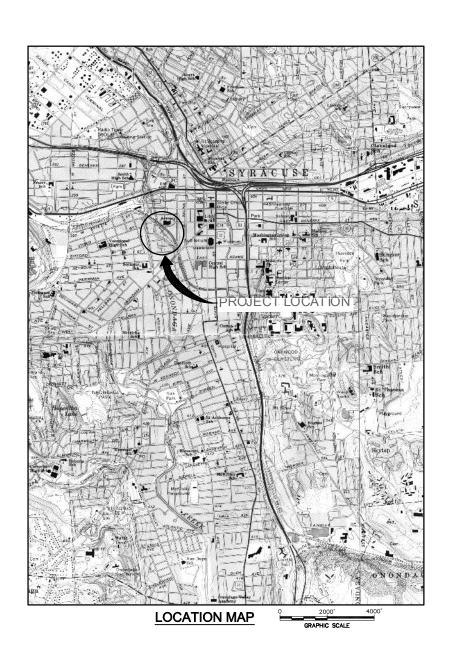
# CLINTON CSO STORAGE FACILITY PROJECT



CONTRACT NO. 7 BID REFERENCE NO. 7234 PROJECT NO. 587960

# COUNTY OF ONONDAGA DEPARTMENT OF WATER ENVIRONMENT PROTECTION

TOM RHOADS, P.E., COMMISSIONER

**APRIL 2011 (CONFORMED APRIL 2012)** 







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# ENVIRONMENTAL ENGINEERING ASSOCIATES, LLP

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DATE: \_\_\_\_\_\_05/16 \_\_\_\_ PER: \_\_\_\_\_\_RCF

ONONDAGA COUNTY • DEPARTMENT OF WATER ENVIRONMENT PROTECTION File Number

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CLINTON CSO STORAGE FACILITY PROJECT



00663 Date 04/11

G - 001June C. Hoole

FLOW STREAM DESIGNATIONS BLDG LEGEND: **EXISTING LEGEND** WEST ONONDAGA ST - EAST CONVEYANCE SEWER BC ABOVEGROUND STRUCTURE EXISTING GAS LINE COMB COMBINED SEWER BELOWGROUND STRUCTURE EXISTING SANITARY FORCE MAIN СВ EXISTING PROPERTY LINE DFM DEWATERING FORCE MAIN SIDEWALK **EXISTING POTABLE WATER MAIN** CLF ECD EMERGENCY CONTROLLED DIVERSION C.O. G -st STORM SEWER LINE EXISTING SANITARY SEWER LINE CSO SANITARY FORCE MAIN EXISTING RIGHT OF WAY POTABLE WATER MAIN EXISTING STORM SEWER LINE MIS MAIN INTERCEPTOR SEWER CY — О.Н.Е<del>.</del> EXISTING OVERHEAD ELECTRIC LINE MAIN INTERCEPTOR SEWER TAP WATER MAIN EXISTING OVERHEAD UTILITY LINE - O.H.U-PLW PLANT WATER EXISTING OVERHEAD ELECTRIC & UTILITY LINE CHAIN LINK FENCE POTABLE WATER DWG TEMPORARY CONSTRUCTION EXISTING CHAIN LINK FENCE SANITARY SEWER E. PAV'T EDGE OF PAVEMENT \_\_ EXISTING WOOD FENCE **─** ELEC. SILT FENCE EXISTING EDGE OF PAVEMENT ST STORM SEWER -- 390-----REGRADED CONTOUR EL \_ . . . . \_\_\_ . . . . \_\_ . EXISTING EDGE OF WATER TULLY STREET CONVEYANCE SEWER TCS LIMITS OF CONSTRUCTION EX EXISTING CONTOUR WATER GAS LINE ------ U.G.E.----EXISTING UNDERGROUND FLECTRIC WCS WEST STREET CONVEYANCE SEWER SWALE DRAINAGE EXISTING UNDERGROUND TELEPHONE CONVEYANCE SEWER PERMANENT/TEMPORARY EASEMENT AND FEE PARCEL EXISTING SPOT ELEVATION HDS ●HA-101 EXISTING FEATURE TO BE ABANDONED EXISTING SOIL/TEST BORING □ CB-1 EXISTING CATCH BASIN MH−1 BOLLARD EXISTING SANITARY SEWER MANHOLE BULKHEAD (ST) MH−1 EXISTING STORM SEWER MANHOLE CLEAN OUT PIPE MATERIAL: EXISTING MONITORING WELL CATCH BASIN U.P.—— EXISTING UTILITY POLE CAST IRON PIPE SANITARY SEWER MANHOLE L.P. 🕁 CORRUGATED METAL PIPE STORM SEWER MANHOLE HYD. & EXISTING HYDRANT CHLORINATED POLYVINYL CHLORIDE UTILITY POLE EXISTING TEST EXCAVATION CARBON STEEL P.E. ኞ EXISTING WATER VALVE DUCTILE IRON PIPE WATER VALVE EXISTING BUILDING STRUCTURE GALVANIZED STEEL ೪ FIRE HYDRANT EXISTING BRUSH LINE www. HDPE HIGH DENSITY POLYETHELYNE SURVEY CONTROL POINT EXISTING DECIDUOUS TREE PCCP PRESTRESSED CONCRETE CYLINDER PIPE EXISTING CONIFEROUS TREE PVC POLYVINYL CHLORIDE ROW SIGN EXISTING ROAD SIGN REINFORCED CONCRETE PIPE EXISTING LIGHT POST SICPP SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE SPC 0 EXISTING BOLLARD STAINLESS STEEL STA EXISTING SEWER VENT STL EXISTING GAS VENT **₽**TW-110 EXISTING PUMPING/TEST WELL TC PROTECTION OF UTILITIES: 1. THE APPROXIMATE LOCATION OF KNOWN UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE TRUE LOCATION OF ROOM TO COMMENCING WORK.

BEFORE ANY PIPE IS INSTALLED, THE CONTRACTOR

SHALL UNCOVER ALL UTILITIES AT PIPE CROSSINGS TO ENABLE THE OWNER'S REPRESENTATIVE TO VERIFY THE PROPOSED

PIPE WITH GRADES SHOWN ON THE PLANS IS NOT OBSTRUCTED BY EXISTING UTILITIES. DIG SAFELY AT

1-800-962-7962 SHALL BE NOTIFIED BY THE CONTRACTOR 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. UON 2. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATING, PROTECTION, RELOCATION, AND/OR MAINTENANCE OF UNDERGROUND AND OVERHEAD UTILITIES WHICH MAY BE IMPACTED DURING CONSTRUCTION. ALL UTILITIES, UNLESS STATED OTHERWISE, SHALL REMAIN FUNCTIONAL DURING THE PROGRESSION OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE ALL WORK AFFECTING UTILITIES WITH THE RESPECTIVE UTILITY SERVICE PROVIDER. ALL DETAILS OF CONSTRUCTION AND/OR RELOCATION SHALL BE APPROVED BY THE UTILITY SERVICE PROVIDER AND OTHER APPROVING

#### GENERAL:

ABBREVIATIONS:

BOTTOM OF CURB

BOTTOM OF SLOPE

CHAIN LINK FENCE

COMBINED SEWER OVERFLOW

CONTROLLED RELEASE STRUCTURE

CATCH BASIN

CENTERLINE

CLEAN OUT

CUBIC YARD

DRAWING

ELEVATION

EXISTING

INVERT

MANHOLE

MECHANICAL JOINT

NATIONAL PIPE THREAD

PERMANENT EASEMENT

POINT OF CURVATURE

PROPERTY LINE

RIGHT OF WAY

SILT FENCE

STATION

STEEL

TYPICAL

PERSONNEL ENTRY POIN

SPECIAL PROJECT CONDITIONS

TEMPORARY EASEMENT

UNLESS OTHERWISE NOTED

WELDED WIRE FABRIC

TOP OF CURB

WATER VALVE

NATIONAL GRID

DRAINAGE MANHOLE

ELECTRIC, ELECTRICAL

HOT MIX ASPHALT

HYDRODYNAMIC SEPERATOR

BUILDING

- 1. UNDERGROUND FACILITIES, STRUCTURE, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS AND TYPE OF USE MUST BE CONSIDERED APPROXIMATE ONLY. OTHER UNDERGROUND STRUCTURES AND UTILITIES MAY EXIST, THE LOCATIONS OF WHICH ARE PRESENTLY UNKNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL UTILITY LOCATIONS, AND SHALL PROMPTLY NOTIFY THE OWNER'S RERESENTATIVE AND OWNER OF CONDITION IF FOUND DIFFERENT.
- 2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PERTINENT TO THE WORK OF THIS CONTRACT IN THE FIELD.
- 3. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGE CAUSED BY HIS OPERATIONS TO EXISTING UTILITIES AND FACILITIES WHICH ARE NOT INCLUDED AS PART OF THE INTENDED WORK. ALL DAMAGE TO THE EXISTING FACILITIES WHICH ARE NOT A PART OF THE INTENDED WORK SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER'S REPRESENTATIVE, AT NO ADDITIONAL COST TO THE
- 4. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION OPERATIONS WITH THE WORK OF OTHER CONTRACTS AND ANY AND ALL OTHER CONSTRUCTION ACTIVITIES WHICH MAY BE OCCURRING SIMULTANEOUSLY IN THE VICINITY OF THE WORK.
- 5. OVERHEAD WIRES ARE DEPICTED ON SEVERAL DRAWINGS. ONLY THE MORE SIGNIFICANT OVERHEAD WIRES ARE SHOWN. THE CONTRACTOR SHALL FIELD VERIFY AND ASCERTAIN ACTUAL CONDITIONS.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE POLICE, HOSPITALS, SYRACUSE DPW, LOCAL SCHOOLS, 911 EMERGENCY, CENTRO AND FIRE DEPARTMENTS TO INFORM THEM OF CONSTRUCTION ACTIVITIES ON THIS PROJECT ON A WEEKLY BASIS.
- 7. THE CONTRACTOR SHALL OBTAIN APPROVALS FOR ALL SITES FOR SPOIL AND DEBRIS DISPOSAL. THE CONTRACTOR SHALL PROVIDE WRITTEN APPROVAL FOR USE OF SUCH SITES TO THE OWNER PRIOR TO ANY REMOVAL OF MATERIAL FROM THE SITE.
- 8. GENERALLY, STREETS WITH CURBS HAVE CONCRETE ROAD BASES, STREETS WITH NO CURBS HAVE ASPHALT ROAD BASES.
- 9. THE CONTRACTOR SHALL ADJUST NEW AND EXISTING VALVE BOXES, MANHOLE COVERS, CATCH BASIN COVERS, AND OTHER FACILITIES AS REQUIRED TO MATCH FINISHED LINES AND GRADES. CONTRACTOR SHALL ALSO PROVIDE POSITIVE DRAINAGE OF SURFACE WATER AWAY FROM SANITARY MANHOLES.
- 10. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ANY ADDITIONAL SURVEY DATA REQUIRED FOR THE CONSTRUCTION OF ALL ELEMENTS OF THIS

#### PROTECTION OF EXISTING DRAINAGE FACILITIES:

- 1. ALL EXISTING COMBINED DRAINAGE FACILITIES TO REMAIN SHALL BE MAINTAINED FREE OF DEBRIS AND FOREIGN MATTER AND OPERATIONAL THROUGHOUT THE DURATION OF THE CONTRACT.
- 2. UPON COMPLETION OF THE CONTRACT WORK, ALL PROPOSED DRAINAGE SYSTEMS AND EXISTING DRAINAGE SYSTEMS TO REMAIN WITHIN THE LIMITS OF THIS CONTRACT SHALL BE CLEANED TO ATTAIN THEIR FULL FLOW CAPABILITIES AND SHALL BE ACCEPTED BY THE OWNER'S REPRESENTATIVE AS SUFFICIENTLY CLEANED. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL CLEANING DEBRIS
- 3. THE LOCATION AND SIZE OF EXISTING FACILITIES ARE FROM ACTUAL FIELD MEASUREMENTS, LIMITED FIELD RECONAISSANCE OR PLANS OF RECORD. ALL FACILITIES WHICH ARE TO REMAIN OR BE MODIFIED FOR REUSE UNDER THIS CONTRACT SHALL BE FIELD VERIFIED AS TO ACTUAL LOCATION, ELEVATIONS, SIZE, TYPE AND CONDITION. ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE WHO SHALL DETERMINE IF MODIFICATIONS TO THE PLANS ARE REQUIRED.

#### **EARTHWORK**

- 1. ALL ORGANIC MATERIAL SHALL BE CLEARED FROM THE SITE. TOPSOIL MAY BE STOCKPILED FOR REUSE IF OF ACCEPTABLE QUALITY.
- 2. EXISTING MATERIAL TO REMAIN AS SUBGRADE SHALL BE PROTECTED FROM DISTURBANCE. IF NOT PROTECTED AND/OR DISTURBED BY THE CONTRACTOR FOR ANY REASON, SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH COMPACTED TYPE E MATERIAL AT NO COST TO THE OWNER.

#### WORK ON COMBINED & SANITARY SEWERS:

- 1. CONTRACTOR SHALL NOT DIRECT SURFACE OR SUBSURFACE WATER TO THE SANITARY SEWER SYSTEM WITHOUT WRITTEN PERMISSION AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH DISPOSAL OF WATER.
- 2. SEE SPECIFICATION SECTION 02190 FOR DETAILED REQUIREMENTS RELATED TO THE MAINTENANCE OF SEWAGE FLOWS
- 3. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UTILITIES WITHIN THE SEWER ROUTE. THE CONTRACTOR SHALL EXCAVATE TEST PITS TO LOCATE UTILITIES IN THE PROPOSED SEWER ROUTE. POTENTIAL CONFLICTS SHALL BE BROUGHT TO THE OWNER'S REPRESENTATIVE

#### EROSION CONTROL

- 1. REFER TO SPECIFICATION SECTION 02370 FOR DETAILS REGARDING SEDIMENT AND EROSION CONTROL PLAN. THE CONTRACTOR'S ATTENTION IS ALSO DIRECTED TO THE REQUIREMENTS OF THE STORMWATER POLLUTION PREVENTION PLAN AS DESCRIBED IN THE SPECIAL PROJECT CONDITIONS SECTION OF
- 2. EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSTALLED, INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE NEW YORK STATE GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL
- 3. SOIL EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSTALLED AND FULLY FUNCTIONAL PRIOR TO ANY SITE DISTURBANCE. FACILITIES SHALL BE FULLY MAINTAINED DURING CONSTRUCTION.
- 4. ALL ROADWAYS SHALL BE KEPT CLEAN. FILL SHALL NOT BE SPILLED ONTO THE ROADWAY. ALL SPILLED MATERIALS SHALL BE PROMPTLY REMOVED.
- 5. SOIL EROSION AND SEDIMENT CONTROL FACILITIES ARE TO BE MAINTAINED DURING CONSTRUCTION AND REMOVED (WHERE NECESSARY OR APPLICABLE) UPON COMPLETION OF CONSTRUCTION.
- 6. THE AREAS OF CONSTRUCTION SHALL REMAIN IN STABLE CONDITION AT THE CLOSE OF EACH CONSTRUCTION DAY. EROSION CONTROL FACILITIES SHALL BE MONITORED AND MAINTAINED, REPAIRED OR REPLACED IF NECESSARY.
- 7. STORM INLETS TO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION BY USE OF INLET PROTECTION OR OTHER APPROVED MEANS.
- 8. SOIL STOCKPILE AREAS ARE TO BE SURROUNDED WITH SILT FENCING, OR OTHER EROSION CONTROL MEASURES OR AS ORDERED BY THE OWNER'S
- 9. CONTRACTOR TO PROVIDE APPROVED DUST CONTROL MEASURES. THE CONTRACTOR SHALL HAVE A WATER TRUCK OR OTHER ACCEPTABLE MEANS OF CONTROLLING DUST AVAILABLE AT ALL TIMES.

RECORD DRAWING

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DATE: 05/16 PER: RCF

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04/11

4. ALL PIPE ELEVATIONS GIVEN ARE INVERT ELEVATIONS, UNLESS SPECIFIED OTHERWISE.

ON=\*: OFF=\*REF\*

5. EXISTING PIPELINES OR MANHOLES/STRUCTURES TO BE ABANDONED SHALL BE PLUGGED AT EACH END IF APPLICABLE

3. THE CONTRACTOR SHALL VERIFY LOCATION, SIZE AND JOINT TYPE OF EXISTING PIPES AT CONNECTION LOCATIONS

6. THE CONTRACTOR SHALL NOTIFY RESIDENCES AND/OR BUSINESSES TO BE AFFECTED BY HIS CONSTRUCTION ACTIVITIES IN WRITING ONE WEEK PRIOR TO CONSTRUCTION AND 48 HOURS PRIOR TO SHUTDOWN OF SEWER AND/OR WATER

MO/DA/YR CO DFT DIR/DWG					
SCALE: NONE					In charge of RCF
					Designed by RWS
					Drawn by RWS
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MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.			PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7 F THE NEW YORK STATE EDUCATION LAW	Checked by KOT	

ENVIRONMENTAL ENGINEERING ASSOCIATES, LLP SYRACUSE, NEW YORK

GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

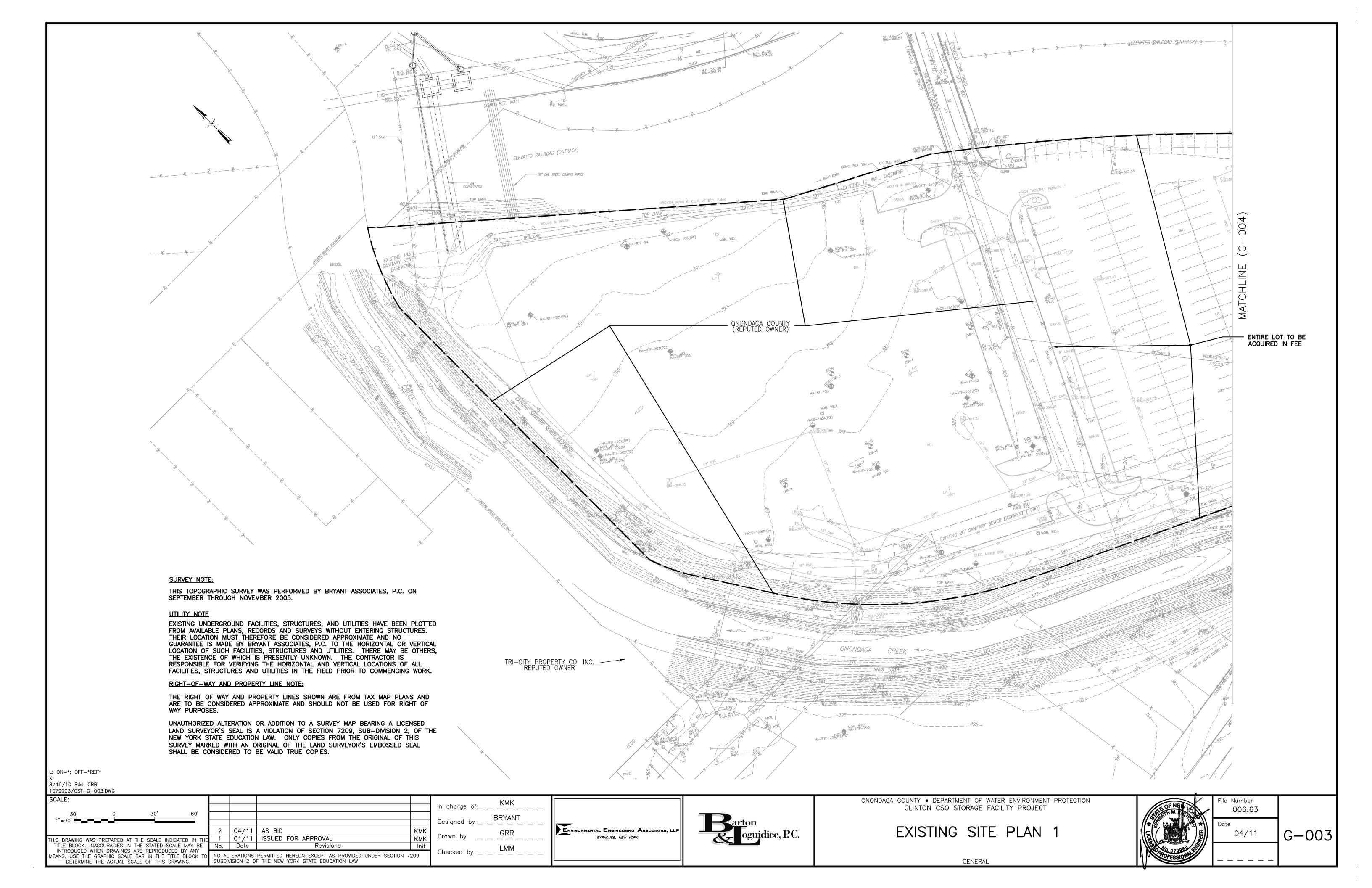
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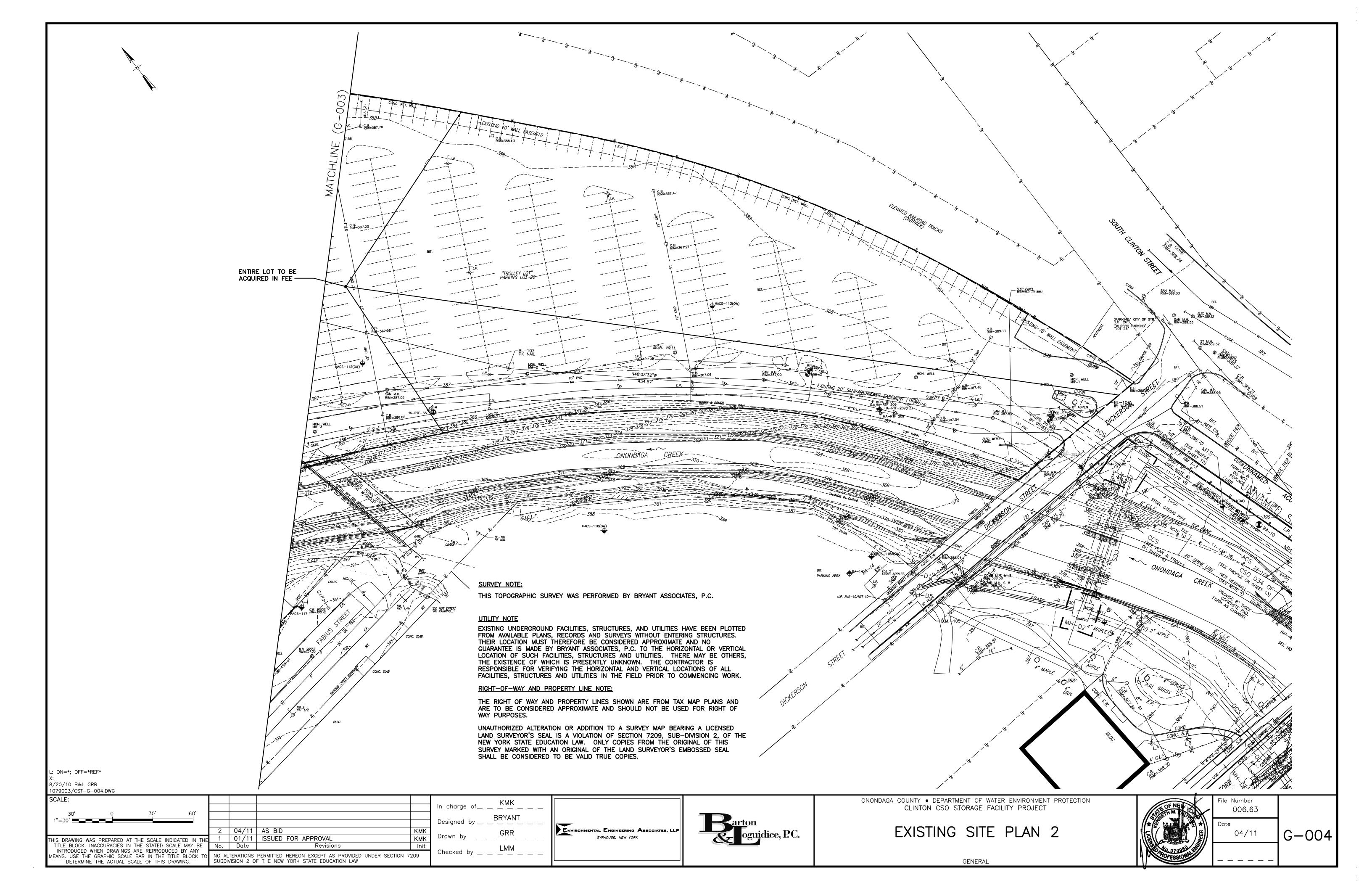
CLINTON CSO STORAGE FACILITY PROJECT

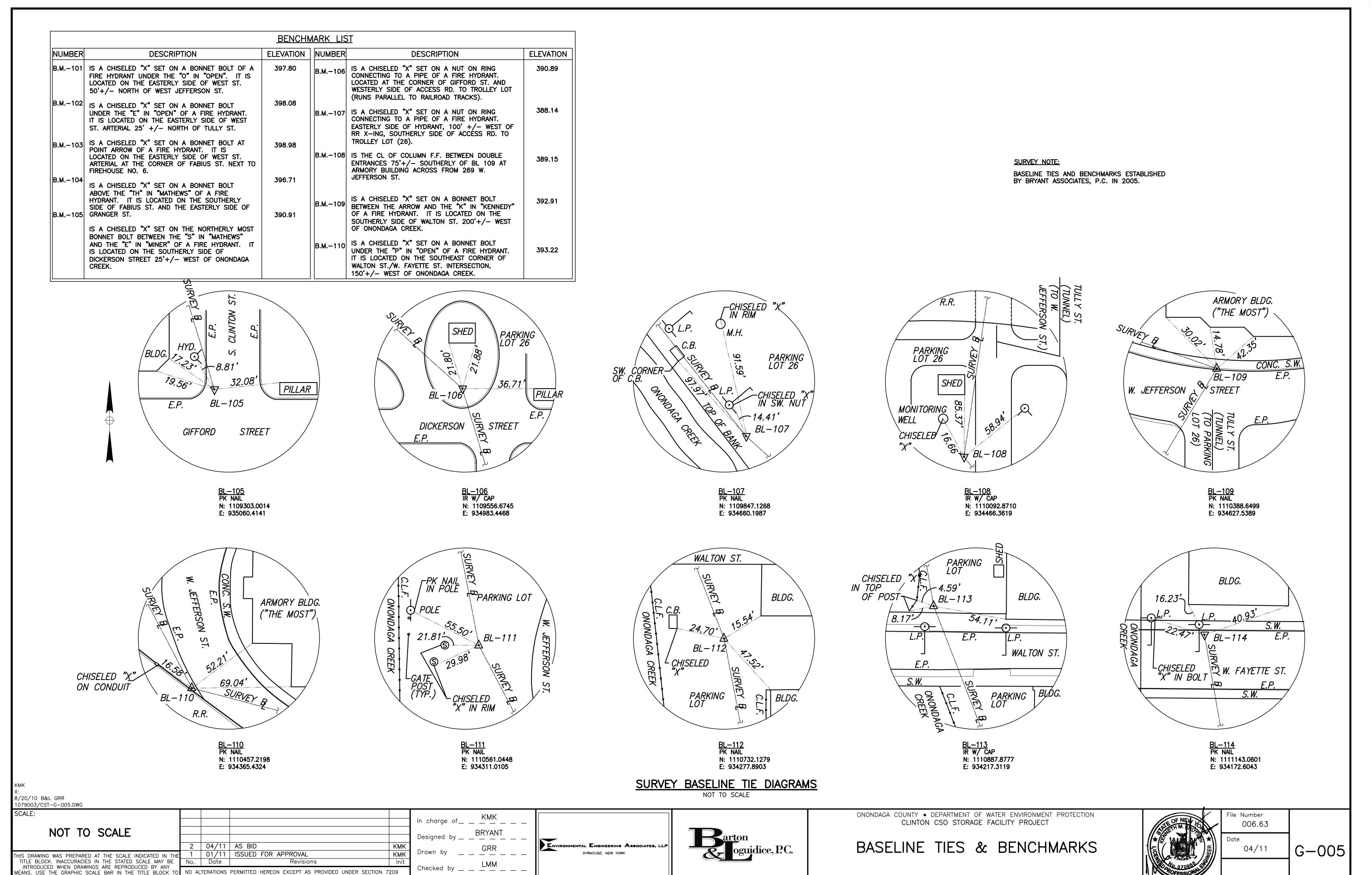


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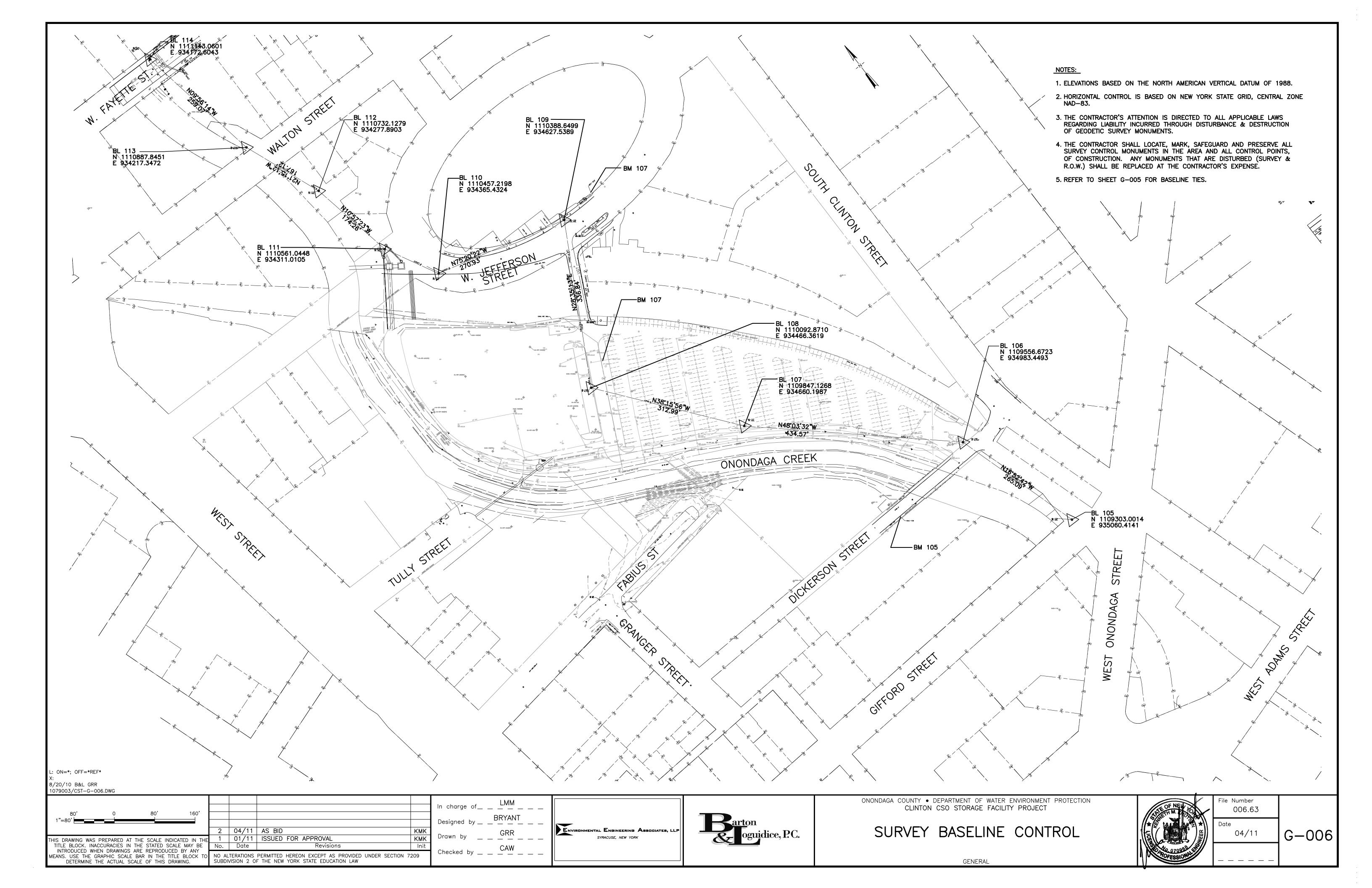


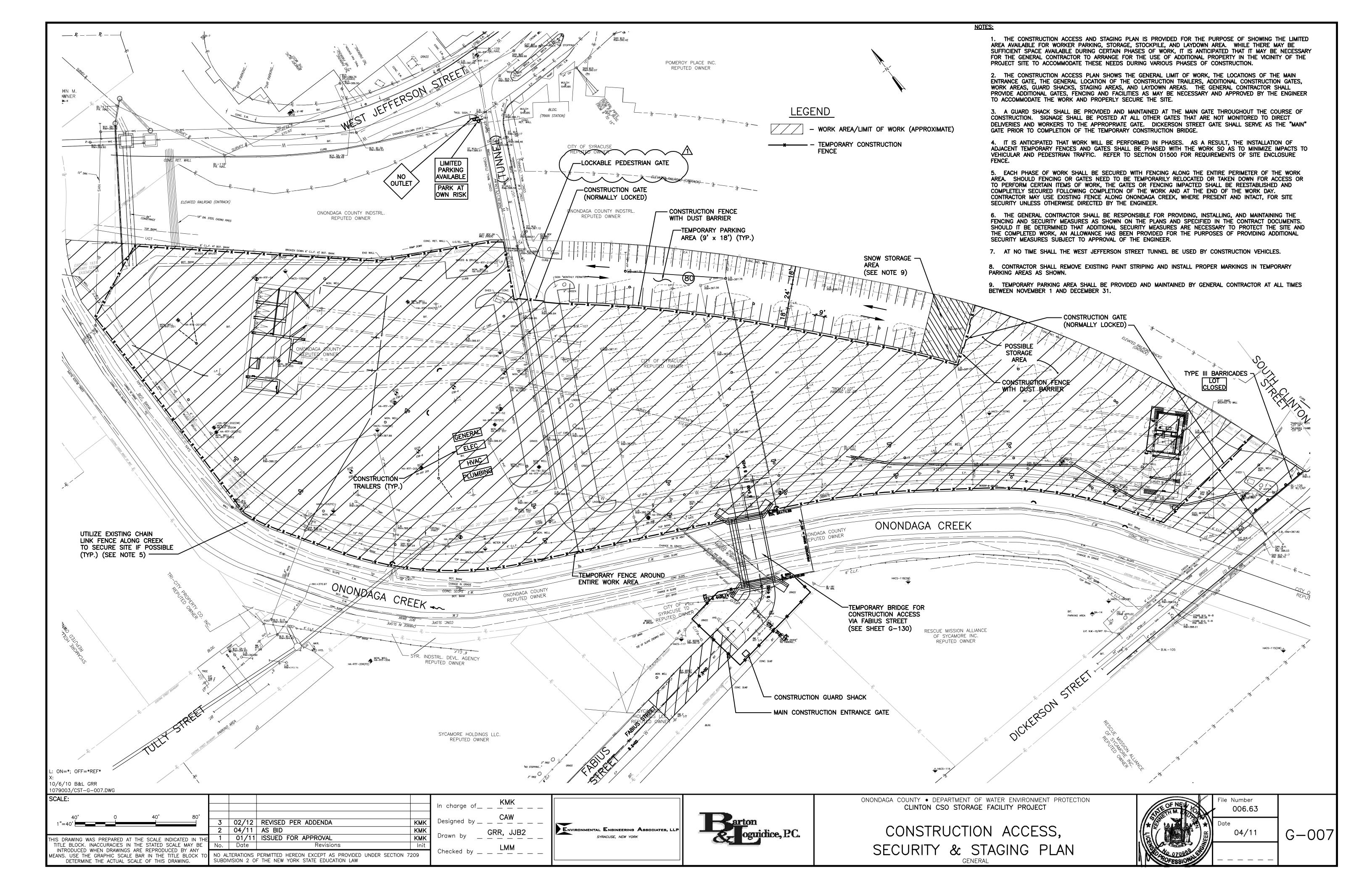


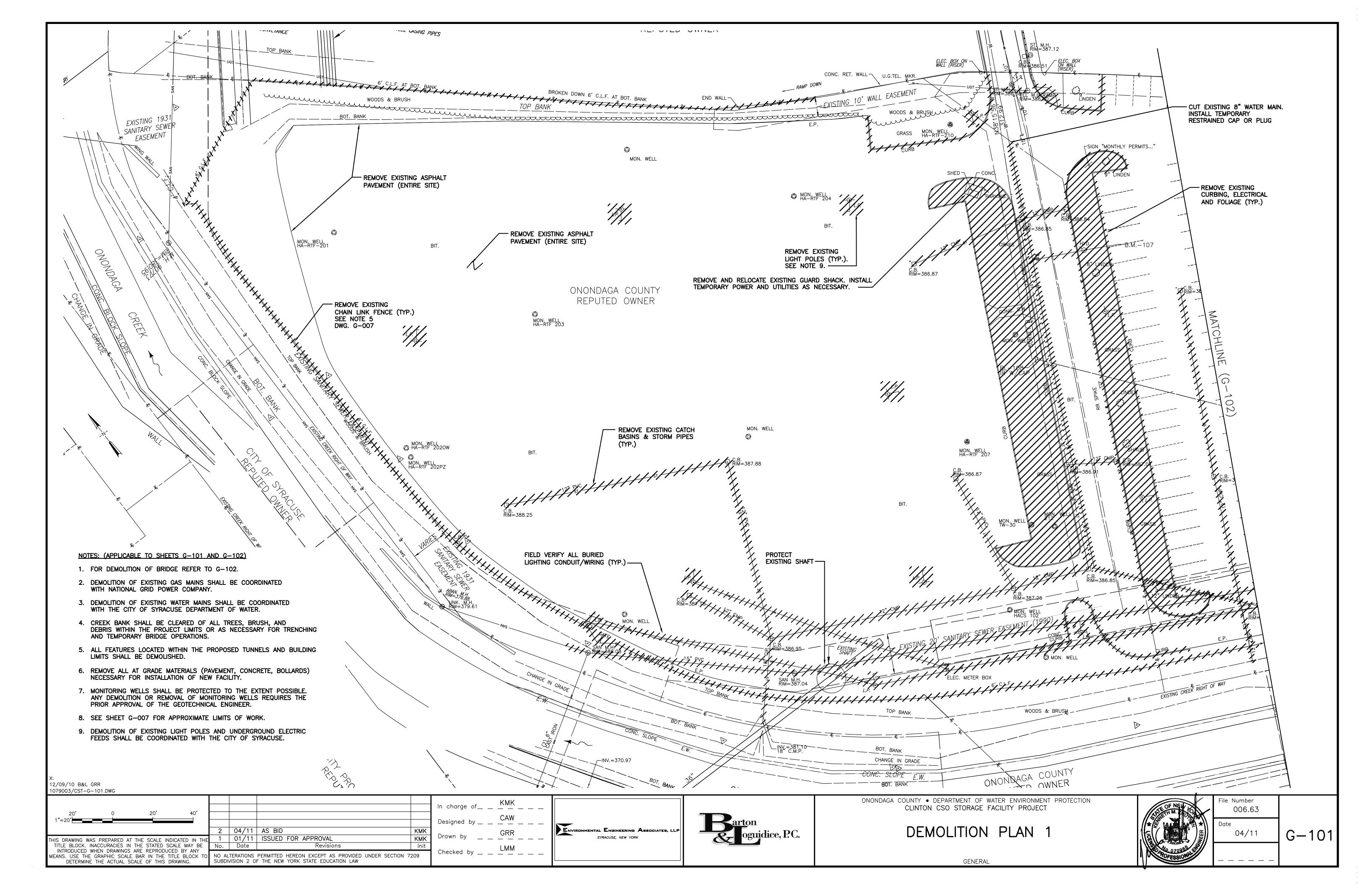


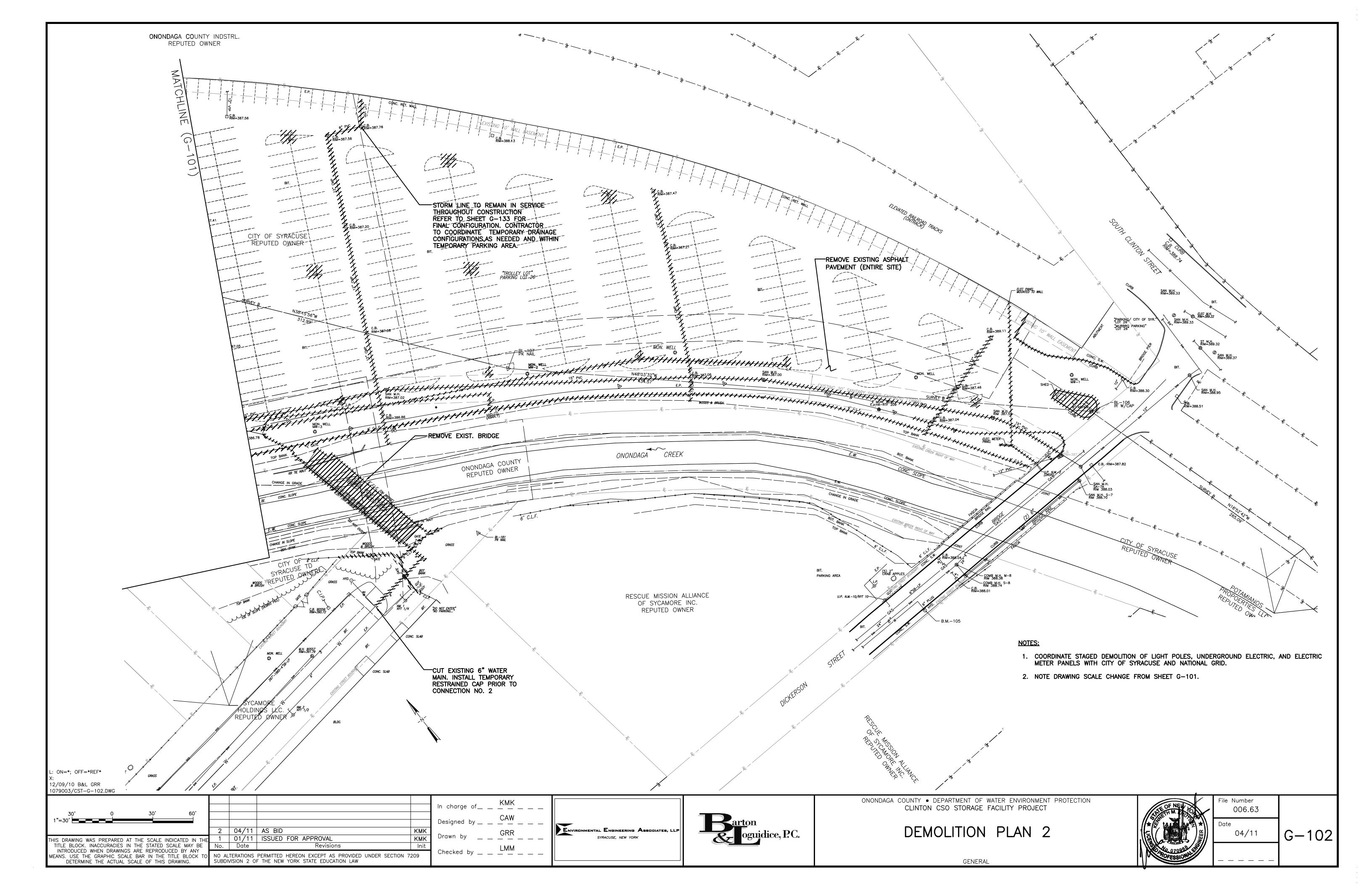
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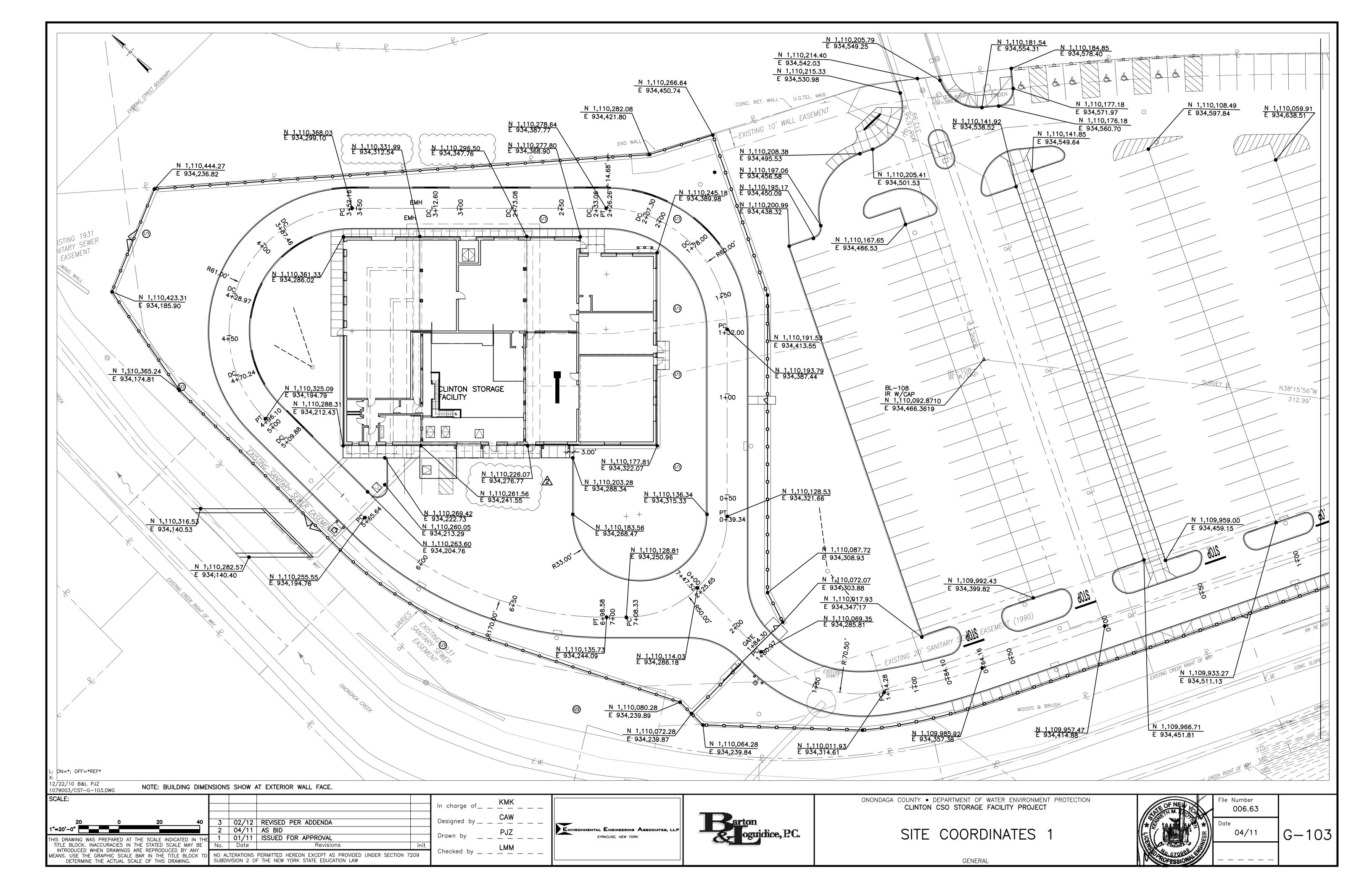
SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

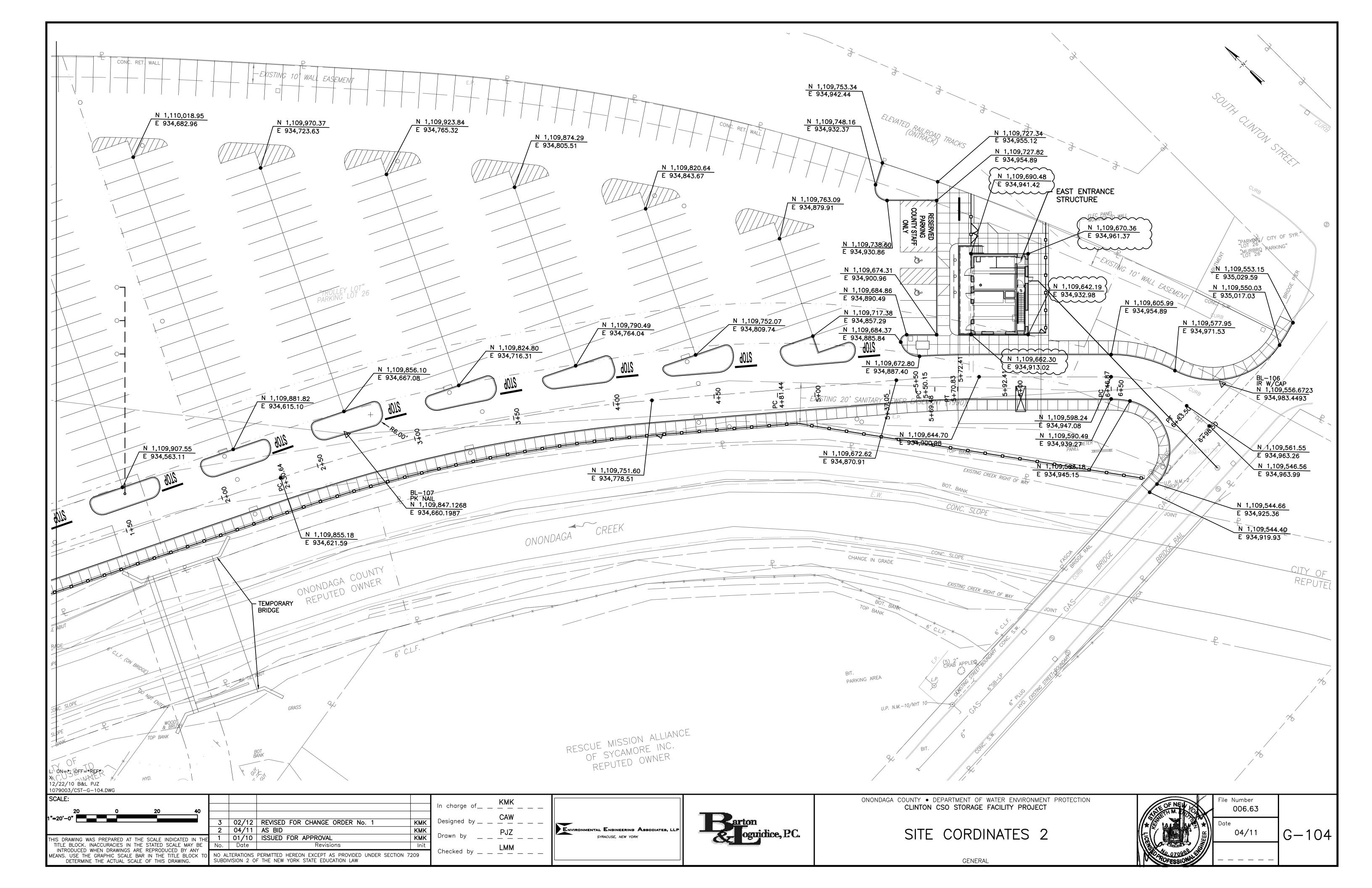


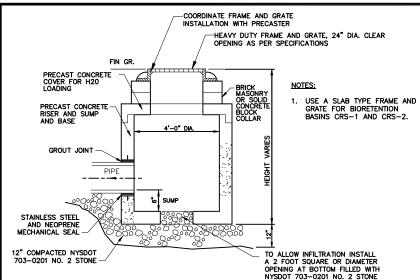












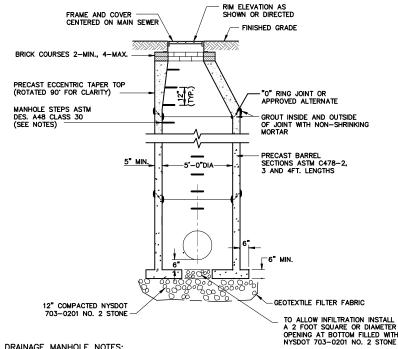
## 4' DIA. CONCRETE CATCH BASIN

### MANHOLE & CATCH BASIN NOTES

ON ALL IPIPES. AT ALL MANHOLES AND OTHER UNDERGROUND STRUCTURES. TWO (2) PIPE JOINTS SHALL BE INSTALLED WITHIN 4'-0" FROM OUTSIDE FACE OF MANHOLE OR STRUCTURE WALL.

STEPS SHALL BE FURNISHED FOR ALL MANHOLES IN ACCORDANCE WITH THE SPECIFICATIONS. ECCENTRIC CONES TO BE FURNISHED AND INSTALLED FOR ALL MANHOLES.

MANHOLE FRAMES ARE TO BE INSTALLED 3/8" BELOW PAVEMENT SURFACE AND MATCH SLOPE OF STREET GRADIENTS AND/OR CROWN OF PAVEMENT, DRIVEWAYS, PARKING AREAS AND OTHER LOCATIONS UNLESS OTHERWISE SPECIFIED. IN WALK AREAS, MATCH FRAME WITH WALK SURFACE AND SLOPE. IN UNCULTIVATED AREAS SET TOP OF FRAME AND COVER 6" ABOVE EXISTING GROUND SURFACE UNLESS



### DRAINAGE MANHOLE NOTES:

ON=\*; OFF=\*REF\*

MO/DA/YR CO DFT SCALE:AS NOTED

CONTRACTOR SHALL CONSTRUCT, AT NO EXTRA COST, MANHOLES WITH FLAT SLAB COVERS OF APPROVED DESIGN, WHERE THE MANHOLE DEPTH IS INSUFFICIENT TO PERMIT INSTALLATION OF A TAPER TOP OR WHERE OTHERWISE SHOWN.

# 5' DIA. DRAINAGE MANHOLE SECTION

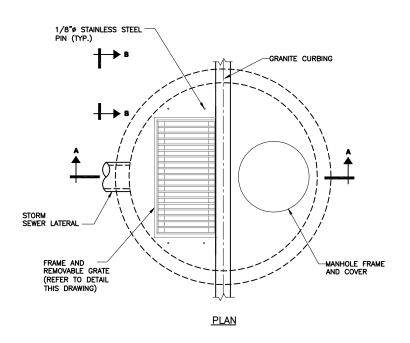
NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

NOT TO SCALE

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SUBDIVISION 2 OF THE NEW YORK STATE

## GRANITE CURBING, REFER TO DETAIL ON G-113 - 24" CLEAR OPENING ACCESS FRAME AND COVER PER SPECIFICATION. BOLT FRAME TO STRUCTURE WHEN LOCATED IN LAWN AREA HEAVY DUTY INLET FRAME AND BICYCLE TYPE GRATE, SEE DETAIL. THIS SHEET BRICK MASONRY OR OR SOLID CONCRETE BLOCK COLLAR FIN GR NOTES: FRAME AND GRATE FOR CATCH BASINS AT CURBS SHALL CONSIST OF A BICYCLE STYLE FRAME AND GRATE IN FRONT OF 1. CURB AND A 24" DIA, FRAME AND COVER BEHIND THE CURB -HS-20 FLAT SLAB TOP 2. CONTRACTOR SHALL COORDINATE FRAME AND GRATE INSTALLATION WITH PRE-CASTER AS NEEDED. PIPE\_ 6" MIN. FOR ANTIFLOTATION. 12" MIN. NYSDOT — 703-0201 NO. 2 STONE - GEOTEXTILE FILTER FABRIC

### 6' DIA. CATCH BASIN CURB INLET - SECTION A NOT TO SCALE



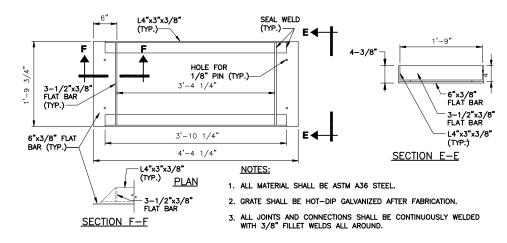
# 6' DIA. CATCH BASIN AT CURB INLET - PLAN

IN LIEU OF PROVIDING 2 JOINTS WITHIN 4 FEET OF THE STRUCTURE, IT IS ACCEPTABLE TO PROVIDE 1 JOINT WITHIN 2 FEET OF THE STRUCTURE.

THE USE OF MORTAR UP OVER THE EDGES OF THE BICYCLE TYPE FRAMES WILL BE ADEQUATE. IN LIEU OF PINS

## L3-1/2"x2-1/2"x3/8" (TYP.) 3"x1/2" FLAT lc**∢** 3-1/2"x1/2" FLAT BAR — 3-1/2"x1/2" FLAT BAR — \_ 3 1/2" 2 1/2" -3'-2 3/4" 18" Ø STAINLESS STEEL PINS — -L3-1/2"x2-1/2" x3/8" (TYP.) <u>PLAN</u> SECTION C-C SECTION B-B SECTION D-D

# 'BICYCLE TYPE' CATCH BASIN GRATE DETAIL



'BICYCLE TYPE' CATCH BASIN FRAME DETAIL

RECORD DRAWING

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DATE: 05/16 PER: RCF

Gunez C. Hack

RCF charge of\_ . GSL GSL

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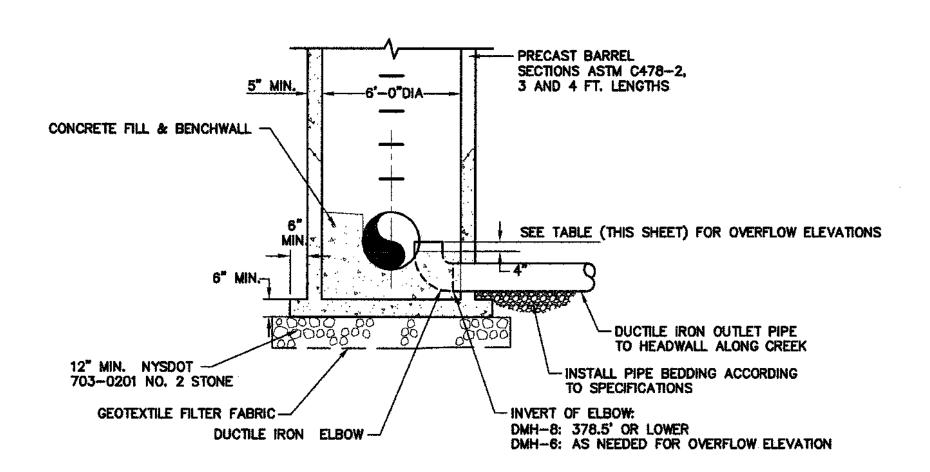
ONONDAGA COUNTY • DEPARTMENT OF WATER ENVIRONMENT PROTECTION CLINTON CSO STORAGE FACILITY PROJECT

# MISCELLANEOUS STORMWATER DETAILS



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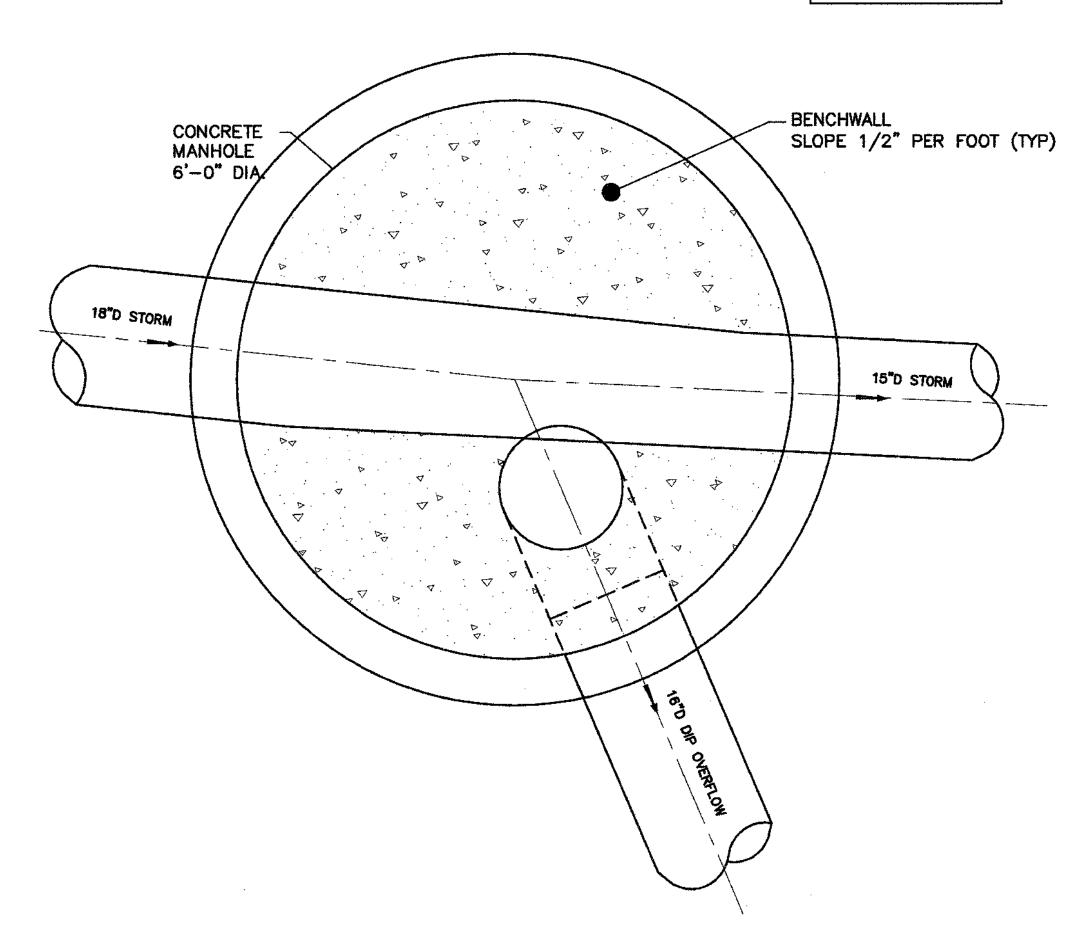


# DRAINAGE MANHOLE WITH OVERFLOW — TYPICAL SECTION NOT TO SCALE

1. SEE PROFILES FOR INLET AND OUTLET ELEVATIONS.

2. INVERT OF OVERFLOW MANHOLE SHALL BE AS NEEDED TO FIT OVERFLOW ELBOW.

OVERFLOW ELEVATIONS: DMH-6: 380.5' DMH-8: 381.0'

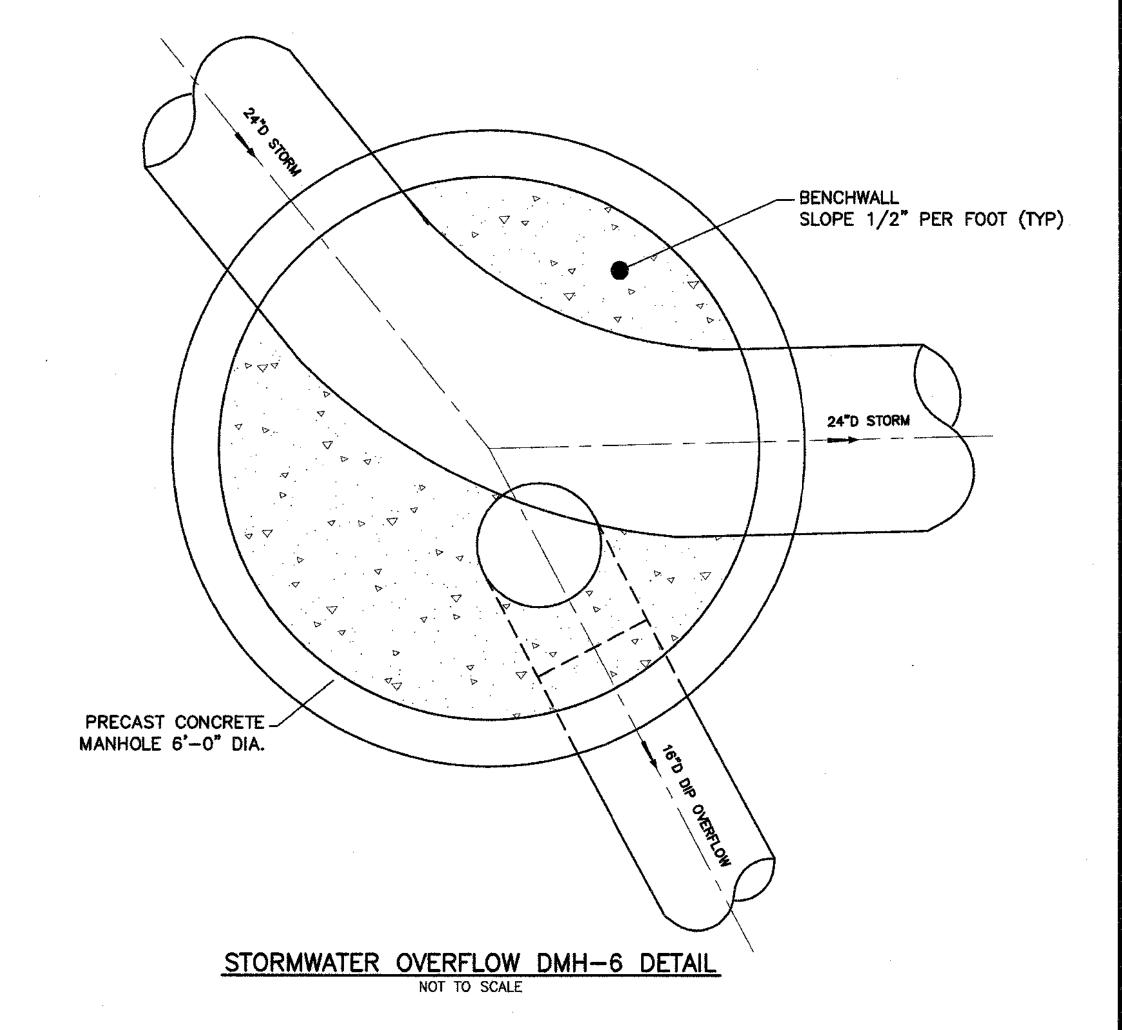


STORMWATER OVERFLOW DMH-8 DETAIL

NOT TO SCALE

Drawn by

Checked by \_\_ \_



: ON=\*; OFF=\*REF\*

MO/DA/YR CO DFT

SCALE:AS NOTED

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1 02/12 CHANGE ORDER NO. 1 Goth No. 1 Date Revisions Init No. 2 Date



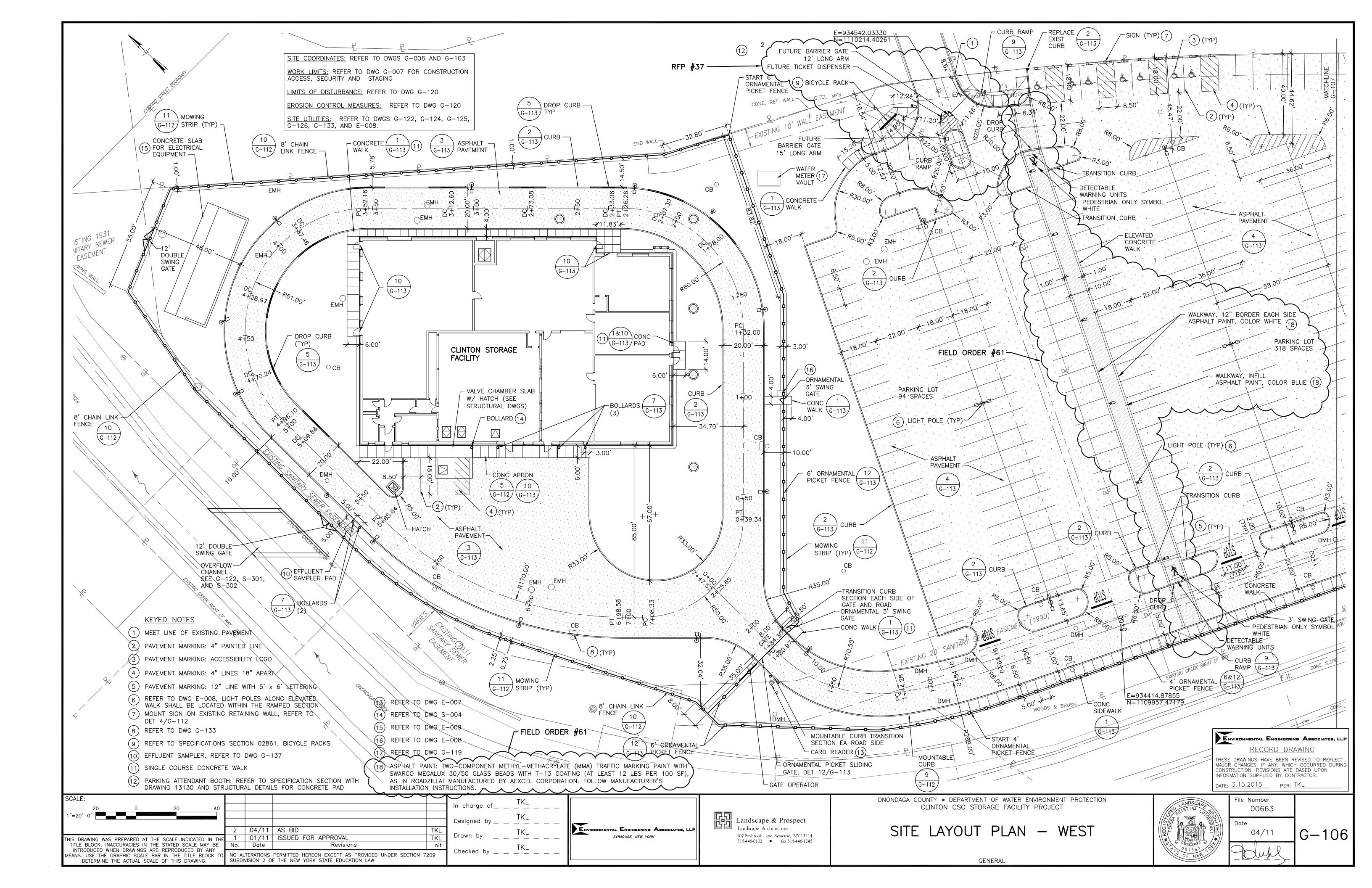
ENVIRONMENTAL ENGINEERING ASSOCIATES, LLP

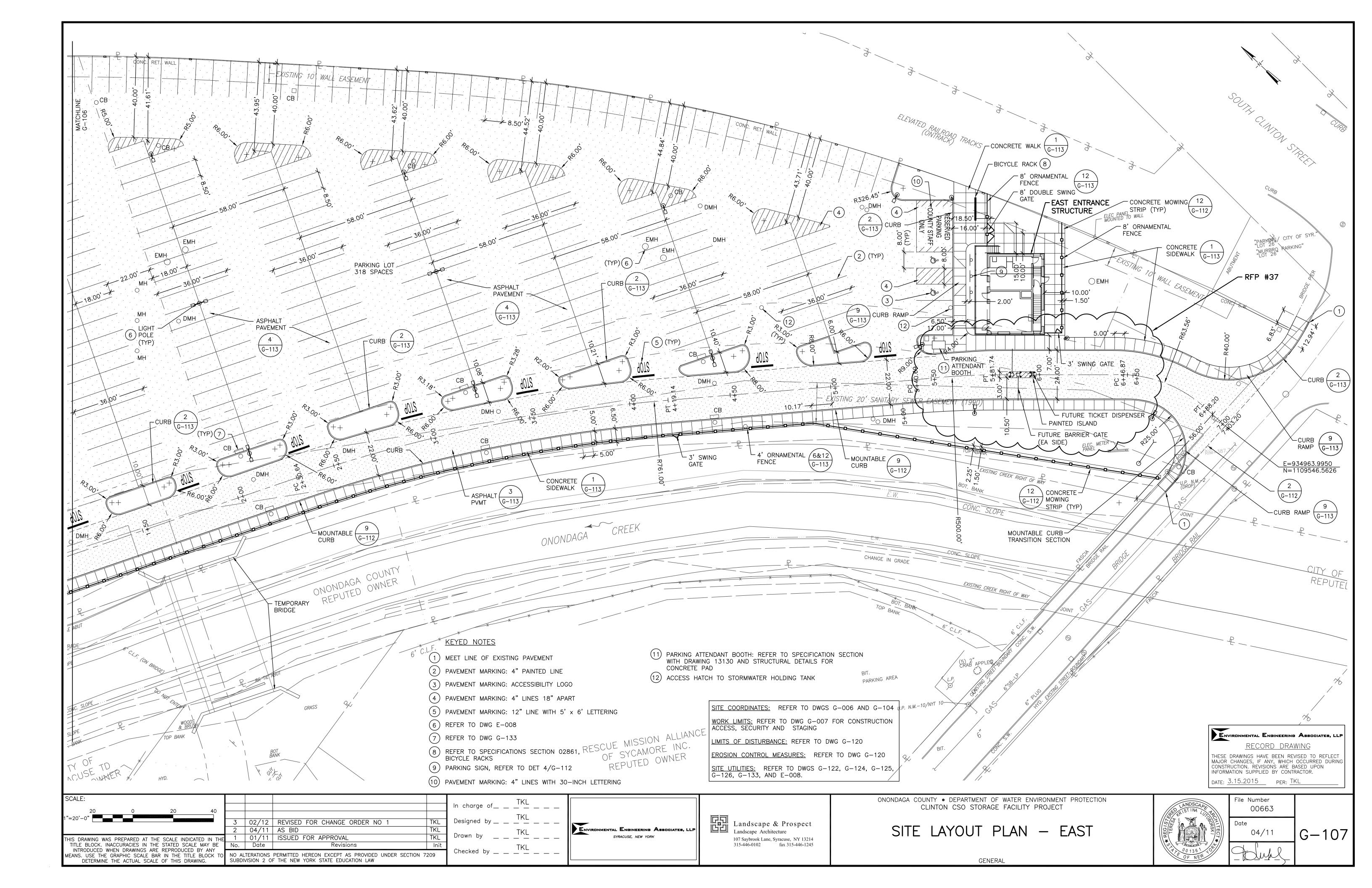
SYRACUSE, NEW YORK

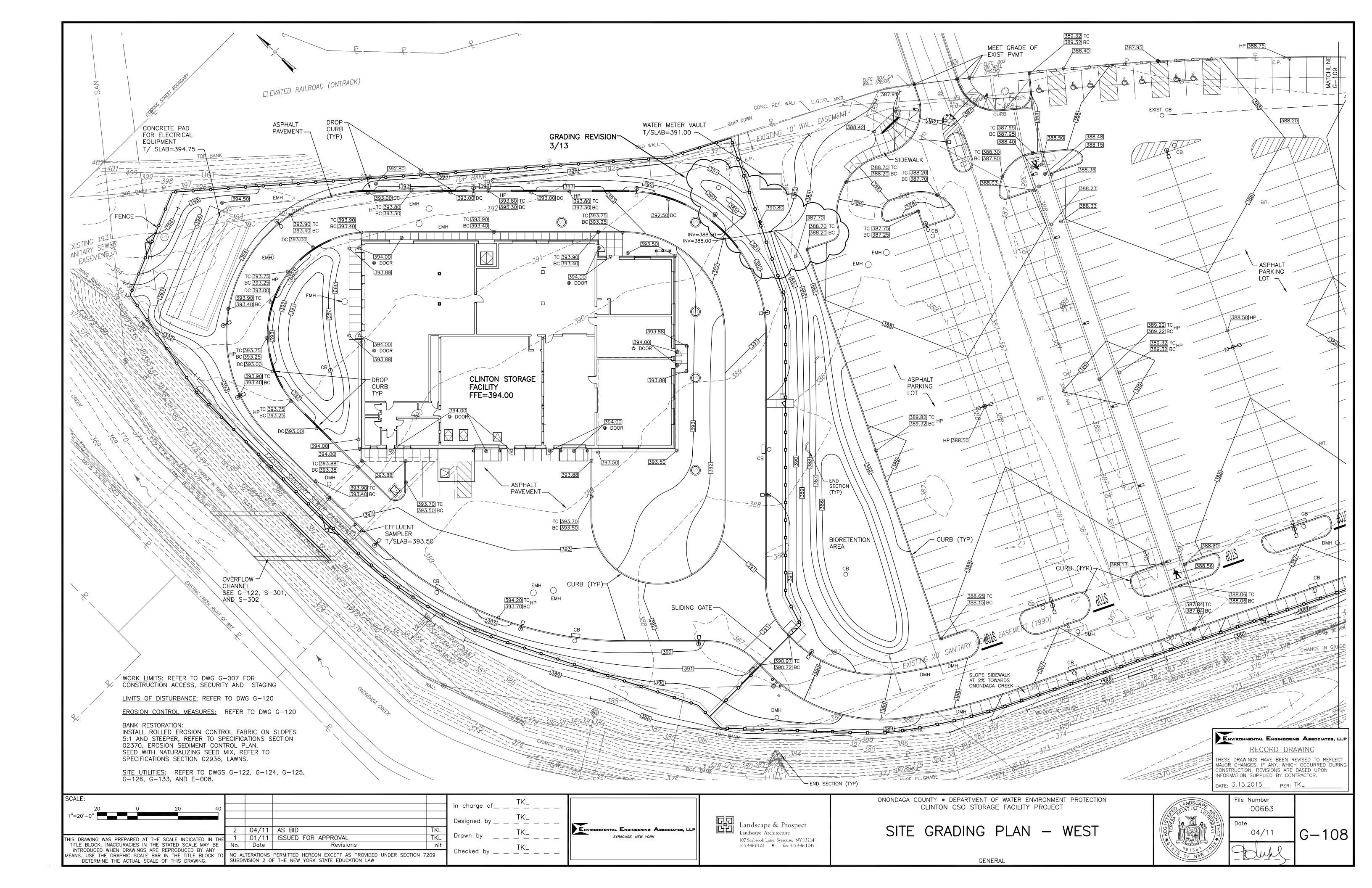
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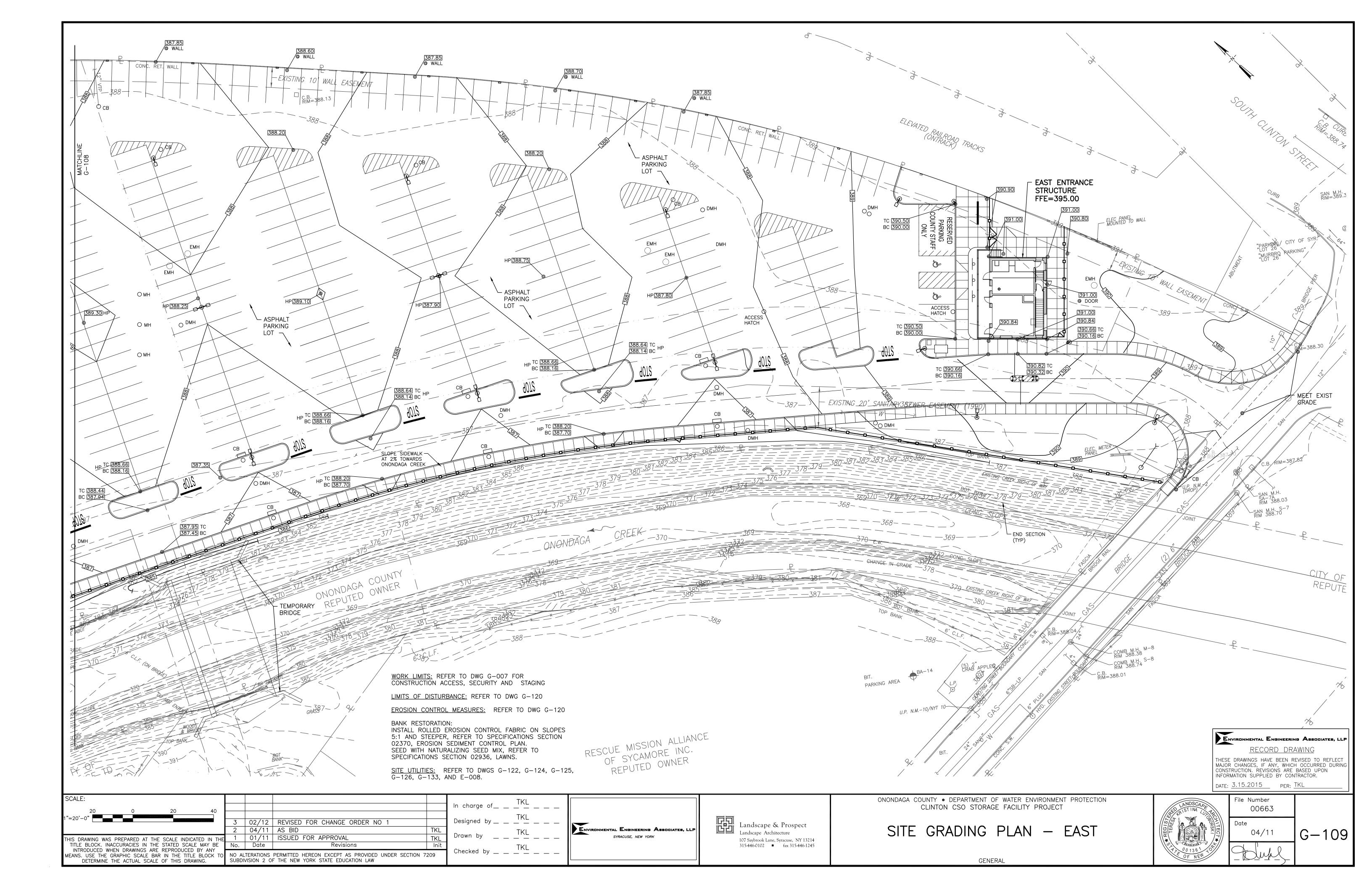
MISCELLANEOUS STORMWATER DETAILS

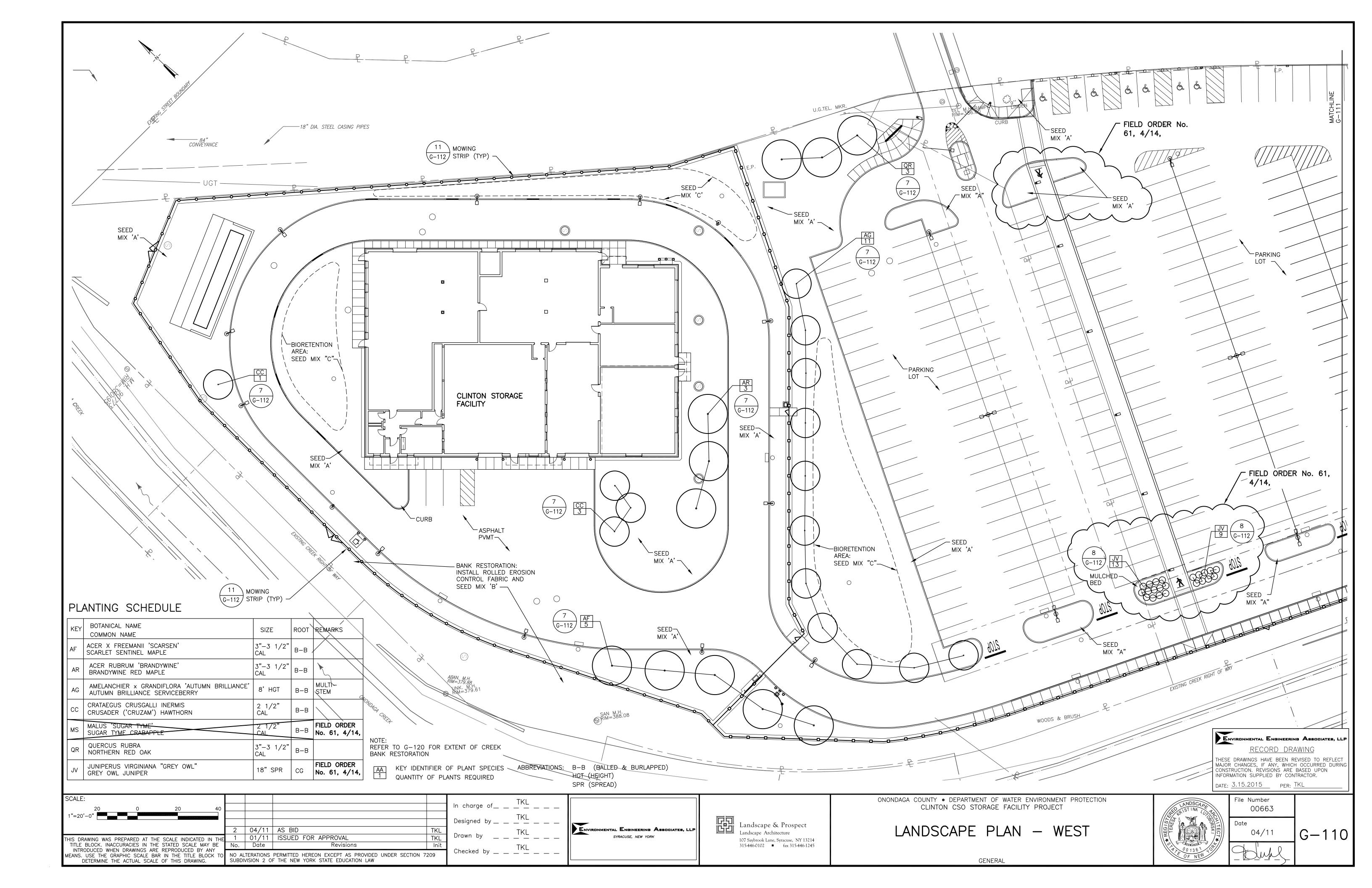
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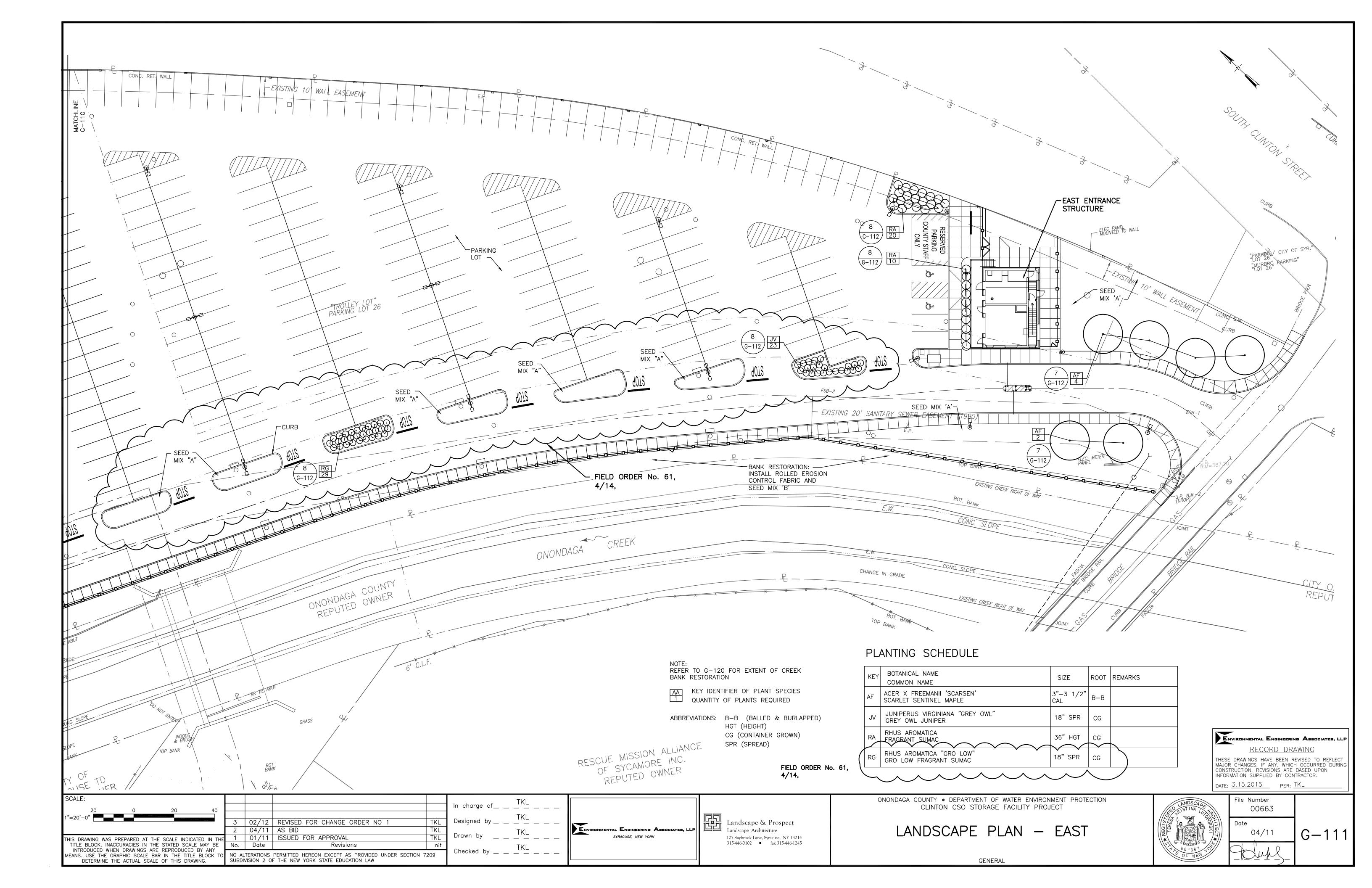


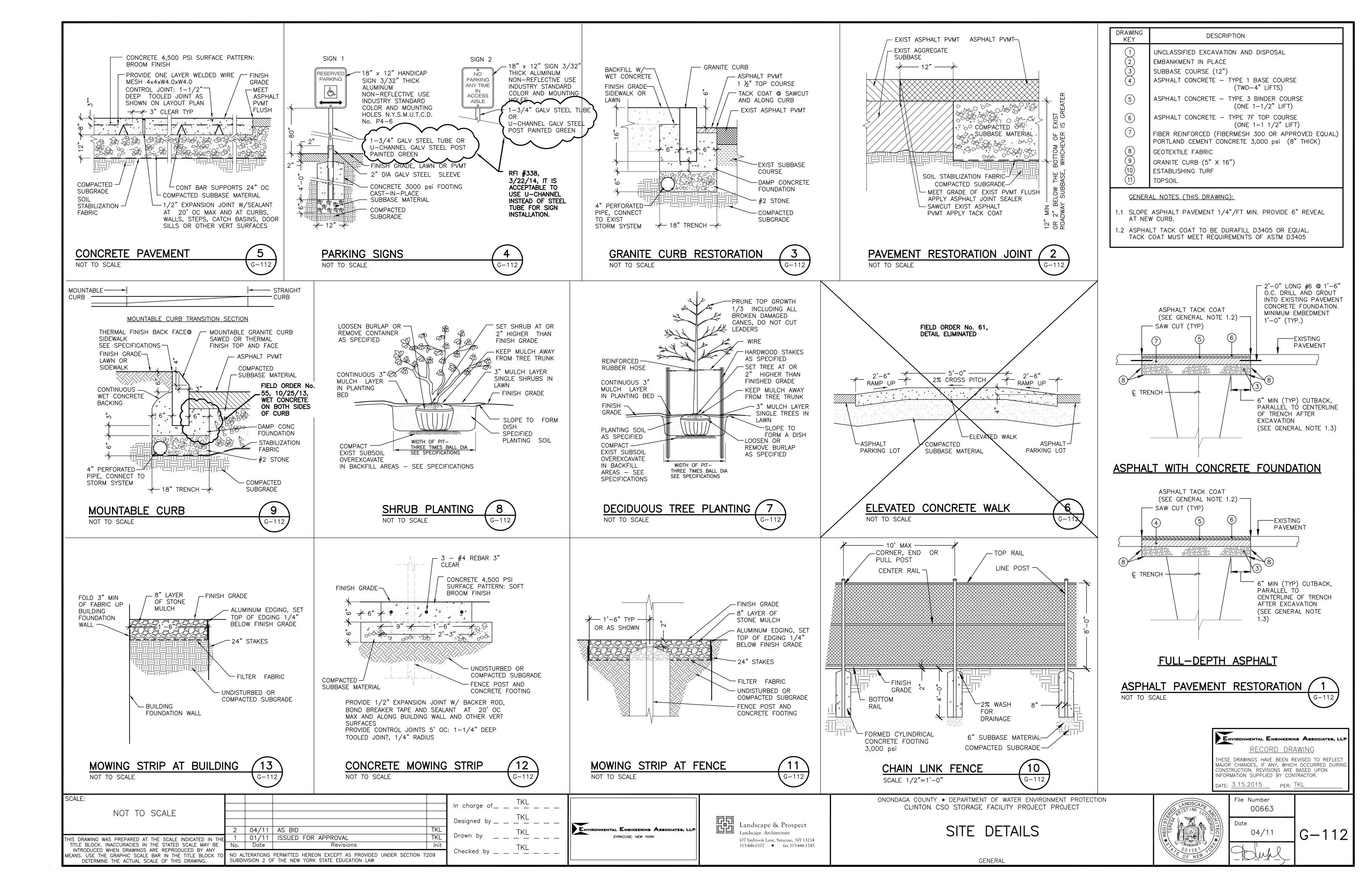


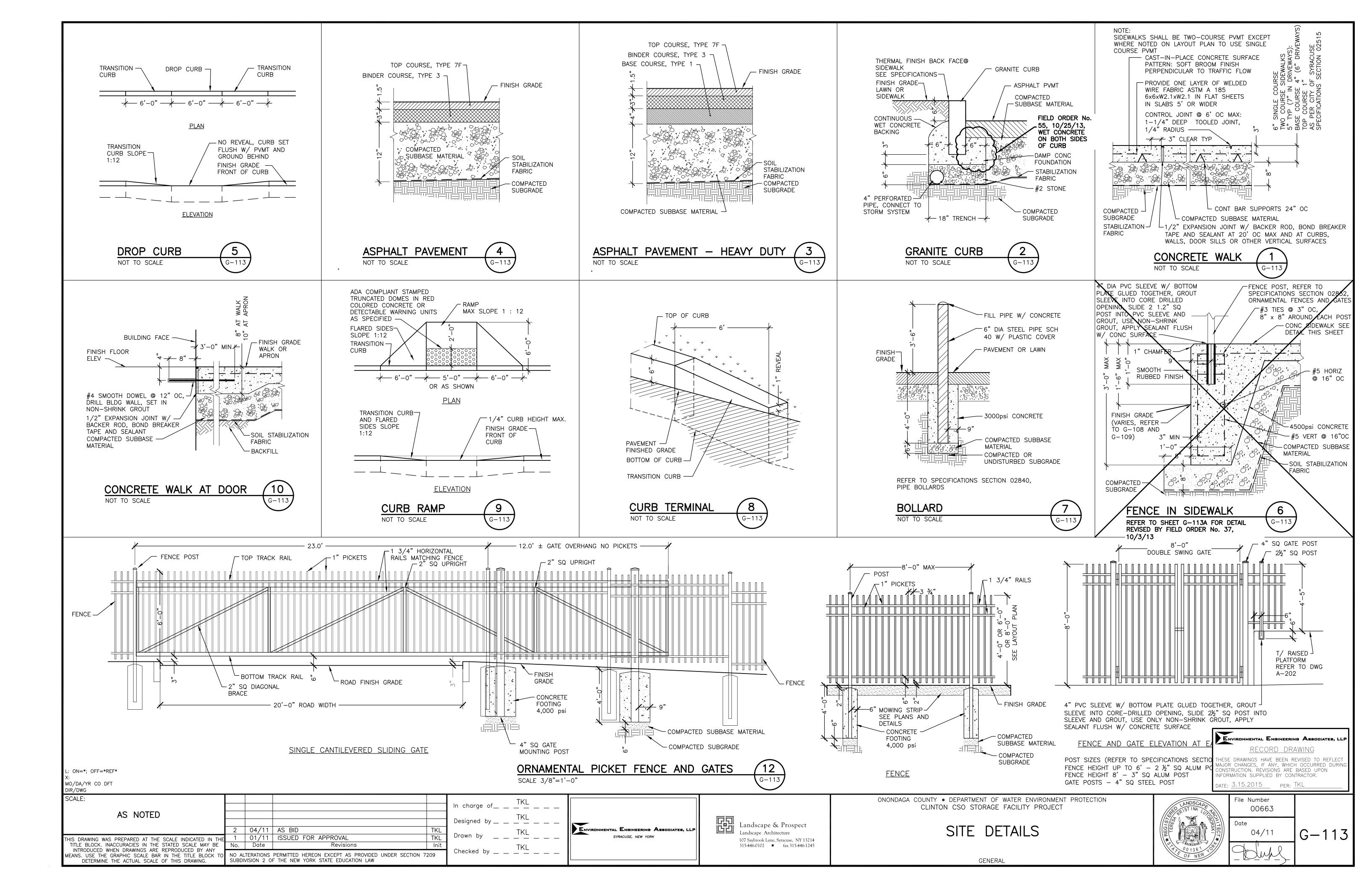


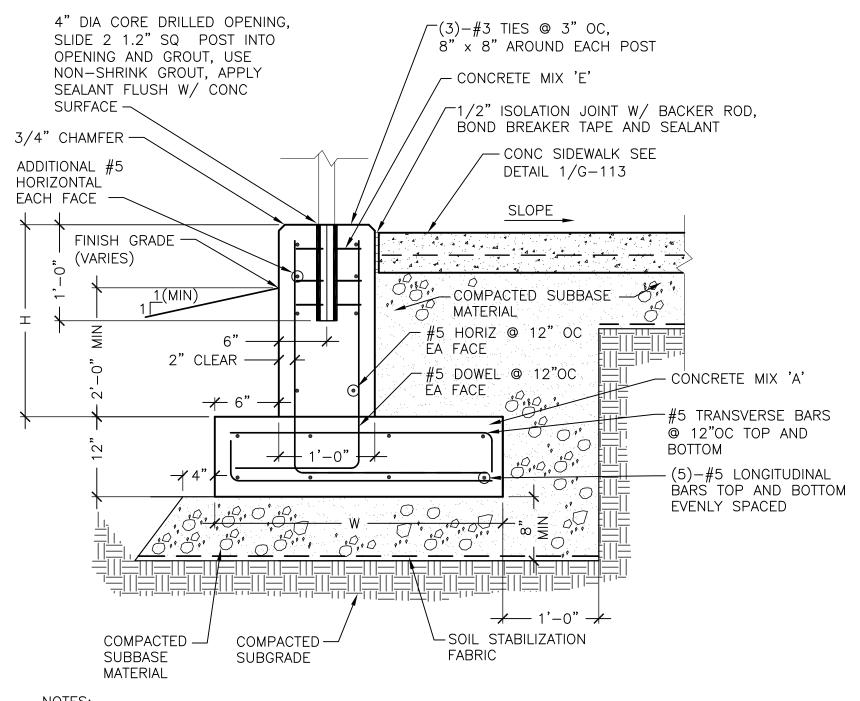












BENT BAR SIZE TO MATCH SIZE
AND SPACING OF LONGITUDINAL
BARS

RETAINING	WALL CHART
H (MAX)	W (MIN)
3'-0"	2'-0"
4'-0"	3'-0"
5'-0"	4'-0"

NOTES:

- 1. PROVIDE WALL CONTROL JOINTS AT EVERY SIDEWALK EXPANSION JOINT LOCATION.
- 2. PROVIDE 1-INCH EXPANSION JOINT IN THE WALL EVERY 250(±) FEET. INSTALL #8 SLIP DOWELS IN ACCORDANCE WITH SECTION 03250. IN LIEU OF CASTING IN A PLASTIC SLEEVE, IT WOULD BE ACCEPTABLE TO DRILL A 1 1/4-INCH HOLE INTO HARDENED CONCRETE

FENCE IN SIDEWALK, SHORT WALL, REVISED DETAIL 6/G-113 /

OT TO SCALE

G-113A

L: ON=\*; OFF=\*REF\* X: MO/DA/YR CO DFT DIR/DWG

DIR/DWG

SCALE:

AS NOTED

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SYRACUSE, NEW YORK



ONONDAGA COUNTY • DEPARTMENT OF WATER ENVIRONMENT PROTECTION CLINTON CSO STORAGE FACILITY PROJECT

SITE DETAILS

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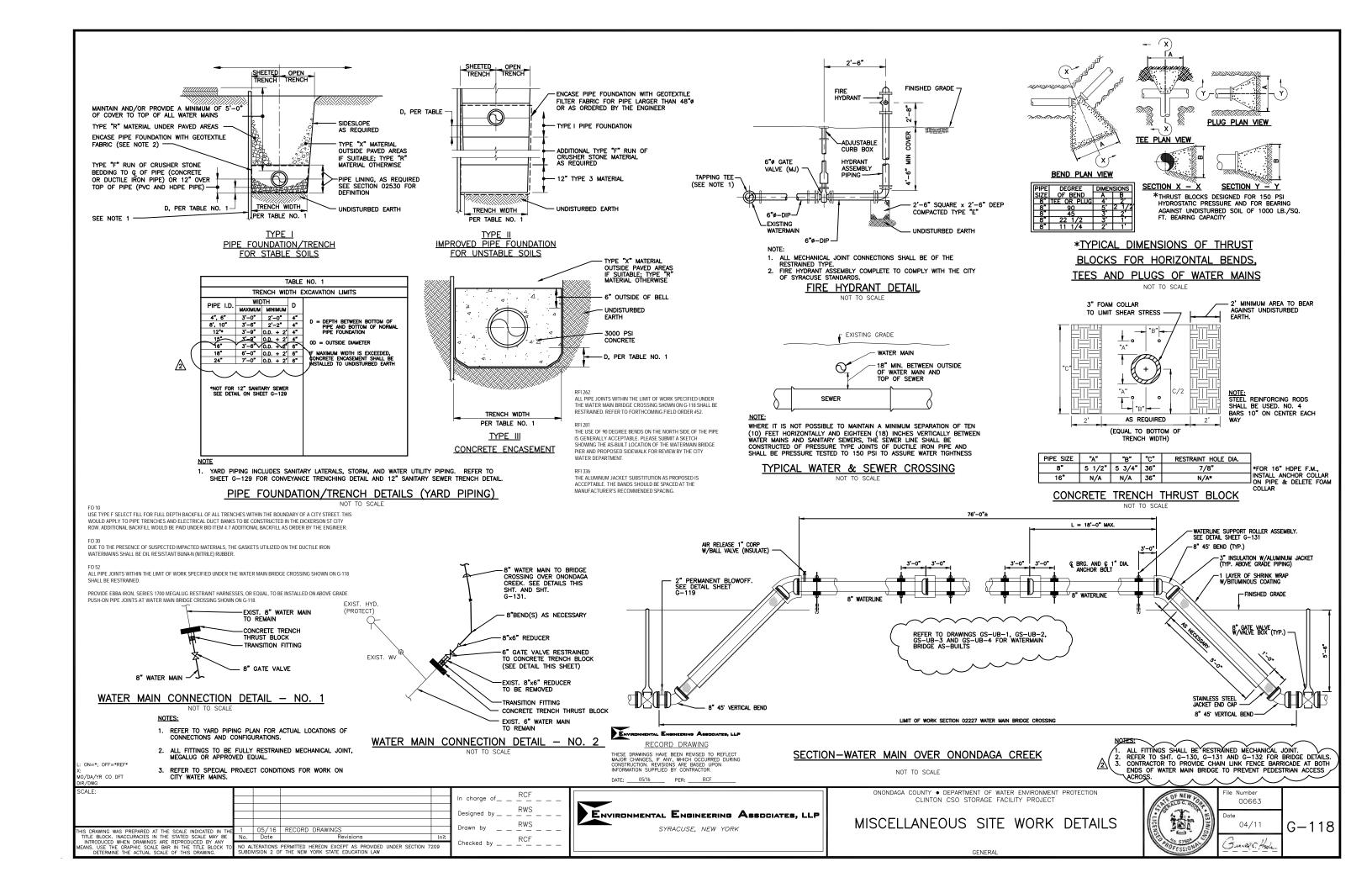
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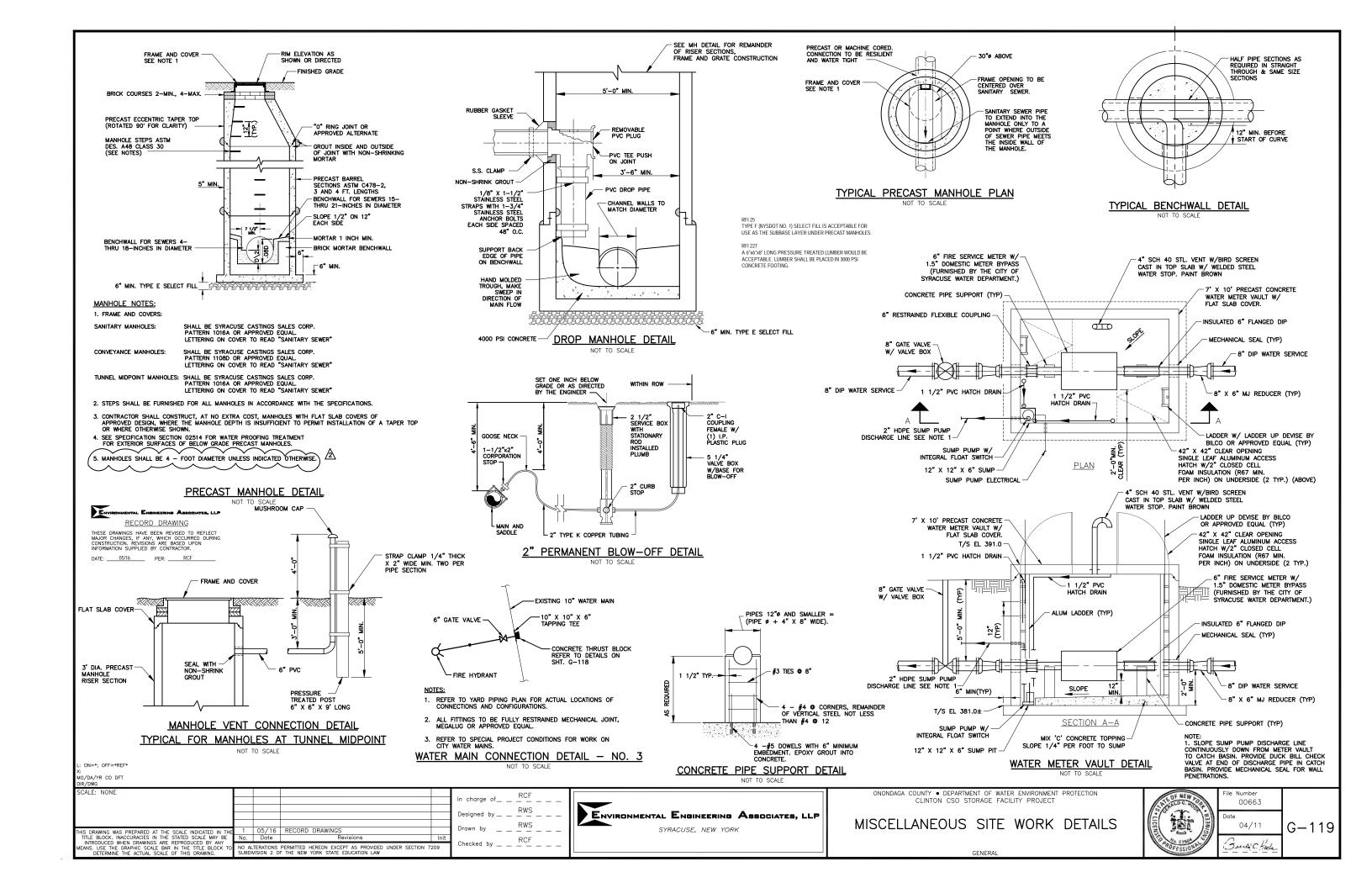
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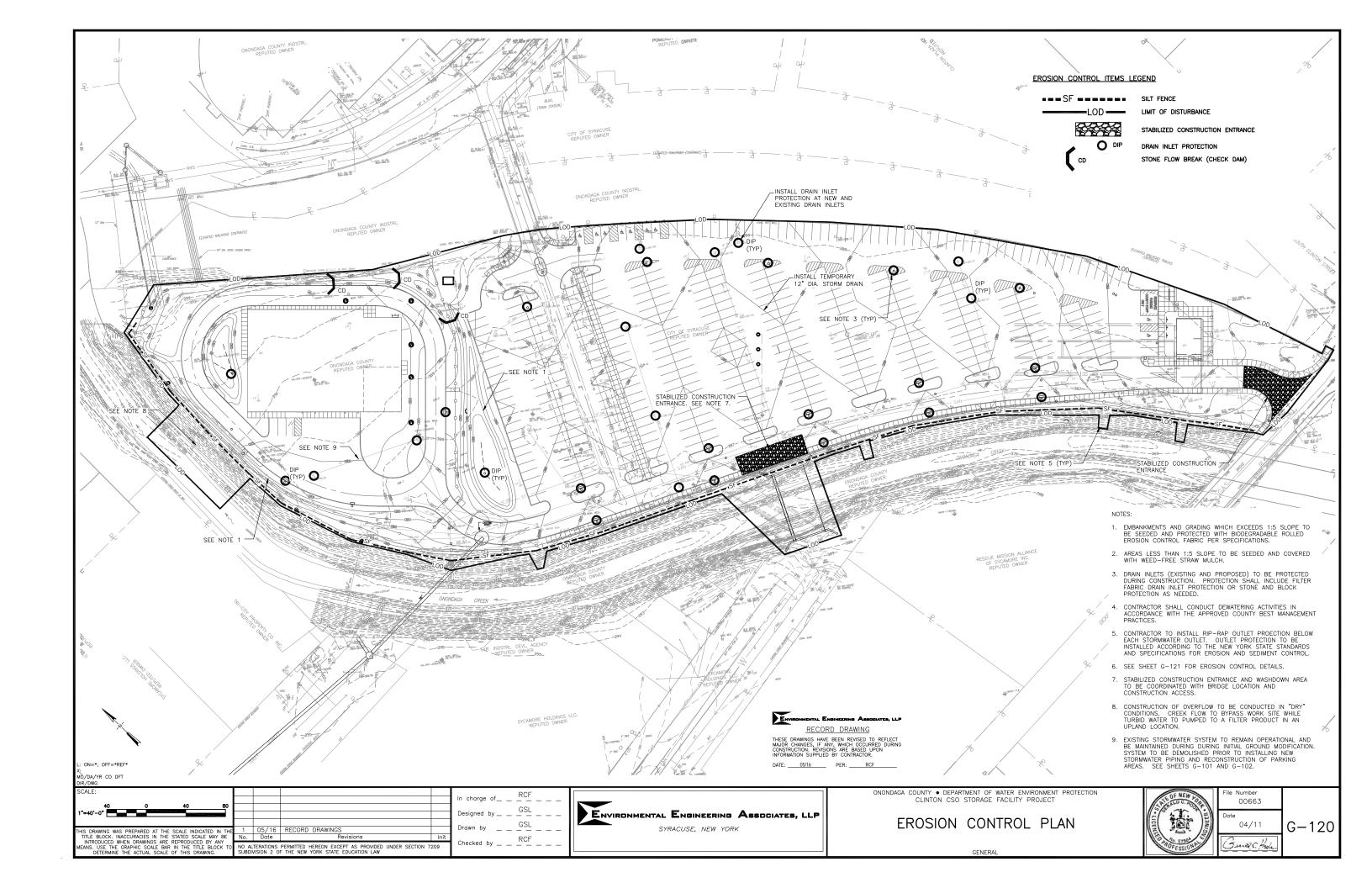
RECORD DRAWING

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### **EROSION CONTROL NOTES:**

- 1. CONTRACTOR TO OBTAIN AND REFERENCE THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENTATION CONTROL, LATEST EDITION" AS HE CONDUCTS EROSION CONTROL OPERATIONS. ALL SITE EROSION CONTROLS SHALL FOLLOW THE STATE STANDARDS AND THE NOTES AND DETAILS ON THIS DRAWING
- 2. CONTRACTOR RESPONSIBLE FOR COMPLYING WITH SECTION 4 OF THE NEW YORK STATE SPDES GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES (GP-0-10-011) AND SHALL HAVE A TRAINED CONTRACTOR PRESENT ON THE SITE DAILY.
- 3. CONSTRUCTION ACTIVITIES AT THE SITE WILL INVOLVE SITE PREPARATION NECESSARY FOR CONSTRUCTION OF VARIOUS FACILITIES, INSTALLATION OF UNDERGROUND UTILITIES, CONSTRUCTION OF VEHICULAR ACCESSWAYS, AND CONSTRUCTION OF THE PROPOSED STORMWATER MANAGEMENT SYSTEMS. THESE ACTIVITIES PRIMARILY INCLUDE EXCAVATION, HAULING AND STOCKPILING OF TOP AND SUBSOILS; ROUGH GRADING; SURFACING OF DRIVEWAYS; AND TRENCHING, BEDDING, AND BACKFILL ASSOCIATED WITH FOUNDATION AND UNDERGROUND UTILITIES.
- 4. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO COMMENCEMENT OF ANY SOIL DISTURBING ACTIVITIES AND WILL REMAIN IN PLACE UNTIL FINAL SITE STABILIZATION IS COMPLETE. LIMITING THE EXPOSED SOILS WILL REDUCE THE AMOUNT OF SEDIMENTS IN RUNOFF WATER AND ULTIMATELY PRESERVE THE QUALITY OF SURFACE WATERS.
- 5. TEMPORARY AND PERMANENT STABILIZATION WILL BE IMPLEMENTED BEFORE CONSTRUCTION BEGINS AND WILL BE CONTINUALLY MODIFIED THROUGHOUT THE PROJECT TO PROVIDE THE BEST METHODS FOR STORMWATER MANAGEMENT AND POLLUTION PREVENTION. A GENERAL CONSTRUCTION SEQUENCE SCHEDULE IS AS

- PRECONSTRUCTION ACTIVITIES

   IDENTITY ON-SITE AND DOWNSTREAM SURFACE WATER BODIES AND INSTALL CONTROLS TO PROTECT THEM FROM SEDIMENT.

   CONDUCT A PRECONSTRUCTION MEETING WITH OWNER AND ENGINEER AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION.

- DURING CONSTRUCTION ACTIVITIES

  INSTALL PERIMETER SEDIMENT CONTROLS SUCH AS SILT FENCE AS SHOWN ON THE PROJECT PLANS.

  INSTALL CONSTRUCTION FENCE AS NEEDED.

  ESTABLISH CONSTRUCTION STAGING AND SOIL STOCKPILE AREAS ASSOCIATED AS SHOWN ON SITE PLANS.

  INSTALL TEMPORARY CONSTRUCTION ACCESS AND ANTI-TRACKING PAD AS SHOWN ON THE PROJECT PLANS.

  CONTRACTOR RESPONSIBLE FOR MAINTAINING EXISTING STORMWATER SYSTEM IN PARKING AREA DURING INITIAL CONSTRUCTION STAGE. DRAIN INLET PROTECTION TO BE INSTALLED IN ACCORDANCE WITH PROJECT SWPPP TO PREVENT SEDIMENTATION DURING CONSTRUCTION.
- DURING CONSTRUCTION.
  DEWATER WORK SITE IN ACCORDANCE WITH APPROVED COUNTY BEST MANAGEMENT

- DEWALER WORK SITE IN ACCORDANCE WITH APPROVED COUNTY BEST MANAGEMENT PRACTICES.

  INSTALL UNDERGROUND UTILITY WORK, INCLUDING STORMWATER DRAINS AND OTHER YARD PIPING. AS WELL AS PERMANENT OUTLET STRUCTURE IN STORMWATER WETLAND.

  SURFACE GRADE BUILDING CONSTRUCTION. THIS INCLUDES INTERIOR/EXTERIOR BUILDING, INSTRUMENTS, AND OTHER PROCESS—RELATED ITEMS.

  SITE RESTORATION AND FINAL GRADING.
  FILUSH AND CLEAN ALL STORM DRAIN SYSTEMS TO REMOVE SEDIMENT.
  TOPSOIL AND SEED DISTURBED AREAS EXCEPT FOR STORMWATER MANAGEMENT AREAS.

  FINAL CLEANING AND STABILIZATION OF BIORETENTION BASINS AND SWALE. THIS WORK INCLUDES REMOVING SEDIMENT BUILDUP FROM BASINS, SEDIMENT FOREBAYS AND CATCH BASINS. AFTER CLEANING, ALL AREAS SHALL BE INSPECTED FOR VEGETATIVE GROWTH AND REPLANTED AS NEEDED.

  OUTFALL CONSTRUCTION ALONG CREEK TO BE CONSTRUCTED IN A MANNER WHICH AVOIDS AND MINIMIZES WATER SEDIMENTATION IN DOWNSTREAM WATERS.

  INSTALL LANDSCAPING AND ESTABLISH VEGETATIVE GROWTH FOR DISTURBED AREAS AND INSTALL BANK RESTORATION MEASURES IN ACCORDANCE WITH SPECIFICATIONS AND LANDSCAPING PLANS.

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DATE: \_\_\_\_\_05/16 \_\_\_\_ PER: \_\_\_\_\_RCF

ON=\*: OFF=\*RFF\*

MO/DA/YR CO DET

- POST\_CONSTRUCTION ACTIVITIES

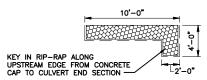
  CONDUCT A POST\_CONSTRUCTION INSPECTION WITH OWNER AND ENGINEER.

  REPAIR ITEMS IDENTIFIED IN THE POST\_CONSTRUCTION INSPECTION.

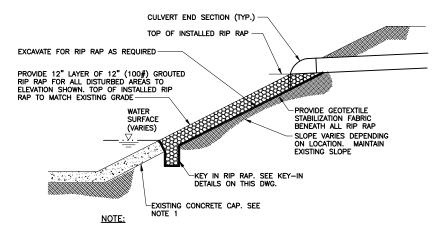
  REMOVE PERIMETER SILT FENCE AND OTHER TEMPORARY SEDIMENT CONTROLS.

# 12" (100#) RIP RAP-**EXISTING** CONCRETE - GEOTEXTILE STABILIZATION FABRIC 2'-0"

# KEY-IN SECTION (AT CONCRETE CAP)

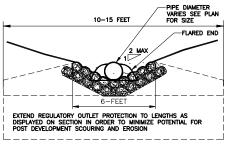


# RIP-RAP KEY-IN DETAIL (LONGITUDINAL)



# REMOVE EXISTING CONCRETE CAP AS NECESSARY TO INSTALL RIP—RAP. REPLACE WITH NEW CONCRETE TO MATCH EXISTING CONCRETE. MATCH EXISTING SLOPES.

#### TYPICAL RIP-RAP OUTLET PROTECTION DETAIL NOT TO SCALE



END VIEW

## RIP RAP OUTLET PROTECTION NOT TO SCALE

RCF GSL Designed by \_\_ \_ GSL \_ \_ Checked by \_ \_ \_ RCF

ENVIRONMENTAL ENGINEERING ASSOCIATES, LLP SYRACUSE, NEW YORK

WOVEN WIRE FENCE (14.5 GAUGE MINIMUM, MAXIMUM 6" MESH SPACING) WITH FILTER CLOTH OVER PERSPECTIVE DETAIL 10' MAXIMUM & TO & - 36" MINIMUM LENGTH FENCE POST, DRIVEN A MINIMUM OF 16" INTO 16" MINIMUM HEIGHT OF FILTER CLOTH FLOW 36" MINIMUM FENCE POST LENGTH FENCE POST SECTION MINIMUM 20" ABOVE WOVEN WIRE FENCE (14.5 GAUGE MINIMUM, MAXIMUM 6" MESH SPACING) WITH FILTER CLOTH OVER UNDISTURBED GROUND FENCE POST DRIVEN A MINIMUM OF 16" EMBED FILTER CLOTH A MINIMUM OF 8" INTO GROUND CROSS SECTION

#### CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

LONSTRUCTION NOTES FOR FABRICATED SILT FERVE.

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.

2. FILTER COTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.

3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPED BY SIX INCHES AND FOLDED.

4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

5. POST: STEEL ETHER "" OR "" TYPE OR 2" HARDWOOD

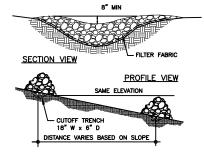
6. FENCE: WOVEN WIRE, 14.5 GAUGE 6" MAXIMUM MESH OPENING FILTER C.

7. CLOTH: FILTER X. MIRSH 100X, STABLINKO T140N OR APPROVED EQUAL

8. PREFABRICATED UNIT: GEOFAB. ENVIROFENCE, OR APPROVED EQUAL

#### SILT FENCE NOT TO SCALE

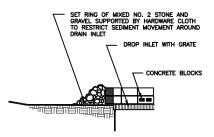
REPRODUCED FROM NEW YORK STANDARDS AND SPECIFICATIONS
FOR EROSION AND SEDIMENT CONTROL



## NOTE: FLOW BREAK MOUND SHALL BE BUILT WITH 2"-4"-8" SIZE MIXED CRUSHED STONE

## STONE FLOW BREAK

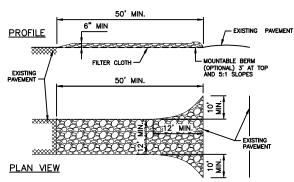
NOT TO SCALE REPRODUCED FROM NEW YORK STANDARDS AND SPECIFICATIONS
FOR EROSION AND SEDIMENT CONTROL



# NOTES: 1. HARDWARE CLOTH OR 1/4" INCH WIRE MESH SHALL BE PLACED OVER GRATE AND BLOCKS TO SUPPORT STONE.

# STONE AND BLOCK INLET PROTECTION

NOT TO SCALE REPRODUCED FROM NEW YORK STANDARDS AND SPECIFICATIONS
FOR EROSION AND SEDIMENT CONTROL



CONSTRUCTION SPECIFICATIONS:

STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

1. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY)

2. THICKNESS - NOT LESS THAN SIX (6) NCHES.

3. WIOTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS, TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO

WHERE INGRESS OR ÉGRESS OCCURS, TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.

4. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERN WITH 51: SLOPES WILL BE PERMITED.

6. MANTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING SEDIMENT ONTO PUBLIC RIGHTS OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

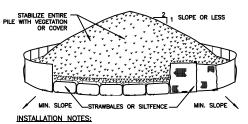
7. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT—OF—WAYS MUST BE REMOVED IMMEDIATELY.

8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT—OF—WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH ALSO DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

EVICE. Periodic inspection and needed maintenance shall be provided after each rain.

#### STABILIZED CONSTRUCTION ENTRANCE NOT TO SCALE

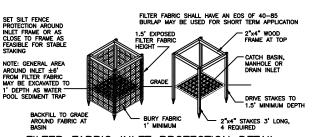
REPRODUCED FROM NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL



AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
 JUPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERD.

### SOIL STOCKPILE DETAIL

NOT TO SCALE REPRODUCED FROM NEW YORK STANDARDS AND SPECIFICATIONS
FOR FROSION AND SEDIMENT CONTROL



#### FILTER FABRIC INLET PROTECTION DETAIL NOT TO SCALE

REPRODUCED FROM NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

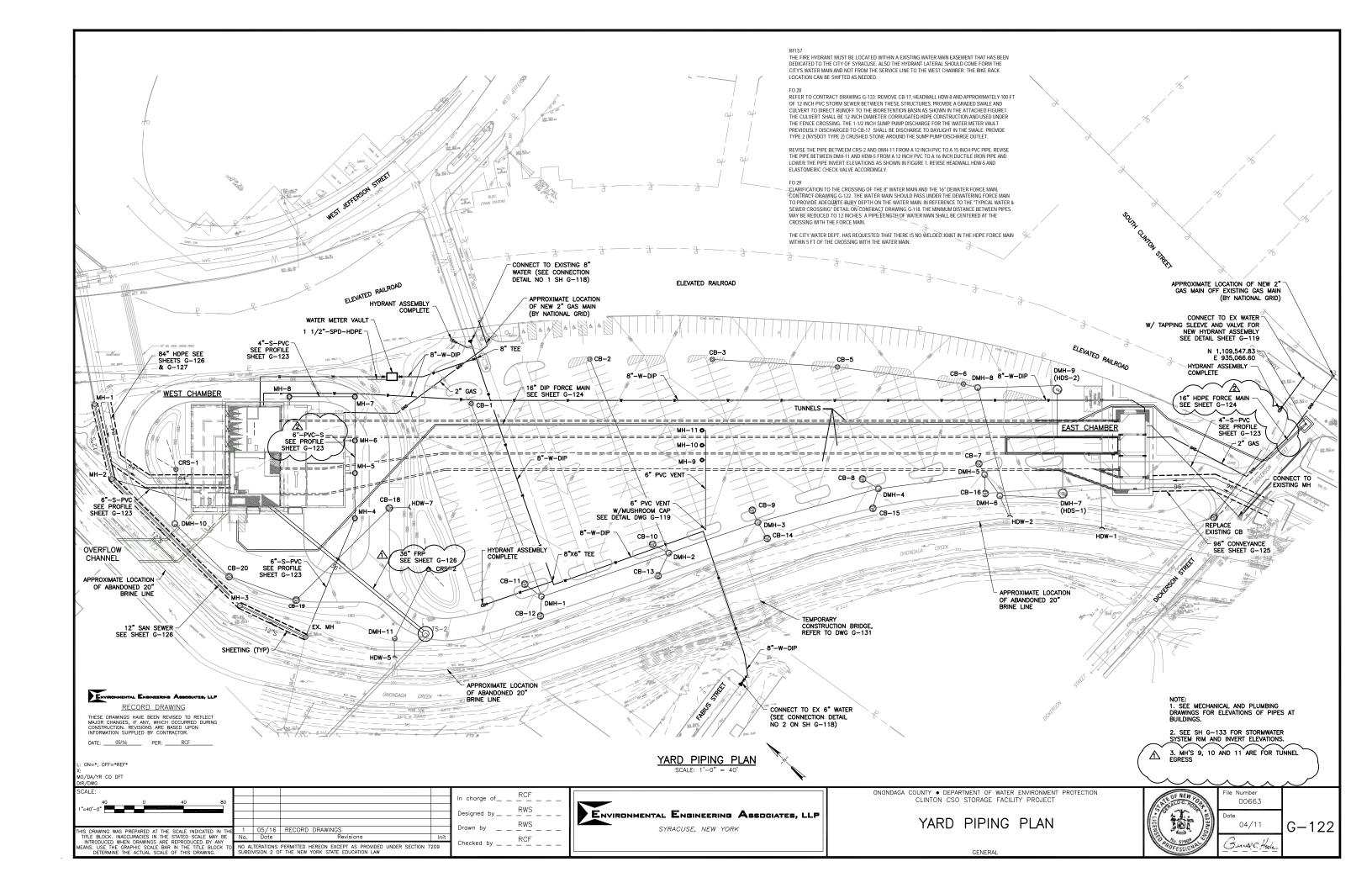
EROSION CONTROL DETAILS AND NOTES

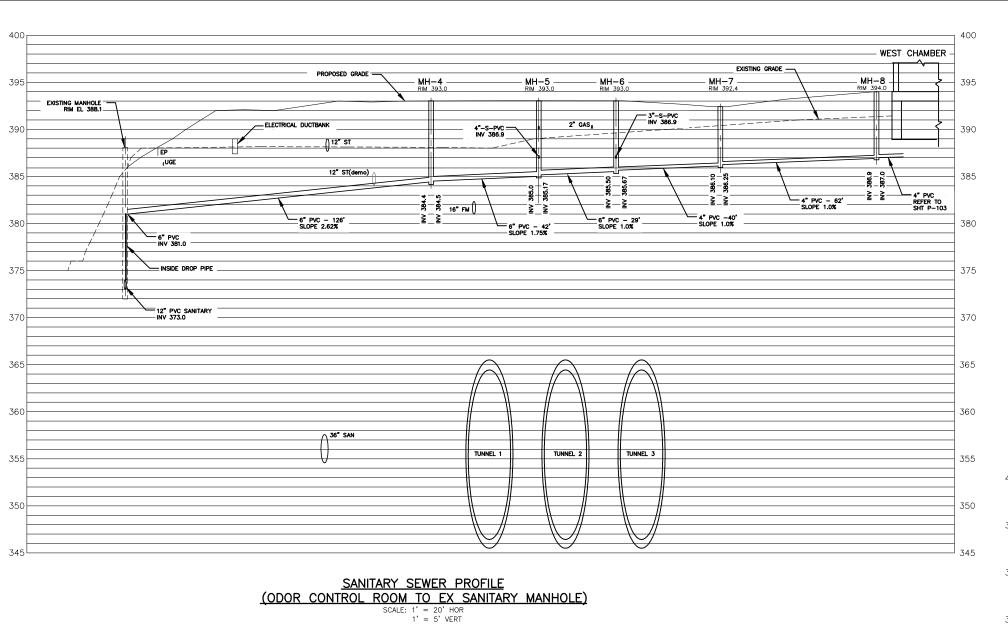
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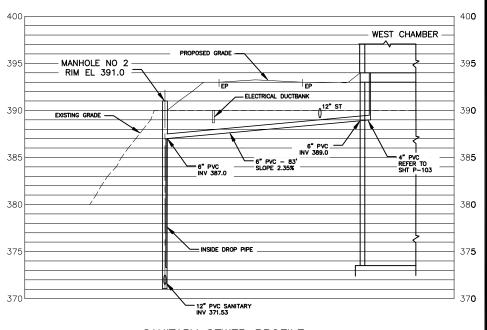
CLINTON CSO STORAGE FACILITY PROJECT



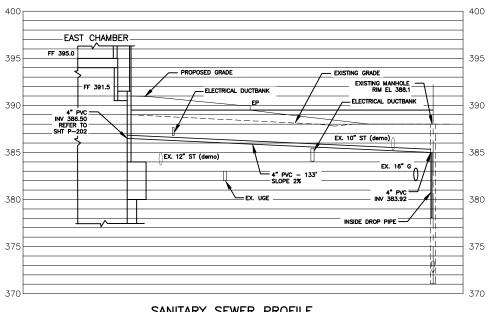
G - 121June C. Hools











# SANITARY SEWER PROFILE (EAST CHAMBER TO EXISTING SANITARY MANHOLE 7A)

SCALE: 1' = 20' HOR 1' = 5' VERT

RECORD DRAWING

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: \_\_\_\_\_05/16 \_\_\_\_ PER: \_\_\_\_\_RCF

MO/DA/YR CO DFT DIR/DWG SCALE: In charge of\_ \_ 1"=5'-0" THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCUPACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING. SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

ON=\*; OFF=\*REF\*

RCF Designed by \_ \_ \_ RWS \_ \_ RWS \_ \_ Checked by \_ \_ RCF \_

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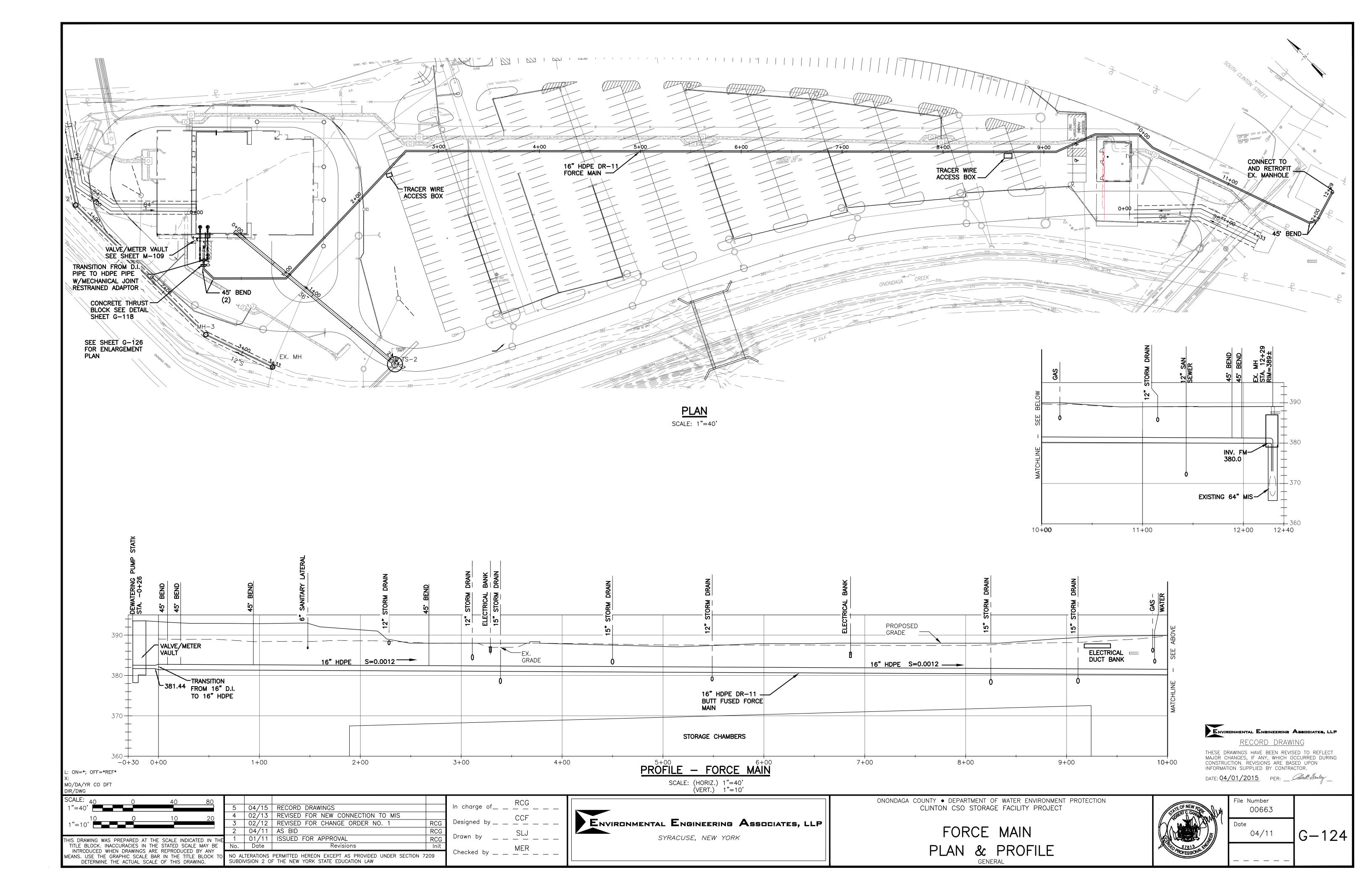
ONONDAGA COUNTY • DEPARTMENT OF WATER ENVIRONMENT PROTECTION CLINTON CSO STORAGE FACILITY PROJECT

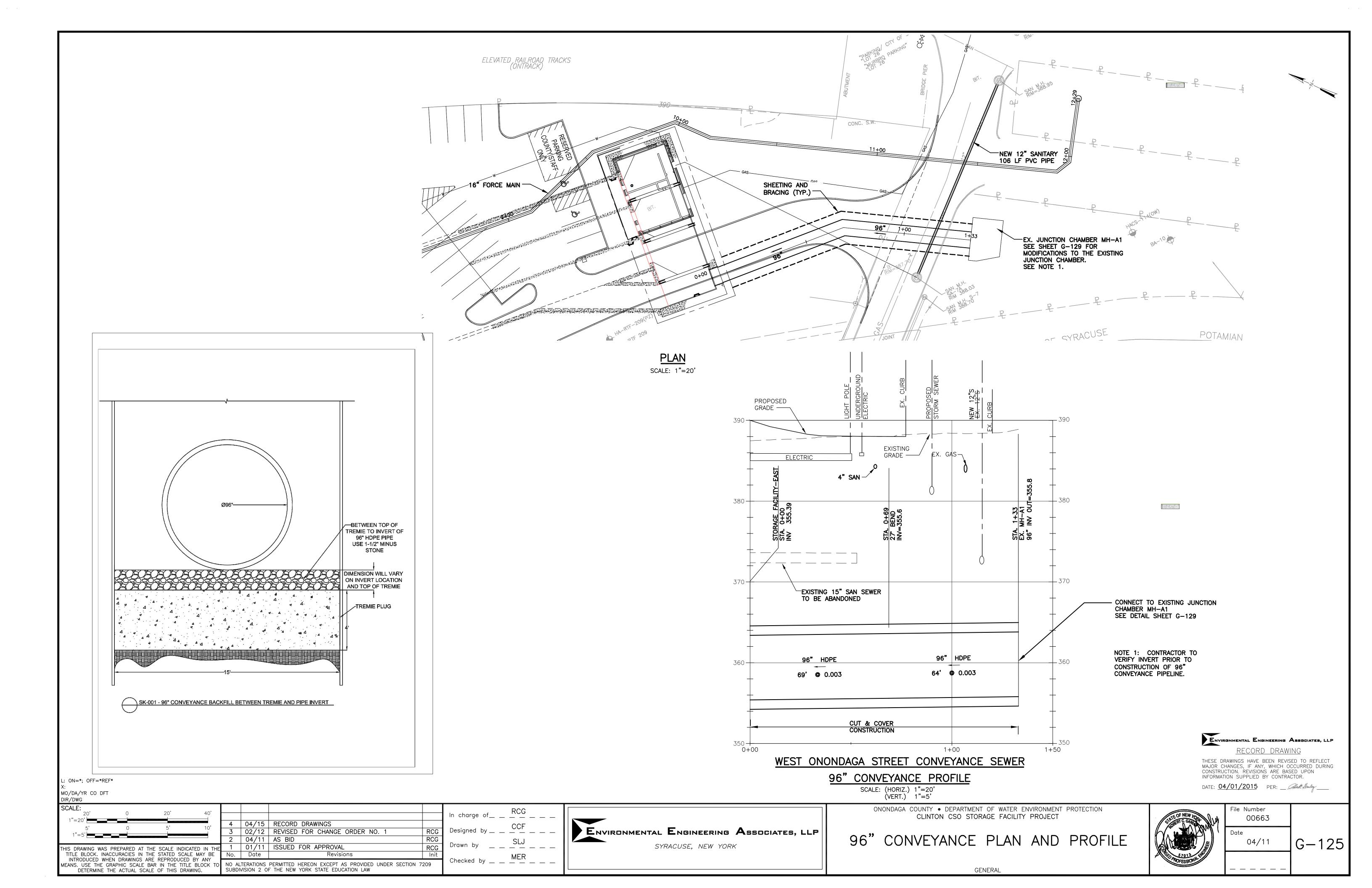
YARD PIPING PROFILES

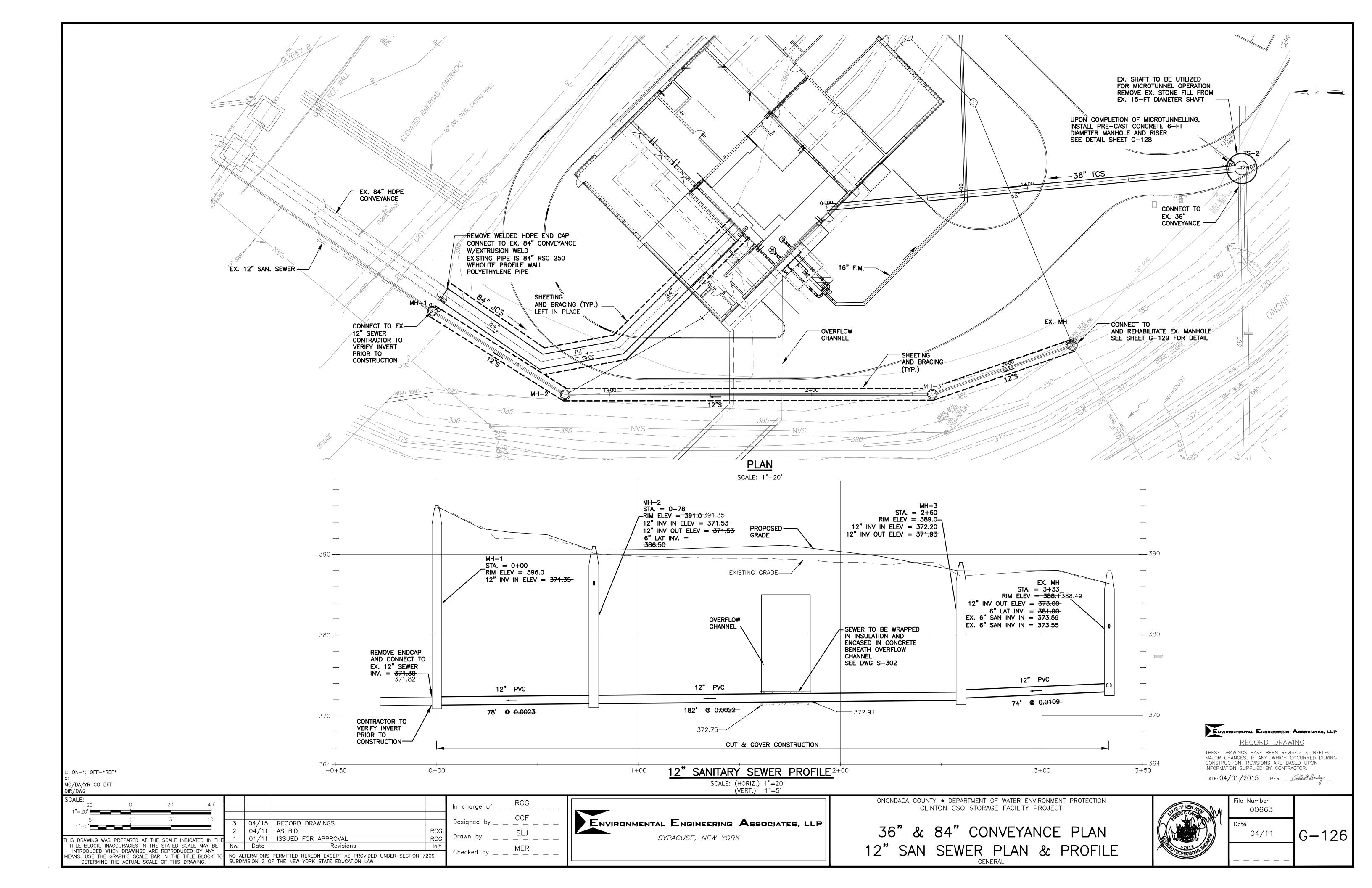


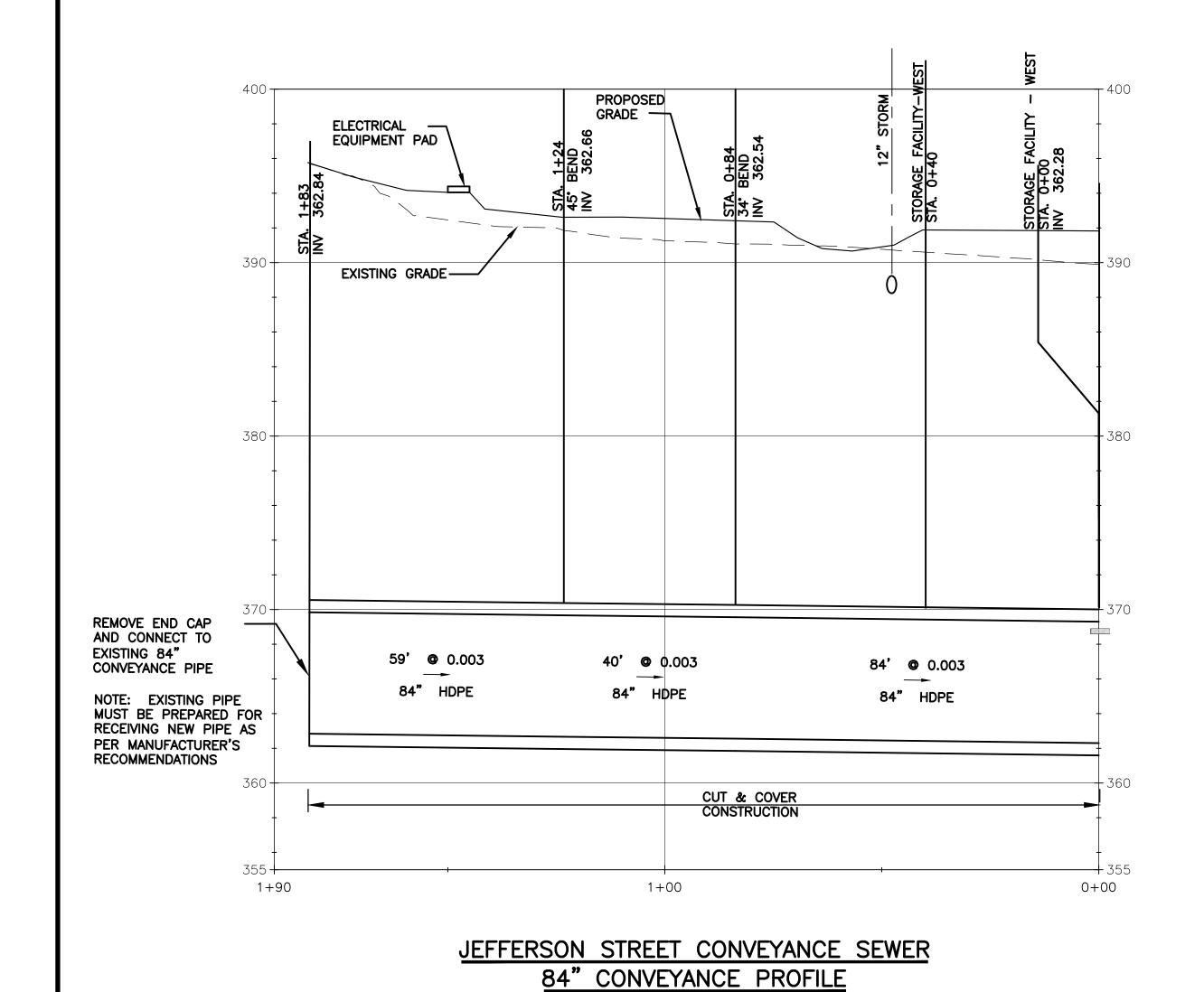
00663 04/11 Bung C. Hack

G-123









SCALE: (HORIZ.) 1"=20' (VERT.) 1"=5'

PROPOSED — GRADE EXISTING GRADE--ELECTRIC DUCT INTERRUPT LOOP -TS-2 STA. = 2+07 RIM ELEV = 390.536" INV OUT ELEV = 354.12 PRE-CAST 6-FT DIAM.MANHOLE AND RISER FILL ANNULUS BETWEEN MANHOLE AND EX. SHAFT EX. 15-FT DIAMETER SHAFT W/TYPE F FILL 36" FRP 207' © 0.005 --EX. 36"INV. IN = 354.2± MICROTUNNELING CONSTRUCTION 0+00 1+00 2+00 2+50

> TULLY STREET CONVEYANCE SEWER 36" CONVEYANCE PROFILE SCALE: (HORIZ.) 1"=20' (VERT.) 1"=5'

> > RECORD DRAWING

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR. DATE: 04/01/2015 PER: \_\_ Shade Hanley \_\_\_\_

In charge of\_

MER

SCALE: 3 04/15 RECORD DRAWINGS 2 04/11 AS BID Designed by \_\_ 1 01/11 ISSUED FOR APPROVAL Drawn by THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW Checked by \_ \_ \_ \_\_\_\_

: ON=\*; OFF=\*REF\*

MO/DA/YR CO DFT

DIR/DWG

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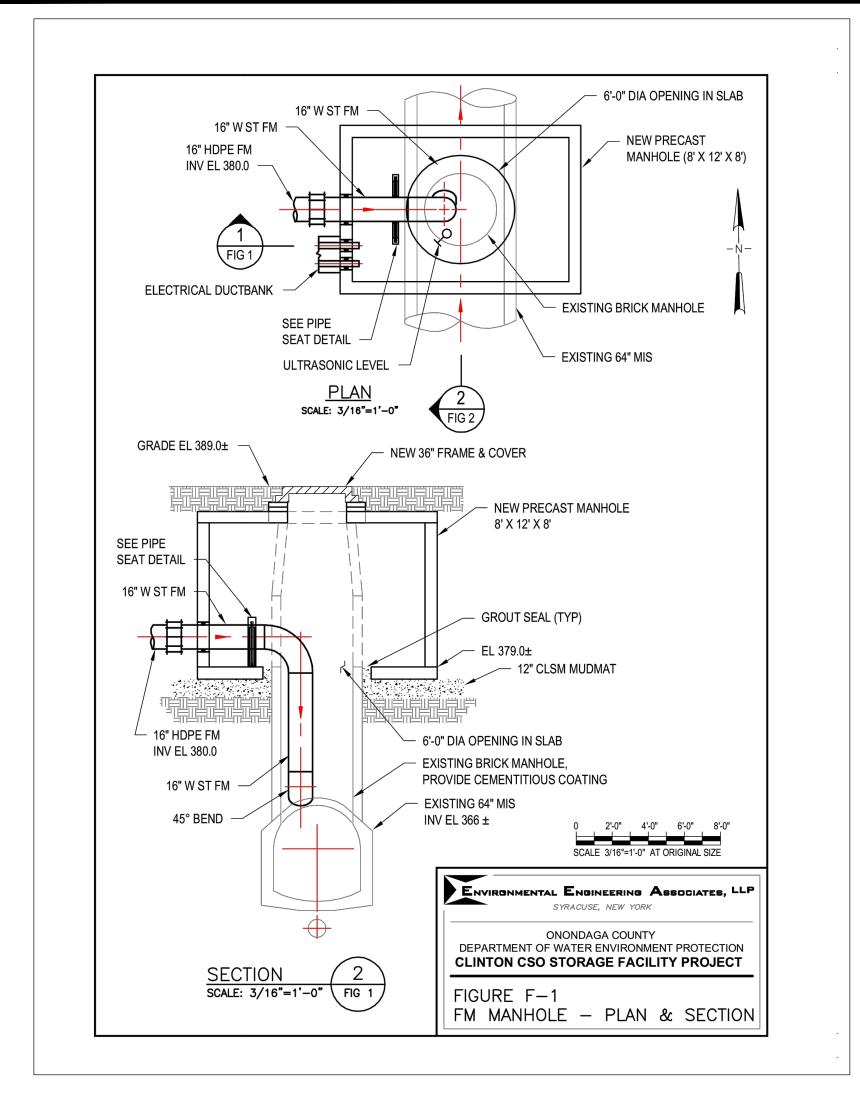
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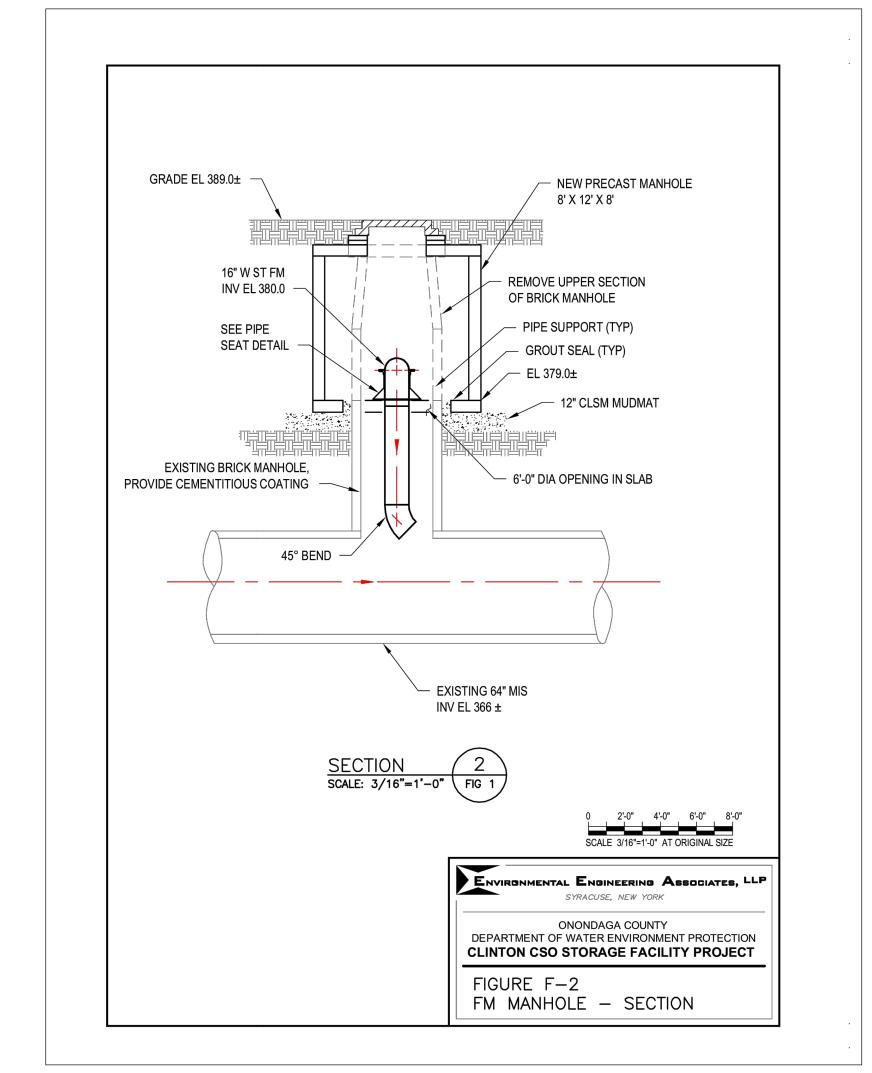
36" & 84" CONVEYANCE PROFILES

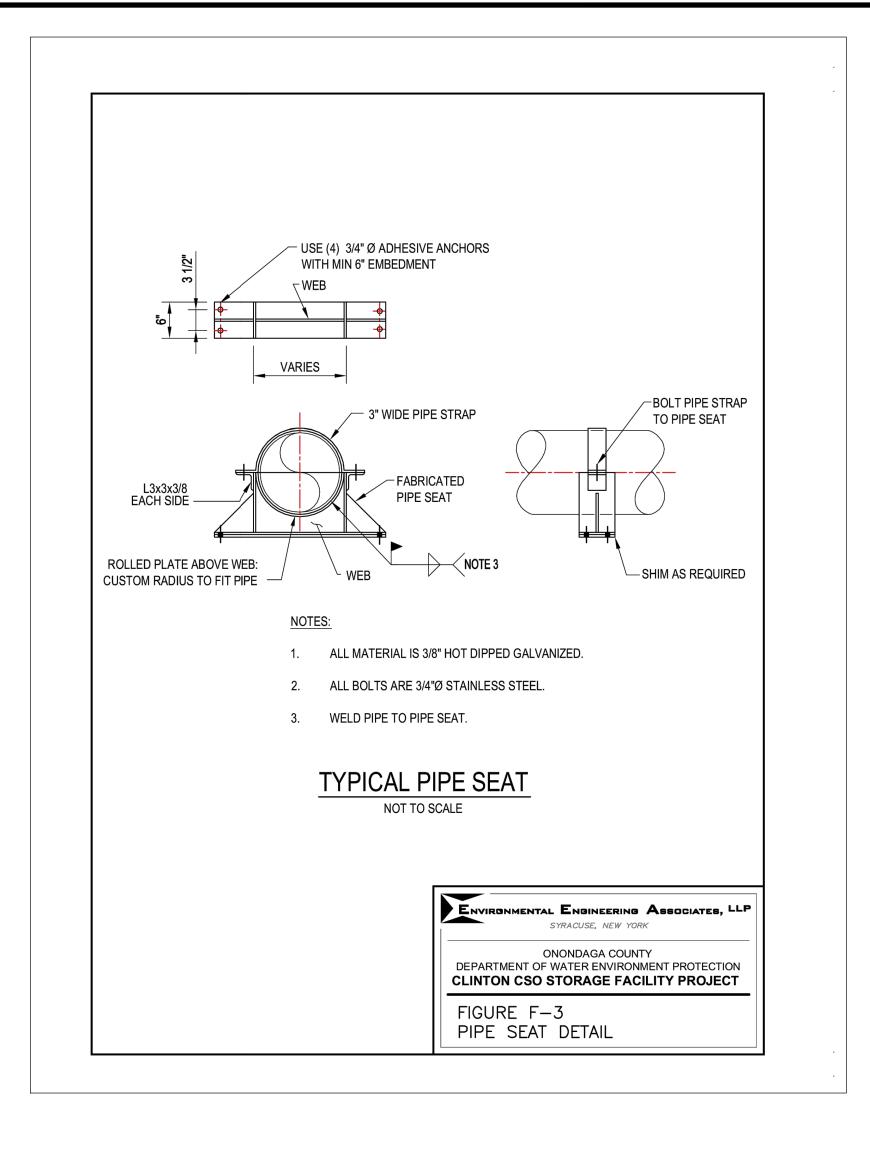


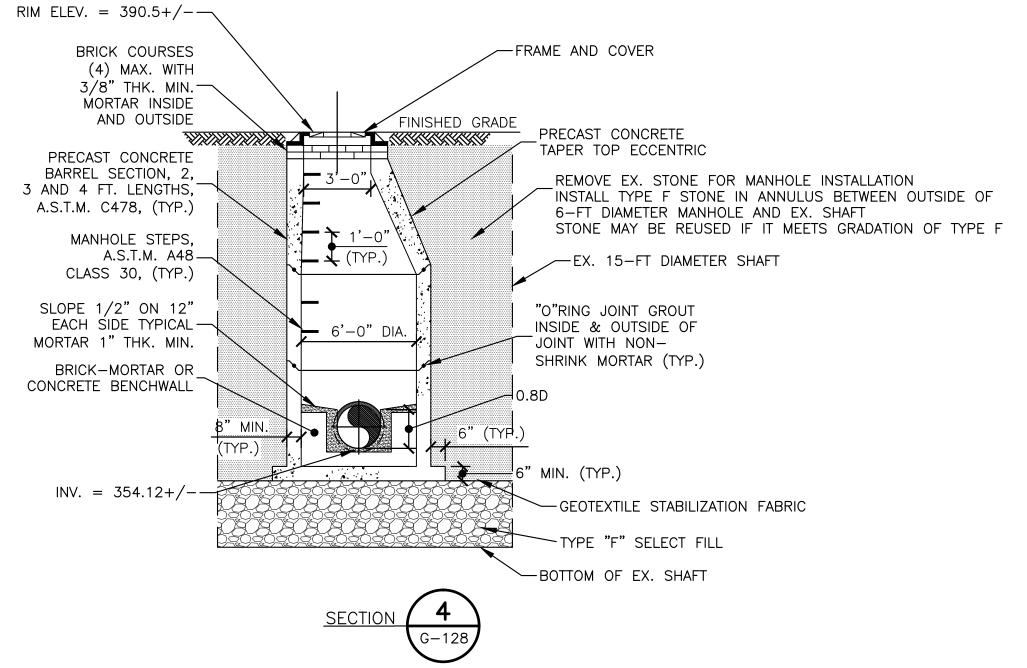
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	Date 04/11

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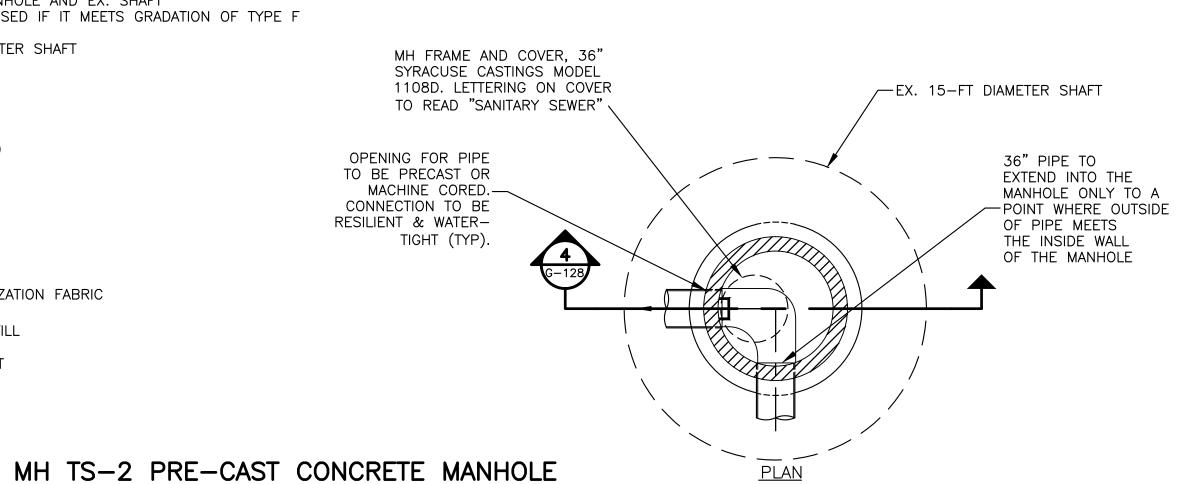


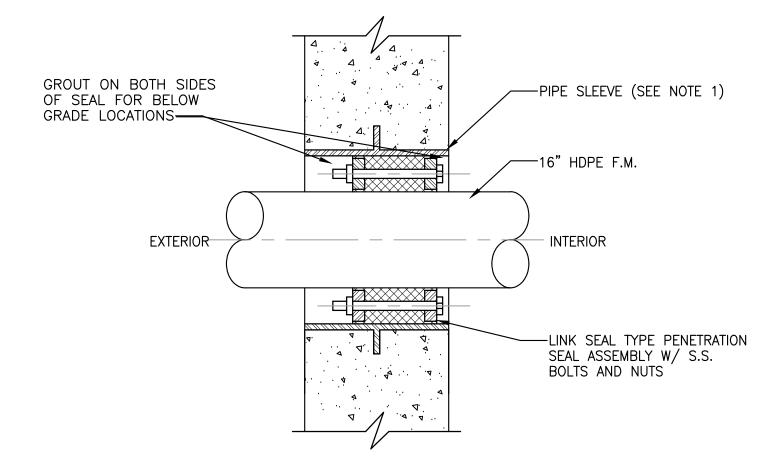




# NOTES:

- 1. PIPE SLEEVE SHALL BE CONSTRUCTED OF NON-CONDUCTIVE HIGH IMPACT RESISTANT HDPE (AS MANUFACTURED BY PSI, INC. OR EQUAL) OR SCH 40 STEEL PIPE (COAT AS SPECIFIED). ALL PIPE SLEEVES SHALL BE CONSTRUCTED WITH A CONTINUALLY WELDED WATER STOP.
- 2. STAINLESS STEEL PIPE STIFFENER TO BE INSTALLED AT CONNECTION W/MANHOLE





LINK SEAL TYPE PENETRATION DETAIL FOR MH-FM CONNECTION

RECORD DRAWING THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: 04/01/2015 PER: \_\_ Abertl Hanley \_\_\_

MO/DA/YR CO DFT DIR/DWG SCALE: 3 04/15 RECORD DRAWINGS 04/11 AS BID 1 01/11 ISSUED FOR APPROVAL THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY WEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 DETERMINE THE ACTUAL SCALE OF THIS DRAWING. SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

ON=\*; OFF=\*REF\*

RCG In charge of\_ Designed Drawn by MER Checked by \_ \_ \_ \_\_\_

ENVIRONMENTAL ENGINEERING ASSOCIATES, LLP SYRACUSE, NEW YORK

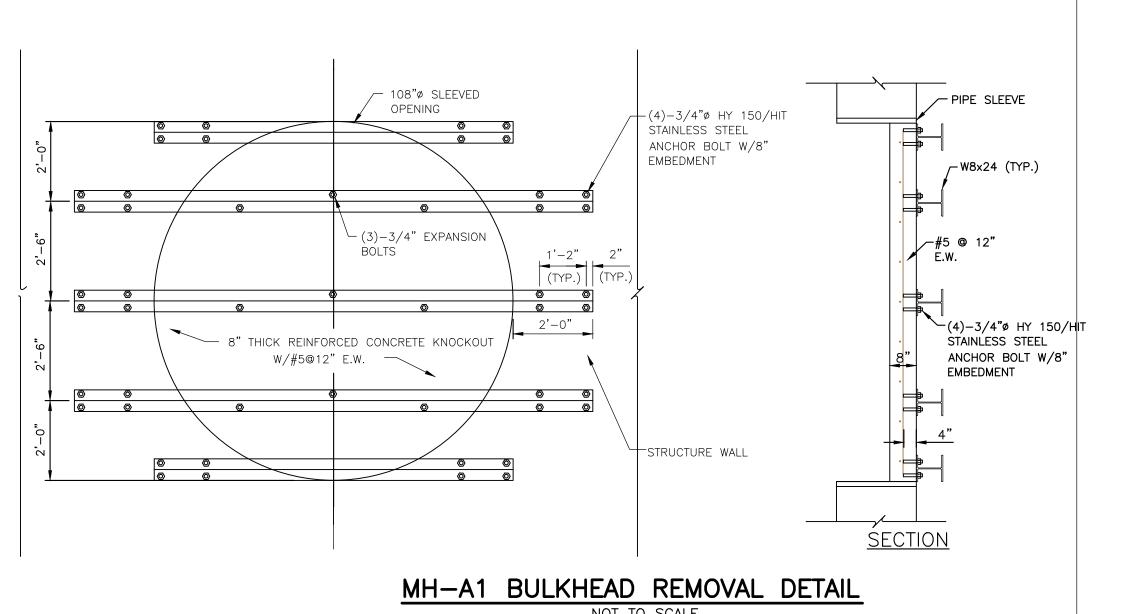
ONONDAGA COUNTY • DEPARTMENT OF WATER ENVIRONMENT PROTECTION CLINTON CSO STORAGE FACILITY PROJECT

CONNECTION TO MIS STRUCTURE AND MISCELLANEOUS DETAILS



<b>K</b> K	File Number 00663
	Date 04/1

G-128



- REMOVE EXISTING 3/4" STAINLESS STEEL ANCHOR BOLTS.
- 2. REMOVE AND DISPOSE OF EXISTING W8X24'S.

CONTRACTOR SHALL:

CLEAN MANHOLE INTERIOR W/HIGH

PRESSURE WATER. INSTALL 1 LAYER OF CEMENTITIOUS COATING ON INTERIOR WALLS, PERMACAST MS 10000 OR EQUAL.

DISTANCE TO FIRST

PIPE SHALL NOT

EXCEED 3'-6" —

NEW 12" SEWER-INV. 373.00

EXISTING BULKHEAD

JOINT OF CONNECTING

3. REMOVE AND DISPOSE OF EXISTING REINFORCED CONCRETE KNOCK-OUT. 4. PATCH ALL ANCHOR BOLT HOLES IN STRUCTURAL WALL W/NON-SHRINK GROUT.

∠NEW 6" LATERAL

W/DROP CONNECTION

EX. 15" SEWER

12" SEWER

NEW BENCHWALL AND CHANNEL

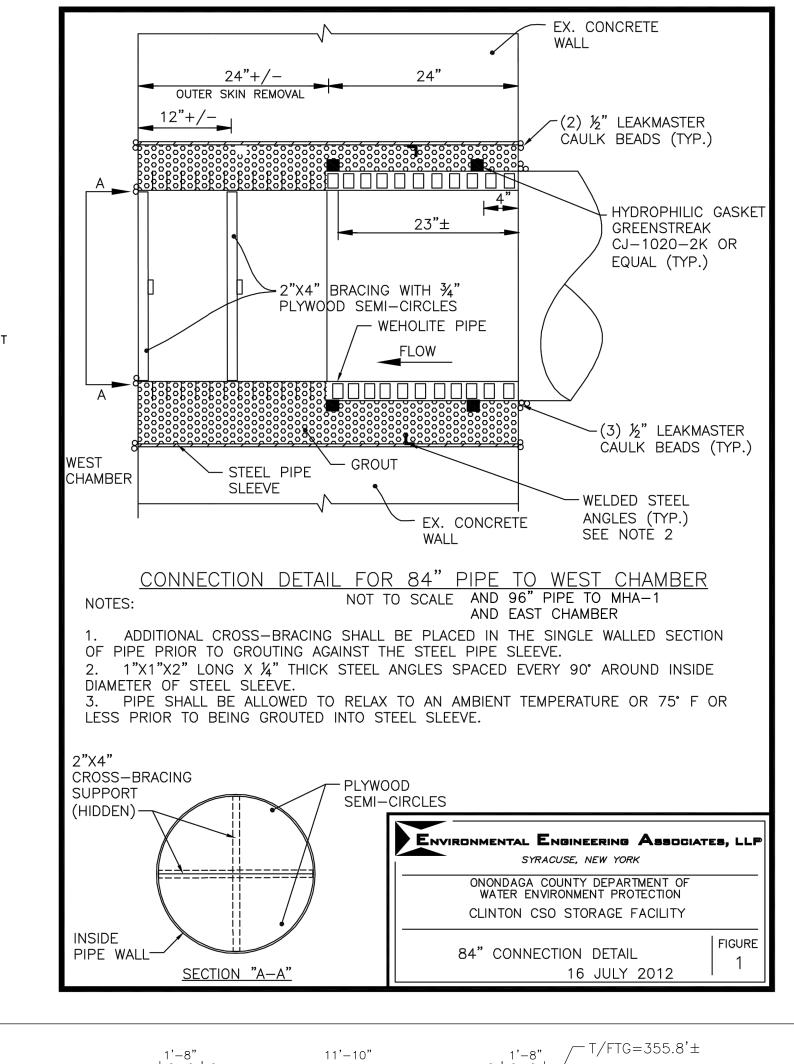
EX. TWIN 6" SIPHONS

TO BE ABANDONED

─ 15" MECHANICAL PLUG

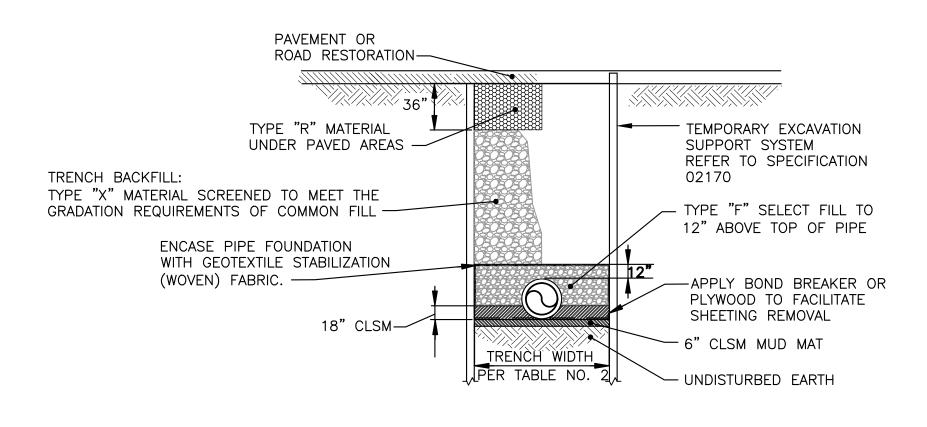
AND PLUGGED UPON

COMPLETION OF NEW

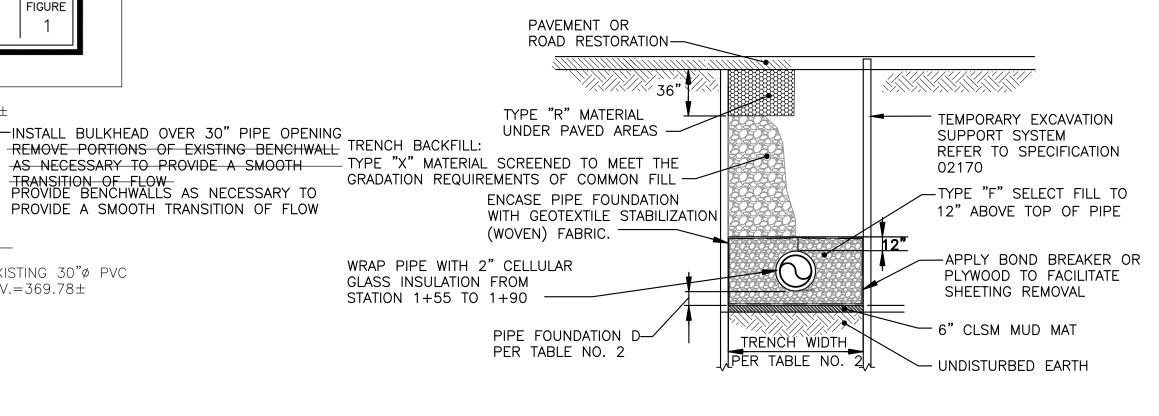


11'-10"

\_\_\_\_\_\_



PIPE FOUNDATION/TRENCH FOR 84" AND 96" CONVEYANCE PIPES



PIPE FOUNDATION/TRENCH FOR 12" SANITARY SEWER

	TABLE NO. 2						
	TRENCH WIDTH EXCAVATION LIMITS						
PIPE I.D.	WID MAXIMUM	TH MINIMUM	D	CLSM	=	CONTROLLED LOW STRENGTH MATERIAL	
12"	0.D. + 5'	O.D. + 4'	4"	OD	=	OUTSIDE DIAMETER	
84"	24'	17'	N/A				
96"	25'	18'	N/A				

# CONVEYANCE PIPE FOUNDATION/TRENCH DETAILS

# TAL ENGINEERING ASSOCIATES, LLP

MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

EXISTING 30"Ø PVC

EXISTING 84"Ø HDPE

INV.=357.98±

EXISTING-72"Ø HDPE

 $INV.=358.80\pm$ 

INV.=369.78±

COMPACTION REQUIREMENT: ALL BACKFILL MATERIAL SHALL BE PLACED IN 8" LIFTS AND COMPACTED TO 95% MODIFIED

RECORD DRAWING THESE DRAWINGS HAVE BEEN REVISED TO REFLECT

DATE: 04/01/2015 PER: \_ Sheet Lanley \_\_\_\_

ON=\*; OFF=\*REF\* MO/DA/YR CO DFT

DIR/DWG SCALE: NOT TO SCALE In charge of\_ 3 04/15 RECORD DRAWINGS Designed by \_ 04/11 AS BID 1 01/11 ISSUED FOR APPROVAL RCG Drawn by THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY Checked by \_\_ \_ \_\_\_\_\_ MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 DETERMINE THE ACTUAL SCALE OF THIS DRAWING. SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

CONNECTION TO EXISTING SANITARY MH DETAIL

CORE DRILL EXISTING MANHOLE AS

FOR WATERTIGHT CONNECTION

NOT TO SCALE

REQUIRED TO INSTALL NEW PIPES. REVISE BENCHWALL WITH 3000 PSI CONCRETE AS

REQUIRED. PROVIDE LINK SEAL TYPE WALL

PENETRATION AROUND EXTERIOR OF PIPE

TO MAKE WATERTIGHT CONNECTION AND

GROUT NEW PIPE IN PLACE AS REQUIRED

RCG MER

PROVIDE NEW 3000 PSI CONCRETE BENCHWALL FROM

INVERT TO TOP OF 96" CONVEYANCE ON EACH SIDE-

108"ø STEEL ----

INV.=355.8

REMOVE EXISTING BULKHEAD

SEE DETAIL THIS SHEET -

96" CONVEYANCE PIPE-CONNECTION TO MH-1A, SEE DETAIL "A" THIS SHEET

SEE ABOVE DETAIL

FLOW ENTRANCE INTO OUTLET SHALL BE

ROUNDED FOR SMOOTH TRANSITION OF FLOW -

SLEEVE LEFT IN PLACE

FOR 96" CONNECTION

CONNECTION TO EXISTING MH-A1 DETAIL

NOT TO SCALE

1. GROUT ANNULUS BETWEEN EXISTING STEEL SLEEVE OPENING AND 96" CONVEYANCE PIPE FULL WALL

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File Number 00663 04/11

|G-129|

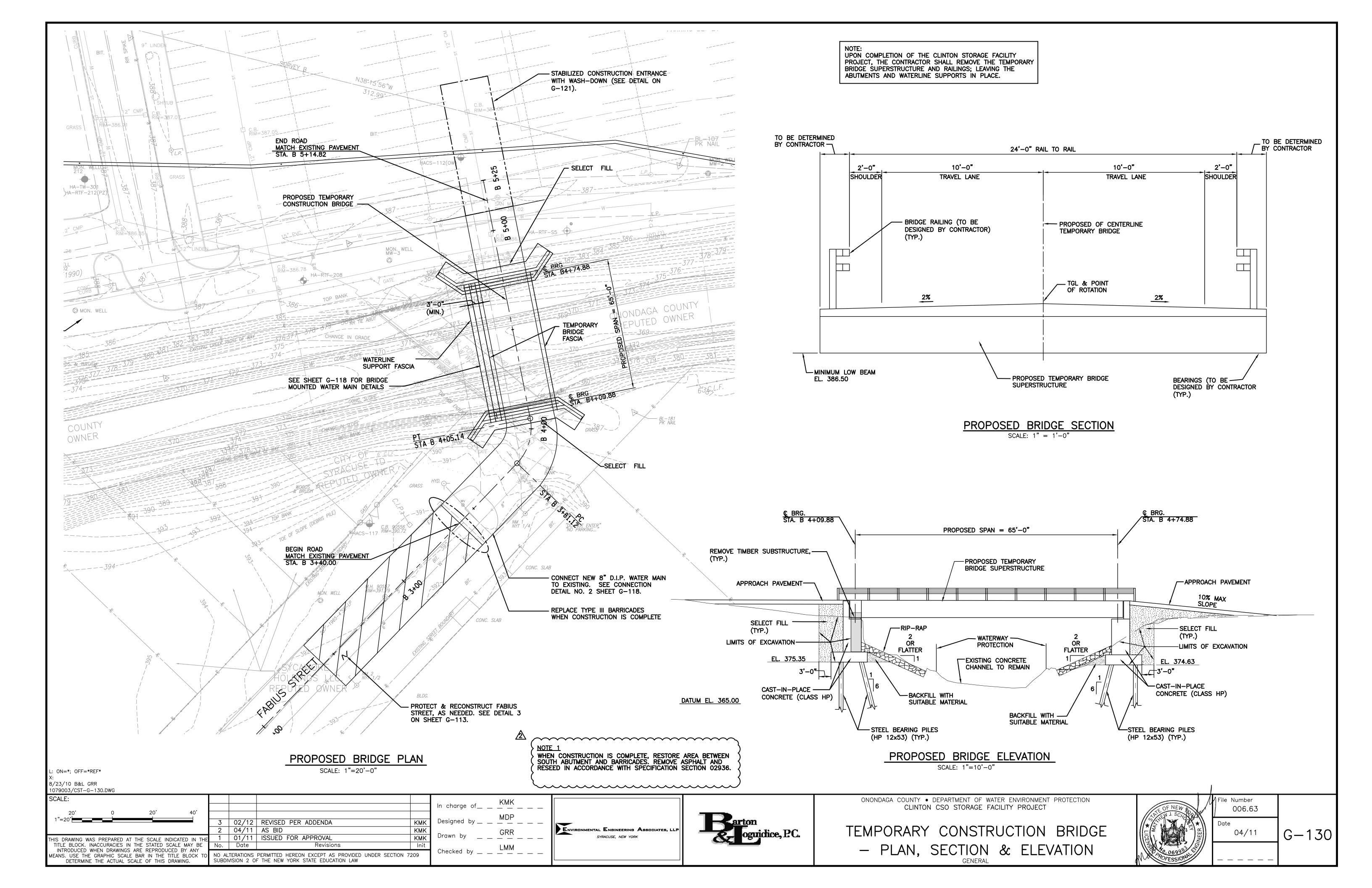
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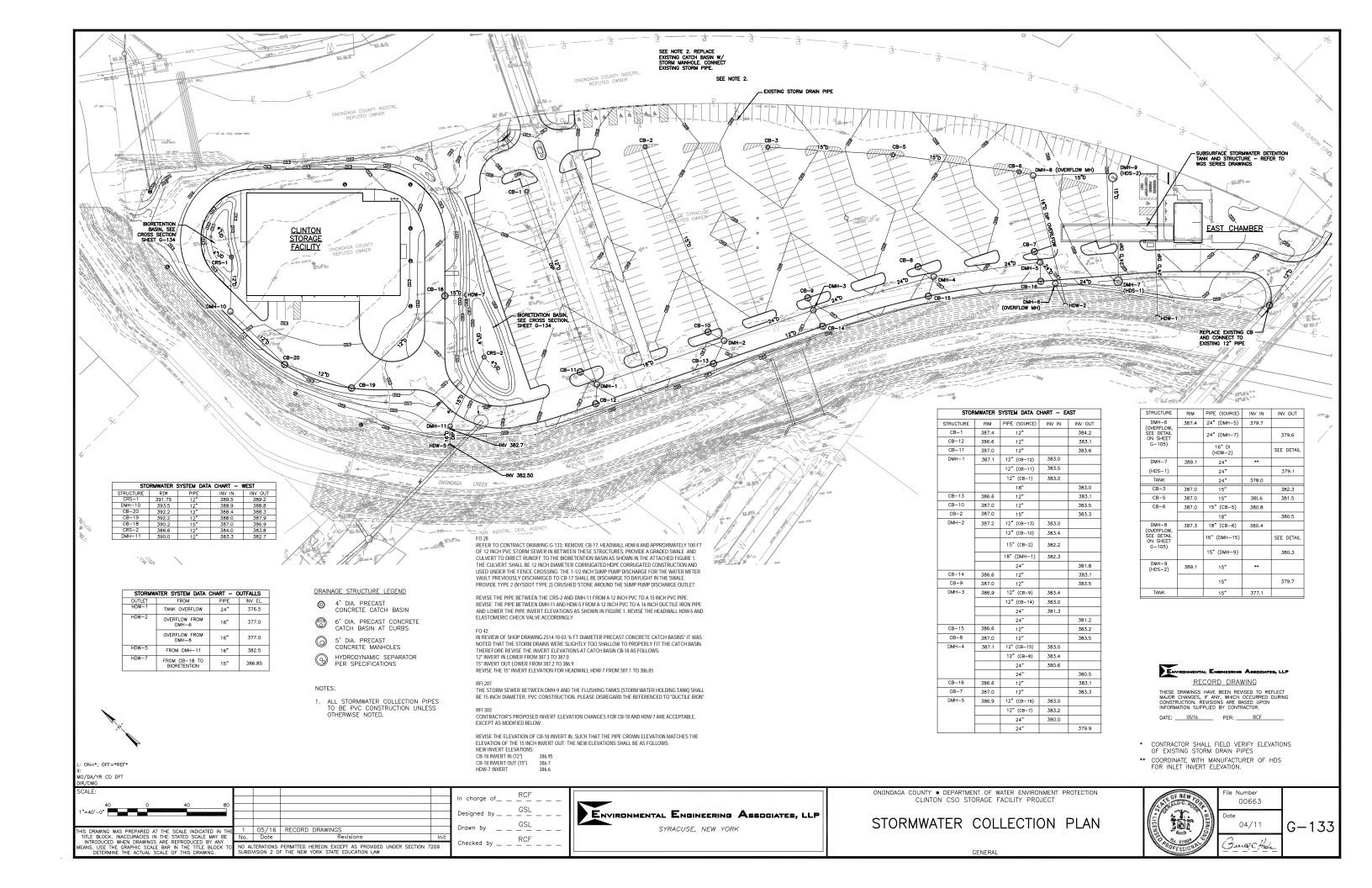
MISCELLANEOUS CONVEYANCE DETAILS

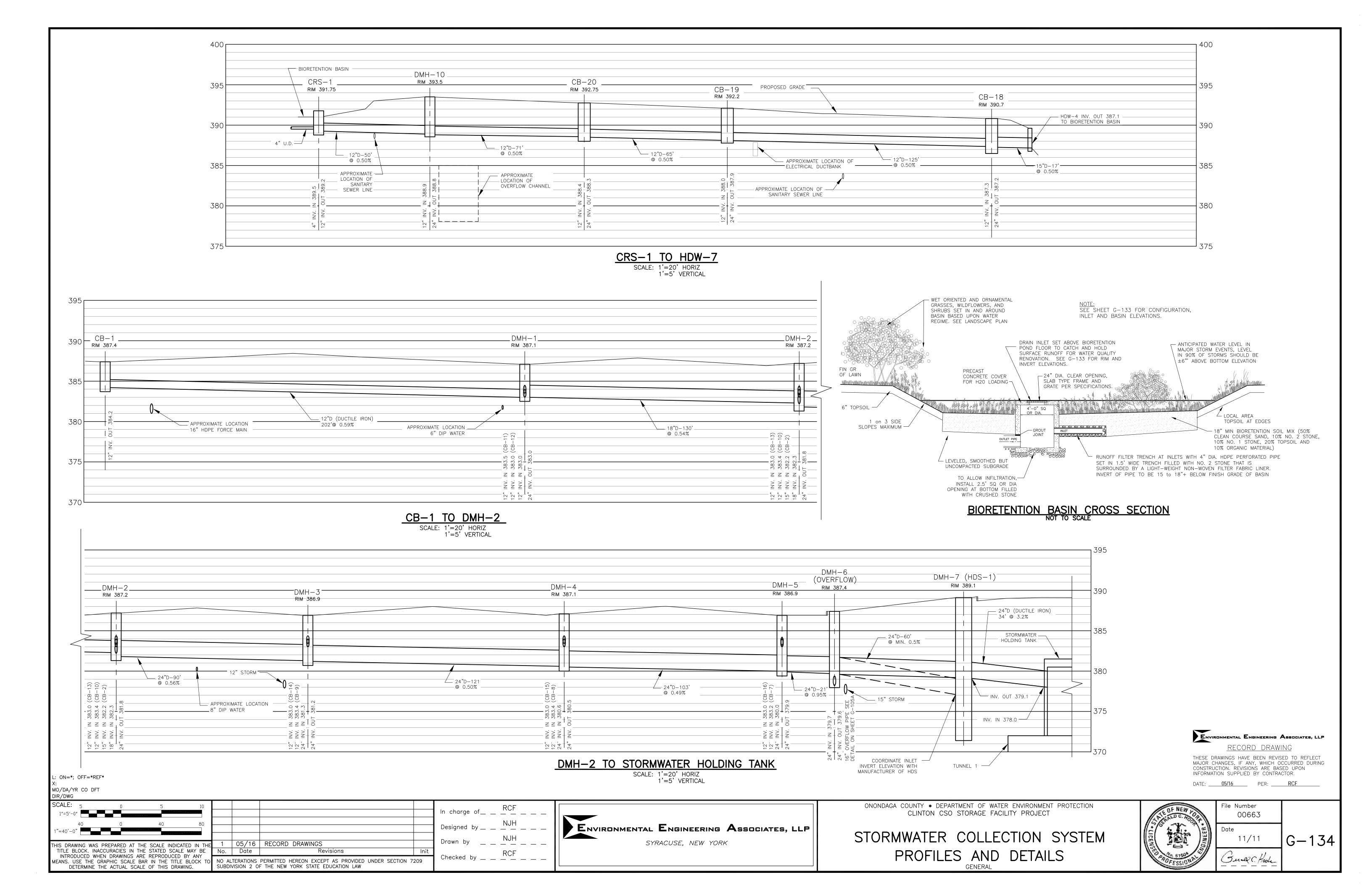
# Environmental Engineering Associates, LLP SYRACUSE, NEW YORK

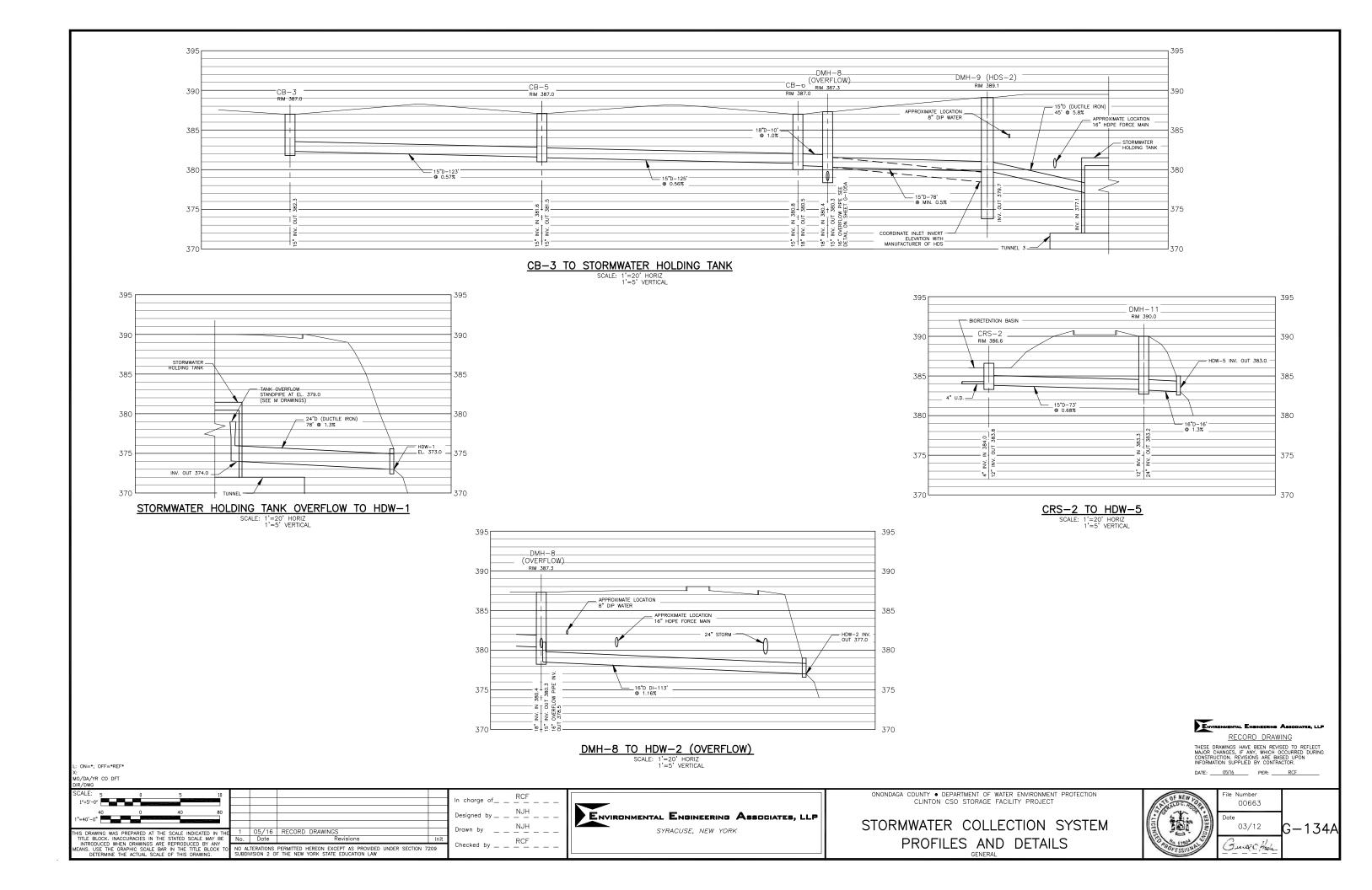
DEPTH FOR WATERTIGHT CONNECTION.

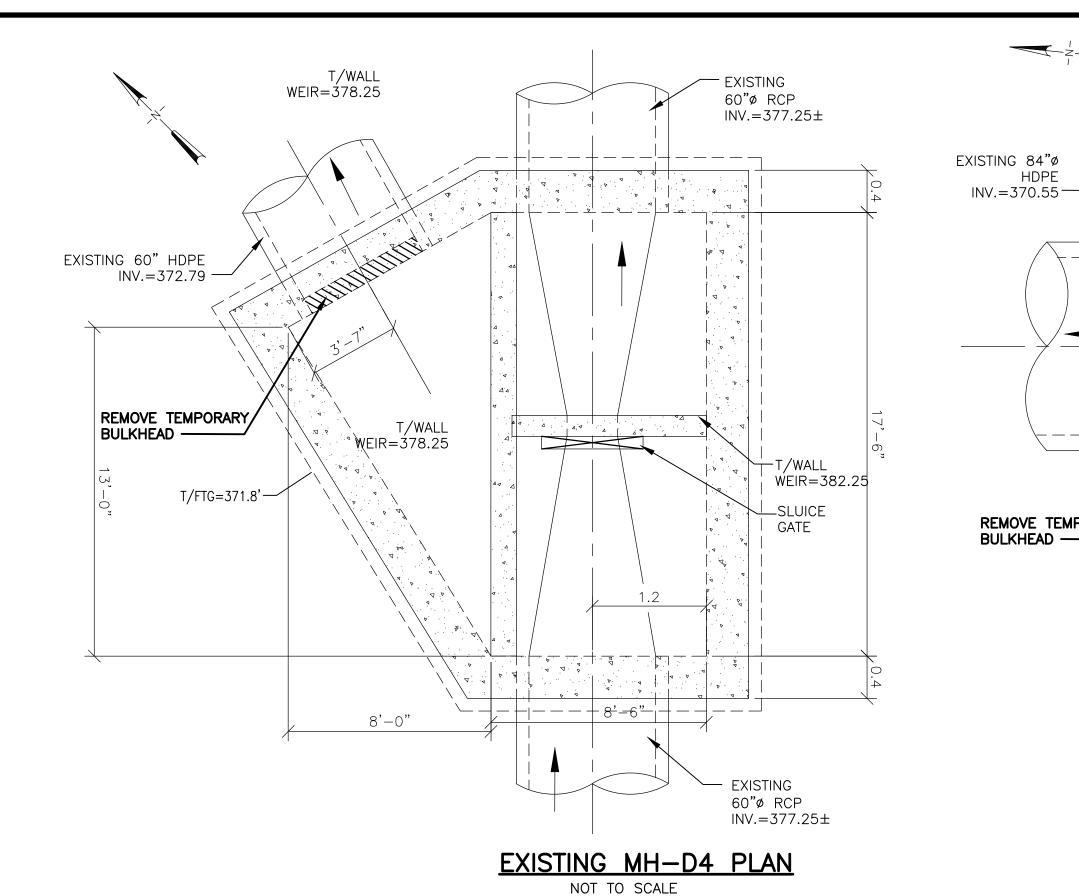
1'-8"











BULKHEAD REMOVAL TABLE						
MANHOLE	STRUCTURE TYPE	NOTES				
MH-A2	SEE ABOVE	REMOVE BULKHEAD PROTECTING 84" HDPE PIPE				
MH-A5	10' DIAMETER ROUND	REMOVE BULKHEAD PROTECTING 36" PVC PIPE				
MH-D1	5' DIAMETER ROUND	REMOVE BULKHEAD PROTECTING 30" PVC PIPE				
MH-D3	10' DIAMETER ROUND	REMOVE BULKHEAD PROTECTING 66" HDPE PIPE				
MH-D4	SEE ABOVE	REMOVE BULKHEAD PROTECTING 60" HDPE PIPE				
MH-T1	5' DIAMETER ROUND	REMOVE BULKHEAD PROTECTING 24" PVC PIPE				
MH-W7A	8' DIAMETER ROUND	REMOVE BULKHEAD PROTECTING 30" PVC PIPE				
MH-W6	8' DIAMETER ROUND	REMOVE BULKHEAD PROTECTING 27" PVC PIPE				
MH-J1	SEE ABOVE	CUT 72" BRIDGE PIPE TO ALLOW FLOW TO DROP INTO EXISTING CONVEYANCE. INSTALL BULKHEAD TO PREVENT FLOW TO 60" PIPE				

- 1. LOCATIONS OF EXISTING MANHOLES ARE SHOWN IN THE CLINTON STREET CSO CONVEYANCES PROJECT AS-BUILT DRAWINGS, AS PREPARED BY CDM/C&S, WHICH WERE PROVIDED FOR INFORMATION, BUT ARE NOT PART OF THE CONTRACT.
- 2. BULKHEADS CONSIST OF BRICK/BLOCK MASONRY PLUG.
- 3. THIS WORK SHALL NOT BE PERFORMED UNTIL THE CLINTON CSO STORAGE FACILITY IS OPERATIONAL AND AS ORDERED BY THE OWNER'S REPRESENTATIVE.

# CONTRACTOR SHALL:

- 1. DEWATER SEWAGE FROM MANHOLES AS REQUIRED. SEWAGE MAY BE DIRECTED TO A LOCAL SANITARY MANHOLE, AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- 2. REMOVE BULKHEADS, BULKHEAD SUPPORTS AND HARDWARE, AND ALL SHARP OR JAGGED CONCRETE EDGES. EXCESS MATERIALS SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
- 3. GROUT HOLES, PATCH CONCRETE AND/OR INSTALL BENCHWALL TO PROVIDE A
- SMOOTH TRANSITION OF FLOW INTO OUTLET PIPELINE. 4. WORK SHALL BE PERFORMED AS DIRECTED BY OWNER'S ENGINEER.

ONONDAGA COUNTY • DEPARTMENT OF WATER ENVIRONMENT PROTECTION CLINTON CSO STORAGE FACILITY PROJECT

REMOVE TEMPORARY BULKHEAD





NY N	File Number 00663
	Date 04/11

- EXISTING

78"ø RCP

INV.=374.4±

G-135

-EXISTING 84"Ø HDPE

INV.=363.23

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: 04/01/2015 PER: \_ Sheek Hanley \_\_\_\_

RECORD DRAWING

: ON=\*; OFF=\*REF\* MO/DA/YR CO DFT

DIR/DWG					
SCALE: NOT TO SCALE					
					ln
	3	04/15	RECORD DRAWINGS		D€
	2	04/11	AS BID	RCG	
THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE	1	01/11	ISSUED FOR APPROVAL	RCG	Dr
TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE	No.	Date	Revisions	Init	
INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.			PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7 F THE NEW YORK STATE EDUCATION LAW	7209	Cł

In charge of\_\_ \_ MER 

ENVIRONMENTAL ENGINEERING ASSOCIATES, LLP SYRACUSE, NEW YORK

BULKHEAD REMOVAL DETAILS

INSTALL BULKHEAD — 2 LAYERS OF BRICK AND MORTAR

EXISTING-60"ø -

REMOVE SECTION OF EX. 72" HDPE-

STRUCTURE, PREVIOUSLY INSTALLED TO BRIDGE FLOW IN THE 78" RCP

PIPE THAT IS WITHIN MANHOLE

INV.=365.50

GENERAL		

STORERT C. GANGE	7
	•
\$2013	
PROFESSIONAL	

(TO ONONDAGA

CREEK)

EXISTING MH-J1 PLAN

NOT TO SCALE

6'-4"

EXISTING 72"ø

- EXISTING 72"ø

— T/FTG=362.2'

HDPE INV.=375.80

(TO ONONDAGA CREEK)

EXISTING MH-A2 PLAN
NOT TO SCALE

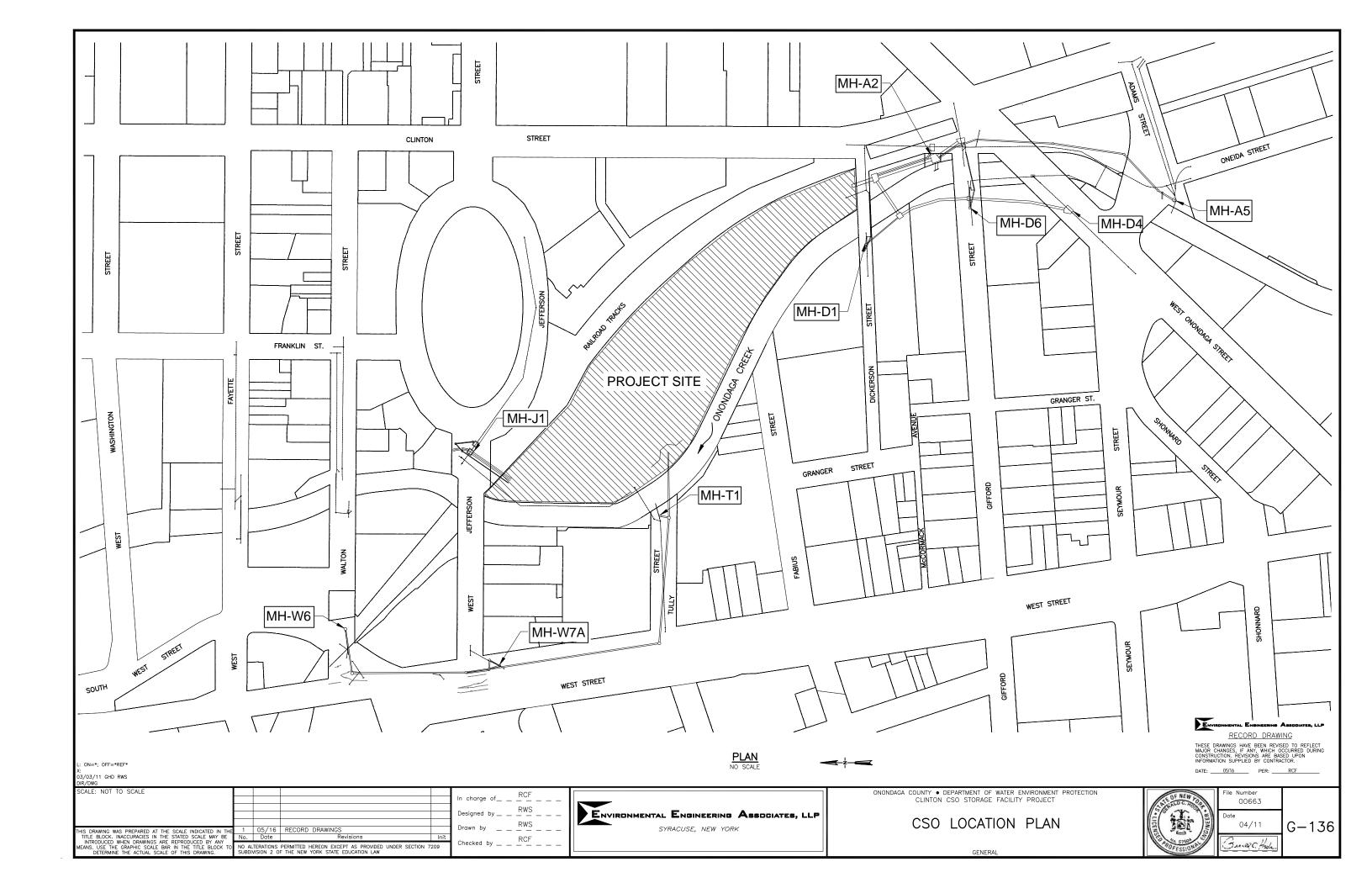
INV.=375.50

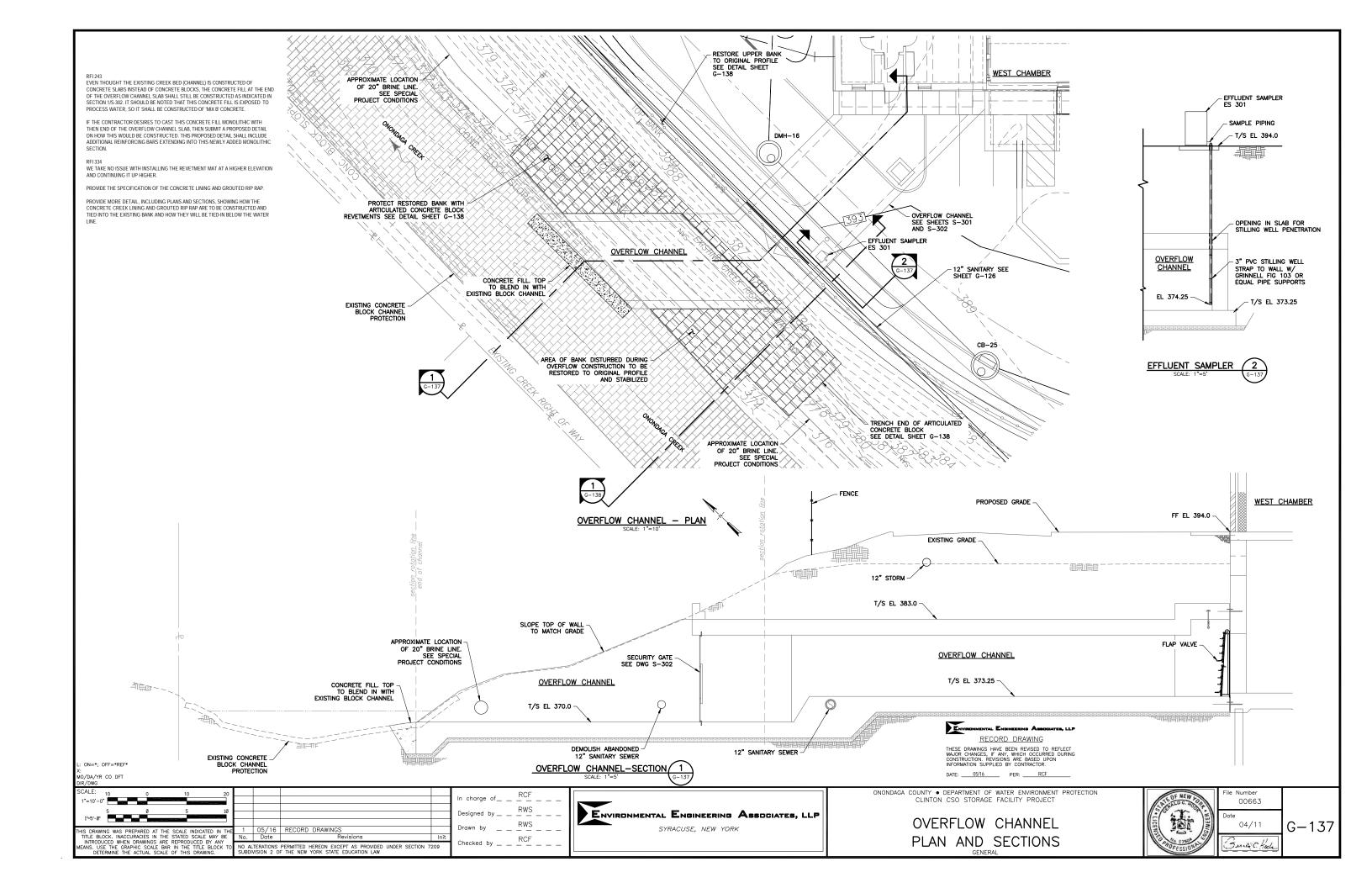
EXISTING 36"Ø PVC INV.=375.00

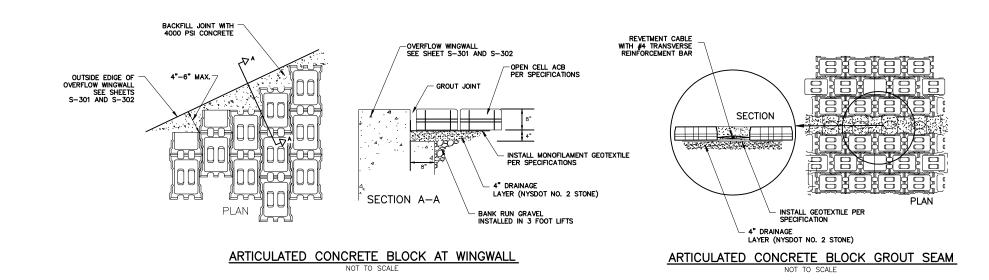
— T/FTG=369.6'

T/WALL WEIR=377.35 -

EXISTING -78"ø RCP INV.=374.4±

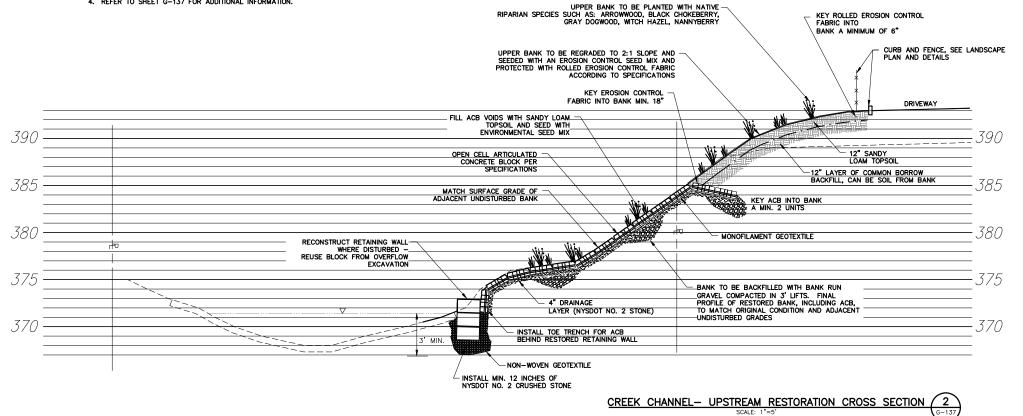






#### NOTES:

- CREEK BANKS DISTURBED DURING CONSTRUCTION OF OVERFLOW TO BE RESTORED TO ORIGINAL PROFILE.
- ENTIRE AREA OF RESTORED BANK TO BE PROTECTED WITH ARTICULATED CONCRETE BLOCK (ACB) REVETMENTS. ACB SHALL BE INSTALLED ACCORDING TO SPECIFICATIONS.
- ACB MUST BE TERMINATED ON ALL FOUR SIDES, TOP, BOTTOM AND BOTH UPSTREAM AND DOWNSTREAM EDGES BY TRENCHING OR TYING TO ADJACENT STRUCTURE (SEE DETAILS THIS SHEET).
- 4. REFER TO SHEET G-137 FOR ADDITIONAL INFORMATION.



ENVIRONMENTAL ENDINEERING ASSOCIATES, LLP

RECORD DRAWING

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DATE: \_\_\_\_\_05/16 \_\_\_\_ PER: \_\_\_\_\_RCF

L: ON=\*; OFF=\*REF\* X: MO/DA/YR CO DFT

RCF \_\_\_\_ RWS \_\_\_ RCF \_\_\_

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OVERFLOW CHANNEL SECTIONS AND DETAILS



File Number 00663

G-138

O4/11

Gunara Hole