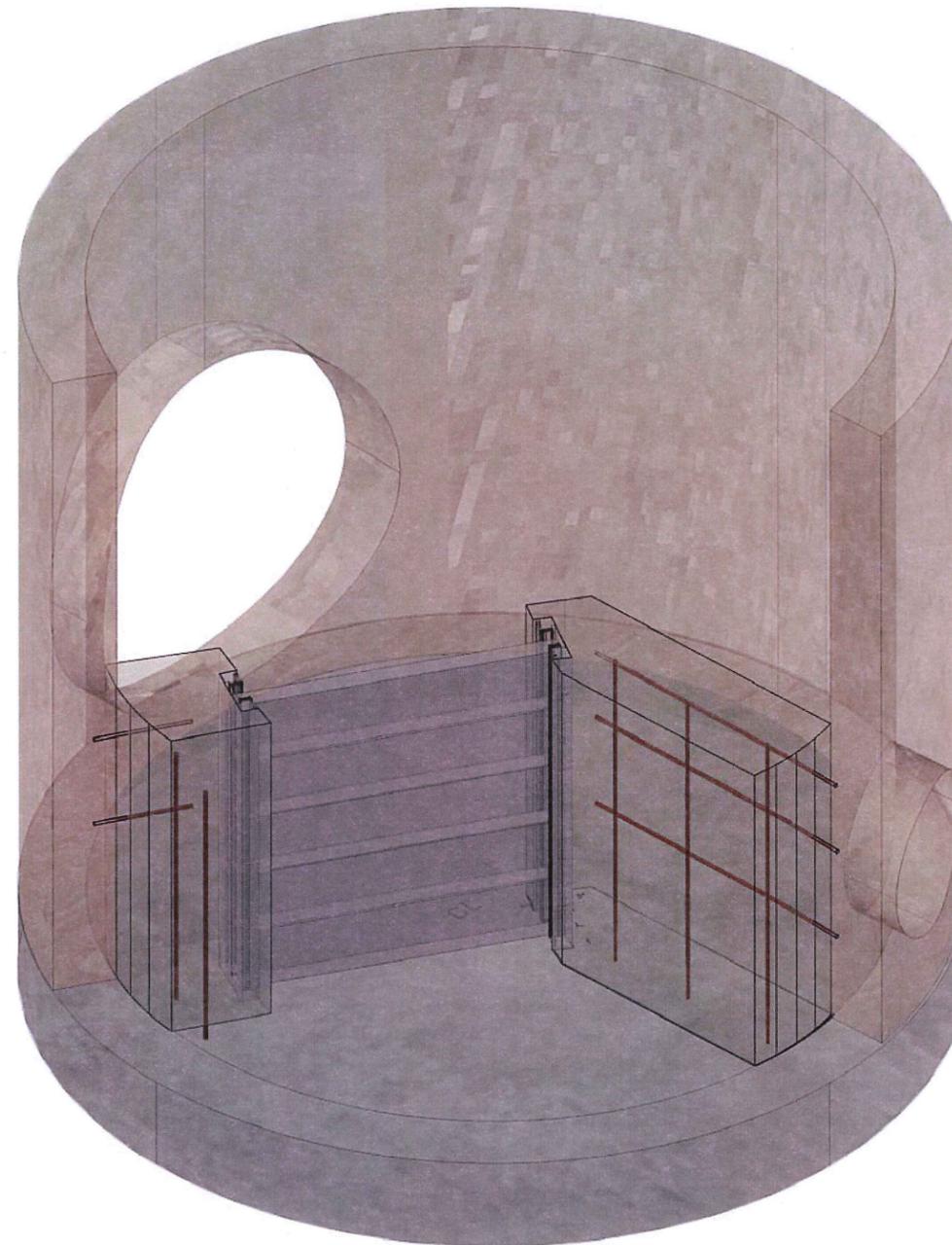
MH 1



SECTION B-B

NO SCALE

MH 1



SECTION LOOKING NE

NO SCALE

No.	Revision/Issue	Date

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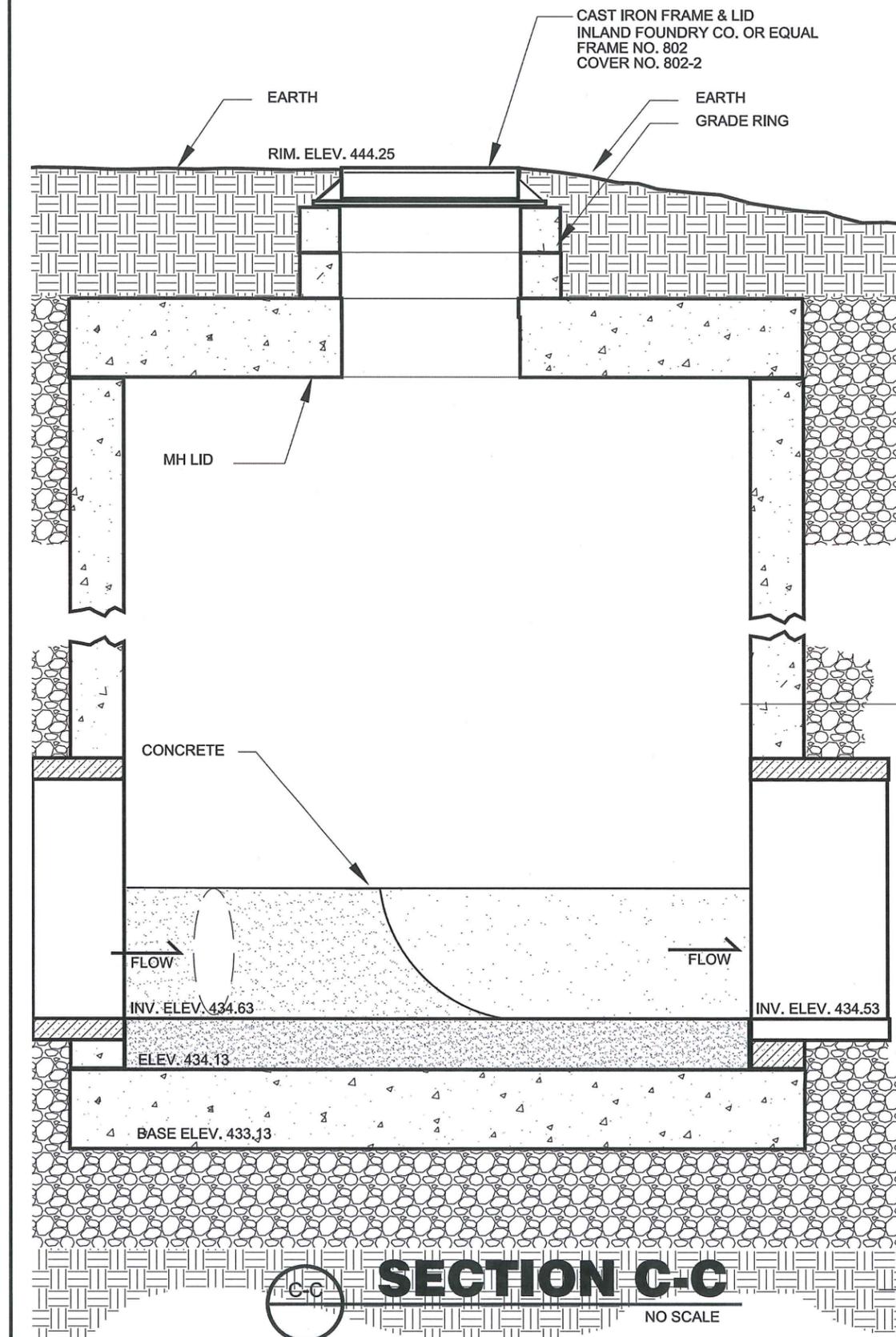
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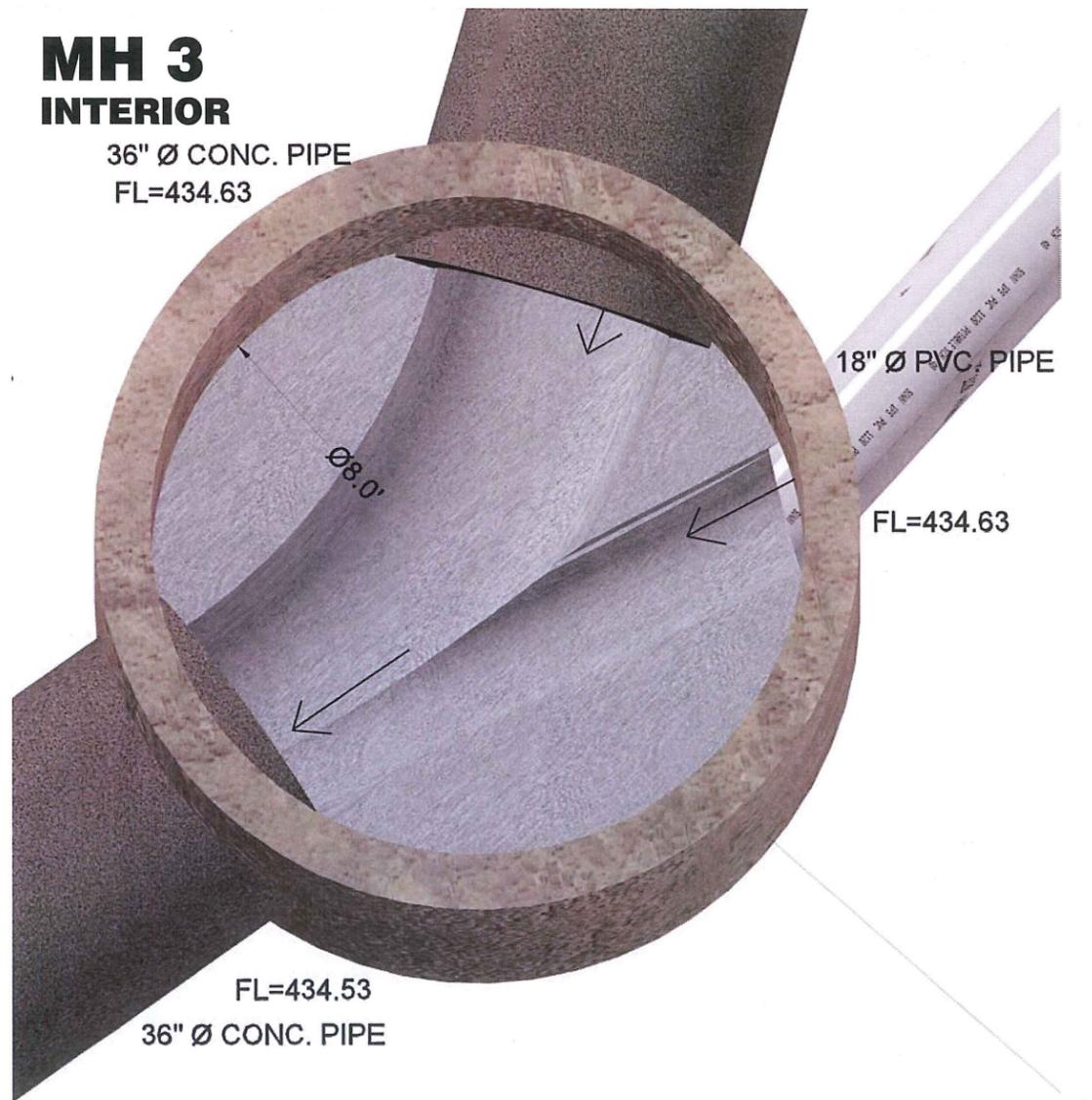
Scale	SHEET
	7

MH 3



MH 3 INTERIOR

36" Ø CONC. PIPE
 FL=434.63



No.	Revision/Issue	Date

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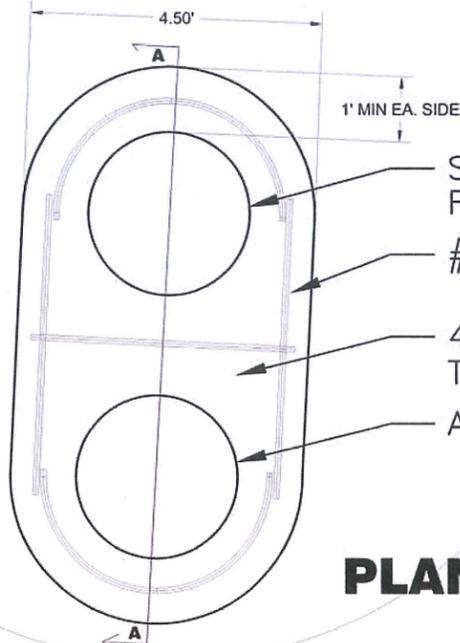
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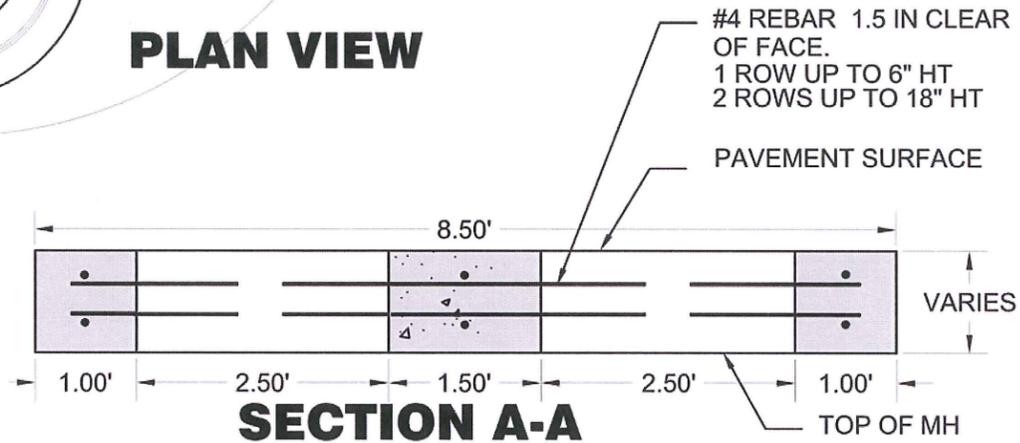
Scale	SHEET
	8

MH - 2

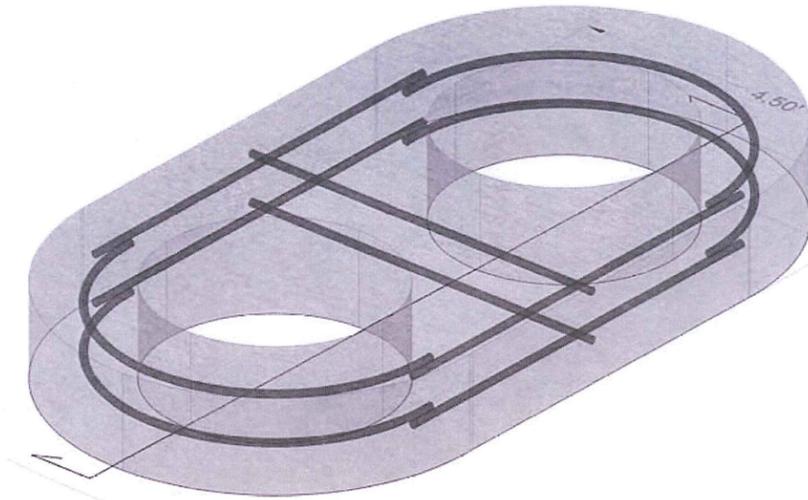


- SIZE HOLE TO MATCH FRAME & COVER.
- #4 REBAR TYP.
- 4000 PSI CONC. TOP OF MH TO PAVEMENT SURF.
- ACCESS HOLE TYP.

PLAN VIEW



SECTION A-A



No.	Revision/Issue	Date

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EXPIRATION DATE: 12/31/2014

Scale

SHEET

9

NOTES:

1. PLACE INLET/CATCH BASIN PROTECTION AT EXISTING FIXTURES (SEE DETAIL ON SHEET E2.)

GENERAL NOTES:

1. CONCRETE WASHOUTS ARE NOT PROVIDED ON THIS PROJECT
2. SAW CUTTING SLURRY IS TO BE VACUMED
3. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON (OCTOBER 1 TO APRIL 30) OR SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPTEMBER 30) SHALL BE IMMEDIATELY STABILIZED WITH AN APPROVED ESC METHOD (SEEDING & MULCHING WITH STRAW, BARK, COMPOST, OR PLASTIC COVERING, ETC.).

EROSION CONTROL STANDARD NOTES:

- | | |
|--|---|
| <p>A. Approval of this Erosion and Sedimentation Control Plan (ESCP) does not constitute an approval of permanent road or drainage design (e.g., size and location of roads, pipes, restrictors, channels, retention facilities, utilities, etc.).</p> <p>B. Approval of this ESCP does not relieve the permit holder and or the contractor from all other permitting requirements. Prior to beginning construction activities, all other necessary approvals shall be obtained.</p> <p>C. An inspection of the erosion control measures by City LDAP staff is required prior to any ground disturbance on the site.</p> <p>D. The erosion and sediment control measures shown on the plan are the minimum requirements for anticipated site conditions. During the construction period, these measures shall be upgraded as needed for unexpected storm events and to ensure that sediment and sediment-laden water does not leave the site.</p> <p>E. The implementation of the ESCP and the construction, maintenance, replacement, and upgrading of the erosion and sediment control measures is the responsibility of the permit holder and or the contractor until all construction is completed and accepted by the City and vegetation/landscaping is established per the required warranty period.</p> <p>F. In the event the ESC facilities identified on the ESCP are not functioning properly, the contractor is responsible for immediately implementing changes to the ESCP as directed by the ESCP engineer or his inspector. The engineer, his inspector or the City may stop all construction activity on site until the erosion problem is corrected and all ESC facilities are functioning properly. If the contractor does not immediately implement changes to the ESCP identified by the ESCP engineer or his inspector, the City may implement the necessary changes and require payment from the contractor prior to project acceptance by the City.</p> <p>G. The boundaries of the clearing limits shown on this plan shall be clearly flagged in the field by the engineer prior to construction. During the construction period, no disturbance beyond the flagged clearing limits shall be permitted. The flagging shall be maintained by the permit holder and or the contractor for the duration of construction.</p> <p>H. The erosion and sediment control measures on active sites shall be inspected and maintained daily and within the 24 hours after any storm event of greater than 0.5 inches of rain per 24 hour period. Measures shall be inspected by the permit holder and or the contractor after each rainfall and at least daily during prolonged rainfall. Any required repairs or adjustments shall be made immediately. The erosion and sediment control measures on inactive sites shall be inspected a minimum of once every two (2) weeks or within 48 hours following a storm event. Written records shall be kept of weekly reviews of the ESC facilities during the wet season (October 1 to April 30) and of monthly reviews during the dry season (May 1 to September 30).</p> <p>I. All erosion and sediment control measures shall be protected from damage at all times. Control measures shall remain in place until permanent or temporary re-vegetation has been stabilized. Any measure that is damaged or destroyed shall be repaired or replaced immediately.</p> | <p>J. Any areas of exposed soils, including roadway embankments, that will not be disturbed for two days during the wet season (October 1 to April 30) or seven days during the dry season (May 1 to September 30) shall be immediately stabilized with an approved ESC method (seeding & mulching with straw, bark, compost, or plastic covering, etc.).</p> <p>K. A supply of materials necessary to meet compliance and implement the LDAP or other best management erosion practices under all weather conditions shall be maintained at all times on the construction site.</p> <p>L. No hazardous substances, such as paints, thinners, fuels and other chemicals shall be released onto the site, adjacent properties, or into water features, the City's storm water system, or related natural resources.</p> <p>M. Street sweeping shall be performed as needed or when directed by the City inspector to ensure public right-of-ways are kept clean and free of debris. Street flushing is prohibited.</p> <p>N. When trucking saturated soils from the site, either water-tight trucks shall be used or loads shall be drained on site until dripping has been reduced to no more than one gallon per hour. Sediment laden water will not be allowed to enter the storm water system</p> <p>O. Extracted ground water from excavated trenches shall be disposed of in a suitable manner without damage to adjacent property, public storm water system, water features, and related natural resources. Approval of a dewatering system does not guarantee that it will meet compliance or be acceptable for use in all situations. Modifications to the dewatering system will be required if compliance can not be met. At no time will sediment laden water be allowed to leave the construction site.</p> <p>P. At no time shall more than one foot of sediment be allowed to accumulate within a catch basin. All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not flush sediment laden water into the downstream system.</p> <p>Q. Any required stabilized construction entrances and roads shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures, such as wash pads, may be required to ensure that all paved areas are kept clean for the duration of the project.</p> <p>R. Any permanent flow control facility used as a temporary settling basin shall be modified with the necessary erosion control measures and shall provide adequate storage capacity.</p> <p>S. Where straw mulch for temporary erosion control is required, it shall be applied at a minimum thickness of two to three inches.</p> <p>T. In preparation of the wet season, all disturbed areas shall be reviewed to identify which ones can be seeded in preparation for the winter rains. A sketch map of those areas to be seeded and those areas to remain uncovered shall be submitted to the City by September 15. The City can require seeding of additional areas in order to protect surface waters, adjacent properties, or drainage facilities. Disturbed areas identified for seeding shall be seeded prior to the beginning of the wet season (October 1).</p> |
|--|---|

No.	Revisor/Issue	Date

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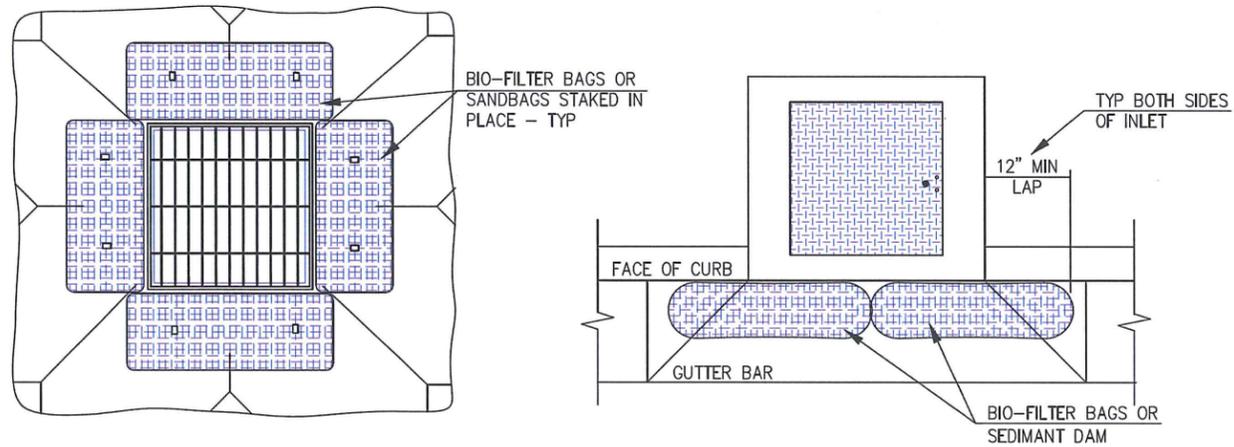


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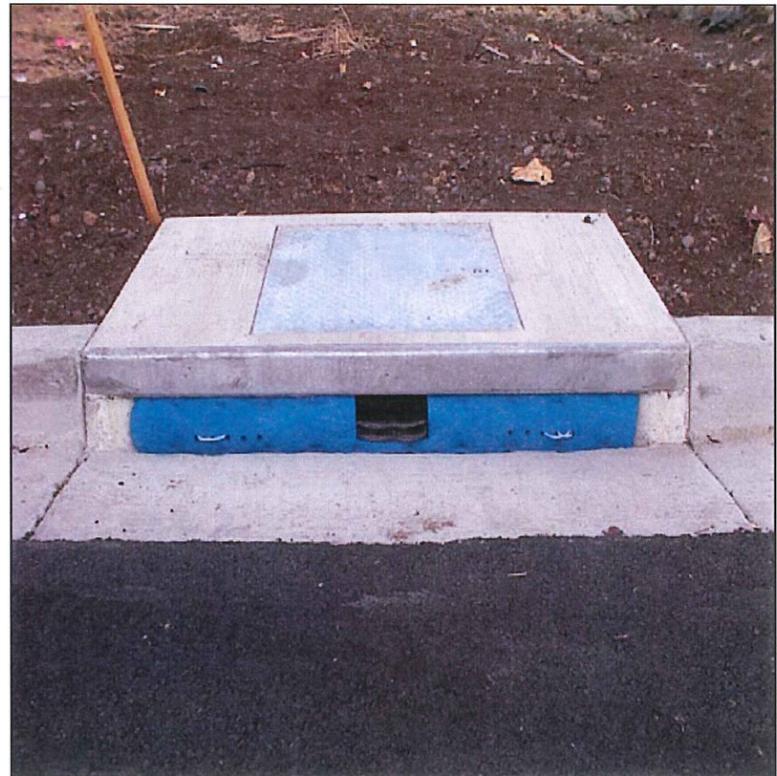
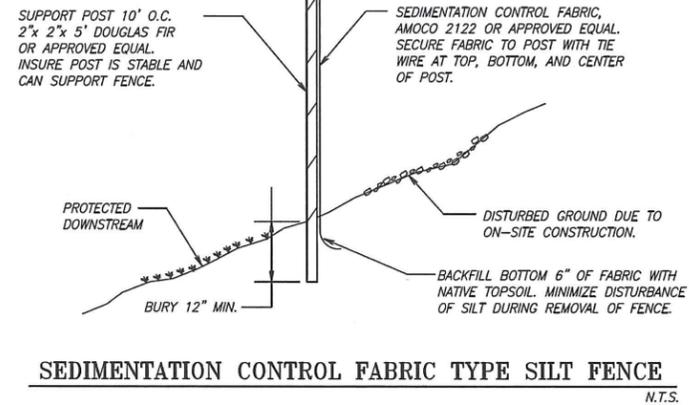
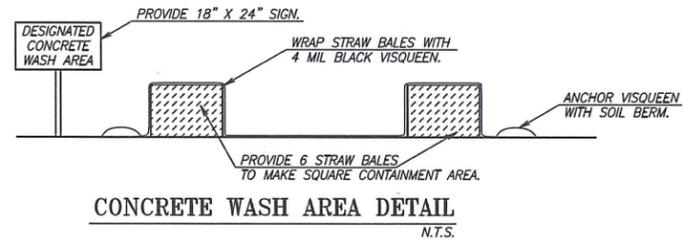
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E1

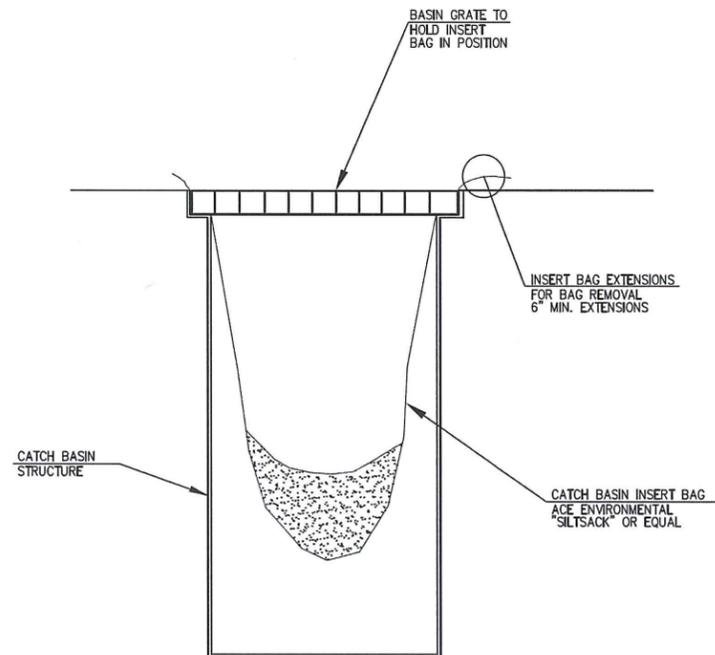


NOTES
 1. PRIOR TO 1st PAVEMENT LIFT, REMOVE BIO-BAG/SANDBAG BARRIERS AND INSTALL BASIN INSERT BAG OR CURB INLET SEDIMENT DAM AT ALL INLET STRUCTURES.

1 **DRAINAGE INLET STRUCTURE PROTECTION**
 NO SCALE



INLET PROTECTION



1 **CATCH BASIN INSERT BAG**
 NO SCALE

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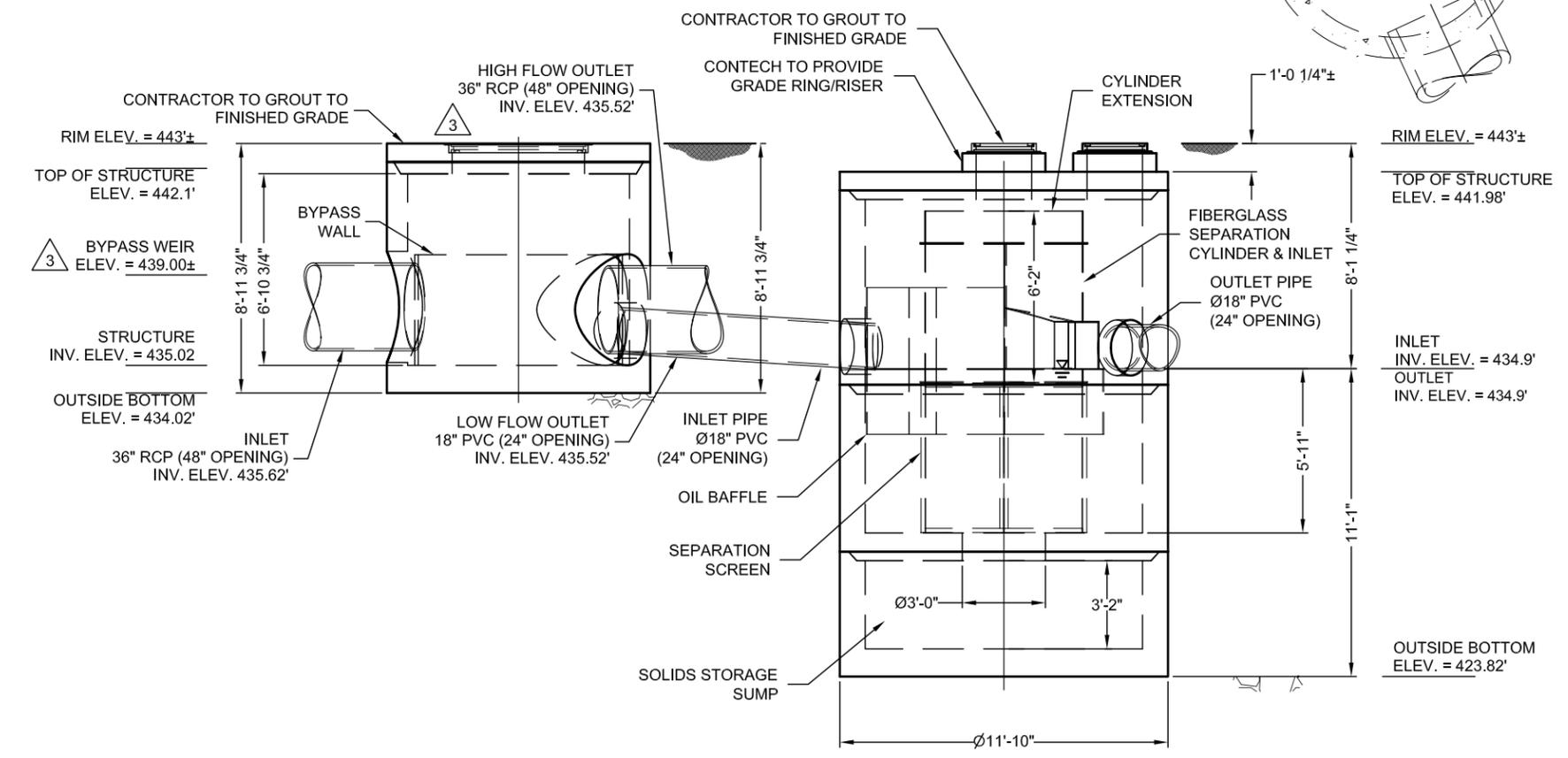
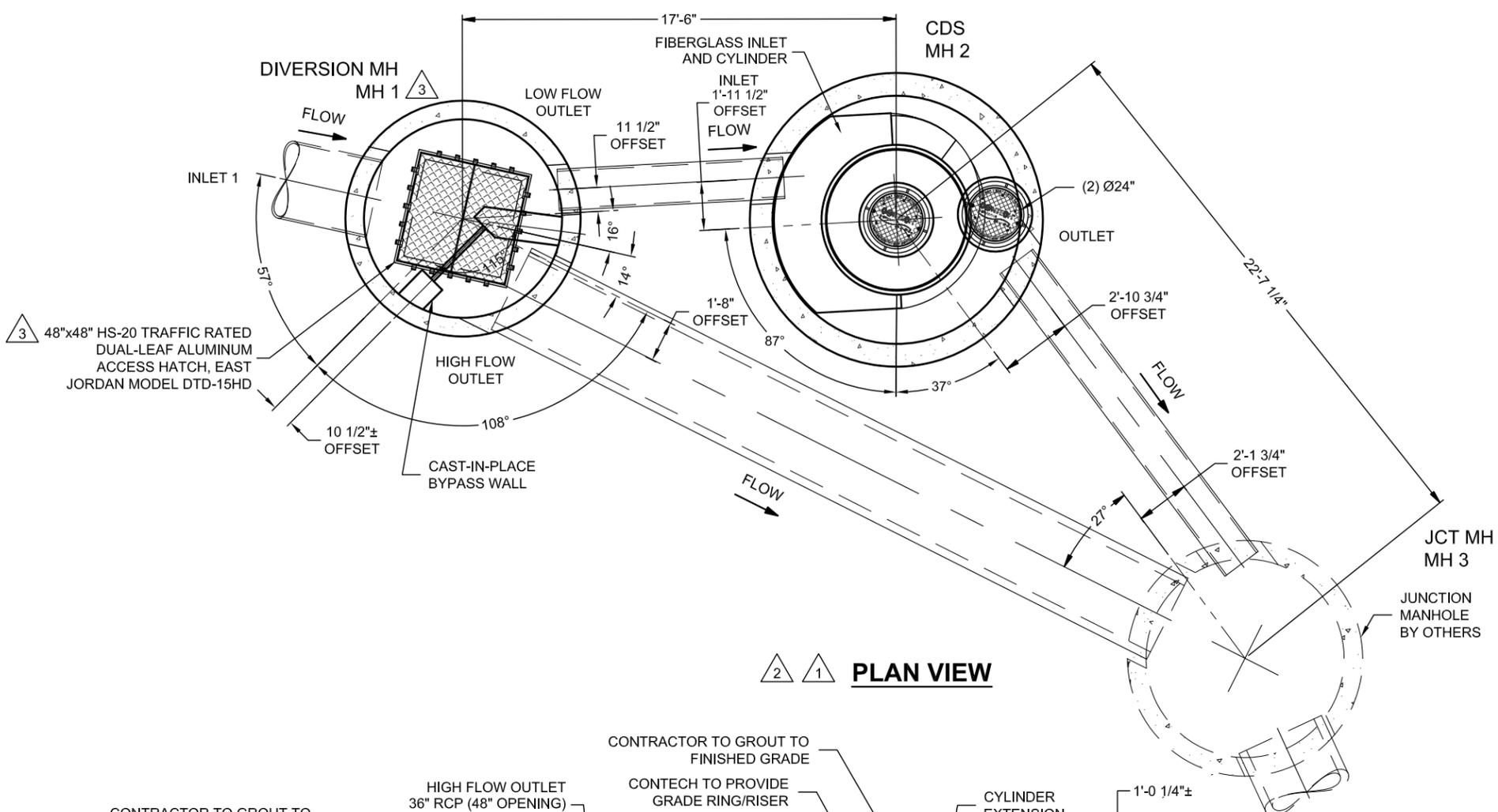
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Scale	SHEET
	E2

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MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	FIBERGLASS INLET AND CYLINDER	CONTECH
1	CYLINDER EXTENSION	CONTECH
1	2400 micron SEP. SCREEN	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
2	GRADE RINGS/RISERS	CONTRACTOR
1	Ø24" x 4" EJ #41600389, OR EQUIVALENT	CONTRACTOR
1	48" x 48" EJ DTD-15HD, OR EQUIVALENT	CONTRACTOR
1	CAST-IN-PLACE WEIR WALL	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	12 CFS
PEAK FLOW RATE	70 CFS
RETURN PERIOD OF PEAK FLOW	100 YRS

INTERNAL COMPONENTS TO BE INSTALLED BY PRECASTER ON SITE

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH CONSTRUCTION PRODUCTS INC. REPRESENTATIVE. www.contechstormwater.com
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING. ASSUMING EARTH COVER OF 0' - 5', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

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DATE	BY	REVISION DESCRIPTION
3/11/13	PER ENGINEER OF RECORD	
3/25/13	PER CITY ENGINEER	
4/1/13	PER ENGINEER OF RECORD	

**CDS5653-10-C & BYPASS MANHOLE
- 453169-01 & 02
ISLAND PARK STORMWATER
SPRINGFIELD, OR**

CONTECH
CONSTRUCTION PRODUCTS INC.
www.contech-cpi.com
3777 Long Beach Blvd., Suite 400, Long Beach, CA 90807
562-753-0733 562-294-0733 FAX
977-572-0390

CDS
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENTS: U.S. PATENT NO. 7,812,812; U.S. PATENT NO. 7,812,813; U.S. PATENT NO. 7,812,814; U.S. PATENT NO. 7,812,815; U.S. PATENT NO. 7,812,816; U.S. PATENT NO. 7,812,817; U.S. PATENT NO. 7,812,818; U.S. PATENT NO. 7,812,819; U.S. PATENT NO. 7,812,820; U.S. PATENT NO. 7,812,821; U.S. PATENT NO. 7,812,822; U.S. PATENT NO. 7,812,823; U.S. PATENT NO. 7,812,824; U.S. PATENT NO. 7,812,825; U.S. PATENT NO. 7,812,826; U.S. PATENT NO. 7,812,827; U.S. PATENT NO. 7,812,828; U.S. PATENT NO. 7,812,829; U.S. PATENT NO. 7,812,830; U.S. PATENT NO. 7,812,831; U.S. PATENT NO. 7,812,832; U.S. PATENT NO. 7,812,833; U.S. PATENT NO. 7,812,834; U.S. PATENT NO. 7,812,835; U.S. PATENT NO. 7,812,836; U.S. PATENT NO. 7,812,837; U.S. PATENT NO. 7,812,838; U.S. PATENT NO. 7,812,839; U.S. PATENT NO. 7,812,840; U.S. PATENT NO. 7,812,841; U.S. PATENT NO. 7,812,842; U.S. PATENT NO. 7,812,843; U.S. PATENT NO. 7,812,844; U.S. PATENT NO. 7,812,845; U.S. PATENT NO. 7,812,846; U.S. PATENT NO. 7,812,847; U.S. PATENT NO. 7,812,848; U.S. PATENT NO. 7,812,849; U.S. PATENT NO. 7,812,850; U.S. PATENT NO. 7,812,851; U.S. PATENT NO. 7,812,852; U.S. PATENT NO. 7,812,853; U.S. PATENT NO. 7,812,854; U.S. PATENT NO. 7,812,855; U.S. PATENT NO. 7,812,856; U.S. PATENT NO. 7,812,857; U.S. PATENT NO. 7,812,858; U.S. PATENT NO. 7,812,859; U.S. PATENT NO. 7,812,860; U.S. PATENT NO. 7,812,861; U.S. PATENT NO. 7,812,862; U.S. PATENT NO. 7,812,863; U.S. PATENT NO. 7,812,864; U.S. PATENT NO. 7,812,865; U.S. PATENT NO. 7,812,866; U.S. PATENT NO. 7,812,867; U.S. PATENT NO. 7,812,868; U.S. PATENT NO. 7,812,869; U.S. PATENT NO. 7,812,870; U.S. PATENT NO. 7,812,871; U.S. PATENT NO. 7,812,872; U.S. PATENT NO. 7,812,873; U.S. PATENT NO. 7,812,874; U.S. PATENT NO. 7,812,875; U.S. PATENT NO. 7,812,876; U.S. PATENT NO. 7,812,877; U.S. PATENT NO. 7,812,878; U.S. PATENT NO. 7,812,879; U.S. PATENT NO. 7,812,880; U.S. PATENT NO. 7,812,881; U.S. PATENT NO. 7,812,882; U.S. PATENT NO. 7,812,883; U.S. PATENT NO. 7,812,884; U.S. PATENT NO. 7,812,885; U.S. PATENT NO. 7,812,886; U.S. PATENT NO. 7,812,887; U.S. PATENT NO. 7,812,888; U.S. PATENT NO. 7,812,889; U.S. PATENT NO. 7,812,890; U.S. PATENT NO. 7,812,891; U.S. PATENT NO. 7,812,892; U.S. PATENT NO. 7,812,893; U.S. PATENT NO. 7,812,894; U.S. PATENT NO. 7,812,895; U.S. PATENT NO. 7,812,896; U.S. PATENT NO. 7,812,897; U.S. PATENT NO. 7,812,898; U.S. PATENT NO. 7,812,899; U.S. PATENT NO. 7,812,900; U.S. PATENT NO. 7,812,901; U.S. PATENT NO. 7,812,902; U.S. PATENT NO. 7,812,903; U.S. PATENT NO. 7,812,904; U.S. PATENT NO. 7,812,905; U.S. PATENT NO. 7,812,906; U.S. PATENT NO. 7,812,907; U.S. PATENT NO. 7,812,908; U.S. PATENT NO. 7,812,909; U.S. PATENT NO. 7,812,910; U.S. PATENT NO. 7,812,911; U.S. PATENT NO. 7,812,912; U.S. PATENT NO. 7,812,913; U.S. PATENT NO. 7,812,914; U.S. PATENT NO. 7,812,915; U.S. PATENT NO. 7,812,916; U.S. PATENT NO. 7,812,917; U.S. PATENT NO. 7,812,918; U.S. PATENT NO. 7,812,919; U.S. PATENT NO. 7,812,920; U.S. PATENT NO. 7,812,921; U.S. PATENT NO. 7,812,922; U.S. PATENT NO. 7,812,923; U.S. PATENT NO. 7,812,924; U.S. PATENT NO. 7,812,925; U.S. PATENT NO. 7,812,926; U.S. PATENT NO. 7,812,927; U.S. PATENT NO. 7,812,928; U.S. PATENT NO. 7,812,929; U.S. PATENT NO. 7,812,930; U.S. PATENT NO. 7,812,931; U.S. PATENT NO. 7,812,932; U.S. PATENT NO. 7,812,933; U.S. PATENT NO. 7,812,934; U.S. PATENT NO. 7,812,935; U.S. PATENT NO. 7,812,936; U.S. PATENT NO. 7,812,937; U.S. PATENT NO. 7,812,938; U.S. PATENT NO. 7,812,939; U.S. PATENT NO. 7,812,940; U.S. PATENT NO. 7,812,941; U.S. PATENT NO. 7,812,942; U.S. PATENT NO. 7,812,943; U.S. PATENT NO. 7,812,944; U.S. PATENT NO. 7,812,945; U.S. PATENT NO. 7,812,946; U.S. PATENT NO. 7,812,947; U.S. PATENT NO. 7,812,948; U.S. PATENT NO. 7,812,949; U.S. PATENT NO. 7,812,950; U.S. PATENT NO. 7,812,951; U.S. PATENT NO. 7,812,952; U.S. PATENT NO. 7,812,953; U.S. PATENT NO. 7,812,954; U.S. PATENT NO. 7,812,955; U.S. PATENT NO. 7,812,956; U.S. PATENT NO. 7,812,957; U.S. PATENT NO. 7,812,958; U.S. PATENT NO. 7,812,959; U.S. PATENT NO. 7,812,960; U.S. PATENT NO. 7,812,961; U.S. PATENT NO. 7,812,962; U.S. PATENT NO. 7,812,963; U.S. PATENT NO. 7,812,964; U.S. PATENT NO. 7,812,965; U.S. PATENT NO. 7,812,966; U.S. PATENT NO. 7,812,967; U.S. PATENT NO. 7,812,968; U.S. PATENT NO. 7,812,969; U.S. PATENT NO. 7,812,970; U.S. PATENT NO. 7,812,971; U.S. PATENT NO. 7,812,972; U.S. PATENT NO. 7,812,973; U.S. PATENT NO. 7,812,974; U.S. PATENT NO. 7,812,975; U.S. PATENT NO. 7,812,976; U.S. PATENT NO. 7,812,977; U.S. PATENT NO. 7,812,978; U.S. PATENT NO. 7,812,979; U.S. PATENT NO. 7,812,980; U.S. PATENT NO. 7,812,981; U.S. PATENT NO. 7,812,982; U.S. PATENT NO. 7,812,983; U.S. PATENT NO. 7,812,984; U.S. PATENT NO. 7,812,985; U.S. PATENT NO. 7,812,986; U.S. PATENT NO. 7,812,987; U.S. PATENT NO. 7,812,988; U.S. PATENT NO. 7,812,989; U.S. PATENT NO. 7,812,990; U.S. PATENT NO. 7,812,991; U.S. PATENT NO. 7,812,992; U.S. PATENT NO. 7,812,993; U.S. PATENT NO. 7,812,994; U.S. PATENT NO. 7,812,995; U.S. PATENT NO. 7,812,996; U.S. PATENT NO. 7,812,997; U.S. PATENT NO. 7,812,998; U.S. PATENT NO. 7,812,999; U.S. PATENT NO. 7,812,1000.

DATE:	3/8/2013
DESIGNED:	ALS
DRAWN:	NLE
CHECKED:	N/A
APPROVED:	ALS
PROJECT NUMBER:	453169
SHEET:	1 OF 1

**CONTECH
PROPOSAL
DRAWING**

HANS
5653-10-FGIS-SPCL-CUSTOM

Attachment 1