

**BOARD OF PUBLIC WORKS
AGENDA ITEM REVIEW REQUEST FORM**

Date	<u>3/16/20</u>	Department	<u>DPW</u>
Name	<u>Sue Ellen Doudrick</u>	Phone Extension	<u>3057</u>
BPW Date	<u>3/23/21</u>		

Review and Approval Required Prior to Submittal to Board

Diversity Compliance and Inclusion Officer	<input type="checkbox"/>	Officer Name	_____
BPW Attorney	<input checked="" type="checkbox"/>	Attorney Name	<u>Clara McDaniels</u>
Dept. Attorney	<input type="checkbox"/>	Attorney Name	_____
Purchasing	<input type="checkbox"/>		_____

Check the Appropriate Item Type – Required for All Submissions

<input type="checkbox"/> Professional Services Agreement	<input type="checkbox"/> Contract	<input type="checkbox"/> Proposal	
<input type="checkbox"/> Open Market Contract	<input type="checkbox"/> Amendment/Addendum	<input type="checkbox"/> Special Purchase, QPA	
<input type="checkbox"/> Bid Opening	<input type="checkbox"/> Bid Award	<input type="checkbox"/> Req. to Advertise	<input type="checkbox"/> Title Sheet
<input type="checkbox"/> Quote Opening	<input type="checkbox"/> Quote Award	<input type="checkbox"/> Reject Bids/Quotes	
<input type="checkbox"/> Proposal Opening	<input type="checkbox"/> C/O & PCA No. _____	<input type="checkbox"/> PCA	
<input type="checkbox"/> Chg. Order, No. _____	<input type="checkbox"/> Traffic Control	<input type="checkbox"/> Resolution	
<input checked="" type="checkbox"/> Other: <u>Utility Extension Agreement</u>		<input type="checkbox"/> Ease./Encroach	

Required Information

Company or Vendor Name	_____
New Vendor	<input type="checkbox"/> Yes <input type="checkbox"/> If Yes, Approved by Purchasing <input type="checkbox"/> No
MBE/WBE Contractor	<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input checked="" type="checkbox"/> Completed E-Verify Form Attached <input type="checkbox"/> Yes <input type="checkbox"/> No
Project Name	<u>Eddy and Howard Street Sewer Relocation and Water Main Loop</u>
Project Number	<u>DP 20-020</u>
Funding Source	<u>n/a</u>
Account No.	<u>n/a</u>
Amount	<u>n/a</u>
Terms of Contract	<u>n/a</u>
Purpose/Description	<u>Utility Extension Agreement for the Eddy Street Phase III Grocery Store development which is private development that requires the extension of utilities (water main loop and sanitary sewer relocation) to serve the site.</u>

For Change Orders Only

Amount of	<input type="checkbox"/> Increase \$ _____ <input type="checkbox"/> Decrease (\$ _____)
Previous Amount	\$ _____
Current Percent of Change:	Increase _____ % Decrease (_____ %)
New Amount	\$ _____
Total Percent of Change:	Increase _____ % Decrease (_____ %)
Time Extension Amount:	_____
New Completion Date:	_____

SEWER AND WATER SERVICE AGREEMENT

This Sewer and Water Service Agreement (“Agreement”) is made on the ____ day of _____, 2021 by and between KRG Eddy Street Land III, LLC, its successors and assigns (“Owner”) and the City of South Bend, a municipal corporation existing under the laws of Indiana, acting by and through its Board of Public Works (“City”).

WHEREAS, Owner intends to develop approximately 3 acres between Howard Street and Corby Boulevard west of South Bend Avenue for a grocery store and commercial use development; and

WHEREAS, Owner plans to extend and make additions to existing water and relocate and abandon an existing sanitary sewer system to serve said development as shown on the Exhibit A, attached and incorporated hereto (the "Dedicated Improvements"), and desires certain commitments from City; and

WHEREAS, the engineering design for said Dedicated Improvements has been, or will be, accomplished by competent professional engineers registered and licensed in the State of Indiana; and

NOW, THEREFORE, in consideration of the obligations, terms and conditions contained herein, the adequacy of which the parties expressly acknowledge, Owner and the City agree as follows:

1. Design

The Owner shall consult the City and allow the City Engineer or her designee input prior to designating the project engineer who shall be responsible for the engineering design and

inspection in connection with the installation of the Dedicated Improvements (the "Project Engineer"). The Owner shall inspect the site during construction to ensure the Project Engineer's conformance to area planning requirements, adequacy of design, and conformance to the City's specifications and standards regarding location, size and depth of line, capacity and arrangement of lift stations, and quality of construction of the Dedicated Improvements. The Owner shall provide the plans with a City of South Bend cover sheet and specifications for the Dedicated Improvements along with an engineer's estimate to the City (plans provided as Exhibit B). The Owner shall also provide to the City a statement from the Project Engineer certifying that the materials and workmanship including pipes, bedding, thrust blocks, valves, fire hydrants, manholes, lift station equipment and other related materials and work meet the City's specifications and standards. Upon request of the City, the certification shall be substantiated by material affidavits from suppliers and by applicable test results for inflow/infiltration, exfiltration, deflection, pressure, leaks, bacteria, compaction and other tests required by the City. All construction, engineering, and inspection costs in connection with the Dedicated Improvements shall be borne by the Owner.

The Owner understands the proposed development, along with the recently constructed Eddy Street Phases I and II developments, that vehicular traffic surrounding the site is expected to increase. The Owner is committed to coordination with the City and its consultants and contractors to accommodate the planned improvements to the right-of-way. Such coordination of construction elements shall not unreasonably increase costs to the Owner or the City.

2. Construction Inspection

The Owner has provided the City with Exhibit B, which depicts drawings of the Dedicated Improvements, which the City acknowledges conforms to the City's standards. The Owner shall

allow the City to inspect the Dedicated Improvements during construction to ensure conformance to the agreed standards, in particular with regard to area planning requirements, adequacy of design, and quality of construction. The Owner shall contact the City's Engineering Department at least two (2) business days in advance to arrange for the attendance of a City inspector at the following key milestones: water main construction, sewer construction, sewer abandonment, mandrel deflection testing, sanitary sewer taps, and water main taps. The Owner agrees to perform any necessary adjustments as reasonably required by the City Engineer (or her designee) in her sole discretion, as a result of such inspections.

3. Permits

It shall be Owner's sole responsibility and expense to obtain any and all permits associated with the construction and installation of the Dedicated Improvements. Permits for the project are included as Exhibit C.

4. Engineer's Estimate

The Owner has provided an Engineer's Estimate (See, Exhibit D, incorporated herein by reference and attachment) for the cost to construct the Dedicated Improvements, including but not limited to, excavation, pipe materials, valves, hydrants, and all other appurtenant materials, supplies and equipment, permit fees, backfill and bedding, pavement, restoration of the areas impacted by construction to a condition the same as or better than existed prior to construction, and any other work required for the System.

5. Performance Bond

The Owner shall provide the City with a performance bond for an amount equal to one hundred twenty-five percent (125%) of the engineer's estimate covering all work performed or to be

performed pursuant to this Agreement. Upon the approval of the City of South Bend, Indiana Board of Public Works Project Completion Affidavit (the “Completion Affidavit”), the obligation to maintain the Performance Bond shall cease without any further action or confirmation required from City. The performance bond is included as Exhibit E.

6. Maintenance Bond

Within ten (10) days of City’s acceptance of the Dedicated Improvements, Owner shall provide the City with a maintenance bond equal to ten percent (10%) of the hard construction cost covering all work performed or to be performed pursuant to this Agreement, and such bond shall remain in effect for three (3) years after dedication as described in Section 8 below.

7. System Development Charges

Simultaneously with the execution of this Agreement, the Owner shall pay the City a sum of \$10,260 for access to the City’s water and sewer sanitary systems. For purposes of this Section 7 of the Agreement, an equivalent residential unit (“ERU”) shall mean a single-family residence. For purposes of customers that are not single-family residences, one ERU shall equal estimated wastewater and water flows of 310 gallons per day, respectively. No customer will be less than one ERU.

For every new connection to the South Bend Municipal Sewer Works, a capital contribution of \$1,145.00 shall be collected per ERU. For every new connection to the South Bend Municipal Water Works, a system development charge of four hundred and seventy-five dollars (\$475.00) shall be collected per ERU and additional portion thereof to be connected. All charges shall be paid to the City at the time the application for connection is filed. For all other types of structures, the ERU calculation shall be based upon the ratio of Average Daily Flow as computed pursuant to

327 IAC 3-6-11 in relationship to 310 gallons per day. For structures not listed in 327 IAC 3-6-11, the ERU shall be calculated as the relationship between the Average Daily Flow reported in the sewer capacity certification for the structure and 310 gallons per day.

For customers with greater than 20 ERUs, the ERU shall be adjusted based upon the Peaking Factor as computed herein. The Peaking Factor shall be calculated by dividing the Peak Daily Flow by the Average Daily Flow, both as reported in the sewer and water capacity certifications. In no event will a Peaking Factor less than 2.0 be used for purposes of the adjustment described in this Subsection. The Peaking Factor divided by 4.0 (the Peaking Factor for residential connections) will be multiplied by the number of ERUs for purposes of computing the capital contribution owed by the customer. The City reserves the right to require an additional capital contribution should Owner's flow rate exceed the predicted level. Such additional capital contribution will be based on the proportional share of Owner's use of the City's water and/or sewer sanitary system.

The receipt of the System Development Charge and Utility Verification Fee is provided in Exhibit F, incorporated herein by reference and attachment.

8. Dedication

Owner understands the completion of the Dedicated Improvements and the dedication to the City is a requirement for the successful completion of the project. Upon completion of the construction of said Dedicated Improvements, Owner and City shall cooperate in good faith to ensure that said Dedicated Improvements are accepted by the City in a timely manner; provided that Owner shall not be required to incur any additional liability or any material cost in connection with such dedication. City's acceptance of the Dedicated Improvements and/or any easements required in connection therewith shall not be unreasonably conditioned, withheld or delayed. City acknowledges that Owner is a ground lessee, not the fee simple owner, of the property being

developed, and that any easements required by City must be approved by the University of Notre Dame Du Lac (“University”). Owner shall use commercially reasonable efforts to secure any required easements from University, with good faith cooperation from the City, so long as the owner is not required to undertake any additional and unreasonable liability or obligation and does not incur any unreasonable cost. Additionally, prior to dedication, the following must be satisfied:

- a. All parts and labor must meet the standards and requirements stated in the design specifications as presented to and accepted by the City Engineering Department.
- b. Lien waivers must be received with regard to all workmanship and materials used in connection with these improvements.
- c. The Completion Affidavit must be furnished to Owner by the Board of Public Works.
- d. Owner must provide copies of test reports or cut sheets on all materials supplied.
- e. Owner must provide As-Built drawings in accordance with the City of South Bend Prevailing Specifications for Public Works, which may be found at https://southbendin.gov/wp-content/uploads/2018/07/SBN-Spec-Stand-FINAL-062618-REV-2_BPWSignature.pdf

9. Term

Except as otherwise provided herein, the term of this Agreement shall continue from the Effective Date listed above until the earlier of: (a) all of Owner’s obligations under this Agreement have been satisfied, including but not limited to, City review and approval of “As-Built” and dedication of the System to the City, or (b) August 1, 2021, unless otherwise approved by the City Board of Public Works.

10. Indemnification

Owner agrees and undertakes to indemnify and hold the City, and its respective agents, employees, successors, and assigns, harmless from any liability, loss, costs, damages or expenses, including attorneys' fees, which the City may suffer or incur as a result of any claims or actions which may be brought by any person or entity arising solely out of Owner's construction of the Dedicated Improvements in accordance with this Agreement. If any action is brought against the City or its respective agents, employees, successors, or assigns, seeking to recover for any loss, costs, damages or expenses incurred solely in connection with owner's construction of the Dedicated Improvements in accordance with this Agreement, Owner agrees to defend such action or proceedings at its own expense and to pay any judgment rendered therein.

11. Insurance

Owner, at Owner's sole expense, shall maintain during the term of this Agreement commercial general liability insurance covering the Company and the Activity in an amount not less than Five Million Dollars (\$5,000,000.00) per occurrence. Owner agrees to include the City as an additional insured on any such policy and produce to the City a certificate of insurance evidencing the same upon receipt of City's written request. Notwithstanding anything in this Agreement to the contrary, the City does not waive any governmental immunity or liability limitations available to it under Indiana law, and notwithstanding any provisions of this Agreement to the contrary, in no event shall Owner be liable to City for any amount (whether as a result of insured event, pursuant to any indemnity provided by Owner hereunder, or otherwise) in excess of the maximum liability of City under applicable law (including, without limitation, the Indiana Tort Claims Act). Owner may terminate the insurance required hereunder upon the successful dedication of the Dedicated Improvements to City. The certificate of insurance is provided as Exhibit G.

12. Assignment

This Agreement may not be assigned by the Owner without the express written consent of the City, which such consent may not be unreasonably withheld, conditioned or delayed.

13. Governing Law

This Agreement shall be construed and interpreted according to the laws of the State of Indiana. It is further agreed that all provisions of law now or hereafter in effect relating to water and sewer service by the City shall be applicable to this Agreement.

14. Severability

If any provision of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, such unenforceable provision shall be deemed severed from the remainder of this Agreement and shall not cause the remainder of this Agreement to be invalid or unenforceable. If any provision, or any portion of any provision, of this Agreement is deemed invalid due to its scope or breath, such provision shall be deemed valid to the extent of the scope or breadth permitted by law.

15. Entire Agreement

This Agreement sets forth the entire agreement and understanding between the Owner and the City as to the subject matter hereof, and merges and supersedes all prior discussions, agreements, and understanding of any and every nature between them.

16. Corporate Authority

The person signing on behalf of the Owner represents that he/she has been duly authorized to execute this Agreement on behalf of said Owner.

IN WITNESS WHEREOF, the Owner and the City, through their duly authorized representatives, have caused this Agreement to be executed as of the day and year first written

above. The parties have read and understand the foregoing terms of this Agreement and do, by their respective signatures hereby agree to its terms.

(Remainder of page intentionally left blank)

IN WITNESS WHEREOF, the Owner and the City, through their duly authorized representatives, have caused this Agreement to be executed as of the date first written above. The parties have read and understand the foregoing terms of this Agreement and do, by their respective signatures, hereby agree to its terms.

"OWNER"
KRG EDDY STREET LAND III, LLC

CITY OF SOUTH BEND, INDIANA
BOARD OF PUBLIC WORKS



Elizabeth A. Maradik, President



Gary A. Gilot, Member



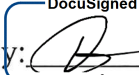
Jordan V. Gathers, Member

Joseph R. Molnar, Member

ATTEST:



Anne Fuchs, Clerk

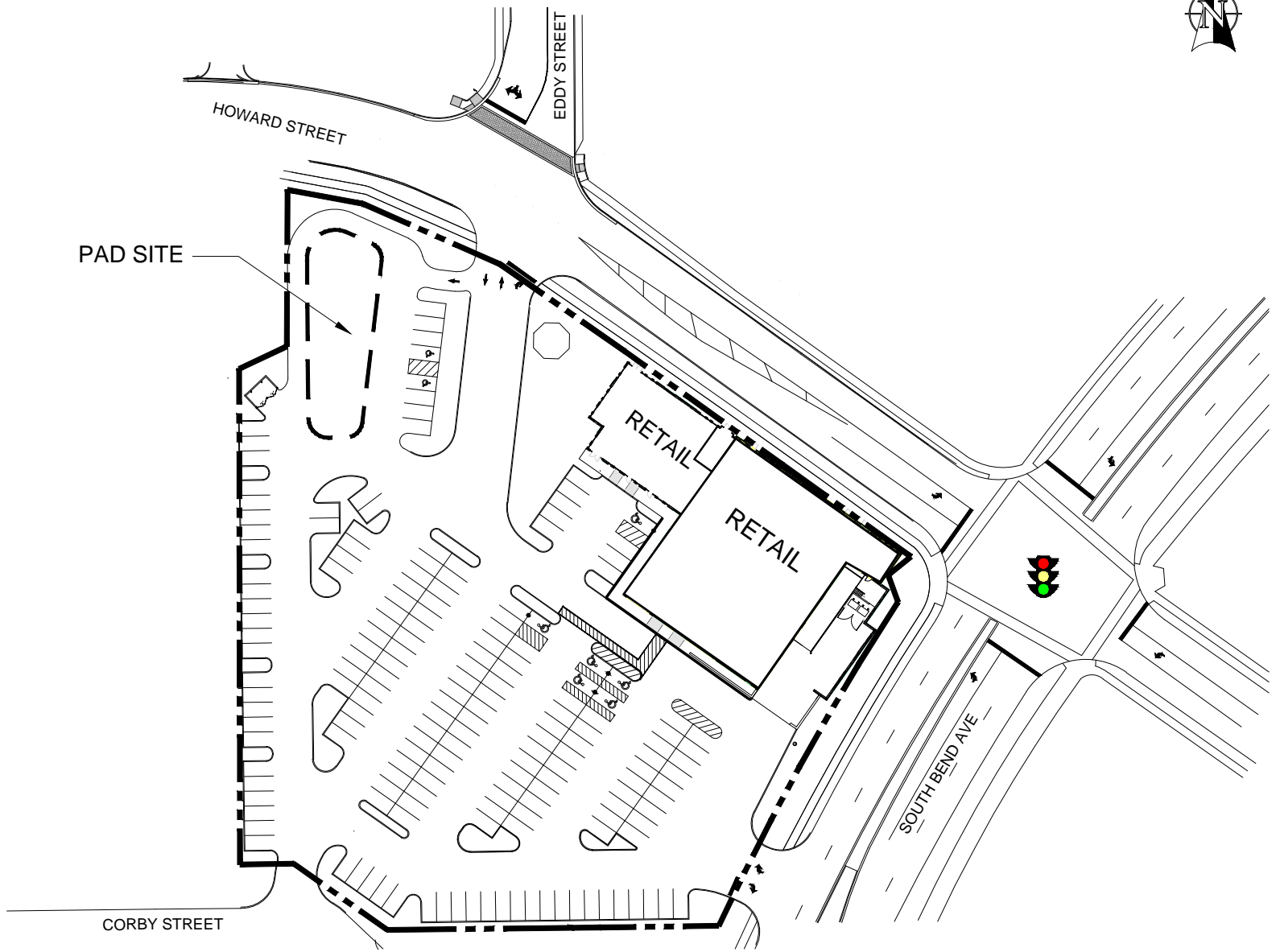
DocuSigned by:
By: 
Printed: Thomas McGowan
Title: President & Chief Operating Officer
3/22/2021

TH
KSP
KSP

EXHIBIT A

DEDICATED IMPROVEMENTS

EXHIBIT A



EDDY STREET COMMONS PH III
SOUTH BEND, INDIANA

EXHIBIT B

EDDY PHASE III PLANS:

EDDY AND HOWARD WATER MAIN LOOP AND SEWER RELOCATION PLANS

CITY OF SOUTH BEND, INDIANA

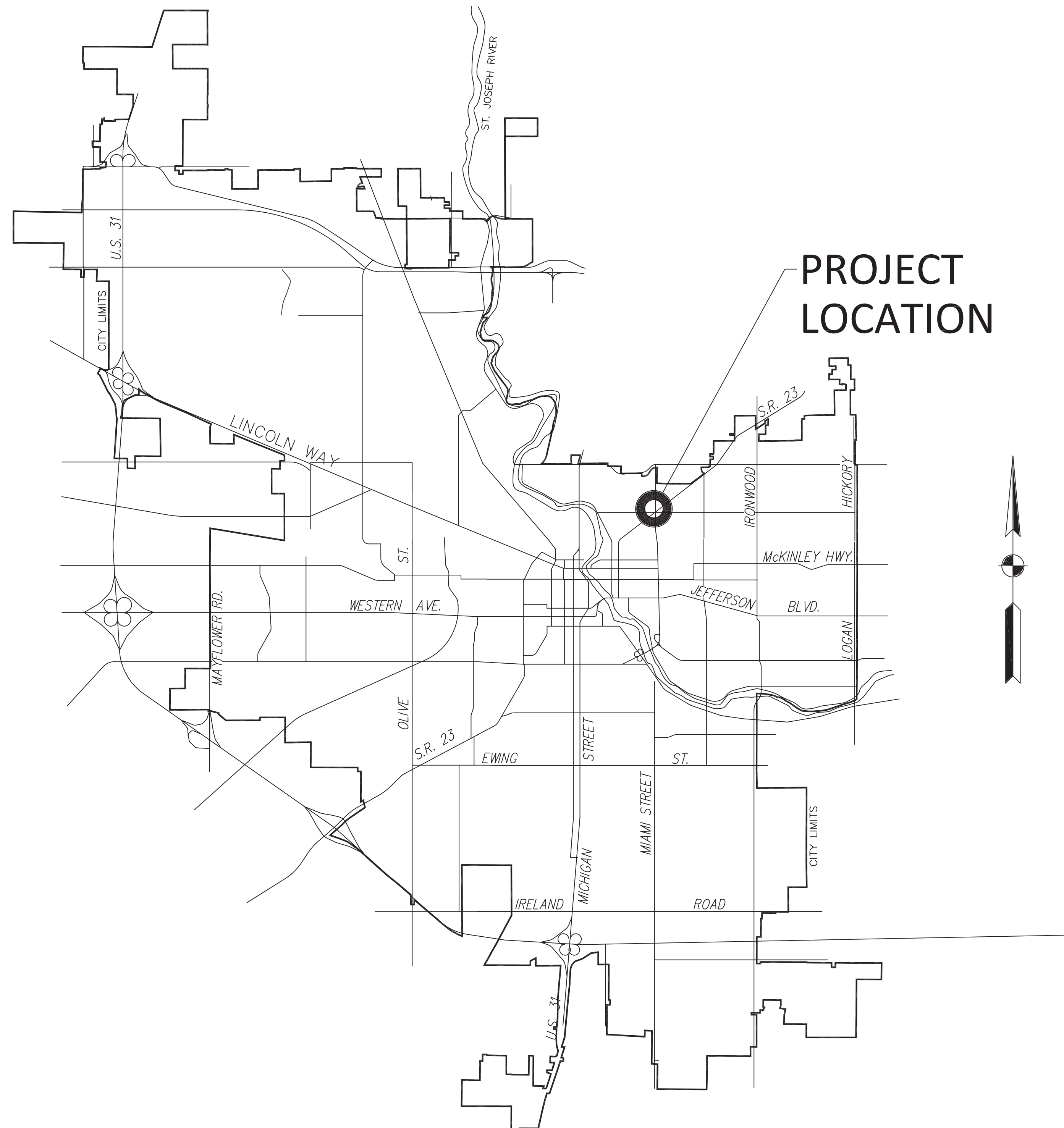
DEPARTMENT OF PUBLIC WORKS

PROJECT SEWER WATER TRAFFIC STREET OTHER

PROJECT #: DP 20-020

EDDY STREET & HOWARD STREET SEWER RELOCATION & WATER MAIN LOOP

FEBRUARY, 2021



CITY OF SOUTH BEND, INDIANA BOARD OF PUBLIC WORKS		RECOMMENDATIONS OF CITY STAFF	
	Elizabeth A. Maradik, President		KARA M. BOYLES, P.E., PE CITY ENGINEER
	Gary A. Gilot, Member		KEN SMITH WATER WORKS
	Attest: Anne Fuchs, Clerk		TOY VILLA CONSTRUCTION MANAGER
	Jordan V. Gathers, Member		
	Joseph R. Molnar, Member		

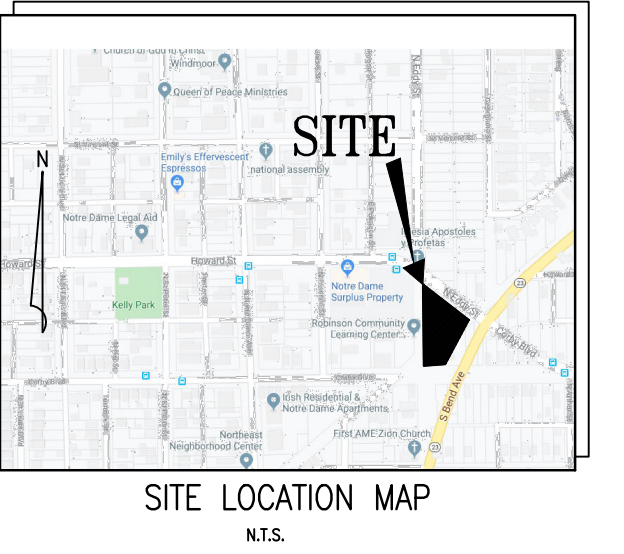
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SHEET 1 - TITLE SHEET	C3.0-3.3 - UTILITY PLAN/PROFILES	2-25	3-1
C0.1 - EXIST. R/W CONDITIONS PLAN	C4.0 - LANDSCAPE PLAN	2-29	3-5
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PLANS PREPARED BY: DANCH, HARNER, & ASSOC., INC. 1643 COMMERCE DRIVE SOUTH BEND, IN 46628	PLANS PREPARED FOR: CITY OF SOUTH BEND ENGINEERING DIVISION 1316 COUNTY-CITY BUILDING SOUTH BEND, IN 46601	 Land Surveyors • Professional Engineers Landscape Architects • Land Planners Office: (574)234-4003 / (800)594-4003 • Fax: (574)234-4119 1643 Commerce Drive • South Bend, IN 46628	 BYRON L. MILLER No. PE0000029 STATE OF INDIANA PROFESSIONAL ENGINEER By:	SHEET 1 OF 23
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CITY OF SOUTH BEND, INDIANA PREVAILING SPECIFICATIONS LATEST EDITION,
TO BE USED WITH THESE PLANS.

FINAL SITE PLAN – EDDY COMMONS PHASE III

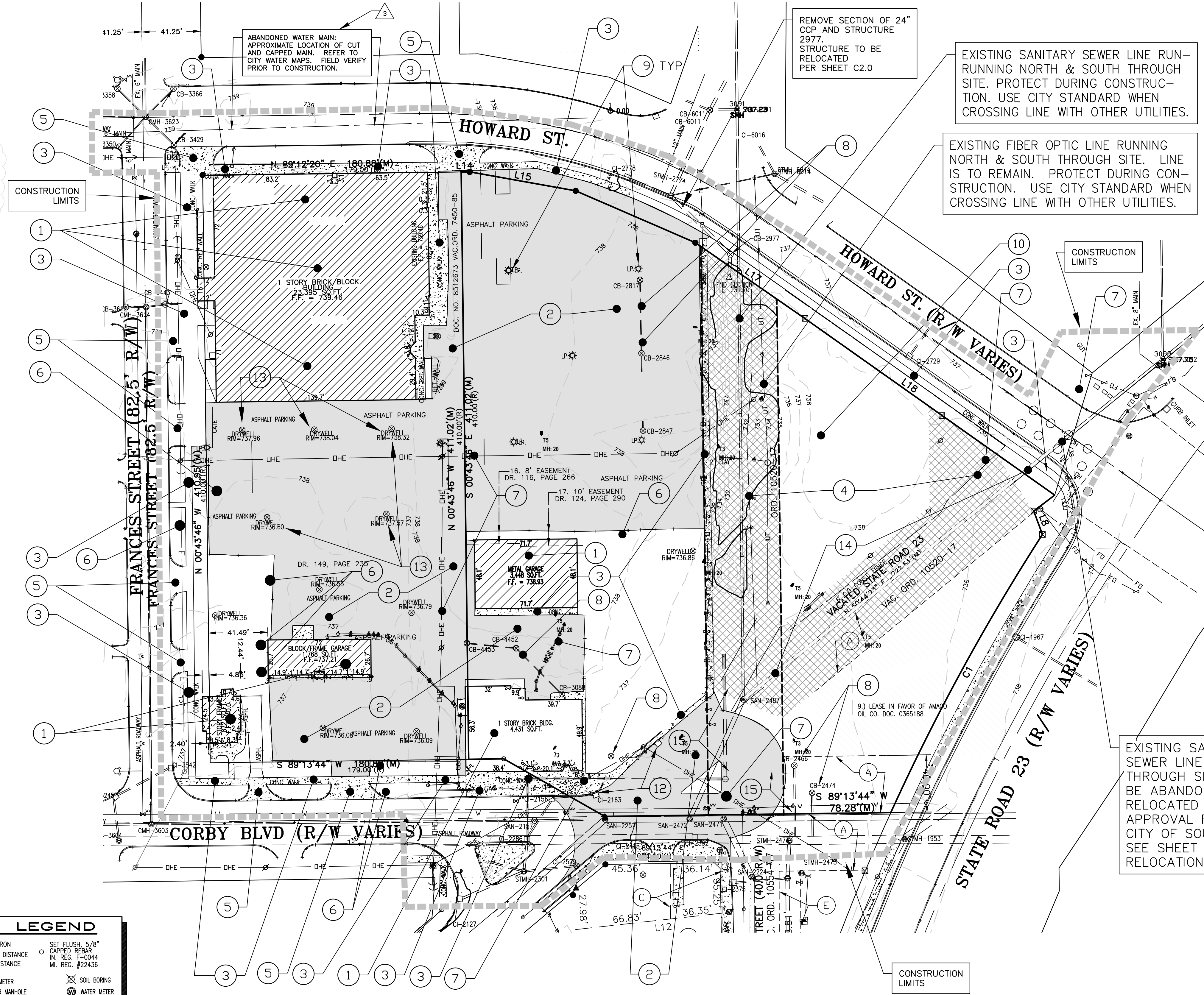
PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.



SITE LOCATION MAP
N.T.S.

GENERAL DEMOLITION NOTES:

1. LOCATE ALL SANITARY SEWER, STORM SEWER, DOMESTIC WATER, ELECTRICAL, AND NATURAL GAS UTILITY CONNECTIONS WITHIN THE SITE. LOCATE UTILITIES BACK TO THE RIGHT-OF-WAY LINE. INSTALL MEASURES FOR INDIVIDUAL UTILITY LINES TO BE PROTECTED DURING CONSTRUCTION.
2. ANY DEMOLITION MATERIALS REMOVED FROM THE SITE ARE TO BE DISPOSED OF PER LOCAL, STATE, AND FEDERAL LAWS OR ORDINANCES.
3. ANY DAMAGE OR DISTURBANCE FROM CONSTRUCTION ACTIVITIES, OUTSIDE THE AREA OF DEMOLITION, IS TO BE REPAIRED TO ITS ORIGINAL CONDITION.
4. PLACE SILT FENCE AROUND PERIMETER OF ENTIRE CONSTRUCTION LIMITS.
5. ANY VIABLE TOPSOIL SHOULD BE SAVED AND STOCKPILED IN THE DESIGNATED AREA LOCATED ON THE ADJACENT PHASE II PARCEL. SEE SHEET C1.1 FOR STOCKPILE LOCATION.
6. REMOVE ALL ASPHALT PARKING LOTS AND DRIVES TO FULL DEPTH, AS INDICATED ON PLANS.
7. EXISTING CURB, INTERNAL SIDEWALKS AND CITY SIDEWALKS TO BE REMOVED ALONG FRANCES ST., CORBY ST. AND HOWARD ST. SEE PLAN FOR REMOVAL EXTENTS. PHASE AS NECESSARY.
8. REMOVE FENCES AS INDICATED ON PLANS. REMOVE POSTS, BOLLARDS AND ASSOCIATED CONCRETE FOOTINGS.
9. REMOVE RESIDENTIAL & COMMERCIAL CONCRETE APPROACH. REPLACE CURB PER DIRECTION ON SHEET C1.1. HYDROSEED ALL DISTURBED AREAS.
10. REMOVE EXISTING TREES AND ROOT MASS AS INDICATED ON PLANS. DISPOSE DEBRIS ACCORDING TO LOCAL, STATE AND FEDERAL REGULATIONS. HYDROSEED ALL DISTURBED AREAS.
11. EXISTING OVERHEAD ELECTRIC LINES AND POLES TO BE RELOCATED. COORDINATE ALL RELOCATION EFFORTS WITH AMERICAN ELECTRIC POWER. 2929 LATHROP ST., SOUTH BEND, IN 46628 (800) 277-2177
12. LOCATE ALL SANITARY SEWER, STORM SEWER, DOMESTIC WATER, ELECTRICAL, AND NATURAL GAS UTILITY CONNECTIONS WITHIN THE SITE. LOCATE UTILITIES BACK TO THE RIGHT-OF-WAY LINE. INSTALL MEASURES FOR INDIVIDUAL UTILITY LINES TO BE PROTECTED DURING CONSTRUCTION.
13. REMOVE SITE LIGHTING FIXTURES, POLES AND BASES AS INDICATED ON PLANS. REMOVE WIRE BACK TO SOURCE AND TERMINATE.
14. REMOVE WATER LINES AS INDICATED ON PLANS. COSB WATER MAIN MAPS INDICATE THAT LINES WITHIN OLD EDDY ST. ROW ARE ABANDONED AND CAPPED OR VALES ARE OFF. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL EXISTING MUNICIPAL AND PRIVATE WATER LINES PRIOR TO CONSTRUCTION. ALL REMOVALS SHALL BE PERFORMED PER CITY OF SOUTH BEND STANDARDS.
15. REMOVE ALL GAS LINES ASSOCIATED WITH DEMOLISHED BUILDING. TAKE BACK TO RIGHT OF WAY AND COORDINATE WITH NIPSCO GAS COMPANY TO CAP AND SECURE.
16. REMOVE CATCH BASIN IN OLD CORBY BLVD. (ROW). REMOVE AND CAP PER COSB CONSTRUCTION STANDARDS. CI 2156 TO REMAIN AND UTILIZED FOR CURB CUT DRAINAGE.
17. REMOVE EXISTING DRYWELLS FROM PARKING AREAS.
18. EXISTING SANITARY LINE (348") TO BE ABANDONED AND RELOCATED. ABANDONED LINE SHALL BE PLUGGED AT DOWNSTREAM END AND FILLED WITH 500 PSF NON-REMOVABLE FLOWABLE FILL. CAP AT UPSTREAM END.
19. PROTECT EXISTING STORM PIPE AND CATCH BASIN STRUCTURES (CURRENTLY UNDER CONSTRUCTION). PIPE AND STRUCTURES SHALL BE UTILIZED, IN PLACE, AS PART OF SITE WORK. SEE STORM STR-71 & STR-72 PER EDDY STREET COMMONS PHASE II – SHEET C423 – ADJUST RIMS AS NECESSARY.



EXISTING SANITARY SEWER LINE RUN-RUNNING NORTH & SOUTH THROUGH SITE. PROTECT DURING CONSTRUCTION. USE CITY STANDARD WHEN CROSSING LINE WITH OTHER UTILITIES.

EXISTING FIBER OPTIC LINE RUNNING NORTH & SOUTH THROUGH SITE. LINE IS TO REMAIN. PROTECT DURING CONSTRUCTION. USE CITY STANDARD WHEN CROSSING LINE WITH OTHER UTILITIES.

EXISTING SANITARY SEWER LINE RUNNING THROUGH SITE. LINE TO BE ABANDONED & RELOCATED PER APPROVAL FROM THE CITY OF SOUTH BEND. SEE SHEET C3.0 FOR RELOCATION DETAILS.

EXISTING STRUCTURE CHART

CB-2466 RIM ELEV. 735.25 I.E. 12" PVC. S. 731.85	CI-2778 (FLOW LINE) RIM ELEV. 737.43 I.E. 12" CPP. SE. 733.83
CB-2474 2'x2' RIM ELEV. 735.59 I.E. 12" PVC. S. 733.10	STMH-2473 RIM ELEV. 735.67 I.E. 30" RCP. SW. 725.77
CB-2927 RIM ELEV. 737.48 I.E. 24" CPP. NW. 729.38	STMH-2474 RIM ELEV. 737.60 I.E. 24" CPP. NW. 729.80
CB-2817 RIM ELEV. 737.40 I.E. 6" CLAY. S. 734.50	STMH-2475 RIM ELEV. 737.10 I.E. 24" CLAY. S. 733.10
CB-3088 RIM ELEV. 737.34 I.E. 6" PVC. NW. 736.34	SAN-2157 RIM ELEV. 736.03 I.E. 12" PVC. E. 724.73
CB-2846 RIM ELEV. 737.34 I.E. 6" CLAY. N. 734.14	SAN-2224 RIM ELEV. 735.80 I.E. 48" CLAY. S. 721.50
CB-2847 RIM ELEV. 736.90 FULL OF DEBRIS	SAN-2257 RIM ELEV. 736.03 FULL OF DEBRIS
CB-4452 RIM ELEV. 737.50 I.E. 6" PVC. SE. 734.90	SAN-2471 RIM ELEV. 735.93 I.E. 48" CLAY. E. 720.43
CB-4453 RIM ELEV. 737.29 I.E. 6" PVC. NW. 735.50	SAN-2472 RIM ELEV. 736.16 I.E. 48" CLAY. E. 720.83
CI-1841 (FLOW LINE) RIM ELEV. 734.94 I.E. 12" RCP. SE. 732.43	SAN-2473 RIM ELEV. 736.16 I.E. 48" CLAY. NE. 721.16
CI-1862 (FLOW LINE) RIM ELEV. 734.94 I.E. 12" RCP. SE. 732.43	SAN-2474 RIM ELEV. 736.16 I.E. 48" CLAY. NE. 721.16
CI-2156 (FLOW LINE) RIM ELEV. 735.48 I.E. 12" PVC. W. 732.20	SAN-3091 RIM ELEV. 737.23 I.E. 20" CLAY. N. 723.23
CI-2163 (FLOW LINE) RIM ELEV. 735.40 I.E. 12" PVC. W. 732.20	SAN-3092 RIM ELEV. 739.75 I.E. 24" CLAY. NE. 722.85
CI-2392 (FLOW LINE) RIM ELEV. 735.77 I.E. 78" RCP. E. 725.37	STMH-1953 RIM ELEV. 737.34 I.E. 78" RCP. NE. 726.24
CI-2415 (FLOW LINE) RIM ELEV. 735.73 I.E. 78" RCP. E. 725.23	STMH-2476 RIM ELEV. 735.88 I.E. 30" RCP. NE. 726.58
CI-2529 (FLOW LINE) RIM ELEV. 735.20 I.E. 12" PVC. SW. 732.00	STMH-2477 RIM ELEV. 724.35 I.E. 18" RCP. S. 729.25
CI-2286 (FLOW LINE) RIM ELEV. 735.65 I.E. 78" RCP. W. 724.35	STMH-2478 RIM ELEV. 724.35 I.E. 30" RCP. NE. 728.33
CI-2375 (FLOW LINE) RIM ELEV. 735.40 I.E. 12" PVC. SE. 732.29	STMH-2479 RIM ELEV. 735.61 I.E. 18" RCP. NE. 728.61
CI-2778 (FLOW LINE) RIM ELEV. 736.53 I.E. 12" RCP. NE. 732.03	STMH-2480 RIM ELEV. 729.51 I.E. 12" PVC. NW. 729.21

GENERAL SURVEY DISCLAIMER NOTES:

THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED FOR THE CLIENT ONLY. ANY REUSE WITHOUT WRITTEN VERIFICATION AND ADAPTATION BY THE LAND SURVEYOR FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE LAND SURVEYOR.

ANY UTILITY OR EASEMENT LOCATIONS, IF SHOWN, ARE APPROXIMATE. THE CLIENT MUST FIELD VERIFY UTILITY LOCATIONS WITH THE RESPECTIVE UTILITY COMPANY. THIS LAND SURVEYOR ASSUMES NO LIABILITY FOR THE ACCURACY OF THE LOCATION OR SIZE OF EXISTING UTILITIES OR THE EXISTENCE OR NONEXISTENCE OF ADDITIONAL UNDERGROUND UTILITIES OR STRUCTURES.

NO IMPROVEMENTS SHOULD BE MADE ON THE BASIS OF THIS PLAN ALONE. FIELD MONUMENTATION OF CRITICAL POINTS SHOULD BE ESTABLISHED PRIOR TO COMMENCEMENT OF ANY AND ALL CONSTRUCTION. FOR BUILDING LINES, EASEMENTS AND OTHER RESTRICTIONS NOT SHOWN HEREON REFER TO YOUR DEED, ABSTRACT, TITLE POLICY, CONTRACTS AND LOCAL BUILDING, ZONING AND SUBDIVISION ORDINANCES.

UNLESS SPECIFICALLY SHOWN HEREON, THIS SURVEY DOES NOT PURPORT TO INDICATE THE PRESENCE OR ABSENCE OF WETLANDS AND HAZARDOUS OR ENVIRONMENTALLY INJURIOUS MATERIALS. THE SURVEYOR EXPRESSLY DISCLAIMS ANY RESPONSIBILITY OR LIABILITY FOR THE SAME.

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EXISTING LEGEND

△ SET P.K. NAIL	● FOUND IRON	SET FLUSH 5/8" CAPPED REBAR
☆ PINE TREE	(M) MEASURED DISTANCE	IN. REG. F-5044
⊙ BUSH	(R) RECORD DISTANCE	MI. REG. #22436
⊙ TREE	⊙ GAS METER	⊙ SOIL BORING
⊙ FOUNTAIN/IRR.	⊙ WATER MANHOLE	⊙ WATER METER
⊙ BOLLARD/POLE	⊙ END SECTION	⊙ CABLE PED.
⊙ LIGHT POLE	⊙ ELEC. VAULT	⊙ PHONE PED.
⊙ UTILITY POLE	⊙ ELEC. TRANSFORMER	⊙ ELEC. PED.
⊙ GUY ANCHOR	⊙ PHONE VAULT	⊙ MAILBOX
⊙ SIGN	⊙ SPOT ELEVATION	⊙ A/C UNIT
⊙ WELL	---	---
⊙ VALVE	---	---
⊙ FIRE HYDRANT	---	---
⊙ CURB INLET	---	---
⊙ DRYWELL	---	---
⊙ SANITARY MANHOLE	---	---
⊙ STORM MANHOLE	---	---
⊙ CLEAN-OUT	---	---
⊙ FIBER OPTIC MANHOLE	---	---

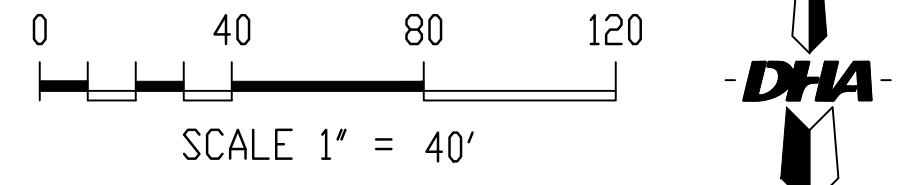
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PROPERTY OWNER:
KRG
EDDY STREET LAND III, LLC
30 S. MERIDIAN ST., STE. 1100
INDIANAPOLIS, IN. 46204
(317) 577-5600

SURVEYORS & ENGINEERS:
DANCH, HARMER & ASSOCIATES, INC.
1643 COMMERCIAL DRIVE
SOUTH BEND, IN. 46628
(574) 234-4003
ATTN: MICHAEL DANCH



**BID AND TENANT REVIEW SET
EXISTING CONDITIONS – DEMOLITION PLAN**

DATE		DRAWN BY:		REVISIONS	
5/6/20	JTB	DATE	BY	ADDENDUM 1	
SCALE	CHECKED BY:	6/25/20	JTB	BULLETIN 1: REVISION TO CITY & SITE UTILITIES PER CITY ENGINEERING REVIEW.	
1" = 40'	M.J.D.	8/14/20	JTB	BULLETIN 2: PER CITY'S REVIEW AND COMMENTS.	
FILE #	PROJ. MANGR:	10/9/20	JTB	BULLETIN 4: PER CITY'S REVIEW AND COMMENTS.	
200104.5	JTB				

Danch, Harmer & Associates, Inc.
Land Surveyors • Professional Engineers
Landscape Architects • Land Planners

Office: (574) 234-4003 / (800) 294-4003 • Fax: (574) 234-4119
1643 Commercial Drive • South Bend, IN 46628

DHA

SHEET
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PARCEL "A" TABULATED SITE DATA:

- SITE ACREAGE..... 3.06± ACRES
- ZONING CLASSIFICATION; NC - NEIGHBORHOOD CENTER
- PROPOSED LAND USE:
A). RETAIL/COMMERCIAL SITES.
- EXISTING LAND COVERAGE:

	SQ. FT.	% OF SITE
A). BUILDINGS (GROUND FLOOR).....	21,891	16.40
B). ASPHALT PAVEMENT.....	75,879	56.85
C). CONCRETE PAVEMENT.....	5,057	3.79
D). OPEN SPACE.....	30,653	22.96
TOTAL	133,480	100.00
- PARKING RATIO REQUIRED BY ORDINANCE:
A). PER RETAIL SPACE:
NUMBER OF SPACES REQUIRED FOR RETAIL.....NO REQUIREMENT
NUMBER OF SPACES PROVIDED RETAIL.....167 SPACES
- ALL SURFACE DRAINAGE IS TO BE HANDLED BY ON-SITE DRAINAGE SYSTEM SIZED PER CITY OF SOUTH BEND, INDIANA, ENGINEERING STANDARDS.
- THE PROPERTY IS TO BE SERVED BY PUBLIC WATER & SEWER SYSTEM.

KEY NOTES/LEGEND:

- PROPOSED STANDARD ASPHALT PAVEMENT SEE SHEET C5.1 FOR DETAIL.
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT SEE SHEET C5.1 FOR DETAIL.
- PROPOSED 6" CONCRETE CURB (TYPICAL). SEE DETAIL ON SHEET C5.1.
- PROPOSED "TYPE-B" CURB IN RIGHT-OF-WAY, COMBINATION CURB AND GUTTER PER CITY OF SOUTH BEND STANDARD ENGINEERING DETAILS. SEE SHEET C5.0 FOR DETAIL. PHASE A NECESSARY.
- PROPOSED CURB IN RIGHT-OF-WAY, MODIFIED COMBINATION CURB AND GUTTER PER CITY OF SOUTH BEND STANDARD ENGINEERING DETAILS. SEE SHEET C5.0 FOR DETAIL. PHASE A NECESSARY.
- PROPOSED 4" CONCRETE BUILDING SIDEWALK WITH REINFORCEMENT AS NECESSARY. SEE DETAIL ON SHEET C5.1.
- PROPOSED 4" CITY STANDARD CONCRETE SIDEWALK. SEE DETAIL ON SHEET C5.0. ALL WALKS SHALL BE PLACED IN THEIR ORIGINAL LOCATION WITH A 2% CROSS SLOPE TOWARD THE CURB.
- PROPOSED 4" SIDEWALK, 10' WIDE CONCRETE (15'± WIDE AT NORTH SIDE OF PROPOSED BUILDING ONLY) . SEE DETAIL ON SHEET C5.1. WALK SHALL BE PLACED WITH A 1.5% CROSS SLOPE TOWARD THE CURB.
- ADA SIGNAGE (TYP.), AND CURB RAMP-SEE SHEET C5.1 FOR DETAIL.
- PROPOSED DUMPSTER ENCLOSURE WITH 6" HIGH MASONRY ENCLOSURE AND 8" THICK REINFORCED CONCRETE PAD, PER SOUTH BEND CITY STANDARDS. FINAL SIZE AND MATERIAL TO BE DETERMINED BY OWNER, SEE DETAILS ON ARCHITECTURAL SHEETS.
- SITE LIGHTING: SEE SHEET C4.1 FOR LIGHTING PLAN. PLACE LIGHT BASES 2' BEHIND BACK OF CURB. PROPOSED SITE LIGHTING TO COMPLY WITH SOUTH BEND LIGHTING REGULATIONS. MAXIMUM COMBINED HEIGHT OF POLE AND FIXTURE NOT TO EXCEED 20'. MAXIMUM 100 WATTAGE. SEE LIGHT BASE DETAIL ON SHEET C5.1.
- IRRIGATION SLEEVES (TYPICAL): PLACEMENT BY GENERAL CONTRACTOR. 4" PVC SLEEVE-PLACE @ 12" MINIMUM DEPTH. CAP WITH TEMPORARY ENDS BEFORE BURYING. DOCUMENT END LOCATIONS.
- NOT USED
- PARKING LOT STRIPING. 4" WIDE, COLOR: WHITE. USE ADA BLUE PAINT FOR ADA SPACES AND MARKINGS.
- NOT USED.
- COMMERCIAL CONCRETE APPROACH PER CITY OF SOUTH BEND ENGINEERING STANDARDS. SEE DETAIL ON SHEET C5.0.
- CONCRETE LOADING DOCK/RAMP. SEE ARCHITECT'S SHEETS FOR DETAIL. SEE SHEET C2.0 FOR LOADING DOCK DRAINAGE & SHEET C5.1 FOR TRENCH DETAIL.
- BIKE RACK: DUMOR, INC. BIKE RACK. SERIES 290, COLOR: BLACK. SURFACE MOUNT. SUITABLE FOR 6 BIKES. SEE DETAIL ON SHEET C5.1 PLACE ON CONCRETE PAD, INSTALLED USING SIDEWALK STANDARD DETAIL.
- COMMERCIAL CONCRETE APPROACH PER INDOT ENGINEERING DESIGN STANDARDS. SEE DETAIL ON SHEET C5.2.

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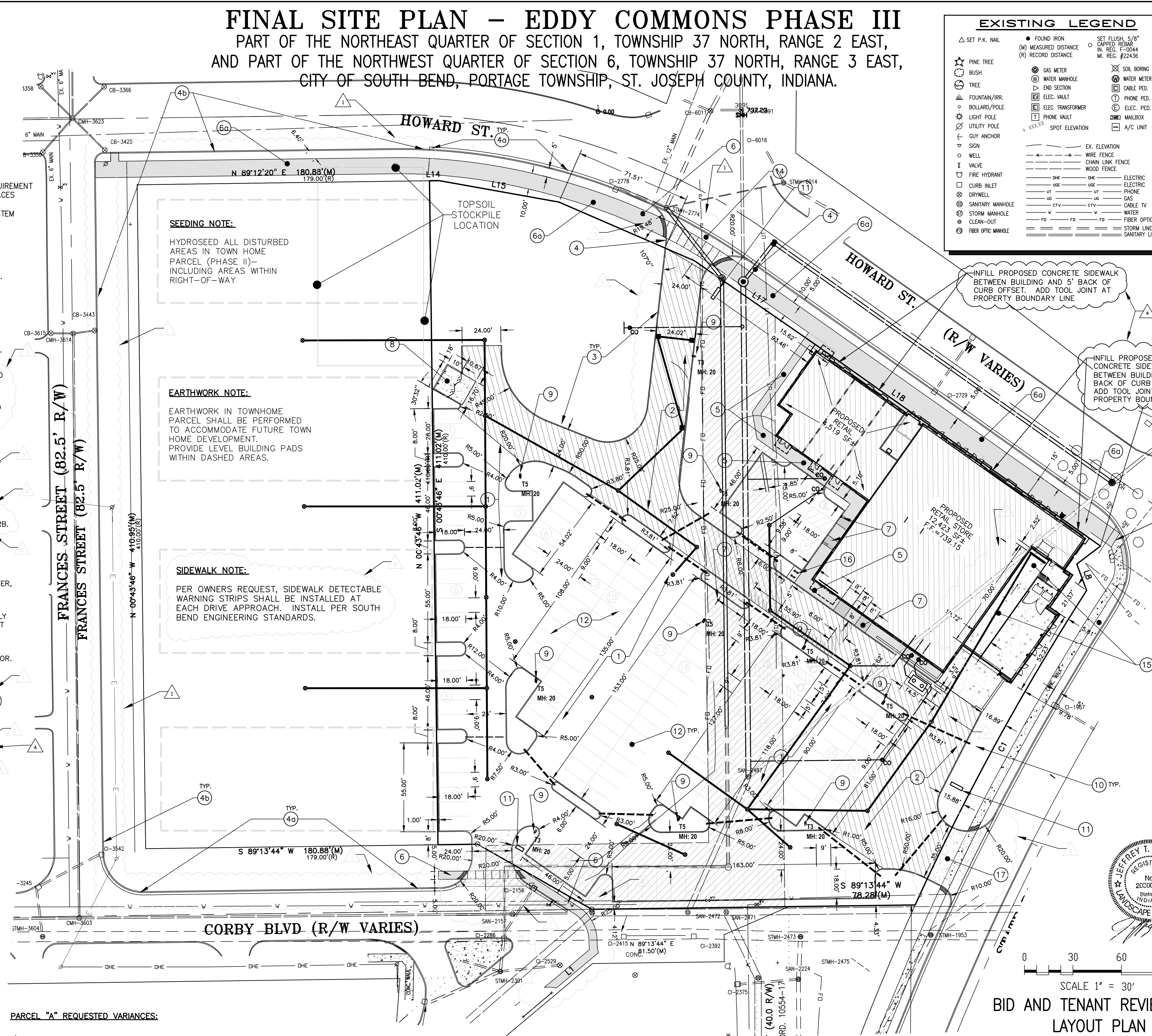
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SEEDING NOTE:

HYDROSEED ALL DISTURBED AREAS IN TOWN HOME PARCEL (PHASE II)- INCLUDING AREAS WITHIN RIGHT-OF-WAY

EARTHWORK NOTE:

EARTHWORK IN TOWNHOME PARCEL SHALL BE PERFORMED TO ACCOMMODATE FUTURE TOWN HOME DEVELOPMENT. PROVIDE LEVEL BUILDING PADS WITHIN DASHED AREAS.

SIDEWALK NOTE:

PER OWNERS REQUEST, SIDEWALK DETECTABLE WARNING STRIPS SHALL BE INSTALLED AT EACH DRIVE APPROACH. INSTALL PER SOUTH BEND ENGINEERING STANDARDS.

PARCEL "A" REQUESTED VARIANCES:

- FROM THE MINIMUM PARKING SETBACK OF 5-FT. BEHIND THE FRONT OR CORNER FACADE TO ALLOW PARKING IN LINE WITH THE BUILDING;
- FROM THE REQUIREMENT THAT THE PRIMARY FACADES SHALL BE ORIENTED TO A FRONT LOT LINE OR OPEN SPACE;
- FROM THE 60% MINIMUM TRANSPARENCY FOR GROUND FLOOR FRONT FACADE AND 20% ON A CORNER FACADE TO 0% ON HOWARD AND SR-23;

FINAL SITE PLAN - EDDY COMMONS PHASE III
PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.

EXISTING LEGEND

△ SET P.K. NAIL	● FOUND IRON	SET FLUSH, 5/8"
☆ PINE TREE	(M) MEASURED DISTANCE	○ CAPPED REBAR
○ BUSH	(R) RECORD DISTANCE	IN REG. #0044
○ TREE	○ GAS METER	ML REG. #22436
○ FOUNTAIN/IRR.	○ WATER MANHOLE	○ SOL. BORING
○ BOLLARD/POLE	○ END SECTION	○ WATER METER
○ LIGHT POLE	○ ELEC. VAULT	○ CABLE PED.
○ UTILITY POLE	○ ELEC. TRANSFORMER	○ PHONE PED.
○ GUY ANCHOR	○ PHONE VAULT	○ ELEC. PED.
○ SIGN	○ SPOT ELEVATION	○ MAILBOX
○ WELL	○ EX. ELEVATION	○ A/C UNIT
○ VALVE	○ WIRE FENCE	
○ FIRE HYDRANT	○ CHAIN LINK FENCE	
○ CURB INLET	○ WOOD FENCE	
○ DRYWELL	○ USE	
○ SANITARY MANHOLE	○ UT	
○ STORM MANHOLE	○ US	
○ CLEAN-OUT	○ CTV	
○ FIBER OPTIC MANHOLE	○ FD	
	○ STORM LINE	
	○ SANITARY LINE	

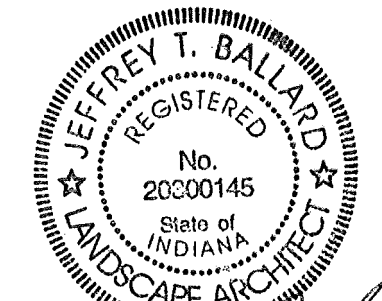


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PROPOSED LEGEND

●	PROPOSED CATCH BASIN
○	PROPOSED CLEAN OUT
○	PROPOSED HYDRANT
○	PROPOSED LIGHT
○	PROPOSED MANHOLE
○	PROPOSED VALVE
○	PROPOSED POLE
○	PROPOSED DRY WELL
○	PROPOSED END SECTION
XXX.XX	PROPOSED ELEVATION
TW	TOP OF WALL
TA	TOP OF ASPHALT
TC	TOP OF CURB
BC	BOTTOM OF CURB
---	PROPOSED UTILITY
---	PROPOSED CONTOUR



BID AND TENANT REVIEW SET LAYOUT PLAN

PROPERTY OWNER:
KRG
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(574) 234-4003
ATTN: MICHAEL DANCH

DATE	DRAWN BY:	CHECKED BY:	DATE	BY	REVISIONS
5/6/20	JTB	MJD	5/22/20	JTB	ADDENDUM 1
			6/25/20	JTB	BULLETIN 1: REVISION TO CITY & SITE UTILITIES PER CITY ENGINEERING REVIEW.
			8/14/20	JTB	BULLETIN 2: REVISIONS PER CITY REVIEW AND COMMENTS.
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SHEET
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FINAL SITE PLAN – EDDY COMMONS PHASE III

PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
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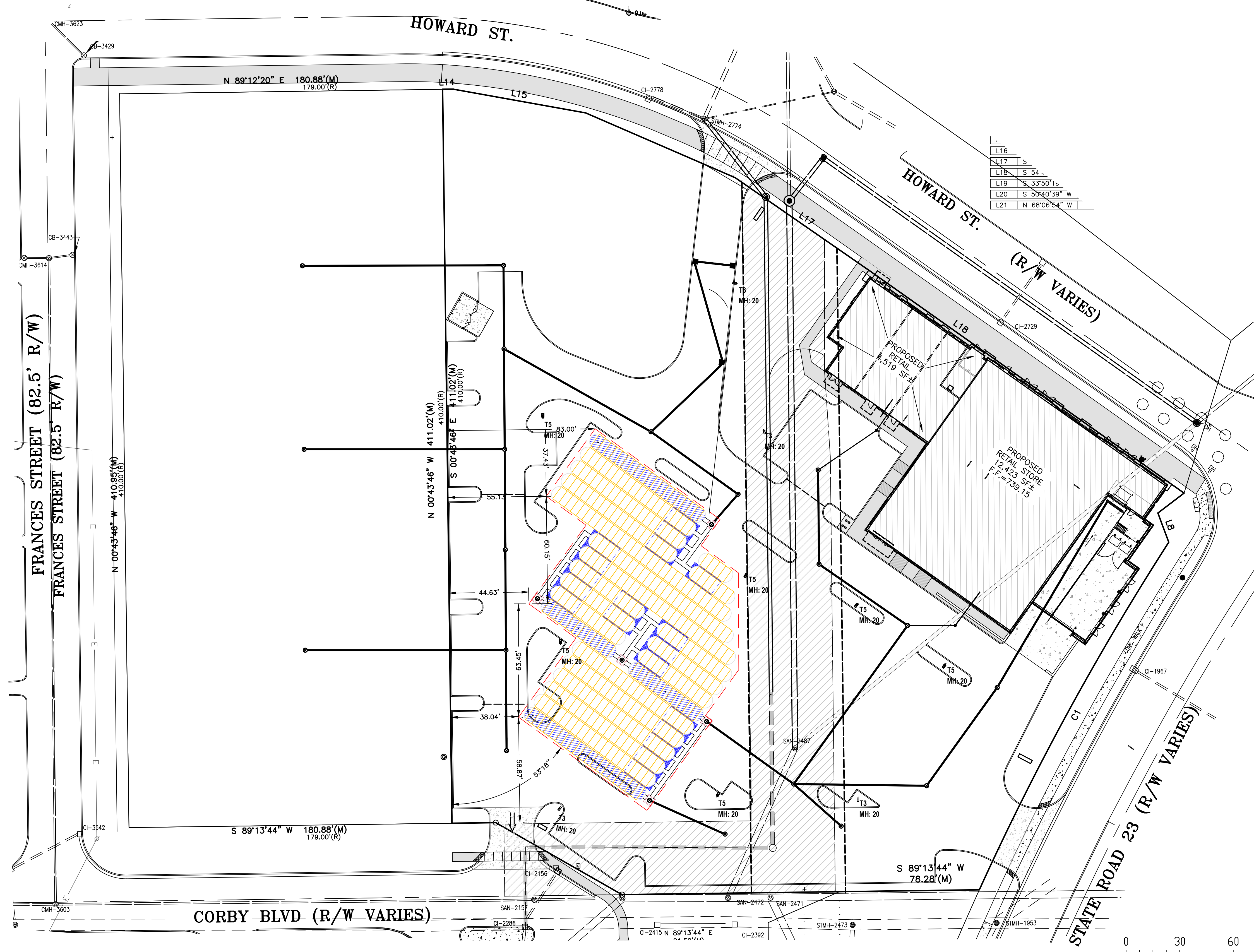
SITE LOCATION MAP
415

PROPOSED LEGEND

- | PROPOSED LEGEND | |
|-----------------|----------------------|
| | PROPOSED CATCH BASIN |
| | PROPOSED CLEAN OUT |
| | PROPOSED HYDRANT |
| | PROPOSED LIGHT |
| | PROPOSED MANHOLE |
| | PROPOSED VALVE |
| | PROPOSED POLE |
| | PROPOSED DRY WELL |
| | PROPOSED END SECTION |
| XXX.XX | PROPOSED ELEVATION |
| TW | TOP OF WALL |
| TA | TOP OF ASPHALT |
| TC | TOP OF CURB |
| BC | BOTTOM OF CURB |
| | PROPOSED UTILITY |
| | PROPOSED CONTOUR |

EXISTING LEGEND

- | | | | | | |
|--|---------------------|--|-------------------|--|-----------------|
| | SET P.K. NAIL | | FOUND IRON | | SET FLUSH 5/8" |
| | MEASURED DISTANCE | | CAPPED REBAR | | IN. REG. F-0044 |
| | RECORD DISTANCE | | MI. REG. #22436 | | |
| | PINE TREE | | GAS METER | | SOIL BORING |
| | BUSH | | WATER MANHOLE | | WATER METER |
| | TREE | | END SECTION | | CABLE PED. |
| | FOUNTAIN/RR. | | ELEC. VAULT | | PHONE PED. |
| | BOLLARD/POLE | | ELEC. TRANSFORMER | | ELEC. PED. |
| | LIGHT POLE | | PHONE VAULT | | MAILBOX |
| | UTILITY POLE | | SPOT ELEVATION | | A/C UNIT |
| | GUY ANCHOR | | | | |
| | SIGN | | EX. ELEVATION | | ELECTRIC FENCE |
| | WELL | | WIRE FENCE | | ELECTRIC FENCE |
| | VALVE | | CHAIN LINK FENCE | | ELECTRIC FENCE |
| | FIRE HYDRANT | | WOOD FENCE | | ELECTRIC FENCE |
| | CURB INLET | | ELECTRIC FENCE | | ELECTRIC FENCE |
| | DRYWELL | | ELECTRIC FENCE | | ELECTRIC FENCE |
| | SANITARY MANHOLE | | ELECTRIC FENCE | | ELECTRIC FENCE |
| | STORM MANHOLE | | ELECTRIC FENCE | | ELECTRIC FENCE |
| | CLEAN-OUT | | ELECTRIC FENCE | | ELECTRIC FENCE |
| | FIBER OPTIC MANHOLE | | ELECTRIC FENCE | | ELECTRIC FENCE |



L16	
L17	
L18	S 54° 15' 00" W
L19	S 33° 50' 15" W
L20	S 50° 40' 39" W
L21	N 68° 06' 54" W

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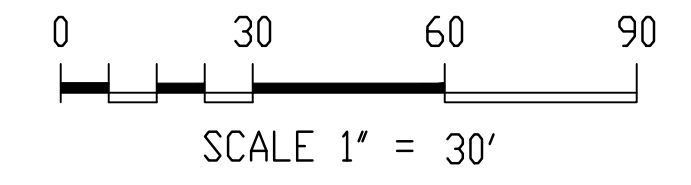
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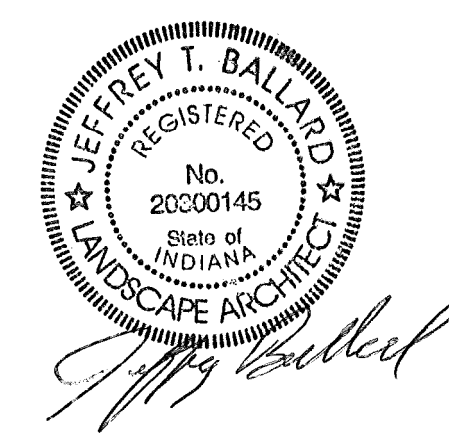
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SCALE 1" = 30'
BID AND TENANT REVIEW SET
DRAINAGE CHAMBER LAYOUT PLAN



PROPERTY OWNER:
KRG
EDDY STREET LAND III, LLC
30 S. MERIDIAN ST. STE 1100
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DATE	5/6/20	DRAWN BY:	JTB
SCALE	1" = 30'	CHECKED BY:	MJD
FILE #	200104.5	PROJ. MANGR:	JTB

REVISIONS			
DATE	BY	DATE	BY

Danch, Harner & Associates, Inc.
 Land Surveyors • Professional Engineers
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 1643 Commerce Drive • South Bend, IN 46828



SHEET
C2.1

FINAL SITE PLAN – EDDY COMMONS PHASE III

PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.

DRAINAGE CALCULATION: 25 year storm - 24 hr period
Eddy Commons Phase III

Surface	Area(ft ²)	Area (ac)	Coefficient	Total
Buildings	48,593	1.12	1.00	19,842.14
Concrete sidewalks	5,386	0.02	0.90	1,979.36
Asphalt pavement	91,973	2.11	0.90	33,800.08
Open Space	61,343	1.41	0.20	5,009.68
TOTAL	207,295	4.65		60,631

60,631 ft³ X 1.06 (6% for siltation) = **64,269 ft³ of Storage Required**

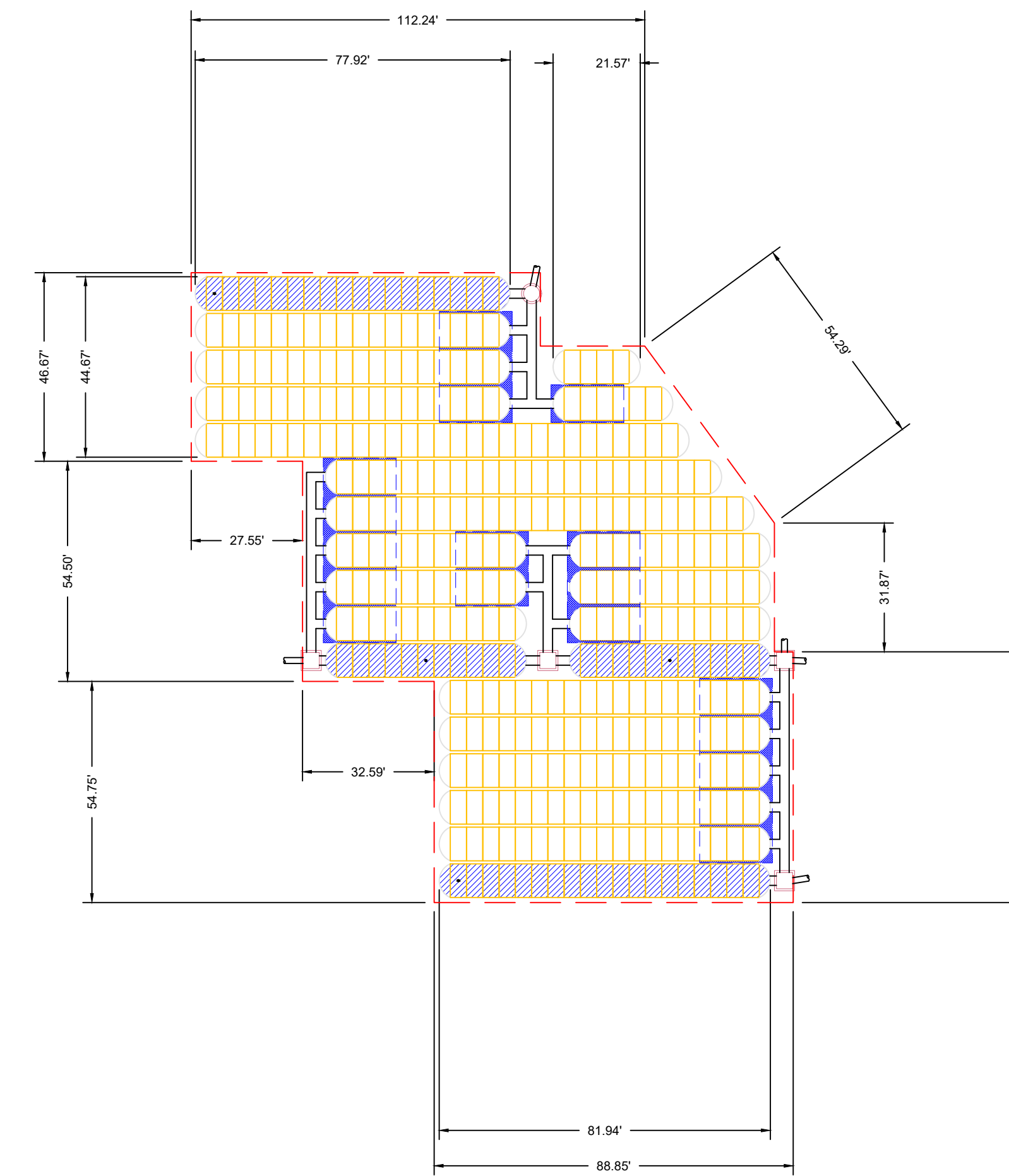
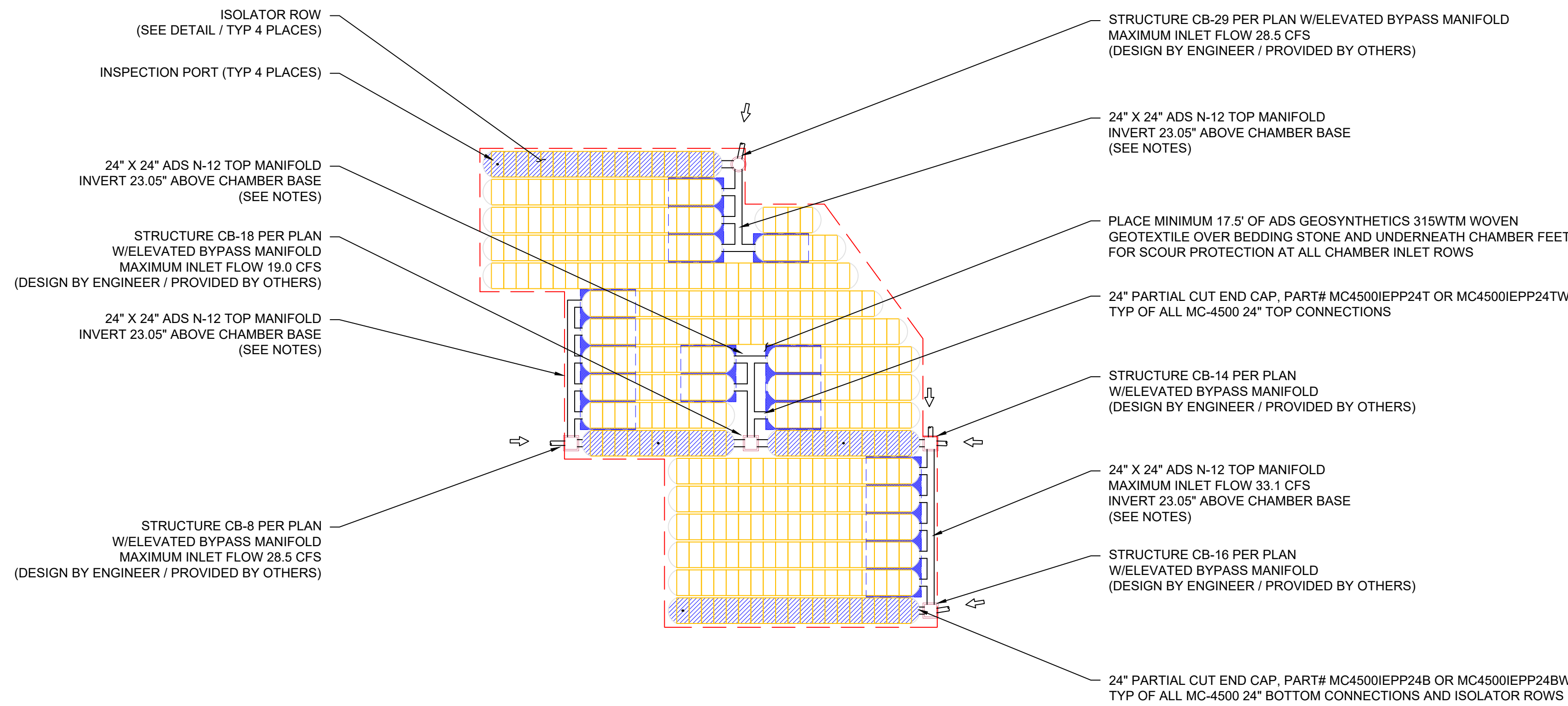
PROPOSED LAYOUT	
361	STORMTECH MC-4500 CHAMBERS
46	STORMTECH MC-4500 END CAPS
12	STONE ABOVE (in)
9	STONE BELOW (in)
35	% STONE VOID
INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED)	
64547	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED)
16242	SYSTEM AREA (ft ²)
588	SYSTEM PERIMETER (ft)
PROPOSED ELEVATIONS	
741.59	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
737.09	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
736.59	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
736.59	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
736.59	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
735.59	TOP OF STONE
734.59	TOP OF MC-4500 CHAMBER
731.51	24" TOP MANIFOLD INVERT
729.78	24" ISOLATOR ROW CONNECTION INVERT
729.59	BOTTOM OF MC-4500 CHAMBER
728.84	UNDERDRAIN INVERT
728.84	BOTTOM OF STONE

STORM WATER STORAGE REQUIRED = 64,269 CU.FT.

STORM WATER STORAGE PROVIDED = 64,547 CU.FT.
STORAGE SURPLUS = 278 CU.FT.

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.



0 30 60 90
SCALE 1" = 30'

BID AND TENANT REVIEW SET DRAINAGE CHAMBER CAPACITY PLAN

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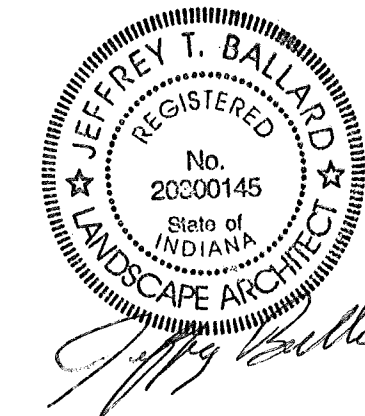
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1643 COMMERCE DRIVE
SOUTH BEND, IN. 46228
(574) 234-4003
ATTN: MICHAEL DANCH

DATE	DRAWN BY:	REVISIONS	
5/6/20	JTB	DATE	BY
SCALE	CHECKED BY:		
n/a	MJD		
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SHEET

C2.2

FINAL SITE PLAN – EDDY COMMONS PHASE III

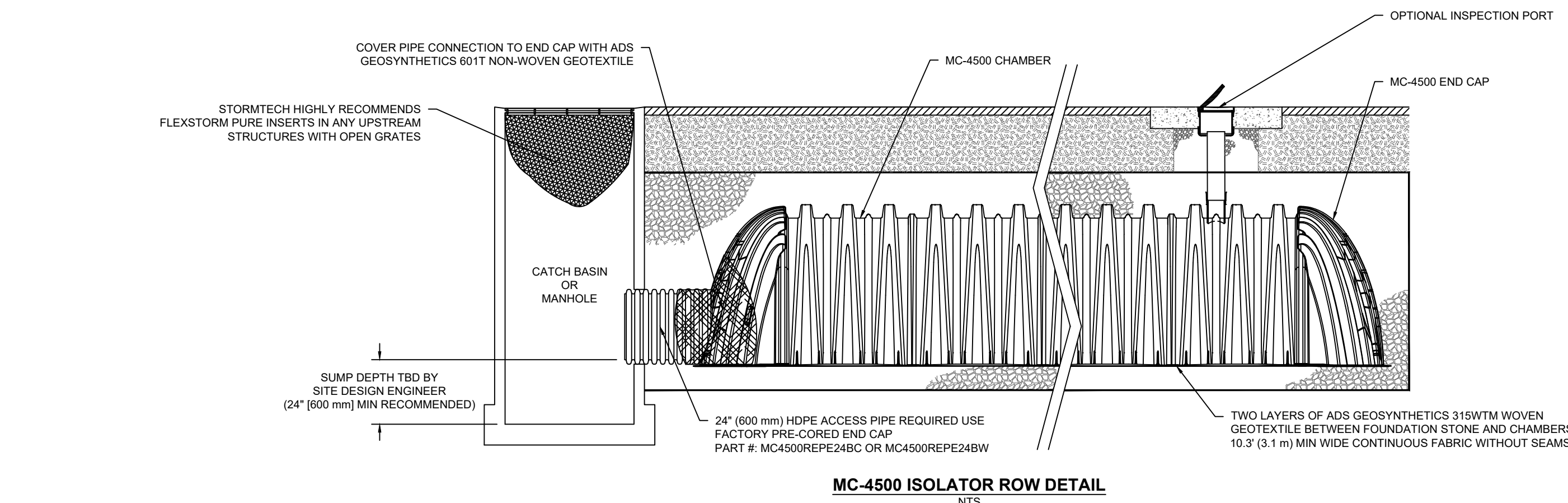
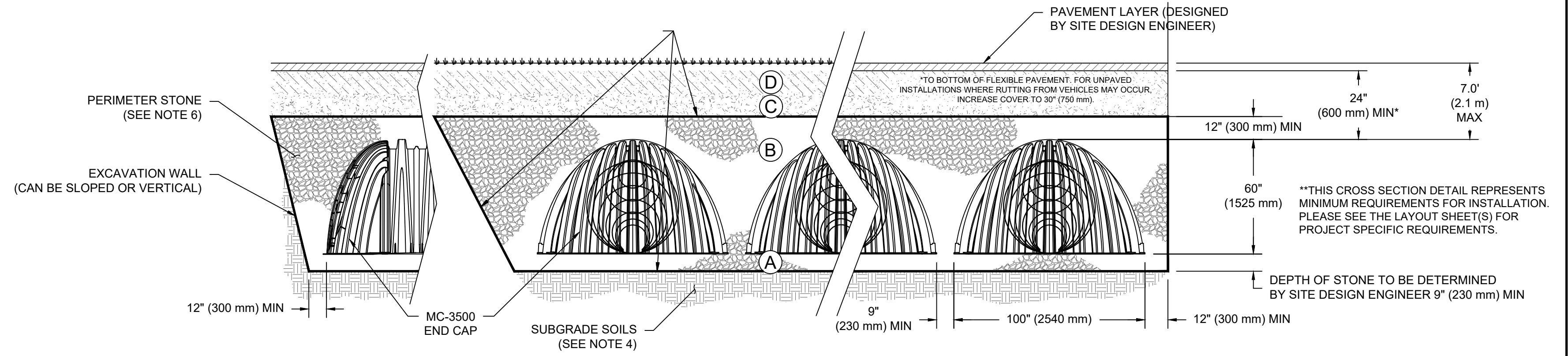
PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2.4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 ¹ 3, 4	
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 ¹ 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

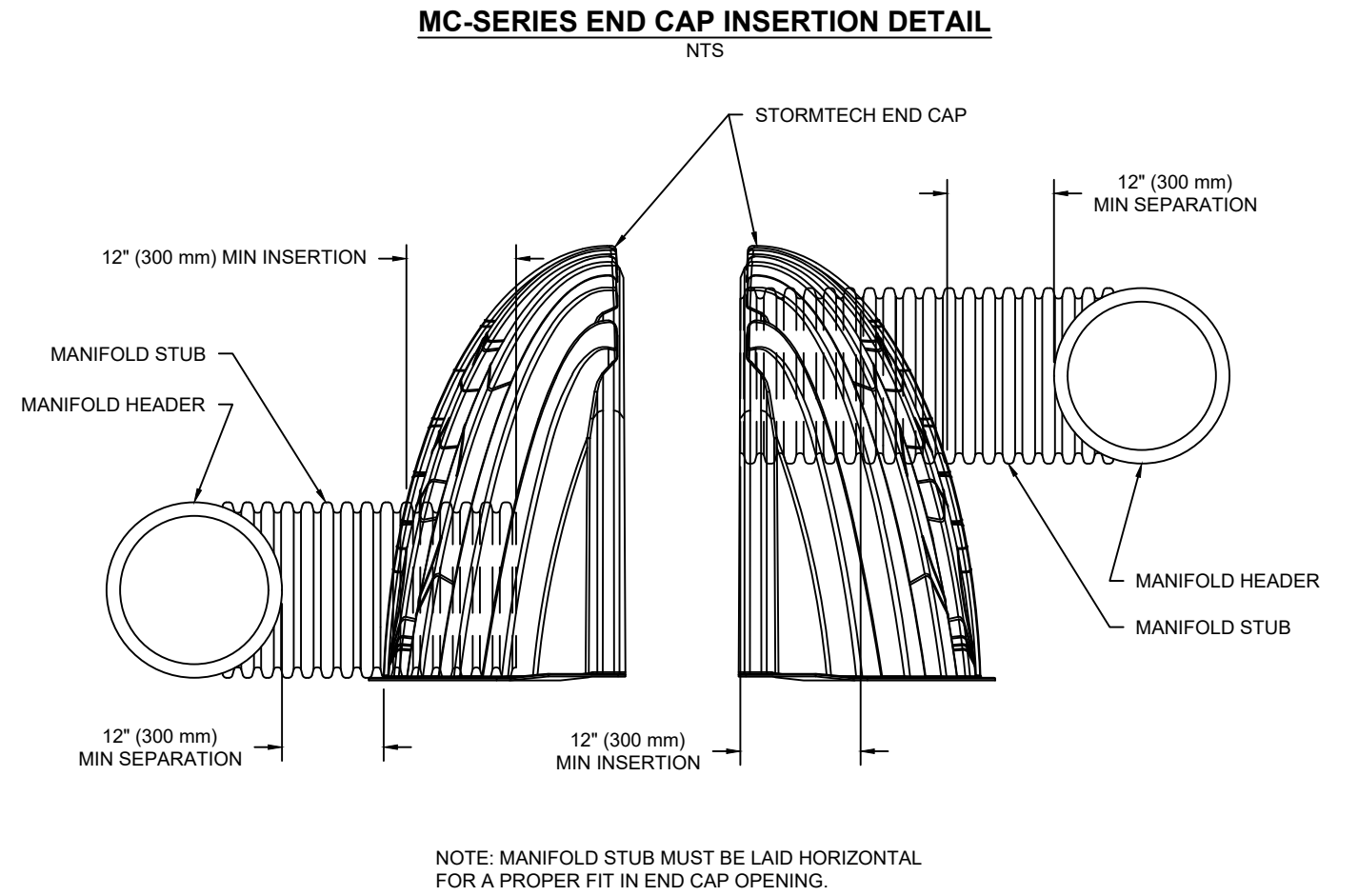
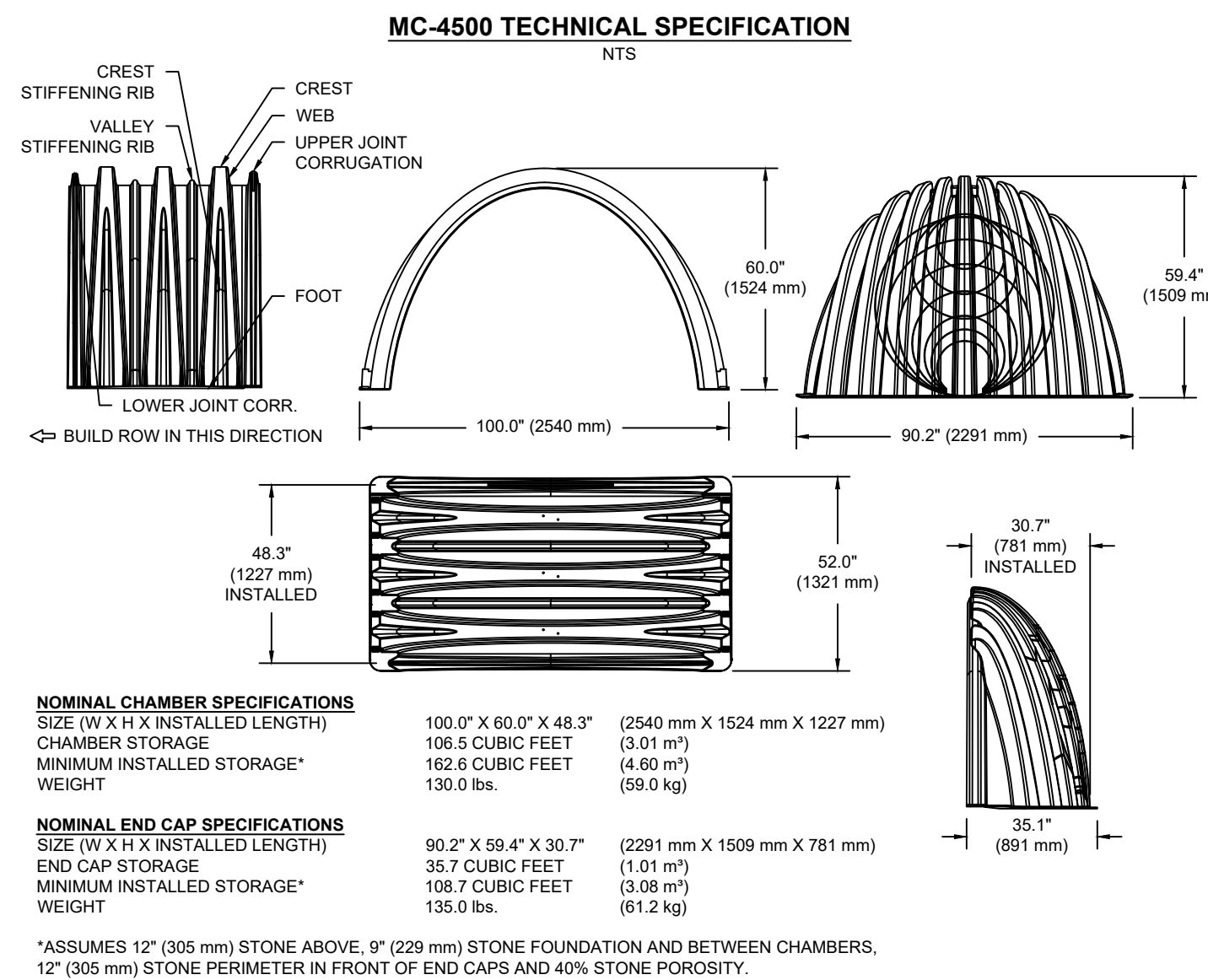
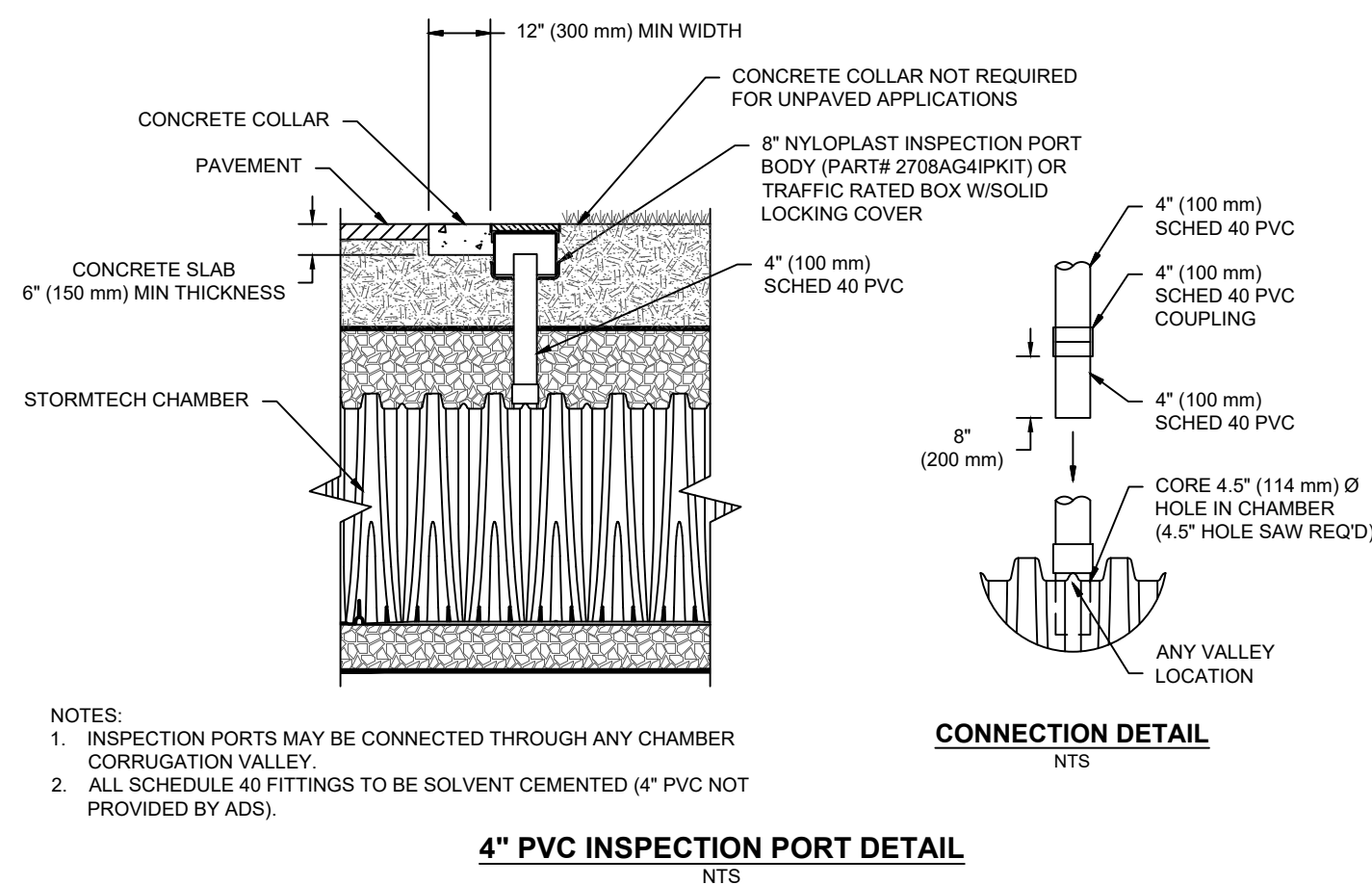


INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
- i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
- ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC4500REPE06T	6" (150 mm)	42.54" (1,081 mm)	---
MC4500REPE06B	---	---	0.86" (22 mm)
MC4500REPE08T	8" (200 mm)	40.50" (1,029 mm)	---
MC4500REPE08B	---	---	1.01" (26 mm)
MC4500REPE10T	10" (250 mm)	38.37" (975 mm)	---
MC4500REPE10B	---	---	1.33" (34 mm)
MC4500REPE12T	12" (300 mm)	35.69" (907 mm)	---
MC4500REPE12B	---	---	1.55" (39 mm)
MC4500REPE15T	15" (375 mm)	32.72" (831 mm)	---
MC4500REPE15B	---	---	1.70" (43 mm)
MC4500REPE18TC	---	29.38" (746 mm)	---
MC4500REPE18TW	---	---	---
MC4500REPE18BC	---	---	1.97" (50 mm)
MC4500REPE18BW	---	---	---
MC4500REPE24TC	---	23.05" (585 mm)	---
MC4500REPE24TW	---	---	---
MC4500REPE24BC	---	---	2.26" (57 mm)
MC4500REPE24BW	---	---	---
MC4500REPE30BC	---	---	2.95" (75 mm)
MC4500REPE36BC	---	---	3.25" (83 mm)
MC4500REPE42BC	---	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL.

CUSTOM PRECURED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

BID AND TENANT REVIEW SET DRAINAGE CHAMBER DETAILS

DATE	DRAWN BY:	REVISIONS			
5/6/20	JTB				
SCALE	CHECKED BY:	DATE	BY		
n/a	MJD				
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SHEET
C2.3



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FINAL SITE PLAN – EDDY COMMONS PHASE III

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AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA



SITE LOCATION MAP

GENERAL UTILITY NOTES:

- ALL SANITARY LINES SHALL BE A MINIMUM 2'-FT MINIMUM VERTICAL DISTANCE FROM ALL WATER LINES, AND A 10 FT. HORIZONTAL DISTANCE FROM ALL WATER LINES.
- WATER LINES SHALL LEAVE THE PROPOSED BUILDINGS AT I.E. 734.00 MIN.
- SANITARY LINES SHALL LEAVE THE PROPOSED BUILDINGS AT I.E. 734.00

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL REVIEW ENTIRE PLAN SET. IF ANY DISCREPANCIES ARE FOUND, CONTRACTOR SHALL CONTACT ENGINEER FOR CLARIFICATION AND/OR REVISIONS.

UTILITY INFORMATION:
THE ENGINEER HAS INDICATED UNDERGROUND UTILITIES ON THESE PLANS BASED UPON INFORMATION PROVIDED BY THE VARIOUS UTILITIES. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS UNKNOWN AND THE ENGINEER ACCEPTS NO LIABILITY FOR UTILITY INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE UTILITIES, PROTECTING ALL UTILITIES, PAYING ALL COSTS FOR DAMAGE TO UTILITY FACILITIES, AND RESTORING ALL UTILITIES TO A CONDITION WHICH IS BETTER THAN THE ORIGINAL CONDITION AT THE START OF THIS PROJECT. THE CONTRACTOR SHALL NOT BEGIN UNDERGROUND WORK UNTIL ALL UTILITIES HAVE BEEN ACCURATELY LOCATED ON THE GROUND. WATER LINES DETERMINED FROM FIELD LOCATIONS AND SCALED FROM MAPS PROVIDED BY THE CITY OF SOUTH BEND WATER DEPT.

UTILITY KEYNOTES:

- (A) 2" & 1" COPPER DOMESTIC WATER SERVICE: LIVE TAP, VALVE AND STOP BOX PER CITY STANDARDS. INSTALL USING METHODS AND MATERIALS PER SOUTH BEND STANDARD SPECIFICATIONS. STOP BOXES SHALL BE LOCATED WITHIN THE RIGHT-OF-WAY BETWEEN THE CURB AND SIDEWALK. COORDINATE ALL ACTIVITIES WITH SOUTH BEND WATER DEPARTMENT.
- (B) 6" FIRE PROTECTION – CLASS 52 DUCTILE IRON WATER LINE. CONNECT TO PROPOSED 8" WATER MAIN, INSTALL USING METHODS AND MATERIALS PER SOUTH BEND STANDARD SPECIFICATIONS. COORDINATE ALL ACTIVITIES WITH SOUTH BEND WATER DEPARTMENT. FIELD VERIFY ALL WATER LINE LOCATIONS.
- (C) 793 TOTAL LF OF 8" CLASS 52 DUCTILE IRON WATER MAIN LINE. START CONNECTIONS NEAR FLOW HYDRANT 5615 – CONNECT TO EX. 12" MAIN WITH (2) 12" X 8" TEES, INSTALL USING METHODS AND MATERIALS PER SOUTH BEND STANDARD SPECIFICATIONS. ROUTE AS SHOWN ON PLANS AND TAP/CONNECT TO EXISTING WATER MAINS AS SHOWN – TO COMPLETE LOOP. COORDINATE ALL ACTIVITIES WITH SOUTH BEND WATER DEPARTMENT.
- (D) HYDRANT ASSEMBLY PER SOUTH BEND STANDARDS FOR DESIGN AND CONSTRUCTION (5-11). INSTALL USING METHODS AND MATERIALS PER SOUTH BEND STANDARD SPECIFICATIONS. COORDINATE ALL ACTIVITIES WITH SOUTH BEND WATER DEPARTMENT.
- (E) 6"–SRD 35 SANITARY SEWER CONNECTIONS: CONTRACTOR TO VERIFY LOCATION, SIZE, AND INVERT OF PROPOSED/RELOCATED SANITARY SEWER MAIN, PRIOR TO INSTALLATION. USE SLANT STACK METHOD FOR CONNECTION TO MAIN SEWER LINE. NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO INSTALLATION. NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO INSTALLATION. OPEN-CUT TRENCH FOR SANITARY SEWER AND WATER CONNECTIONS PER CITY OF SOUTH BEND STANDARD SPECIFICATIONS.
- (F) PROVIDE 1000 GALLON GREASE INTERCEPTOR. USE 6" SDR CONNECTION FROM BUILDING TO GREASE INTERCEPTOR. CONNECT 6" OUTGOING GREASE INTERCEPTOR LINE TO 6" MAIN SANITARY RUN WITH A STANDARD 6" TO 6" WYE FITTING. IF NECESSARY, USE 3" PVC FOR VENT LINES BACK TO BUILDING. PLACE A REINFORCED CONCRETE CAP OVER GREASE TRAP. SEE PLANS FOR LOCATION AND SIZE FOR CAP. SOUTH BEND ENGINEERING STANDARDS FOR INSTALLATION. SEE ARCHITECT'S PLUMBING SHEETS FOR ADDITIONAL INFORMATION.
- (G) ELECTRIC SERVICE: "POWER CO." TO PROVIDE UNDERGROUND SERVICE VIA TRANSFORMER. CONTRACTOR TO PROVIDE AND INSTALL 4" CONDUIT TO NEW CONNECTION LOCATION. SEE ARCHITECTURAL SHEETS FOR ELECTRICAL SCHEDULES. CONFIRM WITH ARCHITECT PRIOR TO WORK.
- (H) NATURAL GAS SERVICE: "GAS COMPANY" TO PROVIDE GAS LINE FROM EXISTING CONNECTION TO GAS METER. CONTRACTOR SHALL VERIFY PHYSICAL LOCATION OF EXISTING GAS SERVICE PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- (I) TELEPHONE SERVICE: "TELEPHONE CO." TO PROVIDE UNDERGROUND SERVICE. CONTRACTOR TO PROVIDE AND INSTALL CONDUIT WIRE TO NEW CONNECTION LOCATION AS DETERMINED BY OWNER/ARCHITECT.
- (J) PROPOSED FIRE DEPARTMENT CONNECTION: PLACE 100' FROM EXISTING FIRE HYDRANT OR AS APPROVED BY SOUTH BEND FIRE PREVENTION. PLACE 6" STEEL PIPE BOLLARDS ON NORTH AND SOUTH SIDES OF FDC. SEE ARCHITECT'S PLANS FOR FDC SPECIFICATION AND PIPE ROUTING.
- (K) AREA OF FULL DEPTH PAVEMENT EXCAVATION TO ACCOMMODATE INSTALLATION OF NEW SANITARY SEWER AND NEW WATER CONNECTIONS. FOLLOW SOUTH BEND ENGINEERING STANDARDS FOR REMOVAL AND REPLACEMENT OF PAVEMENT SECTION (SOUTH HALF OF HOWARD ST.) SEE DETAIL ON SHEET C5.2
- (L) RELOCATED AND REROUTED ELECTRIC SERVICE. ELECTRICAL ROUTING TO BE PERFORMED BY AMERICAN ELECTRIC POWER (AEP). GENERAL CONTRACTOR SHALL COORDINATE SITE CONSTRUCTION WITH AEP TO LIMIT CONFLICTS WITH OTHER UTILITY INSTALLATIONS.

EXISTING LEGEND	
△ SET P.K. MARK	○ FOUND IRON
☆ PINE TREE	○ CHAIN BUSH
○ BUSH	○ END SECTION
○ TREE	○ FOUNTAIN/RIE
○ BOLLARD/POLE	○ LIGHT POLE
○ UTILITY POLE	○ GUY ANCHOR
○ SIGN	○ WELL
○ VALVE	○ FIRE HYDRANT
○ CURB INLET	○ DRYWELL
○ SANITARY MANHOLE	○ STORM MANHOLE
○ CLEAN-OUT	○ FIBER OPTIC MANHOLE
○ FIBER OPTIC MANHOLE	

PROPOSED LEGEND	
■ PROPOSED CATCH BASIN	○ PROPOSED CLEAN OUT
○ PROPOSED HYDRANT	○ PROPOSED LIGHT
○ PROPOSED MANHOLE	○ PROPOSED VALVE
○ PROPOSED END SECTION	○ PROPOSED DRY WELL
○ PROPOSED ELEVATION	○ PROPOSED WALL
○ PROPOSED WYEFITTING	○ TA TOP OF ASPHALT
○ TC TOP OF CURB	○ BC BOTTOM OF CURB
○ PROPOSED UTILITY	○ PROPOSED CONTOUR

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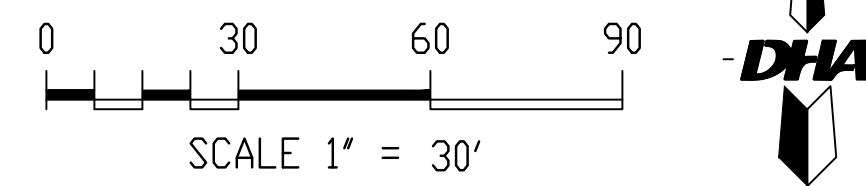
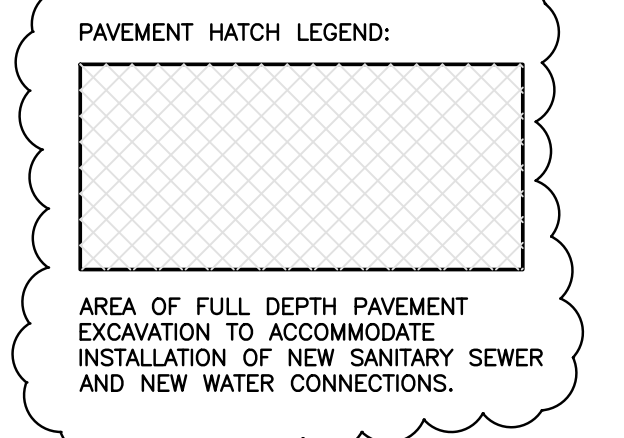
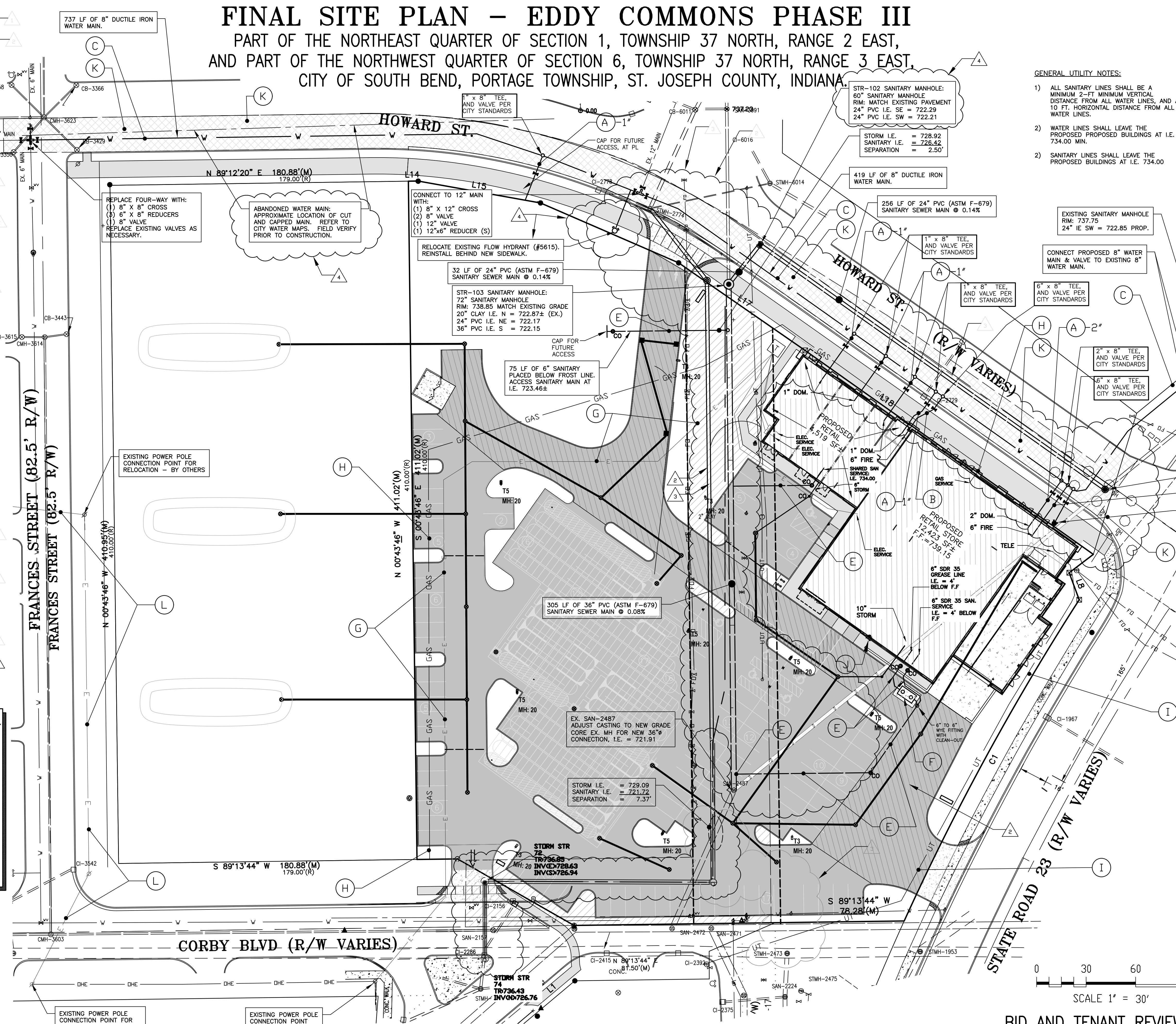
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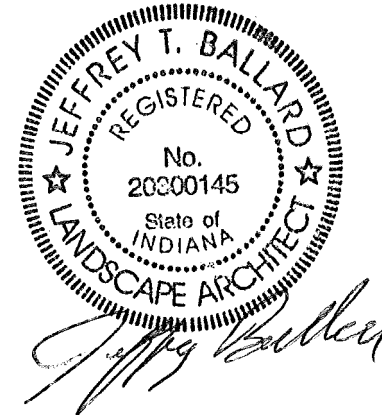
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PRELIMINARY UTILITY PLAN



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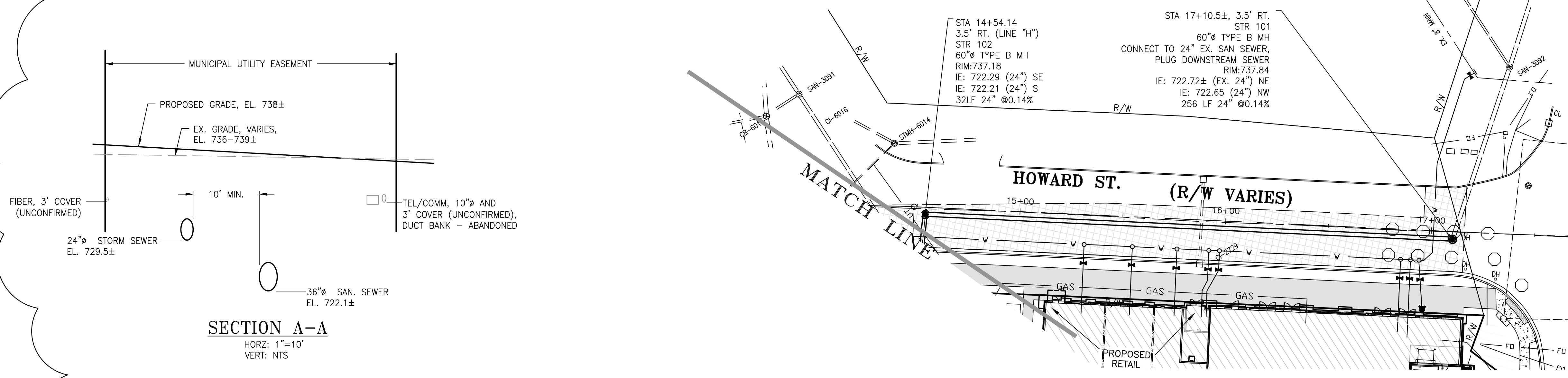
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ATTN: MICHAEL DANCH

DATE	DRAWN BY:	DATE	BY:	REVISIONS
5/6/20	JTB	5/22/20	JTB	ADDENDUM 1
SCALE	CHECKED BY:	6/25/20	JTB	BULLETIN 1: REVISION TO CITY & SITE UTILITIES PER CITY ENGINEERING REVIEW.
1" = 30'	MJD	8/14/20	JTB	BULLETIN 2: REVISION TO CITY & SITE UTILITIES PER CITY ENGINEERING REVIEW.
FILE #	PROJ. MNGR:	10/9/20	JTB	BULLETIN 4: REVISION TO CITY & SITE UTILITIES PER CITY ENG. REVIEW.
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Landscape Architects • Land Planners
Office: (574) 234-4003 / (800) 994-4003 • Fax: (574) 234-4119
1643 Commerce Drive • South Bend, IN 46828

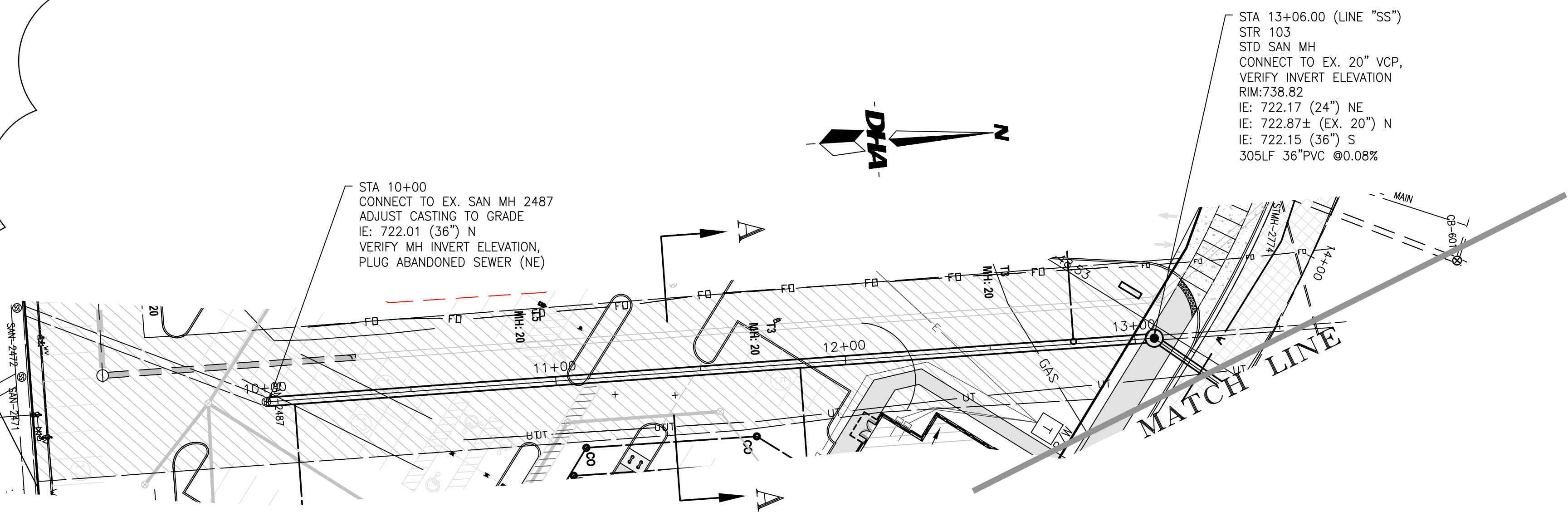


SHEET
C3.0



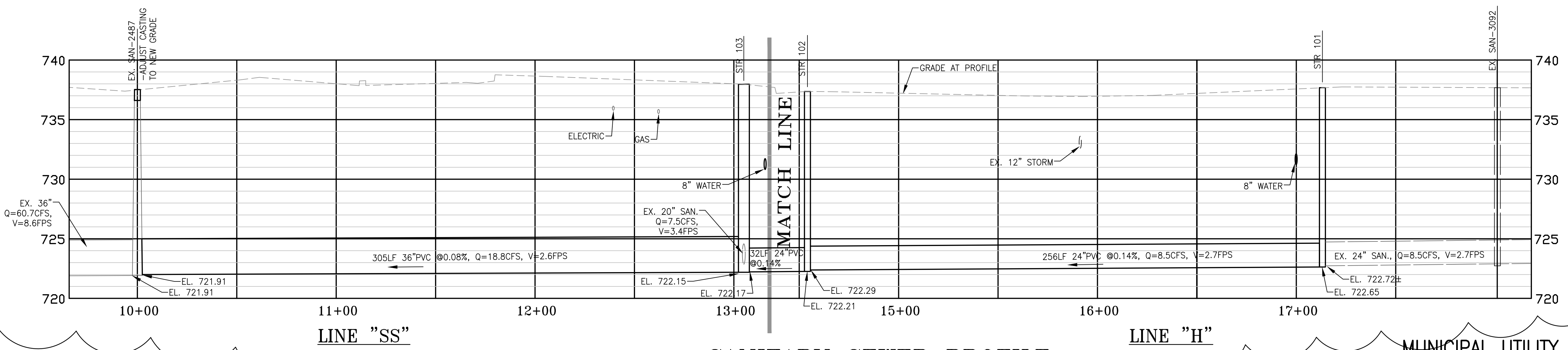
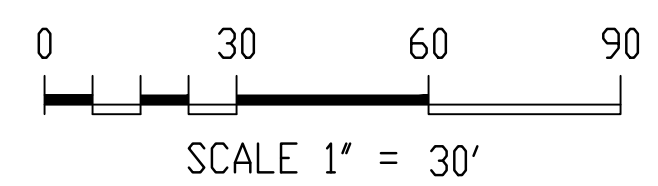
SECTION A-A
 HORZ: 1"=10'
 VERT: NTS

- GENERAL NOTES**
1. ALL WORK WITHIN SOUTH BEND PUBLIC RIGHTS-OF-WAY AND DEDICATED EASEMENTS SHALL COMPLY WITH THE LATEST ENGINEERING DESIGN STANDARDS AND SPECIFICATIONS.
 2. CONTRACTOR SHALL LOCATE UTILITIES PRIOR TO COMMENCING WORK AND IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND BEFORE CONTINUING WITH ANY OTHER WORK.
 3. MAINTAIN 10' MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAIN AND STORM/SANITARY SEWER MAINS.
 4. DISTURBED AREAS SHALL HAVE 4" TOPSOIL AND SEED.
 5. INDIVIDUAL SERVICE TAPS AND METERS TO BE COORDINATED TO LOTS 1 AND 2 WITH SOUTH BEND WATER DEPT.
 6. FOR INSTALLATION OF SEWER MAIN WITHIN THE STREET, FULL LANE WIDTH AND FULL DEPTH ASPHALT PAVEMENT REPLACEMENT SHALL BE THE SAME AS EXISTING PAVEMENT IN STREET.
 7. ALL TRAFFIC CONTROL "LOOPS" AND DETECTOR HOUSING SHALL BE REPLACED IN EXCAVATED/PAVEMENT REPLACEMENT AREAS.
 8. ALL WORK WITHIN RIGHTS-OF-WAY AND EASEMENTS SHALL BE COORDINATED WITH CITY OF SOUTH BEND.
 9. CONTRACTOR IS RESPONSIBLE FOR PERMITTING OF ANY WORK WITHIN INDOT RIGHT-OF-WAY.
 10. ALL IMPACTED STREET STRIPING, ARROWS, AND STOP BARS SHALL BE INSTALLED PER CURRENT LAYOUT.



EXISTING STRUCTURE CHART

CB-6011 RIM ELEV. 737.28 I.E. 24" CPP. NE. 729.98 I.E. 24" CPP. S. 729.48 I.E. 12" CPP. NW. 731.58	SAN-3091 RIM ELEV. 737.23 I.E. 20" CLAY. N. 723.23 I.E. 20" CLAY. S. 723.13 I.E. 12" CLAY. W. 724.83
CI-2729 (FLOW LINE) RIM ELEV. 736.53 I.E. 12" RCP. NE. 732.63	SAN-3092 RIM ELEV. 739.75 I.E. 24" CLAY. NE. 722.85 I.E. 24" CLAY. SW. 722.85 I.E. 12" CLAY. N. 726.45
SAN-2471 RIM ELEV. 735.93 I.E. 18" CLAY. E. 722.83 I.E. 48" CLAY. SE. 720.83 I.E. 48" CLAY. W. 720.83	STMH-2774 RIM ELEV. 737.60 I.E. 24" CPP. N. 729.80 I.E. 6" PVC. NE. 732.10 I.E. 24" CPP. SE. 723.70 I.E. 12" CPP. NW. 732.50
SAN-2472 RIM ELEV. 736.16 I.E. 36" CLAY. NE. 721.16 I.E. 48" CLAY. E. 720.86 I.E. 48" CLAY. W. 720.66	STMH-6014 RIM ELEV. 737.26 I.E. 18" CPP. SE. 731.76 I.E. 6" PVC. SW. 731.96 I.E. 12" CPP. NW. 732.86
SAN-2487 RIM ELEV. 736.61 I.E. 24" CLAY. NE. 722.31 I.E. 36" CLAY. SW. 721.91 I.E. 12" CLAY. N. 722.11	



SANITARY SEWER PROFILE

MUNICIPAL UTILITY PROFILES - SANITARY SEWER

SCALE: 1"=30' H
 1"=5' V

PROPERTY OWNER:
 KRQ
 EDDY STREET LAND III, LLC
 30 S. MERIDIAN ST. STE 1100
 INDIANAPOLIS, IN. 46204
 (317) 577-5600

SURVEYORS & ENGINEERS:
 DANCH, HARNER & ASSOCIATES, INC.
 1643 COMMERCE DRIVE
 SOUTH BEND, IN. 46628
 (574) 234-4003

DATE	DRAWN BY:	REVISIONS	
5/6/20	BLM		
SCALE	CHECKED BY:	DATE	BY
1"=30'	MJD	8/14/20	BLM
FILE #	PROJ. MANGR:	10/9/20	BLM
200104.5	JTB	BULLETIN 2: NEW SHEET ADED PER CITY ENGINEERING REVIEW	
		BULLETIN 4: REVISIONS PER CITY REVIEW AND COMMENT.	



Danch, Harner & Associates, Inc.
 Land Surveyors • Professional Engineers
 Landscape Architects • Land Planners
 1643 Commerce Drive • South Bend, IN 46628

SHEET
C3.2

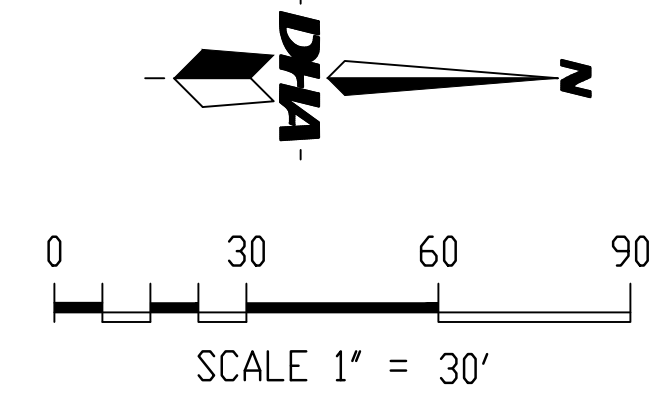
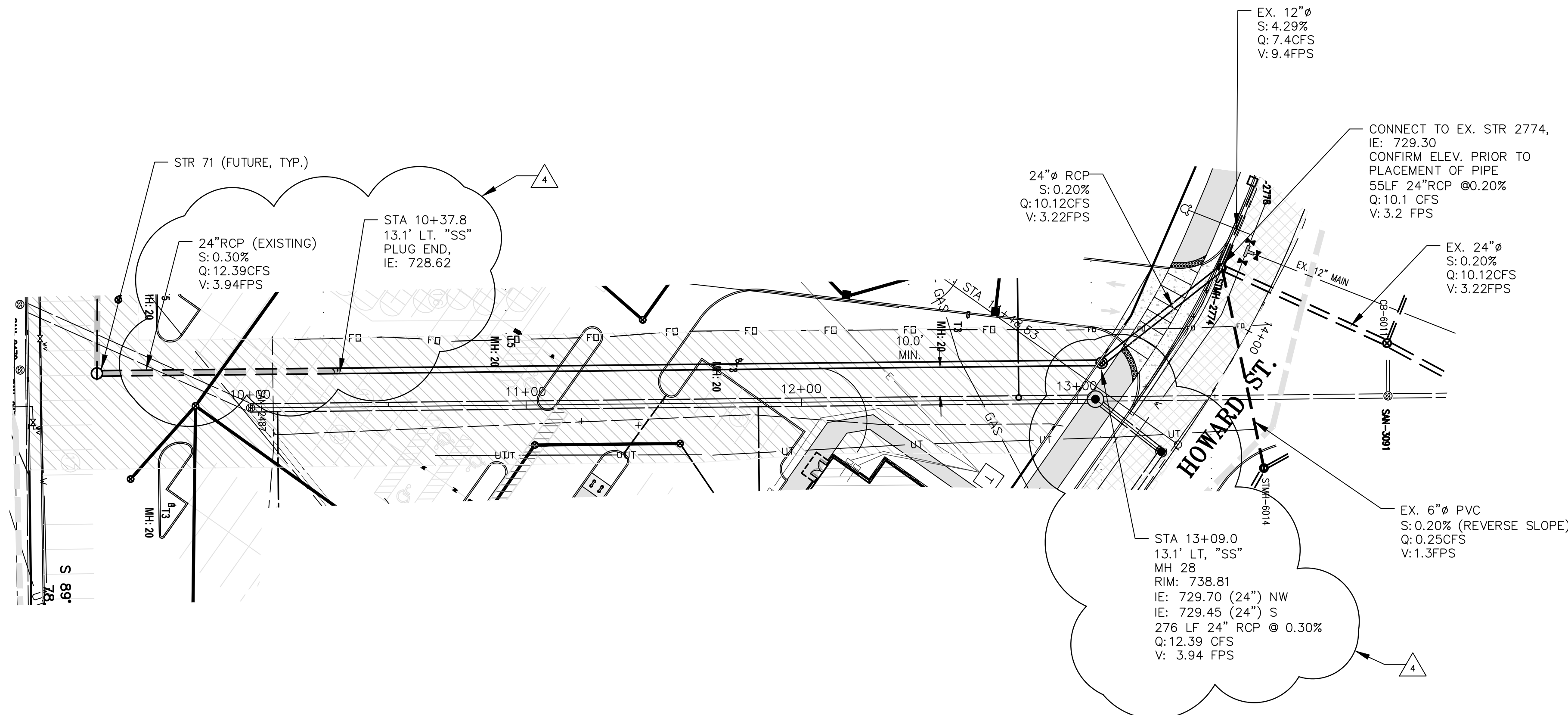
2010/04/5 P3P - Engineering 10-9-20-20.dwg 10/9/2020 11:27 AM

GENERAL NOTES

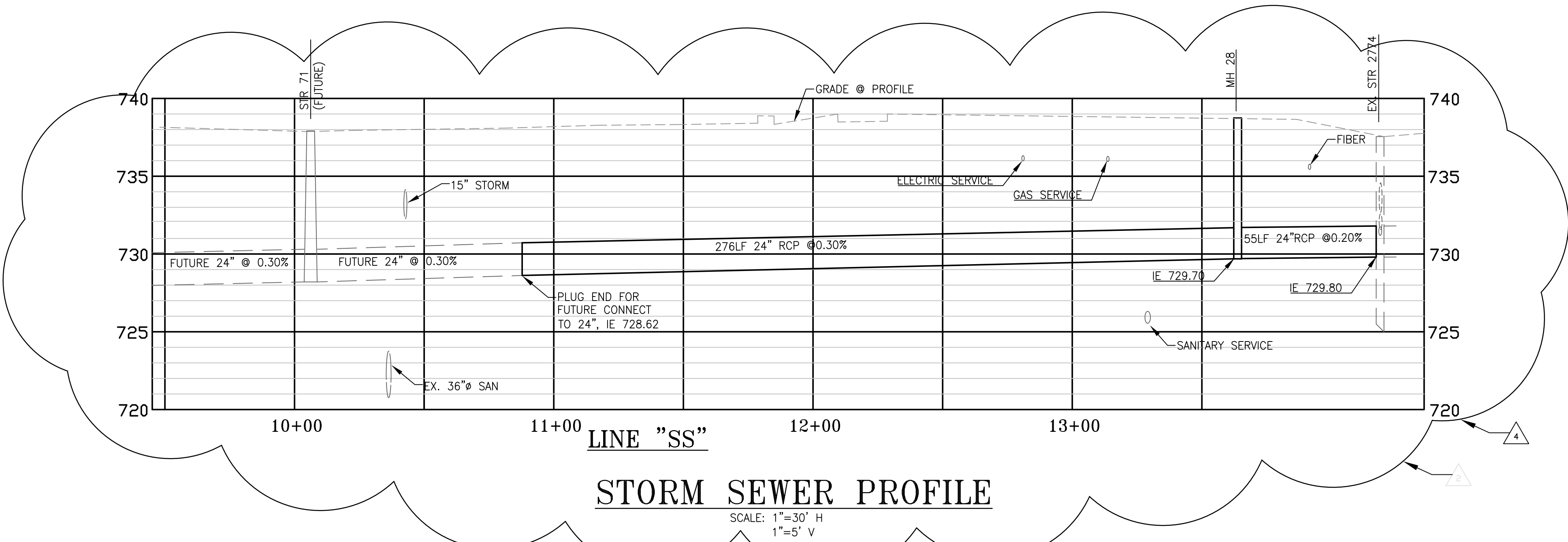
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NOTE:
STORM SEWER DESIGN IS BASED UPON PROVIDED DRAINAGE NARRATIVE (EDDY STREET COMMONS PHASE II) FOR CITY OF SOUTH BEND, BY AMERICAN STRUCTUREPOINT, REVISED DATE 02/22/2018



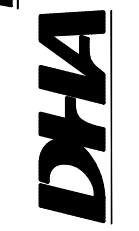
STORM SEWER PROFILE

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By *[Signature]*

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MUNICIPAL UTILITY PROFILES – STORM SEWER

DATE 5/6/20	DRAWN BY: BLM	REVISIONS	
SCALE 1"= 30'	CHECKED BY: MJD	DATE	BY
FILE # 200104.5	PROJ. MANGR: JTB	8/14/20	BLM
		10/9/20	BLM
		BULLETIN 2: SEPARATED PLAN/PROFILES PER CITY ENGINEERING REVIEW	
		BULLETIN 4: REVISIONS PER CITY ENGINEERING REVIEW.	

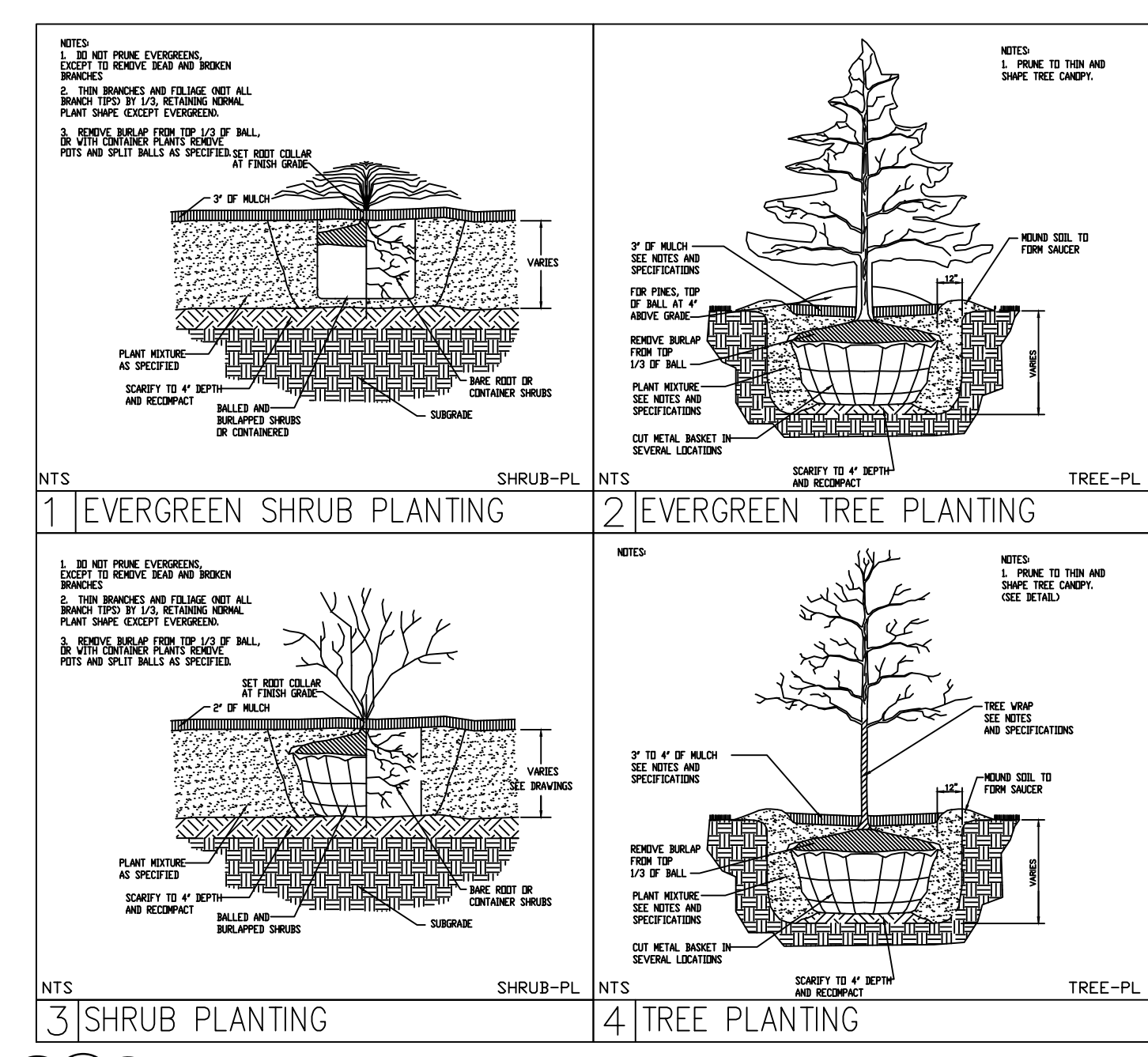
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C3.3

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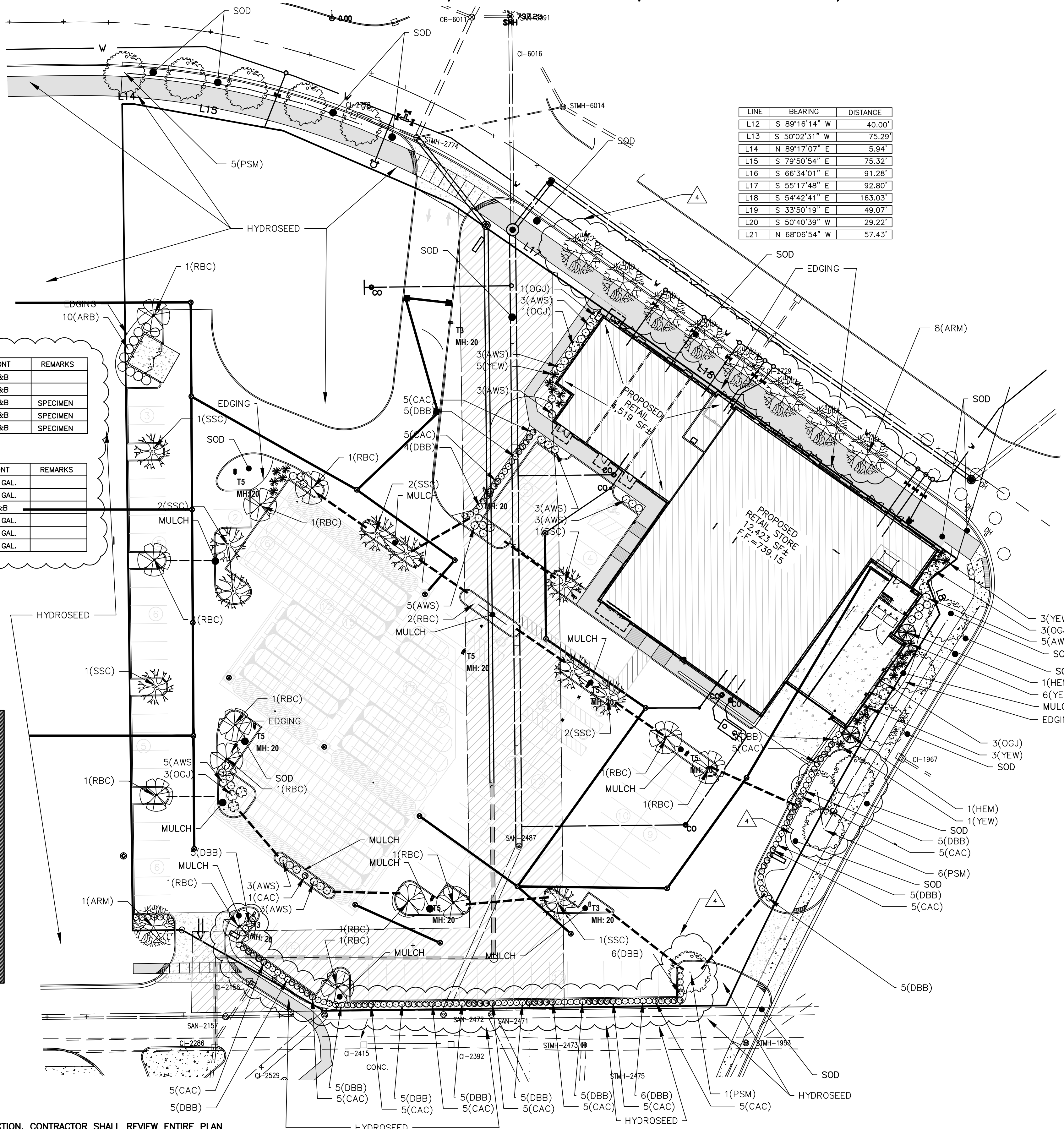
FINAL SITE PLAN – EDDY COMMONS PHASE III

PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.

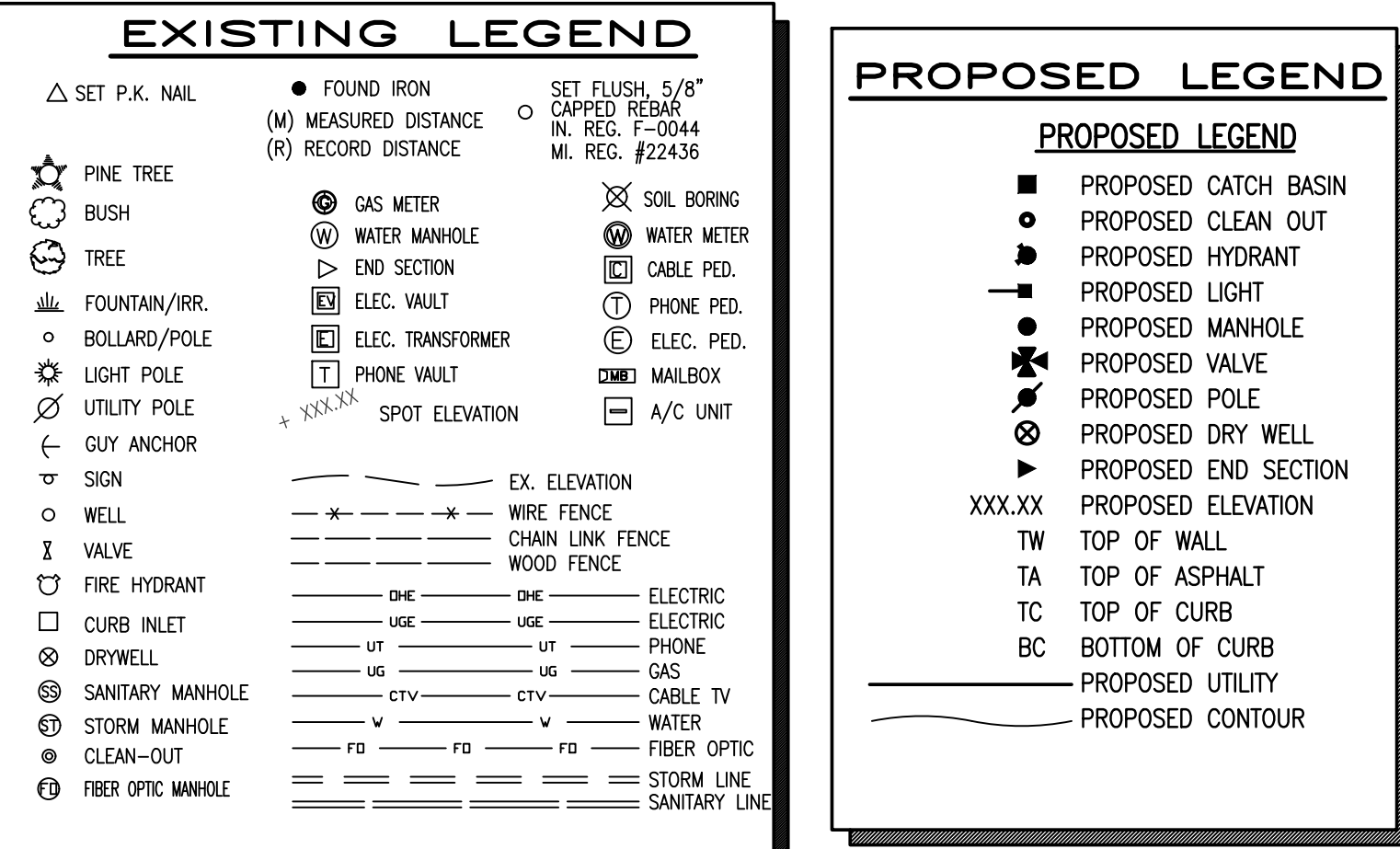


TREES						
QUANT	ABBR	COMMON NAME	BOTANICAL NAME	SIZE	CONT	REMARKS
12	PSM	PACIFIC SUNSET MAPLE	ACER X 'Warrenred'	2.5" CAL.	B&B	
9	ARM	ARMSTRONG RED MAPLE	ACER X 'Armstrong'	2.5" CAL.	B&B	
10	SSC	SPRING SNOW CRAB	MALUS 'Spring Snow'	2" CAL.	B&B	SPECIMEN
13	RBC	RED BARRON CRAB	MALUS 'Red Barron'	2" CAL.	B&B	SPECIMEN
2	HEM	CANADIAN HEMLOCK	TSUGA canadensis	6' HT.	B&B	SPECIMEN

SHRUBS						
QUANT	ABBR	COMMON NAME	BOTANICAL NAME	SIZE	CONT	REMARKS
81	DBB	DWARF BURNING BUSH	EUONYMUS alata 'Compacta'	36" HT.	5 GAL.	
39	AWS	ANTHONY WATERER SPIRAEA	SPIRAEA x bumalda 'Anthony Waterer'	24" HT.	5 GAL.	
23	YEW	SEBIAN YEW	TAXUS x media 'Sebian'	24" HT.	B&B	
11	OGJ	OLD GOLD JUNIPER	JUNIPERUS chinensis 'Old Gold'	18" HT.	3 GAL.	
66	CAC	COMPACT AMERICAN CRANBERRY	VIBURNUM trilobum 'Compactum'	36" HT.	5 GAL.	
10	ARB	TECHNY ARBORVITAE	THUJA occidentalis 'Techny'	36" HT.	5 GAL.	



- ### GENERAL LANDSCAPE NOTES:
- CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY ALL UTILITY COMPANIES AND VERIFY LOCATION OF ALL PRIVATE AND PUBLIC ON-SITE UTILITIES PRIOR TO CONSTRUCTION.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL SITE CONDITIONS WHICH MAY AFFECT THE LANDSCAPE PLANT MATERIALS AND SITE AMENITY INSTALLATION. CONTRACTOR ALSO MUST NOTIFY LANDSCAPE ARCHITECT OF CONDITIONS THAT MAY BE DETRIMENTAL TO HEALTHY PLANT DEVELOPMENT, OR MAY CAUSE VOID TO PLANT WARRANTY.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL LANDSCAPE MATERIALS IN ACCORDANCE WITH THE LATEST EDITION OF THE "USA STANDARD FOR NURSERY STOCK," PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERY MEN, INC.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR A MINIMUM OF (1) YEAR GUARANTEE FOR ALL PLANT MATERIALS FROM THE DATE OF SUBSTANTIAL COMPLETION. ANY DEAD PLANT MATERIALS SHALL BE REPLACED WITH MATERIAL EQUAL IN SIZE AND QUALITY AS LISTED IN THE MASTER PLANT LIST. ALL COST FOR REPLACING PLANT MATERIALS WITHIN THE GUARANTEE PERIOD WILL BE AT THE RESPONSIBILITY OF THE CONTRACTOR.
 - THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH OTHER WORK DISCIPLINES TO ENSURE NO CONFLICT BETWEEN WORK TYPES.
 - ALL DECIDUOUS TREES AND EVERGREEN TREES SHALL BE BALLED AND BURLAP UNLESS OTHERWISE NOTED.
 - ALL SHRUBS MAY BE CONTAINER GROWN OR BALLED AND BURLAP.
 - THE CALIPER SIZE LISTED ON THE MASTER PLANT LIST INDICATES THE DIAMETER OF THE TRUNK TAKEN AT 6" ABOVE THE GROUND LEVEL.
 - SPACE PLANT MATERIALS AS INDICATED ON MASTER PLANT LIST OR PER PROPER HORTICULTURAL METHODS.
 - CONTRACTOR SHALL PROVIDE A TWO YEAR STRAIGHTENING GUARANTEE IN LIEU OF STACKING AND GUYING TREES.
 - CONTRACTOR SHALL VERIFY QUANTITIES OF PROPOSED PLANT MATERIALS AND SITE AMENITIES SHOW ON THE MASTER MATERIALS LIST AND PLANS. IF A DISCREPANCY APPEARS, THE ACTUAL COUNT ON THE PLANS SHALL PREVAIL.
 - KEEP BALLED AND CONTAINER PLANT MATERIAL WATERED UNTIL THEY ARE PLANTED. IF PLANTS CANNOT BE PLANTED IMMEDIATELY, THEY SHOULD BE HEeled IN AND COVERED WITH MULCH UNTIL TIME OF PLANTING.
 - CONDUCT SOILS TEST TO VERIFY FERTILITY OF TOPSOIL. AMEND SOIL IF PH IS LESS THAN 5.0 OR GREATER THAN 7.5. MAKE OTHER ADJUSTMENTS AS SOIL ANALYSIS INDICATES. ALL FINE GRADE SOIL PREPARATION OF PLANTING AND LAWN AREAS SHALL BE PERFORMED BY THE LANDSCAPE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
 - TOPSOIL DEPTH TO BE A MINIMUM OF 6" IN ALL PLANTING BEDS AND 3" IN LAWN AREAS. GENERAL CONTRACTOR IS TO SUPPLY TOPSOIL TO THESE STANDARDS AND PROVIDE FINISH GRADE. LANDSCAPE CONTRACTOR TO PROVIDE FINAL GRADE FOR SEED APPLICATION AND PLANT MATERIAL INSTALLATION. TOPSOIL TO BE CLEAN FRABLE LOAM FROM LOCAL SOURCE AND FREE FROM STONES AND DEBRIS OVER 3/4" IN DIAMETER. TOPSOIL MUST BE FREE FROM TOXINS AND HERBICIDES.
 - LANDSCAPE BEDS SHALL BE DEFINED BY COMMERCIAL GRADE 5" BLACK VINYL EDGING, PRODUCED BY AN ESTABLISHED MANUFACTURER OR APPROVED EQUAL.
 - LANDSCAPE BEDS TO RECEIVE 3"-4" INDUSTRY STANDARD SHREDDED HARDWOOD BARK MULCH.
 - ALL TREES NOT INCORPORATED INTO THE LANDSCAPE BEDS ARE TO RECEIVE A 3' RADIUS MULCH RING, 3" DEEP.
 - APPLY PRE-EMERGENT HERBICIDE TO ALL LANDSCAPE BEDS PRIOR TO MULCHING.
 - HYDROSEED: INSTALL HYDROSEED PER COMMON INDUSTRY STANDARDS WHERE INDICATED ON PLANS.
 - SEED MIXTURE:
 - 37.50% PERENNIAL RYE
 - 31.00% KENTUCKY BLUE
 - 31.50% CREEPING RED FESCUE
 - ALL LANDSCAPE & LAWN AREAS SHALL BE 100% IRRIGATED. IRRIGATION CONTRACTOR SHALL INSTALL ALL REQUIRED IRRIGATION STRUCTURES, PIPES, TAPS, VALVES, WIRING, BACK FLOW PREVENTERS, METERS, ETC. ALL UNDER PAVEMENT SLEEVES SHALL BE COORDINATED AND INSTALLED PRIOR TO PAVEMENT INSTALLATION BY THE SITE CONTRACTOR. ALL IRRIGATION PLANS ARE TO BE DESIGN BY A CERTIFIED IRRIGATION DESIGNER AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION.



GENERAL SURVEY DISCLAIMER NOTES:

THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED FOR THE CLIENT ONLY. ANY REUSE WITHOUT WRITTEN VERIFICATION AND ADAPTATION BY THE LAND SURVEYOR FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE LAND SURVEYOR.

ANY UTILITY OR EASEMENT LOCATIONS, IF SHOWN, ARE APPROXIMATE. THE CLIENT MUST FIELD VERIFY UTILITY LOCATIONS WITH THE RESPECTIVE UTILITY COMPANY. THIS LAND SURVEYOR ASSUMES NO LIABILITY FOR THE LOCATION OR SIZE OF EXISTING UTILITIES OR THE EXISTENCE OR NONEXISTENCE OF ADDITIONAL UNDERGROUND UTILITIES OR STRUCTURES.

NO IMPROVEMENTS SHOULD BE MADE ON THE BASIS OF THIS PLAN ALONE. FIELD MONUMENTATION OF CRITICAL POINTS SHOULD BE ESTABLISHED PRIOR TO COMMENCEMENT OF ANY AND ALL CONSTRUCTION. FOR BUILDING LINES, EASEMENTS AND OTHER RESTRICTIONS NOT SHOWN HEREON REFER TO YOUR DEED, ABSTRACT, TITLE POLICY, CONTRACTS AND LOCAL BUILDING, ZONING AND SUBDIVISION ORDINANCES.

UNLESS SPECIFICALLY SHOWN HEREON, THIS SURVEY DOES NOT PURPORT TO INDICATE THE PRESENCE OR ABSENCE OF WETLANDS OR ENVIRONMENTALLY INJURIOUS MATERIALS. THE SURVEYOR EXPRESSLY DISCLAIMS ANY RESPONSIBILITY OR LIABILITY FOR THE SAME.

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ALL UNDERGROUND UTILITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ANY CONSTRUCTION MAY BEGIN.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL REVIEW ENTIRE PLAN SET. IF ANY DISCREPANCIES ARE FOUND, CONTRACTOR SHALL CONTACT ENGINEER FOR CLARIFICATION AND/OR REVISIONS.

UTILITY INFORMATION:
THE ENGINEER HAS INDICATED UNDERGROUND UTILITIES ON THESE PLANS BASED UPON INFORMATION PROVIDED BY THE VARIOUS UTILITIES. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS UNKNOWN AND THE ENGINEER ACCEPTS NO LIABILITY FOR UTILITY INFORMATION.
THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE UTILITIES, PROTECTING ALL UTILITIES, PAYING ALL COSTS FOR DAMAGE TO UTILITY FACILITIES, AND RESTORING ALL UTILITIES TO A CONDITION WHICH IS BETTER THAN THE ORIGINAL CONDITION AT THE START OF THIS PROJECT. THE CONTRACTOR SHALL NOT BEGIN UNDERGROUND WORK UNTIL ALL UTILITIES HAVE BEEN ACCURATELY LOCATED ON THE GROUND. WATER LINES DETERMINED FROM FIELD LOCATIONS AND SCALED FROM MAPS PROVIDED BY THE CITY OF SOUTH BEND WATER DEPT.



PROPERTY OWNER:
KRG
EDDY STREET LAND III, LLC
30 S. MERIDIAN ST. STE. 1100
INDIANAPOLIS, IN. 46204
(317) 577-5600

SURVEYORS & ENGINEERS:
DANCH, HARNER & ASSOCIATES, INC.
1643 COMMERCE DRIVE
SOUTH BEND, IN. 46828
(574) 234-4003
ATTN: MICHAEL DANCH

DATE	DRAWN BY:	DATE	BY	REVISIONS
5/6/20	JTB	8/14/20	JTB	Δ BULLETIN 2: REVISION TO CITY & SITE UTILITIES PER CITY ENGINEERING REVIEW
	MJD	10/9/20	JTB	Δ BULLETIN 4: REVISIONS PER CITY REVIEW AND COMMENT.
200104.5	PROJ. MANGR: JTB			

Danch, Harner & Associates, Inc.
Land Surveyors • Professional Engineers
Landscape Architects • Land Planners

DHA

Office: (574) 234-4003 / (800) 294-4003 • Fax: (574) 234-4119
1643 Commerce Drive • South Bend, IN 46828

FINAL SITE PLAN – EDDY COMMONS PHASE III

PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.

PHOTOMETRIC PLAN DESIGNED BY ESL-SPECTRUM
WWW.ESL-SPECTRUM.COM
PHONE: 317.951.2300

PHOTOMETRIC PLAN DESIGNED BY ESL-SPECTRUM
WWW.ESL-SPECTRUM.COM
PHONE: 317.951.2300



Luminaire Schedule							
Project: 20200115-SC EDDY STREET COMMONS PHASE III - SITE LIGHTING							
Symbol	Qty	Label	Arrangement	Lum. Watts	Lum. Lumens	LLF	Description
	4	T3	SINGLE	169	18595	0.850	ASL-24L-3K-210-3 - 20' POLE
	6	T5	SINGLE	169	18761	0.850	ASL-24L-3K-210-5 - 20' POLE

CALCULATIONS ARE MAINTAINED HORIZONTAL ILLUMINANCE FIGURES IN FOOT-CANDELES
POINTS SHOWN ARE AT GRADE
FIXTURE MOUNTING HEIGHTS ARE SPECIFIED NEXT TO FIXTURES AS "MH"

Calculation Summary							
Project: 20200115-SC EDDY STREET COMMONS PHASE III - SITE LIGHTING							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
EDDY STREET COMMONS @ GRADE	ILLUMINANCE	Fc	1.67	9.0	0.2	8.35	45.00
PERIMETER @ GRADE	ILLUMINANCE	Fc	0.12	10.2	0.0	N.A.	N.A.
PROPERTY LINE @ GRADE	ILLUMINANCE	Fc	0.16	0.9	0.0	N.A.	N.A.

ESL-Spectrum's services are for estimation purposes only, and are not warranties.
Final design and illumination levels must be determined and specified by an electrical engineer.
Field results may differ from computer predictions because of many uncontrollable factors and adverse test conditions such as:
line voltage variations, lamp performance, product manufacturing tolerances, jobsite conditions, and other unrecoverable light-loss factors.

THE FIXTURE TYPE(S) AND LAMPING(S) SPECIFIED ON THIS LAYOUT MUST BE USED IN ORDER TO MEET THE EXACT CRITERIA AND PERFORMANCE DATA SHOWN.
IES RECOMMENDED ILLUMINANCE TARGETS USED WHERE APPLICABLE.

EXISTING LEGEND	
	SET P.K. NAIL
	FOUND IRON
	MEASURED DISTANCE
	RECORD DISTANCE
	PINE TREE
	BUSH
	TREE
	FOUNTAIN/RR
	BOLLARD/POLE
	LIGHT POLE
	UTILITY POLE
	GUY ANCHOR
	SIGN
	WELL
	VALVE
	FIRE HYDRANT
	CURB INLET
	DRYWELL
	SANITARY MANHOLE
	STORM MANHOLE
	CLEAN-OUT
	FIBER OPTIC MANHOLE
	GAS METER
	WATER MANHOLE
	END SECTION
	ELEC. VAULT
	ELEC. TRANSFORMER
	PHONE VAULT
	SPOT ELEVATION
	EX. ELEVATION
	WIRE FENCE
	CHAIN LINK FENCE
	WOOD FENCE
	ELECTRIC USE
	ELECTRIC UT
	PHONE US
	GAS US
	CABLE TV CTV
	WATER V
	FIBER OPTIC FD
	STORM LINE
	SANITARY LINE

PROPOSED LEGEND	
	PROPOSED CATCH BASIN
	PROPOSED CLEAN OUT
	PROPOSED HYDRANT
	PROPOSED LIGHT
	PROPOSED MANHOLE
	PROPOSED VALVE
	PROPOSED POLE
	PROPOSED DRY WELL
	PROPOSED END SECTION
	PROPOSED ELEVATION
	TW TOP OF WALL
	TA TOP OF ASPHALT
	TC TOP OF CURB
	BC BOTTOM OF CURB
	PROPOSED UTILITY
	PROPOSED CONTOUR

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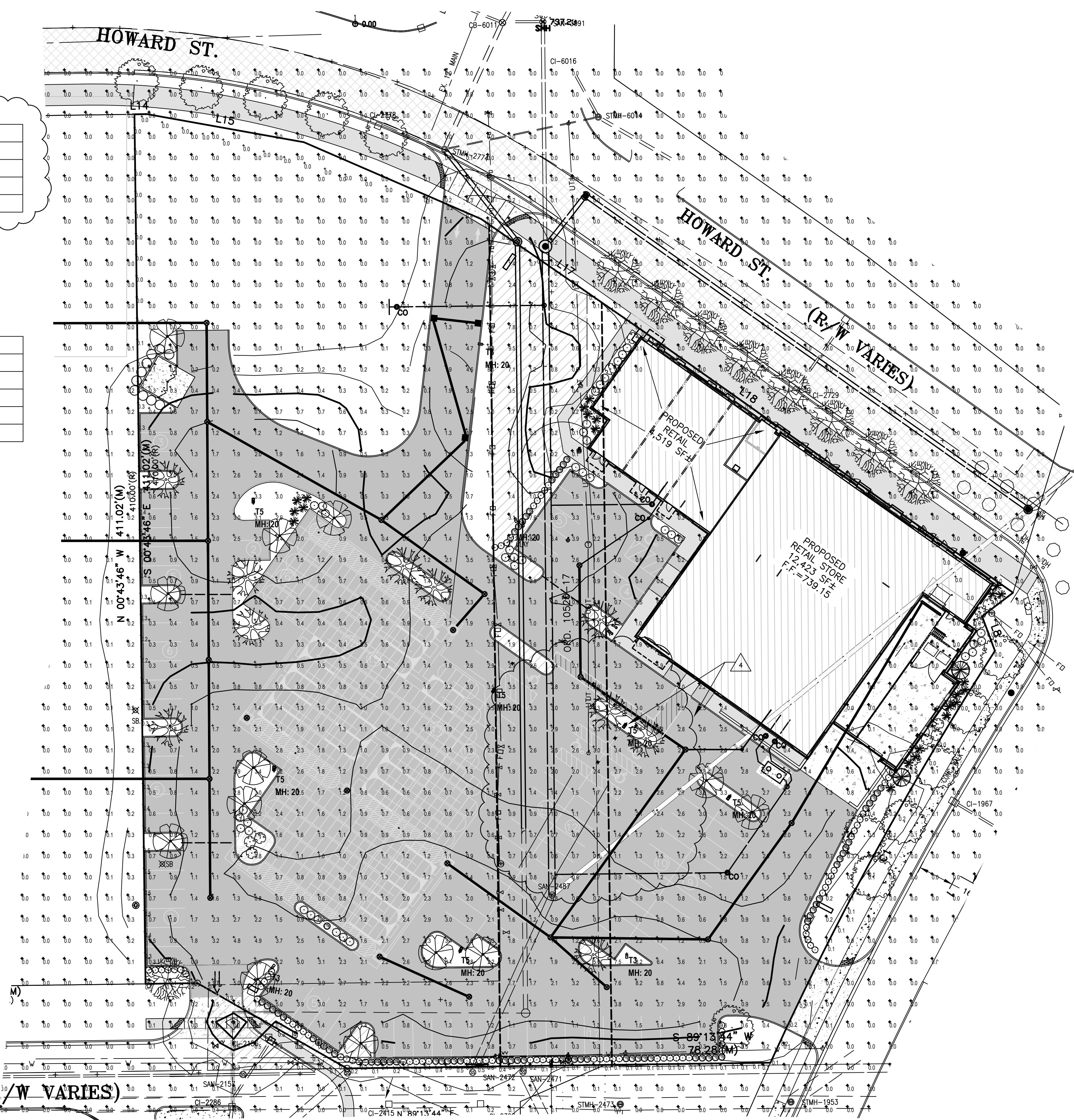
UNLESS SPECIFICALLY SHOWN HEREON, THIS SURVEY DOES NOT PURPORT TO INDICATE THE PRESENCE OR ABSENCE OF WETLANDS AND HAZARDOUS OR ENVIRONMENTALLY INJURIOUS MATERIALS. THE SURVEYOR EXPRESSLY DISCLAIMS ANY RESPONSIBILITY OR LIABILITY FOR THE SAME.

ANY INFORMATION ON THIS DRAWING IS NOT INTENDED TO BE SUITABLE FOR REUSE BY ANY PERSON, FIRM OR CORPORATION OR ANY OTHERS ON EXTENSION OF THIS PROJECT OR FOR ANY USE ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION AND ADOPTION BY THE ENGINEER, ARCHITECT OR SURVEYOR FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE ENGINEER, ARCHITECT OR SURVEYOR.

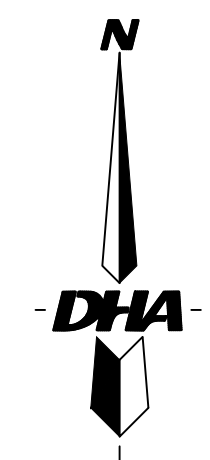
ALL UNDERGROUND UTILITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ANY CONSTRUCTION MAY BEGIN.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL REVIEW ENTIRE PLAN SET. IF ANY DISCREPANCIES ARE FOUND, CONTRACTOR SHALL CONTACT ENGINEER FOR CLARIFICATION AND/OR REVISIONS.

UTILITY INFORMATION:
THE ENGINEER HAS INDICATED UNDERGROUND UTILITIES ON THESE PLANS BASED UPON INFORMATION PROVIDED BY THE VARIOUS UTILITIES. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS UNKNOWN AND THE ENGINEER ACCEPTS NO LIABILITY FOR UTILITY INFORMATION.
THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE UTILITIES, PROTECTING ALL UTILITIES, PAYING ALL COSTS FOR DAMAGE TO UTILITY FACILITIES, AND RESTORING ALL UTILITIES TO A CONDITION WHICH IS BETTER THAN THE ORIGINAL CONDITION AT THE START OF THIS PROJECT. THE CONTRACTOR SHALL NOT BEGIN UNDERGROUND WORK UNTIL ALL UTILITIES HAVE BEEN ACCURATELY LOCATED ON THE GROUND. WATER LINES DETERMINED FROM FIELD LOCATIONS AND SCALED FROM MAPS PROVIDED BY THE CITY OF SOUTH BEND WATER DEPT.



SCALE 1" = 30'
BID AND TENANT REVIEW SET
LIGHTING PLAN



REVISIONS			
DATE	BY	DATE	BY
5/6/20	JTB		
10/9/20	MJD		

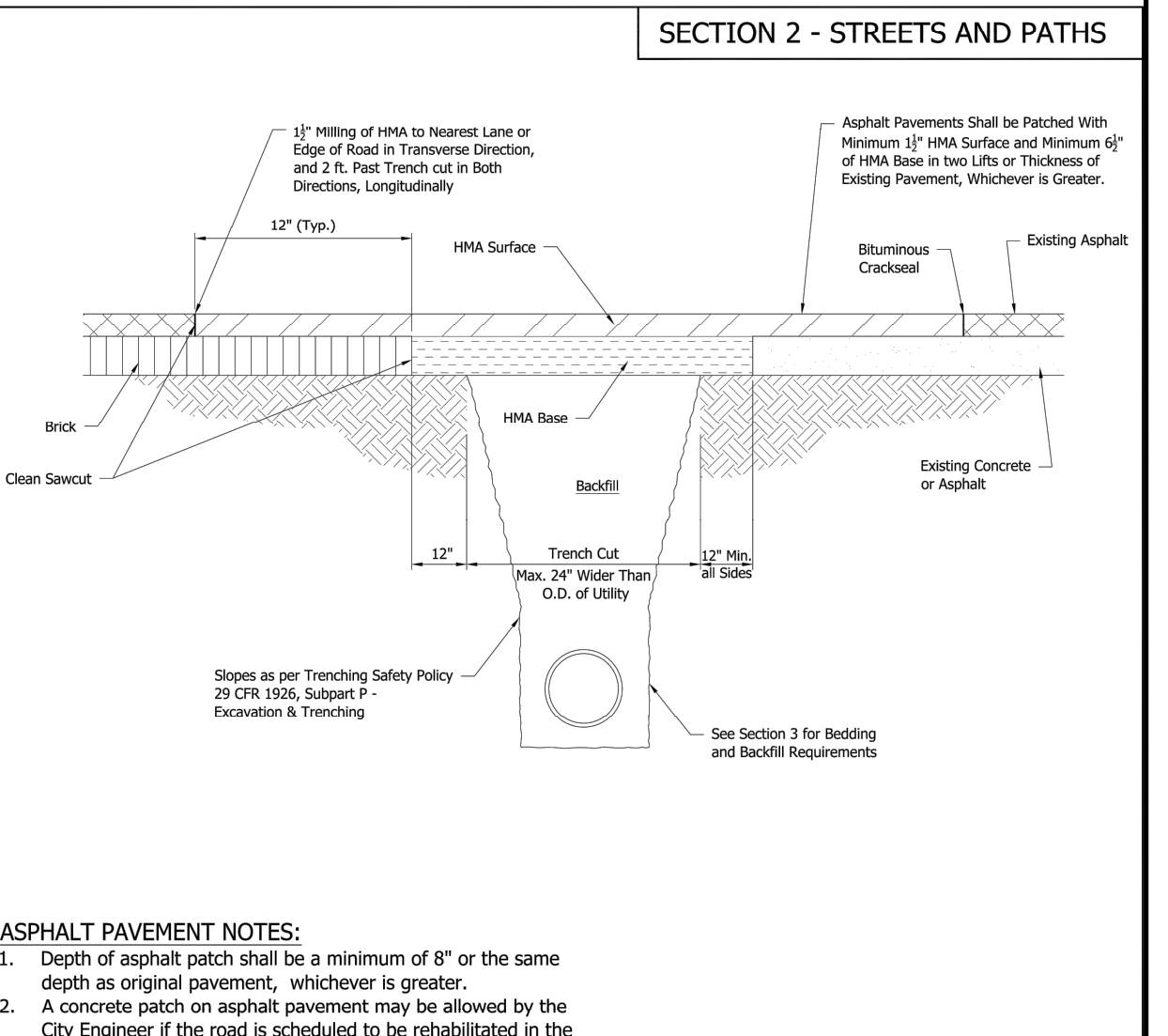
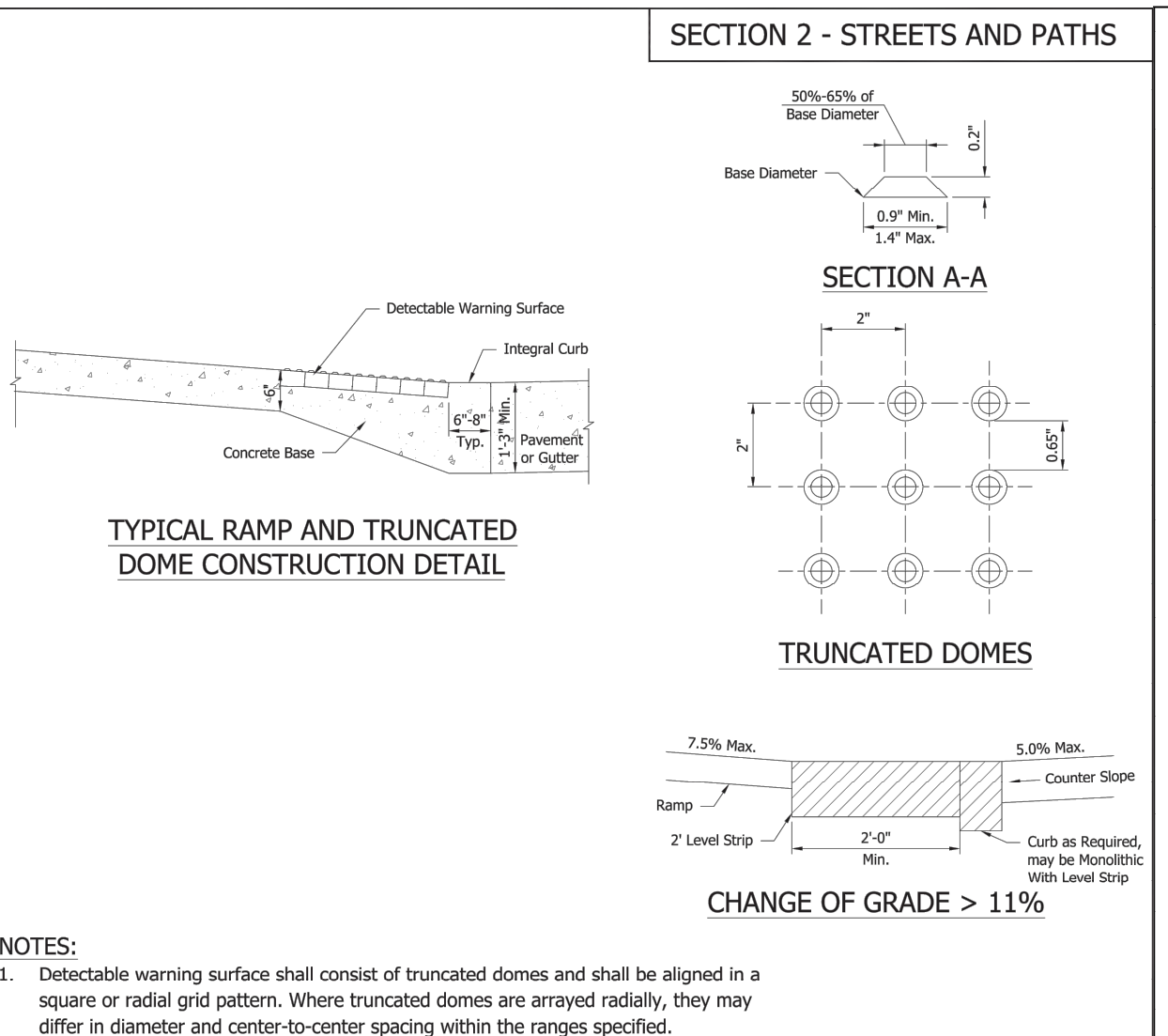
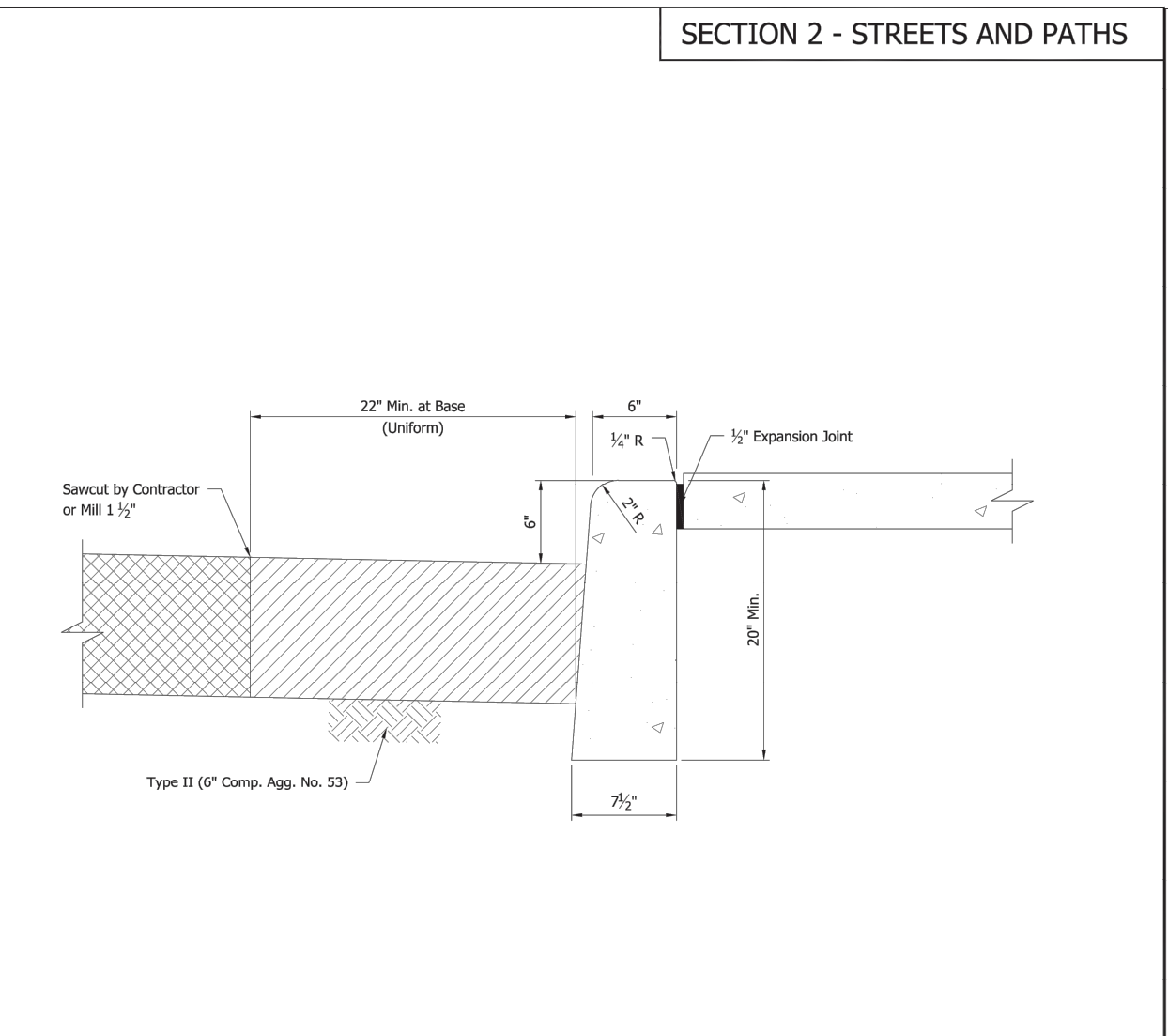
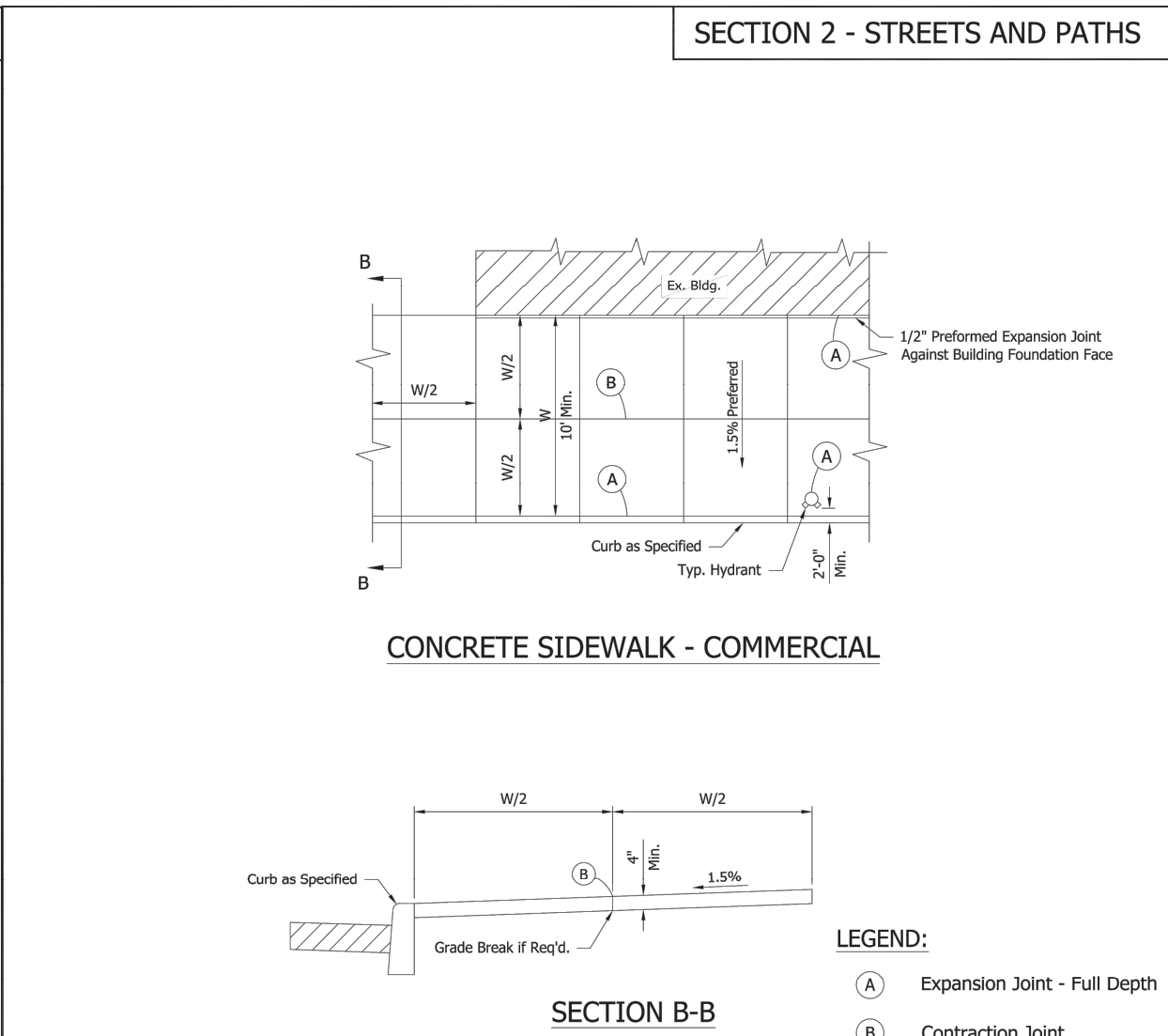
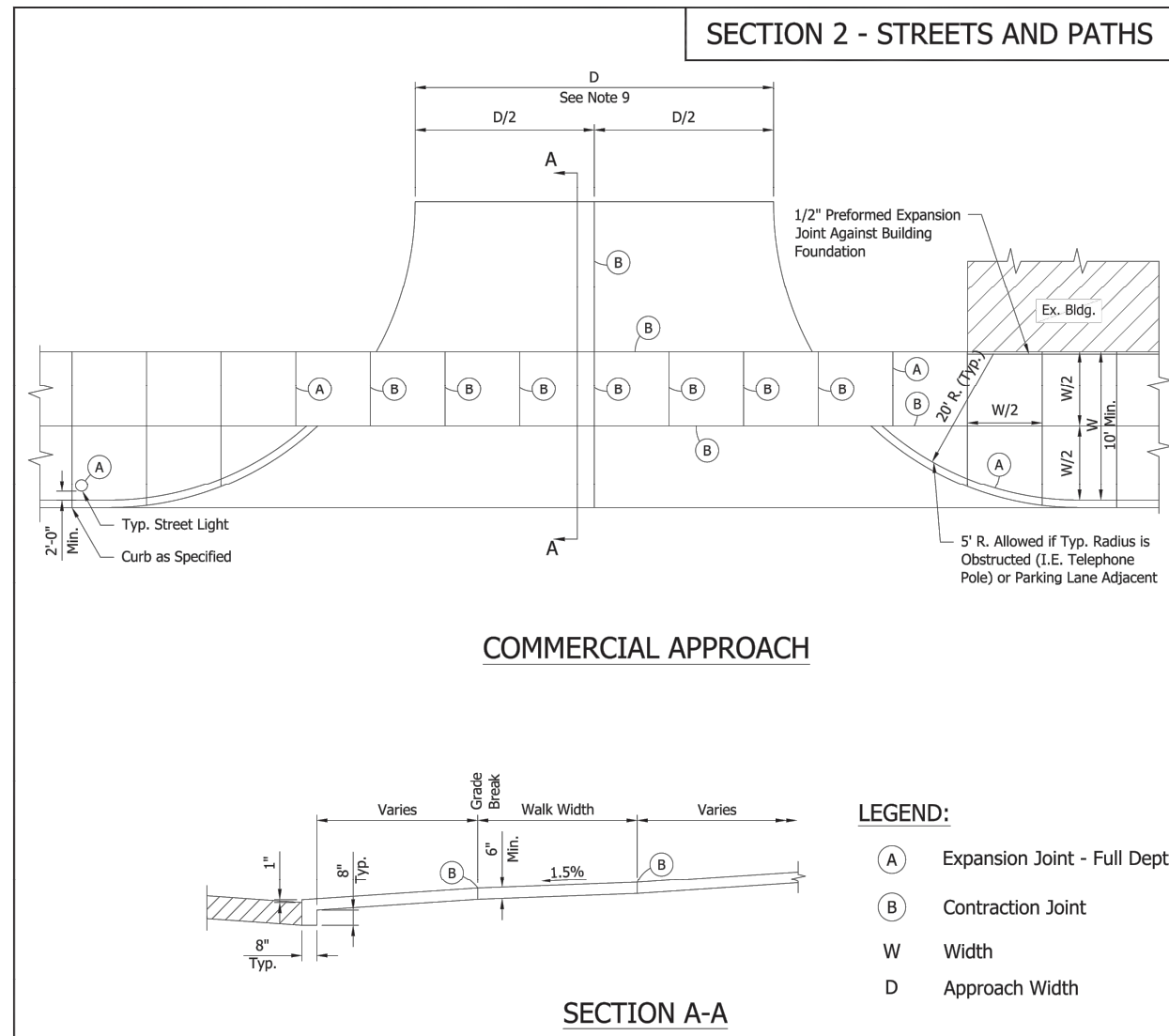
Danch, Harner & Associates, Inc.
 Land Surveyors • Professional Engineers
 Landscape Architects • Land Planners
 Office: (317) 234-4003 / (800) 294-4003 • Fax: (317) 234-4119
 1643 Commerce Drive • South Bend, IN 46628



SHEET
C4.1

201704.5 DSP - Engineering 10-9-20-20.dwg 10/9/2020 11:27 AM

EDDY COMMONS PHASE III – UTILITY RELOCATION



NOTES:

- Class "A" concrete to be used in all walks and approaches.
- Radii as specified.
- Utility poles, hydrants, etc. must be wrapped with 1/2" expansion joint material prior to concrete pour.
- Contraction joint required on approach when D is 12 ft. or more.
- *Curing Concrete*- As per **INDOT Standard Specifications Section 501** (Paragraph 501.20). Use a curing compound immediately (white membrane only accepted cure).
- Concrete forms shall be at least as high as the thickness of the item shown. Lumber of nominal dimension shall not be used if less than the design thickness.
- All approaches shall require proper compaction as per **INDOT Standard Specification Section 207**.
- Blankets shall be utilized on concrete when temperature is expected to fall below 50°F.
- Business Approach- 24'-0" at throat, with 20'-0" approach curb radius. 10' radius may be used if adjacent to on street parking.

NOTES:

- Class "A" concrete to be used in all walks and approaches.
- Utility poles, hydrants, etc. must be wrapped with 1/2" expansion material prior to concrete pour.
- *Curing Concrete*- As per **INDOT Standard Specifications Section 501** (Paragraph 501.20). Use a curing compound immediately (White membrane only accepted cure).
- Concrete forms shall be at least as high as the thickness of the item shown. Lumber of nominal dimension shall not be used if less than the design thickness.
- Proper compaction per **INDOT Standard Specification Section 604** (Paragraph 604.03(b)) is required for all walks and approaches.
- Blankets shall be utilized on concrete when temperature is expected to fall below 50°F.
- A Pedestrian Access Road (4'-0" min. width, 1.5% max. cross slope) shall be provided within all commercial sidewalks.

NOTES:

- All curbs to be constructed of class "A" concrete.
- Control joints to be placed every 10' or as specified on construction drawings.
- Expansion joints to be placed every 80' or as specified on construction drawings.
- Curb placed as standard curb with separate poured gutter. Place surface 22" from face of curb at a depth of 1 1/2" and curb and gutter can be placed monolithically.

NOTES:

- Detectable warning surface shall consist of truncated domes and shall be aligned in a square or radial grid pattern. Where truncated domes are arrayed radially, they may differ in diameter and center-to-center spacing within the ranges specified.
- The detectable warning surface shall be manufactured to fit the radii. Field cutting shall not alter the truncated dome spacing between the adjacent panels outside of the allowable range.
- The detectable warning surface shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.
- The detectable warning surface shall extend a minimum of 2 ft. in the direction of pedestrian travel and extend the full width as shown. The detectable warning surface shall not be placed across a grade break.
- The maximum counter slope of the gutter or street at the bottom of the ramp shall be 5.00%. Where the algebraic difference between the running slope and the counter slope exceeds 11%, a 2 ft. minimum level strip should be provided at the bottom of the ramp.
- Where forming other than a concrete border is used, the edge restraint shall not encroach upon the ramp width.

ASPHALT PAVEMENT NOTES:

- Depth of asphalt patch shall be a minimum of 8" or the same depth as original pavement, whichever is greater.
- A concrete patch on asphalt pavement may be allowed by the City Engineer if the road is scheduled to be rehabilitated in the near future or other like circumstances.

GENERAL NOTES:

- Temporary Patch: If it is not possible, due to weather conditions, for the contractor to replace the pavement within 24 hours following backfilling of cut, a coarse aggregate base 6" thick and a cold asphaltic surface of 4" shall be applied and maintained as a temporary patch until permanent repairs can be made. When temperature falls below 50°F within 72 hour cure time, concrete to be used shall be 7 bag w/ 2% accelerator. Such temporary patches shall be replaced with permanent repairs no later than May 1 of the following year.
- All utilities must be located prior to making pavement cut.

REF STD SPEC SEC 2-2

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
EFFECTIVE DATE: June 26, 2018

Item	Revision	Approved Date

CITY OF SOUTH BEND

REF STD SPEC SEC 2-2

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
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REF STD SPEC SEC 2-2

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
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Item	Revision	Approved Date

CITY OF SOUTH BEND

REF STD SPEC SEC 2-6

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
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CITY OF SOUTH BEND

DRIVES AND APPROACHES - COMMERCIAL

STANDARD 2-25

DETAILS - COMMERCIAL SIDEWALK

STANDARD 2-29

DETAILS - MODIFIED COMBINATION CURB AND GUTTER

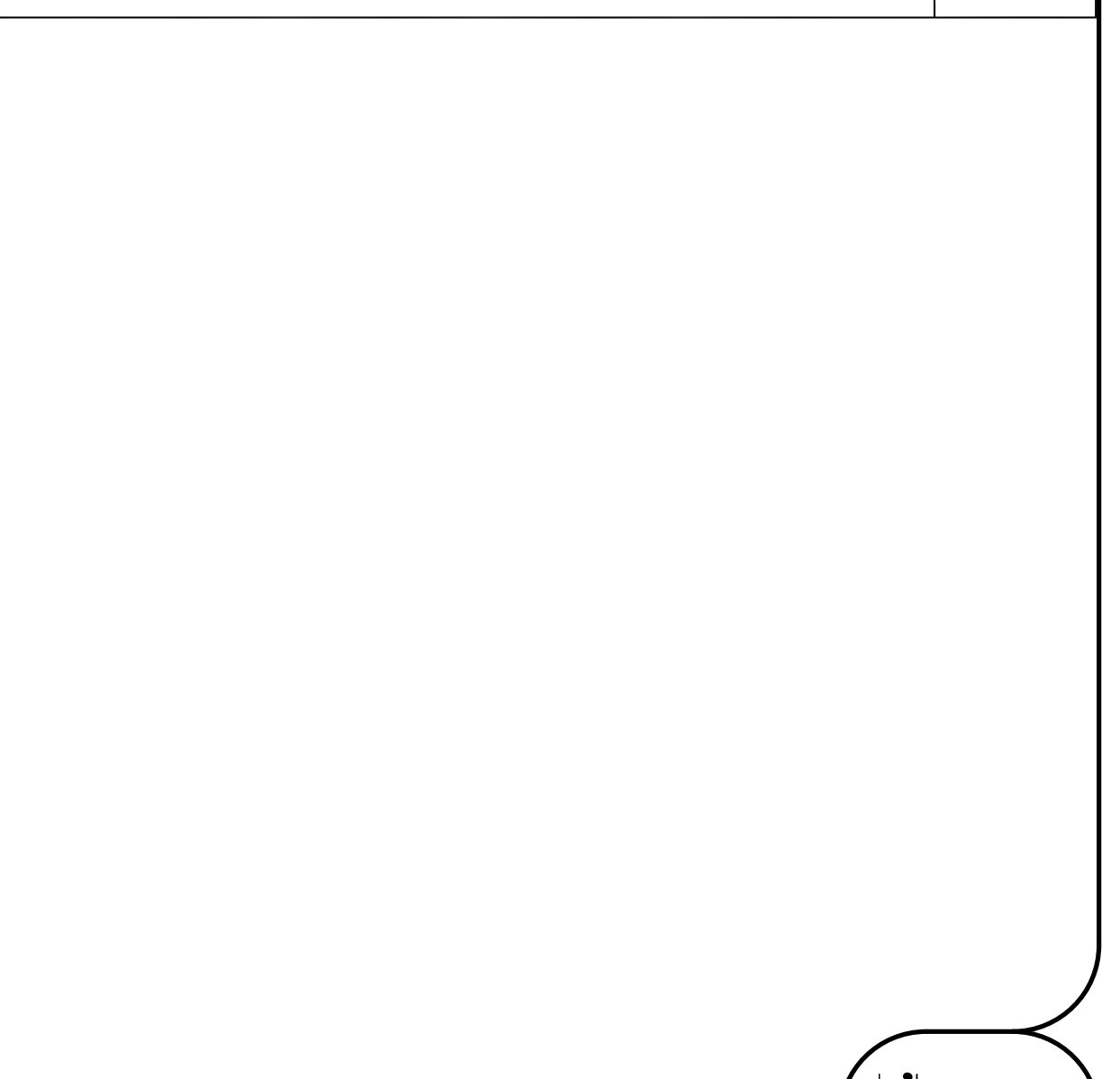
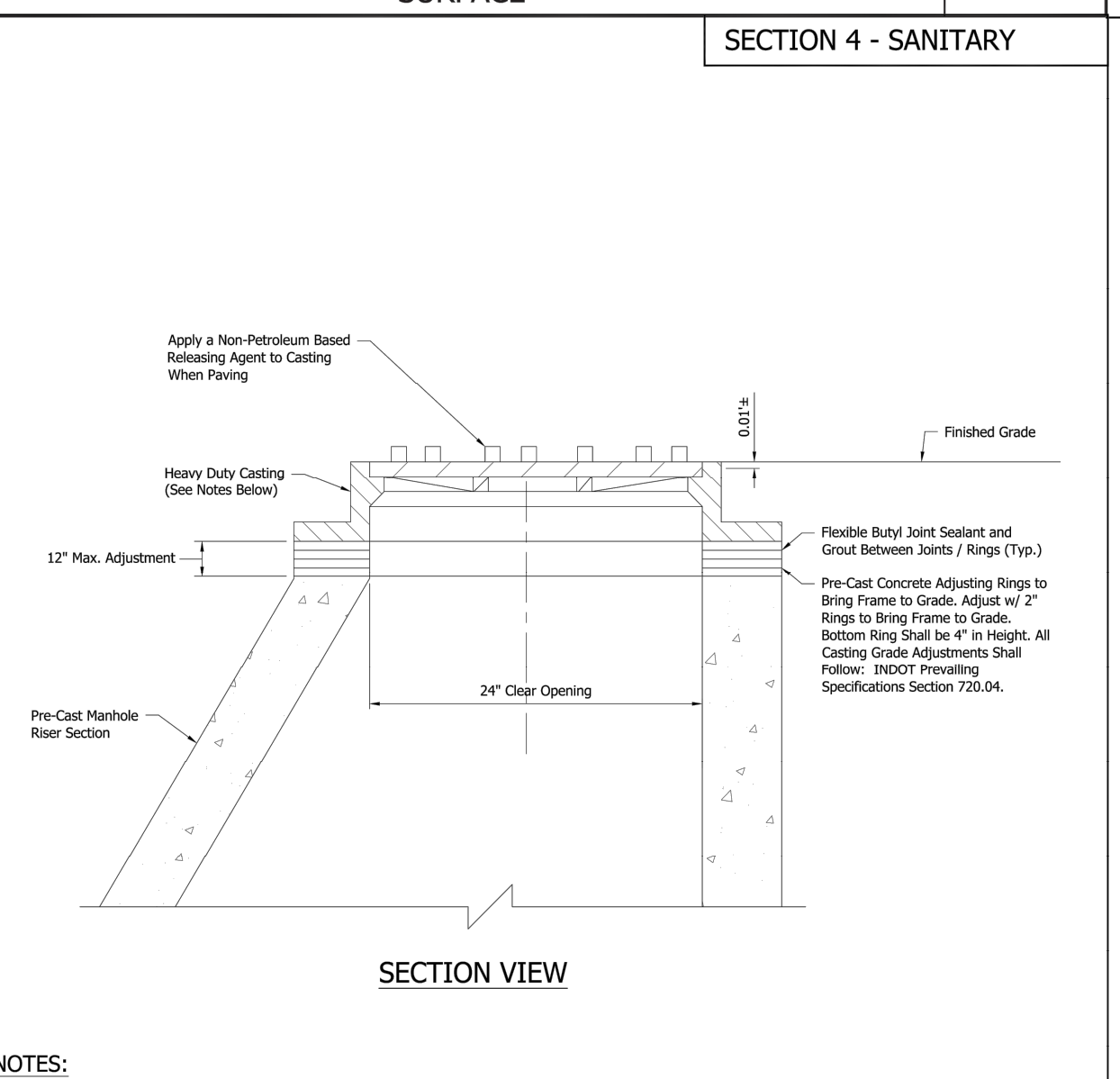
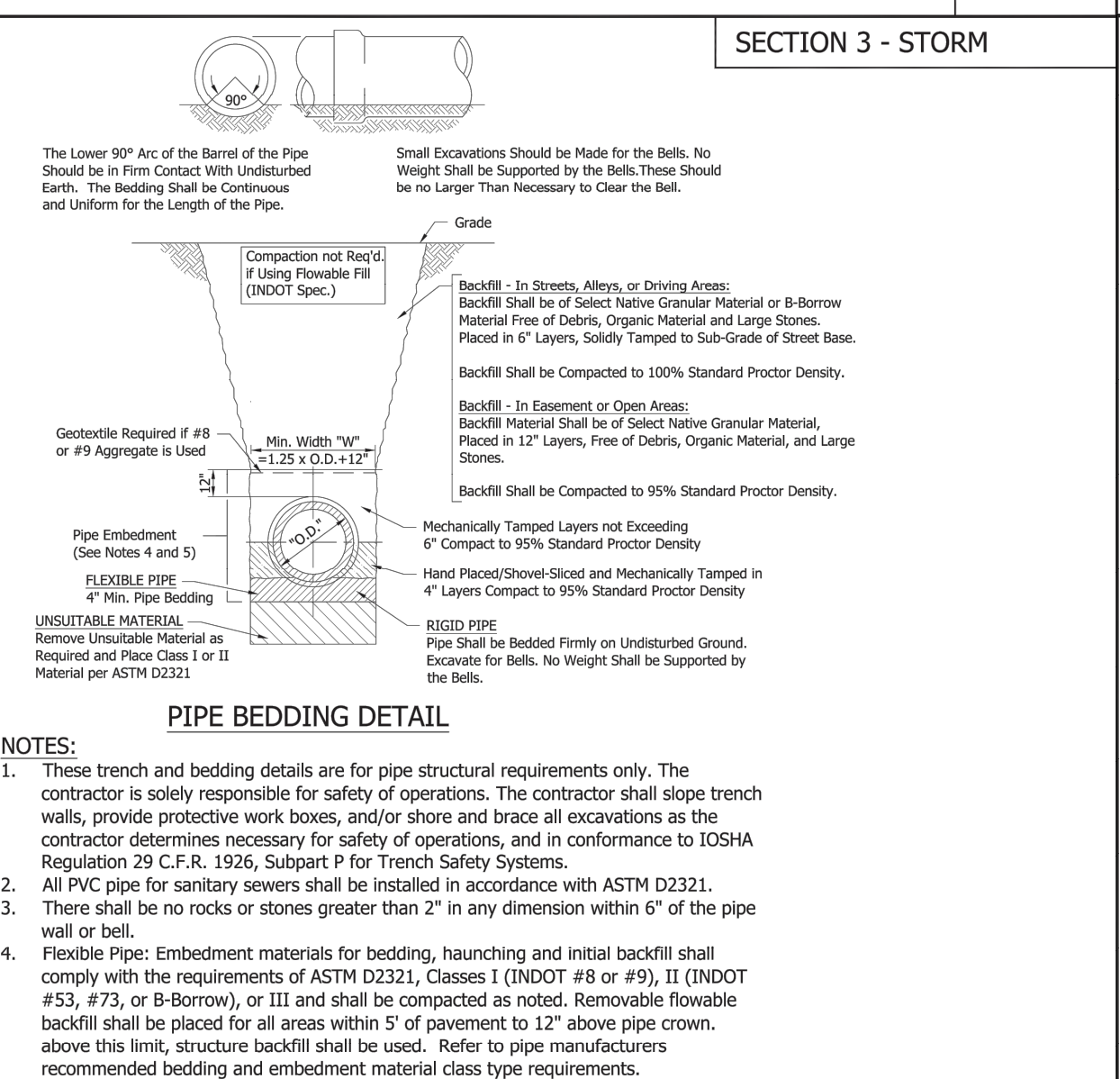
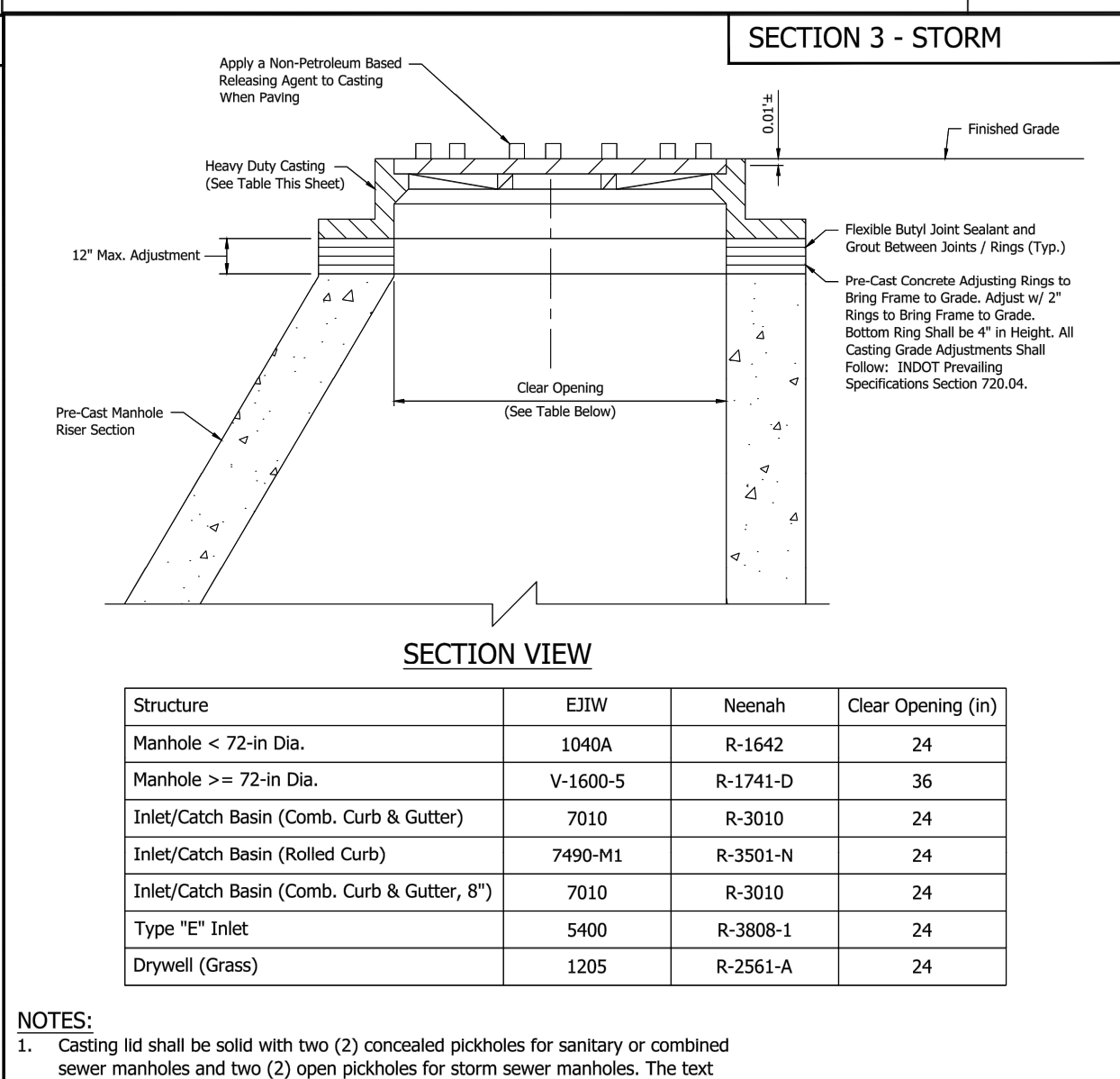
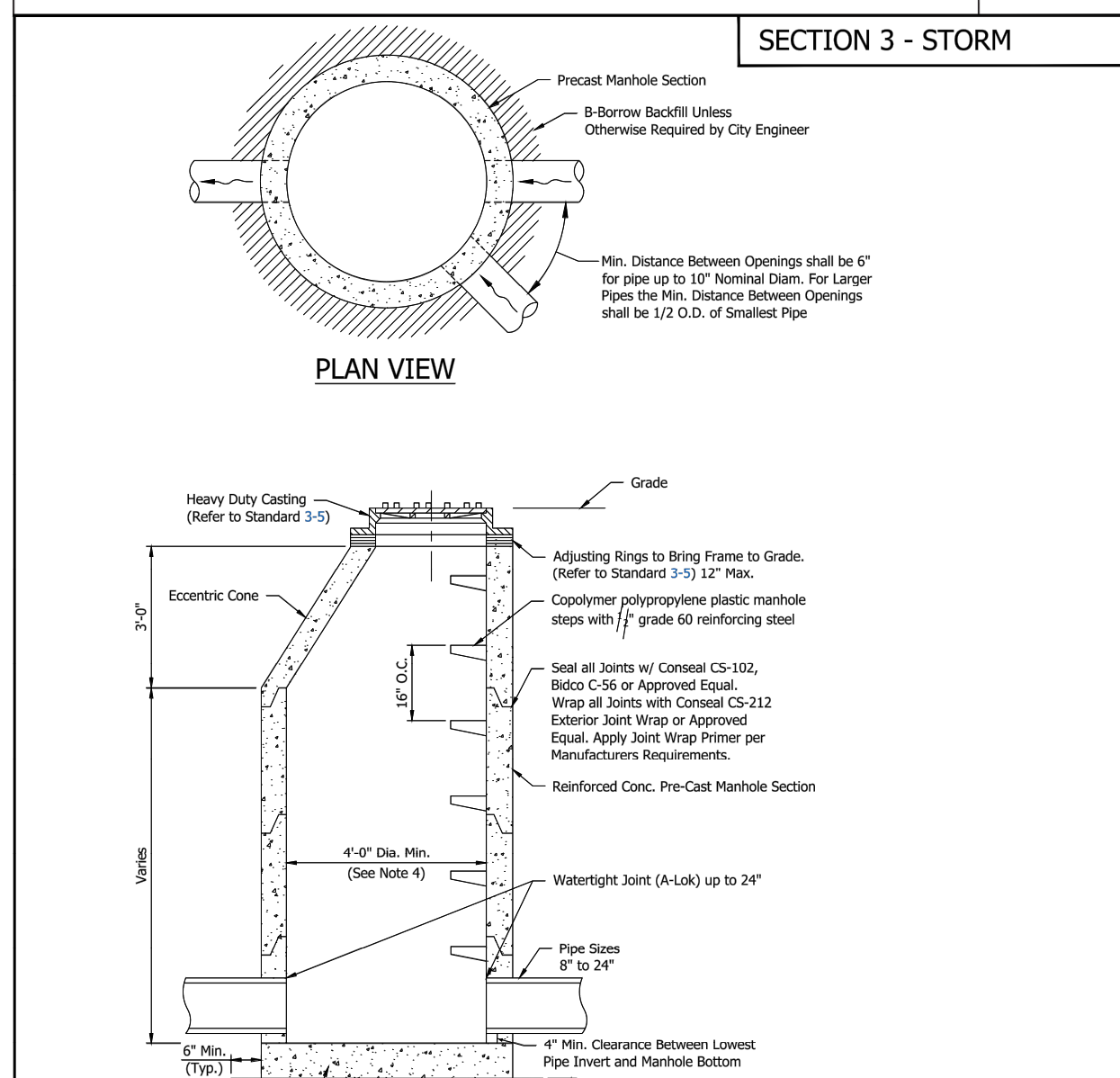
STANDARD 2-35

DETAILS - SIDEWALK CURB RAMPS: DETECTABLE WARNING SURFACE

STANDARD 2-42

PAVEMENT PATCHING AND UTILITY CUTS - ASPHALT

STANDARD 2-47



NOTES:

- All manholes shall be manufactured and installed in compliance with ASTM C-478.
- All pipe connections shall be made with integral resilient fittings complying with ASTM C-923.
- Refer to manhole size vs. pipe size chart on Standard 3-2.
- The Design Engineer to be responsible for setting pipe invert elevations to account for minor losses through the manhole.

NOTES:

- Casting lid shall be solid with two (2) concealed pickholes for sanitary or combined sewer manholes and two (2) open pickholes for storm sewer manholes. The text SANITARY shall be cast into the lid for sanitary or combined sewer manholes. The text STORM shall be cast into the lid for storm sewer manholes.
- Other inlet castings may be acceptable as approved by the City Engineer.
- All inlet grates shall be bicycle safe.
- Environmental notice required on all storm sewer castings, e.g. "DUMP NO WASTE! DRAINS TO WATERWAY."
- Inlet/catch basin castings are for use with combined curb and gutter or standard curb installations.
- All castings shall be heavy duty (H-20 rated).
- Where directed by the City, casting lids shall bolt down. Bolts shall be provided with an anti-seizing agent.
- For casting adjustment of existing brick manholes, remove old bricks down to a solid base. Then level with mortar and build up with pre-cast adjusting rings.
- When manholes are located in gravel or treelawn areas, provide a 5 foot diameter concrete collar, centered on the casting. Concrete shall be Class "A".

NOTES:

- These trench and bedding details are for pipe structural requirements only. The contractor is solely responsible for safety of operations. The contractor shall slope trench walls, provide protective work boxes, and/or shore and brace all excavations as the contractor determines necessary for safety of operations, and in conformance to IOSHA Regulation 29 C.F.R. 1926, Subpart P for Trench Safety Systems.
- All PVC pipe for sanitary sewers shall be installed in accordance with ASTM D2321.
- There shall be no rocks or stones greater than 2" in any dimension within 6" of the pipe wall or bell.
- Flexible Pipe: Embedment materials for bedding, haunching and initial backfill shall comply with the requirements of ASTM D2321, Classes A, B, C or crushed stone (INDOT #8, #9 or B-Borrow) and shall be compacted as noted. Removable flowable backfill shall be placed for all areas within 5' of pavement to 12" above pipe crown. Above this limit, structure backfill shall be used. Refer to pipe manufacturers recommended bedding and embedment material class type requirements.
- Rigid Pipe: Embedment materials for bedding, haunching and initial backfill shall comply with the requirements of ASTM C12 (VCP Classes A, B, C or crushed stone (INDOT #8, #9 or B-Borrow) and shall be compacted as noted. Removable flowable backfill shall be placed for all areas within 5' of pavement to 12" above pipe crown. Above this limit, structure backfill shall be used.
- Final backfill shall not contain debris, organic material, frozen material, unstable material or boulders or stones greater than 2" in any dimension. Flowable fill optional.
- The placement and compaction of backfill shall not cause displacement of the pipe.
- For multiple pipes in same trench:
 - Place bedding to Spring Line of first pipe across entire trench width.
 - Placement of second pipe, re-excavate trench as needed.
 - Then place bedding as noted above.
 - For additional pipes repeat as required.
- Refer to **INDOT Standard Specification Section 213** for flowable fill (removable) backfill.

NOTES:

- Manhole castings shall be Heavy Duty (H-20 rated). Castings shall be East Jordan Iron Works 1040A or Neenah R-1642.
- Casting lid shall be solid with two (2) concealed pickholes for sanitary or combined sewer manholes and two (2) open pickholes for storm sewer manholes. The text SANITARY shall be cast into the lid for sanitary or combined sewer manholes. The text STORM shall be cast into the lid for storm sewer manholes.
- Where directed by the City, casting lids shall bolt down. Bolts shall be provided with an anti-seizing agent.
- For manholes 72-inch diameter and larger, the clear opening shall be 36-inch diameter. The casting shall be Heavy Duty (H-20 Rated). Casting shall be East Jordan Iron Works V-1600-S or Neenah R-1741-D.
- For casting adjustment of existing brick manholes, remove old bricks down to a solid base. Then level with mortar and build up with pre-cast adjusting rings.
- When manholes are located in gravel or treelawn areas, provide a 5 foot diameter concrete collar, centered on the casting. Concrete shall be Class "A".

REF STD SPEC SEC 3-2, 3-3, 3-4

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
EFFECTIVE DATE: June 26, 2018

Item	Revision	Approved Date

CITY OF SOUTH BEND

REF STD SPEC SEC 3-2, 3-3

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
EFFECTIVE DATE: June 26, 2018

Item	Revision	Approved Date

CITY OF SOUTH BEND

REF STD SPEC SEC 3-3

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
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CITY OF SOUTH BEND

REF STD SPEC SEC 4-2

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
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CITY OF SOUTH BEND

TYPE A MANHOLE - STANDARD PRE-CAST

STANDARD 3-1

TYPICAL STRUCTURE CASTINGS & ADJUSTING RINGS

STANDARD 3-5

PIPE BEDDING DETAIL

STANDARD 3-10

TYPICAL MANHOLE CASTING & ADJUSTING RINGS

STANDARD 4-6

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ALL UNDERGROUND UTILITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ANY CONSTRUCTION MAY BEGIN.

DATE: 5/6/20
DRAWN BY: JTB
SCALE: n/a
FILE #: 200104.5

CHECKED BY: MJD
PROJ. MANGR: JTB

DATE: 8/14/20
BY: BLM

BULLETIN: NEW SHEET/DETAILS ADDED PER CITY ENGINEERING REVIEW

REVISIONS

SHEET C5.0

PROPERTY OWNER: KRIG EDDY STREET LAND III, LLC 30 S. MERIDIAN ST. STE 1100 INDIANAPOLIS, IN 46204 (317) 577-5600

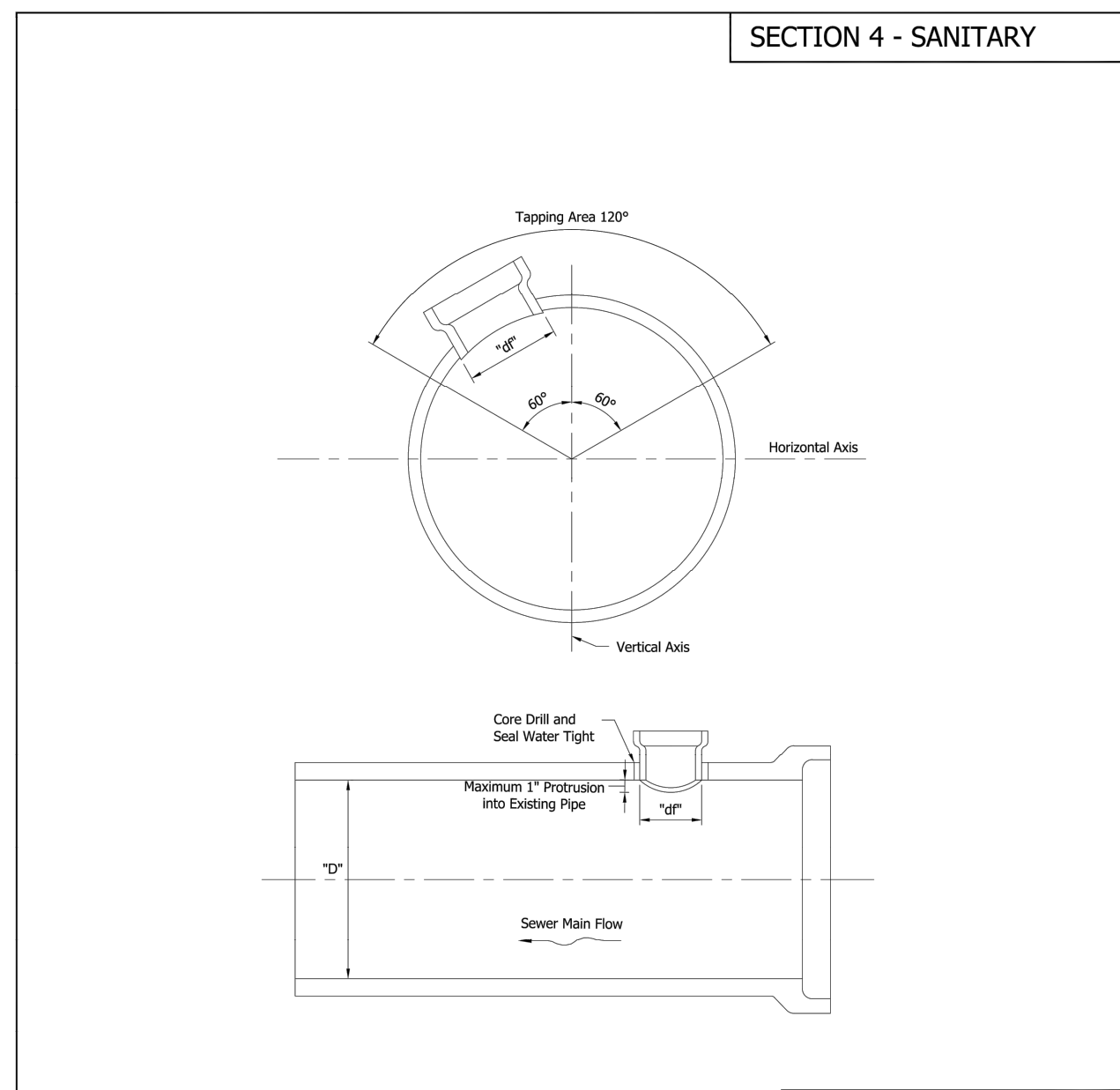
SURVEYORS & ENGINEERS: DANCH, HARNER & ASSOCIATES, INC. 1643 COMMERCE DRIVE SOUTH BEND, IN 46828 (574) 234-4003 ATTN: MICHAEL DANCH

Danch, Harner & Associates, Inc.
Land Surveyors • Professional Engineers
Landscape Architects • Land Planners

Office: (317) 234-4003 / (800) 994-4003 • Fax: (317) 234-4119
1643 Commerce Drive • South Bend, IN 46828

2010/4.5 DSP - Engineering 10-8-20-2018

EDDY COMMONS PHASE III - UTILITY RELOCATION



NOTES:

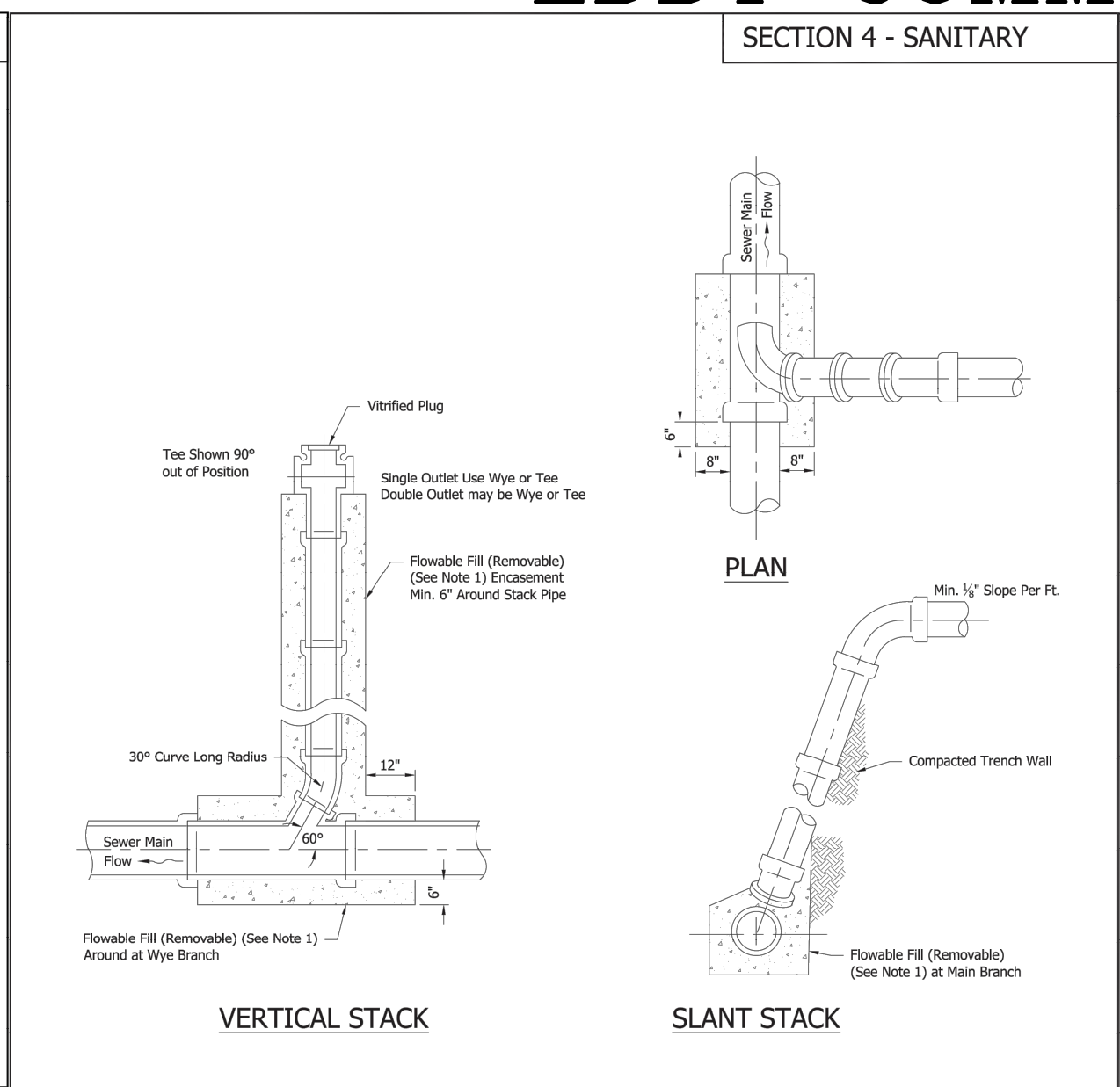
- When "d" > 1/2 "D" use wye.
- When "d" < 1/2 "D" use manufactured saddle or if not available cut tap pipe per sketch.

REF STD SPEC SEC 4-2

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
EFFECTIVE DATE: June 26, 2018

Item	Revision	Approved Date

CITY OF SOUTH BEND
STANDARDS FOR DESIGN AND CONSTRUCTION
STANDARD 4-7



NOTES:

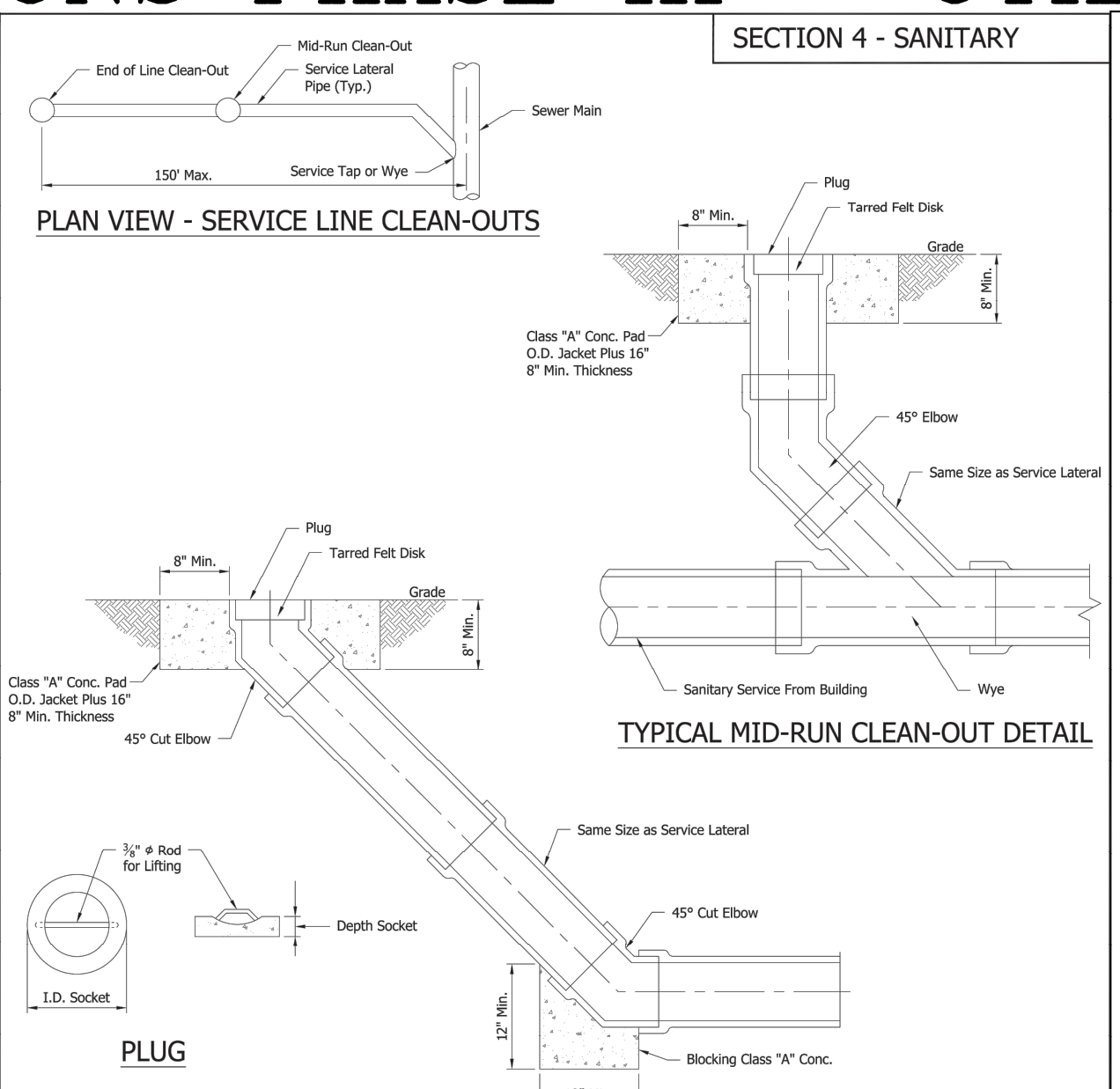
- Refer to INDOT Standard Specification Section 213 for removable flowable fill requirements.
- Wye replacement: Remove old wye, trim existing as pipe required, install new wye and pipe and connect to existing pipes with Fernco couplings.

REF STD SPEC SEC 4-2 and 4-3

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EFFECTIVE DATE: June 26, 2018

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CITY OF SOUTH BEND
STANDARDS FOR DESIGN AND CONSTRUCTION
STANDARD 4-8



NOTES:

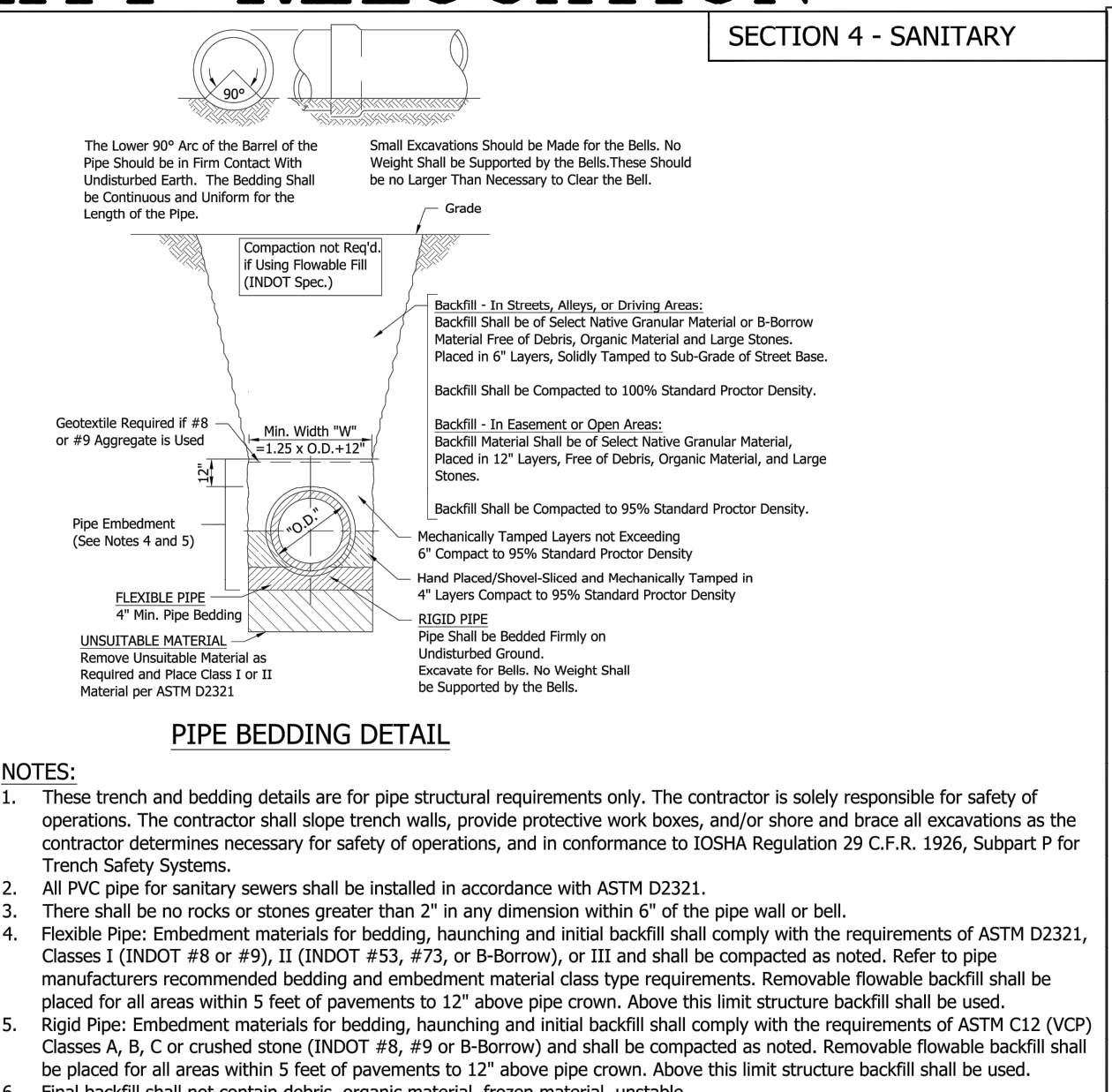
- Insert a manhole in service lateral if its length exceeds 150 ft.
- The minimum service lateral size shall be 6-inches diameter, placed at a minimum slope of 0.61%. Larger sized service laterals shall be installed according to the minimum slopes required by 317 IAC 3-6-12(a).

REF STD SPEC SEC 4-2

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EFFECTIVE DATE: June 26, 2018

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CITY OF SOUTH BEND
STANDARDS FOR DESIGN AND CONSTRUCTION
STANDARD 4-9



NOTES:

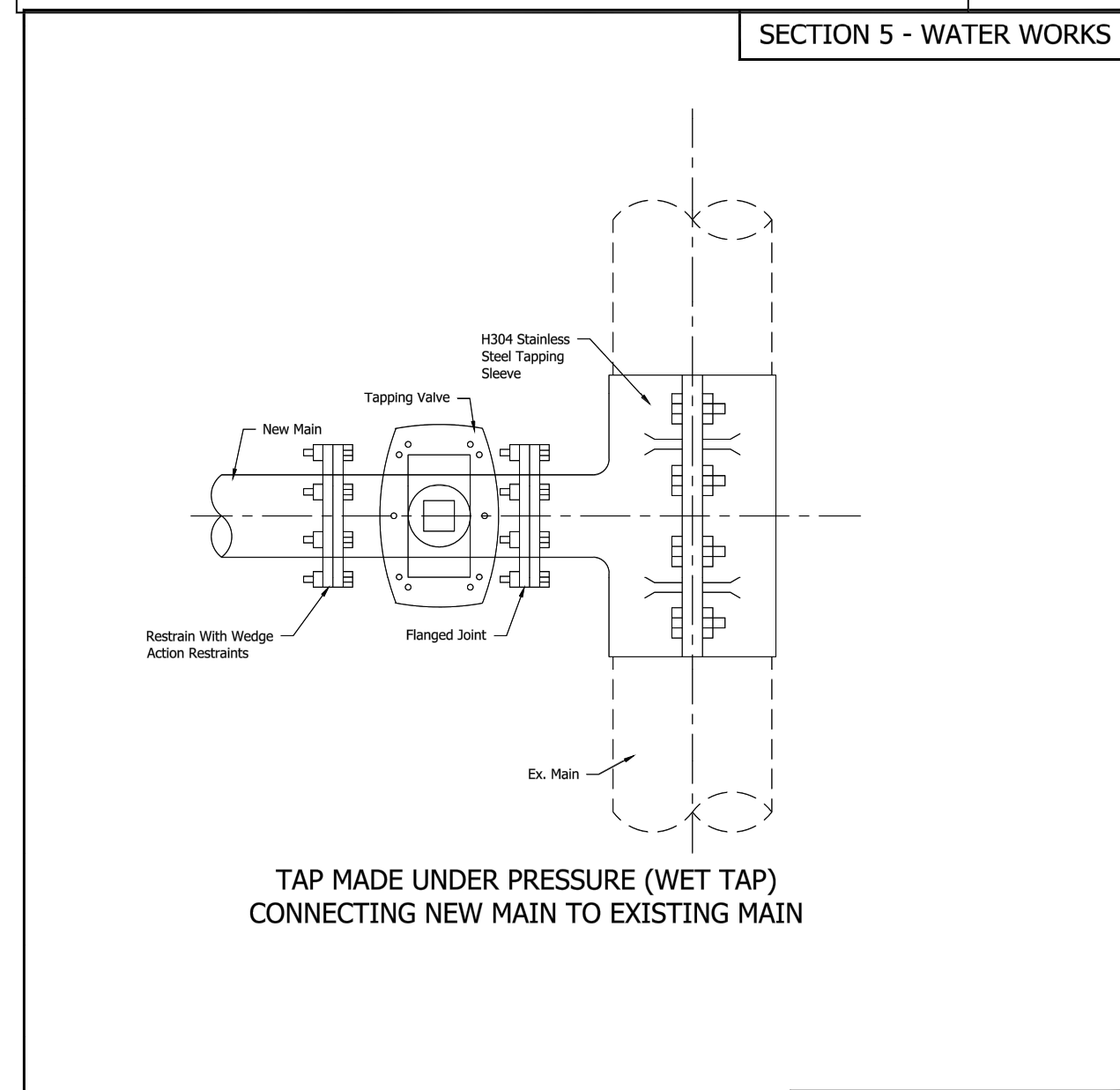
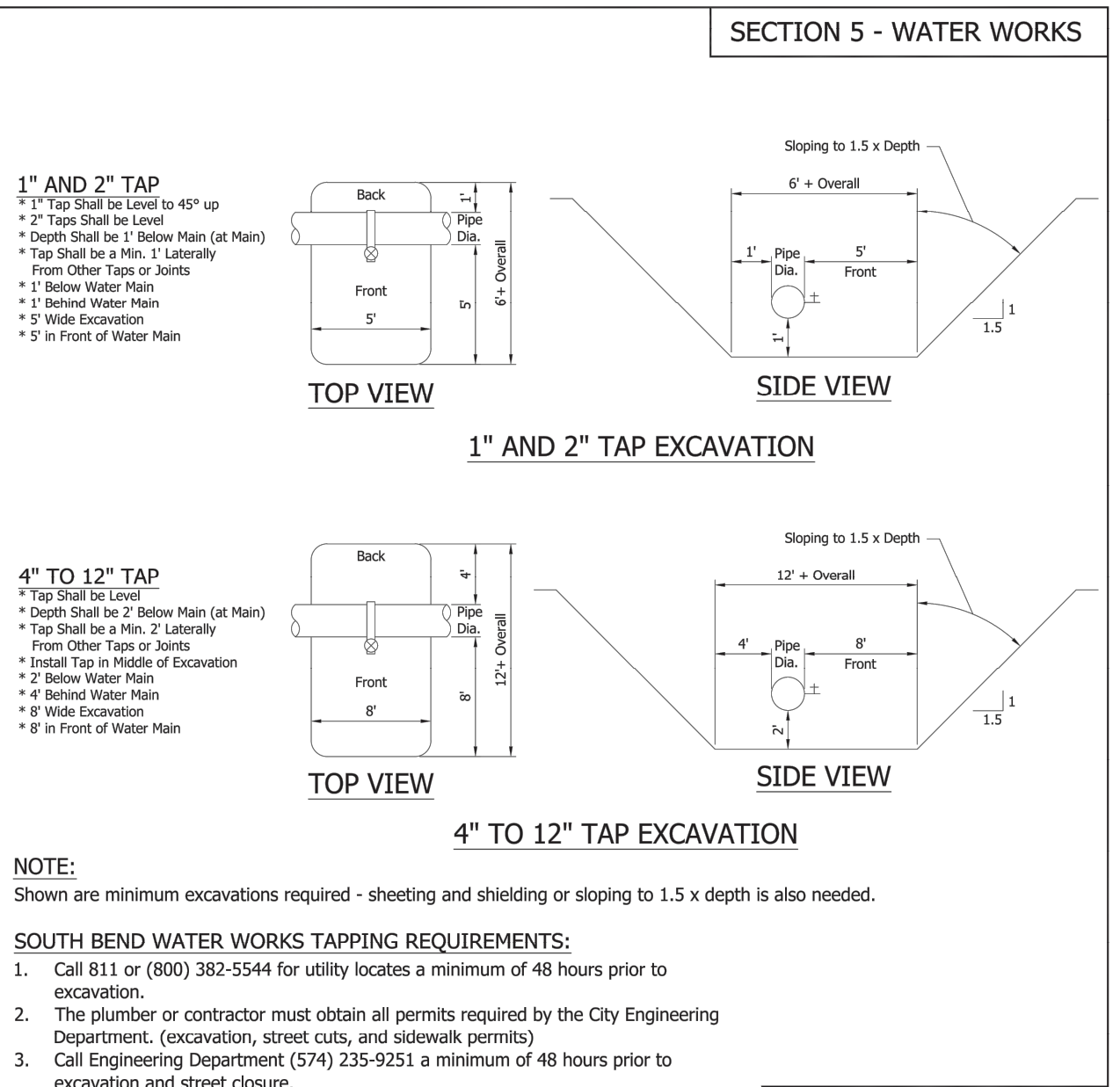
- These trench and bedding details are for pipe structural requirements only. The contractor is solely responsible for safety of operations. The contractor shall slope trench walls, provide protective work boxes, and/or shore and brace all excavations as the contractor determines necessary for safety of operations, and in conformance to IOWA Regulation 29 C.F.R. 1926, Subpart P for Trench Safety Systems.
- All PVC pipe for sanitary sewers shall be installed in accordance with ASTM D2321.
- There shall be no rocks or stones greater than 2" in any dimension within 6" of the pipe wall or bell.
- Flexible Pipe: Embedment materials for bedding, haunching and initial backfill shall comply with the requirements of ASTM D2321, Classes I (INDOT #8 or #9), II (INDOT #53, #73, or B-Borrow), or III and shall be compacted as noted. Refer to pipe manufacturers recommended bedding and embedment material class type requirements. Removable flowable backfill shall be placed for all areas within 5 feet of pavements to 12" above pipe crown. Above this limit structure backfill shall be used.
- Rigid Pipe: Embedment materials for bedding, haunching and initial backfill shall comply with the requirements of ASTM C12 (VCP) Classes A, B, C or crushed stone (INDOT #8, #9 or B-Borrow) and shall be compacted as noted. Removable flowable backfill shall be placed for all areas within 5 feet of pavements to 12" above pipe crown. Above this limit structure backfill shall be used.
- Final backfill shall not contain debris, organic material, frozen material, unstable material or boulders or stones greater than 2" in any dimension. Flowable fill optional.
- The placement and compaction of backfill shall not cause displacement of the pipe.
- For multiple pipes in same trench:
 - Place bedding to Spring Line of first pipe across entire trench width.
 - Placement of next pipe, re-excavate trench as needed. Then place bedding as noted above.
 - For additional pipes repeat as required.
- Refer to INDOT Standard Specification Section 213 for flowable fill (removable) requirements.

REF STD SPEC SEC 4-2 and 4-3

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CITY OF SOUTH BEND
STANDARDS FOR DESIGN AND CONSTRUCTION
STANDARD 4-11



NOTES:

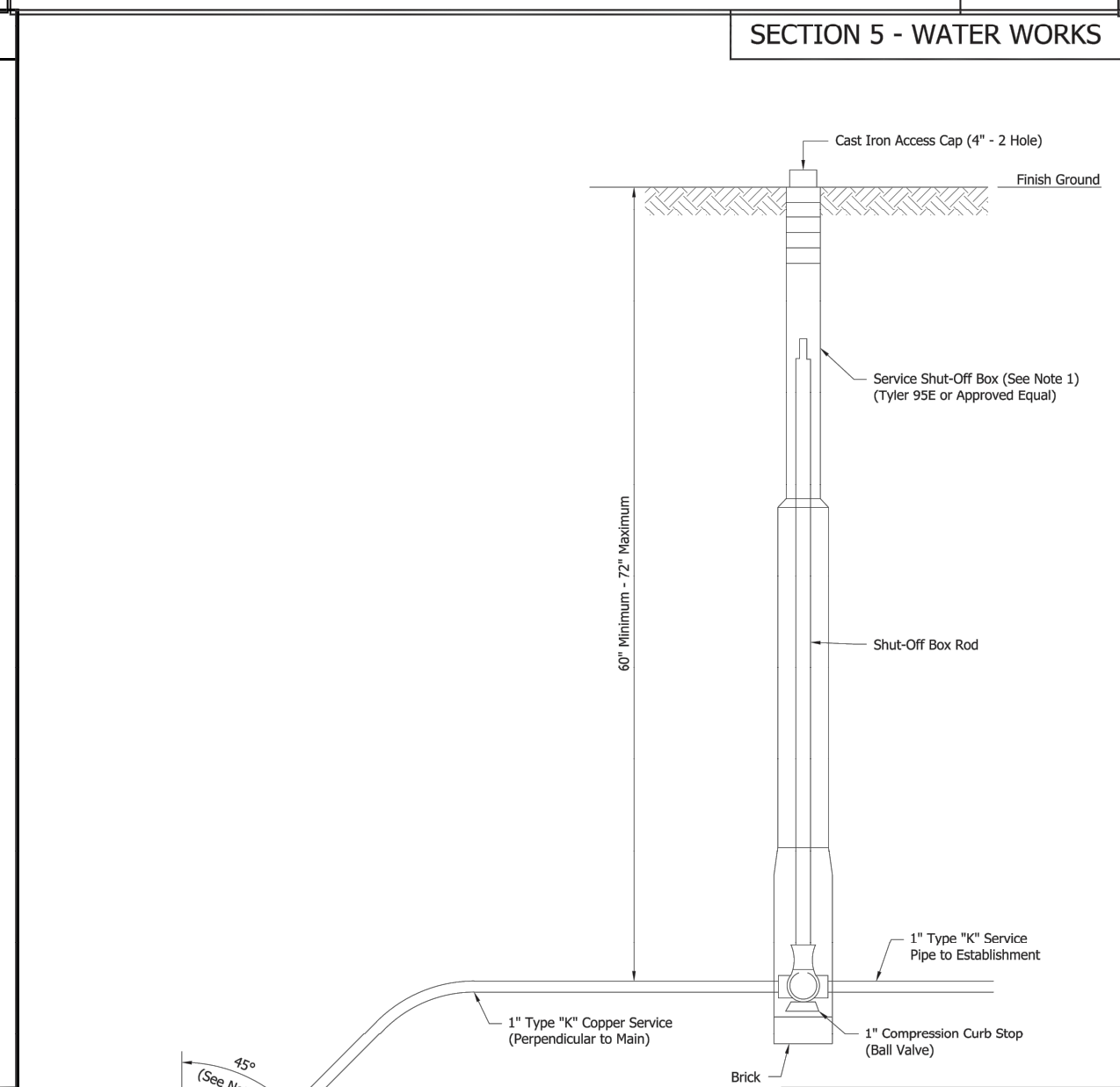
- Tapping valves shall be Clow, Mueller, or approved equal.
- The physical tapping of the existing water main shall be performed by the city's utility distribution department. All excavation and preparation work shall be performed by the contractor, and the contractor shall provide all materials. The utility will only perform the physical tap. Contractor shall coordinate with the Water Department.

REF STD SPEC SEC 5-2.5(e)

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS
EFFECTIVE DATE: June 26, 2018

Item	Revision	Approved Date

CITY OF SOUTH BEND
STANDARDS FOR DESIGN AND CONSTRUCTION
STANDARD 5-2



NOTES:

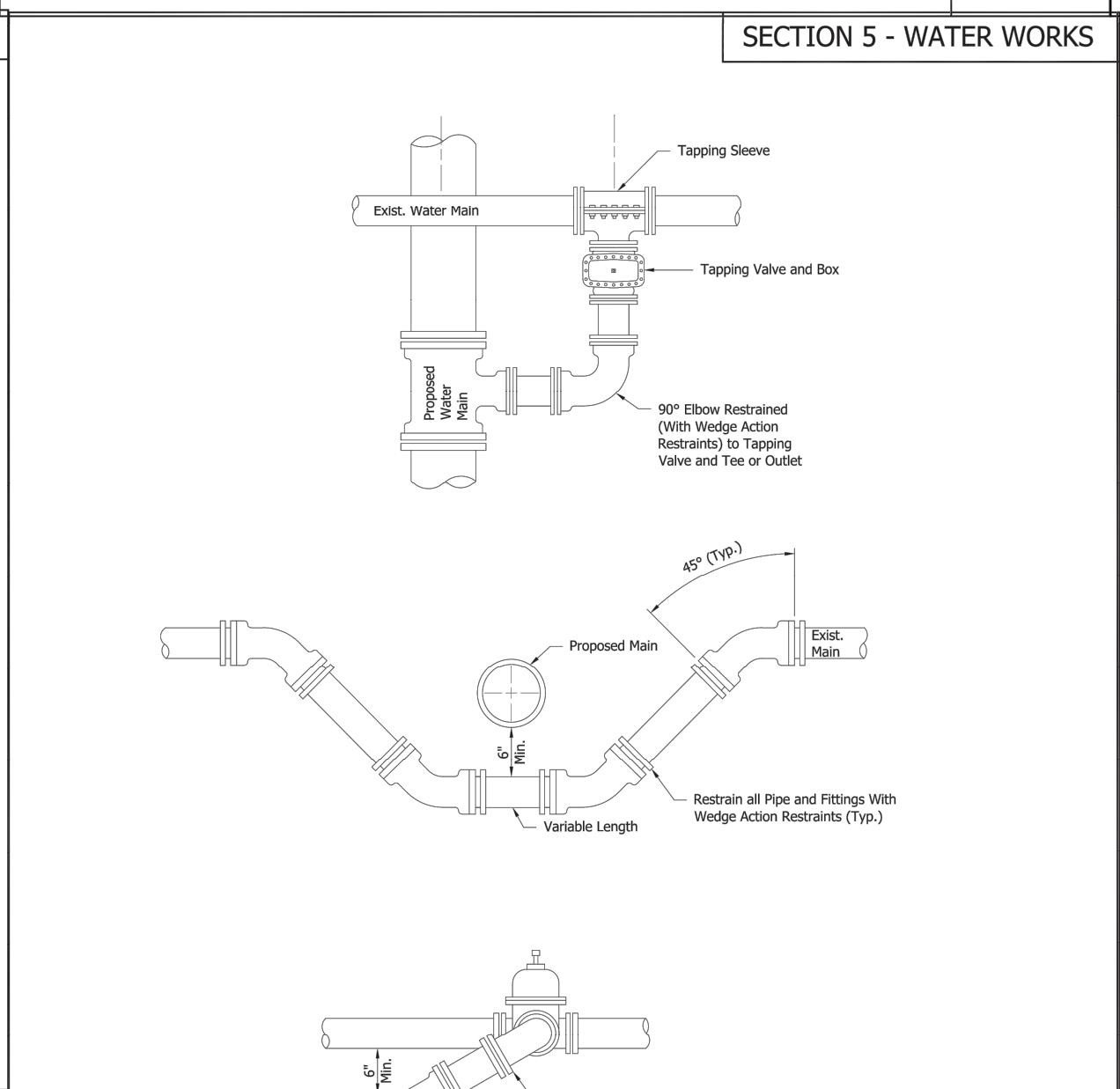
- Service shut-off box shall be placed in the public right-of-way in grass between curb and sidewalk.
- For a 2" service the corporation stop shall be located at 90° (level).

REF STD SPEC SEC 5-2.1 and 5-2.5(g)

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CITY OF SOUTH BEND
STANDARDS FOR DESIGN AND CONSTRUCTION
STANDARD 5-3



NOTES:

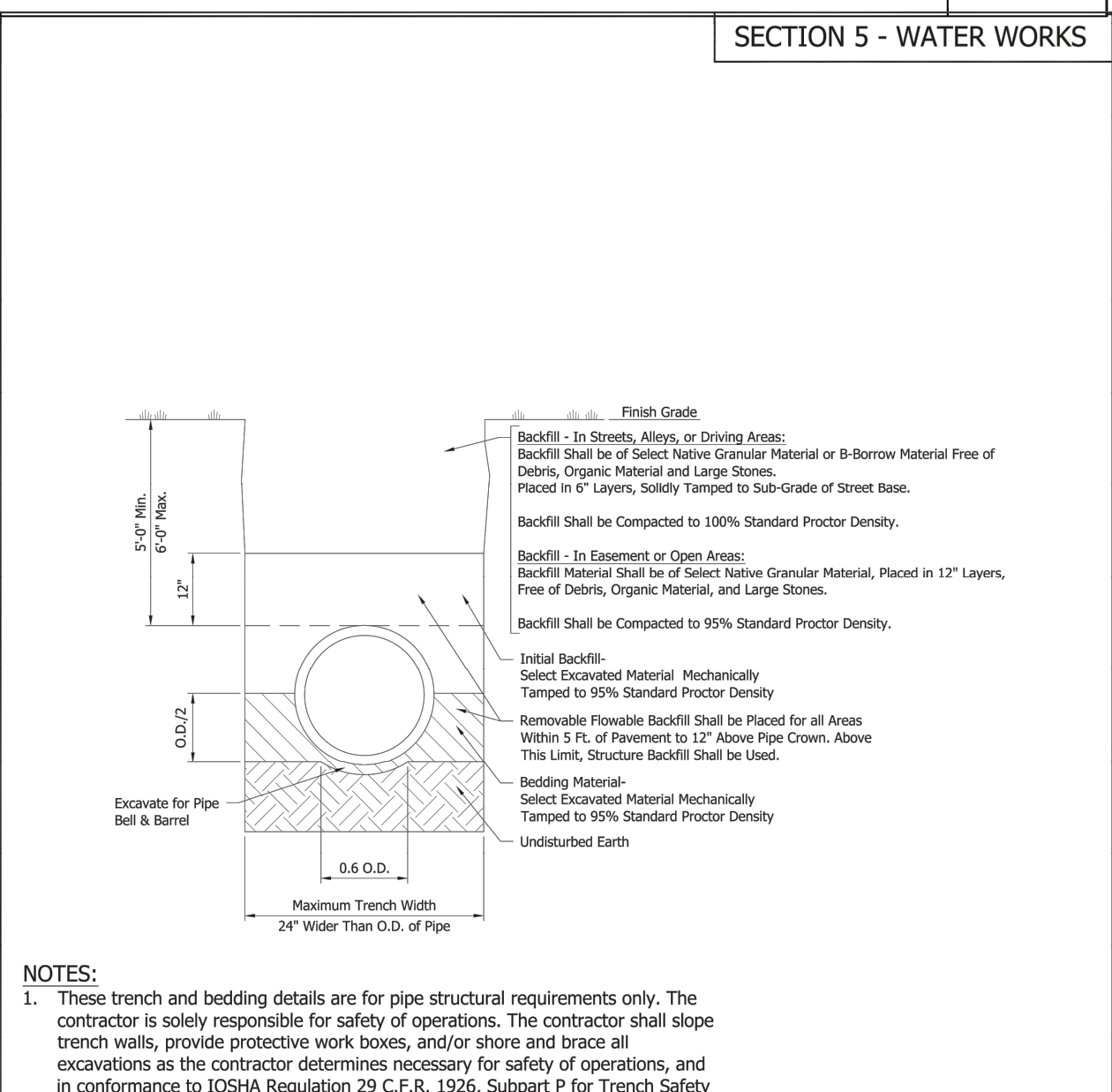
- Proposed main may pass over existing main if existing main is deep enough to provide adequate clearance between main and cover over proposed main.
- All pipe, fittings and valve joints shall be restrained with wedge action restrainers.

REF STD SPEC SEC 5-2.2 and 5-2.5(e)

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Item	Revision	Approved Date

CITY OF SOUTH BEND
STANDARDS FOR DESIGN AND CONSTRUCTION
STANDARD 5-4



NOTES:

- These trench and bedding details are for pipe structural requirements only. The contractor is solely responsible for safety of operations. The contractor shall slope trench walls, provide protective work boxes, and/or shore and brace all excavations as the contractor determines necessary for safety of operations, and in conformance to IOWA Regulation 29 C.F.R. 1926, Subpart P for Trench Safety Systems.
- For multiple pipes in same trench:
 - Place bedding to Spring Line of first pipe across entire trench width.
 - Placement of next pipe, re-excavate trench as needed. Then place bedding as noted above.
 - Minimum easement width for water main shall be 15'.
 - Minimum obstruction setback requirement from water main shall be 10'. Obstructions shall include structures, other utilities, trees, and landscaping.

REF STD SPEC SEC 5-3.2 and 5-3.9

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EFFECTIVE DATE: June 26, 2018

Item	Revision	Approved Date

CITY OF SOUTH BEND
STANDARDS FOR DESIGN AND CONSTRUCTION
STANDARD 5-6



PROPERTY OWNER:
KRG
EDDY STREET LAND III, LLC
30 S. MERIDIAN ST. STE 1100
INDIANAPOLIS, IN. 46204
(317) 577-5600

SURVEYORS & ENGINEERS:
DANCH, HARNER & ASSOCIATES, INC.
1643 COMMERCE DRIVE
SOUTH BEND, IN. 46228
(574) 234-4003
ATTN: MICHAEL DANCH

CONSTRUCTION DETAILS

DATE	BY	REVISIONS
5/6/20	JTB	
8/14/20	BLM	BULLETIN 2: NEW SHEET/DETAILS ADDED PER CITY ENGINEERING REVIEW

DATE: 5/6/20
SCALE: n/a
FILE #: 200104.5

DRAWN BY: JTB
CHECKED BY: MJD
PROJ. MANGR: JTB

Danch, Harner & Associates, Inc.
 Land Surveyors • Professional Engineers
 Landscape Architects • Land Planners
 Office: (317) 234-4003 / (800) 294-4003 • Fax: (317) 234-4119
 1643 Commerce Drive • South Bend, IN 46228

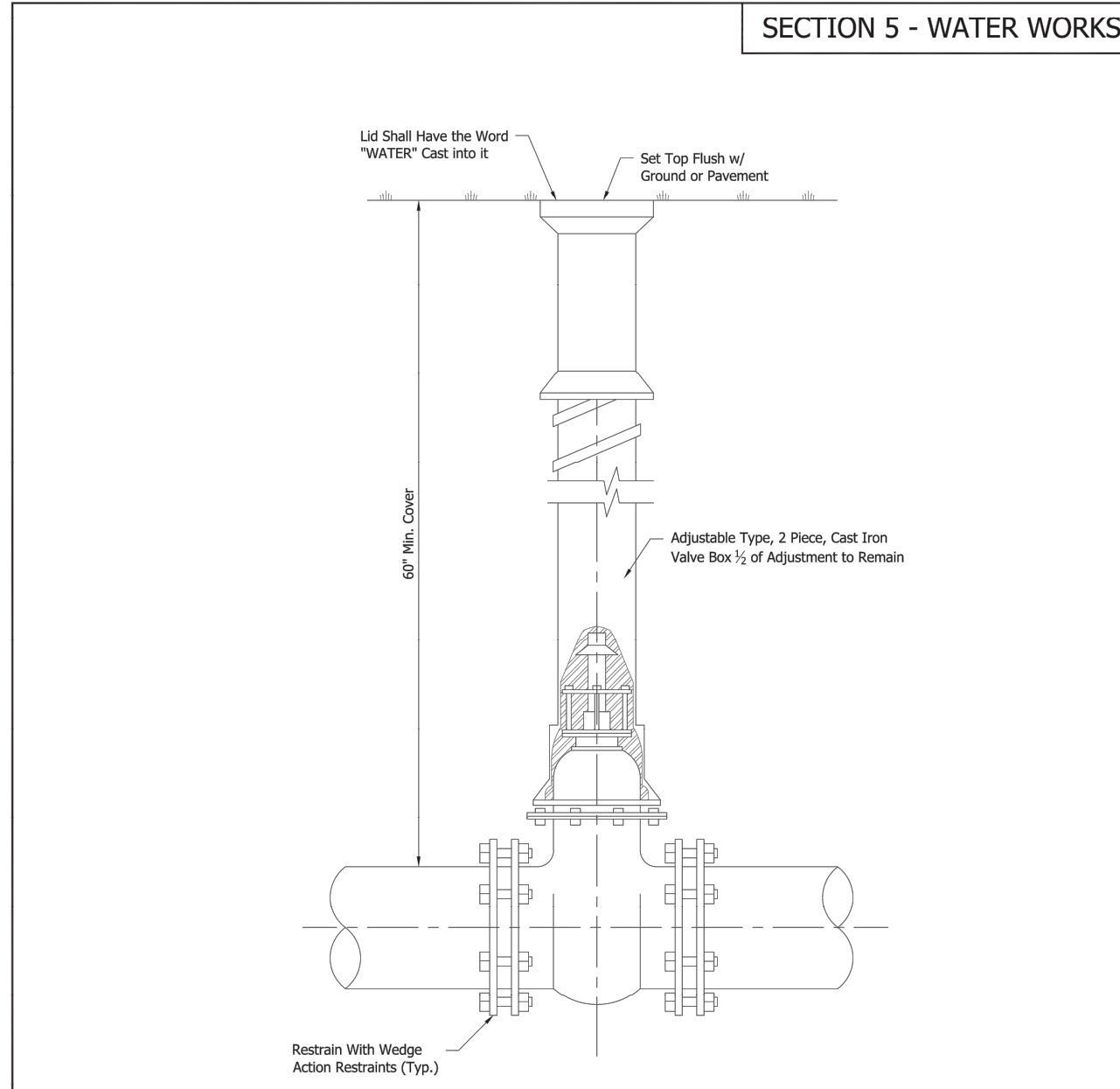
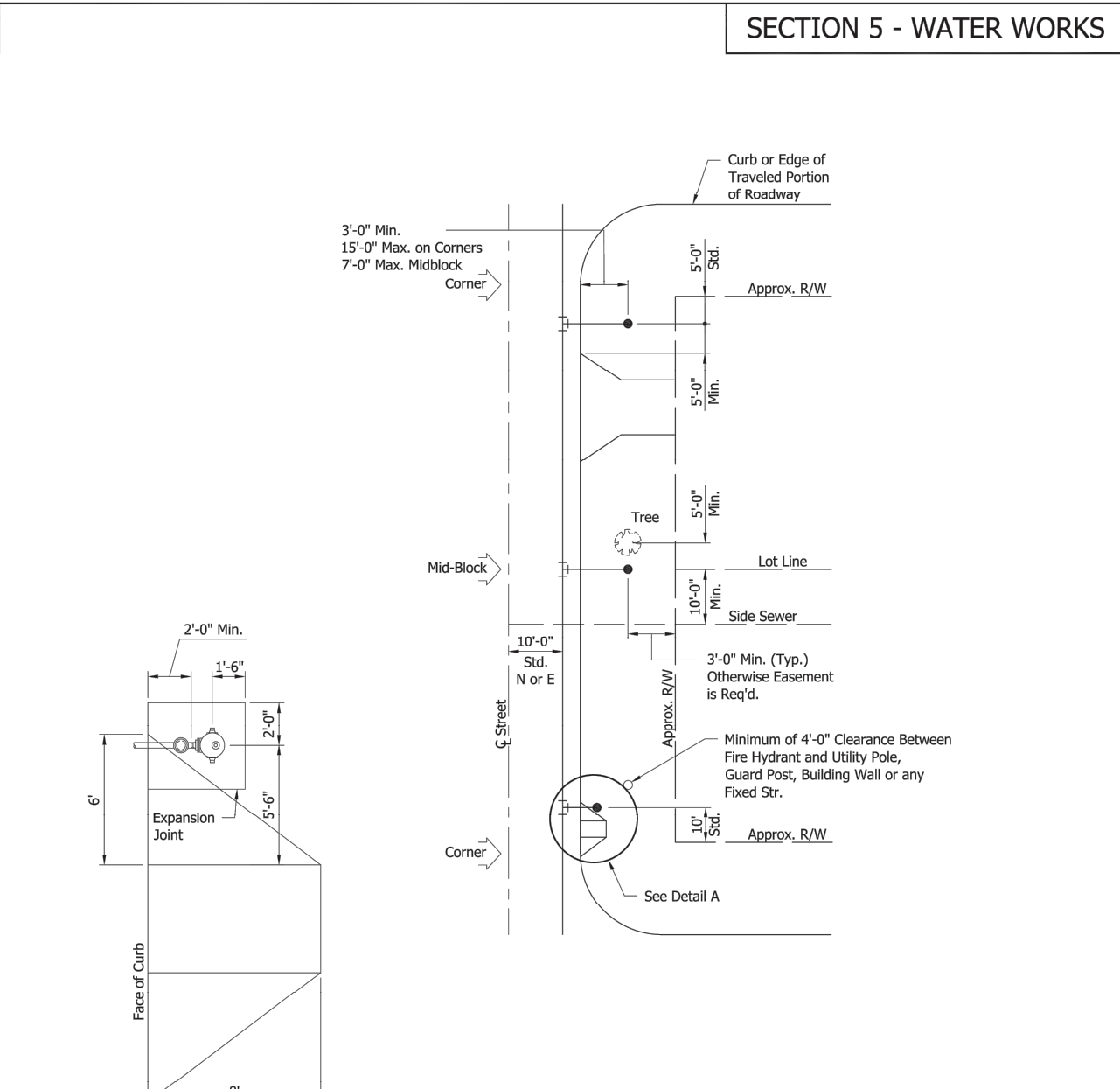
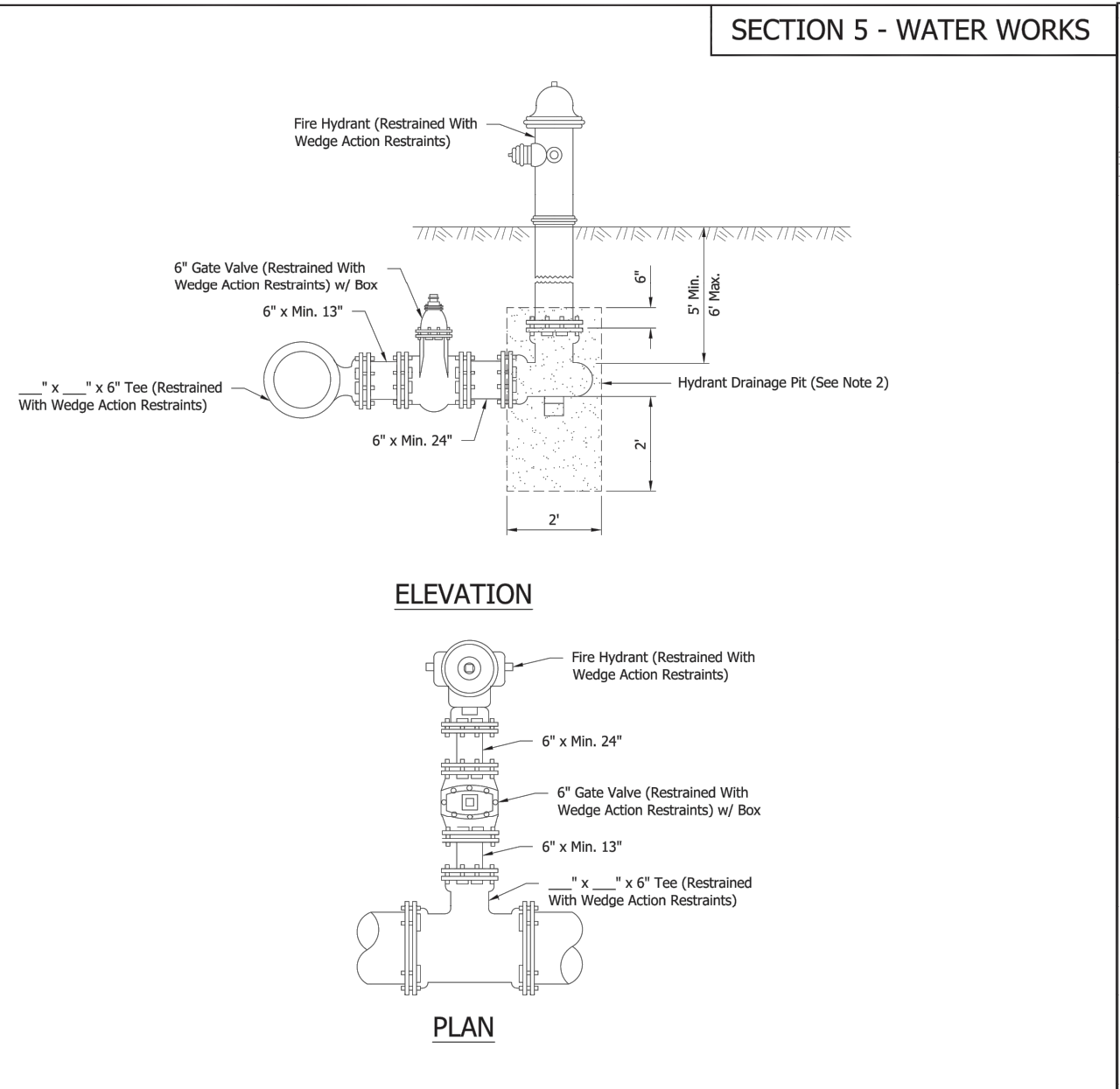
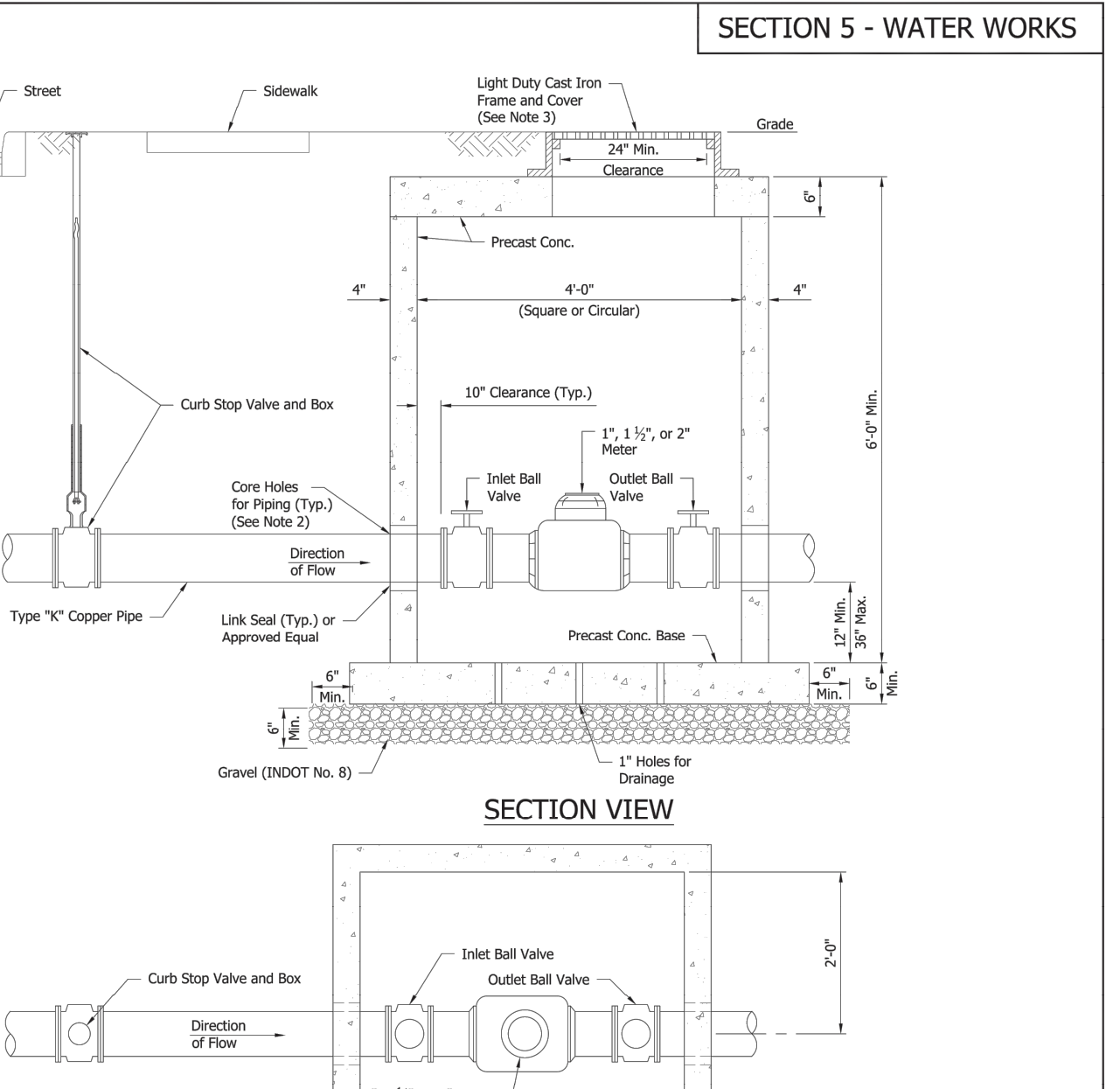
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ANY INFORMATION ON THIS DRAWING IS NOT INTENDED TO BE SUITABLE FOR REUSE BY ANY PERSON, FIRM OR CORPORATION OR ANY OTHERS ON EXTENSION OF THIS PROJECT OR FOR ANY USE ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION AND ADOPTION BY THE ENGINEER, ARCHITECT OR SURVEYOR FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE ENGINEER, ARCHITECT OR SURVEYOR.

ALL UNDERGROUND UTILITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ANY CONSTRUCTION MAY BEGIN.

EDDY COMMONS PHASE III – UTILITY RELOCATION

SECTION 5 - WATER WORKS	SECTION 5 - WATER WORKS	SECTION 5 - WATER WORKS	SECTION 5 - WATER WORKS
 <p style="text-align: center;">TYPICAL GATE VALVE AND BOX</p> <p>NOTES:</p> <ol style="list-style-type: none"> Gate valves shall be manufactured by Clow, Mueller, or approved equal. Valve box shall be manufactured by Tyler Pipe Industries Model 664-S or approved equal. Gate valves shall be used on water main pipe 12-inches and smaller. Valve spacing shall be no greater than 1,000 feet. A main line valve shall be placed at each intersection. Valve locations shall be configured to be within 3 Ft. of adjoining fittings. <p>REF STD SPEC SEC 5-2.5(a) APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS EFFECTIVE DATE: June 26, 2018</p> <p style="text-align: center;">CITY OF SOUTH BEND</p> <p style="text-align: center;">STANDARDS FOR DESIGN AND CONSTRUCTION</p> <p style="text-align: center;">STANDARD 5-8</p>	 <p style="text-align: center;">FIRE HYDRANT LOCATION AND CLEARANCES</p> <p>NOTES:</p> <ol style="list-style-type: none"> No parking zone within 15'-0" radius of fire hydrant. Min. distance from back face of hydrant to front edge of concrete walk shall be 2'-0". Fire hydrant spacing shall be no greater than 500 feet. Fire hydrant shall not be placed within pedestrian access. <p>REF STD SPEC SEC 5-2.6 and 5-3.10 APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS EFFECTIVE DATE: June 26, 2018</p> <p style="text-align: center;">CITY OF SOUTH BEND</p> <p style="text-align: center;">STANDARDS FOR DESIGN AND CONSTRUCTION</p> <p style="text-align: center;">STANDARD 5-10</p>	 <p style="text-align: center;">FIRE HYDRANT ASSEMBLY</p> <p>NOTES:</p> <ol style="list-style-type: none"> Any subgrade disturbed beneath hydrant shall be thoroughly compacted or suitable material shall be furnished, placed and compacted to provide a firm foundation for the hydrant. Hydrant drainage: To prevent freezing of the hydrant barrel if it were not drained, a drainage pit 2'x2'x2' shall be excavated below the hydrant and filled with coarse gravel or crushed stone mixed with sand to a depth of 6" above the hydrant opening, providing sufficient aggregate void space to more than equal the volume of the barrel. The drainage pit should neither be near, nor have a connection to a sewer. Hydrant painting: Hydrants to be painted red, white and blue per manufacturers paint specs. All pipe, fitting and valve joints shall be restrained with wedge action restraints. <p>REF STD SPEC SEC 5-2.6 and 5-3.10 APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS EFFECTIVE DATE: June 26, 2018</p> <p style="text-align: center;">CITY OF SOUTH BEND</p> <p style="text-align: center;">STANDARDS FOR DESIGN AND CONSTRUCTION</p> <p style="text-align: center;">STANDARD 5-11</p>	 <p style="text-align: center;">METER PIT SPECS. FOR 1", 1 1/2", AND 2" METERS</p> <p>NOTES:</p> <ol style="list-style-type: none"> Precast Conc. structure shall be manufactured and installed in compliance with ASTM C-478 (round str.) or ASTM C-913 (rectangular/square str.) The cored opening shall be large enough to allow passage of the pipe flange. Lid shall have the word "WATER" cast into it. If placed in a paved area, casting shall be heavy duty. <p>REF STD SPEC SEC 5-2.7 APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS EFFECTIVE DATE: June 26, 2018</p> <p style="text-align: center;">CITY OF SOUTH BEND</p> <p style="text-align: center;">STANDARDS FOR DESIGN AND CONSTRUCTION</p> <p style="text-align: center;">STANDARD 5-13</p>

2010/04/05 DSP - Engineering 10-9-20-2018

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PROPERTY OWNER:
KRG
EDDY STREET LAND III, LLC
30 S. MERIDIAN ST. STE 1100
INDIANAPOLIS, IN. 46204
(317) 577-5600

SURVEYORS & ENGINEERS:
DANCH, HARNER & ASSOCIATES, INC.
1643 COMMERCE DRIVE
SOUTH BEND, IN. 46828
(574) 234-4003
ATTN: MICHAEL DANCH

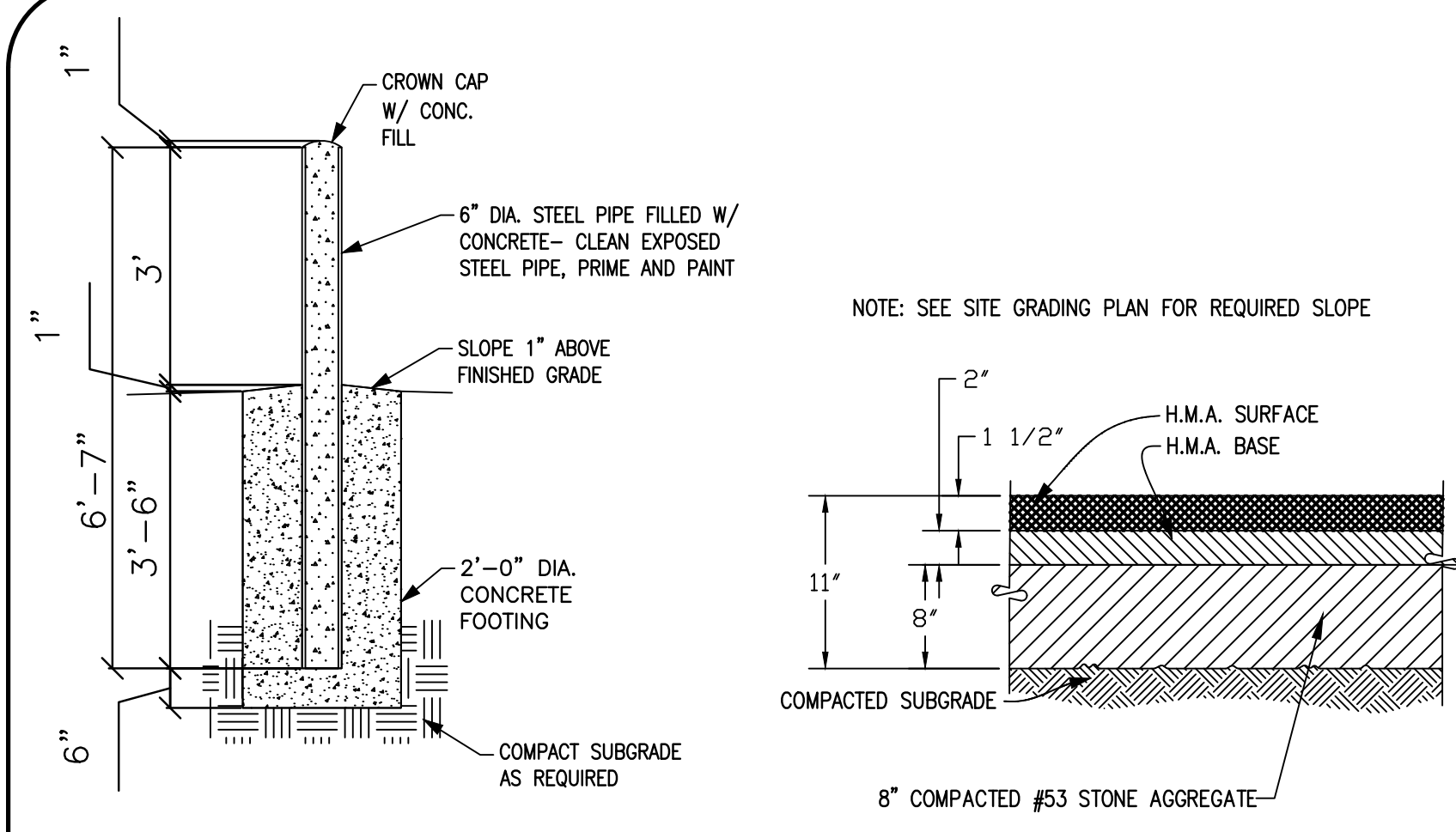
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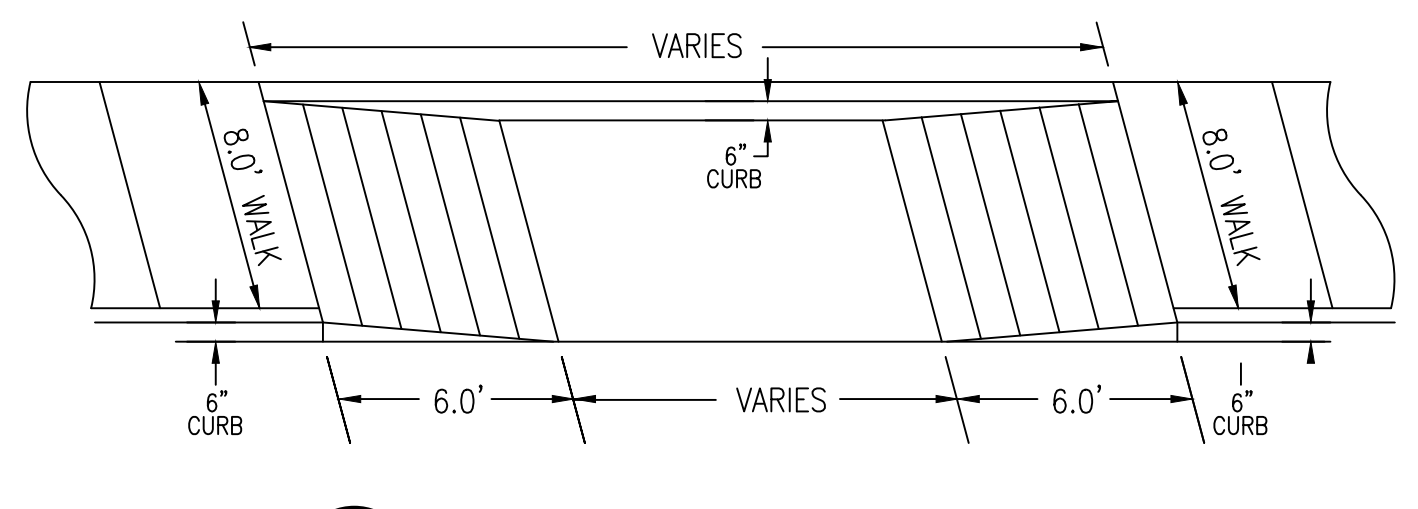
FINAL SITE PLAN – EDDY COMMONS PHASE III

PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.

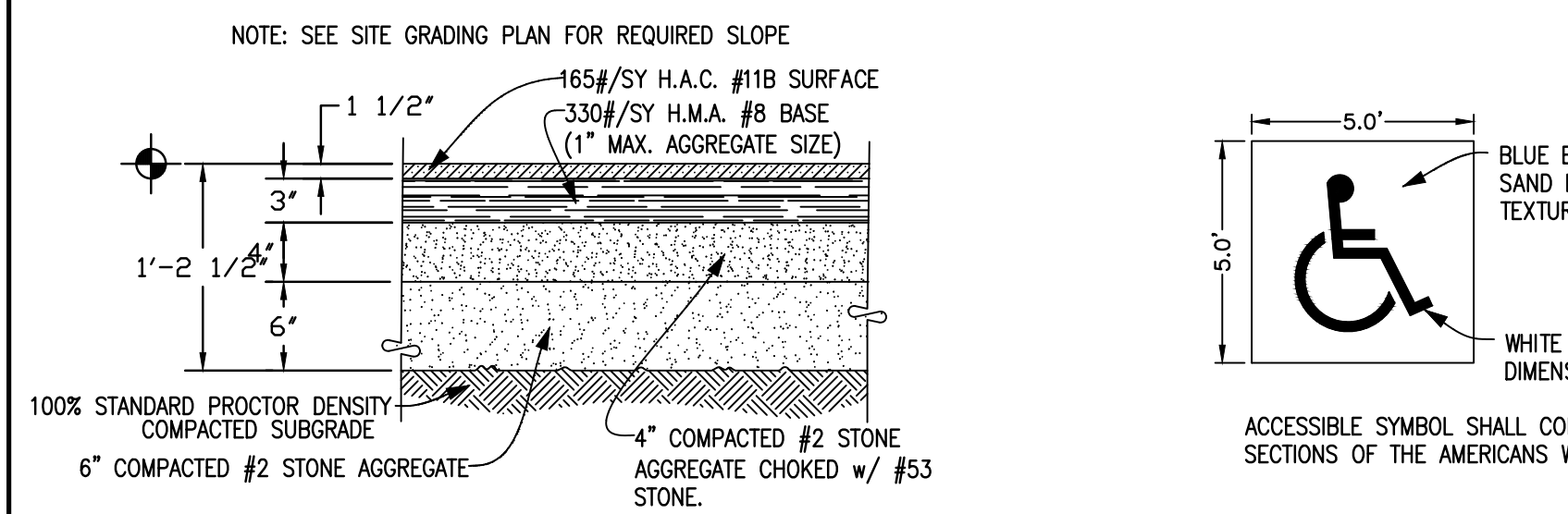


1 PIPE BOLLARD
SCALE: NTS

2 ASPHALT PAVEMENT (STANDARD)
SCALE: NTS PARKING SPACES

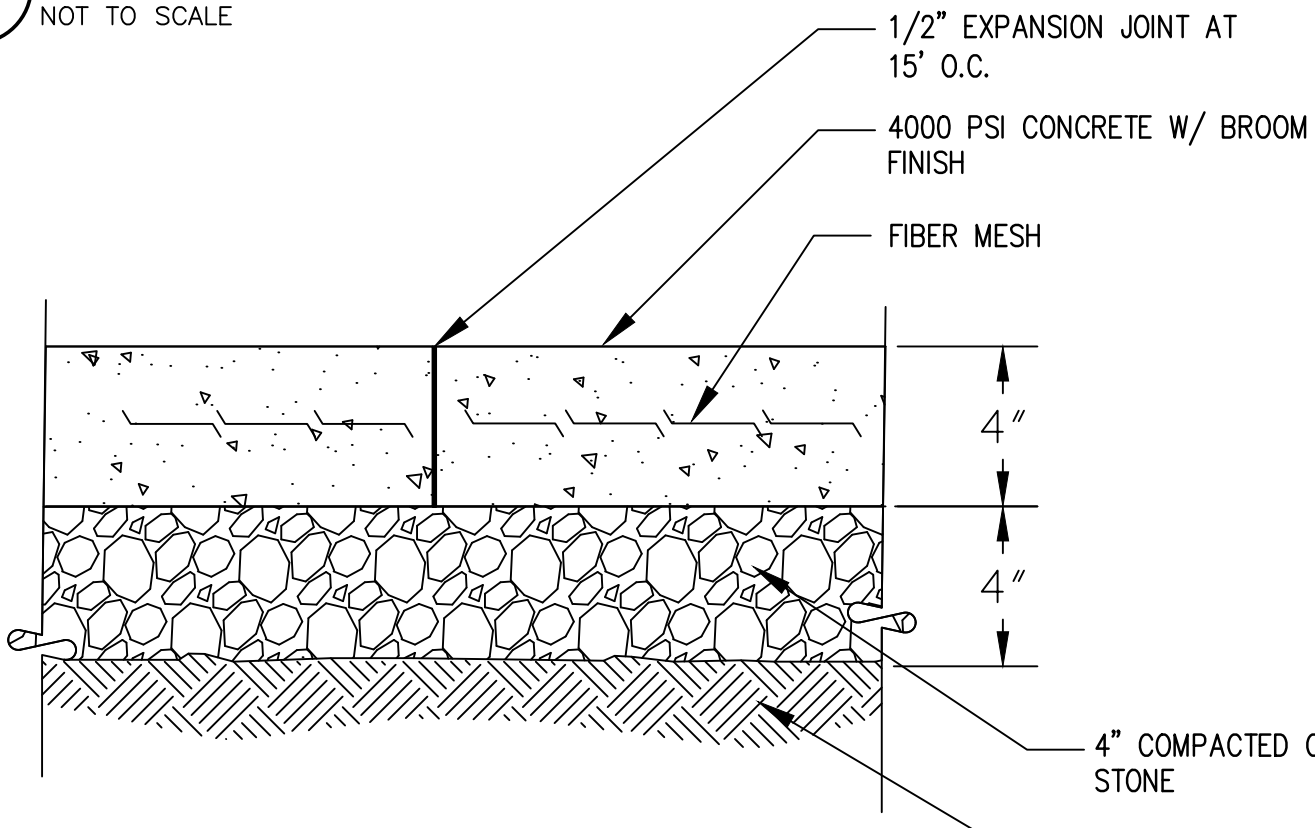
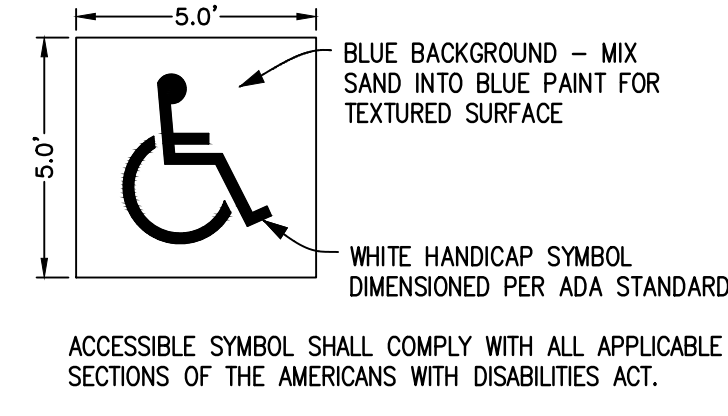


3 A.D.A. RAMP DETAIL
NOT TO SCALE

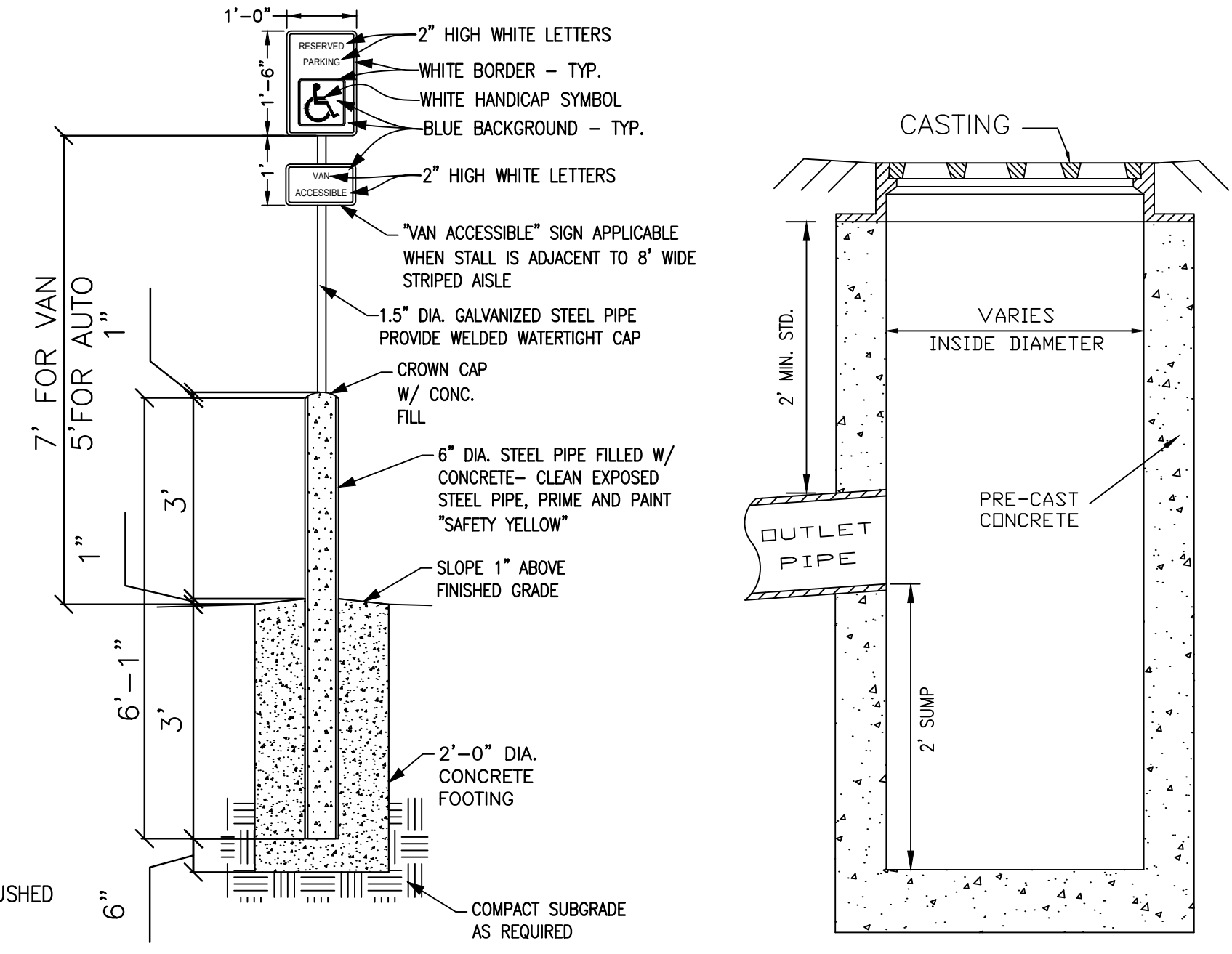


4 ASPHALT PAVEMENT (HEAVY DUTY)
SCALE: NTS

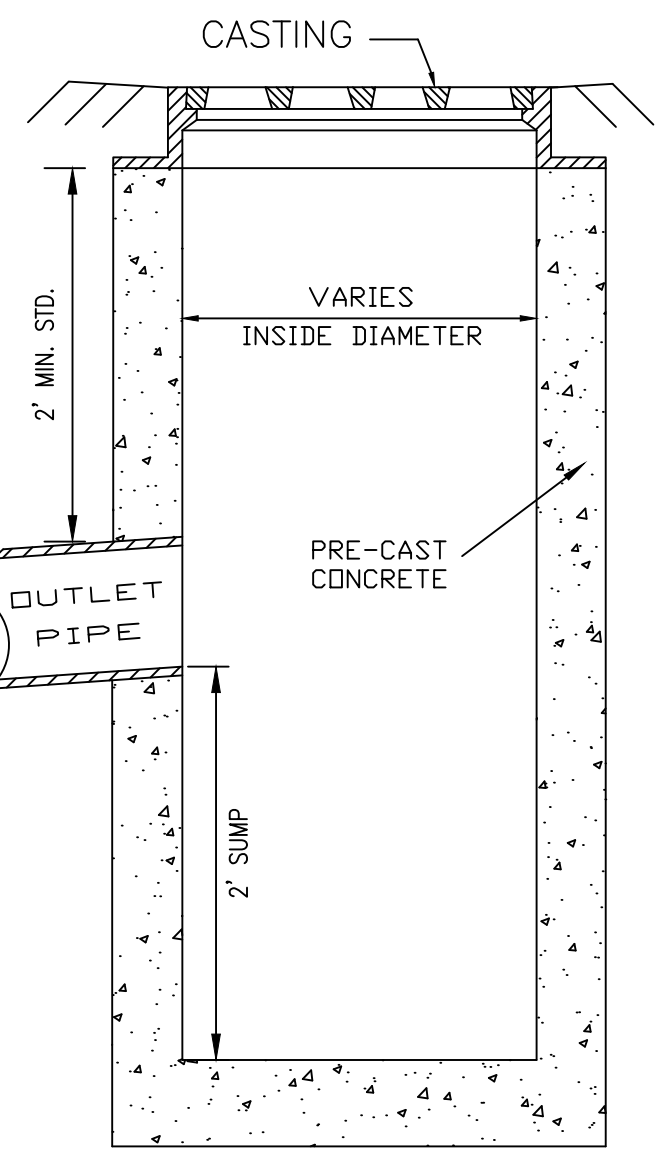
5 ACCESSIBLE LOGO/PAVEMENT
SCALE: NTS



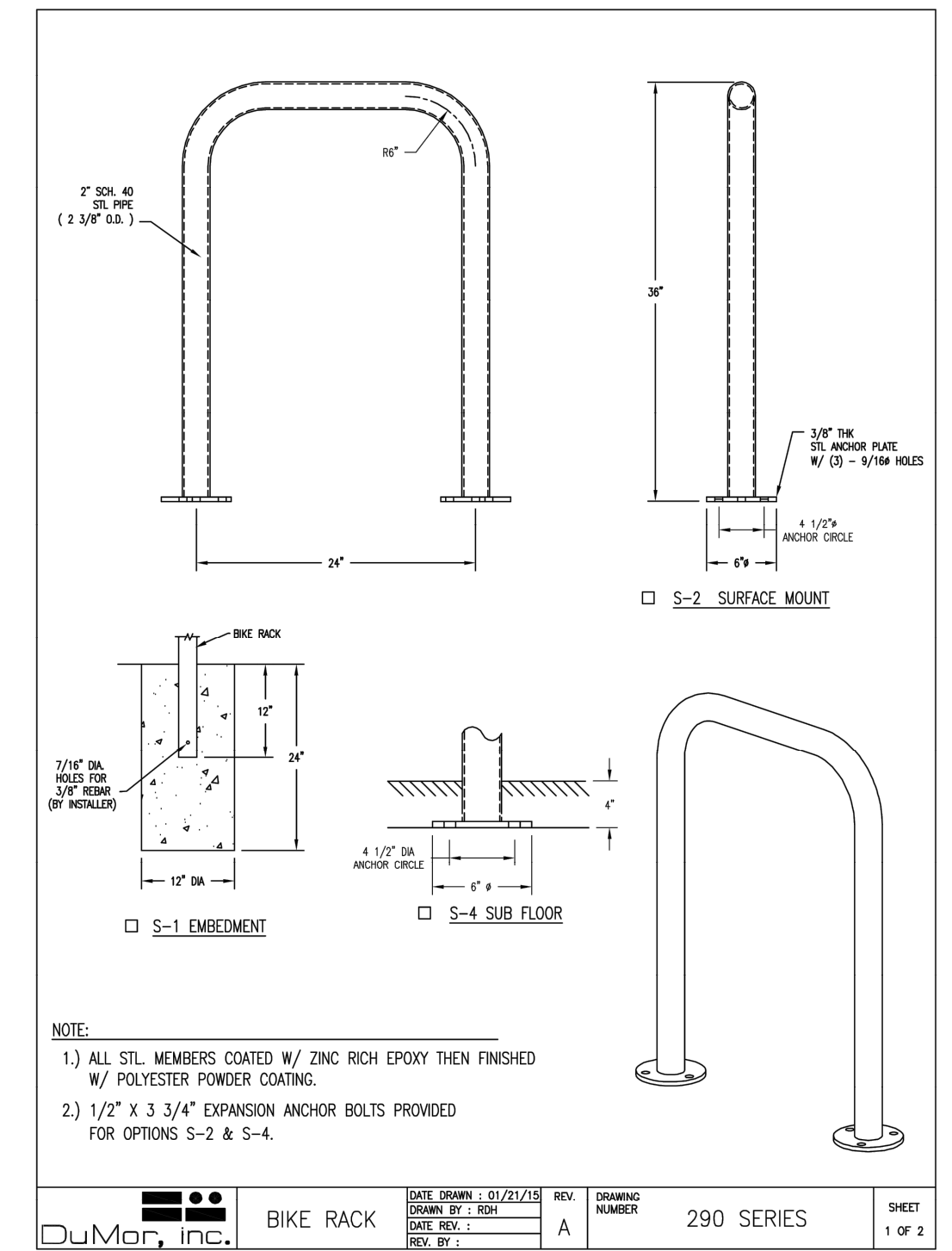
6 TYPICAL SIDEWALK DETAIL
SCALE: NTS



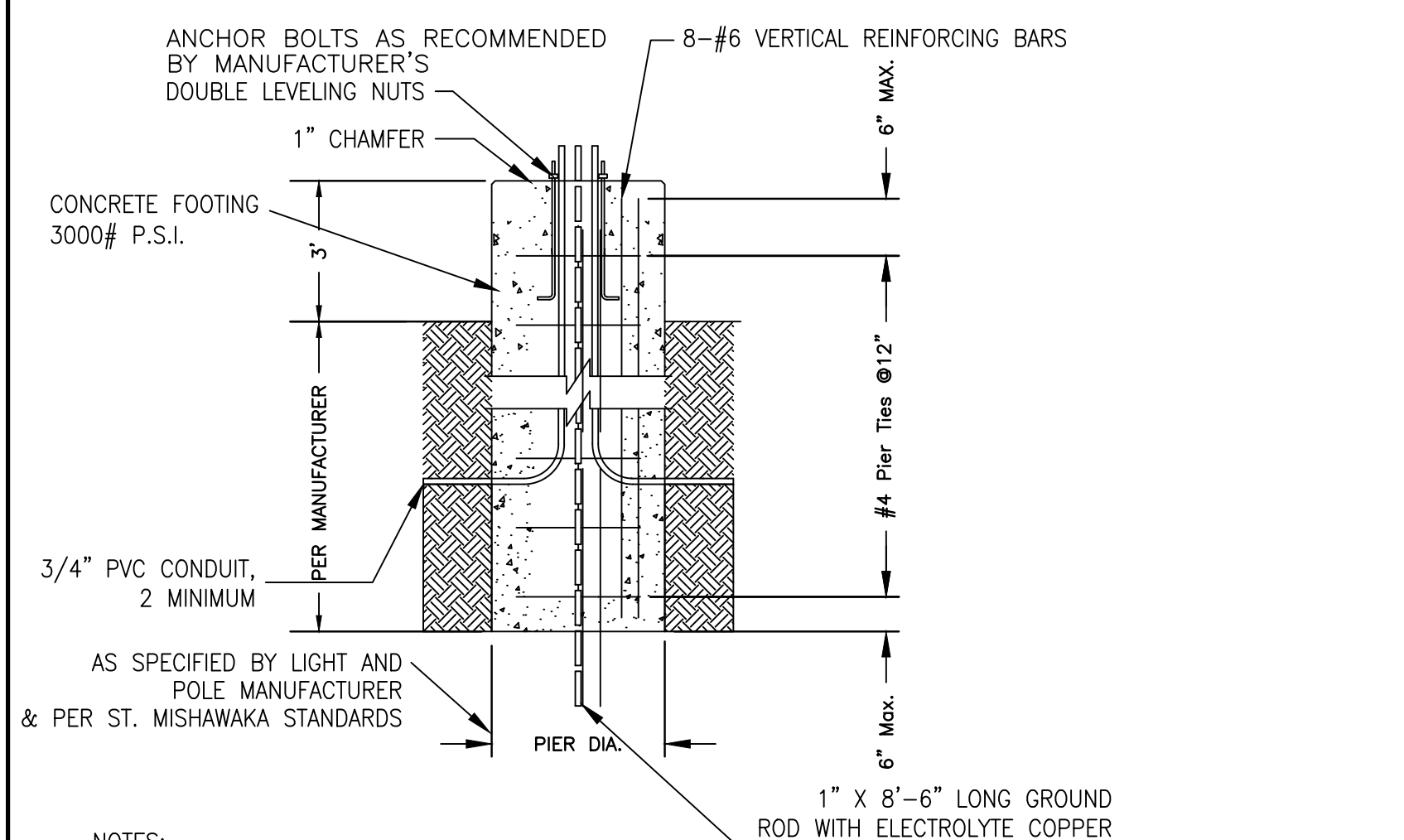
7 ACCESSIBLE SIGN
SCALE: NTS



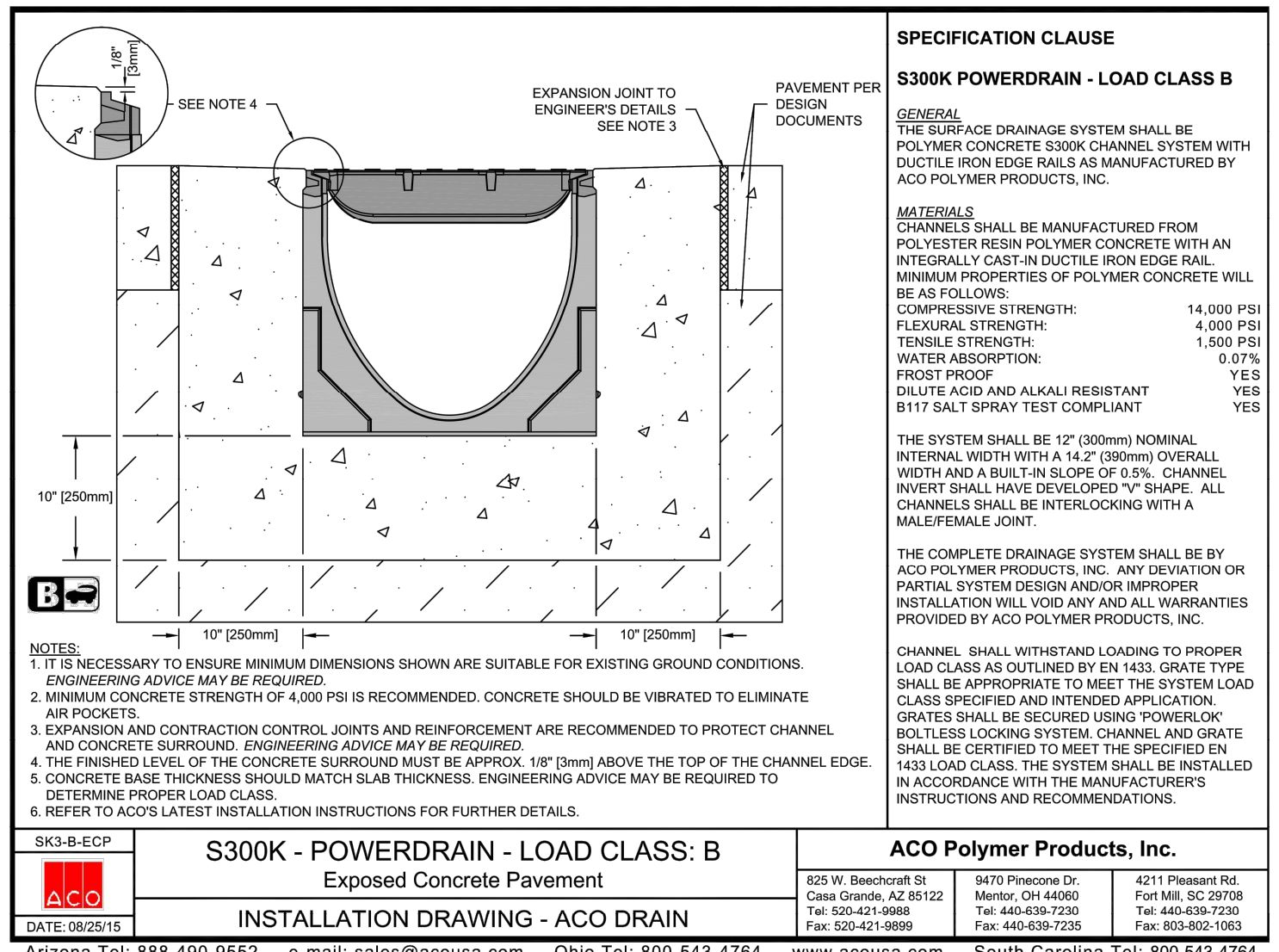
8 CATCH BASIN
SCALE: NTS



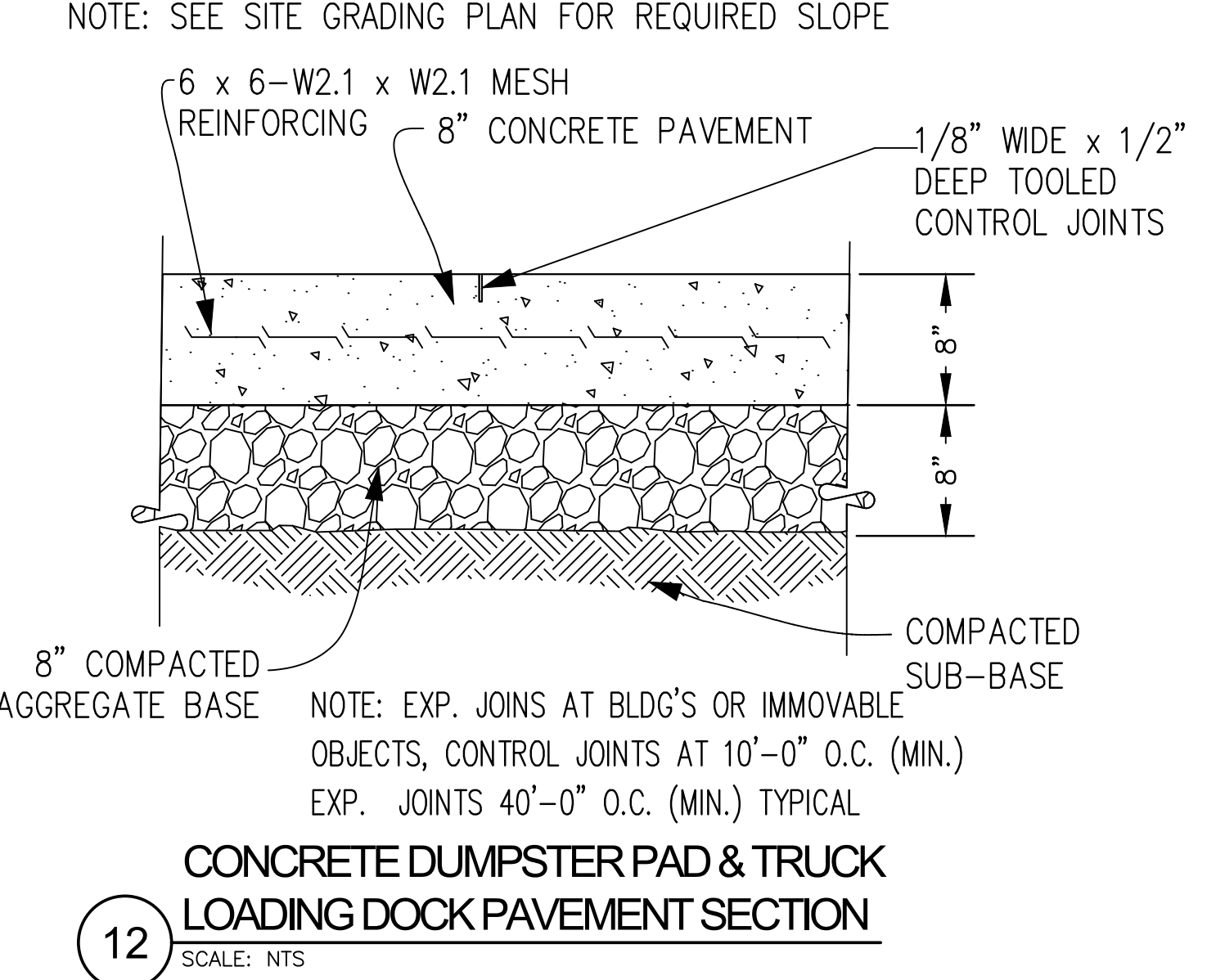
9 BIKE RACK
SCALE: NTS



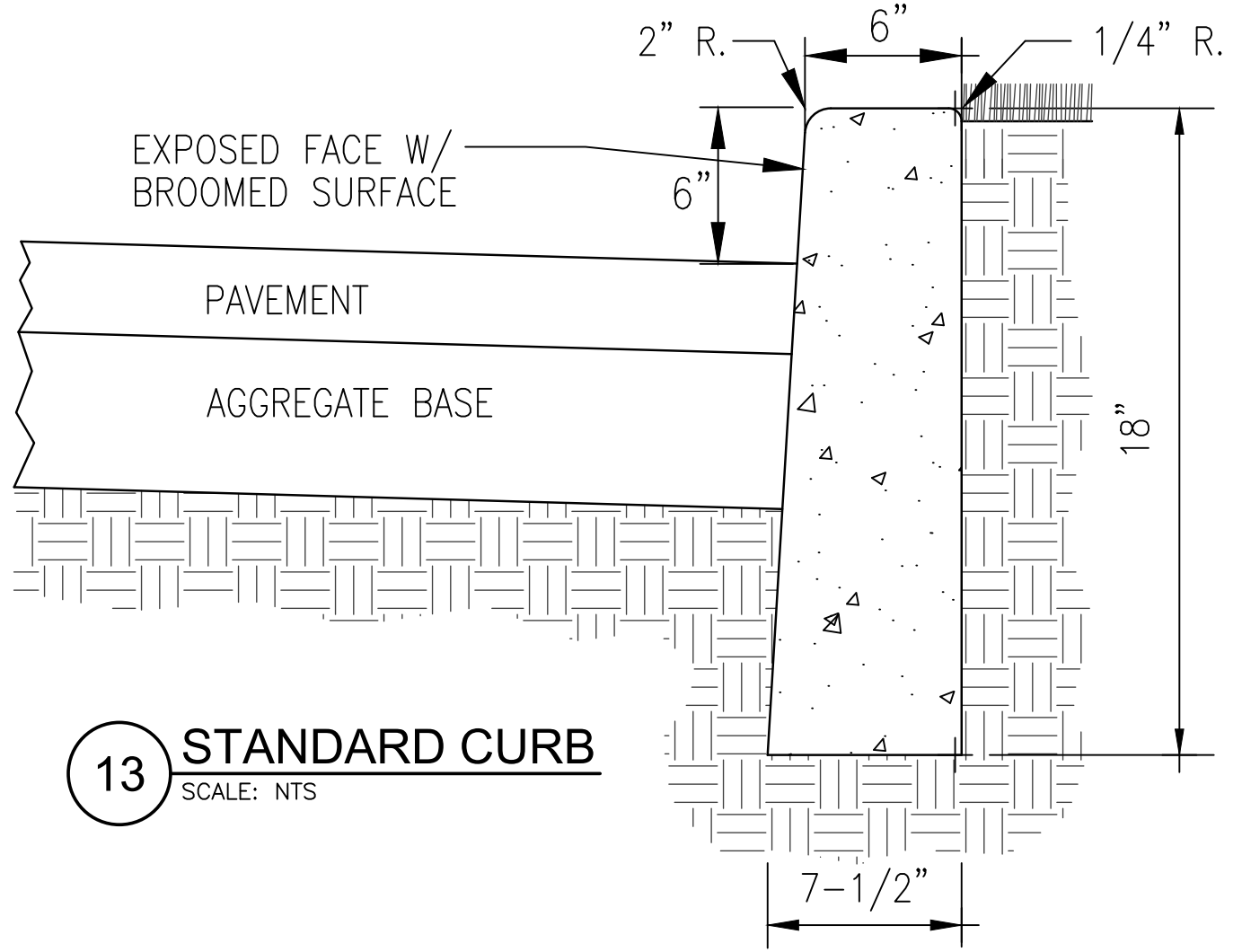
10 STANDARD LIGHT BASE
SCALE: NTS



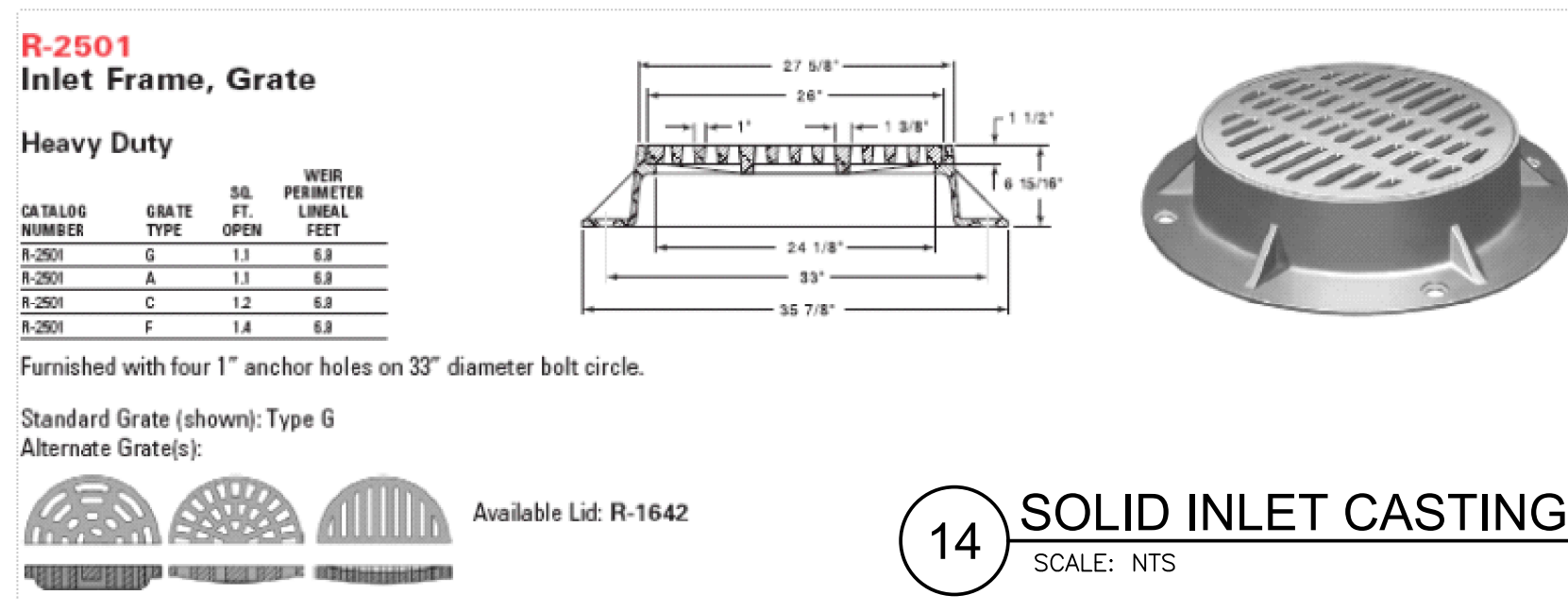
11 TRUCK DOCK TRENCH DRAIN
SCALE: NTS



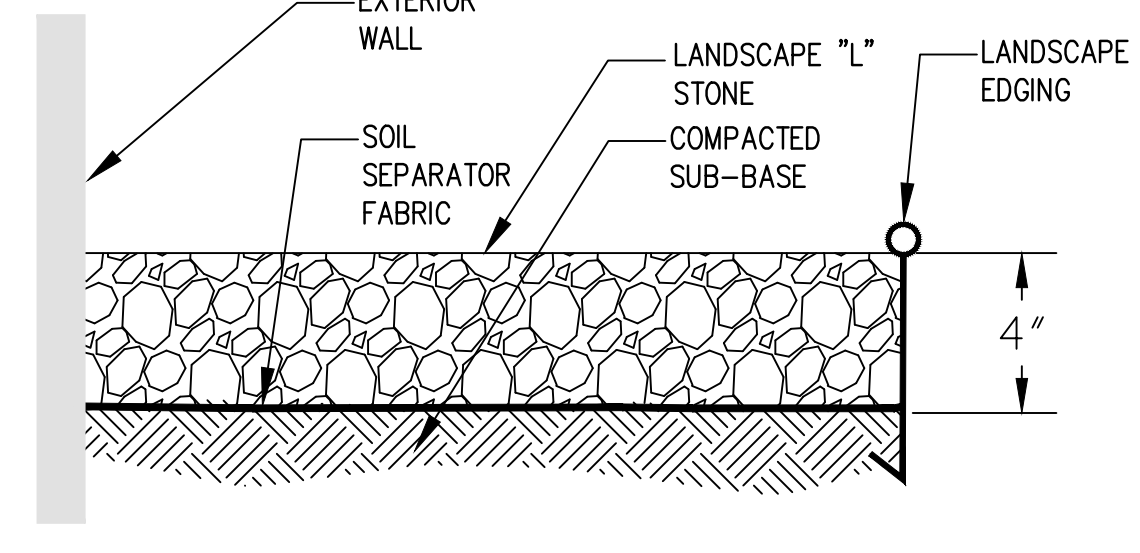
12 CONCRETE DUMPSTER PAD & TRUCK LOADING DOCK PAVEMENT SECTION
SCALE: NTS



13 STANDARD CURB
SCALE: NTS



14 SOLID INLET CASTING
SCALE: NTS



15 LANDSCAPE STONE MOW STRIP
SCALE: NTS



BID AND TENANT REVIEW SET CONSTRUCTION DETAILS

PROPERTY OWNER:
KREG
EDDY STREET LAND III, LLC
30 S. MERIDIAN ST. STE 1100
INDIANAPOLIS, IN. 46204
(317) 577-5600

SURVEYORS & ENGINEERS:
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SHEET
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FINAL SITE PLAN – EDDY COMMONS PHASE III

PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.

UTILITY NOTES:

MATERIAL REQUIREMENTS:

SANITARY SEWER, STORM SEWER, AND WATER LINES MATERIAL NOTE:

- ALL WATER PIPE 2" AND SMALLER SHALL BE TYPE "K" COPPER.
- ALL WATER PIPE 2 1/2" AND LARGER SHALL BE CLASS 52 DUCTILE IRON.
- ALL STORM SEWERS SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH CITY STANDARDS PRIOR TO ACCEPTANCE BY THE OWNER – THE ENGINEER SHALL WITNESS THE TESTS. COPIES OF THE TEST RESULTS SHALL BE FURNISHED TO THE OWNER, THE CITY AND THE ENGINEER.
- ALL STORM SEWER SHALL BE CLASS III RCP OR HDPE DOUBLE WALL.
- ALL SANITARY SEWER SHALL BE ESWCP (ASTM C700), OR SDR 35 PVC (ASTM D3034). ESWCP JOINTS SHALL CONFORM TO ASTM C425. PVC PIPE JOINTS SHALL CONFORM TO ASTM D3212 AND ASTM F477.
- ALL MANHOLES SHALL BE REINFORCED CONCRETE PRECAST (ASTM C478).

BACKFLOW / CROSS CONNECTION REQUIREMENTS:

- USE RPZ ON DOMESTIC LINES, INSIDE BUILDING. THE RPZ SHALL BE MOUNTED IN A HORIZONTAL ORIENTATION.
- USE DDCV ON FIRE LINES. THE DDCV SHALL BE LISTED ON THE USC APPROVED LIST. MOUNT IN APPROVED ORIENTATION.
- USE PVB ON LAWN SPRINKLER LINES.

SANITARY SEWER, STORM SEWER, AND WATER LINES GENERAL NOTES:

- ALL LOCAL PERMITS SHALL BE OBTAINED BEFORE CONSTRUCTION IS BEGUN ON THIS PROJECT.
- IF POLLUTION OR NUISANCE CONDITIONS ARE CREATED, IMMEDIATE CORRECTIVE ACTION SHALL BE TAKEN BY THE PERMITTEE.
- SEWER TO WATER MAIN SEPARATION DISTANCES SHALL COMPLY WITH SECTION 38 OF THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES, 2004 EDITION & IDEM REGULATIONS. SEE ITEM 8 BELOW.
- ALL TRENCHES SHALL BE DETERMINED USING DEEP WELLS OR WELL POINTS PRIOR TO EXCAVATION. IF NEEDED, THE CONTRACTOR SHALL PROVIDE SHEETING, SHORING, BRACING AND/OR A TRENCH BOX, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS, FOR ALL EXCAVATION WORK.
- MINIMUM COVER FOR WATER LINES IS 5.0 FT.
- P.V.C. SANITARY SEWERS SHALL BE TESTED FOR DEFLECTION USING A MANDELL WHICH IS 95% OF THE INSIDE DIAMETER OF THE PIPE, AS DEFINED IN THE APPLICABLE A.S.T.M. STANDARDS. ANY PIPE FAILING THE TEST SHALL BE RE-EXCAVATED AND REPLACED, SO THAT ALL COMPLETED PIPE PASSES A RETEST. THE DEFLECTION TEST SHALL BE PERFORMED NOT LESS THAN 30 DAYS AFTER BACKFILL OF THE TRENCHES. ALL OTHER DETAILS OF THE MANDELL TEST SHALL BE IN ACCORDANCE WITH "TEN STATES" STANDARDS AND IDEM REGULATIONS.
- ALL SANITARY SEWERS SHALL BE TESTED FOR INFILTRATION OR EXFILTRATION HYDROSTATICALLY, WITH A MINIMUM TESTING HEAD OF 2 FEET, TAKING INTO CONSIDERATION THE STATIC GROUNDWATER ELEVATION WITH RESPECT TO THE PIPE AT THE TIME OF THE TEST. THE MAXIMUM ALLOWABLE LEAKAGE SHALL BE 200 GALLONS PER DAY PER INCH DIAMETER PER MILE OF PIPE.
- ALL SANITARY SEWERS LAID PARALLEL TO WATER MAINS SHALL BE SEPARATED AT LEAST 10 FEET, MEASURED EDGE TO EDGE, FROM SAID WATER MAINS. WHENEVER A SANITARY SEWER CROSSES A WATER MAIN, THE MINIMUM VERTICAL SEPARATION SHALL BE 18", ALL IN ACCORDANCE WITH IDEM REGULATIONS AND "TEN STATES STANDARDS".
- THE RESULTS OF ALL TESTS ON THE COMPLETED SEWER SHALL BE SUBMITTED TO DANCH, HARNER & ASSOCIATES, INC. WITHIN THREE MONTHS OF COMPLETION OF CONSTRUCTION.
- ALL NEW WATER LINES, INCLUDING NEW FIRE HYDRANT, SHALL BE DISINFECTED IN ACCORDANCE WITH CITY, STATE AND FEDERAL REGULATIONS. THE NEW LINES SHALL BE FLUSHED PRIOR TO DISINFECTION. COPIES OF ACCEPTABLE BACTERIAL TEST RESULTS SHALL BE FURNISHED TO THE OWNER, THE ENGINEER AND THE CITY PRIOR TO ACTIVATING THE NEW WATER PIPING.
- ALL WATER LINES SHALL BE PRESSURE TESTED @ 150 PSI FOR 2 HOURS.
- DUCTILE IRON WATER MAIN PIPES, VALVES, AND ASSOCIATED FITTINGS SHALL BE ENCASED (WRAPPED) IN POLYETHYLENE PER CITY SPECIFICATIONS, SECTION 5-2.3.
- ALL SANITARY SEWER MANHOLES SHALL BE INSPECTED AFTER COMPLETION FOR GENERAL CONDITION, CRACKS, LEAKAGE OF GROUNDWATER OR OTHER DEFECTS. THE MANHOLE SHALL BE TESTED FOR WATER TIGHTNESS IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF "TEN STATES" STANDARDS, LATEST EDITION, AND IDEM REGULATIONS.
- NO ROOF DRAINS, FOOTING DRAINS AND/OR SURFACE WATER DRAINS MAY BE CONNECTED TO THE SANITARY SEWER SYSTEM INCLUDING TEMPORARY CONNECTIONS DURING CONSTRUCTION.
- SANITARY FEATURES SHALL COMPLY WITH ANY ADDITIONAL REQUIREMENTS OF THE ST. JOSEPH COUNTY HEALTH DEPARTMENT, AND/OR THE CITY OF SOUTH BEND.

PHONE, GAS, ELECTRIC, CTV UTILITY AND IRRIGATION SLEEVE NOTES:

- CONTRACTOR IS TO UNCOVER AND CONFIRM ALL TAP LOCATIONS. IF DISCREPANCIES EXIST, NOTIFY ENGINEER PRIOR TO COMMENCING WORK.
- CONTRACTOR IS TO COORDINATE ALL UTILITY CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANIES.
- ROUTINGS SHOWN ARE APPROXIMATE.
- CONTRACTOR IS TO COORDINATE AND ASSURE THAT ANY REQUIRED IRRIGATION SLEEVES ARE PLACED PRIOR TO PAVING.
- TELEPHONE, ELECTRIC AND TV ROUTINGS ARE TO BE COORDINATED WITH THE APPROPRIATE UTILITIES. CONTRACTOR IS TO PROVIDE CONDUIT UNDER PAVED AREAS AS REQUIRED BY THE APPROPRIATE UTILITY.
- GRANULAR BACKFILL MATERIAL IS REQUIRED IN ALL UTILITY TRENCHES LOCATED UNDER PAVEMENT OR SIDEWALKS. BACKFILL SHALL BE COMPACTED TO 100% OF STANDARD PROCTOR DENSITY PER SOILS REPORT.

UTILITY INFORMATION:

THE ENGINEER HAS INDICATED UNDERGROUND UTILITIES ON THESE PLANS BASED UPON INFORMATION PROVIDED BY THE VARIOUS UTILITIES. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS UNKNOWN AND THE ENGINEER ACCEPTS NO LIABILITY FOR UTILITY INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE UTILITIES, PROTECTING ALL UTILITIES, PAYING ALL COSTS FOR DAMAGE TO UTILITY FACILITIES, AND RESTORING ALL UTILITIES TO A CONDITION WHICH IS BETTER THAN THE ORIGINAL CONDITION AT THE START OF THIS PROJECT. THE CONTRACTOR SHALL NOT BEGIN UNDERGROUND WORK UNTIL ALL UTILITIES HAVE BEEN ACCURATELY LOCATED ON THE GROUND.

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GRADING, DRAINAGE & PAVING NOTES:

PAVING, STRIPING & CURB NOTES

- WORKMANSHIP AND MATERIALS FOR ALL PAVING TO CONFORM TO STATE AND LOCAL STANDARD DRAWINGS AND SPECIFICATIONS, LATEST EDITION.
- PARKING LOT SUBGRADE SHALL BE FINE GRADED TO ASSURE POSITIVE DRAINAGE AWAY FROM THE BUILDING AND TOWARDS THE COLLECTION LOCATIONS.
- ALL ASPHALT PAVING SHALL BE LAID ON A STRAIGHT, EVEN, AND UNIFORM GRADE WITH A MINIMUM 1% AND MAXIMUM 3% SLOPE TOWARDS THE COLLECTION POINTS. DO NOT ALLOW NEGATIVE GRADES OR PONDING OF WATER.
- SLOPE BUILDING SIDEWALKS AWAY FROM BUILDING AT 1%.
- PAVED AREAS ARE TO BE ROUGH GRADED TO +/- 0.10 FT. AND PROOF ROLLED. ANY NON-ACCEPTABLE AREAS MUST BE CORRECTED PRIOR TO THE PLACEMENT OF STONE.
- EXPANSION JOINTS – 1/2" ASPHALT IMPREGNATED FULL DEPTH, 40 FT. O.C. MAXIMUM AND AT SIDEWALK INTERSECTIONS. CRACK CONTROL SCORING AT SIDEWALK WIDTH DIMENSION, OR AS NOTED ON THE PLANS.
- STRIPING OF PARKING STALLS AND OTHER AREAS TO BE AS SHOWN ON THE PLANS. ALL LINES TO BE SINGLE STRIPE, YELLOW, 4" WIDE, STRAIGHT, EVENLY SPACED, AND UNIFORM IN LENGTH.
- HANDICAP PARKING AND RAMP SHALL COMPLY WITH ALL GOVERNMENTAL CODES AND STANDARDS. HANDICAP SPACES TO BE MARKED WITH THE INTERNATIONAL HANDICAP SYMBOL IN A BLUE FIELD. EACH SPACE SHALL BE ADDITIONALLY MARKED WITH APPROPRIATE SIGNAGE.
- REFER TO THE PROJECT DETAIL SHEET FOR PAVING DETAILS.

DIMENSIONS, COURSES AND THICKNESSES, OFFSITE CONSTRUCTION NOTES

- ALL WORK TO COMPLY WITH LOCAL AND STATE CODES & STANDARDS OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE THE WATER AND SEWER WORK IN THE RIGHT OF WAY WITH ALL APPROPRIATE AGENCIES.
- RIGHT OF WAY DRAINAGE PATTERNS SHALL ALSO BE MAINTAINED.
- ANY AREAS DISTURBED ARE TO BE REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED PRIOR TO DISTURBANCE.
- CONTRACTOR TO INSTALL IMPROVEMENTS SHOWN AND TO COORDINATE WITH THE APPROPRIATE GOVERNMENTAL AGENCY FOR CLARIFICATION AND ANY NECESSARY INSPECTIONS.

SITE GRADING

- STRIP BUILDING AND PAVING AREAS OF ALL ORGANIC TOPSOIL MATERIALS. STOCKPILE SUITABLE TOPSOIL'S FOR RESPREADING ONTO LANDSCAPE AREAS. ALL EXCESS EXCAVATED MATERIALS SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE.
- ALL SOILS SHALL BE GRADED TO PROVIDE SMOOTH CONTOURS AND POSITIVE DRAINAGE AWAY FROM BUILDINGS. DO NOT ALLOW FOR PONDING OF WATER.
- AFTER TOPSOIL REMOVAL, CONTRACTOR IS TO PROOF ROLL THE BUILDING AND PAVING AREAS. ANY NON-ACCEPTABLE AREAS MUST BE CORRECTED PRIOR TO BEGINNING ANY FILL OPERATIONS.
- AFTER COMPLETION OF PROOF ROLLING, FILL CAN BE PLACED USING SUITABLE ONSITE OR BORROW MATERIALS IN MAXIMUM 8" LIFTS. FILL TO BE COMPACTED TO 100% STANDARD PROCTOR DENSITY.
- PAVED AREAS ARE TO BE ROUGH GRADED TO +/- 0.10 FT. AND PROOF ROLLED. ANY NON-ACCEPTABLE AREAS MUST BE CORRECTED PRIOR TO THE PLACEMENT OF STONE.
- PARKING LOT SHALL BE GRADED TO ASSURE POSITIVE DRAINAGE AND NO PONDING OF WATER
- CURBS TO BE WHERE SHOWN ON THE PLAN AND INTEGRAL WITH SIDEWALK AT PAVING EDGE, AS APPROPRIATE.

DRAINAGE

- ALL WORK TO COMPLY WITH APPLICABLE CITY OF SOUTH BEND CONSTRUCTION STANDARDS.
- PARKING AREAS SHALL BE GRADED TO ASSURE POSITIVE FLOW AWAY FROM THE BUILDING. NO PONDING OF WATER IS TO BE ALLOWED.
- CONTRACTOR IS TO CONFIRM ALL UTILITY LOCATIONS. IF DISCREPANCIES EXIST, NOTIFY ENGINEER PRIOR TO COMMENCING WORK.
- GRANULAR BACKFILL MATERIAL IS REQUIRED IN ALL PIPE TRENCHES LOCATED UNDER PAVEMENT OR SIDEWALKS. BACKFILL SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY.
- REFER TO STANDARD DETAILS FOR SPECIFICATIONS FOR PRECAST DRYWELLS, PIPE TRENCHING AND BACKFILL, FRENCH DRAIN TRENCH DETAILS AND MATERIALS, INLETS, AND CASTING INFORMATION.

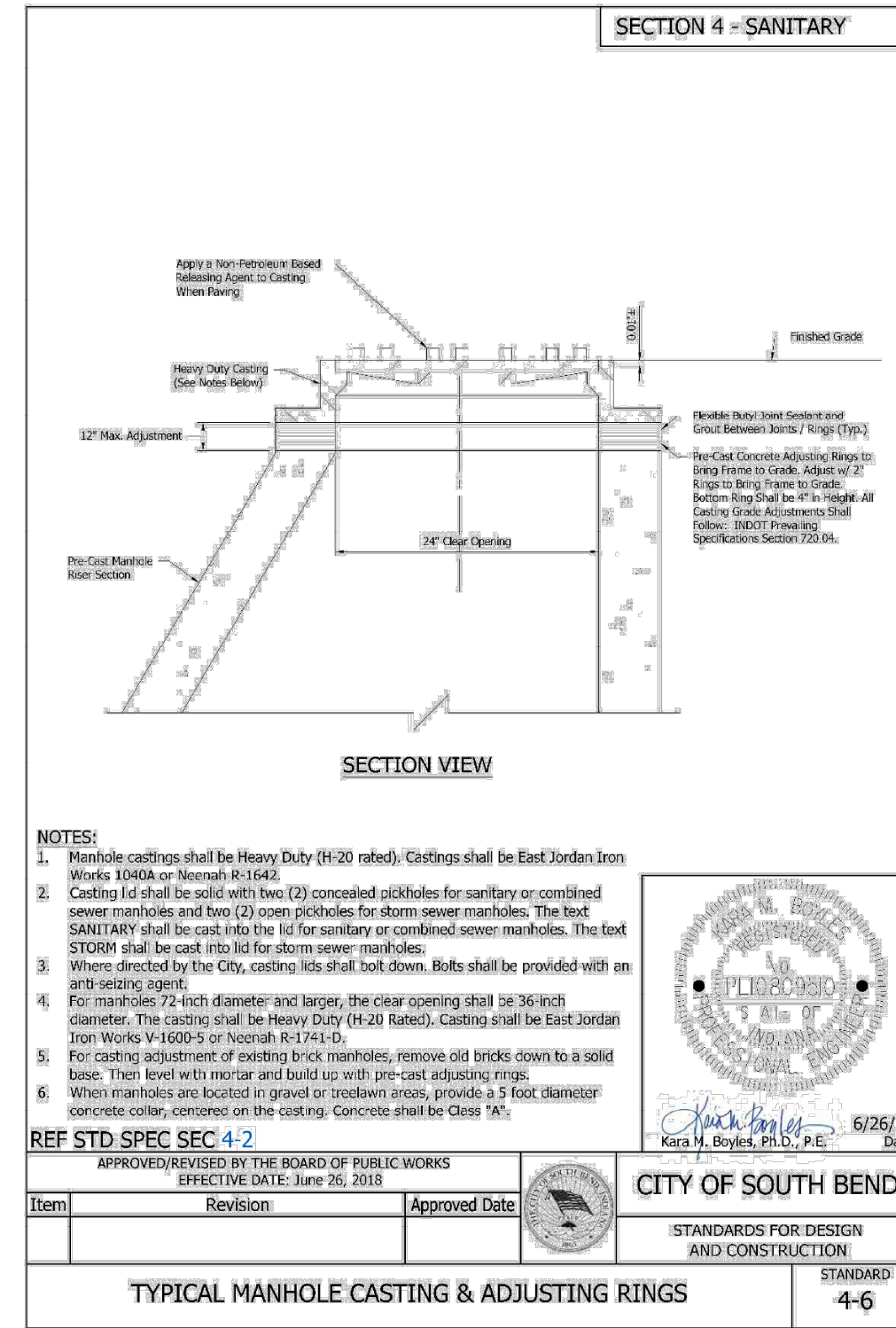
EROSION CONTROL NOTES:

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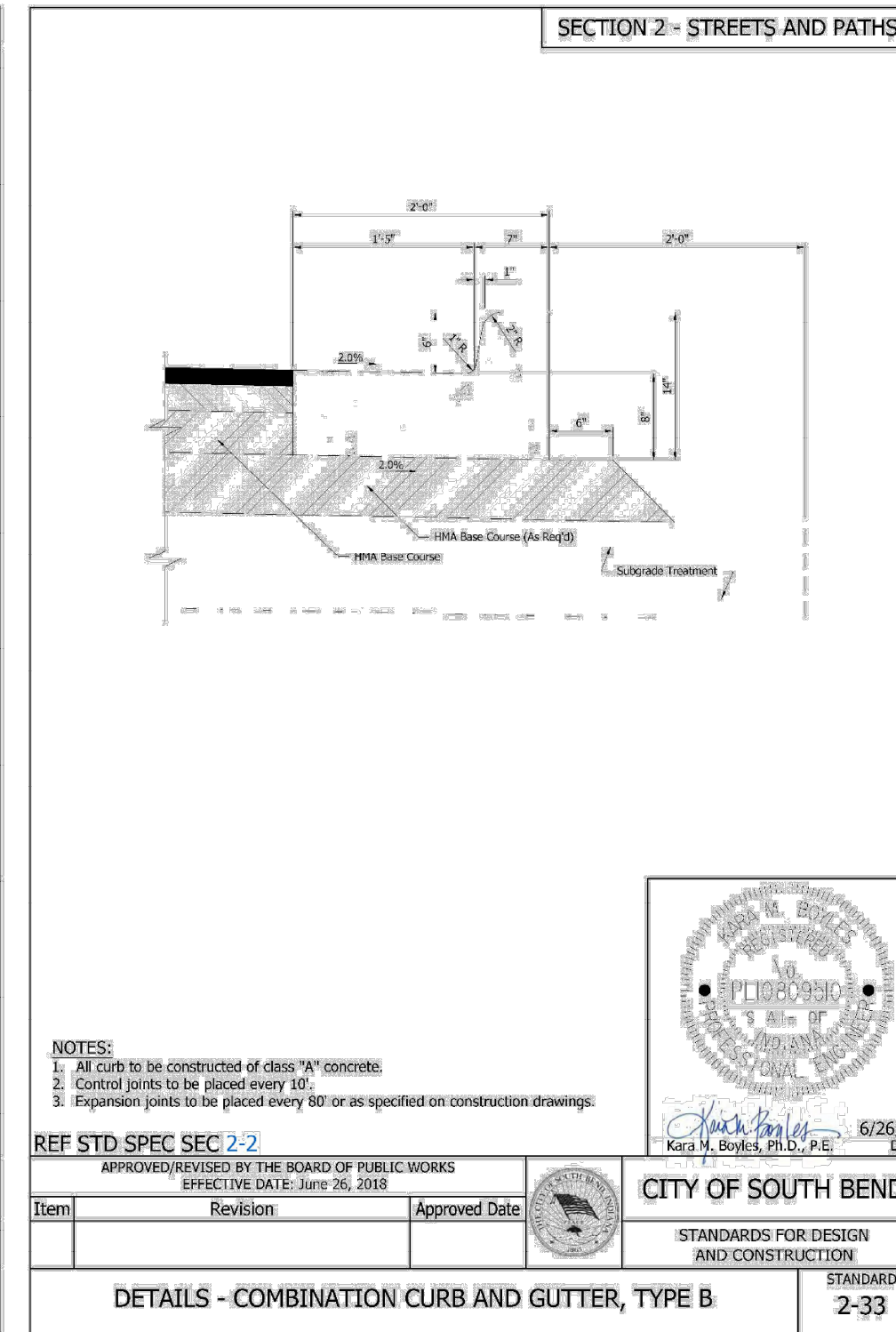
- EROSION NOTE:**
GENERAL CONTRACTOR IS RESPONSIBLE FOR ASSURING COMPLIANCE WITH ALL LOCAL AND STATE REQUIREMENTS FOR EROSION CONTROL. PRIMARY RESPONSIBILITY FOR MAINTENANCE OF THE EROSION CONTROL PROTECTION WILL REMAIN WITH THE GENERAL CONTRACTOR. GENERAL CONTRACTOR WILL ALSO BE REQUIRED TO CLEAN OUT ALL DRAINAGE STRUCTURES IMMEDIATELY PRIOR TO PROJECT TURNOVER.
- LAND DISTURBANCE WHICH REMOVES VEGETATION SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
 - THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED AS QUICKLY AS PRACTICAL.
 - TEMPORARY VEGETATION OR MULCHING SHALL BE USED WHERE REQUIRED TO PROTECT EXPOSED AREAS DURING SITE DEVELOPMENT IF A DISTURBED AREA IS TO REMAIN INACTIVE FOR A PERIOD EXCEEDING 14 DAYS, TEMPORARY RYE GRASS SEEDING WILL BE PLACED TO PROVIDE VEGETATION.
 - PERMANENT AND FINAL VEGETATION SHALL BE INSTALLED AS SOON AS PRACTICAL.
 - STRAW BALE CHECK DAMS AND SILT FENCING SHALL BE PLACED AROUND ANY SOIL STOCKPILE THAT BECOMES INACTIVE FOR A PERIOD OF TIME EXCEEDING 15 DAYS.
 - "SILT SACK", "DANDY BAGS" OR STONE FILLED BAGS SHALL BE PLACED AND MAINTAINED AROUND NEWLY CONSTRUCTED DRAINAGE STRUCTURES TO PREVENT SILT AND DEBRIS FROM ENTERING DOWNSTREAM DRAINAGE FACILITIES DURING ALL CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL SITE WORK IS COMPLETED.
 - DUE TO THE PREVALENCE OF SILTY SAND SUBSOIL AT THIS SITE, SPECIAL MEASURES ARE SPECIFIED TO PREVENT SILT FROM CLOGGING THE SOIL AT THE BOTTOM OF DRYWELLS. THE CONTRACTOR SHALL REBUILD ANY DRYWELLS THAT FAIL TO PERCOLATE (TO DRY CONDITIONS AFTER 48 HOURS).

GENERAL NOTES

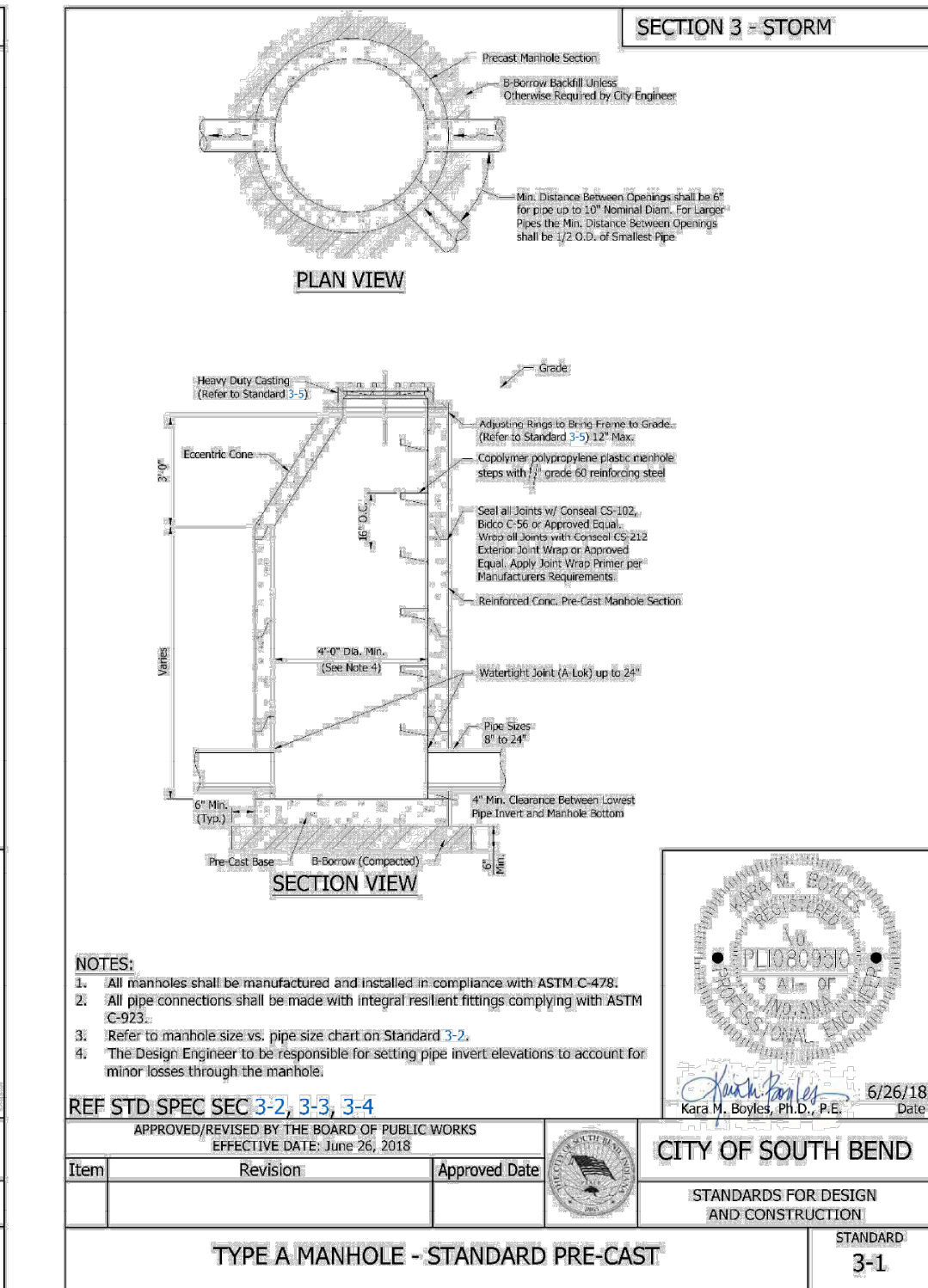
- ALL WORK TO COMPLY WITH LOCAL AND STATE CODES & STANDARDS OF CONSTRUCTION.
- ALL TESTING REQUIRED BY GOVERNMENTAL AUTHORITIES IS TO BE PERFORMED BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES. QUANTITIES GIVEN ARE APPROXIMATE AND MUST BE VERIFIED. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH TWO COPIES OF "RED LINED" AS-BUILT PLANS OF THE DESIGNATED IMPROVEMENTS.
- CONTRACTOR IS TO VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO THE START OF THE WORK AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION. PLANS INDICATE APPROXIMATE ELEVATIONS AND ROUTING. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY DIMENSIONAL OR ELEVATION DISCREPANCIES WHICH HAVE NOT BEEN BROUGHT TO HIS ATTENTION PRIOR TO CONSTRUCTION.
- CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES ON THE SITE AND RIGHT OF WAY PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES WILL NOT BE DAMAGED OR DISTURBED. CONTRACTOR SHALL ALSO CONTACT ALL APPROPRIATE UTILITY COMPANIES, INCLUDING MUNICIPAL UTILITIES, TO COORDINATE ALL UTILITY INSTALLATIONS.
- CONTRACTOR IS TO COMPLY WITH RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT.
- DETAILS AND SPECIFICATIONS SHOWN ON THIS PLAN ARE INTENDED TO COMPLEMENT THE PROJECT PLANS AND STANDARD DETAILS. IN CASES OF CONFLICTS BETWEEN THESE PLANS AND OTHER SPECIFICATIONS, THE MORE RESTRICTIVE CASE APPLIES, UNLESS SPECIFICALLY OVERRIDDEN.
- THESE TECHNICAL SPECIFICATIONS ARE INTENDED TO COMPLEMENT AND COORDINATE WITH THE REQUIREMENTS CONTAINED IN THE PROJECT MANUAL. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MOST RESTRICTIVE SPECIFICATION SHALL BE ENFORCED. REFER ALSO TO THE CITY OF SOUTH BEND PREVAILING SPECIFICATIONS AND RELATED DOCUMENTS WHICH ARE CONTAINED HEREIN BY REFERENCE.



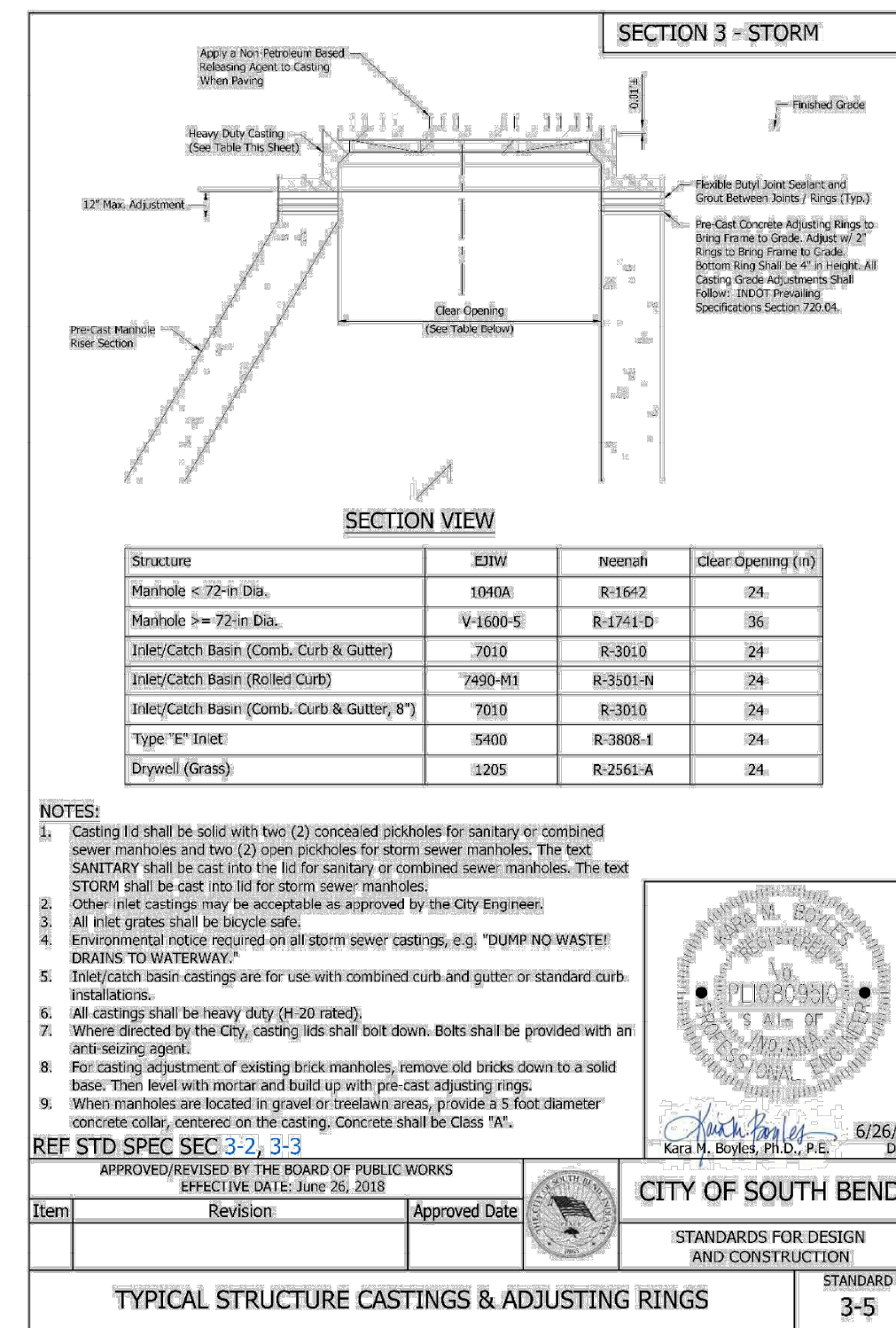
16 SANITARY MANHOLE CASTING
SCALE: NTS



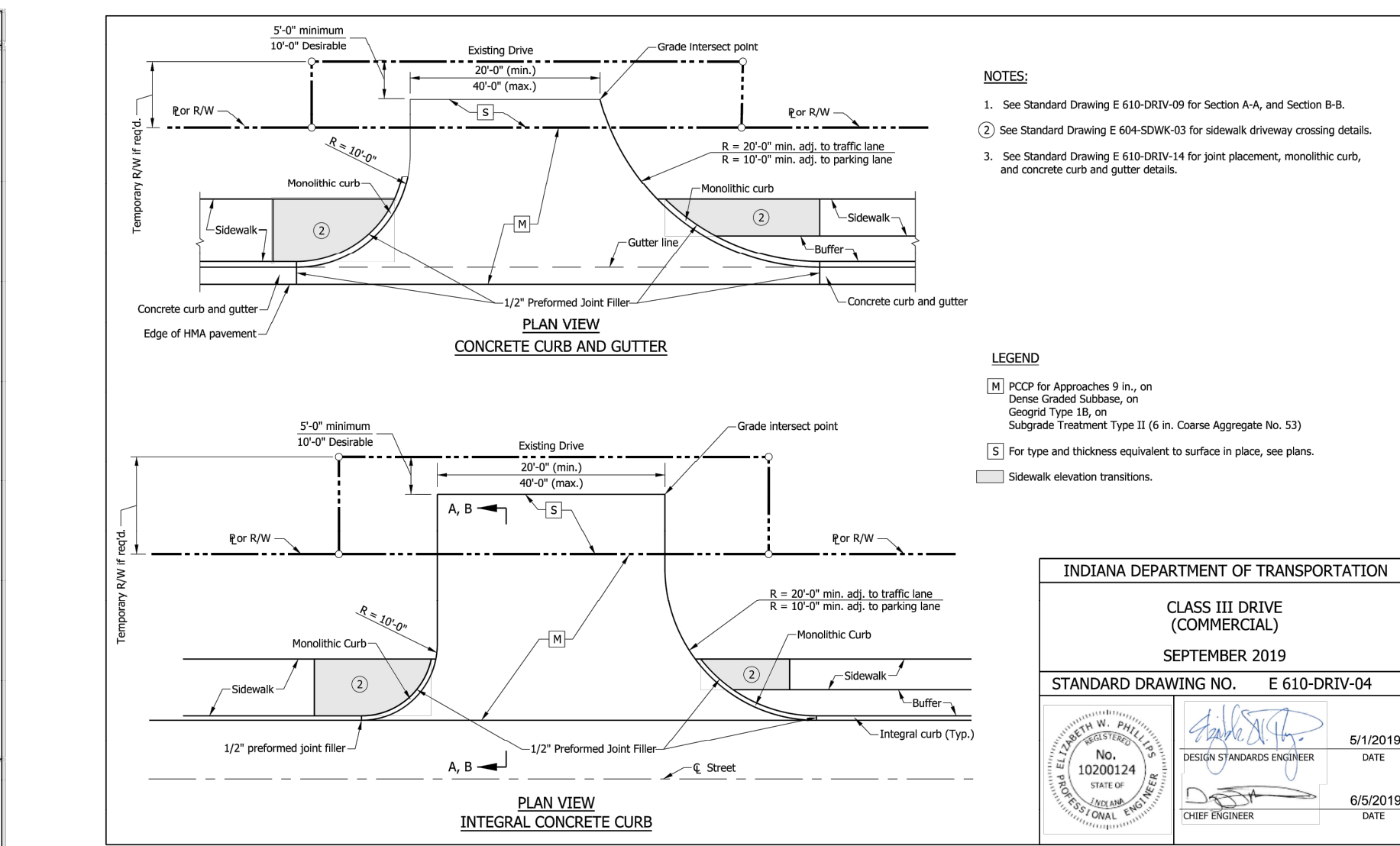
17 CURB AND GUTTER DETAIL TYPE "B" (SOUTH BEND)
SCALE: NTS



18 STORM MANHOLE
SCALE: NTS



19 STORM MANHOLE CASTING
SCALE: NTS



20 INDOT COMMERCIAL DRIVE APPROACH
SCALE: NTS



PROPERTY OWNER:
KRG
EDDY STREET LAND III, LLC
30 S. MERIDIAN ST. STE 1100
INDIANAPOLIS, IN. 46204
(317) 577-5600

SURVEYORS & ENGINEERS:
DANCH, HARNER & ASSOCIATES, INC.
1643 COMMERCE DRIVE
SOUTH BEND, IN. 46228
(574) 234-4003
ATTN: MICHAEL DANCH

DATE	5/6/20	DRAWN BY:	JTB
SCALE	n/a	CHECKED BY:	MJD
FILE #	200104.5	PROJ. MANGR:	JTB

REVISIONS			
DATE	BY	DATE	BY

SHEET
C5.4

BID AND TENANT REVIEW SET
CONSTRUCTION SPECIFICATIONS & DETAILS

Danch, Harner & Associates, Inc.
 Land Surveyors • Professional Engineers
 Landscape Architects • Land Planners
 1643 Commerce Drive • South Bend, IN 46228
 Office: (574) 234-4003 / (800) 994-4003 • Fax: (574) 234-4119

200104.5 CSP - Engineering 10-9-20-20:09 10/9/2020 11:27 AM

FINAL SITE PLAN – EDDY COMMONS PHASE III

PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.



1. INSTALL SILT FENCE	0	4	8	12	16	20	24	28
2. ROUGH GRADE SITE								
3. INSTALL GRAVEL APPROACH								
4. INSTALL STORM STRUCTURES & PIPING								
5. INSTALL INLET EROSION CONTROL PROTECTION								
6. FINISH GRADE DRIVE								
7. INSTALL CURBS								
8. REMOVE GRAVEL APPROACH								
9. INSTALL PAVEMENT BASE								
10. REMOVE INLET EROSION PROTECTION								
11. ADD FILTER CLOTH TO STORM INLET CASTINGS								
12. FINISH GRADE TURF AREAS								
13. SEED/SOD & MULCH SITE								
14. FINAL PAVING								
15. REMOVE FILTER CLOTH AT INLETS								
16. REMOVE SILT FENCE								

EROSION CONTROL:

EROSION CONTROL:
GENERAL CONTRACTOR IS RESPONSIBLE FOR ASSURING COMPLIANCE WITH ALL LOCAL AND STATE REQUIREMENTS FOR EROSION CONTROL. PRIMARY RESPONSIBILITY FOR MAINTENANCE OF THE EROSION CONTROL PROTECTION WILL REMAIN WITH THE GENERAL CONTRACTOR. GENERAL CONTRACTOR WILL ALSO BE REQUIRED TO CLEAN OUT ALL DRAINAGE STRUCTURES IMMEDIATELY PRIOR TO PROJECT TURNOVER.

1. LAND DISTURBANCE WHICH REMOVES VEGETATION SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
2. THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED AS QUICKLY AS PRACTICAL.
3. TEMPORARY VEGETATION OR MULCHING SHALL BE USED WHERE REQUIRED TO PROTECT EXPOSED AREAS DURING SITE DEVELOPMENT. IF A DISTURBED AREA IS TO REMAIN INACTIVE FOR A PERIOD EXCEEDING 15 DAYS, TEMPORARY RYE GRASS SEEDING WILL BE PLACED TO PROVIDE VEGETATION, AT A RATE OF 200# SEED PER ACRE.
4. PERMANENT AND FINAL VEGETATION SHALL BE INSTALLED AS SOON AS PRACTICAL.
5. STRAW BALE CHECK DAMS AND SILT FENCING SHALL BE PLACED AROUND ANY SOIL STOCKPILE THAT BECOMES INACTIVE FOR A PERIOD OF TIME EXCEEDING 15 DAYS.
6. APPROVED INLET PROTECTION SYSTEMS SHALL BE PLACED AND MAINTAINED AROUND NEWLY CONSTRUCTED DRAINAGE STRUCTURES TO PREVENT SILT AND DEBRIS FROM ENTERING DOWNSTREAM DRAINAGE FACILITIES DURING ALL CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL SITE WORK IS COMPLETED.

EROSION CONTROL MAINTENANCE MEASURES:

- TEMPORARY SEEDING – 15 DAYS AFTER COMPLETE GRADING OR INTERIM STOCKPILES.
- CLEAN OUT SEDIMENT TRAPS – WEEKLY OR AFTER EACH 1/2" RAINFALL EVENT AS NEEDED UNTIL ALL DISTURBED EARTH IS STABILIZED.
- CLEAN OUT INLETS / FILTER CLOTH – WEEKLY OR AFTER EACH 1/2" RAINFALL EVENTS NEEDED UNTIL ALL DISTURBED EARTH IS STABILIZED.
- RESTORE ERODED AREAS – AFTER EACH 1/2" RAINFALL EVENT OR MONTHLY AS NEEDED.
- EQUIPMENT STAGING PAD CLEANUP – AFTER EACH SPILL OR WEEKLY AS NEEDED. (REMOVE CONTAMINATED SOIL)
- GRAVEL DRIVE REPAIR – REPLACE DRIVE GRAVEL AS NECESSARY TO PREVENT TRACKING OF MUD ON ROADS. STREET SWEEPING TO BE DONE ON A REGULAR BASIS TO REDUCE THE TRACKING OF MUD INTO THE ROAD.
- SILT FENCE REPAIR – CHECK AFTER EACH 1/2" RAINFALL EVENT AND REPAIR, OR WEEKLY AS NEEDED.
- KITE REALTY GROUP WILL BE RESPONSIBLE FOR MAINTAINING POST CONSTRUCTION EROSION CONTROL MEASURES. (30 S. MERIDIAN ST. SUITE 1100, INDIANAPOLIS, IN. 46204)

EROSION CONTROL LEGEND

	= INSTALL INLET PROTECTION FOR EROSION CONTROL
	= INSTALL SILT FENCE FOR EROSION CONTROL
	= INSTALL 60' X 20' TEMPORARY GRAVEL DRIVE
	= INSTALL 10' X 10' CONCRETE WASHOUT AREA PER DETAILS

SOILS DATA

CODE	NAME	% SLOPE
UgVA	Urban land-tyner complex	0 to 1

HYDROLOGIC UNIT CODE:
04050001240040

LATITUDE /LONGITUDE:
41°41'15.86"N 86°14'16.19"W

GENERAL SURVEY DISCLAIMER NOTES:
THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED FOR THE CLIENT ONLY. ANY REUSE WITHOUT WRITTEN VERIFICATION AND ADAPTATION BY THE LAND SURVEYOR FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE LAND SURVEYOR.

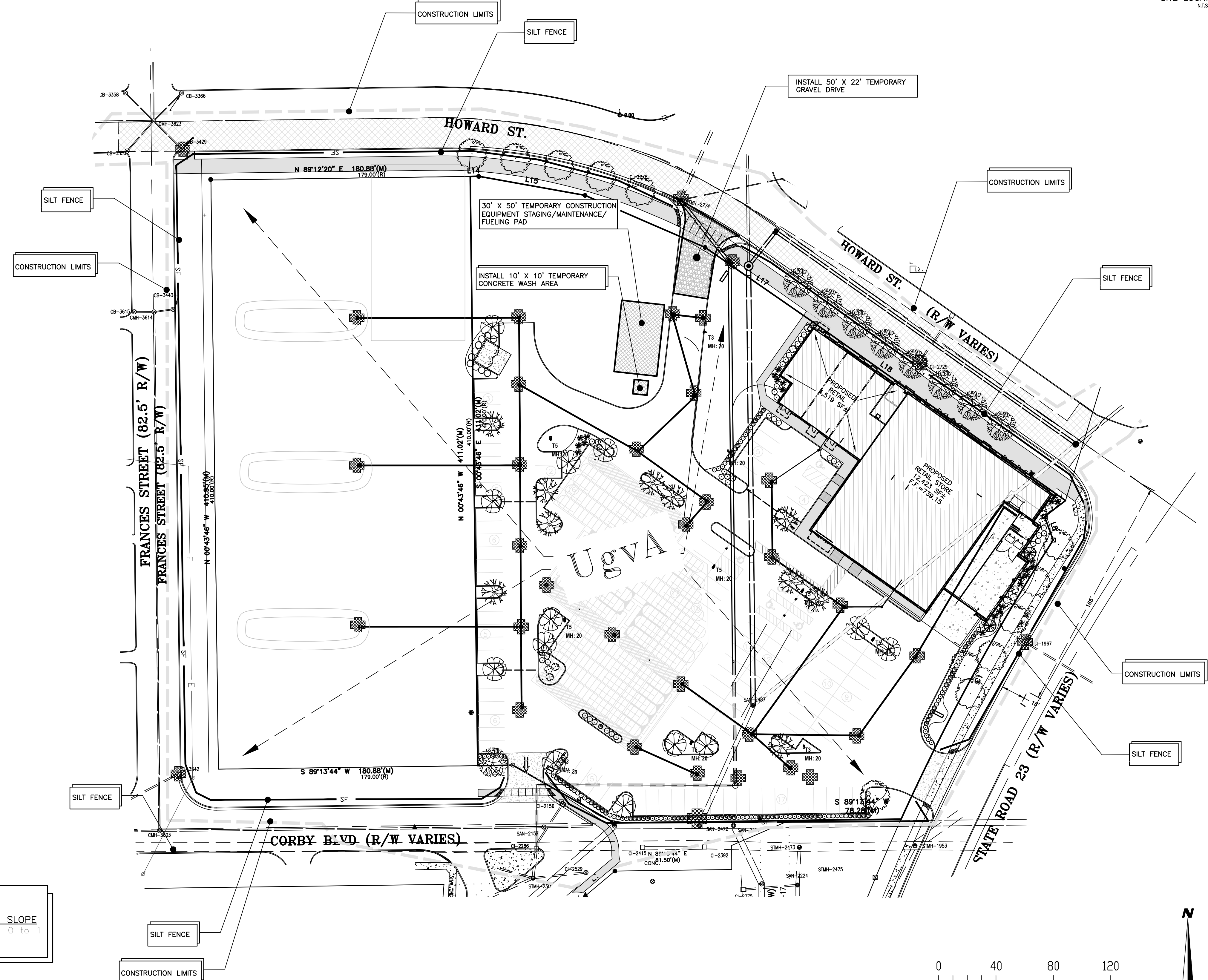
ANY UTILITY OR EASEMENT LOCATIONS, IF SHOWN, ARE APPROXIMATE. THE CLIENT MUST FIELD VERIFY UTILITY LOCATIONS WITH THE RESPECTIVE UTILITY COMPANY. THIS LAND SURVEYOR ASSUMES NO LIABILITY FOR THE ACCURACY OF THE LOCATION OR SIZE OF EXISTING UTILITIES OR THE EXISTENCE OR NONEXISTENCE OF ADDITIONAL UNDERGROUND UTILITIES OR STRUCTURES.

NO IMPROVEMENTS SHOULD BE MADE ON THE BASIS OF THIS PLAN ALONE. FIELD MONUMENTATION OF CRITICAL POINTS SHOULD BE ESTABLISHED PRIOR TO COMMENCEMENT OF ANY AND ALL CONSTRUCTION. FOR BUILDING LINES, EASEMENTS AND OTHER RESTRICTIONS NOT SHOWN HEREON REFER TO YOUR DEED, ABSTRACT, TITLE POLICY, CONTRACTS AND LOCAL BUILDING, ZONING AND SUBDIVISION ORDINANCES.

UNLESS SPECIFICALLY SHOWN HEREON, THIS SURVEY DOES NOT PURPORT TO INDICATE THE PRESENCE OR ABSENCE OF WETLANDS AND HAZARDOUS OR ENVIRONMENTALLY INJURIOUS MATERIALS. THE SURVEYOR EXPRESSLY DISCLAIMS ANY RESPONSIBILITY OR LIABILITY FOR THE SAME.

ANY INFORMATION ON THIS DRAWING IS NOT INTENDED TO BE SUITABLE FOR REUSE BY ANY PERSON, FIRM OR CORPORATION OR ANY OTHERS ON EXTENSION OF THIS PROJECT OR FOR ANY USE ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION AND ADOPTION BY THE ENGINEER, ARCHITECT OR SURVEYOR FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO THE ENGINEER, ARCHITECT OR SURVEYOR.

ALL UNDERGROUND UTILITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ANY CONSTRUCTION MAY BEGIN.



PROPERTY OWNER:
KRG
EDDY STREET LAND III, LLC
30 S. MERIDIAN ST. STE. 1100
INDIANAPOLIS, IN. 46204
(317) 577-5600

SURVEYORS & ENGINEERS:
DANCH, HARNER & ASSOCIATES, INC.
1643 COMMERCE DRIVE
SOUTH BEND, IN. 46828
(574) 234-4003
ATTN: MICHAEL DANCH

DATE	5/6/20	DRAWN BY:	JTB
SCALE	1" = 40'	CHECKED BY:	MJD
FILE #	200104.5	PROJ. MANGR:	JTB

REVISIONS

DATE	BY	DESCRIPTION

SCALE 1" = 40'

**BID AND TENANT REVIEW SET
SOIL EROSION PLAN**

Danch, Harner & Associates, Inc.
Land Surveyors • Professional Engineers
Landscape Architects • Land Planners
1643 Commerce Drive • South Bend, IN 46828
Office: (574) 234-4003 / (800) 294-4003 • Fax: (574) 234-4119

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FINAL SITE PLAN – EDDY COMMONS PHASE III

PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.

SECTION 7 - EARTHWORK & EROSION AND SEDIMENT CONTROL

REQUIREMENTS:
Material: 2-3 in. dia. washed stone (NDOT CA No. 2) over a stable foundation.
Thickness: 6 in. minimum.
Width: See minimum on plan below or full width of entrance/exit roadway, whichever is greater.
Length: 50 ft. minimum for small sites (less than 2 acres), 150 ft. minimum for large sites (2 acres and larger).
The length can be shorter for small sites such as for an individual home, but shall be of sufficient length to prevent tracking.
Washing facility (optional): Level area with 3 in. washed stone minimum or a commercial rack, and waste water diverted to a sediment trap or basin.
Geotextile fabric underliner: Required to provide greater bearing strength.

INSTALLATION:

- Avoid locating on steep slopes or at curves in public roads.
- Remove all vegetation and other objectionable material from the foundation area, and grade and crown for positive drainage.
- If slope towards the road exceeds 2%, construct an 8 in. high diversion ridge with 3:1 side slopes across the foundation area about 15 ft. from the entrance to divert runoff away from the road (see profile).
- Install culvert pipe under the pad if needed to maintain proper public road drainage.
- Place stone to dimensions and grade shown in the erosion/sediment control plan, leaving the surface smooth and sloped for drainage.
- Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

PROFILE

MAINTENANCE:

- Inspect entrance pad, sediment disposal area, and all other erosion control measures once every seven days and within 24 hours following each 1/2" storm event or heavy use. Required repairs should be completed immediately.
- Reshape pad as needed for drainage and runoff control.
- Topdress with clean stone as needed.
- Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping; at a minimum this should be performed daily. Flushing should only be used if the water is conveyed into a sediment trap or basin.
- Repair any broken road pavement immediately.

PLAN VIEW

Kara M. Boyles, P.E. 6/26/18
Professional Engineer No. PE10809510

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS		EFFECTIVE DATE: June 26, 2018		CITY OF SOUTH BEND	
Item	Revision	Approved Date	Standard	Item	Revision
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE			STANDARD		
			7-1		

SECTION 7 - EARTHWORK & EROSION AND SEDIMENT CONTROL

DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

INSTALLATION:

- Install per manufacturer recommendations.
- Remove the grate from the casting or concrete drainage structure.
- Clean the ledge of the casting frame or drainage structure to ensure it is free of stone and dirt.
- Drop inlet insert (basket) through the clear opening and be sure the suspension hangers rest firmly on the inside ledge of the casting.
- Replace the grate and confirm it is elevated no more than thickness of insert hangers.

MAINTENANCE:

- Site inspection should occur at least once every seven days and within 24 hours following each 1/2" or more rain event.
- Empty the sediment bag if more than half filled with sediment and debris.
- Remove the grate, engage the lifting bars or handles and lift from the drainage structure.
- Dispose of the sediment or debris in accordance with EPA guidelines.
- Remove any caked on silt from the sediment bag and reverse flush the bag with medium spray for optimal filtration.
- Replace the bag if torn or punctured to 1/2" diameter or greater on the lower half of the bag.
- When the contributing drainage area within 50' upstream of the inlet has been stabilized, remove insert (basket) and properly dispose of sediment deposits.

Kara M. Boyles, P.E. 6/26/18
Professional Engineer No. PE10809510

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS		EFFECTIVE DATE: June 26, 2018		CITY OF SOUTH BEND	
Item	Revision	Approved Date	Standard	Item	Revision
INLET PROTECTION INSERT (BASKET)			STANDARD		
			7-2		

SECTION 7 - EARTHWORK & EROSION AND SEDIMENT CONTROL

DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

INSTALLATION:

- Site inspection should occur at least once every seven days and within 24 hours following each 1/2" or more rain event.
- Empty the sediment bag if more than half filled with sediment and debris.
- Remove the grate, engage the lifting bars or handles and lift from the drainage structure.
- Dispose of the sediment or debris in accordance with EPA guidelines.
- Remove any caked on silt from the sediment bag and reverse flush the bag with medium spray for optimal filtration.
- Replace the bag if torn or punctured to 1/2" diameter or greater on the lower half of the bag.
- When the contributing drainage area within 50' upstream of the inlet has been stabilized, remove insert (basket) and properly dispose of sediment deposits.

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Professional Engineer No. PE10809510

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS		EFFECTIVE DATE: June 26, 2018		CITY OF SOUTH BEND	
Item	Revision	Approved Date	Standard	Item	Revision
INLET PROTECTION ALONG CURB			STANDARD		
			7-3		

SECTION 7 - EARTHWORK & EROSION AND SEDIMENT CONTROL

DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

INSTALLATION:

- Install fencing parallel to slope contour by digging a minimum 8" deep x 4" wide trench along proposed fence line. Pound posts in trench 6"-8" or until secure. Be sure to stretch fabric taut when pounding posts. Fabric to be placed on up slope side of posts. Drape loose end of geotextile fabric into trench. Backfill and compact soil on both sides.
- Join fences by placing the end post of the second fence inside the end post of the first fence. Rotate both posts at least 180° in a clockwise direction to create a tight seal with the fabric material. Drive both posts about 10" into the ground and bury flap.
- Turn ends of fence up slope such that point of contact between ground and bottom of fence end terminates at higher elevation than top of fence at lowest point.

MAINTENANCE:

- Inspect within 24 hours following each 1/2" (Min.) rain event and at least once every seven days. If fence fabric tears, starts to decompose, or in anyway becomes ineffective, replace the affected portion immediately.
- Remove deposited sediment when it is causing the filter fabric to bulge or when it reaches one-half the height of the fence at its lowest point. When the contributing drainage area has been stabilized, remove the fence and sediment deposits, grade the site to blend with the surrounding area and stabilize.

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Professional Engineer No. PE10809510

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS		EFFECTIVE DATE: June 26, 2018		CITY OF SOUTH BEND	
Item	Revision	Approved Date	Standard	Item	Revision
TEMPORARY SILT FENCE			STANDARD		
			7-4		

SECTION 7 - EARTHWORK & EROSION AND SEDIMENT CONTROL

DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

DESCRIPTION:
Filter socks are also known as straw worms, bio-logs, straw noodles, or straw tubes. They are a sediment velocity control device made of tubes of straw, rice, or coconut husk encased in an ultraviolet degradable plastic netting or 100% burlap material.

Filter socks may be suitable along the toe, top, face, and at grade breaks of exposed erodible slopes to shorten slope length and spread runoff as sheet flow; at the end of a downward slope where it transitions to a steeper slope; along sidewalks and curbs to prevent sediment from washing into gutters; around storm drains and drop inlets; down-slope of exposed soil areas; around temporary material spoil and stockpiles, such as topsoil and for stream bank protection.

INSTALLATION:

- Layout a contour line on the slope.
- Dig a shallow depression (about 3 to 5 inches deep), remove all debris, and lay the filter sock into it.
- Secure filter sock with wooden stakes.
- Terminating ends should be turned uphill (min. 6") to prevent runoff from flowing around the ends.
- Seat the filter sock with foot tamped backfill on the upstream side such that water will not run under it.

Recommended wattle spacing by slope:

Slope	9" Dia.	12" Dia.
Less than 4:1	20 ft.	40 ft.
2:1 to 4:1	15 ft.	30 ft.
2:1 or Greater	10 ft.	20 ft.

Note: Filter Socks may be used in lieu of silt fence if desired.

MATERIALS:
Filter socks can be from straw, rice straw, coconut husks or other approved material. The netting consists of biodegradable burlap, or high density polyethylene and ethyl vinyl acetate containing ultraviolet inhibitors. Straw should be certified weed free forage, by a manufacturer whose principle business is wattle manufacturing. Coir (coconut fiber) can be in bristle and mattress form and should be obtained from freshwater cured coconut husk.

MAINTENANCE:
Sediment should be removed on a routine basis when the level of the sediment reaches one half the height of the exposed filter sock. Damaged areas should be repaired immediately until vegetation is established and growing through the material.

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Professional Engineer No. PE10809510

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS		EFFECTIVE DATE: June 26, 2018		CITY OF SOUTH BEND	
Item	Revision	Approved Date	Standard	Item	Revision
FILTER SOCK			STANDARD		
			7-5		

SECTION 7 - EARTHWORK & EROSION AND SEDIMENT CONTROL

DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

INSTALLATION:

- Install concrete washout sign within 30' of temporary washout facility.
- Layout of washout facility may vary depending on space available within construction staging area. Washout facilities shall be designated by the permit holder before work begins and shall be located in an appropriate area where the waste resulting from the washout cannot enter sewer systems or local waterways.
- Waste from the washout facilities shall be disposed of in an approved manner according to state laws.

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Professional Engineer No. PE10809510

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS		EFFECTIVE DATE: June 26, 2018		CITY OF SOUTH BEND	
Item	Revision	Approved Date	Standard	Item	Revision
CONCRETE WASHOUT			STANDARD		
			7-6		

SECTION 7 - EARTHWORK & EROSION AND SEDIMENT CONTROL

DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

SLOPE INSTALLATION:

- Prepare soil before installing blankets, including any necessary application of lime, fertilizer, and seed.
- Begin at the top of the slope by anchoring the blanket in a 6" deep x 6" wide trench with approximately 12" of blanket extended beyond the up-slope portion of the trench. Anchor the blanket with a row of staples/stakes approximately 12" apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to compacted soil and fold remaining 12" portion of blanket back over seed and compacted soil. Secure blanket over compacted soil with a row of staples/stakes spaced approximately 12" apart across the width of the blanket.
- Roll the blankets (A) down or (B) horizontally across the slope. Blankets will unroll with appropriate side against the soil surface. All blankets must be securely fastened to soil surface by placing staples/stakes in appropriate locations as per by manufacturer's recommendation.
- The edges of parallel blankets must be stapled with approximately 3"-5" overlap. To ensure proper seam alignment, place the edge of the overlapping blanket (blanket being installed on top) even with the colored seam stitch on the previously installed blanket.
- Splicing consecutive blankets down the slope shall be done in a shingle style with the up-slope blanket overlapping the down-slope blanket 3" minimum. Staple through overlapped area, approximately 12" apart across entire blanket width.
- In loose soil conditions the use of staple or stake lengths greater than 6" may be necessary to properly secure the blankets.

GENERAL NOTES:

- Install erosion control blanket to prevent erosion on slopes 3:1 or steeper, as well as other areas prone to erosion, to aid in establishing vegetation and preventing soil movement.
- Installation instructions above are provided for reference only. Installation should be completed in accordance with erosion control blanket manufacturer's specifications. Model and manufacturer to be selected based on project slopes, vegetation, and soil conditions.

Kara M. Boyles, P.E. 6/26/18
Professional Engineer No. PE10809510

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS		EFFECTIVE DATE: June 26, 2018		CITY OF SOUTH BEND	
Item	Revision	Approved Date	Standard	Item	Revision
EROSION CONTROL BLANKET			STANDARD		
			7-7		

SECTION 7 - EARTHWORK & EROSION AND SEDIMENT CONTROL

DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

LEGEND:

- Property Lines
- Constructed Building Pad
- Silt Fence or Filter Sock
- Straw Sock
- Gravel Construction Entrance
- Soil Stockpile Protection
- Inlet Protection
- Temporary Seeding
- Erosion Control Blanket

NOTES:

- Erosion control measures must be functional and maintained throughout construction.
- Erosion Control Blanket shall be used on slopes greater than 3:1 per Std. 7-7.
- Install Silt Fence or Filter Sock as necessary according to Std. 7-4 and 7-5.
- Post Notice of Intent and place rain gauge on site prior to start of construction.
- Remove sediment from street at the end of each work day. Do not flush bulk sediments with water.

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Professional Engineer No. PE10809510

APPROVED/REVISED BY THE BOARD OF PUBLIC WORKS		EFFECTIVE DATE: June 26, 2018		CITY OF SOUTH BEND	
Item	Revision	Approved Date	Standard	Item	Revision
TYPICAL INDIVIDUAL LOT EROSION AND SEDIMENT CONTROL MEASURES (LESS THAN 1-ACRE)			STANDARD		
			7-8		

SOIL EROSION DETAILS / BID AND TENANT REVIEW SET

DATE	5/6/20	DRAWN BY:	JTB	REVISIONS	
SCALE	n/a	CHECKED BY:	MJD		
FILE #	200104.5	PROJ. MANGR:	JTB		
DATE		BY			

Danch, Harner & Associates, Inc.
Land Surveyors • Professional Engineers
Landscape Architects • Land Planners

DHA

1643 Commerce Drive • South Bend, IN 46628
Office: (574) 234-4003 / (800)294-4003 • Fax: (574)234-4119

2010/4.5 DSP - Engineering 10-8-20-20-AM
10/20/2020 11:27 AM

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ALL UNDERGROUND UTILITIES MUST BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ANY CONSTRUCTION MAY BEGIN.

FINAL SITE PLAN – EDDY COMMONS PHASE III

PART OF THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 37 NORTH, RANGE 2 EAST,
AND PART OF THE NORTHWEST QUARTER OF SECTION 6, TOWNSHIP 37 NORTH, RANGE 3 EAST,
CITY OF SOUTH BEND, PORTAGE TOWNSHIP, ST. JOSEPH COUNTY, INDIANA.

CONCRETE WASHOUT

- residual loads due to potential to exceed the design capacity of the washout system. Small amounts of excess or residual concrete (not washout water) may be disposed of in areas that will not result in flow to an area that is to be protected.
- Install systems at strategic locations that are convenient and in close proximity to work areas and in sufficient number to accommodate the demand for disposal.
- Install signage identifying the location of concrete washout systems.

Location

- Locate concrete washout systems at least 50 feet from any creeks, wetlands, ditches, karst features, or storm drains/manmade conveyance systems.
- To the extent practical, locate concrete washout systems in relatively flat areas that have established vegetative cover and do not receive runoff from adjacent land areas.
- Locate in areas that provide easy access for concrete trucks and other construction equipment.
- Locate away from other construction traffic to reduce the potential for damage to the system.

General Design Considerations

- The structure or system shall be designed to contain the anticipated washout water associated with construction activities.
- The system shall be designed, to the extent practical, to eliminate runoff from entering the washout system.
- Runoff from a rainstorm or snowmelt should not carry wastes away from the washout location.
- Washout will not impact future land uses (i.e., open spaces, landscaped areas, home sites, parks).
- Washout systems/containment measures may also be utilized on smaller individual building sites. The design and size of the system can be adjusted to accommodate the expected capacity.

Prefabricated Washout Systems/Containers

- Self-contained sturdy containment systems that are delivered to a site and located at strategic locations for concrete disposal.

CONCRETE WASHOUT

- These systems are manufactured to resist damage from construction equipment and protect against leaks or spills.
- Manufacturer or supplier provides the containers. The project site manager maintains the system or the supplier provides complete service that includes maintenance and disposal.
- Units are often available with or without ramps. Units with ramps lend themselves to accommodate pump trucks.
- Maintain according to the manufacturer's recommendations.

Designed and Installed Units

- These units are designed and installed on site. They tend to be less reliable than prefabricated systems and are often prone to failure. Concrete washout systems can be constructed above or below grade. It is not uncommon to have a system that is partly below grade with an additional containment structure above grade.
- Washout systems shall utilize a pit or bermed area designed and maintained at a capacity to contain all liquid and concrete waste generated by washout operations.
- The volume of the system must also be designed to contain runoff that drains to the system and rainfall that enters the system for a two-year frequency, 24-hour storm event.

Below Grade System

- A washout system installed below grade should be a minimum of ten feet wide by ten feet long, but sized to contain all liquid and waste that is expected to be generated between scheduled cleanout periods. The size of the pit may be limited by the size of polyethylene available. The polyethylene lining should be of adequate size to extend over the entire excavation.
- Include a minimum 12-inch freeboard to reasonably ensure that the structure will not overtop during a rain event.
- Line the pit with ten millimeter polyethylene lining to control seepage.
- The bottom of excavated pit should be above the seasonal high water table.

Above Grade System

- A system designed and built above grade should be a minimum of ten feet wide by ten feet long, but sized to contain all liquid and waste that is expected to be generated between scheduled cleanout periods. The size of the containment system may be limited by the size of

SITE MANAGEMENT MEASURES

Concrete Washout



Purpose

Concrete washout systems are implemented to reduce the discharge of pollutants that are associated with concrete washout waste through consolidation of solids and retention of liquids. Uncured concrete and associated liquids are highly alkaline which may leach into the soil and contaminate ground water or discharge to a waterbody or wetland which can elevate the pH and be harmful to aquatic life. Performing concrete washout in designated areas and into specifically designed systems reduces the impact concrete washout will have on the environment.

Specifications

Site Management

- Complete construction/installation of the system and have washout locations operational prior to concrete delivery.
- Do not wash out concrete trucks or equipment into storm drains, wetlands, streams, rivers, creeks, ditches, or streets.
- Never wash out into a storm sewer drainage system. These systems are typically connected to a natural conveyance system.
- Where necessary, provide stable ingress and egress (see Temporary Construction Ingress/Egress Pad on page 17).
- It is recommended that washout systems be restricted to washing concrete from mixer and pump trucks and not used to dispose of excess concrete or

Ideal Construction – Proposed Warehouse

Erosion & Sediment Control Plan Development

Basic Plan Elements "A"

- A1 – Plan Index** showing locations of required items: See attached
- A2 – 11x17 inch plat** showing building lot numbers/boundaries and road layout/names: See attached
- A3 – Narrative describing project nature and purpose:** The project purpose is to build a 12,423 sq. ft. grocery store with 2 supporting retail units totaling 3,756 sq. ft. The project is located at the SW corner of the SR 23 & Howard St. Intersection in South Bend, IN.
- A4 – Vicinity map** showing project location: See sheet C6.0
- A5 – Legal Description of the Project Site:** See sheet C6.1
- A6 – Location of all lots and proposed site improvements:** See sheet C1.1
- A7 – Hydrologic unit code:** 0405001240
- A8 – Notation of any State or Federal water quality permits:** There are no State or Federal water quality permits required for this project.
- A9 – Specific points where Storm water discharge will leave the site:** All storm water from the site will be conveyed using a storm sewer system to an underground storm water chamber storage system. All storm water will be contained within the development site.
- A10 – Location and name of all wetlands, lakes, and water courses on and adjacent to the site:** There are no wetlands, lakes, or water courses on the property or adjacent to the site.
- A11 – Identify all Receiving Waters:** Receiving waters to St. Joseph River located .62 miles west of project site by sub-surface flow.
- A12 – Identification of potential discharges to groundwater:** Potential discharge to groundwater would be through percolation from the proposed underground storm water system.
- A13 – 100 Year Floodplains, floodways, and floodway fringes:** This project is not located in a Floodplain, Floodway, or floodway fringes.
- A14 – Pre-construction and post construction estimate of peak discharge:** Pre-Construction = Existing cond. is vacant grassy lot. Runoff is surface sheet flow. Post-Construction = 0.22 CFS. All discharge will be contained on site.
- A15 – Adjacent land use, including upstream watershed:** Adjacent land uses are commercial & residential.
- A16 – Locations and approximate boundaries of all disturbed areas:** See sheets C1.1, & C6.0. The limits of the disturbed areas are primarily limited to the projects property lines. There will also be some land disturbance for the construction of the utility connections located in the adjacent Right-Of-Ways.
- A17 – Identification of existing vegetative cover:** The existing lot is currently a vacant commercial site with common vegetative cover. Lawn and landscape along the perimeter of the developed site.
- A18 – Soils map including descriptions and limitations:** See sheet C6.0. The contractor is responsible for monitoring the erosion control devices and repairing them as necessary. The contractor should check for deficiencies at a minimum of once per week and after every rain event in excess of 1/4 inch rain event.
- A19 – Locations, size and dimensions of proposed storm water systems:** See sheet C2.0
- A20 – Plan for any off-site construction activities associated with this project:** Off-site construction activities for this project may include connecting to existing utilities (water) in the Right-Of-Way. There will be one cut to curb on Howard St., one on SR 23 and one on Corby Ave. See sheet C6.0
- A21 – Locations of proposed soil stockpiles, borrow and/or disposal areas:** See sheet C6.0 for temporary stockpile location (if necessary). Provide silt fence around stockpile area at all times. Re-grade, seed, and mulch at the time of stockpile removal.
- A22 – Existing site topography at an interval appropriate to show detailed drainage patterns:** See sheet C1.0
- A23 – proposed final topography at an interval appropriate to show detailed drainage patterns:** See sheet C2.0.

Active Construction Component "B"

- B1 – Description of potential pollutant sources associated with the construction activities:** The possible pollutants are as follows: oil, grease, antifreeze, brake fluid, brake dust, rubber fragments, gasoline, diesel fuel and other hydrocarbons, dirt, on site Porta-John, concrete washout residue, asphalt residue, and trash.
- B2 – Sequence describing Storm water quality measure implementation relative to land disturbing activities:** See sheet C6.0
- B3 – Stable construction entrance locations and specifications:** See sheets C6.0, C6.1, & C6.2
- B4 – Sediment control measures for sheet flow areas:** Silt fence is to be installed around the perimeter of the property. See sheet C6.0
- B5 – Sediment control measures for concentrated flow areas:** Inlet protectors are to be installed on all catch basins as they are installed. See sheet C6.0
- B6 – Storm sewer inlet protection measure locations and specifications:** See sheets C6.0, C6.1, & C6.2. Follow the South Bend engineering standard.
- B7 – Runoff control measures:** Perimeter silt fence & inlet protection measures.
- B8 – Storm water outlet protection specifications:** There is no outlet from the underground storm water retention system.
- B9 – Grade Stabilization structure locations and specifications:** There is no grade stabilization required for this project.
- B10 – Location, dimensions, specifications and construction details of each Storm water quality measure:** See sheets C2.0, C6.0-6.2 & South Bend engineering standard for Erosion Control.
- B11 – Temporary surface stabilization methods appropriate for each season:** See sheet C6.0
- B12 – Permanent surface stabilization specifications:** See sheets C4.0 and C6.0.

- B13 – Material handling and spill prevention plan:** The contractor is to maintain a staging area on site to help contain any possible pollutants. Staging area shall be surrounded by an impermeable berm or slightly sumped to contain minor spills. When spills occur the contractor is to report the spill to IDEM. Emergency spill kit to be kept on site at all times.
 - B14 – Monitoring and maintenance guidelines for each proposed pollution prevention measure:** The contractor is responsible for monitoring the erosion control devices and repairing them as necessary. The contractor should check for deficiencies at a minimum of once per week and after every rain event in excess of 1/4 inch rain event. The contractor is required to maintain an on-site log of the inspection and maintenance activities for the Erosion Control Measures, and keep it available to inspectors as requested.
 - B15 – Erosion & sediment control specifications for individual building lots:** This project consists of one lot, and does not include erosion & sediment control for individual lots.
- #### Post Construction Component "C"
- C1 – Description of pollutants and their sources associated with the proposed land use:** This project includes a parking lot and dumpster enclosure, and as a result has the possibility for several pollutants associated with it. The possible pollutants are as follows: oil, grease, antifreeze, brake fluid, brake dust, rubber fragments, gasoline, diesel fuel and other hydrocarbons, dirt, road salt, and trash.
 - C2 – Sequence describing storm water quality measure implementation:** See sheet C6.0
 - C3 – Description of proposed post construction storm water quality measures:** See sheets C2.0 and C4.0. All open space area will have a vegetative cover consisting of landscaping and hydroseeding. Sediments and debris will be allowed to settle out prior to the storm water leaving the site through the use of catch inlets with sump. Flow reduction will be through the use of a sub-surface storm water retention system (chamber system). The project site owner/operator will be responsible for maintaining and cleaning the storm sewer inlet structures. Maintenance personal and/or professional service company will routinely maintain site through the use of salt, snow, ice removal, vacuuming of pavement, and regular landscape maintenance
 - C4 – Location, dimensions, specifications and construction details of each Storm water quality measure:** See sheet C2.0, C4.0, C6.0 THRU C6.2.
 - C5 – Description of maintenance guidelines for proposed post construction storm water quality measures:** Annually inspections of the proposed storm chamber system shall be performed. Inspect every 6 months during the first year of operation. Adjust the inspection interval based on previous observations of sediment accumulation and high water elevations. All inlet structures and catch basins shall be visually inspected at a minimum of once per year and after each 1" storm event. At a minimum, all inlet structures and catch basins shall be cleaned out twice per year and when necessary per visual inspections. The site shall be inspected quarterly and after each 1" storm event for trash/litter, debris, and landscape debris and shall be cleaned at a minimum of once a year and as needed. Pavement shall be inspected quarterly and after each 1" storm event for damage and wear and be cleaned and/or vacuumed at a minimum of once a year and as needed. Lawn/grasscover establishment shall be inspected quarterly and after each 1" storm event. Eroded areas and bare spots shall be reseeded/hydro-seeded as needed. All bare spots shall be re-seeded/hydro-seeded if not completely established after 3 years front date of planting. The property owner shall be responsible for the aforementioned post construction water quality measures. Inspections and maintenance shall be completed by maintenance personnel or by appropriate 3-party. Inspection records shall be kept for a minimum of (3) three years.

CONCRETE WASHOUT

- polyethylene available. The polyethylene lining should be of adequate size to extend over the berm or containment system.
- The system design may utilize an earthen berm, straw bales, sandbags, or other acceptable barriers that will maintain its shape and integrity and support the polyethylene lining.
- Include a minimum four-inch freeboard as part of the design.

Washout Procedures

- Do not leave excess mud in the chutes or hopper after the pour. Every effort should be made to empty the chutes and hopper at the pour. The less material left in the chutes and hopper, the quicker and easier the cleanout. Small amounts of excess concrete (not washout water) may be disposed of in areas that will not result in flow to an area that is to be protected.
- At the washout location, scrape as much material from the chutes as possible before washing them. Use non-water cleaning methods to minimize the chance for waste to flow off site.
- Remove as much mud as possible when washing out.
- Stop washing out in an area if you observe water running off the designated area or if the containment system is leaking or overflowing and ineffective.
- Do not back flush equipment at the project site. Back flushing should be restricted to the plant as it generates large volumes of waste that more than likely will exceed the capacity of most washout systems. If an emergency arises, back flush should only be performed with the permission of an on-site manager for the project.
- Do not use additives with wash water. Do not use solvents or acids that may be used at the target plant.

Materials

- Minimum of ten millimeter polyethylene sheeting that is free of holes, tears, and other defects. The sheeting selected should be of an appropriate size to fit the washout system without seams or overlap of the lining (designed and installed systems).
- Signage.
- Orange safety fencing or equivalent.
- Straw bales, sandbags (bags should be ultraviolet-stabilized geotextile fabric), soil material, or other appropriate materials that can be used to construct a containment system (above grade systems).

CONCRETE WASHOUT

- Metal pins or staples at a minimum of six inches in length, sandbags, or alternative fastener to secure polyethylene lining to the containment system.
- Non-collapsing and non-water holding cover for use during rain events (optional).

Installation

Prefabricated Washout Systems/Containers

- Install and locate according to the manufacturer's recommendations.

Designed and Installed Systems

- Utilize and follow the design in the storm water pollution prevention plan to install the system.
- Dependent upon the type of system, either excavate the pit or install the containment system.
- A base shall be constructed and prepared that is free of rocks and other debris that may cause tears or punctures in the polyethylene lining.
- Install the polyethylene lining. For excavated systems, the lining should extend over the entire excavation. The lining for bermed systems should be installed over the pooling area with enough material to extend the lining over the berm or containment system. The lining should be secured with pins, staples, or other fasteners.
- Place flags, safety fencing, or equivalent to provide a barrier to construction equipment and other traffic.
- Place a non-collapsing, non-water holding cover over the washout facility prior to a predicted rainfall event to prevent accumulation of water and possible overflow of the system (optional).
- Install signage that identifies concrete washout areas.
- Post signs directing contractors and suppliers to designated locations.
- Where necessary, provide stable ingress and egress (see Temporary Construction Ingress/Egress Pad on page 17) or alternative approach pad for concrete washout systems.

CONCRETE WASHOUT

Maintenance

- Inspect daily and after each storm event.
- Inspect the integrity of the overall structure including, where applicable, the containment system.
- Inspect the polyethylene lining for failure, including tears and punctures.
- Once concrete wastes harden, remove and dispose of the material.
- Excess concrete should be removed when the washout system reaches 50 percent of the design capacity. Use of the system should be discontinued until appropriate measures can be initiated to clean the structure. Prefabricated systems should also utilize this criterion, unless the manufacturer has alternate specifications.
- Upon removal of the solids, inspect the structure. Repair the structure as needed or construct a new system.
- Dispose of all concrete in a legal manner. Reuse the material on site, recycle, or haul the material to an approved construction/demolition landfill site. Recycling of material is encouraged. The waste material can be used for multiple applications including but not limited to roadbeds and building. The availability for recycling should be checked locally.
- The plastic liner should be replaced after every cleaning; the removal of material will usually damage the lining.
- The concrete washout system should be repaired or enlarged as necessary to maintain capacity for concrete waste.
- Concrete washout systems are designed to promote evaporation. However, if the liquids do not evaporate and the system is near capacity it may be necessary to vacuum or remove the liquids and dispose of them in an acceptable method. Disposal may be allowed at the local sanitary sewer authority provided their National Pollutant Discharge Elimination System permits allow for acceptance of this material. Another option would be to utilize a secondary containment system or basin for further dewatering.
- Prefabricated units are often pumped and the company supplying the unit provides this service.
- Inspect construction activities on a regular basis to ensure suppliers, contractors, and others are utilizing designated washout areas. If concrete waste is being disposed of improperly, identify the violators and take appropriate action.

SOIL EROSION DETAILS / BID AND TENANT REVIEW SET

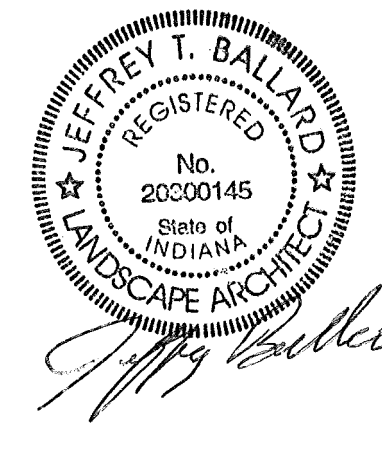
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DHA

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SHEET
C6.2



PROPERTY OWNER:
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30 S. MERIDIAN ST. STE 1100
INDIANAPOLIS, IN 46204
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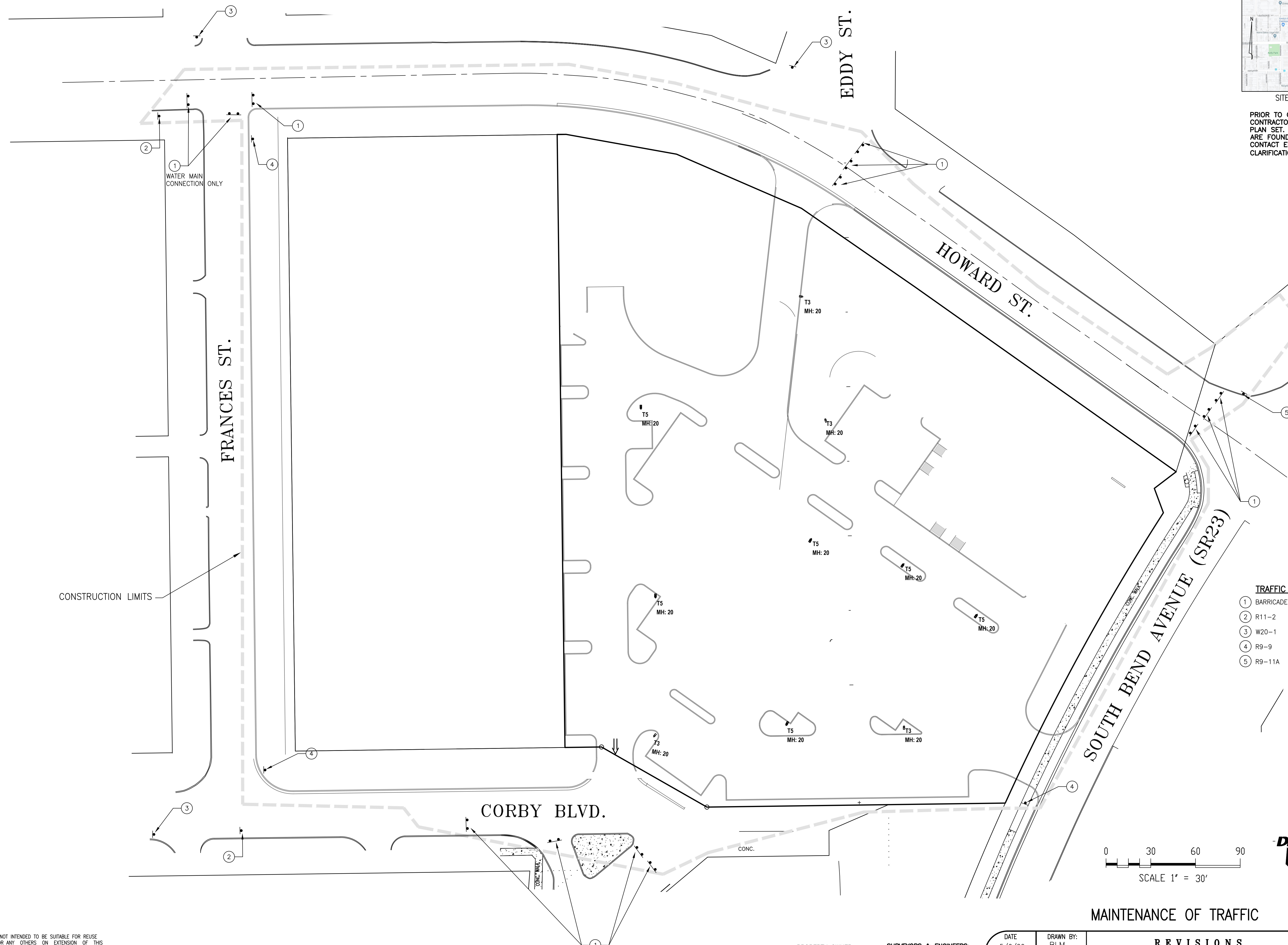
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EDDY COMMONS PHASE III - UTILITY RELOCATION



SITE LOCATION MAP
4/15

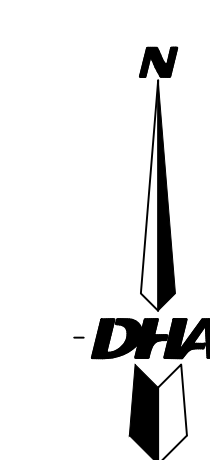
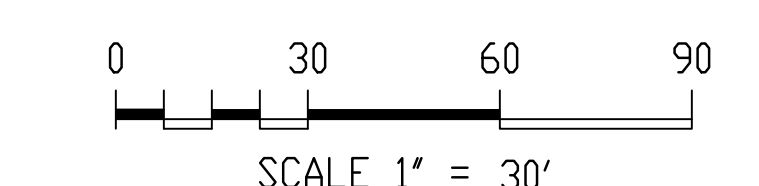
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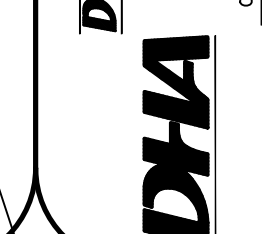
CONSTRUCTION LIMITS

TRAFFIC CONTROL KEYNOTES

- 1 BARRICADE TYPE IIIA
- 2 R11-2
- 3 W20-1
- 4 R9-9
- 5 R9-11A



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 1643 Commerce Drive • South Bend, IN 46628



MAINTENANCE OF TRAFFIC

PROPERTY OWNER:
 KRG
 EDDY STREET LAND III, LLC
 30 S. MERIDIAN ST. STE 1100
 INDIANAPOLIS, IN 46204
 (317) 577-5600

SURVEYORS & ENGINEERS:
 DANCH, HARNER & ASSOCIATES, INC.
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 SOUTH BEND, IN 46628
 (574) 234-4003
 ATTN: MICHAEL DANCH

DATE	DRAWN BY:	REVISIONS			
5/6/20	BLM				
SCALE	CHECKED BY:	DATE	BY	DESCRIPTION	
1" = 30'	BLM	8/14/20	BLM	BULLETIN 2: NEW SHEET ADDED PER CITY ENGINEERING REVIEW	
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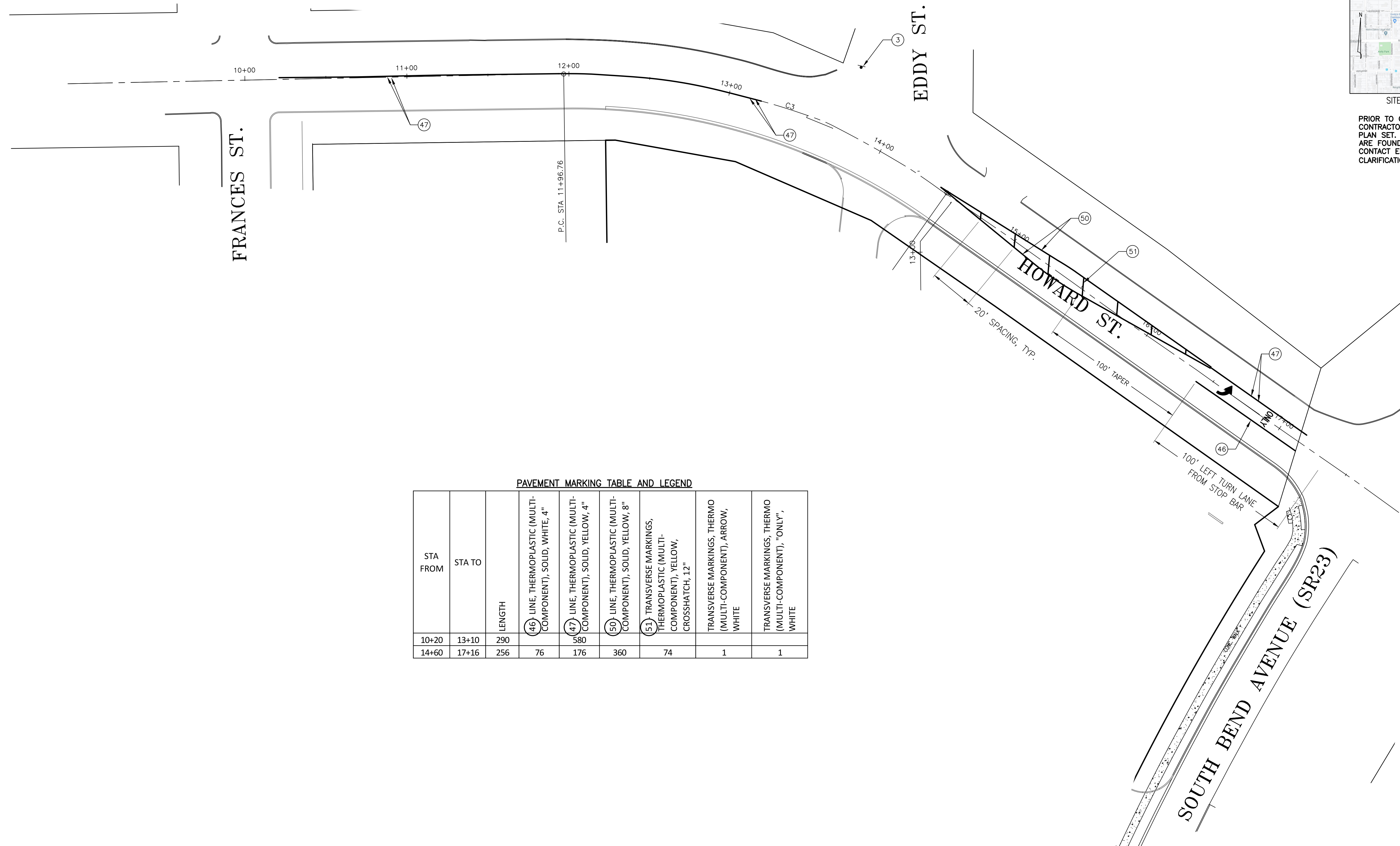
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EDDY COMMONS PHASE III - UTILITY RELOCATION



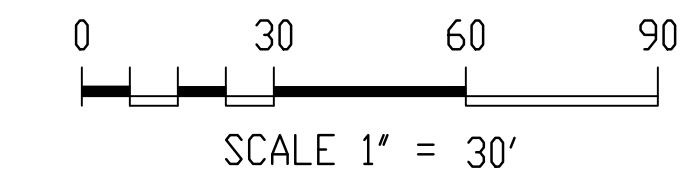
SITE LOCATION MAP

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PAVEMENT MARKING TABLE AND LEGEND

STA FROM	STA TO	LENGTH	(46) LINE, THERMOPLASTIC (MULTI-COMPONENT), SOLID, WHITE, 4"	(47) LINE, THERMOPLASTIC (MULTI-COMPONENT), SOLID, YELLOW, 4"	(50) LINE, THERMOPLASTIC (MULTI-COMPONENT), SOLID, YELLOW, 8"	(51) TRANSVERSE MARKINGS, THERMOPLASTIC (MULTI-COMPONENT), YELLOW, CROSSHATCH, 12"	TRANSVERSE MARKINGS, THERMO (MULTI-COMPONENT), ARROW, WHITE	TRANSVERSE MARKINGS, THERMO (MULTI-COMPONENT), "ONLY", WHITE
10+20	13+10	290						
14+60	17+16	256	76	176	360	74	1	1



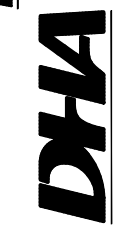
PAVEMENT MARKING PLAN

DATE	DRAWN BY:	REVISIONS			
5/6/20	BLM				
SCALE	CHECKED BY:	DATE	BY	DESCRIPTION	
1" = 30'	BLM	8/14/20	BLM	BULLETIN 2: NEW SHEET ADDED PER CITY ENGINEERING REVIEW	
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SHEET
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EXHIBIT C

PERMITS



NOTICE OF INTENT TO CONSTRUCT A WATER MAIN EXTENSION

State Form 49008 (R4 / 3-20)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER QUALITY

General Construction Permit For Water Main Extensions

1. Title of proposed project Eddy Street Commons III		2. County of proposed project St. Joseph	
3. Location of proposed project (Including nearest public intersection and nearest quarter Section, Township, Range) southwest corner of SR 23(South Bend Avenue) and Howard Street, Northeast Quarter of Section 1, Township 37N, Range 2E in Portage Township			
4. Name, title, e-mail address and firm of responsible person (as defined in 327 IAC 8-3.5-6) KRG Eddy Street Land III, LLC 30 S. Meridian St., Ste. 1100, Indianapolis, IN 46204 attn: Tony Halsey, thalsey@kiterealty.com		5. Telephone number of responsible person (317) 577-5600	
6. Address of responsible person (number and street, city, state, and ZIP code) SAME as 4			
7. Name of Public Water System (PWS) South Bend Water Works		8. PWS identification number 5271014	
9. Address of PWS (number and street, city, state, and ZIP code) 915 S. Olive Street, South Bend, IN 46619		10. Telephone number of PWS (574) 235-9279	
11. Name and firm of professional engineer Burne Miller, PE, at Danch, Harner, & Assoc., Inc.		12. Telephone number of professional engineer (574) 234-4003	
13. Address (number and street, city, state, and ZIP code) and e-mail address of professional engineer 1643 Commerce Drive, South Bend, IN 46628			
14. Name and e-mail address of developer (if applicable) same as 4		15. Telephone number of developer ()	
16. Address of developer (number and street, city, state, and ZIP code) same as 4			
17. Timing of construction (check one of the following):			
<input checked="" type="checkbox"/> The proposed construction of the water main will begin on <u>2021-1-27</u> and be completed on <u>2021-07-30</u> . (Cannot begin construction less than thirty (30) days after IDEM receives a complete and sufficient NOI.)			
<input type="checkbox"/> The proposed construction schedule will be submitted separate from this NOI at least ten (10) working days before the commencement of the construction and will include a copy of the information on the first page of this NOI. (Cannot begin construction less than thirty (30) days after IDEM receives a complete and sufficient NOI.)			
18. Fee Schedule:		The complete NOI form may be submitted by e-mail (dwnoi@idem.in.gov) or by certified mail to the address below.	
<input type="checkbox"/> No fee, exempted under 327 IAC 8-3-7(a). <input checked="" type="checkbox"/> No fee for water main extensions under 2,500 linear feet. <input type="checkbox"/> \$150 for water main extensions from 2,501 to 5,000 linear feet. <input type="checkbox"/> \$250 for water main extensions from 5001 to 10,000 linear feet. <input type="checkbox"/> \$500 for water main extensions greater than 10,000 linear feet.		Indiana Department of Environmental Management Drinking Water Permits Section (IGCN Rm 1201) 100 North Senate Avenue Indianapolis, IN 46204 If a fee is required, see instructions for payment options.	
19. Certifications:			
Responsible Person:			
"I certify that I have reviewed and understand the applicability and eligibility requirements of this rule and that the water main proposed with the submission of this NOI meets the applicability and eligibility requirements of this rule. I also certify that the design and construction of this project will be performed under my direction or supervision to assure conformance with 327 IAC 8-3.5 and will meet all local rules or laws, regulations and ordinances. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.			
Signature of responsible person <i>Tony Halsey</i>		Date signed (month, day, year) <i>12/15/2020</i>	
Professional Engineer:			
"I certify under the penalty of law that the design of this project will be performed under my direction or supervision to assure conformance with 327 IAC 8-3.5 and that the plans and specification will require the construction of said project to be performed in conformance with this rule. The design of the proposed project will meet all local rules or law, regulations and ordinances. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."			
Signature of professional engineer <i>By 2020</i>		Date signed (month, day, year) <i>12-15-2020</i>	

Instructions for State Form 53159
Application for Sanitary Sewer Construction Permit

All essential items listed below must be provided upon initial receipt of a construction permit application or the application will be deemed incomplete and will not be reviewed. If an application has been deemed incomplete, an e-mail identifying the missing or incomplete essential items will be sent to the applicant (with copy e-mailed to applicant's engineer or land surveyor). As a courtesy, IDEM will temporarily retain the application and associated plans and specifications. If the identified essential items have not been received within the allotted time noted in the e-mail, the application will be void and all associated documents, plans and specifications will be discarded (recycled). The applicant will then need to reapply with a new, completed application as well as resubmit any associated plans and specifications. Please submit only **one** copy of all application items.

1. Application for Sanitary Sewer Construction Permit
 - Applications from municipalities must be signed and dated by an authorized official and applications from non-municipalities must be signed and dated by the owner or a representative.
2. Collection System Design Summary
3. Capacity Certification from the collection and treatment system owner(s) to which the proposed sanitary sewer and/or force main will be connected
 - If more than one utility will be transporting and/or treating the wastewater, a Capacity Certification from each utility is required.
4. Registered Professional Engineer or Land Surveyor Certification by the applicant's engineer or land surveyor
5. Final Construction Plans and Specifications
 - Every page of the plans as well as the cover page for any specifications should be signed, sealed, and dated by an Indiana registered professional engineer or land surveyor. Land surveyors may certify plans and specifications for gravity type sanitary sewers only, not including lift stations and force mains.
6. Identification of Potentially Affected Persons form and mailing labels

When all essential items of a construction permit application are received, the project will be assigned to a project engineer for technical review. If no administrative or technical deficiencies are found during review, a construction permit will be issued. However, if administrative or technical deficiencies are found, a deficiency notice will be e-mailed to the applicant (with copy e-mailed to applicant's engineer or land surveyor). If all deficiencies are not adequately addressed within sixty (60) days from the date of the deficiency notice, the permit application will be denied.

A copy of this application can be found at: www.in.gov/idem/cleanwater/2430.htm

Send construction permit applications to:

Indiana Department of Environmental Management
Office of Water Quality
Facility Construction and Engineering Support Section, Mail Code 65-42FC
100 North Senate Avenue, Room N1255
Indianapolis, IN 46204-2251

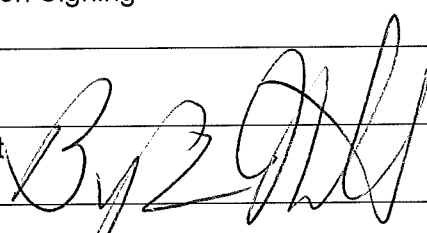
For any questions, call the Facility Construction and Engineering Support Section at 317/232-5579.



**APPLICATION FOR SANITARY SEWER
CONSTRUCTION PERMIT PER 327 IAC 3**

State Form 53159 (R7 / 2-20)

Indiana Department of Environmental Management
Office of Water Quality
Facility Construction and Engineering Support Section,
Mail Code 65-42FC
100 North Senate Avenue, Room N1255
Indianapolis, IN 46204-2251

APPLICANT		APPLICANT'S ENGINEER OR LAND SURVEYOR	
Name <input checked="" type="checkbox"/> Mr. or <input type="checkbox"/> Ms. Tony Halsey		Name <input checked="" type="checkbox"/> Mr. or <input type="checkbox"/> Ms. Byron Miller	
Name of Organization KRG Eddy Street III, LLC		Name of Company Danch, Harner, & Assoc., Ince.	
Address (number and street, city, state, and ZIP) 30 S. Meridian St., Ste. 1100 Indianapolis, IN 46204		Address (number and street, city, state, and ZIP) 1643 Commerce Drive South Bend, IN 46628	
Telephone Number (317) 577-5600		Telephone Number (574) 234-4003	
E-Mail Address thalsey@kiterealty.com		E-Mail Address bmiller@danchharner.com	
NAME AND LOCATION OF PROPOSED FACILITY		PROJECT DESCRIPTION	
Name Eddy Street Commons III		Describe the scope and/or purpose of this project Relocation of existing sewer line to new 24"-36" sewer (596LF) to allow for the construction of a new development. No existing in-service sewer laterals are impacted by this relocation.	
Location or Project Boundaries Bounded by SR 23 to the east, Howard Street to the north, Frances St to the west, and Corby Blvd to the south			
City or Town South Bend			
County St. Joseph			
SOURCE OF FUNDING			
<input type="checkbox"/> IFA's Wastewater State Revolving Fund Loan Program		<input type="checkbox"/> Local Funds	
<input type="checkbox"/> OCRA's Community Development Block Grant		<input checked="" type="checkbox"/> Private Funds	
<input type="checkbox"/> USDA's Rural Development Loan and Grant Assistance		<input type="checkbox"/> Other:	
CERTIFICATION AND SIGNATURE			
I swear or affirm, under penalty of perjury as specified by IC 35-44.1-2-1 and other penalties specified by IC 13-30-10 and IC 13-15-7-1(3), that the statements and representations in this application are true, accurate, and complete.			
Printed Name of Person Signing Byron L. Miller			
Title Sr. Engineer			
Signature of Applicant: 		Date Signed (month / day / year) 1 / 8 / 2021	

(Please refer to IC 13-30-10 for penalties of submission of false information.)

COLLECTION SYSTEM DESIGN SUMMARY

Design Flow – Refer to 327 IAC 3-6-11 for Design Flow Rate Requirements

Description of Units Served	Design Flow Per Unit	Number of Units	Unit Design Flow
<i>Example: Single family homes</i>	<i>310 gpd/unit</i>	<i>30</i>	<i>9,300 gpd</i>
commercial/retail	2500 (gpd/unit)	1	2500 gpd
	(gpd/unit)		gpd
	(gpd/unit)		gpd
	(gpd/unit)		gpd
	(gpd/unit)		gpd
Average Design Flow			2500 gpd
Peaking factor	4	Peak Design flow	
			10,000 gpd

Gravity Sewer Pipe Applicable Not Applicable

Length	Diameter	Material	ASTM or AWWA Standard	SDR or DR	Pressure Class (psi)	Installation Method
<i>Example: 1,525 ft</i>	<i>8-inch</i>	<i>PVC</i>	<i>ASTM D3034</i>	<i>SDR-35</i>	<i>N/A</i>	<i>Open Cut</i>
291 ft	24 in	pvc	ASTM D3034			open cut
305 ft	36 in	pvc	ASTM D3034			open cut
ft	in					
ft	in					
ft	in					

Force Main Pipe and Low Pressure Sewer Applicable Not Applicable

Length	Diameter	Material	ASTM or AWWA Standard	SDR or DR	Pressure Class (psi)	Installation Method
<i>Example: 1,525 ft</i>	<i>8-inch</i>	<i>PVC</i>	<i>ASTM D2241</i>	<i>SDR-21</i>	<i>200 psi</i>	<i>Open Cut</i>
ft	in					
ft	in					
ft	in					
ft	in					
ft	in					

Connection Location(s)
Example: The proposed sanitary sewer shall connect to an existing 8-inch sewer located approximately 10 ft north and 10 ft west of the intersection of Main Street and Park Avenue and to an existing lift station located approximately 20 ft southeast of the intersection of Oak Lane and Maple Drive.

The proposed sanitary sewer shall connect to a new 36" sewer located approx. 40 ft north of Corby Blvd near its intersection with South Bend Ave.

Inspection / Maintenance

Inspection during construction will be provided by	South Bend
Maintenance after completion will be provided by	South Bend

Wastewater Treatment

Wastewater treatment will be provided by	South Bend WWTP
--	-----------------

Lift Station Applicable Not Applicable

1. Location:

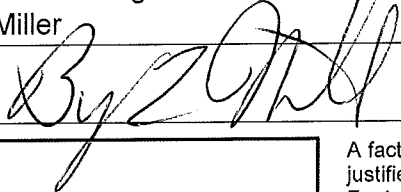
2. Type of pump (example: submersible, dry pit):
3. Number of pumps:
4. Constant or variable speed:
5. Design pump rate (gpm) and TDH (ft):
6. Operating volume of the wet well (gal):
7. Average detention time in the wet well (min):
8. Type of standby power/pump provisions:
9. Type of alarm:
10. Additional information:

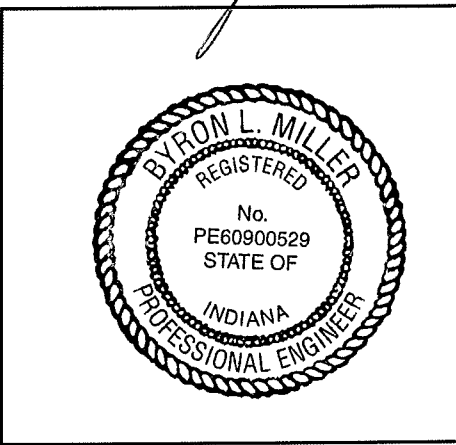
Low Pressure Sewer Grinder Pump Station Applicable Not Applicable

1. Number of stations: simplex duplex triplex
2. Number of residential connections per simplex station (two maximum):
3. Design pump rate (gpm) at maximum TDH (ft):
4. Type of alarm:
5. Privately or utility owned and maintained:
6. Additional information:

Vacuum Pump Station Applicable Not Applicable

1. Location:
2. Total volume of vacuum tank (gal):
3. Operating volume of the vacuum tank (gal):
4. Number and size (HP) of vacuum pumps:
5. Number and type of sewage pumps:
6. Constant or variable speed:
7. Design pump rate (gpm) and TDH (ft):
8. Type of standby power/pump provisions:
9. Type of alarm:
10. Additional information:

Certification Seal, Signature, and Date	
Printed Name of Engineer or Land Surveyor Byron L. Miller	
Signature 	Date Signed (month / day / year) 1 / 8 / 2021



A factor of four (4) is prescribed by 327 IAC 3-6-11. However, an alternative peaking factor may be justified by other means (327 IAC 3-6-32) or as provided by Ten State Standards 11.243: **Peaking Factor = (18 + √P) / (4 + √P)**, where P = population in thousands.

Provide pump and system curves and design calculations for TDH. If connecting to an existing force main, provide upstream lift station pump curves and describe how the proposed flow will affect the lift station performance during simultaneous operation.

For small diameter low-pressure sanitary sewer systems, provide a spreadsheet that includes the maximum expected simultaneous operation of the proposed grinder pumps, maximum expected flow (gpm) and fluid velocity (ft/sec), static head and accumulated friction loss, and expected accumulated total dynamic head (TDH).

The average detention time in the wet well (cycle time between pump on/off settings) should be between 5 and 30 minutes. The cycle time may be calculated from the following equation: **Cycle Time = (V / (D - Q)) + (V / Q)**, where D = discharge flow rate out of the wet well (design pump rate) in gpm, Q = inflow rate into wet well (average design flow) in gpm, and V = operating volume of wet well (between pump on/off settings) in gallons.

CAPACITY CERTIFICATION

This form must be filled-out in its entirety with no alterations.

Name of Applicant: Tony Halsey
Name of Applicant Representative: Burne Miller
Name of Project: Eddy Street Commons III

CERTIFICATION

I, _____, representing the _____, in my capacity as
(Name of individual) (Name of municipality or utility)
 _____ have the authority to act on behalf of the _____
(Title) (Name of municipality or utility)

certify that I have reviewed and understand the requirements of 327 IAC 3 and that the sanitary collection system proposed, with the submission of this application, plans and specifications, meets all requirements of 327 IAC 3. I certify that the daily flow generated in the area that will be collected by the project system will not cause overflowing or bypassing in the collection system other than NPDES authorized discharge points and that there is sufficient capacity in the receiving water pollution treatment/control facility to treat the additional daily flow and remain in compliance with applicable NPDES permit effluent limitations. I certify that the proposed average flow will not result in hydraulic or organic overload. I certify that the proposed collection system does not include new combined sewers or a combined sewer extension to existing combined sewers. I certify that the ability for this collection system to comply with 327 IAC 3 is not contingent on water pollution/control facility construction that has not been completed and put into operation. I certify that the project meets all local rules or laws, regulations and ordinances. The information submitted is true, accurate, and complete, to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Average Design Flow (<i>gallons per day</i>)	2500
Peak Design Flow (<i>gallons per day</i>)	10000
Owner of Receiving Collection System	South Bend
Name of Wastewater Treatment Plant	South Bend WWTP
Mailing Address of Certifying Representative <small>(number and street, city, state, and ZIP code)</small>	E-mail Address of Certifying Representative
I am certifying for the <input type="checkbox"/> Collection System <input type="checkbox"/> Treatment Facility	
Signature	Date Signed (<i>month / day / year</i>) / /

(Please refer to IC 13-30-10 for penalties of submission of false information.)

CERTIFICATION OF REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR

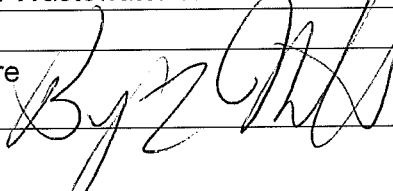
This form must be filled-out in its entirety with no alterations.

Name of Applicant: Tony Halsey
Name of Applicant Representative: Byron Miller
Name of Project: Eddy Street Commons III

CERTIFICATION

I, Byron Miller, representing the project applicant, in my capacity as a
(Name of Individual)
 registered professional Engineer, PE 60900529
(Engineer or Land Surveyor) *(Indiana registration number)*

certify the following under penalty of law: The design of this project has been performed under my direction or supervision to assure conformance with 327 IAC 3 and the plans and specifications require the construction of said project to be performed in conformance with 327 IAC 3-6. The peak daily flow rates, in accordance with 327 IAC 3-6-11 generated from within the specific area that will be collected by the proposed collection system that is the subject of the application, plans, and specifications (when functioning as designed and properly installed), will not cause overflowing or bypassing in the same specific area serviced by the proposed collection system other than from NPDES authorized discharge points. The proposed collection system does not include new combined sewers (serving new areas) or a combined sewer extension to existing combined sewers. The sewer at the point of connection is physically in existence and operational. Based upon information provided by the owner of the Wastewater System, the ability for this collection system to comply with 327 IAC 3 is not contingent on downstream water pollution/control facility construction that has not been completed and put into operation. The design of the proposed project meets applicable local rules or laws, regulations and ordinances. The information submitted is true, accurate, and complete, to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Average Design Flow (<i>gallons per day</i>)	2500
Peak Design Flow (<i>gallons per day</i>)	10000
Owner of Receiving Collection System	South Bend
Name of Wastewater Treatment Plant	South Bend WWTP
Signature 	Date Signed (<i>month / day / year</i>) 11 / 8 / 2021

(Please refer to IC 13-30-10 for penalties of submission of false information.)

IDENTIFICATION OF POTENTIALLY AFFECTED PERSONS

Please list any and all persons whom you have reason to believe have a substantial or proprietary interest in this matter, or could otherwise be considered to be potentially affected under law. Failure to notify a person who is later determined to be potentially affected could result in voiding IDEM's decision on procedural grounds. To ensure conformance with Administrative Orders and Procedures Act (AOPA) and to avoid reversal of a decision, please list all such parties. The letter on the opposite side of this form will further explain the requirements under the AOPA. Attach additional names and addresses on a separate sheet of paper, as needed.

Name	
Address (<i>number and street</i>)	
City	
State	ZIP Code

Name	
Address (<i>number and street</i>)	
City	
State	ZIP Code

Name	
Address (<i>number and street</i>)	
City	
State	ZIP Code

Name	
Address (<i>number and street</i>)	
City	
State	ZIP Code

Name	
Address (<i>number and street</i>)	
City	
State	ZIP Code

Name	
Address (<i>number and street</i>)	
City	
State	ZIP Code

CERTIFICATION

I certify that to the best of my knowledge I have listed all potentially affected parties, as defined by IC 4-21.5-3-5.

Proposed Facility Name	City
Printed Name of Person Signing	County
Signature	Date Signed (<i>month / day / year</i>) / /

Identification of Potentially Affected Persons Instructions

The Administrative Orders and Procedures Act (AOPA), IC 4-21.5-3-5, requires that the Indiana Department of Environmental Management (IDEM) give notice of its decision on your application to the following persons:

- Each person to whom the decision is specifically directed
- Each person to whom a law requires notice be given

The following are the minimum recommendations made as to who should be included in this list:

- All adjoining landowners to the property where the proposed construction is to occur
- All persons or entities with a substantial and direct proprietary interest in the issuance of this permit
- Anyone who is known to have expressed concern or an interest in this particular project or projects in this specific area
- Anyone else whom the applicant may feel that might be potentially affected by the issuance of this permit

IC 13-15-3-1 requires IDEM to provide notice of receipt of a permit application to the following:

- The county executive of a county affected by a permit application
- The executive of a city affected by a permit application
- The executive of a town council of a town affected by a permit application

Under IC 13-15-3-1 (b) IDEM is requesting information necessary to provide such notice to the appropriate officials.

Mailing labels are required to be submitted with your project. These mailing labels need to have the names and addresses of the affected parties along with our mailing code (which is 65-42FC) listed above each affected party listing.

For Example: 65-42FC
 JOHN DEERE
 111 CIRCLE DR
 YOUR CITY IN 44444

EXHIBIT D

ENGINEER'S ESTIMATE

EXHIBIT D

PROJECT NAME: PROJECT #: DP 20-020, Eddy Street & Howard Street Sewer Relocation & Water Main Loop

DHA #: 200104.5

date: 2/23/2021

Engineer's Estimated Cost of Construction					Total: (+25% bond contingency)	\$ 674,340.00
ID	ITEM	UNIT	QTY	UNIT PRICE	EXTENSION	
1	Mobilization & Demobilization	LS	1	\$ 25,000.00	\$ 25,000.00	
2	Maintenance of Traffic	LS	1	\$ 15,000.00	\$ 15,000.00	
3	Construction Engineering	LS	1	\$ 750.00	\$ 750.00	
4	Construction Record Survey	LS	1	\$ 3,000.00	\$ 3,000.00	
5	Clearing	LS	1	\$ 2,500.00	\$ 2,500.00	
6	Flowable Backfill, Non-Removable	CYS	50	\$ 210.00	\$ 10,500.00	
7	#53 Aggr. Base Course, 6 in., cip	TON	431	\$ 27.00	\$ 11,634.75	
8	Sidewalk, Concrete	SYS	545	\$ 60.00	\$ 32,700.00	
9	Modified Combo. Curb and Gutter	LFT	861	\$ 45.00	\$ 38,745.00	
10	Combo. Curb and Gutter, Type B	LFT	266	\$ 44.00	\$ 11,704.00	
11	Std Commercial Drive Entrance, Complete, w/ curb ramps	EA	2	\$ 18,000.00	\$ 36,000.00	
12	HMA Intermediate Course, 2-1/2 in.	TON	238	\$ 85.00	\$ 20,230.00	
13	HMA Base Course, 8 in. (2 lifts, min.)	TON	759	\$ 80.00	\$ 60,720.00	
14	HMA Surface Course, 1-1/2 in.	TON	143	\$ 90.00	\$ 12,870.00	
15	Asphalt For Tack Coat	SYS	3450	\$ 0.40	\$ 1,380.00	
16	Water Main, 12" Valve	EA	1	\$ 3,500.00	\$ 3,500.00	
17	Water Main, 12"x8" Reducer	EA	1	\$ 3,000.00	\$ 3,000.00	
18	Water Main, Ductile Iron, 8 in.	LFT	737	\$ 82.00	\$ 60,434.00	
19	Water Main Cross, 8"x8"	EA	2	\$ 3,500.00	\$ 7,000.00	
20	Water Main, 6"x8" Tee	EA	2	\$ 1,500.00	\$ 3,000.00	
21	Water Main, 6"x8" Reducer	EA	4	\$ 1,750.00	\$ 7,000.00	
22	Valve, Ductile Iron, 8 in.	EA	6	\$ 2,000.00	\$ 12,000.00	
23	1" Water Service	LFT	100	\$ 35.00	\$ 3,500.00	
24	2" Water Service	LFT	25	\$ 40.00	\$ 1,000.00	
25	6" Water Service, D.I.	LFT	50	\$ 75.00	\$ 3,750.00	
26	Hydrant	EA	1	2400.00	\$ 2,400.00	
27	Pipe, Sanitary Sewer, 24"	LFT	288	\$ 150.00	\$ 43,200.00	
28	Pipe, PVC, 30 in.	LFT	305	\$ 200.00	\$ 61,000.00	
29	Sewer Lateral, PVC, 6"	LFT	50	\$ 90.00	\$ 4,500.00	
30	Connect to Ex. MH	EA	1	\$ 2,000.00	\$ 2,000.00	
31	Std. Manhole	EA	3	\$ 8,500.00	\$ 25,500.00	
32	Mulched Seeding, Type T	SYS	638	\$ 0.80	\$ 510.67	
33	Traffic Signal Detection Loops, Re-set	LS	1	\$ 10,000.00	\$ 10,000.00	
34	Grooving For Pavement Markings	LFT	1192	\$ 1.00	\$ 1,192.00	
35	Line, Thermoplastic, Solid, White, 4"	LFT	76	\$ 1.00	\$ 76.00	
36	Line, Thermoplastic, Solid, Yellow, 4 In.	LFT	756	\$ 1.00	\$ 756.00	
37	Line, Thermoplastic, Crosshatch, Yellow, 8 In.	LFT	360	\$ 2.00	\$ 720.00	
38	Transverse Markings, Thermoplastic, Yellow, Crosshatch, 12"	LFT	74	\$ 4.00	\$ 296.00	
39	Pavement Message Marking, Thermoplastic, "ONLY", White	EA	1	\$ 200.00	\$ 200.00	
40	Pavement Message Marking, Thermoplastic, Arrow, White	EA	1	\$ 200.00	\$ 200.00	

TOTAL \$ 539,470.00

EXHIBIT E

PERFORMANCE BOND

PERFORMANCE BOND

Bond No. 0236407

KNOWN ALL BY THESE PRESENTS, That we, KRG Eddy Street Land III, LLC, 30 S. Meridian Street, Suite 1100, Indianapolis, IN 46204, incorporated in the State of Indiana, and Berkley Insurance Company, a Delaware corporation, as Surety, are held and firmly bound unto City of South Bend, 227 West Jefferson Blvd., South Bent, IN 46601, as Obligee, in the penal sum of Six Hundred Seventy-Four Thousand Three Hundred Forty and Zero Cents Dollars (\$674,340.00) for the payment of which some well and truly be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, in order to file a plat or subdivision map, or to obtain a permit, the Principal has entered into a contract with the Obligee which requires the Principal to make certain improvements to the land as more particularly set forth in Project #: DP 20-020, Eddy Street & Howard Street Sewer Relocation & Water Main Loop (hereinafter referred to as the "Contract").

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall construct the improvements described in the Contract, then this obligation shall be void, otherwise to remain in full force and effect. This obligation is subject to the following conditions:

1. This bond runs to the benefit of the named Obligee only, and no other person shall have any rights under this bond. If the limitation set forth in this bond is void or prohibited by law, the minimum period of limitations available to sureties as a defence in the jurisdiction of the suit shall be applicable.
2. This bond is not a forfeiture obligation, and in no event shall the Surety's liability exceed the reasonable cost of completing the improvements described in the Contract not completed by the Principal, or the sum of this bond, whichever is less.

IT IS FURTHER PROVIDED, that regardless of the number of years this bond shall remain in effect and/or number of claims hereunder, the aggregate liability of the Surety herein shall in no event exceed the penal sum of the bond.

Signed this 1st day of March, 2021.

KRG Eddy Street Land III, LLC

Principal

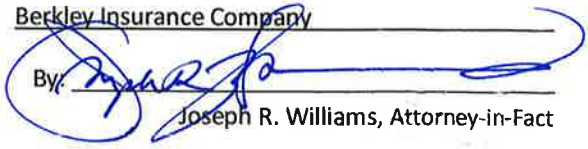
FMS TH
day

By: 

(Signature)

Name & Title: Tom McGowan, President

Berkley Insurance Company

By: 

Joseph R. Williams, Attorney-in-Fact

POWER OF ATTORNEY
BERKLEY INSURANCE COMPANY
WILMINGTON, DELAWARE

NOTICE: The warning found elsewhere in this Power of Attorney affects the validity thereof. Please review carefully.

KNOW ALL MEN BY THESE PRESENTS, that BERKLEY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Delaware, having its principal office in Greenwich, CT, has made, constituted and appointed, and does by these presents make, constitute and appoint: Steven L. Swords; Tina Kennedy; Annette Wisong; Joseph R. Williams; Sue Bailey Lee; Sarah Hancock; Kathryn Kleinschmidt; Edward Mooney; or Kate McKee Longaker of USI Insurance Services, LLC of Atlanta, GA its true and lawful Attorney-in-Fact, to sign its name as surety only as delineated below and to execute, seal, acknowledge and deliver any and all bonds and undertakings, with the exception of Financial Guaranty Insurance, providing that no single obligation shall exceed Fifty Million and 00/100 U.S. Dollars (U.S.\$50,000,000.00), to the same extent as if such bonds had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office in their own proper persons.

This Power of Attorney shall be construed and enforced in accordance with, and governed by, the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof. This Power of Attorney is granted pursuant to the following resolutions which were duly and validly adopted at a meeting of the Board of Directors of the Company held on January 25, 2010:

RESOLVED, that, with respect to the Surety business written by Berkley Surety, the Chairman of the Board, Chief Executive Officer, President or any Vice President of the Company, in conjunction with the Secretary or any Assistant Secretary are hereby authorized to execute powers of attorney authorizing and qualifying the attorney-in-fact named therein to execute bonds, undertakings, recognizances, or other suretyship obligations on behalf of the Company, and to affix the corporate seal of the Company to powers of attorney executed pursuant hereto; and said officers may remove any such attorney-in-fact and revoke any power of attorney previously granted; and further

RESOLVED, that such power of attorney limits the acts of those named therein to the bonds, undertakings, recognizances, or other suretyship obligations specifically named therein, and they have no authority to bind the Company except in the manner and to the extent therein stated; and further

RESOLVED, that such power of attorney revokes all previous powers issued on behalf of the attorney-in-fact named; and further

RESOLVED, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligation of the Company; and such signature and seal when so used shall have the same force and effect as though manually affixed. The Company may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Company, notwithstanding the fact that they may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, the Company has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 28th day of July, 2020.



Attest:
By Ira S. Lederman
Executive Vice President & Secretary

Berkley Insurance Company
By Jeffrey M. Hafter
Senior Vice President

STATE OF CONNECTICUT)
) ss:
COUNTY OF FAIRFIELD)

Sworn to before me, a Notary Public in the State of Connecticut, this 28th day of July, 2020, by Ira S. Lederman and Jeffrey M. Hafter who are sworn to me to be the Executive Vice President and Secretary, and the Senior Vice President, respectively, of Berkley Insurance Company.

MARIA C RUNDBAKEN
NOTARY PUBLIC
CONNECTICUT
MY COMMISSION EXPIRES
APRIL 30, 2024

Maria C. Rundbaker
Notary Public, State of Connecticut

CERTIFICATE

I, the undersigned, Assistant Secretary of BERKLEY INSURANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true, correct and complete copy of the original Power of Attorney; that said Power of Attorney has not been revoked or rescinded and that the authority of the Attorney-in-Fact set forth therein, who executed the bond or undertaking to which this Power of Attorney is attached, is in full force and effect as of this date.



Given under my hand and seal of the Company, this 1st day of March, 2021.

Vincent P. Forte

EXHIBIT F

SYSTEM DEVELOPMENT CHARGE AND UTILITY VERIFICATION RECEIPT

Please email thalsi...

EXHIBIT F

v. 2018.10.12



City of South Bend
Department of Public Works

Utility Verification Form

Please submit
Utility Verification fee of \$50
to:
City of South Bend/Public Works
Permit Office
227 W. Jefferson Blvd
South Bend, IN 46601

Pursuant to the City of South Bend Municipal Code § 6-4.1 and 17-79 through 17-87, the Permit Manager's Office has verified available utilities and connection requirements. This form is for the express purposes of notifying an applicant of whether City utilities are available in a particular location and what requirements are necessary for connection.

IT DOES NOT GUARANTEE CONNECTION TO CITY UTILITIES or CONSTITUTE A TAP PERMIT. The applicant must meet the requirements below prior to receiving tap permits to connect to City utilities:

Property Information (To Be Completed By Applicant):

Property Owner's Name: KRG Eddy Street Land III, LLC
Address/Lot #/Subdivision: 1140 East Howard Street
City, State, ZIP: South Bend, IN 46617

- Single-Family Residential
- Other
- Inside City
- Outside City & 1/8 Contiguous
- Outside City & Not 1/8 Contiguous

The applicant is requesting the following connections:

- Water** No. of ERUs*: 7 Peak Factor: 4
 - Sanitary Sewer**
- * Equivalent Residential Unit (ERU) = 310 GPD
Residential Peak Factor = 4

City Requirements (To Be Completed by the City of South Bend):

- City Connection Fee \$ 10,206.00
System Development Charge is billed by the City at the time the application for service is filed.
- Wastewater Survey for Nonresidential Establishments
(Note: May require industrial discharge permit and pre-treatment)
- Waiver of Remonstrations to Annexation Agreement
- Annexation
- Requires System Improvements

Public Works Authorized Signature: [Signature] Date: 9/23/20

By executing this Utility Verification Form, you hereby acknowledge the statements contained herein are true and accurate. If the City later determines that you misrepresented any statement on this Utility Verification Form, you will be charged the corrected City connection fee. You understand the requirements to connect to City utilities as set forth under South Bend City Ordinance and agree to meet the requirements set forth above.

Property Owner or Representative Signature: Tommy Haskins Date: 9/22/2020

Property Owner or Representative Phone: _____

**** Form is not valid without Authorized Signature and Property Owner or Agent's Signature ****

SDCs Paid Date: <u>9-24-20</u> <u>D. Payne</u>	<input checked="" type="checkbox"/> Check # <u>000024</u> <input type="checkbox"/> Cash	UVF Fee Paid Date: <u>9/23/20</u>	<input checked="" type="checkbox"/> Credit <input type="checkbox"/> Cash	Check # <u>000023</u>
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EXHIBIT G

CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

3/8/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Commercial Lines - (404) 923-3700 USI Insurance Services LLC 1 Concourse Parkway NE, Suite 700 Atlanta, GA 30328	CONTACT NAME: Tim Baumann PHONE (A/C. No. Ext): 470.875.0517 FAX (A/C. No): 610-537-1929 E-MAIL ADDRESS: tim.baumann@usi.com														
INSURED Kite Realty Group Trust 30 S. Meridian St., Suite 1100 Indianapolis, IN 46204	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">INSURER(S) AFFORDING COVERAGE</th> <th style="width: 20%;">NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Endurance Assurance Corporation</td> <td>11551</td> </tr> <tr> <td>INSURER B: Sompo America Insurance Company</td> <td>11126</td> </tr> <tr> <td>INSURER C: Markel American Insurance Company</td> <td>28932</td> </tr> <tr> <td>INSURER D: Navigators Insurance Company</td> <td>42307</td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Endurance Assurance Corporation	11551	INSURER B: Sompo America Insurance Company	11126	INSURER C: Markel American Insurance Company	28932	INSURER D: Navigators Insurance Company	42307	INSURER E:		INSURER F:	
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INSURER F:															

COVERAGES

CERTIFICATE NUMBER: 15313255

REVISION NUMBER: See below

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:			GGR10012604103	03/01/2021	03/01/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			ADVS1127B0	03/01/2021	03/01/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			MKLM6MM70000289	03/01/2021	03/01/2022	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WCDS1050Y0	03/01/2021	03/01/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	Excess - \$15M xs \$10M			GA21EXRZ042PGIV	03/01/2021	03/01/2022	Excess - \$15M xs \$10M

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Eddy Street Commons - 1233, 1234 & 1251 N. Eddy Street, South Bend, IN 46617
 Additional Named Insureds: KRG Eddy Street Commons, LLC & Eddy Street Commons at Notre Dame Master Association, Inc.

CERTIFICATE HOLDER

City of South Bend
 Department of Public Works, Engineering Division
 227 W Jefferson Blvd., Suite 1316
 South Bend, IN 46601

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ACORD 25 (2016/03)

(This certificate replaces certificate# 15304287 issued on 3/3/2021)

