VICINITY MAP

538 MAIN STREET DEVELOPMENT PLAN REVIEW

CITY OF CRANSTON & TOWN OF COVENTRY, RI **JULY 2025**

OWNER/TEAM INFORMATION

CIVIL & ENVIRONMENTAL CONSULTANTS, INC. 31 BELLOWS ROAD RAYNHAM, MA 02767 PH: (774) 501-2176 CONTACT: DAVID KELLEY, P.E.

P.O BOX 1042 PH: 713-545-0883

J. CLARK ARCHITECTURE & DESIGN, LLC 55 NORTH 1ST STREET, SUITE 300 CLARKSVILLE, TN 37949 PH: 931-237-4210 CONTACT: JON CLARK AIA, NCARB

SURVEYOR

CONTROL POINT ASSOCIATES, INC 352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772 PH: 508-948-3000 CONTACT: CHARLES E. LENT, PLS

WETLAND SCIENTIST

LUCAS ENVIRONMENTAL, LLC 500A WASHINGTON STREET QUINCY, MA 02169 PH: 617-405-4140 CONTACT: THOMAS E. LIDDY, PWS/CWS, CESSWI

SITE DEVELOPMENT ZONING DATA

ADDRESS:

538 MAIN STREET CRANSTON & COVENTRY, RHODE ISLAND

PARCEL I.D.:

30-193-0 (CRANSTON) 0103-001.001 (COVENTRY)

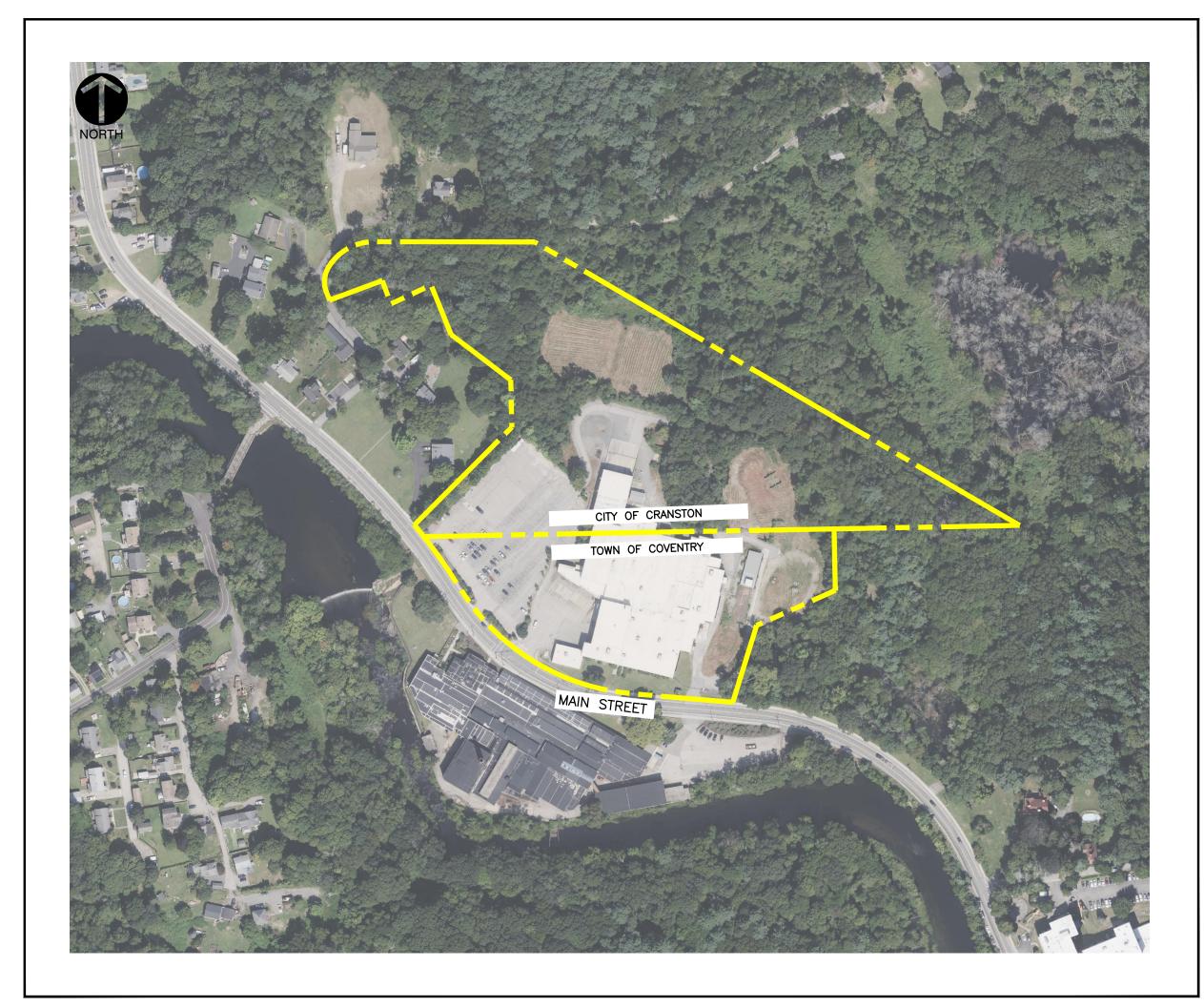
TOTAL PARCEL AREA:

693,536 SQ. FT. (15.92 AC) INDUSTRIAL M-2 (CRANSTON) INDUSTRIAL/MILL COMPLEXES I-2 (COVENTRY)

PROPOSED USE:

ZONING DISTRICT:

SELF STORAGE

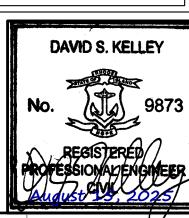


SITE MAP SCALE: 1"=200'

REFERENCE: ORTHOGRAPHIC AERIAL IMAGERY IS BASED ON DATA OBTAINED FROM PLEX EARTH 6/11/2025

DRAWING INDEX			
SHEET NUMBER	DRAWING NUMBER	SHEET TITLE	DATE LAST REVISED
CIVIL			
1	C-000	COVER SHEET	
2	C-001	GENERAL NOTES	JULY 25, 2025
3	C-100	DEMOLITION AND EROSION CONTROL PLAN	JULY 25, 2025
4	C-200	OVERALL SITE LAYOUT PLAN	JULY 25, 2025
5	C-201	ENLARGED SITE LAYOUT PLAN	JULY 25, 2025
6	C-300	OVERALL GRADING AND DRAINAGE PLAN	JULY 25, 2025
7	C-301	ENLARGED GRADING AND DRAINAGE PLAN	JULY 25, 2025
8	C-800	DETAIL SHEET	JULY 25, 2025
9	C-801	DETAIL SHEET	JULY 25, 2025
10	C802	DETAIL SHEET	JULY 25, 2025
11	C803	DETAIL SHEET	JULY 25, 2025
AND SUR	/EY		
1	1	EXISTING CONSITIONS PLAN	FEBRUARY 14, 2025
2	2	EXISTING CONSITIONS PLAN	FEBRUARY 14, 2025
3	3	EXISTING CONSITIONS PLAN	FEBRUARY 14, 2025
4	4	EXISTING CONSITIONS PLAN	FEBRUARY 14, 2025

PERMIT SET NOT FOR CONSTRUCTION



GENERAL NOTES

- EXISTING SITE INFORMATION/TOPOGRAPHIC SURVEY WAS PERFORMED BY CONTROL POINT ASSOCIATES INC. AND IS DEPICTED ON AN EXISTING CONDITIONS PLAN ENTITLED "BOUNDARY, TOPOGRAPHIC & UTILITY SURVEY, CIVIL & ENVIRONMENTAL CONSULTANTS, INC., 538 MAIN STREET, MAP 30, LOT 193, MAP 103, LOT 1, CITY OF CRANSTON, TOWN OF COVENTRY, PROVIDENCE COUNTY, KENT COUNTY, STATE OF RHODE ISLAND" DATED FEBRUARY 14, 2025. WETLANDS AND RESOURCE AREAS SHOWN HEREON WERE DELINEATED ON JANUARY 10TH AND 15TH, 2025, BY LUCAS
- 2. EXISTING CONTOURS SHOWN WITH THE LIMITS OF THE PROJECT MAY NOT REFLECT ACTUAL CONDITIONS WHEN CONTRACTOR MOBILIZES. CONTRACTOR MUST VERIFY EXISTING CONDITIONS WITH OWN SURVEY PRIOR TO START OF
- . THE HORIZONTAL COORDINATES AND BEARING SYSTEM SHOWN HEREON ARE BASED ON THE NORTH AMERICAN DATUM

OF 1983 (RHODE ISLAND STATE PLAN) COORDINATE SYSTEM. THE VALUES SHOWN HEREON ARE IN U.S. SURVEY FEET.

- 4. THE ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- 5. CONTRACTOR TO VERIFY ALL EXISTING ELEVATIONS, LOCATIONS OF ALL STRUCTURES, AND LOCATIONS OF ALL UTILITIES WHICH MAY AFFECT THE WORK PRIOR TO BEGINNING ANY CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO BEGINNING THE WORK. THE CONTRACTOR SHALL NOT RELY UPON THIS INFORMATION AS BEING EXACT OR COMPLETE. SHOULD UNCHARTED UTILITIES BE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE FOR INSTRUCTIONS. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATION.
- PROPERTY LINES FOR ABUTTING PROPERTIES ARE BASED ON GIS DATA OBTAINED FROM THE CITY OF CRANSTON GEOGRAPHIC INFORMATION SYSTEM DATABASE AND SHOULD BE CONSIDERED APPROXIMATE.
- 7. CEC IS NOT RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.
- 8. 48 HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: THE RHODE ISLAND UTILITY PROTECTION SERVICES, AND ALL OTHER AGENCIES THAT MAY HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NON-MEMBERS OF RHODE ISLAND UNDERGROUND PROTECTION. INC.
- 9. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MÁINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
- 10. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND OWNER'S REPRESENTATIVE FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
- 11. CONTRACTOR SHALL OBTAIN A PERMIT FOR ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS.
- 12. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES, OBTAIN ALL APPLICABLE PERMITS, AND PAY ALL REQUIRED FEES PRIOR TO BEGINNING WORK.
- 13. ANY WORK PERFORMED IN THE LOCAL OR STATE RIGHT OF WAYS SHALL BE IN ACCORDANCE WITH THE APPLICABLE LOCAL OR STATE REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR THE WORK, SCHEDULE NECESSARY INSPECTIONS, AND PROVIDE THE NECESSARY TRAFFIC CONTROL MEASURES AND DEVICES, ETC., FOR WORK PERFORMED IN THE RIGHT OF WAYS.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR OVERALL MANAGEMENT OF EROSION AND SEDIMENT CONTROLS FOR THE PROJECT, AND IS RESPONSIBLE FOR MAINTAINING THEIR WORK AREA IN GOOD CONDITION AND NOT ALLOWING EXCESSIVE EROSION AND/OR SEDIMENT DEPOSITION TO DOWNSTREAM AREAS. THE CONTRACTOR SHALL IMPLEMENT SOIL AND EROSION CONTROL PRACTICES IF REQUIRED BY OWNER, ENGINEER, CITY OF CRANSTON AND/OR RIDEM.
- 15. ALL WORK PERFORMED BY THE CONTRACTOR SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT, APPLICABLE.
- 16. THE CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
- 7. BEFORE INSTALLATION OF STORM OR SANITARY SEWER, OR OTHER UTILITY, THE CONTRACTOR SHALL VERIFY ALL CROSSINGS. BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT HE IS NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO CONSTRUCTION.
- 18. ADJUST/RECONSTRUCT ALL EXISTING CASTINGS, CLEANOUTS, ETC. WITHIN PROJECT AREA TO GRADE AS REQUIRED.

DEMOLITION NOTES

- I. CAVITIES LEFT BY STRUCTURE REMOVAL SHALL BE BACKFILLED WITH SATISFACTORY MATERIALS AND COMPACTED TO
- 2. NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- PROTECTION OF EXISTING TREES AND VEGETATION: PROTECT EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES AND VEGETATION TO BE LEFT STANDING.
- 4. ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED AND SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR DAMAGE ACCORDING TO THE APPROPRIATE UTILITY COMPANY STANDARDS AND AT THE CONTRACTOR'S EXPENSE.
- . THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR OBTAINS PRIOR WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
- . ASBESTOS OR HAZARDOUS MATERIALS ARE NOT EXPECTED. IF FOUND ON SITE. SUCH MATERIALS SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR, CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS
- CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL AND OSHA REGULATIONS DURING ALL DEMOLITION ACTIVITIES.
- B. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND FEATURES TO REMAIN. ANY ITEMS TO REMAIN THAT HAVE BEEN DISTURBED OR DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.
- 9. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH STATE DEPARTMENT OF TRANSPORTATION REGULATIONS AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC.. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
- 10. ALL UTILITY AND STRUCTURE REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED AND PROPERLY DOCUMENTED BY A CERTIFIED PROFESSIONAL, WHEN APPLICABLE, WITH THE APPROPRIATE UTILITY COMPANY. MUNICIPALITY AND/OR AGENCY. DEMOLITION OF REGULATED ITEMS MAY INCLUDE, BUT ARE NOT LIMITED TO WELLS, ASBESTOS, UNDER GROUND STORAGE TANKS, SEPTIC TANKS AND ELECTRIC TRANSFORMERS. DEMOLITION CONTRACTOR SHALL REFER TO ANY ENVIRONMENTAL STUDIES FOR DEMOLITION RECOMMENDATIONS AND GUIDANCE. AVAILABLE ENVIRONMENTAL STUDIES MAY INCLUDE, BUT ARE NOT LIMITED TO PHASE I ESA, PHASE II, WETLAND AND STREAM DELINEATION AND ASBESTOS SURVEY. ALL APPLICABLE ENVIRONMENTAL STUDIES SHALL BE MADE AVAILABLE UPON REQUEST.
- I1. ALL PAVEMENT, BASE COURSES, SIDEWALKS, CURBS, BUILDINGS, FOUNDATIONS, ETC., WITHIN THE AREA TO BE DEMOLISHED SHALL BE REMOVED TO FULL DEPTH. EXISTING BASE COURSE MATERIALS MAY BE WORKED INTO THE NEW PAVEMENT OR BUILDING SUBGRADE IF THE GRADATION, CONSISTENCY, COMPACTION, SUBGRADE CONDITION, ETC., ARE IN ACCORDANCE WITH THE SPECIFICATIONS AND RECOMMENDATIONS OF THE REPORT OF GEOTECHNICAL INVESTIGATION. BASE COURSE MATERIALS SHALL NOT BE WORKED INTO THE SUBGRADE AREAS TO RECEIVE
- THE CONTRACTOR SHALL USE SUITABLE METHODS TO CONTROL DUST AND DIRT CAUSED BY THE WORK ACTIVITY.

LAYOUT NOTES

- 1. THE CONTRACTOR SHALL CHECK EXISTING GRADES, DIMENSIONS, AND INVERTS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
- 2. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES, INCLUDING IRRIGATION LINES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. RELOCATE EXISTING UTILITIES AS INDICATED, OR AS NECESSARY
- 3. SITE WORK CONCRETE WALKS AND PADS SHALL HAVE A BROOM FINISH TO ALL SURFACES. SITE WORK CONCRETE SHALL BE TYPE II (4,000 PSI @ 28 DAYS) UNLESS OTHERWISE NOTED.
- 4. ALL DAMAGE TO EXISTING PAVEMENT TO REMAIN, WHICH RESULTS FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH LIKE MATERIALS AT THE CONTRACTOR'S EXPENSE.
- 5. SITE DIMENSIONS SHOWN ARE TO THE FACE OF CURB, OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- 6. COORDINATES ARE FOR BUILDING COLUMNS, EXTERIOR BUILDING WALL, CENTER OF DRIVEWAYS, CENTER OF STRUCTURES, UNLESS OTHERWISE NOTED.

UTILITY SERVICE ENTRY LOCATIONS AND PRECISE BUILDING DIMENSIONS.

. CONTRACTOR SHALL MAINTAIN ONE SET OF AS-BUILT / RECORD DRAWINGS ON-SITE DURING CONSTRUCTION FOR DISTRIBUTION TO THE OWNER AND/OR OWNER'S REPRESENTATIVE UPON COMPLETION.

8. REFER TO THE ARCHITECTURAL, PLUMBING & ELECTRICAL DRAWINGS FOR EXACT DIMENSIONS AND LOCATIONS OF

9. THIS SITE LAYOUT IS SPECIFIC TO THE APPROVALS NECESSARY FOR THE CONSTRUCTION IN ACCORDANCE WITH THE CITY OF CRASNTON. NO CHANGES TO THE SITE LAYOUT ARE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. CHANGES MADE TO THE SITE LAYOUT WITHOUT APPROVAL IS SOLELY THE RESPONSIBILITY OF THE

CONTRACTOR. CHANGES INCLUDE BUT ARE NOT LIMITED TO, INCREASED IMPERVIOUS PAVEMENT, ADDITION / DELETION

OF PARKING SPACES, MOVEMENT OF CURB LINES, CHANGES TO DRAINAGE STRUCTURES AND PATTERNS, LANDSCAPING,

GRADING NOTES

- ALL PROPOSED GRADES SHOWN ARE FINAL GRADES, TOP OF GROUND LEVEL, OR TOP OF PAVEMENT, OR GRATE ELEVATION AT THE DRAWDOWN POINT, UNLESS INDICATED OTHERWISE.
- 2. ALL SLOPES IN NON-PAVED AREAS SHALL BE 3:1 (HORIZONTAL: VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE.
- 3. ALL AREAS NOT PAVED SHALL BE STABILIZED IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN,
- 4. COMPACTED FILLS ARE TO BE MADE TO A MINIMUM OF THREE FEET ABOVE THE CROWN OF ANY PROPOSED SEWER PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID SEWERS. ALL FILLS SHALL BE CONTROLLED, COMPACTED, AND INSPECTED BY AN APPROVED TESTING LABORATORY OR AN INSPECTOR FROM THE APPROPRIATE GOVERNMENTAL
- 5. ALL EXCESS SOIL MATERIALS SHALL BECOME THE PROPERTY OF THE OWNER AND SHALL REMAIN ON THE PROPERTY OF THE OWNER, UNLESS SPECIFIED OTHERWISE BY THE OWNER. ALL EXCESS SOIL MATERIALS SHALL BE STOCKPILED BY THE CONTRACTOR IN DESIGNATED LOCATIONS DETERMINED BY THE OWNER.

STORM DRAINAGE NOTES

- 1. DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER MANAGEMENT FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORM DRAINAGE SYSTEM CONSTRUCTION.
- 3. ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
- 4. ANY FIELD TILE CUT IN EXCAVATION, WHICH DRAINS AN OFFSITE AREA, MUST BE TIED INTO THE STORM DRAINAGE
- 5. FOR EXACT LOCATION OF DOWN SPOUTS & ROOF DRAINS, CONTRACTOR IS TO COORDINATE WITH ARCHITECTURAL AND
- 5. ALL PROPOSED STORM SEWERS, SURFACE OR OTHER DRAINAGE FACILITIES ARE TO BE PRIVATE AND MAINTAINED BY
- 7. ALL CATCH BASINS AND MANHOLES WITH A DEPTH GREATER THAN 4 SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
- 8. STORM SEWER PIPE LABELED "STM" SHALL BE ONE OF THE FOLLOWING: HDPE SDR-35, OR HIGH DENSITY POLYETHYLENE. STORM SEWER PIPE LABELED "RCP" SHALL BE REINFORCED CONCRETE PIPE. ALL STORM IS TO BE INSTALLED PER THE SPECIFICATIONS.

WETLAND/ DEMOLITION & EROSION CONTROL NOTES

- 1. EROSION CONTROL TO BE INSTALLED PRIOR TO ALL ACTIVITY AND REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- 2. CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING ALL CONSERVATION COMMISSION AND BOARD OF HEALTH DIRECTIVES.
- 3. EROSION CONTROL MODIFICATIONS CAN ONLY BE MADE WITH WRITTEN CONSERVATION APPROVAL.
- 4. THE CONSERVATION COMMISSION MUST BE CONTACTED A MINIMUM OF 2 BUSINESS DAYS IN ADVANCE FOR AN EROSION CONTROL AND ANY OTHER APPLICABLE INSPECTIONS.
- 5. THE NAME AND CONTACT NUMBERS OF THE GENERAL CONTRACTOR MUST BE PROVIDED TO THE ENGINEER AND CONSERVATION COMMISSION PRIOR TO STARTING WORK.
- 6. CONTRACTOR TO MONITOR, REPAIR AND MODIFY EROSION CONTROL TO ASSURE THAT THERE IS NO WETLAND RESOURCE AREA OR ABUTTER ENCROACHMENT.
- 7. EROSION CONTROL INSPECTION TO BE PERFORMED BY THE CONSERVATION AGENT PRIOR TO STARTING WORK.
- 8. A CONSERVATION COMMISSION FINAL GRADING AS-BUILT MUST BE SUBMITTED TO THE CONSERVATION COMMISSION AFTER WORK HAS BEEN COMPLETED.
- 9. EROSION CONTROL TO REMAIN IN PLACE UNTIL THE SITE IS SUFFICIENTLY STABILIZED AND THE GRASS HAS BEEN INSPECTED AND APPROVED BY THE CONSERVATION COMMISSION.
- 10. FAILURE TO COMPLY WITH THE CONSERVATION COMMISSION REQUIREMENTS MAY RESULT IN CONTRACTOR OR OWNER
- 11. A COPY OF THE REGISTRY RECORDED ORDER OF CONDITIONS MUST BE ON SITE AT ALL TIME DURING WORK.
- 12. NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE OR THE CONSERVATION COMMISSION.
- 13. PROTECTION OF EXISTING TREES AND VEGETATION: PROTECT EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES AND VEGETATION TO BE LEFT STANDING.
- 14. EROSION & SEDIMENT CONTROL MEASURES AROUND AREAS OF DEMOLITION SHALL BE PROPERLY INSTALLED, APPROVED AND FUNCTION PROPERLY PRIOR TO INITIATION OF DEMOLITION ACTIVITIES.
- 15. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL AND OSHA REGULATIONS DURING ALL DEMOLITION
- 16. CONTRACTOR SHALL PROTECT ALL CORNER PINS. MONUMENTS, PROPERTY CORNERS AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
- 17. THE CONTRACTOR SHALL USE SUITABLE METHODS TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION

UTILITY NOTES

- 1. ALL PROPOSED UTILITY LINES AND EXTENSIONS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PRIVATE UTILITY AGENCY / DISTRICT / MUNICIPALITY / COMPANY SPECIFICATIONS. CONTRACTOR SHALL COORDINATE UTILITY DISCONNECTIONS WITH THE APPROPRIATE AGENCY.
- 2. THE CONTRACTOR IS PARTICULARLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF THE EXISTING UTILITIES SHOWN HEREON IS BASED ON TOPOGRAPHIC SURVEYS AND RECORD DRAWINGS. THE CONTRACTOR SHALL NOT RELY UPON THIS INFORMATION AS BEING EXACT OR COMPLETE, SHOULD UNCHARTED UTILITIES BE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE FOR INSTRUCTIONS. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE EXISTING UTILITIES CONFLICTING WITH IMPROVEMENTS SHOWN HEREON IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
- 3. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 4. WATERLINE CROSSINGS SHALL MAINTAIN A VERTICAL SEPARATION OF 18" MINIMUM. SANITARY SEWER SHALL BE LOCATED 18" BELOW WATERMAIN AT ALL CROSSINGS. WATERMAIN SHALL BE LOCATED A MINIMUM OF 10' HORIZONTALLY FROM ANY SANITARY SEWER OR STORM SEWER. ALL MEASUREMENTS SHALL BE TAKEN FROM OUTSIDE OF SEWER PIPE TO THE OUTSIDE OF WATERMAIN PIPE. ONE FULL LENGTH OF WATERMAIN PIPE SHALL BE LOCATED AT ALL CROSSINGS TO ENABLE BOTH JOINTS TO BE LOCATED AS FAR FROM SEWER AS POSSIBLE.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES SO THAT WATER LINES, GAS LINES, AND UNDERGROUND ELECTRIC DO NOT CONFLICT WITH SANITARY SEWERS OR STORM SEWERS. INSTALL UTILITIES PRIOR TO PAVEMENT CONSTRUCTION.
- 6. ALL TRENCH SPOILS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
- 7. SANITARY SEWER SHALL BE PVC-SDR 35 PER ASTM D-3034 OR APPROVED EQUAL (CONFORMING TO CITY CRASNTON WATER & SEWER DEPARTMENT RULES AND REGULATIONS) INSTALLED AT A MINIMUM SLOPE OF ONE PERCENT (1.00%) UNLESS OTHERWISE NOTED. SANITARY SERVICE SHALL BE INSTALLED AT A MINIMUM DEPTH OF FOUR FEET (4') UNLESS OTHERWISE NOTED. A MINIMUM OF 18" CLEARANCE SHALL BE MAINTAINED AT ALL WATERLINE & STORM SEWER CROSSINGS. SANITARY SERVICE JOINTS ALL CONFORM TO ASTM D-3212.
- 8. DISTANCES SHOWN FOR BOTH SANITARY AND STORM SEWER PIPES ARE MEASURED FROM CENTER OF STRUCTURE, CONTRACTOR RESPONSIBLE FOR ACTUAL FIELD CUT LENGTH. COORDINATES FOR STORM & SANITARY STRUCTURES ARE SHOWN TO THE CENTER STRUCTURE, UNLESS OTHERWISE NOTED.
- 9. ROOF DRAINS, FOUNDATION DRAINS AND ALL OTHER CLEAR WATER CONNECTIONS TO THE SANITARY SEWER SYSTEMS ARE PROHIBITED.
- 10. ADJUST ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO CASTINGS, VALVE BOXES, PEDESTALS, CLEANOUTS, ETC. TO MATCH PROPOSED FINISHED GRADES, UNLESS OTHERWISE INDICATED.
- 11. THE CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF ALL IMPROVEMENTS. INCLUDE AT LEAST TWO DIMENSIONS TO EACH VALVE AND MANHOLE FROM KNOWN SITE FEATURES. DRAWINGS SHALL INCLUDE HORIZONTAL AND VERTICAL INFORMATION ON ALL NEW UTILITIES AS WELL AS EXISTING UTILITIES ENCOUNTERED.
- 12. MECHANICAL/ELECTRICAL CONTRACTORS SHALL BRING ALL UTILITIES 10' OUTSIDE BUILDING WALL, OR IN ACCORDANCE WITH STATE OF RHODE ISLAND PLUMBING CODE, AS APPROPRIATE, COORDINATE WITH OWNER AND ENGINEER.

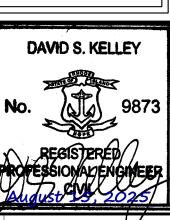
HEADWALL

ABAN	ABANDON	HYD	HYDRANT
ACR	ACCESSIBLE CURB RAMP	l=	INVERT ELEVATION
ADA	AMERICANS WITH DISABILITIES ACT	INF	INFILTRATION
ADJ	ADJUST	INV	INVERT ELEVATION
APPROX	APPROXIMATE	LA	LANDSCAPE AREA
ARCH	ARCHITECTURAL	LOD	LIMIT OF DISTURBANCE
BC	BOTTOM OF CURB	LOW	LIMIT OF WORK
BCB	BITUMINOUS CONCRETE BERM	LP	LOW POINT
BCC	BITUMINOUS CONCRETE CURB	MAX	MAXIMUM
BIT	BITUMINOUS	MCC	MONOLITHIC CONCRETE CURB
BLDG	BUILDING	ME	MATCH EXISTING
BLSF	BORDERING LAND SUBJECT TO FLOODING	MES	METAL END SECTION
BOT	BOTTOM	MIN	MINIMUM
BS	BOTTOM OF SLOPE	MW	MONITORING WELL
BW	BOTTOM OF WALL	NDZ	NO DISTURB ZONE
BWLL	BROKEN WHITE LANE LINE	NIC	NOT IN CONTRACT
CATV	CABLE TV	NTS	NOT TO SCALE
CCB	CAPE COD BERM	OHW	OVERHEAD WIRE
CIP	CAST IRON PIPE	PB	PULL BOX
CLF	CHAIN LINK FENCE	PCC	PRECAST CONCRETE CURB
CMP	CORRUGATED METAL PIPE	PIV	POST INDICATOR VALVE
CO	CLEANOUT	PL PROP	PROPERTY LINE
CONC	CONCRETE	PVC	PROPOSED
COND	CONDUIT		POLYVINYLCHLORIDE PIPE
CS	CURB STOP AND BOX	R	RADIUS
DCB	DOUBLE CATCH BASIN	R&D	REMOVE AND DISPOSE
DET	DETENTION	R&R	REMOVE AND RESET
DIA	DIAMETER	R&S	REMOVE AND SALVAGE
DIP	DUCTILE IRON PIPE	R=	RIM ELEVATION
DMH	DRAIN MANHOLE	RA	RIVERFRONT AREA
DPW	DEPARTMENT OF PUBLIC WORKS	RCP	REINFORCED CONCRETE PIPE
DW	DOMESTIC WATER	RD	ROOF DRAIN
DYCL	DOUBLE YELLOW CENTER LINE	REM	REMOVE
ECC	EXTRUDED CONCRETE CURB	RET	RETAIN
ELEV	ELEVATION	ROW	RIGHT-OF-WAY
ЕМН	ELECTRIC MANHOLE	SAS	SOIL ABSORPTION SYSTEM
EOP	EDGE OF PAVEMENT	SCB	SINGLE CATCH BASIN
EX	EXISTING	SGE	SLOPED GRANITE EDGING
EXIST	EXISTING	SLP	SITE LIGHT POLE
F&C	FRAME AND COVER	SMH	SEWER MANHOLE
F&G	FRAME AND GRATE	SWEL	SOLID WHITE EDGE LINE
FA	FIRE ALARM	SWLL	SOLID WHITE LANE LINE
FDN	FOUNDATION	SYS	SYSTEM
FES	FLARED END SECTION	TC	TOP OF CURB
FFE	FIRST FLOOR ELEVATION	TMH	TELEPHONE MANHOLE
FM	FORCE MAIN	TR	TRASH BAY
FO	FIBER OPTICS	TS	TOP OF SLOPE
FP	FIRE PROTECTION	TSV	TAPPING SLEEVE, VALVE, AND B
GG	GAS GATE	TW	TOP OF WALL
GI	GUTTER INLET	TYP	TYPICAL
GM	GAS METER	UD	UNDERDRAIN
GRAN	GRANITE	UG	UNDERGROUND
GT	GREASE TRAP	UP	UTILITY POLE
GTD	GRADE TO DRAIN	VGC	VERTICAL GRANITE CURB
HDPE	HIGH DENSITY POLYETHYLENE PIPE	WM	WATER METER
HH	HAND HOLE	WQI	WATER QUALITY INLET
HP	HIGH POINT	WQU	WATER QUALITY UNIT
 LIW	HEADWALL	W/\/	WATER VALVE AND BOY

ng Z O \mathbf{m}

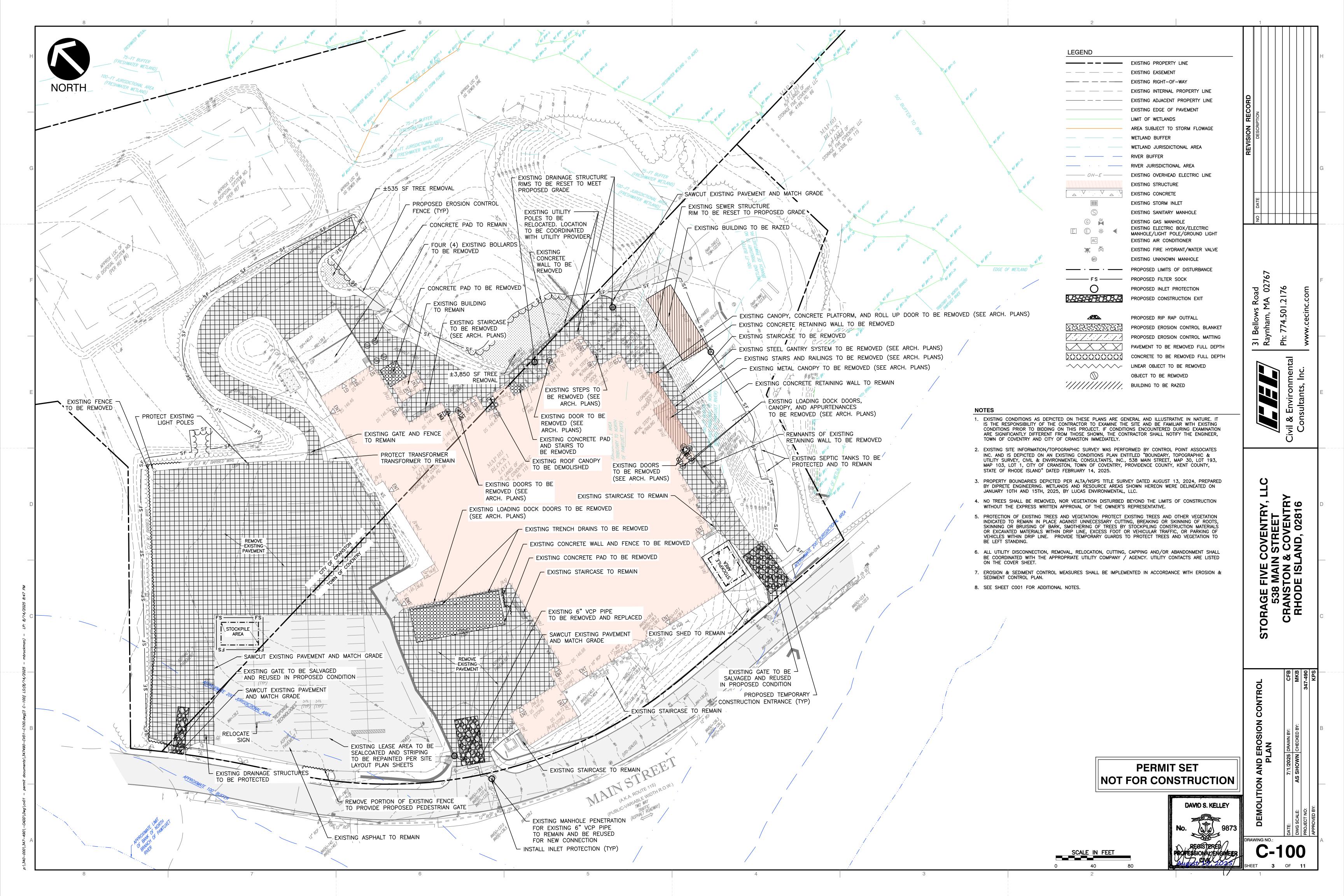
PERMIT SET NOT FOR CONSTRUCTION

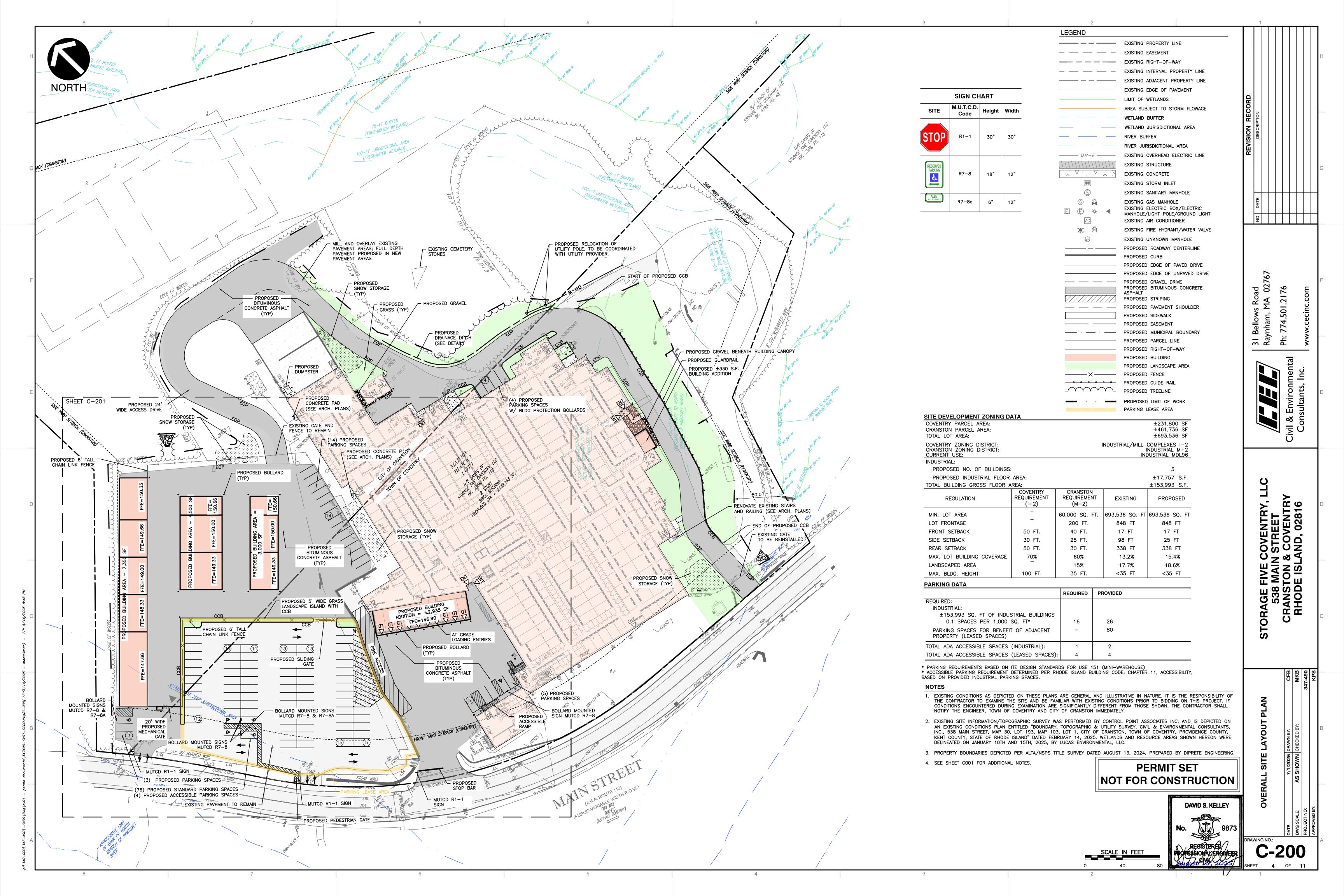
WATER VALVE AND BOX

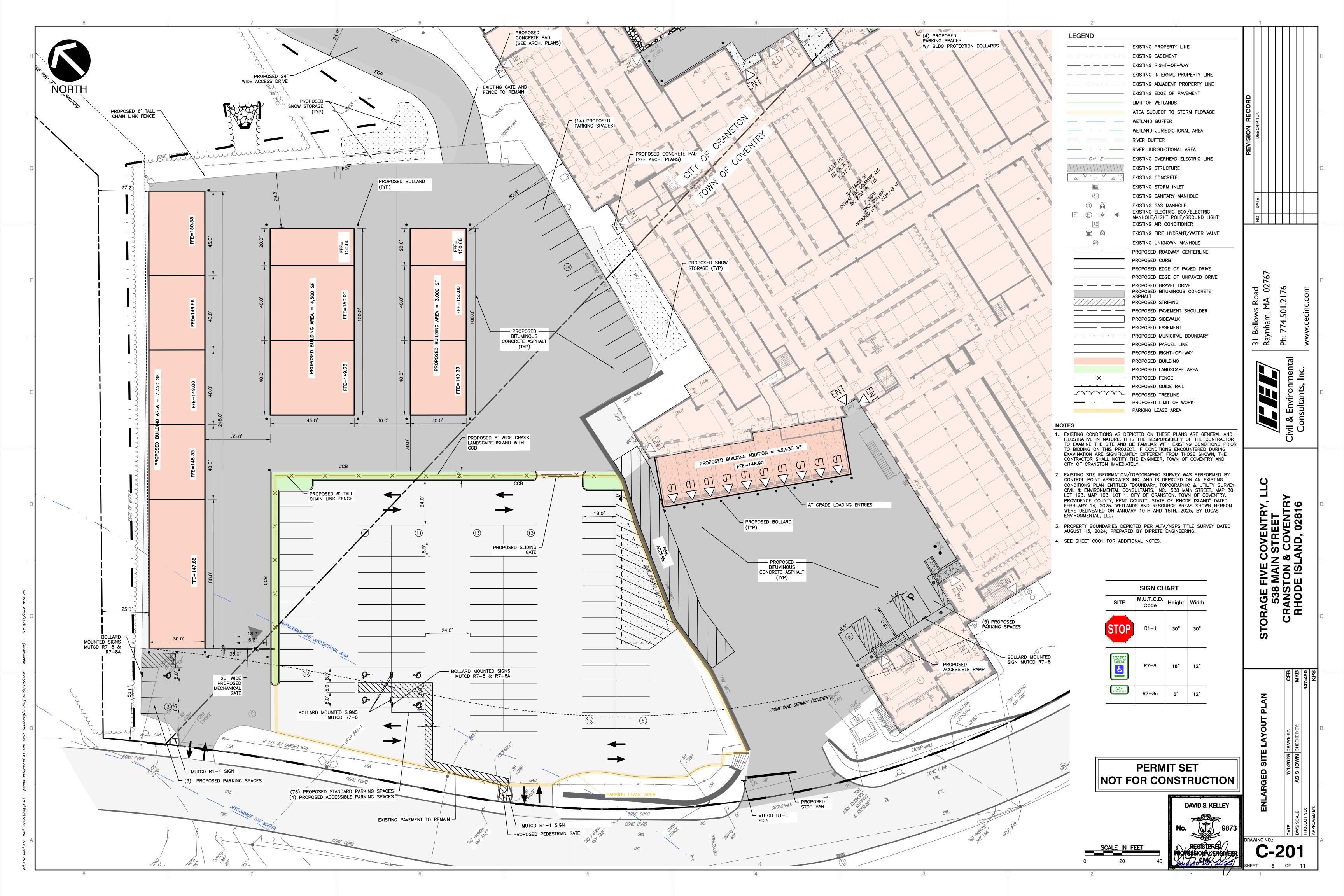


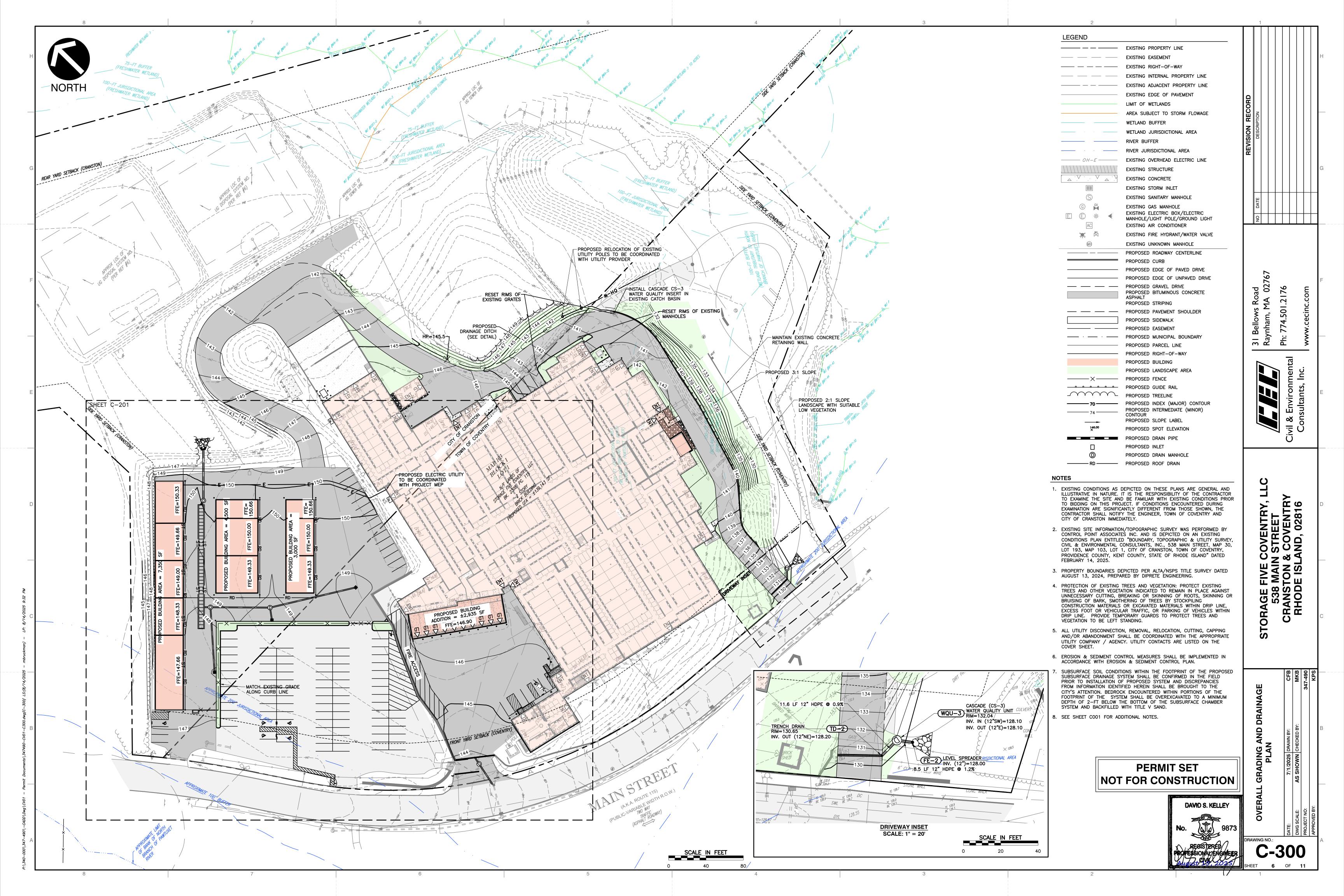
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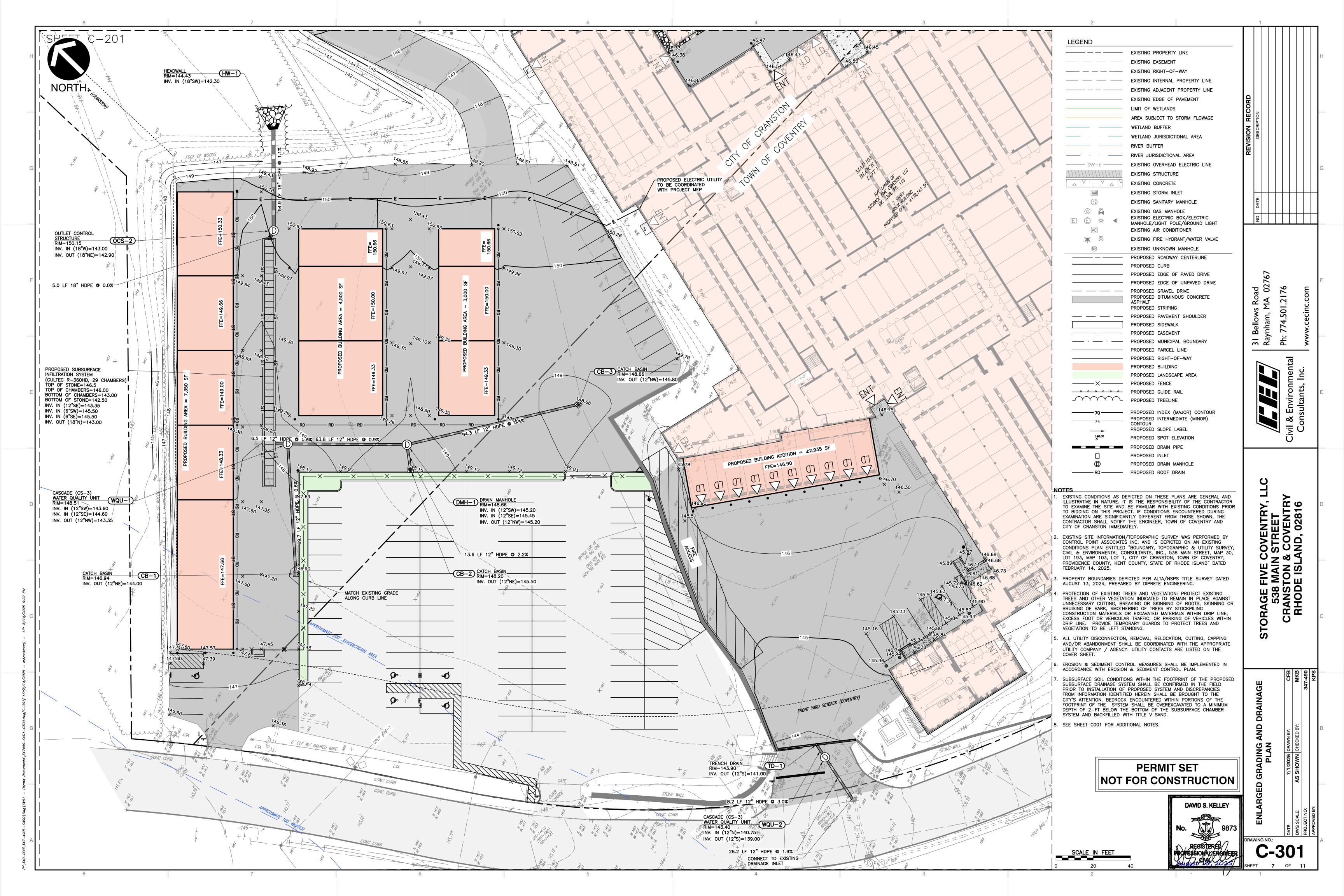
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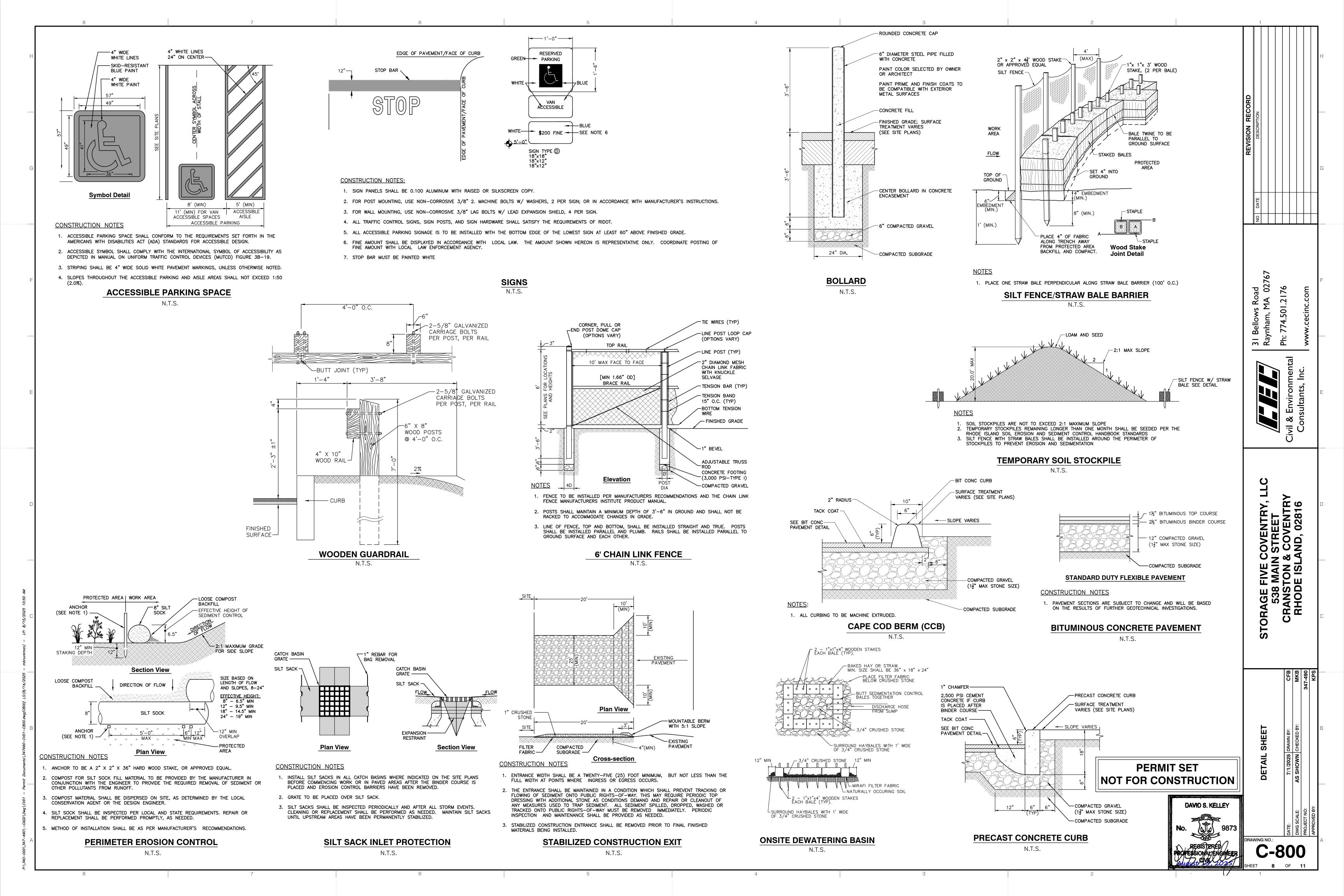












- 1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, OF BROOKFIELD, CT
- 2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE: A. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER B. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
- C. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD 3. THE CHAMBERS SHALL MEET THE REOUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS'
- 4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE
- A. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
- B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75 C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
- 5. THE INSTALLED CHAMBER SYSTEM SHALL BE STRUCTURALLY DESIGNED TO PROVIDE RESISTANCE TO LIVE LOADS AS DEFINED BY THE AASHTO H-20/HL-93 SPECIFICATION
- WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. 6. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- 7. THE CHAMBER SHALL BE ARCHED IN SHAPE.
- 8. THE CHAMBER SHALL BE OPEN-BOTTOMED. 9. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE
- 10. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 360HD SHALL BE 36 INCHES (914 MM) TALL, 60 INCHES (1525 MM) WIDE AND 50 INCHES (1275 MM) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER 360HD SHALL BE 3.67 FEET (1.12 M). 11. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 360HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCHES (600 MM) HDPE OR 30
- INCHES (750 MM) PVC 12. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN
- THE SIDE PORTAL IS 10 INCHES (250 MM) HDPE AND 12 INCHES (300 MM) PVC. 13. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 MM) TALL, 16 INCHES (406 MM) WIDE AND 49 INCHES (1245
- 14. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 360HD CHAMBER SHALL BE 10.0 FT³/ FT (.928 M³ / M) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER 360HD SHALL BE 36.67 FT³ / UNIT (1.038 M³ / UNIT) - WITHOUT STONE. 15. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913
- FT³ / FT (0.085 M³ / M) WITHOUT STONE. 16. THE RECHARGER 360HD CHAMBER SHALL HAVE 7 CORRUGATIONS. 17. THE CHAMBER SHALL BE CAPABLE OF ACCEPTING A 6 INCH (150 MM) INSPECTION PORT
- OPENING AT THE TOP CENTER OF EACH CHAMBER, CENTERED ON THE CORRUGATION
- 18. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
- 19. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES. 20. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0 FEET (3.66

INCHES (381 MM).

6" [150 mm]

10" [250 mm]

12" [300 mm]

15" [375 mm]

18" [450 mm]

21" [525 mm]

24" [600 mm]

- 1. THE CULTEC RECHARGER^(R) 360HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. BY CULTEC, OF BROOKFIELD, CT (CULTEC.COM, 203-775-4416).
- 2. THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE. 3. THE END CAP SHALL BE ARCHED IN SHAPE.
- 4. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
- 5. THE END CAP SHALL HAVE 5 CORRUGATIONS 6. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 36.5 INCHES (927 MM) TALL, 60 INCHES (1525 MM) WIDE AND 18 INCHES (457 MM) LONG. WHEN JOINED WITH A RECHARGER 360HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 15
- 7. THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 5.17 ft^3 / FT (0.48 m^3 / M) -WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 6.46 $\mathrm{FT}^{\mathbf{J}}$ / UNIT (0.183 $\mathrm{M}^{\mathbf{J}}$ / UNIT) - WITHOUT STONE.
- 8. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCHES (600 MM) HDPE OR 30 INCHES
- 9. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

26.50" [673 mm

22.25" [565 mm]

19.75" [502 mm]

16.50" [419 mm]

13.00" [330 mm]

10.00" [254 mm]

7.00" [178 mm]

*THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE

(600mm), PIPES OF ANY SIZE AND MATERIAL UP TO 24" (600mm) MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM

THE PIPE MUST REMAIN A MINIMUM OF 3" (75mm) FROM THE EDGE OF THE HEAVY DUTY END CAP.

6.0" [150mm] DIA. INSPECTION PORT KNOCK-OUT -

LARGE RIB

- SIDE PORTAL FOR OPTIONAL INTERNAL MANIFOLD

INSTALLED LENGTH ADJUSTMENT = 0.50' [0.15m]

(ACCOMMODATES CULTEC HVLV FC-48 FEED CONNECTOR OR STORM PIPE)

CULTEC RECHARGER 360HD CHAMBER STORAGE = 10.00 CF/FT [0.93 m³/m]

ÍNVERTÍS. 30" (750 mm) SMOOTH-WALL SDR-35 PVC PIPÈ MAY BÉ USED AT THE BOTTOM OF THE END CAP. THE CROWN OF

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

GEOTEXTILE PARAMETERS 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, OF BROOKFIELD, CT.

- (203-775-4416 OR 1-800-428-5832)
- 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE. 3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
- 4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
- 5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD. 6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER
- ASTM D3786 TESTING METHOD.
- 7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
- 8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD. 9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER
- ASTM D4533 TESTING METHOD. 10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
- 11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
- 12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF
- (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD. 13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

CULTEC AFAB-HPF™ WOVEN GEOTEXTILE CULTEC AFAB-HPF WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT

SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

GENERAL NOTES

1.00" [25 mm]

1.25" [32 mm]

1.75" [45 mm]

2.50" [64 mm]

2.50" [64 mm]

2.50" [64 mm]

CULTEC RECHARGER 360HD TYPICAL PIPE INVERTS

- 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC OF BROOKFIELD, CT.
- 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE. 3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 320 X 320 LBS (1,420 X
- 1,420 N) PER ASTM D4632 TESTING METHOD. 4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 15 X 15%
- THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 3,563 X 3,563 LBS/FT (52 X 52 KN/M) PER ASTM D4595 TESTING METHOD.
- 6. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,500 LBS (6,670 N) PER ASTM D6241 TESTING METHOD.
- 7. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 120 X 120 LBS (540 X 540 N) PER ASTM D4533 TESTING METHOD. 8. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 30 US STD. SIEVE (0.60 MM) PER ASTM D4751 TESTING METHOD.
- 9. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.2 SEC-1 PER ASTM D4491 TESTING METHOD.
- 10. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 22 GPM/FT2 (900 LPM/M2) PER ASTM D4491 TESTING METHOD. 11. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 70% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

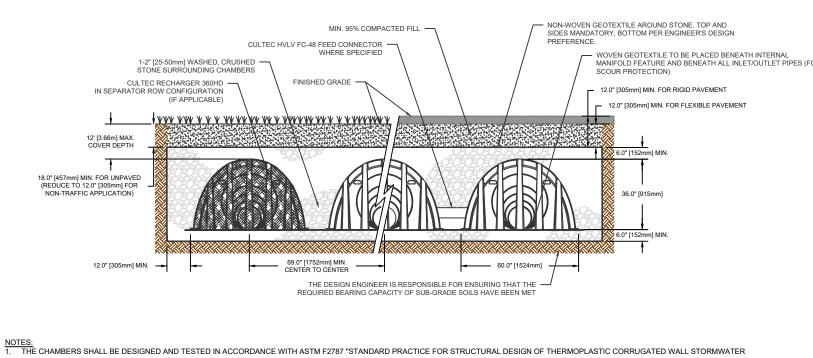
END CAP STORAGE = 6.46 CF / UNIT (5.17 CF/FT) [0.48m³/m] INSTALLED LENGTH ADJUSTMENT = 0.25' [0.08m]

CULTEC RECHARGER 360HD

HEAVY DUTY END CAP THREE VIEW

FINAL ASSEMBLY SOLID COVER OPTION SLOTTED COVER OPTION DUCTILE IRON FRAME — DUCTILE IRON FRAME - HINGE FOR EASY ACCESS HINGE FOR EASY ACCESS CULTEC 12" [300mm] DUCTILE IRON SQUARE BASIN COVER [PART #1299CGC - SOLID] — SOLID DUCTILE IRON COVER [PART #1299CGS - SLOTTED] TOTAL OPEN AREA = 60.62 IN² CULTEC 12" [300mm] PVC UNIVERSAL INLINE DRAIN BODY [PART #2712AGSB] NOT POLLUTE DRAINS TO WATER BASED ON SYSTEM DEPTH PIPE SHALL BE INSERTED INTO SDR-35 BELL END. SDR-35 RISER PIPE MAY BE 6" [150 mm] 13.6" [346 mm] — = 8" [200 mm] OR 10" [250 mm] DIAMETER [PART NOT PROVIDED BY CULTEC] PVC BODY PLAN VIEW PVC BODY ELEVATION VIEW SDR-35 BELL END INSERTED [PART NOT PROVIDED BY CULTEC] 12.5" [317 mm] ----6" [150 mm] SDR-35 RISER PIPE CULTEC CHAMBER PVC BODY CAN BE TRIMMED IN FIELD -TO ACCOMMODATE 8" [200 mm] AND 10" [250 mm] SDR-35 RISER PIPE SIZES

CULTEC UNIVERSAL INSPECTION PORT KIT DETAIL



THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE: INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER

THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

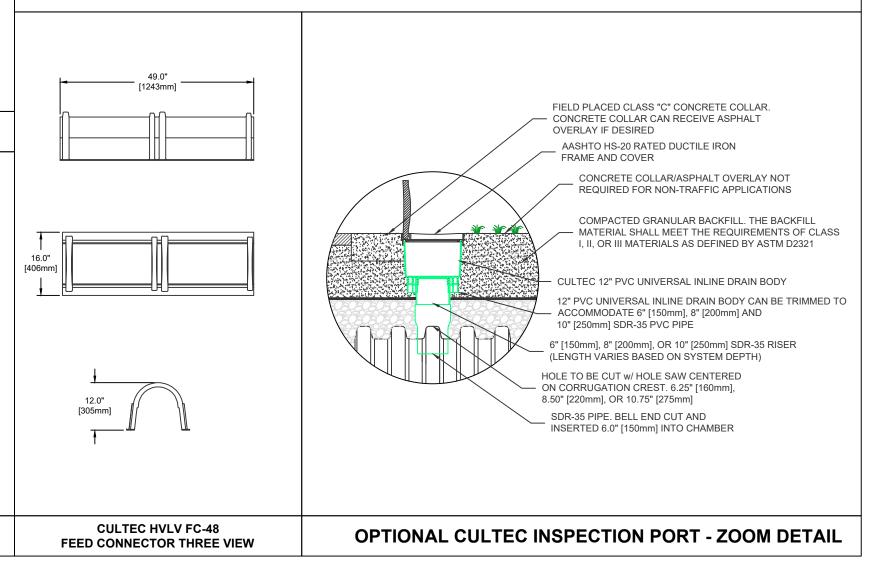
1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD

1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD

THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"

THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430

CULTEC RECHARGER 360HD CROSS SECTION



— SAFETY BAR ENDS (SEE NOTE

TRIM CUT-OUT TO UTILIZE

CULTEC RECHARGER 360HD HEAVY DUTY TYPICAL INTERLOCK

CULTEC HVLV FC-48

MODEL 360HD

BEGINNING OF RUN -

MODEL 360HD END CAP

HIDDEN END

MODEL 360HD END CAF

(SEE NOTE 4)								
COMPACTED SUBGRADE			<u>Section</u>					
<u>)</u>	TES .	PIPE DIA	A	В	С	# OF SAFETY BARS		
•	CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.	12"	5'-6"	4'-2"	1'-6"	_		
<u>.</u>	SAFETY BARS TO BE OMITTED WHERE INDICATED ON	15"	6'-6"	4'-5"	1'-6"	_		
	PLANS.	18"	7'-6"	4'-9"	1'-6"	1		
٠.	SAFETY BARS SHALL BE SET TO CREATE EQUAL OPENING DIMENSIONS.	24"	9'-0"	5'-3"	1'-6"	1		
١.	SEE STONE PROTECTION AT HEADWALL DETAIL.	30"	11'-0"	5'-10"	1'-6"	2		
		36"	13'-0"	6'-4"	1'-9"	2		
		42"	15'-9"	6'-11"	1'-9"	3		

7'-5" 2'-0"

60" | 21'-9" | 8'-6" | 2'-6" |

72" | 25'-9" | 9'-7" | 3'-0"

COMPACTED —

— AT FACE OF HEADWALL

CONCRETE HEADWALL N.T.S.

PAVEMENT SECTION — PAVEMENT : SOIL BORROW GRAVEL BASE-GRANULAR FILL-SUBGRADE-12" MIN. COVER SAND-GRAVEL COMPACTED ON-SITE BACKFILL BORROW BACKFILL **APPROXIMATE** LIMIT OF EXCAVATION 12" MIN. SAND-GRAVEL BEDDING SURROUNDING 1 MIN.\ UNDISTURBED EARTH -

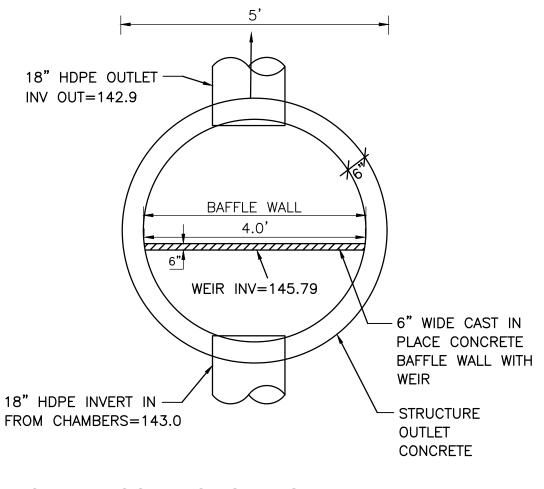
TYPICAL STORM DRAIN TRENCH SECTION

N.T.S.

12" CRUSHED STONE 12" CRUSHED STONE

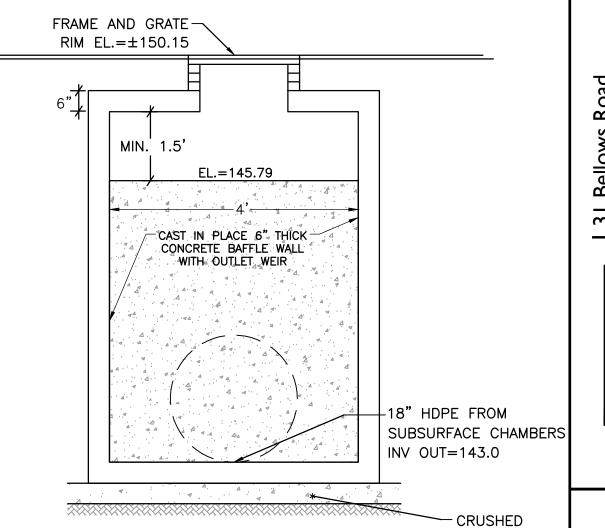
1 ROW OF 36 CHAMBERS WITH 12" STONE SURROUND AND 12" STONE TOP AND 6" STONE ON BOTTOM OVERALL DIMENSIONS: 7.00' W X 136.50' L X 4.00'H

CULTEC 360HD RECHARGER CHAMBERS TOP VIEW



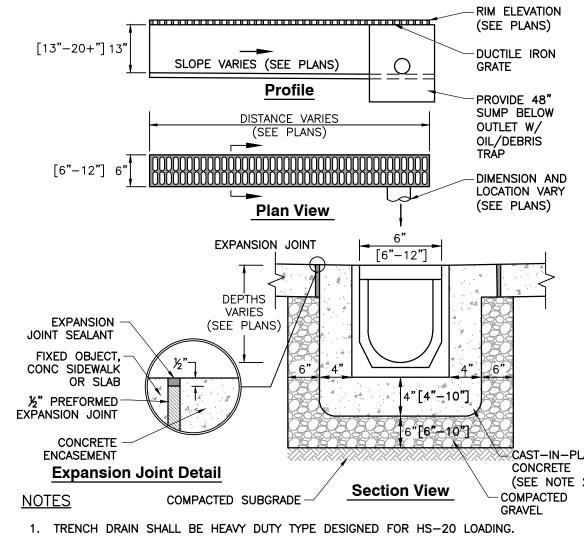
OUTLET CONTROL STRUCTURE PLAN VIEW

(NOT TO SCALE)



OUTLET CONTROL STRUCTURE

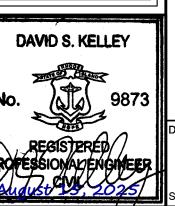
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- 2. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
- 3. TRENCH DRAIN GRATE SHALL MEET AMERICANS WITH DISABILITY ACT (ADA) REGULATIONS WHEN PLACES IN ACCESSIBLE ROUTES.
- 4. METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS

TRENCH DRAIN

PERMIT SET NOT FOR CONSTRUCTION



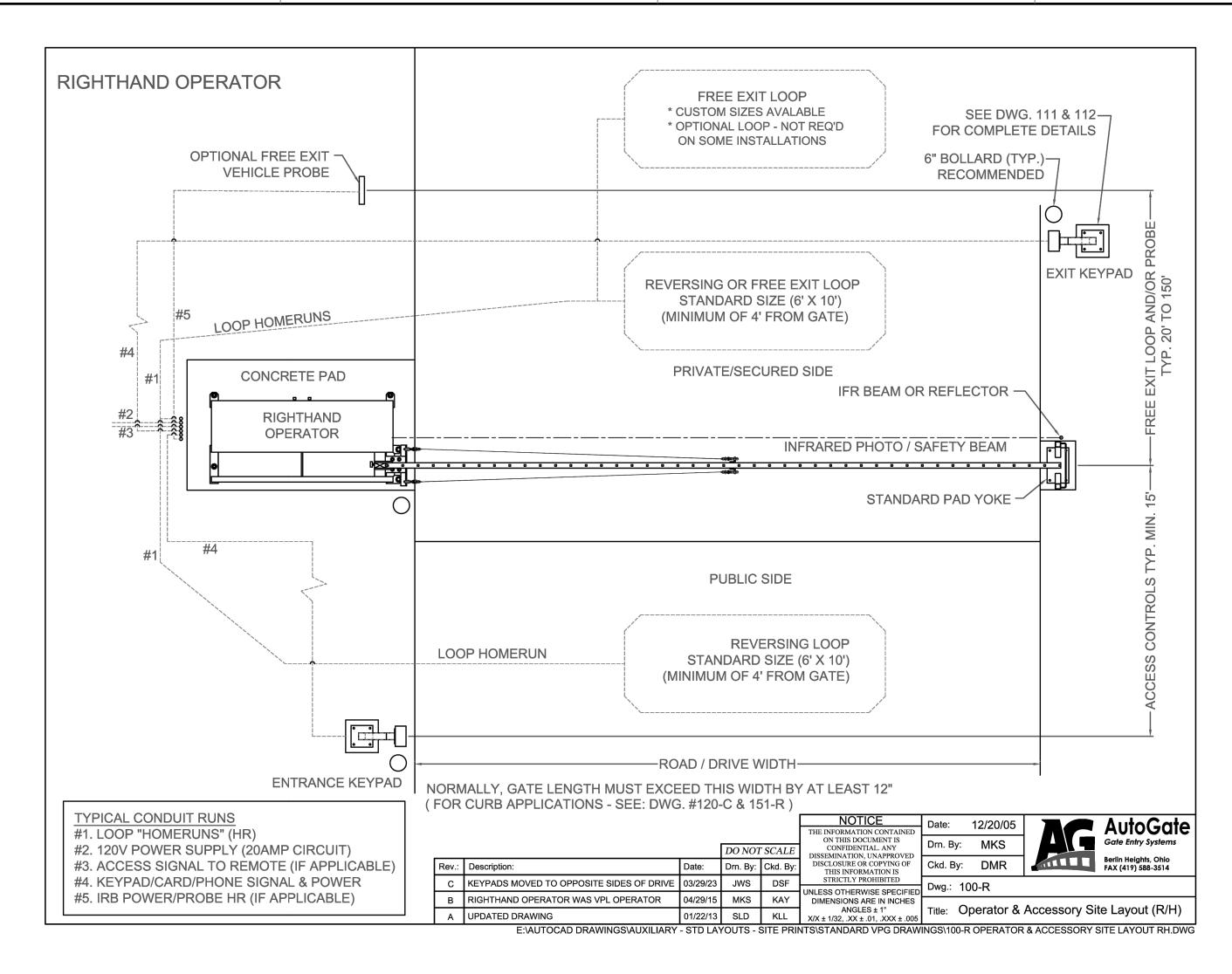
ORA

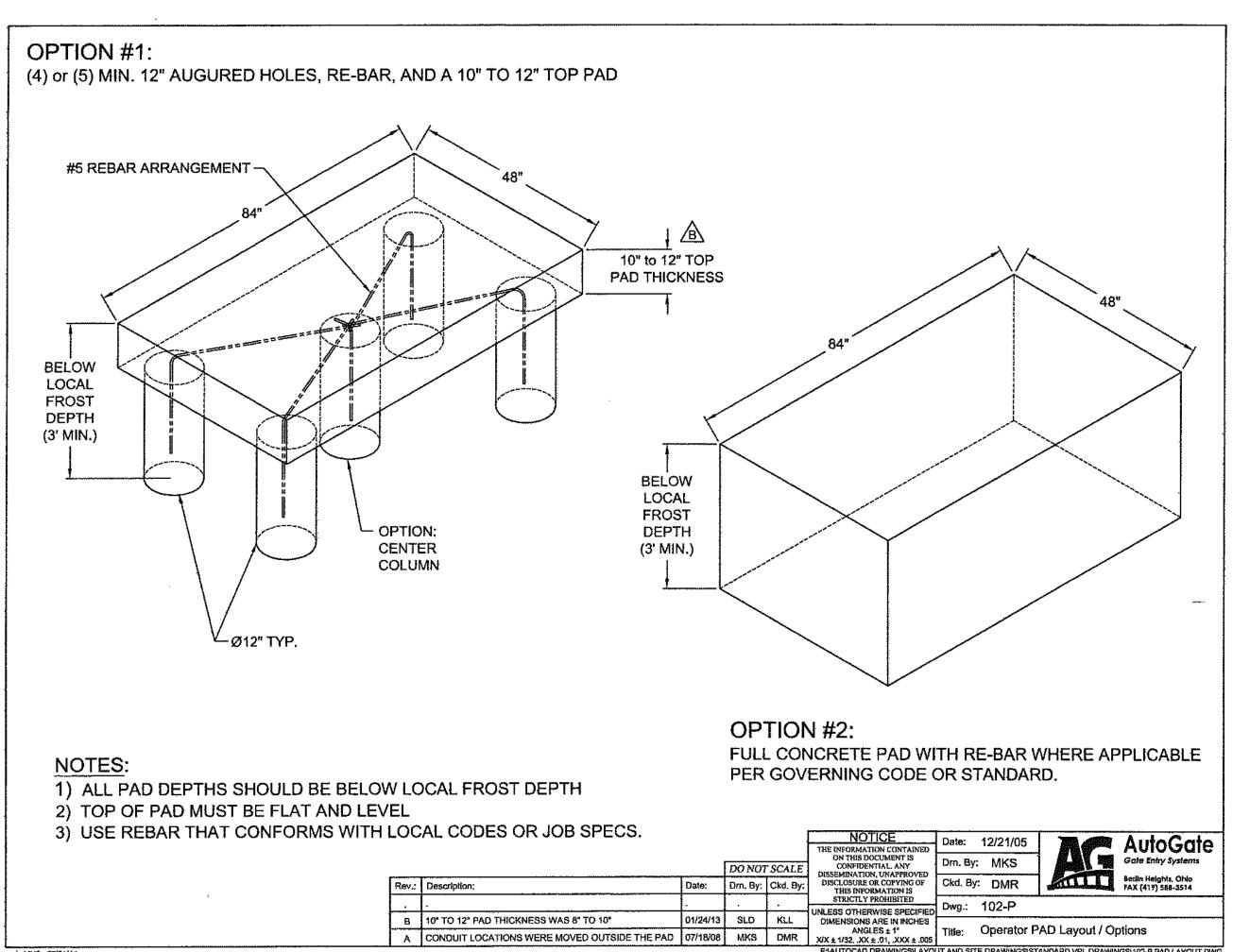
CULTEC RECHARGER 360HD HEAVY DUTY THREE VIEW

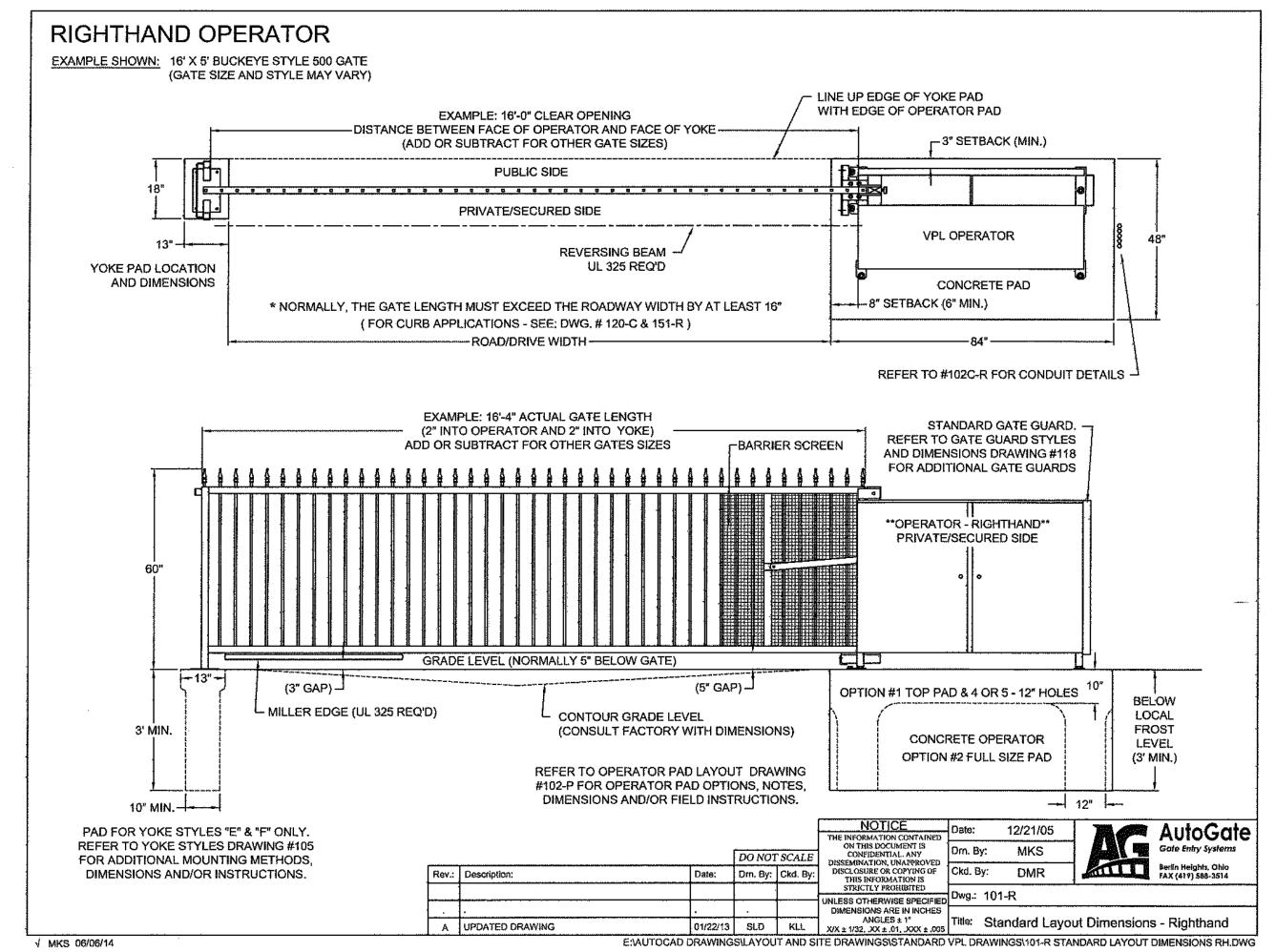
SMALL RIB ·

7

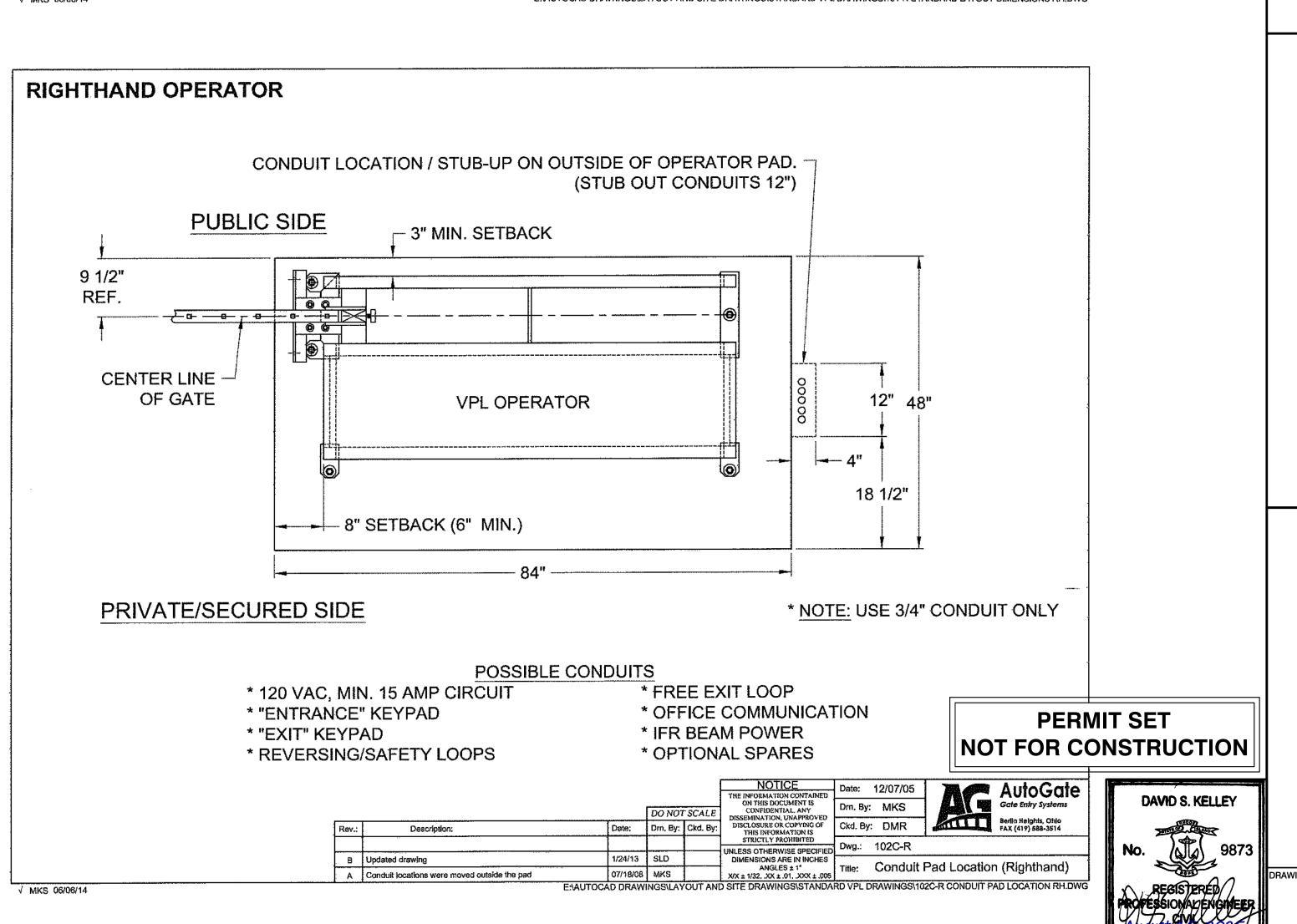
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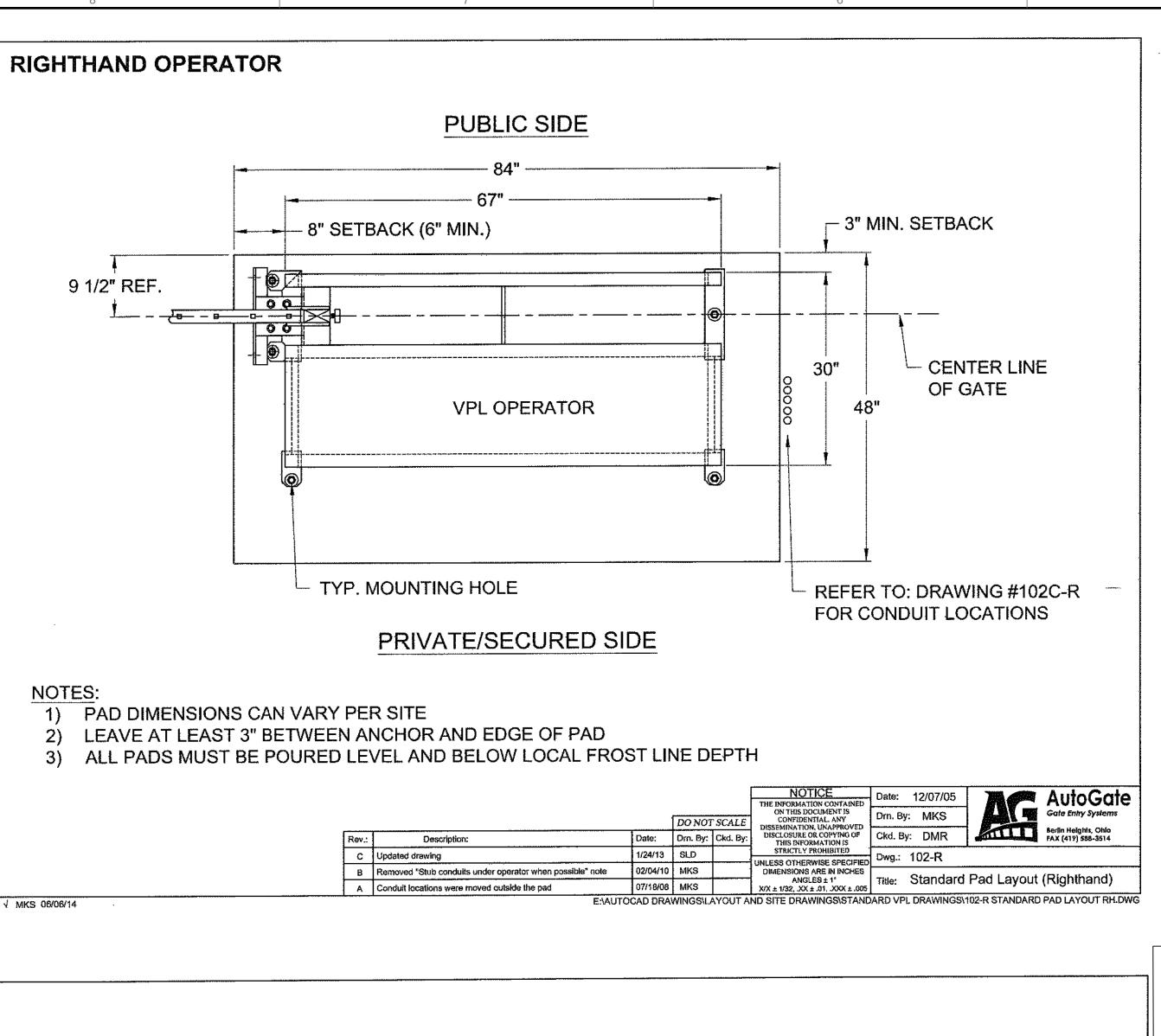


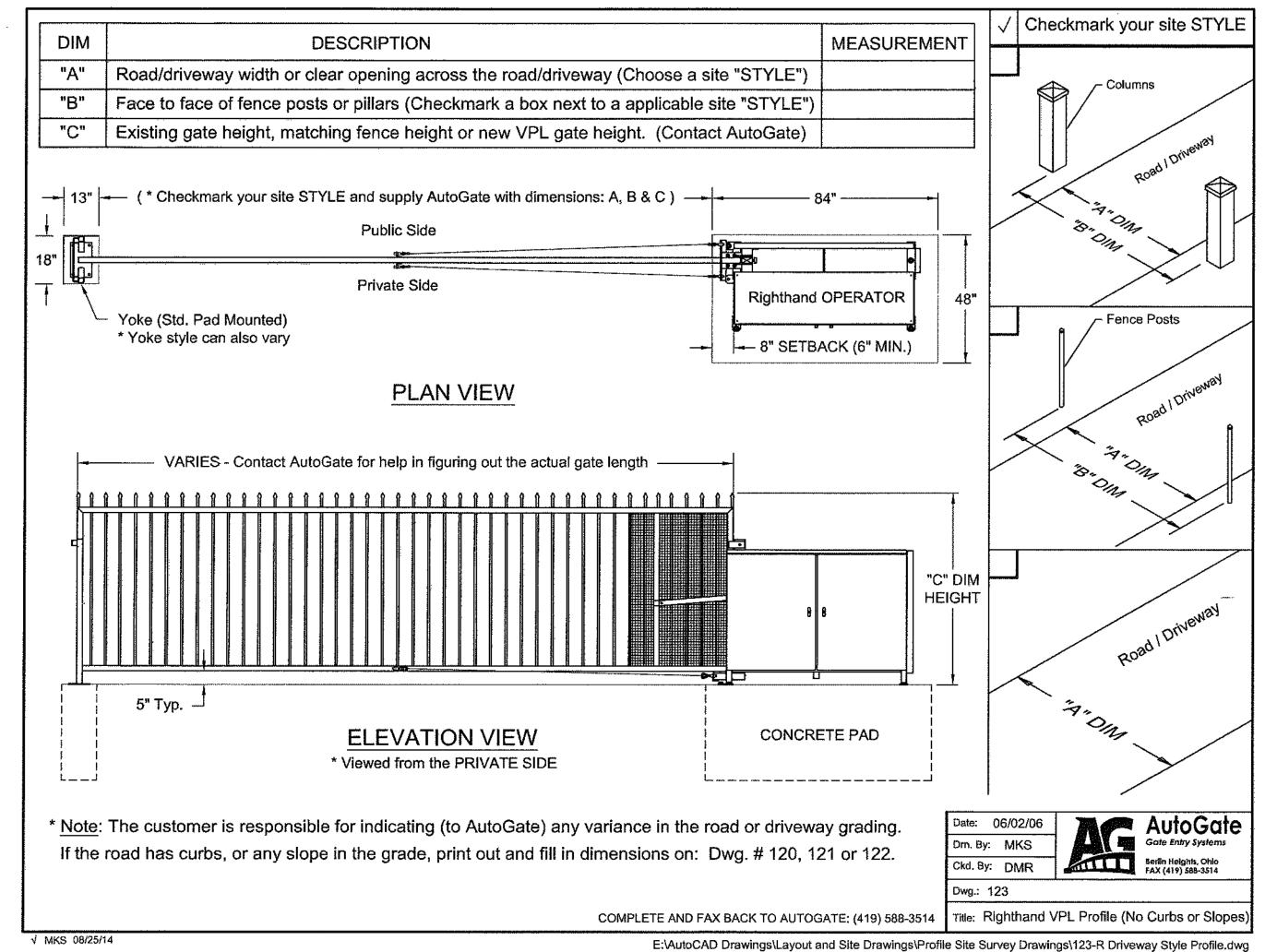


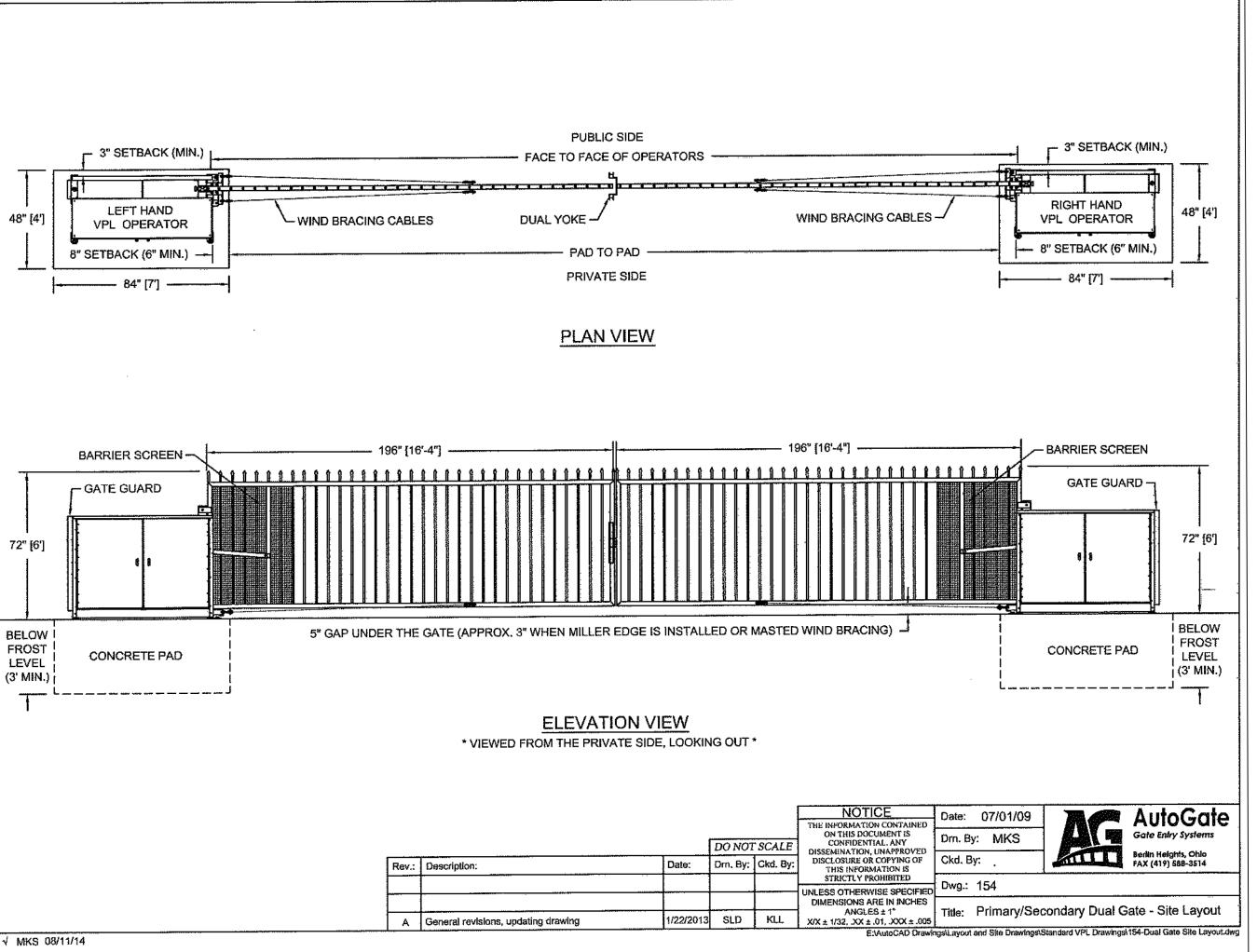


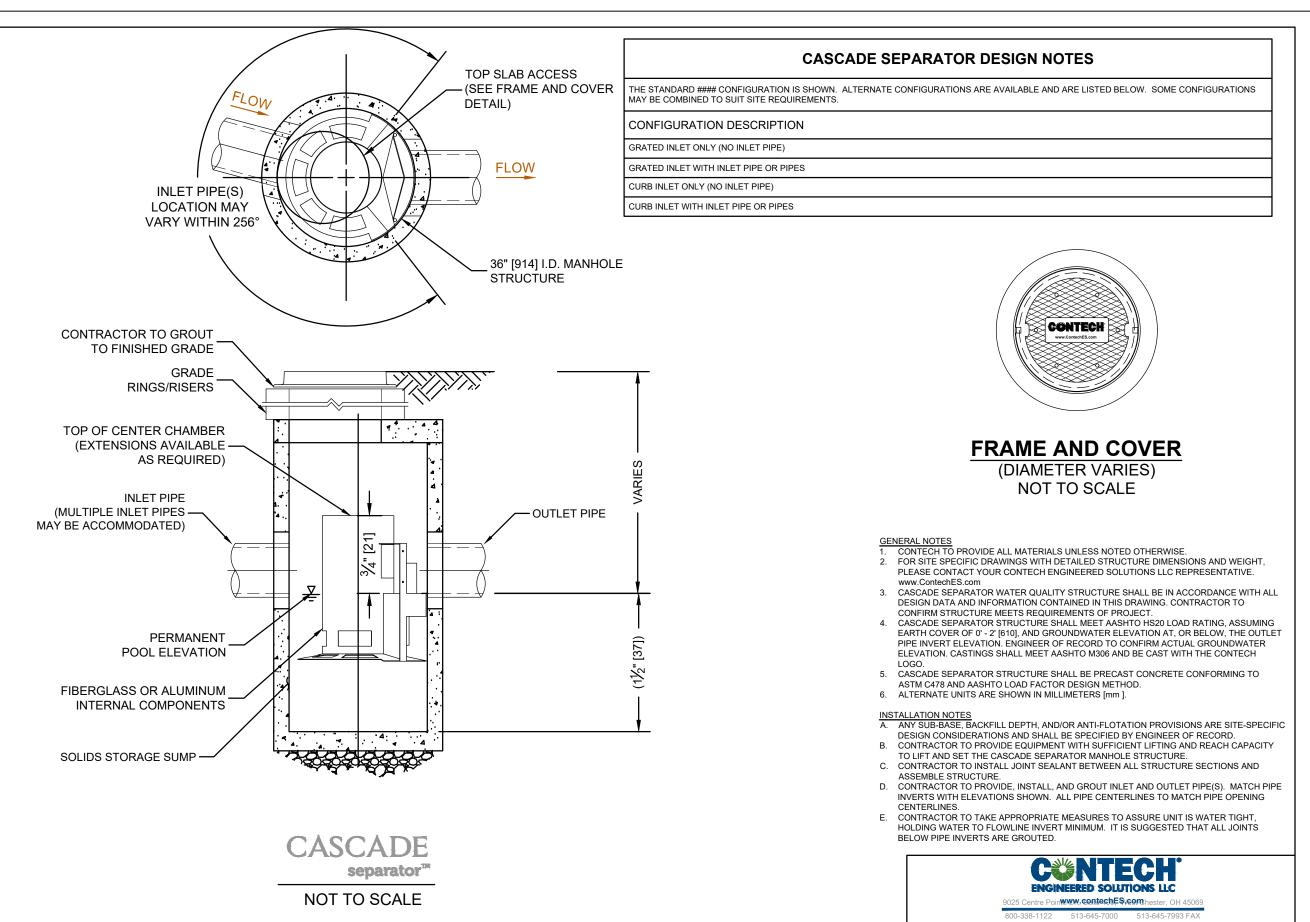
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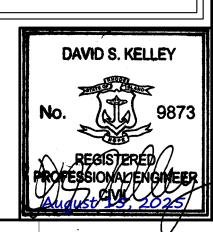






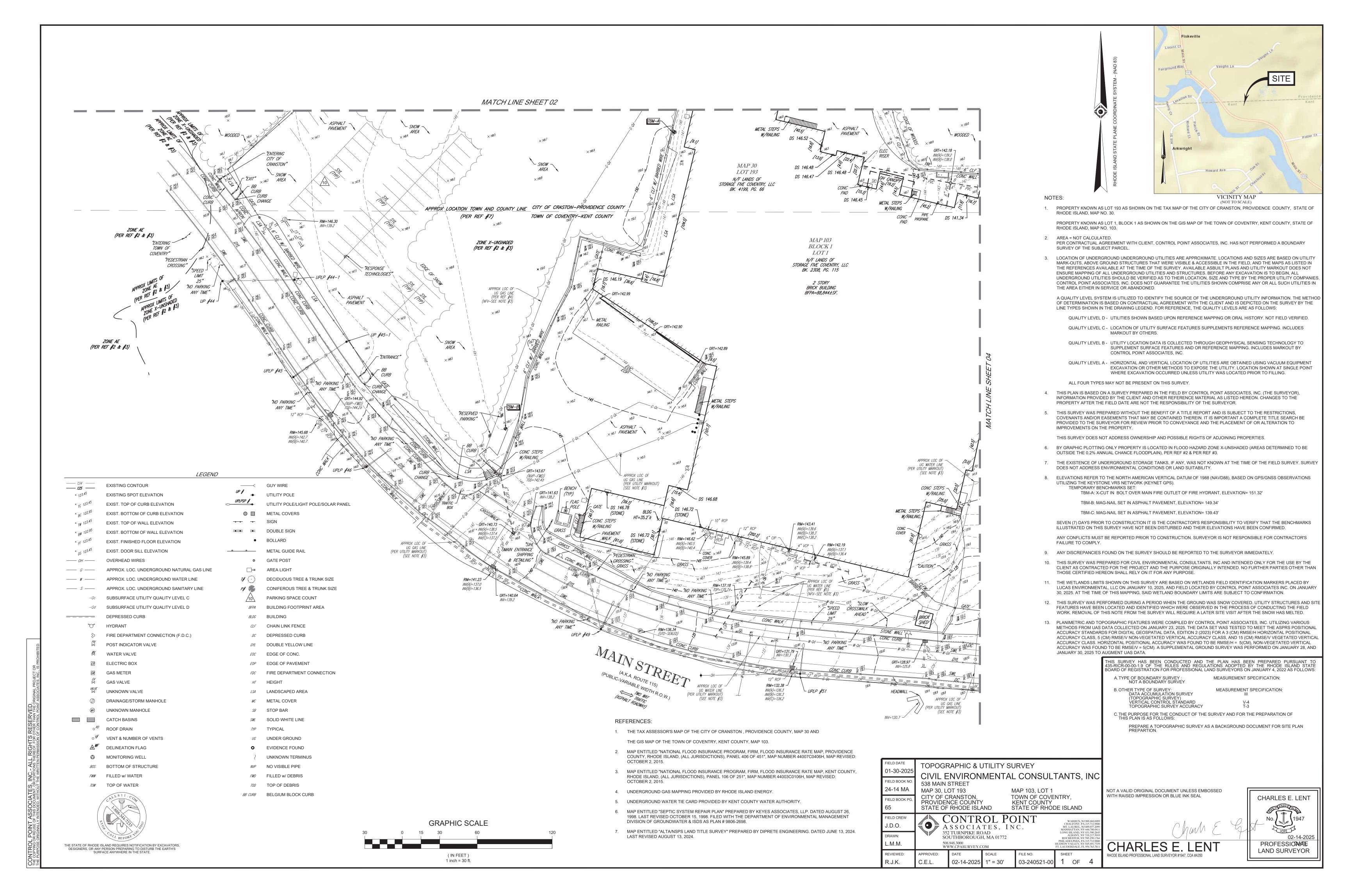


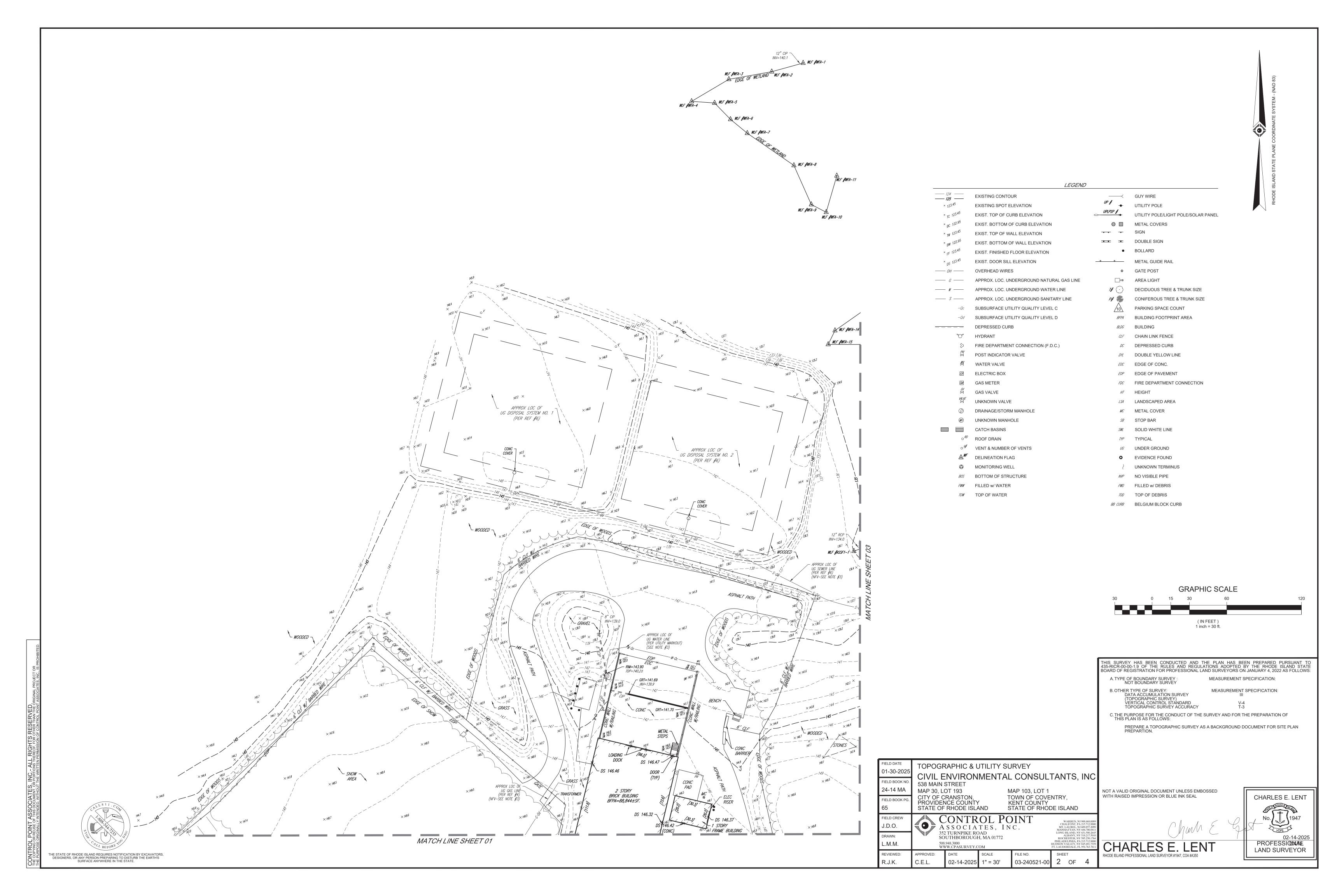
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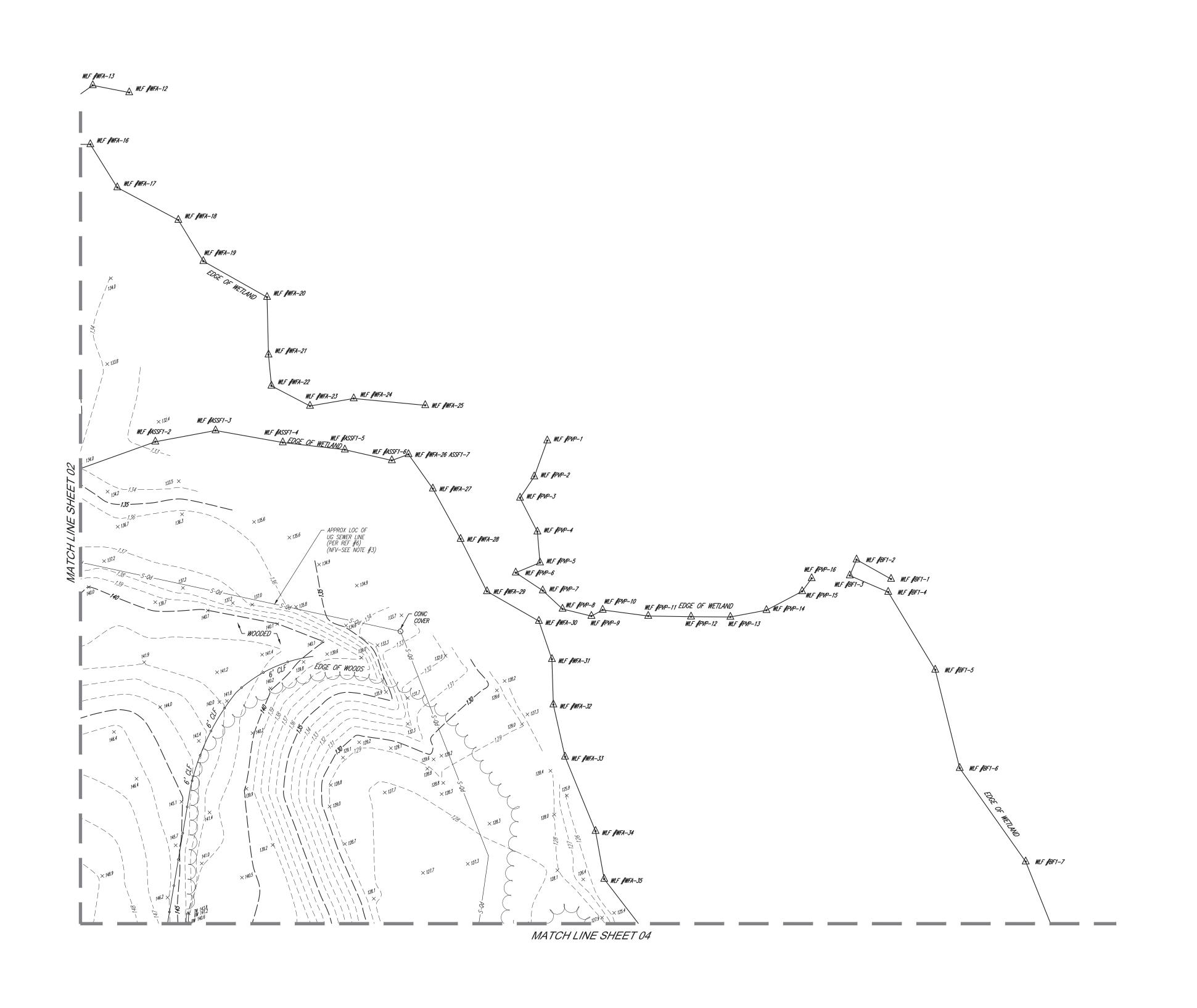


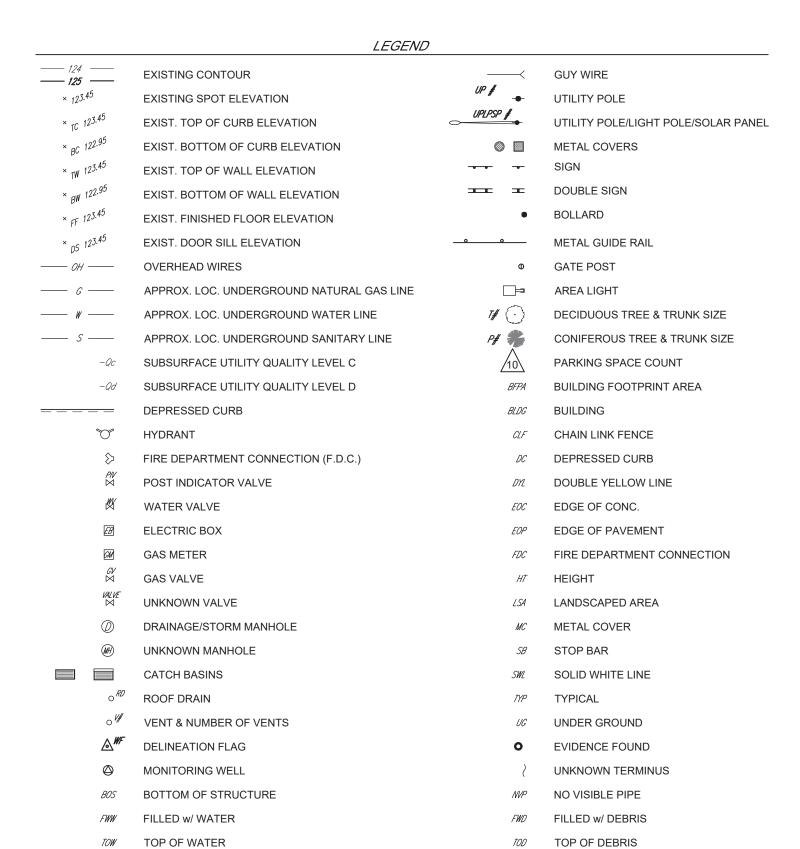
C803

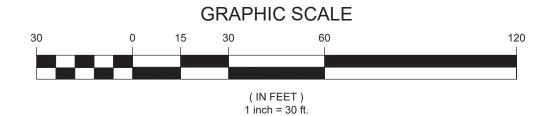
74.501.2176











BB CURB BELGIUM BLOCK CURB

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON JANUARY 4, 2022 AS FOLLOWS:

A. TYPE OF BOUNDARY SURVEY : NOT A BOUNDARY SURVEY

MEASUREMENT SPECIFICATION: MEASUREMENT SPECIFICATION:

CHARLES E. LENT

B. OTHER TYPE OF SURVEY:
DATA ACCUMULATION SURVEY
(TOPOGRAPHIC SURVEY)
VERTICAL CONTROL STANDARD
TOPOGRAPHIC SURVEY ACCURACY

C. THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THIS PLAN IS AS FOLLOWS: PREPARE A TOPOGRAPHIC SURVEY AS A BACKGROUND DOCUMENT FOR SITE PLAN PREPARTION.

TOPOGRAPHIC & UTILITY SURVEY

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR BLUE INK SEAL



PROFESSIONATE LAND SURVEYOR



01-30-202 CIVIL ENVIRONMENTAL CONSULTANTS, INC FIELD BOOK NO 538 MAIN STREET 24-14 MA MAP 30, LOT 193 MAP 103, LOT 1 CITY OF CRANSTON, PROVIDENCE COUNTY TOWN OF COVENTRY, KENT COUNTY FIELD BOOK PG. STATE OF RHODE ISLAND STATE OF RHODE ISLAND ASSOCIATES, INC. J.D.O. DRAWN:

352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772

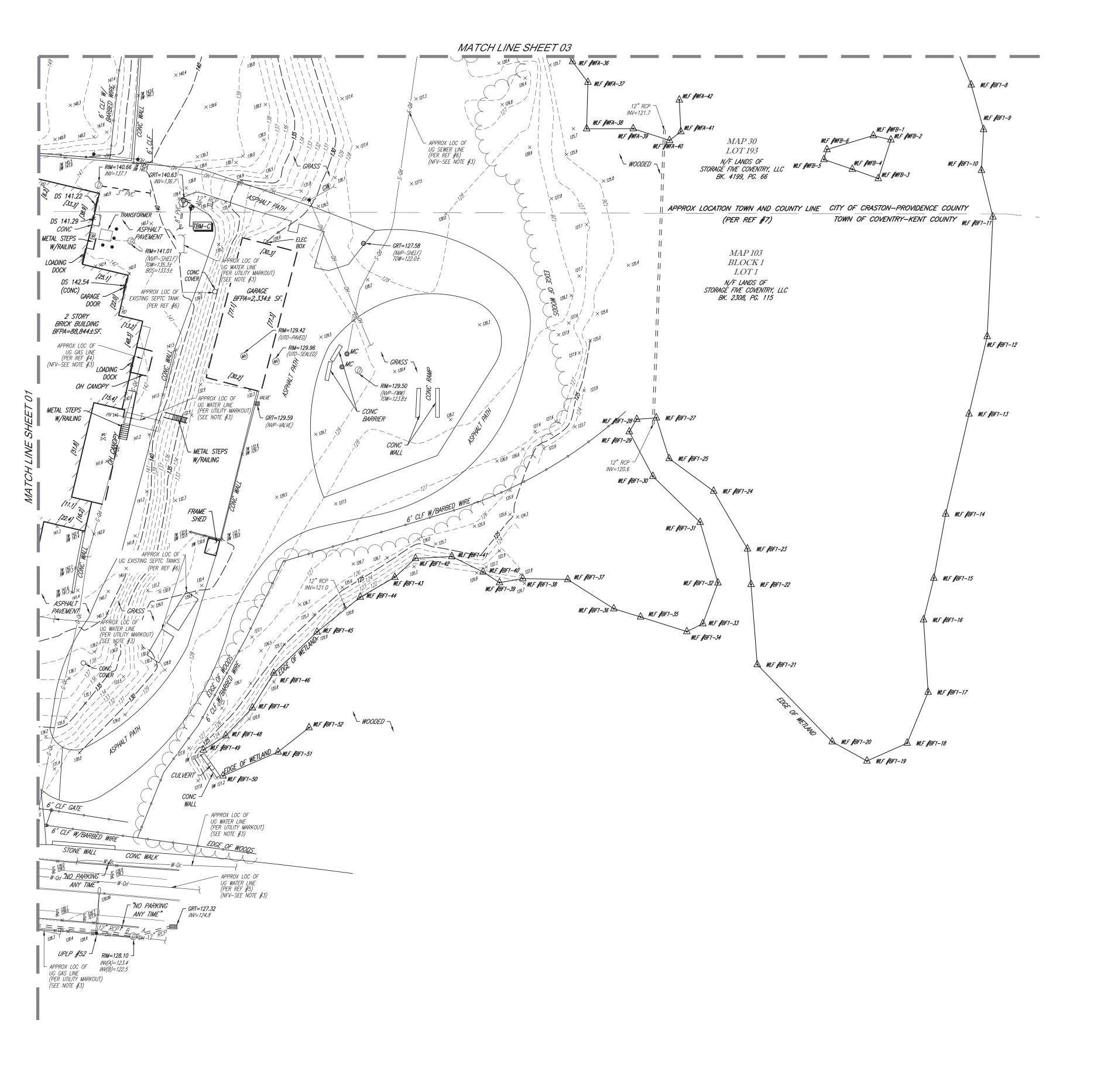
02-14-2025 1" = 30'

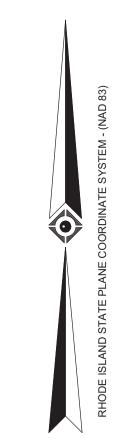
L.M.M.

REVIEWED:

03-240521-00 3 OF 4

CHARLES E. LENT RHODE ISLAND PROFESSIONAL LAND SURVEYOR #1947, COA #A350





124	EXISTING CONTOUR		GUY WIRE
—— <i>125</i> —— × 12 ^{3.45}	EXISTING SPOT ELEVATION	UP #	UTILITY POLE
× _{TC} 12 ^{3,45}	EXIST. TOP OF CURB ELEVATION	UPLPSP #	UTILITY POLE/LIGHT POLE/SOLAR PANEL
× _{BC} 122.95	EXIST. BOTTOM OF CURB ELEVATION		METAL COVERS
× _{TW} 12 ^{3,45}	EXIST. TOP OF WALL ELEVATION		SIGN
× _{BW} 122.95	EXIST. BOTTOM OF WALL ELEVATION		DOUBLE SIGN
× _{FF} 123.45	EXIST. FINISHED FLOOR ELEVATION	•	BOLLARD
× DS 12 ^{3,45}	EXIST. DOOR SILL ELEVATION	_ 0 0	METAL GUIDE RAIL
—— ОН ——	OVERHEAD WIRES	Φ	GATE POST
G	APPROX. LOC. UNDERGROUND NATURAL GAS LINE		AREA LIGHT
w	APPROX. LOC. UNDERGROUND WATER LINE	7# (·)	DECIDUOUS TREE & TRUNK SIZE
<i>S</i>	APPROX. LOC. UNDERGROUND SANITARY LINE	P# 👫	CONIFEROUS TREE & TRUNK SIZE
-Qc	SUBSURFACE UTILITY QUALITY LEVEL C	10	PARKING SPACE COUNT
-Qd	SUBSURFACE UTILITY QUALITY LEVEL D	BFPA	BUILDING FOOTPRINT AREA
	DEPRESSED CURB	BLDG	BUILDING
~	HYDRANT	CLF	CHAIN LINK FENCE
\$	FIRE DEPARTMENT CONNECTION (F.D.C.)	DC	DEPRESSED CURB
<i>PW</i> ⋈	POST INDICATOR VALVE	DYL	DOUBLE YELLOW LINE
	WATER VALVE	EOC	EDGE OF CONC.
B	ELECTRIC BOX	EOP	EDGE OF PAVEMENT
GM	GAS METER	FDC	FIRE DEPARTMENT CONNECTION
$\overset{\mathit{GV}}{\bowtie}$	GAS VALVE	НТ	HEIGHT
WALVE ⋈	UNKNOWN VALVE	LSA	LANDSCAPED AREA
	DRAINAGE/STORM MANHOLE	МС	METAL COVER
MH	UNKNOWN MANHOLE	SB	STOP BAR
	CATCH BASINS	SWL	SOLID WHITE LINE
o RD	ROOF DRAIN	TYP	TYPICAL
o V#	VENT & NUMBER OF VENTS	UG	UNDER GROUND
<u> </u>	DELINEATION FLAG	0	EVIDENCE FOUND
	MONITORING WELL	?	UNKNOWN TERMINUS
BOS	BOTTOM OF STRUCTURE	NVP	NO VISIBLE PIPE
FWW	FILLED w/ WATER	FWD	FILLED w/ DEBRIS
TOW	TOP OF WATER	TOD	TOP OF DEBRIS
		BB CURB	BELGIUM BLOCK CURB

LEGEND

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON JANUARY 4, 2022 AS FOLLOWS:

A. TYPE OF BOUNDARY SURVEY : NOT A BOUNDARY SURVEY

MEASUREMENT SPECIFICATION:

B. OTHER TYPE OF SURVEY:
DATA ACCUMULATION SURVEY
(TOPOGRAPHIC SURVEY)
VERTICAL CONTROL STANDARD
TOPOGRAPHIC SURVEY ACCURACY

MEASUREMENT SPECIFICATION:

C. THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THIS PLAN IS AS FOLLOWS: PREPARE A TOPOGRAPHIC SURVEY AS A BACKGROUND DOCUMENT FOR SITE PLAN PREPARTION.

TOPOGRAPHIC & UTILITY SURVEY CIVIL ENVIRONMENTAL CONSULTANTS, INC

03-240521-00 4 OF 4

MAP 103, LOT 1 NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED TOWN OF COVENTRY, KENT COUNTY

CITY OF CRANSTON, PROVIDENCE COUNTY STATE OF RHODE ISLAND STATE OF RHODE ISLAND CONTROL POINT ASSOCIATES, INC. 352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772

02-14-2025 1" = 30'

538 MAIN STREET

MAP 30, LOT 193

01-30-202

FIELD BOOK NO

24-14 MA

FIELD BOOK PG.

J.D.O.

DRAWN:

L.M.M.

REVIEWED:

R.J.K.

WITH RAISED IMPRESSION OR BLUE INK SEAL

RHODE ISLAND PROFESSIONAL LAND SURVEYOR #1947, COA #A350





