

CITIES **EDGE**

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11/16/2017 42202 Registration Number:

MARK DATE DESCRIPTION 06/07/2017

PERMITTING

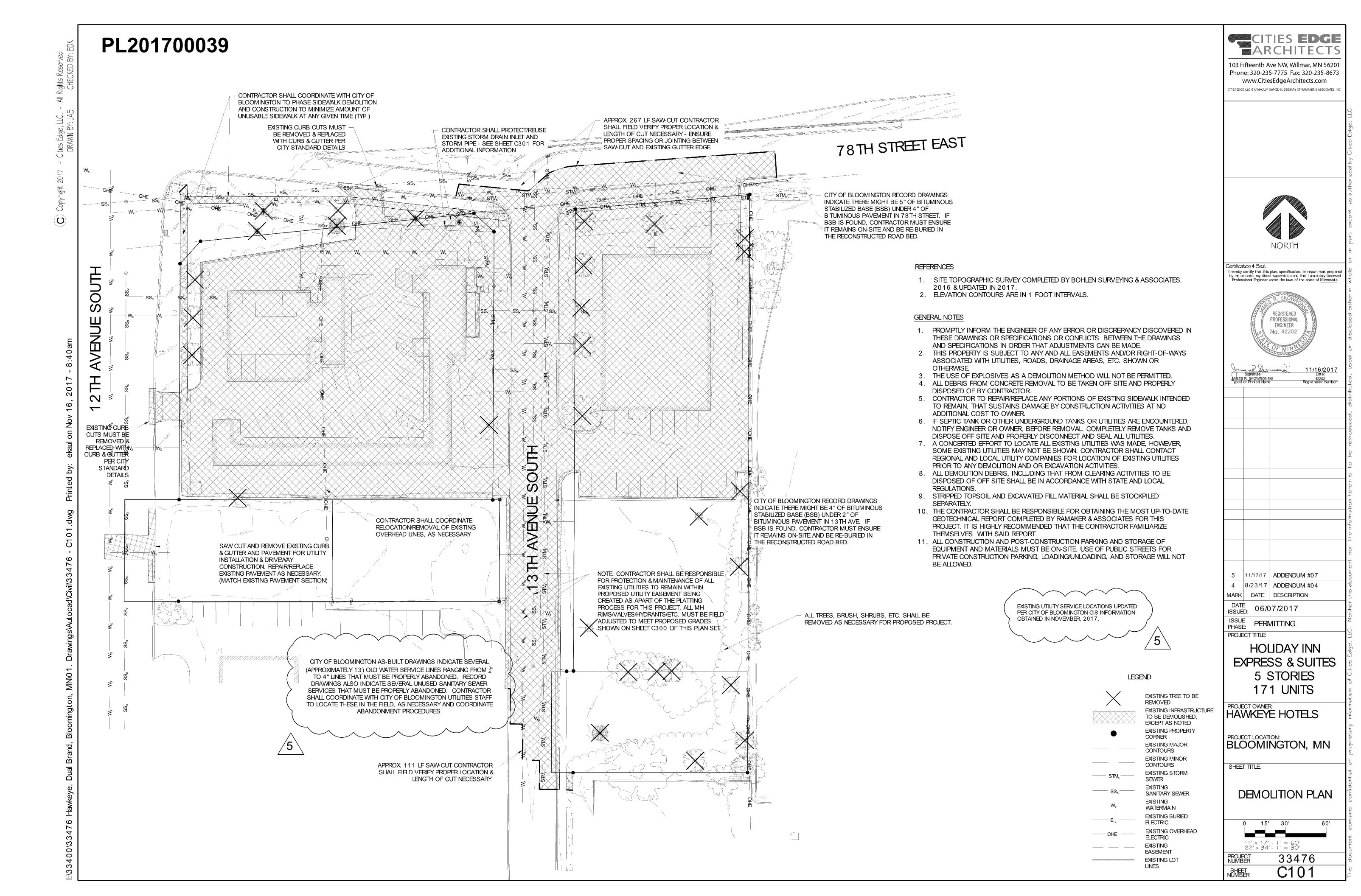
EXPRESS & SUITES 5 STORIES

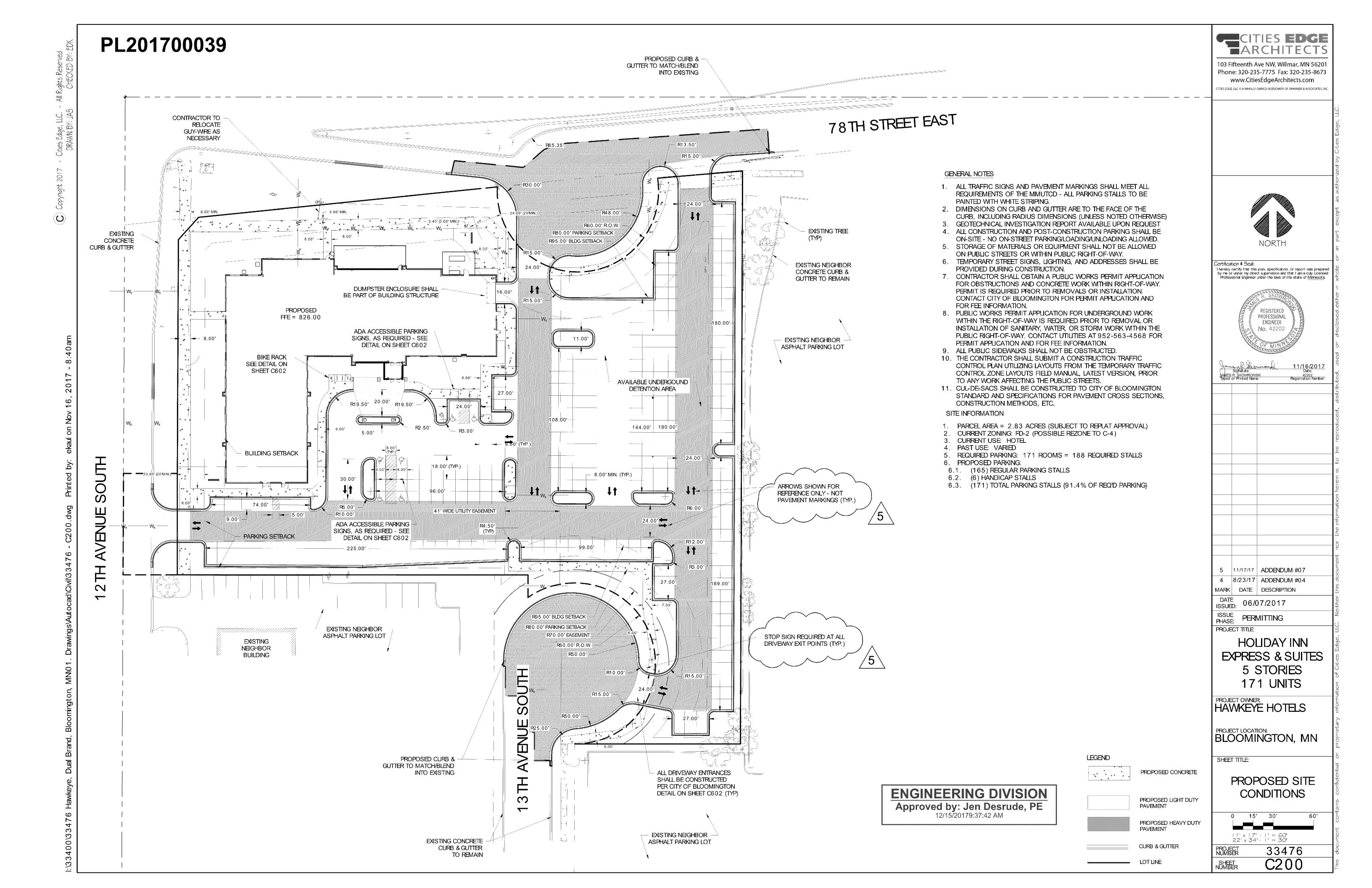
PROJECT OWNER:
HAWKEYE HOTELS

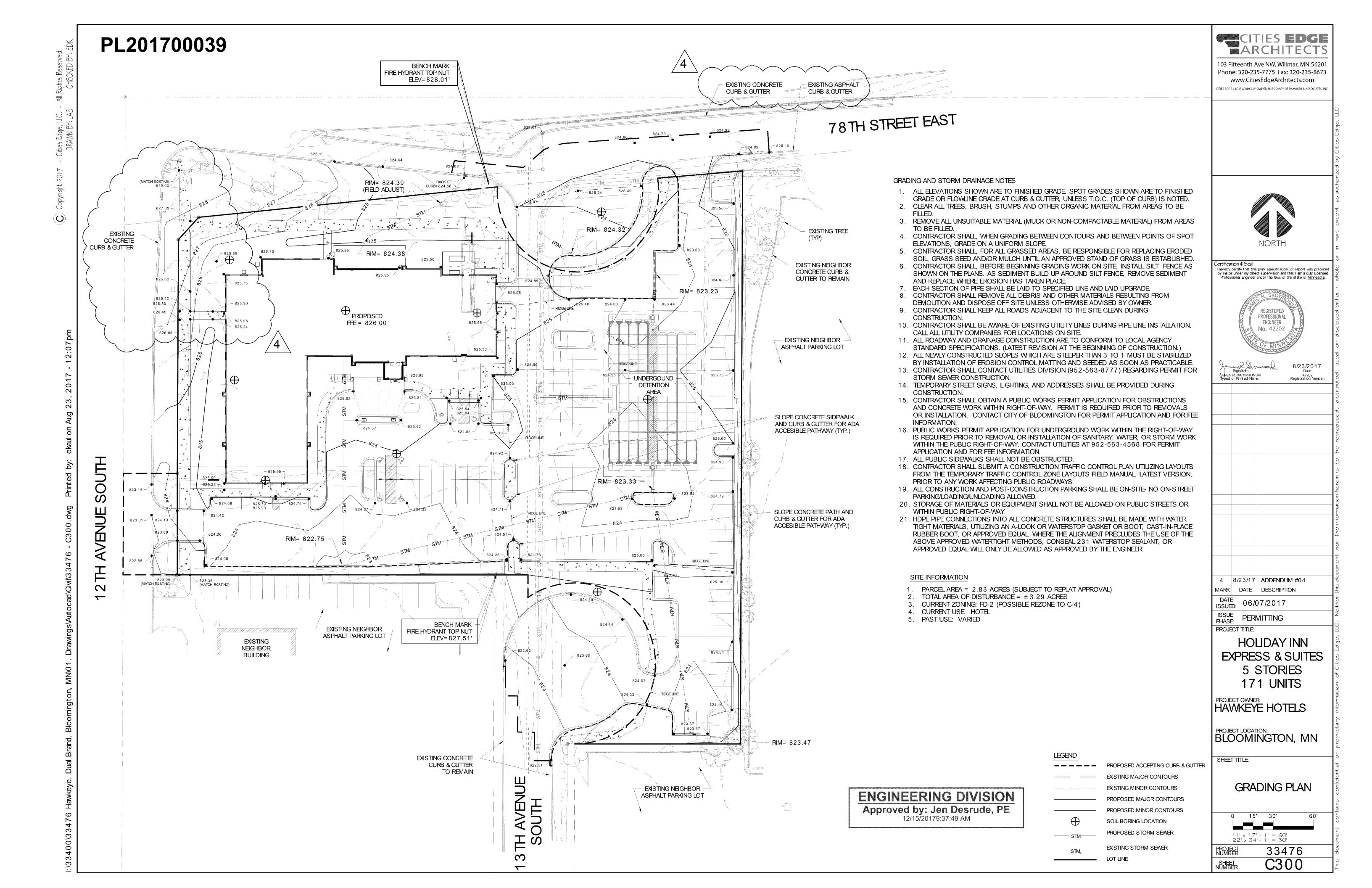
BLOOMINGTON, MN

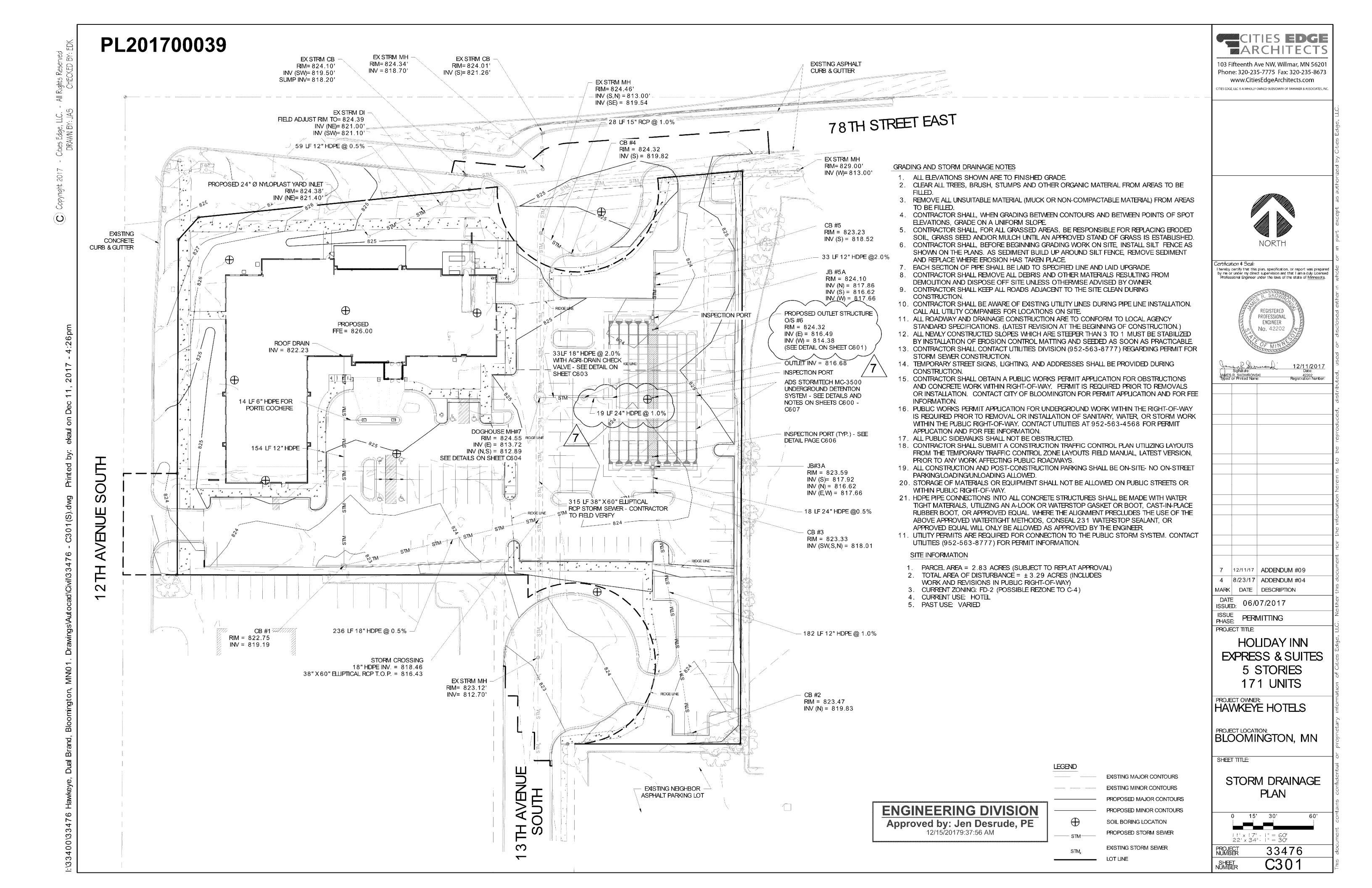
EXISTING CONDITIONS

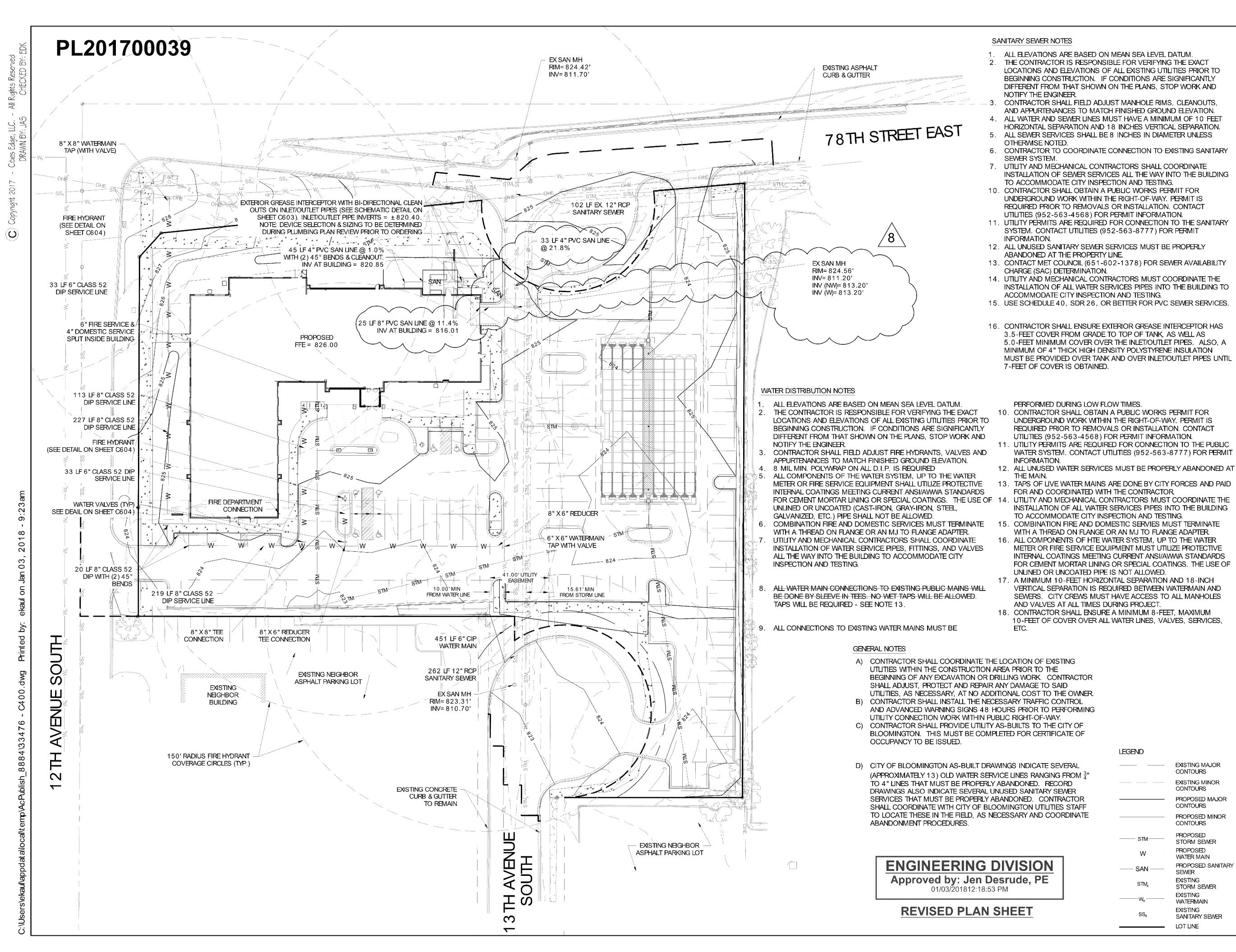
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CITIES **EDGE** ARCHITECTS

> 103 Fifteenth Ave NW, Willmar, MN 56201 Phone: 320-235-7775 Fax: 320-235-8673 www.CitiesEdgeArchitects.com

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ertification \$ Seal: I hereby certify that this plan, specification, or report was prepare by me or under my direct supervision and that I am a duly Licensed



JAMES R. SKOWRONSK Typed or Printed Name:

<u>1/03/2018</u>

Registration Number:

8 01/03/18 ADDENDUM #10 7 | 12/11/17 | ADDENDUM #09 6 | 11/28/17 | ADDENDUM #08 11/17/17 | ADDENDUM #07 4 8/23/17 ADDENDUM #04 MARK DATE DESCRIPTION 06/07/2017 ISSUED: ISSUE PHASE:

HOLIDAY INN **EXPRESS & SUITES** 5 STORIES 171 UNITS

PERMITTING

PROJECT TITLE:

PROJECT OWNER: HAVKEYE HOTELS

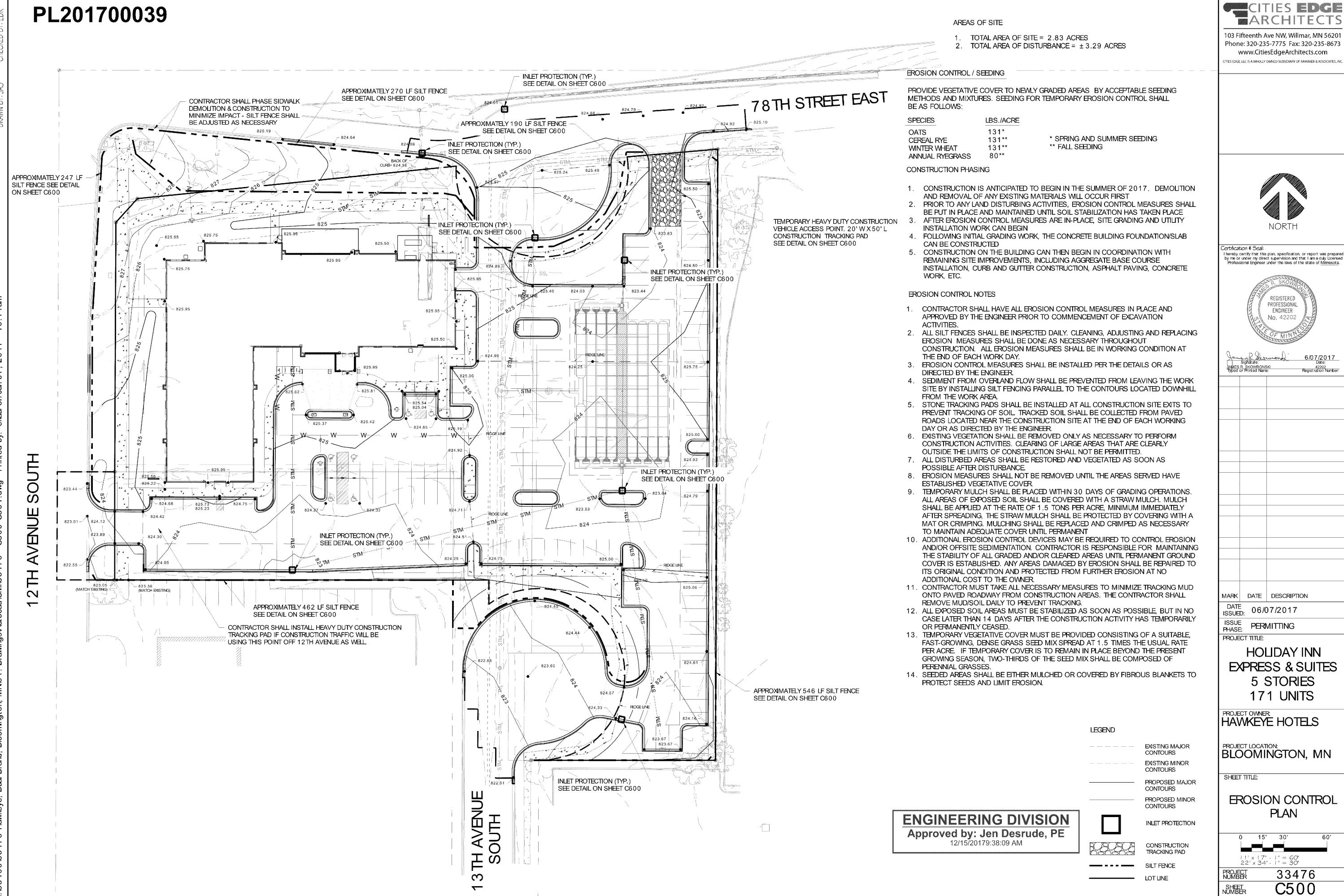
PROJECT LOCATION: **BLOOMINGTON, MN**

SHEET TITLE:

PROPOSED UTILITY PLAN

15' 33476

PROJECT NUMBER C400



CITIES EDGE

Phone: 320-235-7775 Fax: 320-235-8673 www.CitiesEdgeArchitects.com



6/07/2017 42202 Registration Number:

EXPRESS & SUITES 5 STORIES

PROJECT OWNER: HAWKEYE HOTELS

BLOOMINGTON, MN

GENERAL NOTES

A. PROJECT OFFICE WALL SWPPP POSTINGS:

THE FOLLOWING ITEMS MUST BE POSTED TOGETHER IN A SINGLE, ORGANIZED LOCATION ON A WALL INSIDE THE PROJECT OFFICE: 1) SWPPP SITE MAPS (ALL PHASES); 2) SWPPP DETAIL SHEETS; 3) MAP SHOWING LOCATION OF OFFSITE IMPORT OR EXPORT FACILITY; 4) REVISIONS TO DETAILS, SITE MAPS, OR SWPPP-RELATED RFIS; 5) SITE SWPPP BINDER; 6) SWCT PLACARD; 7) CURRENT OWNER STORMWATER COMPLIANCE TRAINING CERTIFICATES FOR SUPERINTENDENT(S) AND COMPLIANCE OFFICER(S); AND 8) CERTIFICATIONS AND/OR TRAINING CERTIFICATES REQUIRED TO PERFORM INSPECTIONS BY THE APPLICABLE CONSTRUCTION GENERAL PERMIT OR AUTHORITY HAVING JURISDICTION.

B. PERMITTED PROJECT AREA:

FOR PURPOSES OF THIS SWPPP AND ASSOCIATED STORMWATER PERMIT, 'PERMITTED PROJECT AREA' IS DEFINED AS ANY AND ALL AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE, AS SHOWN ON THE SWPPP SITE MAPS AND IDENTIFIED IN THE NOTICE OF INTENT TO THE AGENCY. ALL GROUND-DISTURBING AND CONSTRUCTION-RELATED ACTIVITIES (MATERIAL STORAGE, DUMPSTERS, PARKING AREAS, PROJECT OFFICE TRAILER, ETC.) MUST BE INCLUDED WITHIN THE PERMITTED PROJECT AREA LIMITS OF DISTURBANCE.

OFFSITE AREA(S) TO BE DISTURBED AS PART OF THIS PROJECT (NOT ON OWNER PROPERTY):

 WORK ASSOCIATED WITH UTILITY INSTALLATION AND/OR CUL-DE-SAC CONSTRUCTION ALONG 78TH STREET EAST, 13TH AVENUE SOUTH, AND 12TH AVENUE SOUTH.

ALL AREAS OUTSIDE THE PERMITTED PROJECT AREA (I.E., LIMITS OF DISTURBANCE) ACQUIRED FOR USE BY THE GC OR A SUBCONTRACTOR OF THE GC (BORROW SOURCES, DISPOSAL AREAS, ETC.) MUST BE MANAGED IN ACCORDANCE WITH APPENDIX E - TAB 21 OF THE 02370 SPECIFICATION. THE CONTRACTOR IS REQUIRED TO LOCATE OFFICE TRAILERS AND MATERIAL STORAGE AREAS FOR THE PROJECT WITHIN THE LIMITS OF DISTURBANCE THE CONTRACTOR MAY REQUEST USE OF OFF-SITE LOCATIONS FOR OFFICE TRAILERS OR NON-ERODIBLE MATERIAL STORAGE; HOWEVER, APPROVAL MUST BE OBTAINED FROM THE CONSTRUCTION MANAGER PRIOR TO THEIR USE. REQUESTS WILL BE REVIEWED ON A CASE BY CASE BASIS AND IF APPROVED. LIMITATIONS ON USE WILL BE PROVIDED.

C. SPECIAL PROJECT AREAS:

THERE ARE NO SPECIAL PROJECTS, LOCATED BEYOND THE OWNER PERMITTED PROJECT AREA, REQUIRING INSPECTION AND MAINTENANCE ASSOCIATED WITH THIS CONSTRUCTION PROJECT.

D.1 NON-STORMWATER DISCHARGES:

THE GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES PROHIBITS MOST NON-STORMWATER DISCHARGES DURING THE CONSTRUCTION PHASE. ALLOWABLE NON-STORMWATER DISCHARGES THAT OCCUR DURING CONSTRUCTION ON THIS PROJECT, ARE INCLUDED IN THE SECTION 5.2 OF THE GENERAL PERMIT.

BEST MANAGEMENT PRACTICES (BMPS) MUST BE IMPLEMENTED FOR THE GENERAL PERMIT ALLOWABLE DISCHARGES FOR THE DURATION OF THE PERMIT. THE TECHNIQUES DESCRIBED IN THIS SWPPP FOCUS ON PROVIDING CONTROL OF POLLUTANT DISCHARGES WITH PRACTICAL APPROACHES THAT UTILIZE READILY AVAILABLE EXPERTISE, MATERIAL, AND EQUIPMENT

NON-STORMWATER COMPONENTS OF SITE DISCHARGES MUST BE UNCONTAMINATED NON-TURBID WATER. ALL NON-STORMWATER DISCHARGES MUST BE ROUTED TO A STORMWATER CONTROL PRIOR TO DISCHARGE. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE; IT CAN BE RETAINED IN RETENTION PONDS UNTIL IT INFILTRATES OR EVAPORATES. WHEN NON-STORMWATER IS DISCHARGED FROM THE SITE, IT MUST BE DONE IN A MANNER SUCH THAT IT DOES NOT CAUSE EROSION OF THE SOIL DURING DISCHARGE.

PROCESS WATER SUCH AS POWER WASHING WATER AND CONCRETE CUTTING EFFLUENT, AMONG OTHERS, MUST BE COLLECTED FOR TREATMENT AND DISPOSAL IT MUST NOT BE FLUSHED INTO THE SITE STORM DRAIN SYSTEM OR DISCHARGED OFF-SITE.

D. DISCHARGE POINTS:

ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENTATION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING DISCHARGE OF SEDIMENT FROM THE SITE AND/OR IMPACTS TO RECEIVING WATERS. SEDIMENT ACCUMULATION DOWNGRADIENT OF DISCHARGE LOCATIONS SHALL BE REPORTED AS A SEDIMENT DISCHARGE (SEE APPENDIX E - TAB 14, SEDIMENT RELEASES, OF THE 02370 SPECIFICATION) AND THE POTENTIAL UPSTREAM CAUSE SHALL BE INVESTIGATED TO PREVENT FUTURE OCCURRENCE CONTACT THE CONSTRUCTION MANAGER (CM). CIVIL ENGINEERING CONSULTANT (CEC) AND STORMWATER COMPLIANCE TEAM (SWCT) TO DETERMINE APPROPRIATE ACTION FOR CLEANUP OF DISCHARGED SEDIMENT THAT MAY BE OUTSIDE OF THE LIMITS OF DISTURBANCE. SEE SAMPLING AND MONITORING OF EFFLUENT PLAN (IF APPLICABLE).

EROSION AND SEDIMENT CONTROL NOTES

- A. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THIS STORM WATER POLLUTION PREVENTION PLAN. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF
- B. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
- C. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
- D. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH SWPPP IMPLEMENTATION SEQUENCE, OR AS REQUIRED BY THE APPLICABLE GENERAL PERMIT. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.
- E ALL DENUDED/BARE AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE, MUST BE STABILIZED IMMEDIATELY UPON COMPLETION OF MOST RECENT GRADING ACTIVITY, WITH THE USE OF FAST-GERMINATING ANNUAL GRASS/GRAIN VARIETIES, STRAW/HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING AND/OR BLANKETS. COMPLETION MUST BE ACHIEVED WITHIN 14 DAYS.
- F. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEEDED, SODDED, AND/OR VEGETATED IMMEDIATELY, AND COMPLETED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
- G. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION. TEMPORARY AND/OR PERMANENT STABILIZATION SHALL BE APPLIED PER REQUIREMENTS IN THESE E&S CONTROL NOTES.

- H. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES. ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE OFF-SITE.
- I. ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE SITE
- J. STORM WATER POLLUTANT CONTROL MEASURES INSTALLED DURING CONSTRUCTION, THAT WILL ALSO PROVIDE STORM WATER MANAGEMENT AFTER CONSTRUCTION, ARE INCLUDED IN THE CONTRACT DOCUMENTS. THE SITE-SPECIFIC POST CONSTRUCTION STORM WATER OPERATION AND MAINTENANCE (0&M) MANUAL IS INCLUDED IN THE CONTRACT DOCUMENTS.
- H. ALL PERMANENT CONTROLS AND SYSTEMS MUST BE INSTALLED AND FUNCTIONING AS DESIGNED AND FREE OF ACCUMULATED SEDIMENT AND DEBRIS DURING FINAL PROJECT INSPECTION AND APPROVAL

HAZARDOUS MATERIAL MANAGEMENT & SPILL REPORTING

ANY HAZARDOUS OR POTENTIALLY HAZARDOUS MATERIAL THAT IS BROUGHT ONTO THE CONSTRUCTION SITE SHALL BE HANDLED PROPERLY TO REDUCE THE POTENTIAL FOR STORMWATER POLLUTION. ALL MATERIALS USED ON THIS CONSTRUCTION SITE SHALL BE PROPERLY STORED, HANDLED, DISPENSED AND DISPOSED OF FOLLOWING ALL APPLICABLE LABEL DIRECTIONS. FLAMMABLE AND COMBUSTIBLE LIQUIDS SHALL BE STORED AND HANDLED ACCORDING TO APPLICABLE REGULATIONS, AND, AT A MINIMUM, ACCORDING TO 29 CFR 1926.152. ONLY APPROVED CONTAINERS AND PORTABLE TANKS SHALL BE USED FOR STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.

MATERIAL SAFETY DATA SHEETS (MSDS) INFORMATION SHALL BE KEPT ON SITE FOR ANY AND ALL APPLICABLE MATERIALS. HOWEVER, MSDS MAY ALSO BE ACCESSED VIA TELEPHONE OR OTHER ELECTRONIC MEANS OR APPARATUS.

IN THE EVENT OF AN ACCIDENTAL SPILL, IMMEDIATE ACTION SHALL BE TAKEN BY THE GC TO CONTAIN AND REMOVE THE SPILLED MATERIAL THE SPILL SHALL BE REPORTED TO THE APPROPRIATE AGENCIES IN THE REQUIRED TIME FRAMES. AS REQUIRED UNDER THE PROVISIONS OF THE CLEAN WATER ACT, ANY SPILL OR DISCHARGE ENTERING WATERS OF THE UNITED STATES SHALL BE PROPERLY REPORTED

ALL HAZARDOUS MATERIALS, INCLUDING CONTAMINATED SOIL AND LIQUID CONCRETE WASTE. SHALL BE DISPOSED OF BY THE CONTRACTOR IN THE MANNER SPECIFIED BY FEDERAL, STATE AND LOCAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS.

THE GC SHALL PREPARE A WRITTEN RECORD OF ANY SPILL AND ASSOCIATED CLEAN-UP ACTIVITIES OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF 1 GALLON OR REPORTABLE QUANTITIES, WHICHEVER IS LESS, ON THE DAY OF THE SPILL THE GC SHALL PROVIDE NOTICE TO OWNER IMMEDIATELY UPON IDENTIFICATION OF ANY SPILL COPIES OF SPILL CRITICAL INCIDENT REPORTS SHALL BE PRINTED AND MAINTAINED IN THE JOBSITE BINDER.

ANY SPILLS OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF REPORTABLE QUANTITIES AS DEFINED BY EPA OR THE STATE OR LOCAL AGENCY REGULATIONS, SHALL BE IMMEDIATELY REPORTED TO THE EPA NATIONAL RESPONSE CENTER (1-800-424-8802) AND THE MINNESOTA POLLUTION CONTROL AGENCY (1-800-422-0798).

THE STATE REQUIRES REPORTING WHEN:

- THERE IS AN IMPACT TO HUMAN HEALTH
- THERE IS AN IMPACT TO THE ENVIRONMENT • THERE IS A FIRE, EXPLOSION, OR SAFETY HAZARD
- A SPILL IS NOT IMMEDIATELY CLEANED UP
- THE SPILL WAS MORE THAN THE REPORTABLE QUANTITY OF 1 GALLON OF A PETROLEUM PRODUCT

THE REPORT SHOULD BE FILED WITH THE MINNESOTA POLLUTION CONTROL AGENCY WITHIN 24 HOURS OF A

THE REPORTABLE QUANTITY FOR HAZARDOUS MATERIALS CAN BE FOUND IN 40 CFR 302 AND THE US EPA

HTTP://WWW.EPA.GOV/SUPERFUND/POLICY/RELEASE/RG, AND THE ADMINISTRATIVE RULES OF MINNESOTA.

- TO MINIMIZE THE POTENTIAL FOR A SPILL OF PETROLEUM PRODUCT OR HAZARDOUS MATERIALS TO COME IN CONTACT WITH STORMWATER. THE FOLLOWING STEPS SHALL BE IMPLEMENTED:
- 1) ALL MATERIALS WITH HAZARDOUS PROPERTIES, SUCH AS PESTICIDES, PETROLEUM PRODUCTS, FERTILIZERS, SOAPS, DETERGENTS, CONSTRUCTION CHEMICALS, ACIDS, BASES, PAINTS, PAINT SOLVENTS, ADDITIVES FOR SOIL STABILIZATION, CONCRETE, CURING COMPOUNDS AND ADDITIVES, ETC., SHALL BE STORED IN A SECURE LOCATION, UNDER COVER AND IN APPROPRIATE, TIGHTLY SEALED CONTAINERS WHEN NOT IN USE.
- 2) THE MINIMUM PRACTICAL QUANTITY OF ALL SUCH MATERIALS SHALL BE KEPT ON THE JOB SITE AND SCHEDULED FOR DELIVERY AS CLOSE TO TIME OF USE AS PRACTICAL
- 3) A SPILL CONTROL AND CONTAINMENT KIT (CONTAINING FOR EXAMPLE, ABSORBENT MATERIAL SUCH AS KITTY LITTER OR SAWDUST, ACID, BASE, NEUTRALIZING AGENT, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, PLASTIC AND METAL TRASH CONTAINERS, ETC.) SHALL BE PROVIDED AT THE CONSTRUCTION SITE AND ITS LOCATION(S) SHALL BE IDENTIFIED WITH LEGIBLE SIGNAGE AND SHOWN ON SITE MAPS.
- THE SPILL CONTROL AND CONTAINMENT KIT SUPPLIES SHALL BE OF SUFFICIENT QUANTITIES AND APPROPRIATE CONTENT TO CONTAIN A SPILL FROM THE LARGEST ANTICIPATED PIECE OF EQUIPMENT AND FROM THE LARGEST ANTICIPATED QUANTITIES OF PRODUCTS STORED ON THE SITE AT ANY GIVEN TIME. CONTENTS SHALL BE INSPECTED DAILY DURING THE DAILY STORMWATER INSPECTION.
- 4) ALL PRODUCTS SHALL BE STORED IN AND USED FROM THE ORIGINAL CONTAINER WITH THE ORIGINAL PRODUCT LABEL CONTAINERS MUST BE STORED IN A MANNER TO PROTECT THEM FROM THE ELEMENTS AND INCIDENTAL DAMAGE.
- 5) ALL PRODUCTS SHALL BE USED IN STRICT COMPLIANCE WITH INSTRUCTIONS ON THE PRODUCT LABEL.
- 6) THE DISPOSAL OF EXCESS OR USED PRODUCTS SHALL BE IN STRICT COMPLIANCE WITH INSTRUCTIONS ON THE PRODUCT LABEL AND REGULATIONS.

GENERAL CONTRACTOR: BENSON-ORTH 10700 HIGHWAY 55, SUITE 310 PLYMOUTH, MN 55441 INDIVIDUAL NAME:

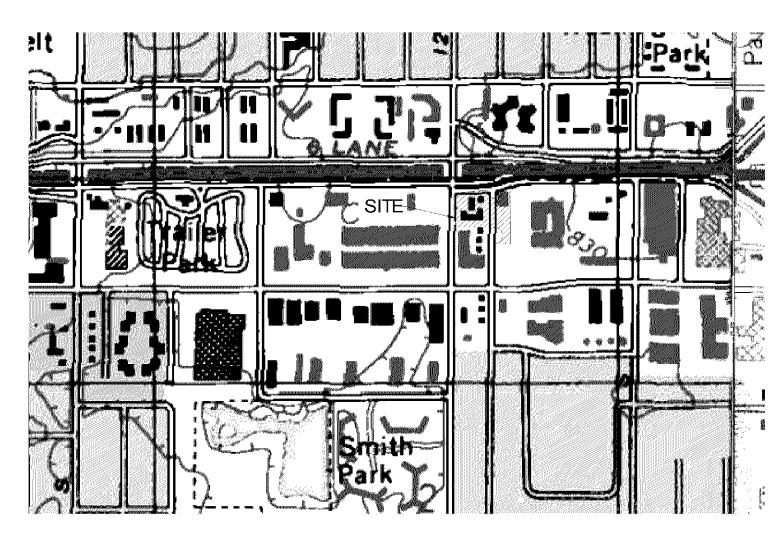
INDIVIDUAL TRAINING INFORMATION:

NOTE: THIS PROJECT HAS AN AGREEMENT THAT THE GC WILL BE THE RESPONSIBLE PARTY FOR THE CREATION OF THE SWPPP - THE CONTRACTOR SHALL PROVIDE NECESSARY STAFF NAMES AND TRAINING INFORMATION, AS REQUIRED

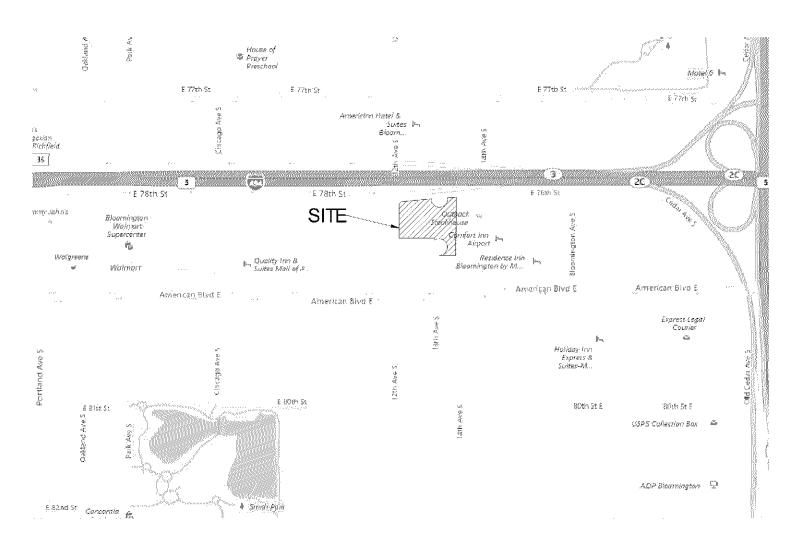
PREPARED FOR: HAWKEYE HOTELS 1601 N. ROOSEVELT AVENUE BURLINGTON, IA 52601 SITE OPERATOR/GENERAL CONTRACTOR

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CIVIL ENGINEER

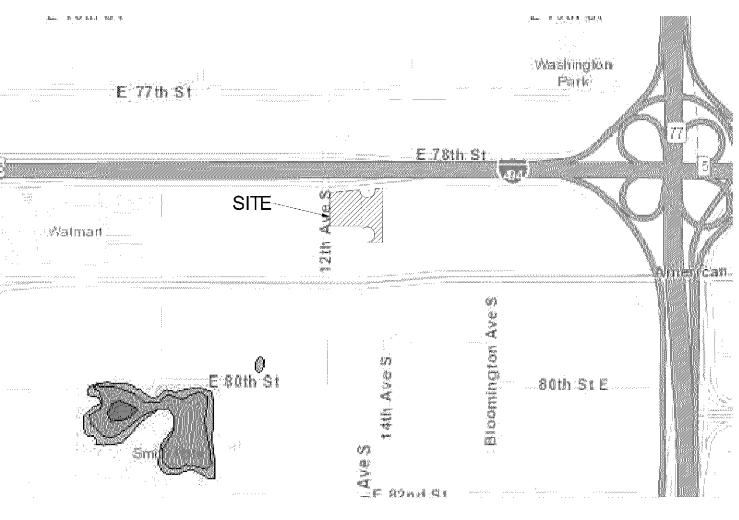


USGS QUADRANGLE MAP



VICINITY MAP

IMPORTANT: GC IS TO USE CITY OF GOLDEN VALLEY IDENTIFIED TRUCK ROUTES. GC TO USE THE SHORTEST ROUTE TO THE SITE FROM A CITY OF GOLDEN VALLEY IDENTIFIED TRUCK ROUTE



NATIONAL WETLAND INVENTORY MAP



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8/2<u>3/2</u>017 JAMES R. SKOWRONSK Typed or Printed Name: 42202 Registration Number:

4 8/23/17 ADDENDUM #04

MARK DATE DESCRIPTION 06/07/2017 ISSUED:

PERMITTING PHASE: PROJECT TITLE:

HOLIDAY INN EXPRESS & SUITES 5 STORIES 171 UNITS

PROJECT OWNER: HAWKEYE HOTELS

PROJECT LOCATION: BLOOMINGTON, MN

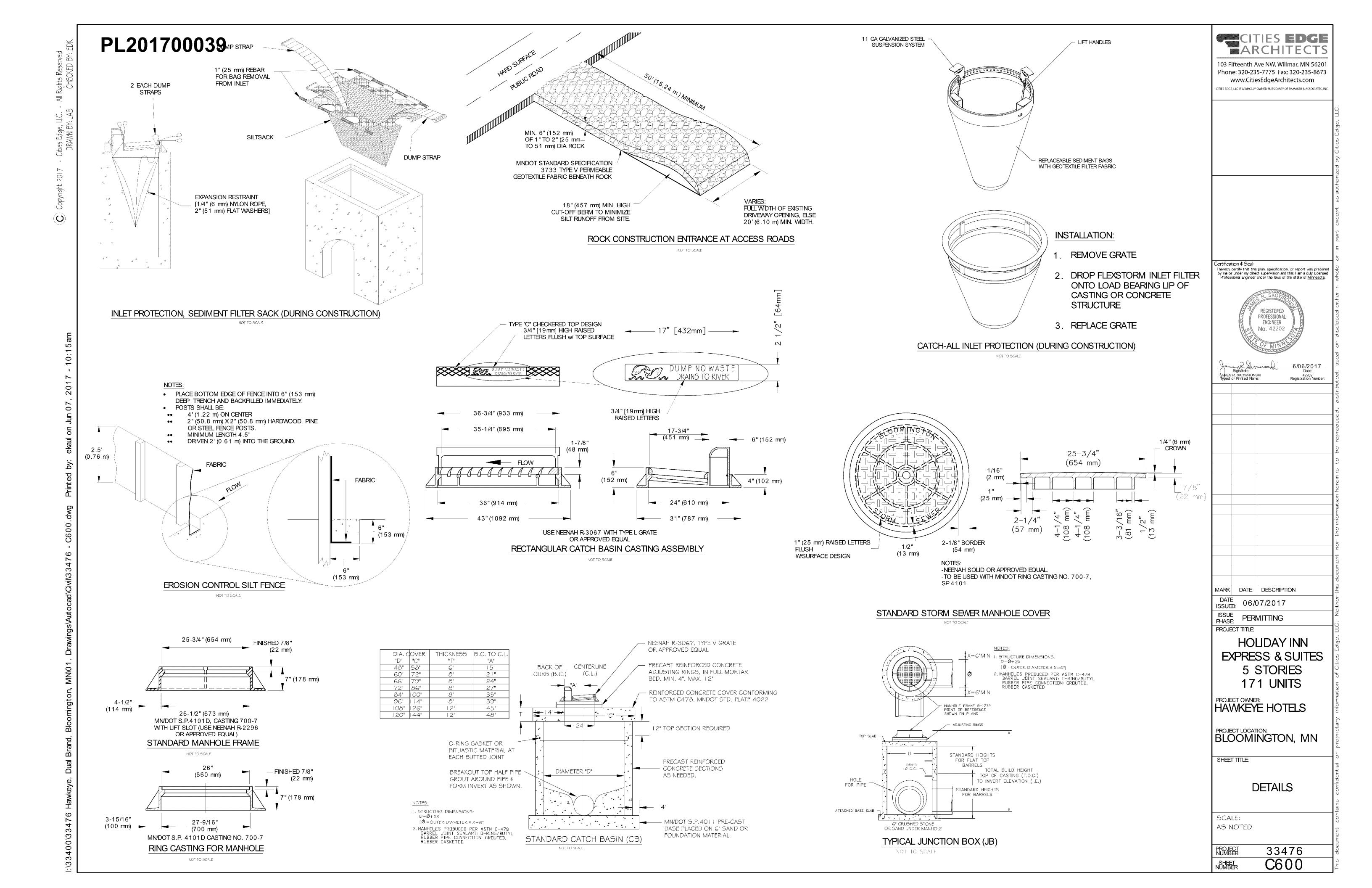
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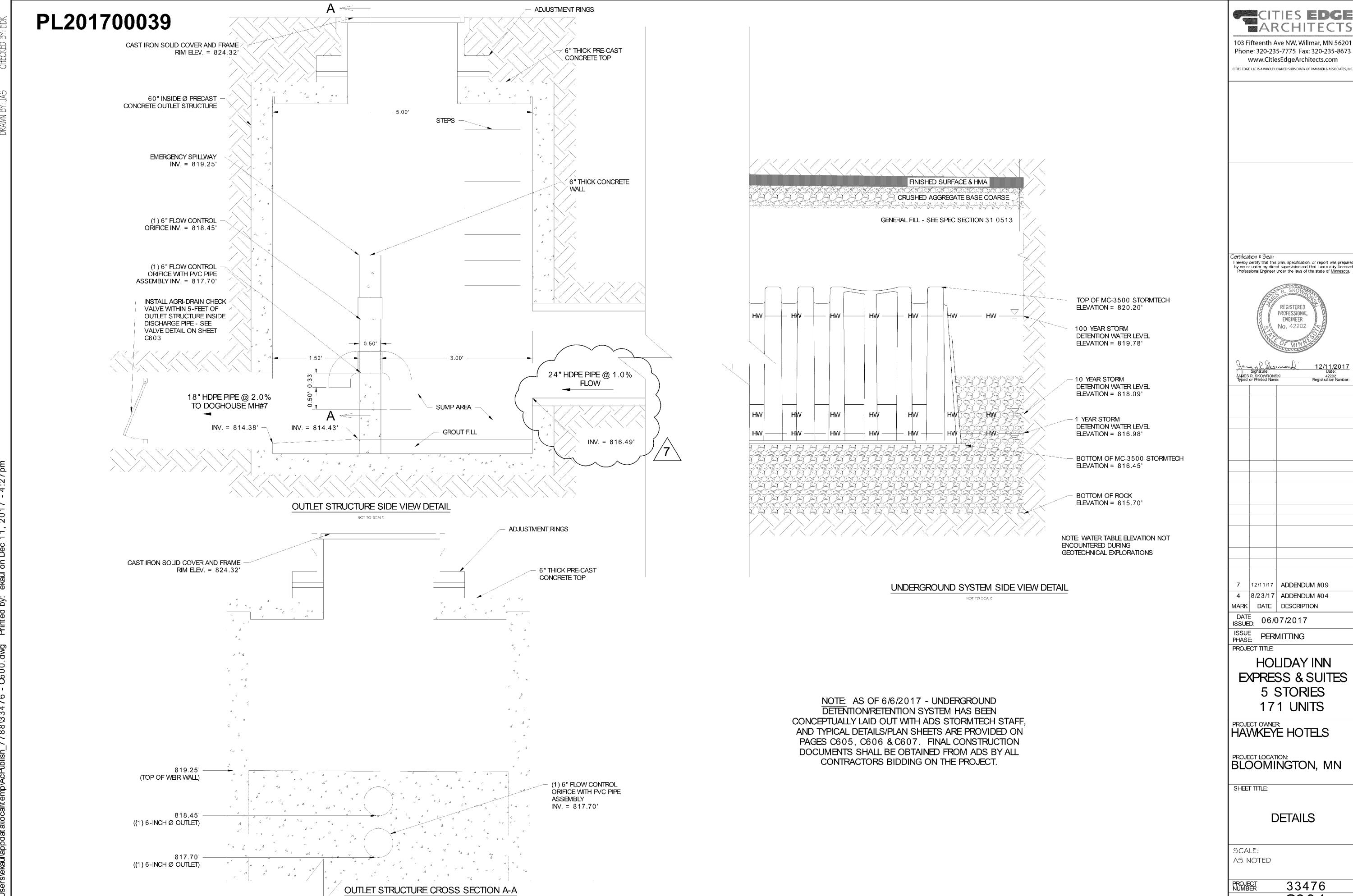
SWPPP NOTES

15'

C501

33476 PROJECT NUMBER





NOT TO SCALE

CITIES EDGE

Phone: 320-235-7775 Fax: 320-235-8673 www.CitiesEdgeArchitects.com

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.



12/11/2017 42202 Registration Number:

7 | 12/11/17 | ADDENDUM #09 4 8/23/17 ADDENDUM #04

HOLDAY INN EXPRESS & SUITES 5 STORIES 171 UNITS

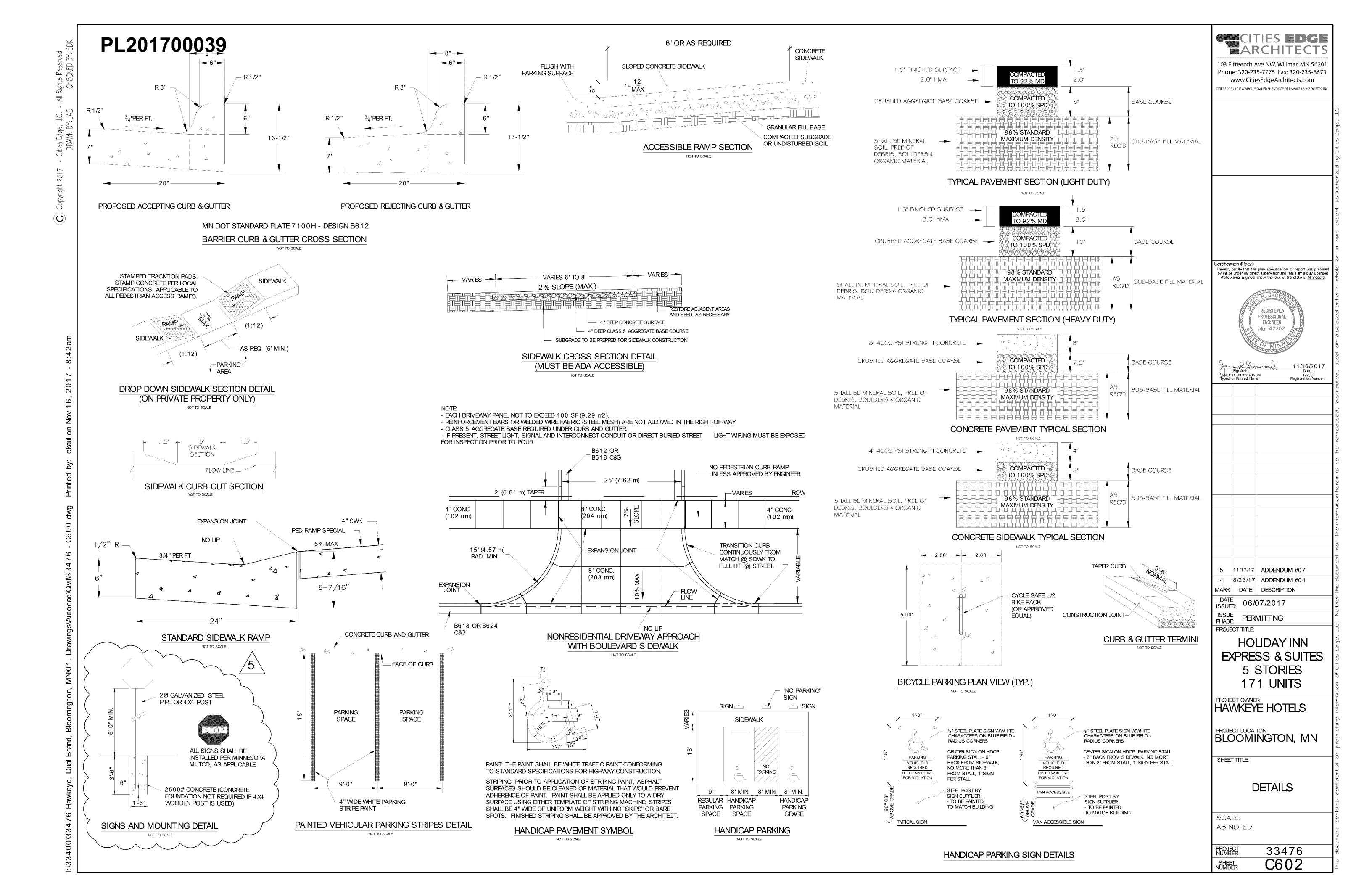
PROJECT OWNER: HAWKEYE HOTELS

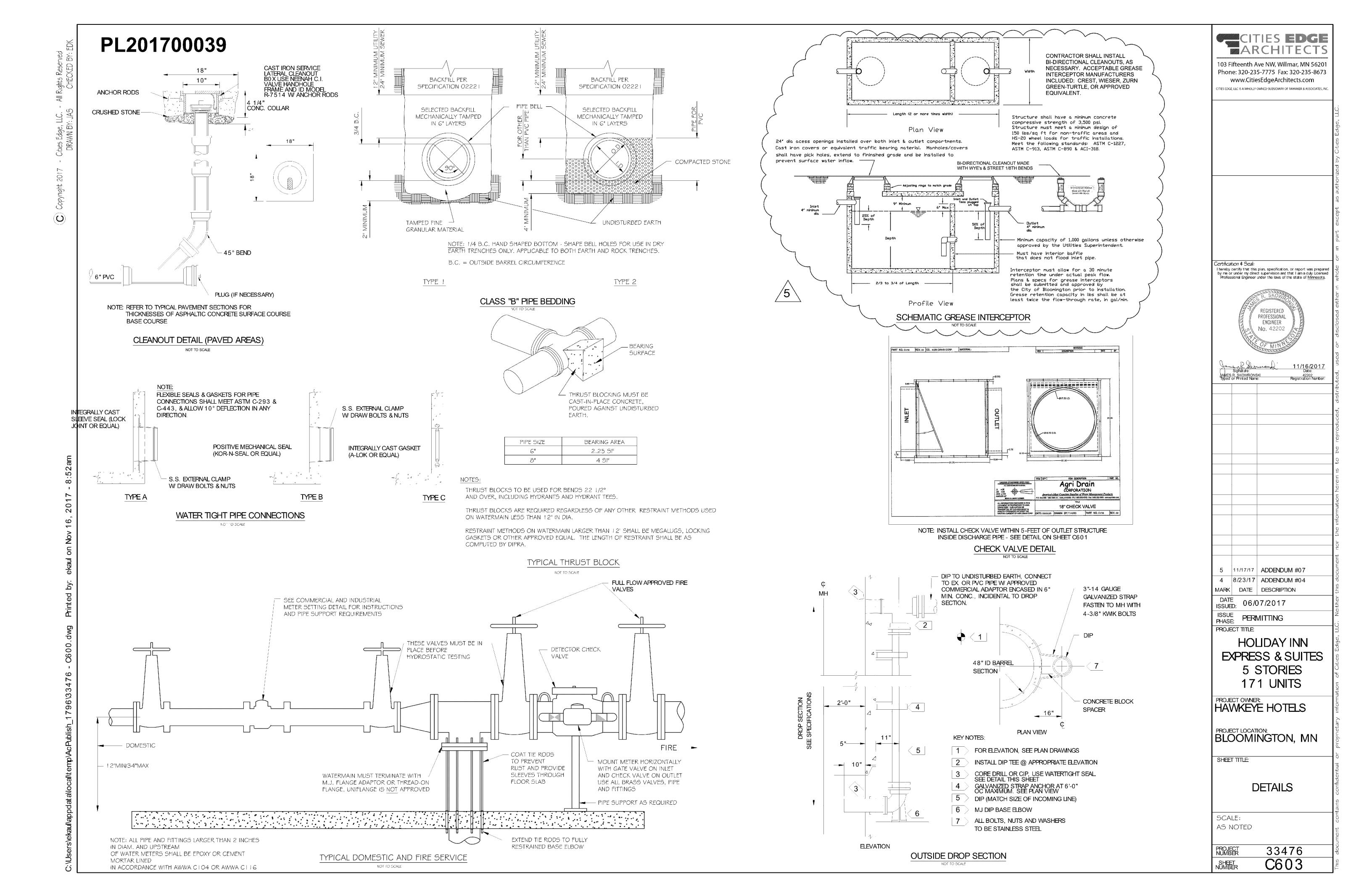
PROJECT LOCATION:
BLOOMINGTON, MN

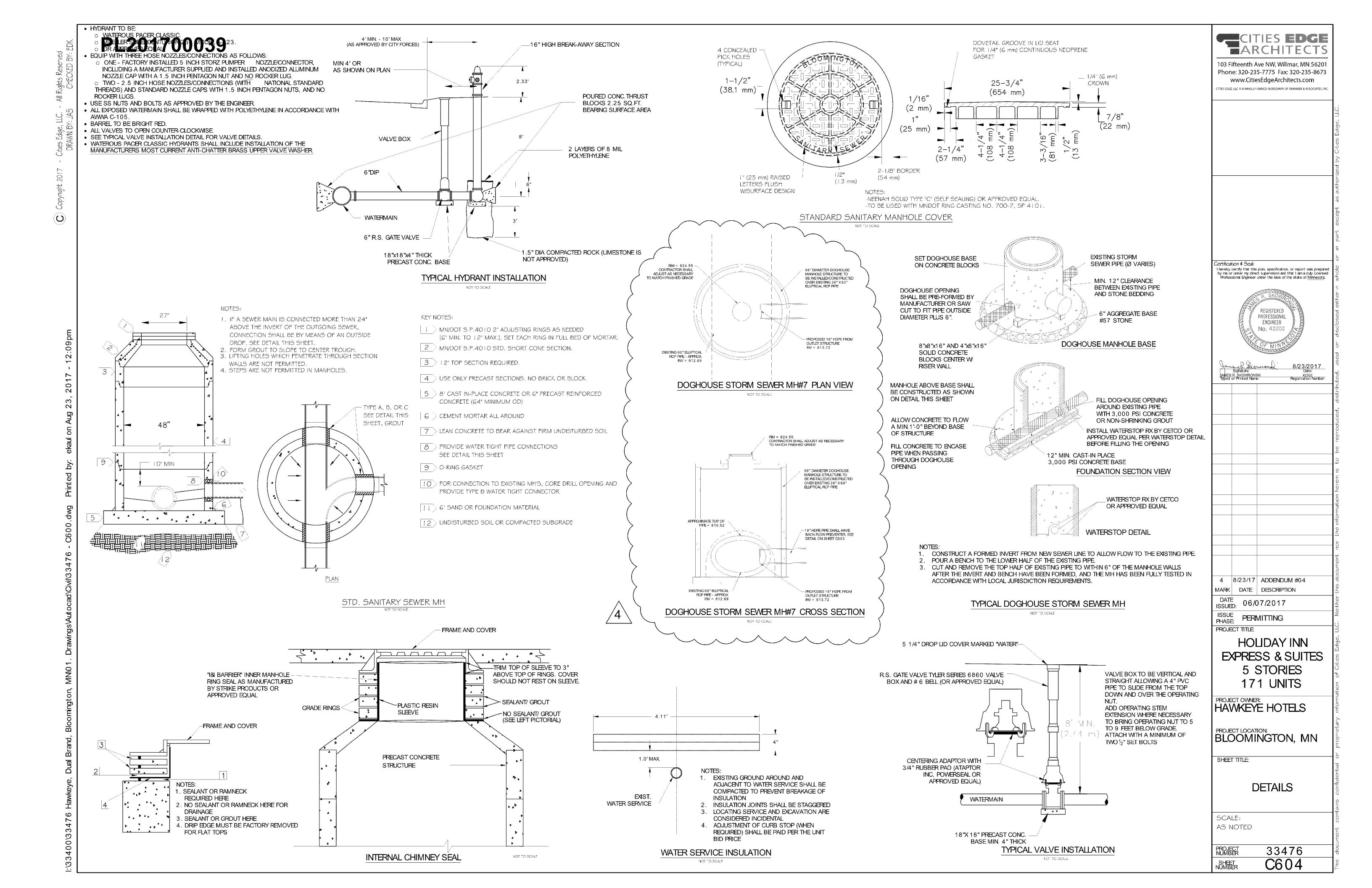
DETAILS

33476

C601







PROJECT INFORMATION JIM MERCHLEWITZ 612-387-2413 JIM.MERCHLEWITZ@ADS-PIPE.COM MANAGER: TOM ROONEY ADS SALES REP: 612-756-3552 TOM.ROONEY@ADS-PIPE.COM PROJECT NO: 191669





HOLIDAY INN & SUITES

BLOOMINGTON, MN

STORMTECH CHAMBER SPECIFICATIONS

- 1. CHAMBERS SHALL BE STORMTECH MC-3500.
- 2. CHAMBERS SHALL BE MADE FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- 6. CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS'
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE
- a. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
- A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
- c. STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- 8. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

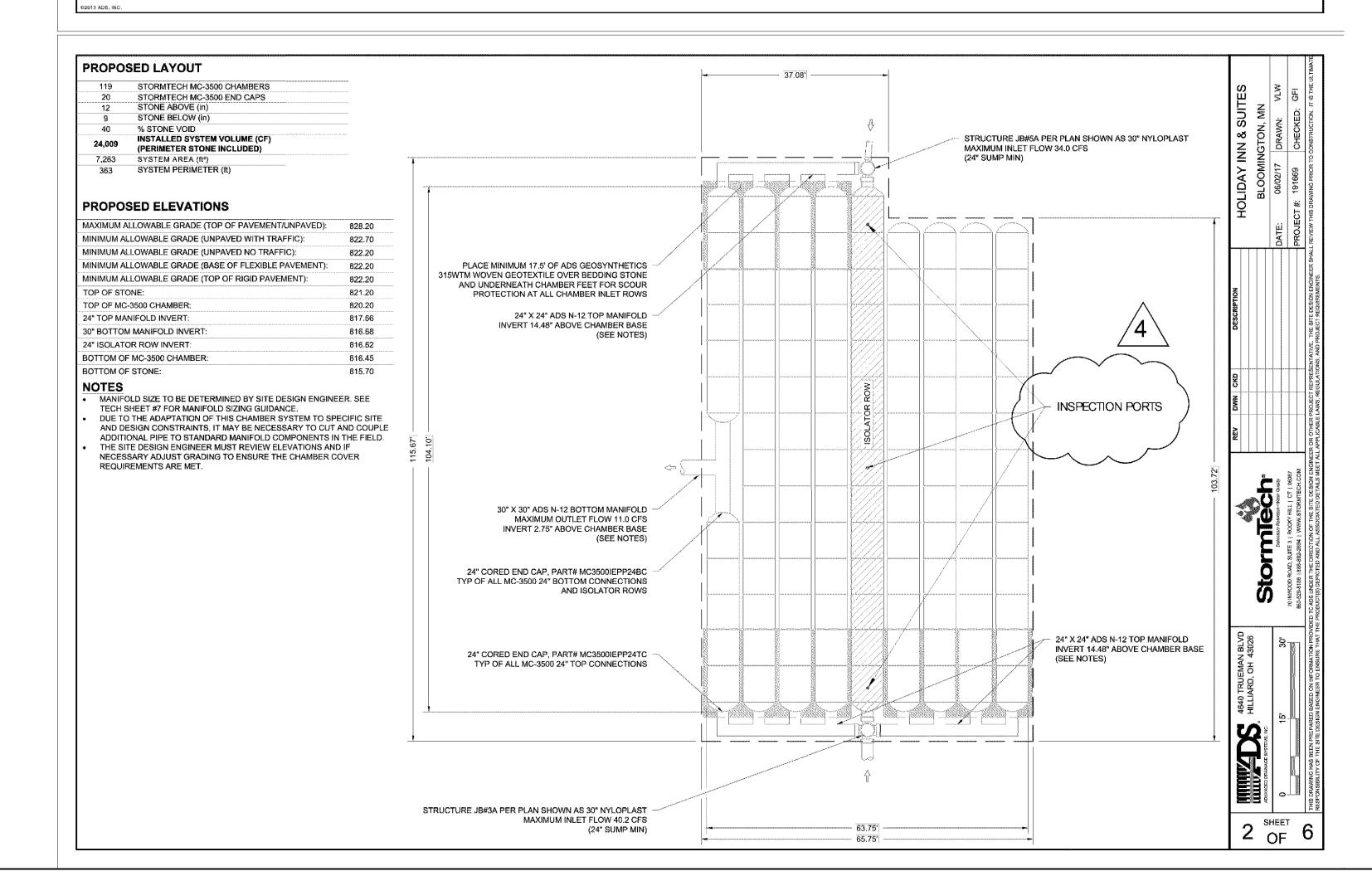
- 1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- 2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- 3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOOTER LOCATED OFF THE CHAMBER BED. BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
- BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- 4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- 6. MAINTAIN MINIMUM 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
- 7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- 8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm) MEETING THE AASHTO M43
- 9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- 10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN
- 11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- 1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
- NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- 3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.





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Certifica	tion # Seal:		
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