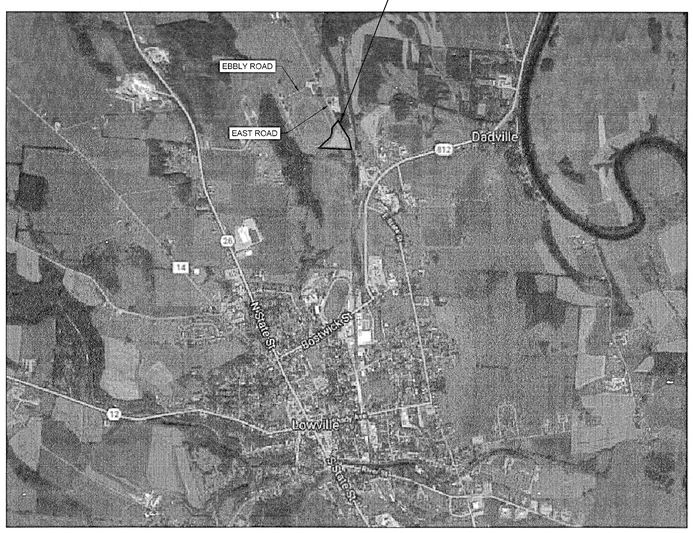
LEWIS COUNTY
JEFFERSON COMMUNITY COLLEGE
EDUCATIONAL CENTER PROJECT
BID PACKAGE 1
CONSTRUCTION DOCUMENTS

LEWIS COUNTY
7660 N. COURT STREET
LOWVILLE, NY 13367

C&S PROJECT: 564.012.001

JUNE 22, 2018



LOCATION MAP

DRAWING LIST	
SHEET NO.	**SHEET NAME**
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CIVIL	
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STATE OF NEW YORK · CHRISTOPHER P. BRODY · 084377 · LICENSED PROFESSIONAL ENGINEER · 6-22-18

TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF THE PLANS AND SPECIFICATIONS FOR THIS PROJECT ARE IN COMPLIANCE WITH THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE AND THE BUILDING CODE OF NEW YORK STATE

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

G-001

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F:\Projects\564 - LEWIS COUNTY\564012001 - Lewis-JCC Educational Center\Design\CADD\Sheet Files\CIVIL\564012001 G-001 TITLE SHEET.dwg

ACP	ASBESTOS CEMENT PIPE	CONT	CONTINUOUS, CONTUATION	FIN	FINISHED	LG	LENGTH	POC	POINT ON CURVE	STD	STANDARD
ACM	ASBESTOS CONTAINING MATERIAL	COR	CORNER	FIN GR, FG	FINISHED GRADE	LB	POUND	PVC	POLYVINYL CHLORIDE	STL	STEEL
ALT	ALTERNATE	CTR	CENTER(ED)	FLG, FLGD	FLANGE, FLANGED	LF	LINEAR FEET	PW	POTABLE WATER	STY	STORY
ALUM	ALUMINUM	CIRC	CIRCULAR	FM	FORCE MAIN	LP	LIGHT POLE	REF	REFERENCE	SYM	SYMMETRICAL
APPROX	APPROXIMATELY	COC	CORNER OF CURB	FRP	FIBERGLASS REINFORCED PLASTIC	LT	LEFT	RAD	RADIUS	SUP	SUPPORT
ASPH	ASPHALT	DEC	DECIDUOUS	FT	FOOT, FEET	MAX	MAXIMUM	REINF	REINFORCING, REINFORCMENT	STRUCT	STRUCTURE, STRUCTURAL
AVG	AVERAGE	DIP	DUCTILE IRON PIPE	FTG	FITTING, FOOTING	MECH	MECHANICAL	REQ'D	REQUIRED	TEL	TELEPHONE
AW	APPROXIMATE WATER	DIA	DIAMETER	FW	FINISHED WATER	MH, MANH	MANHOLE	RF	ROOF	TEMP	TEMPERATURE, TEMPORARY
BLDG	BUILDING	DISCH	DISCHARGE	GAL	GALLON	MIN	MINIMUM	RJ	RESTRAINED JOINT	THK	THICK
BM	BENCHMARK	DP	DEEP	GC	GRANITE CURB	MJ	MECHANICAL JOINT	ROW	RIGHT-OF-WAY	TG	TOP OF GRADE
BET	BETWEEN	DTL, DET	DETAIL	GR	GRAVEL	MTD	MOUNTED	RCP	REINFORCED CONCRETE PIPE	T.O.P.	TOP OF PAVEMENT
BFV	BUTTERFLY VALVE	D	DRAIN	GRAV	GRAVITY	N	NORTH	RT	RIGHT	TOW, TW	TOP OF WALL
BIT	BITUMINOUS	DWG	DRAWING	GPM	GALLONS PER MINUTE	NIC	NOT IN CONTRACT	RW	RAW WATER	TS&V	TAPPING SLEEVE AND VALVE
CB, CBSN	CATCH BASIN	DIM	DIMENSION	GRD	GRADE	NO	NUMBER	S	SOUTH	TYP	TYPICAL
CC	CONCRETE CURB	EA	EACH	GV	GATE VALVE	NG	NATURAL GAS	SA, SANI	SANITARY	UE	UNDERGROUND ELECTRIC
CHWS	CHILLED WATER SUPPLY	EL, ELEV	ELEVATION	HDPE	HIGH DENSITY POLYETHYLENE	NTS	NOT TO SCALE	SAN	SANITARY SEWER	UG	UNDERGROUND
CI	CAST IRON	ELEC	ELECTRICAL	HG	HIGH	OC	ON CENTER	SD, ST DR	STORM DRAIN	UP	UTILITY POLE
CIP	CAST IRON PIPE	EMH	ELECTRICAL MANHOLE	HH	HANDHOLE	OHE, OE	OVERHEAD ELECTRICAL	SCH	SCHEDULE	UT	UNDERGROUND TELEPHONE
CL	CENTER LINE	EOC	EDGE OF CURB	HORIZ	HORIZONTAL	OPNG	OPENING	SEC, SECT	SECTION	VALV	VALVE
CLR	CLEAR, CLEARANCE	EOP	EDGE OF PAVEMENT	HTHW	HIGH TEMPERATURE HOT WATER	OPP	OPPOSITE	SHT	SHEET	VCP	VITRIFIED CLAY PIPE
CLSM	CONTROLLED LOW STRENGTH MATERIAL	EQ	EQUAL	HW	HOT WATER	PC	POINT OF CURVATURE	SIM	SIMILAR	VERT	VERTICAL
CMH	COMMUNICATION MANHOLE	EQUIP	EQUIPMENT	HYD, HYDR	HYDRANT	PCC	POINT OF CHANGE IN CURVATURE	SP	SPACE, SPACING	VTP	VITRIFIED TILE PIPE
CMP	CORRUGATED METAL PIPE	EW	EACH WAY	INSUL	INSULATION	PCPUT	PERFORATED CORRUGATED UNDERDRAIN TILE	SPEC	SPECIFICATION	W, WATR	WATER
CNC, CONC	CONCRETE	EXIST	EXISTING	INT	INTERSECTION	PE	POLYETHYLENE	SMP	SAMPLE	W/	WITH
CO	CLEAN OUT	FDN	FOUNDATION	INV, IE	INVERT, INVERT ELEVATION	PIV, PINV	POST INDICATOR VALVE	SQ	SQUARE	WT	WEIGHT
CONF	CONIFEROUS	FF	FINISHED FLOOR	ID	INSIDE DIAMETER	PL	PLATE, PROPERTY LINE	SS, SST	STAINLESS STEEL	WD	WIDE
CONN	CONNECTION	FH	FIRE HYDRANT	JT	JOINT	PLT	PLANT	ST, STRM	STORM	YD	YARD

D1 GENERAL ABBREVIATIONS

SCALE: NOT TO SCALE

GENERAL NOTES:

1. THE APPROXIMATE LOCATION OF THE UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE TRUE LOCATION AND ELEVATIONS BEFORE COMMENCING WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES. NOTIFY ENGINEER IN INSTANCES WHERE REVISIONS TO DRAWINGS ARE REQUIRED.
2. CONTRACTOR SHALL NOTIFY DIG SAFELY NEW YORK AT LEAST THREE (3) DAYS PRIOR TO START OF WORK. CONTRACTOR SHALL COORDINATE ALL WORK WITH UTILITY COMPANIES AND THE OWNER.
3. IN THE EVENT THAT THE CONTRACTOR DAMAGES ANY EXISTING UTILITIES, HE SHALL IMMEDIATELY NOTIFY THE OWNER AND THE AFFECTED UTILITIES REPRESENTATIVE OF SUCH DAMAGE. ANY DAMAGE SHALL PROMPTLY AND SATISFACTORILY BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
4. THE CONTRACTOR MUST BE ACQUAINTED WITH THE DRAINAGE CHARACTERISTICS OF THE WORK AREA SO THAT HE WILL PROGRESS HIS WORK EFFICIENTLY WITH FULL KNOWLEDGE OF THE POTENTIAL DRAINAGE PROBLEMS.
5. ALL EXISTING DRAINAGE SYSTEMS, INCLUDING DITCHES AND CULVERTS, WITHIN THE CONTRACT LIMITS SHALL BE CLEANED AND KEPT CLEAN AND FREE FLOWING FOR THE DURATION OF THE CONTRACT.
6. PROVIDE TEMPORARY THRUST RESTRAINT AND PIPE SUPPORTS FOR EXISTING PIPING WHENEVER REQUIRED BY THE WORK. CONTRACTOR TO REPLACE OR RESTORE THE EXISTING RESTRAINT SYSTEM OR PIPE SUPPORT SYSTEMS TO LIKE-NEW CONDITION.
7. WHERE CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
8. UNLESS DETAILED, SPECIFIED OR INDICATED OTHERWISE, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS ARE MEANT TO APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS OR IN SPECIFIC DRAWINGS.
9. CONTRACTOR IS RESPONSIBLE FOR SECURITY AND FOR THE SECURE STORAGE OF GOODS AND MATERIALS ONSITE.
10. CONTRACTOR TO COORDINATE STAGING AREAS WITH OWNER PRIOR TO START OF CONSTRUCTION.
11. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORTS, BRACING AND OTHER DEVICES AS MAY BE REQUIRED OR AS DIRECTED BY THE ENGINEER TO PROTECT THE SAFETY OF THE ADJACENT STRUCTURES, ROADWAY AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ADJACENT STRUCTURES, ROADWAYS AND ALL UTILITIES ENCOUNTERED IN THIS WORK.
12. ALL EXCESS UNSUITABLE MATERIAL IS TO BE DISPOSED OF OFF SITE. EXCESS SUITABLE MATERIAL IS TO BE USED AS FILL AND SHOULD BE COORDINATED WITH THE OWNER. HAZARDOUS CONTAMINATED MATERIAL AND ASPHALT SHALL BE DISPOSED OF OFF SITE AT AN APPROVED LOCATION.
13. TOPOGRAPHIC SURVEY AND BASE MAPPING FOR THIS PROJECT WAS PREPARED BY MONCRIFF LAND SURVEYING, P.C., DATED JUNE 2013 WITH MAY 2018 SURVEY UPDATES ALONG EAST ROAD. THE NORTH ORIENTATION IS PER NAD83, NYS PLANE GRID CENTRAL. VERTICAL DATUM IS PER NAVD 88. THE LOCATION, SIZES AND ELEVATIONS OF EXISTING UTILITIES ARE BASED ON INFORMATION COMPILED FROM RECORD DRAWINGS AND FIELD INFORMATION.
14. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC IN ACCORDANCE WITH SPECIFICATION 340133.
15. CONTRACTOR SHALL CONTACT THE TOWN OF LOWVILLE HIGHWAY DEPARTMENT AT LEAST 5 BUSINESS DAYS PRIOR TO BEGINNING ANY WORK WITHIN THE TOWN OF LOWVILLE RIGHT OF WAY. COST OF PERMIT AND PERMIT REQUIREMENTS (INCLUDING SECURITY DEPOSITS) SHALL BE INCLUDED IN THE COST OF THIS WORK.
16. CONTRACTOR SHALL PROVIDE, IN THE PREPARATION OF HIS BID, THE COST FOR EXCAVATING AND RESTORING 10 TEST PITS AT LOCATIONS DETERMINED BY THE ENGINEER TO DETERMINE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL COMPLETE ALL TEST PIT EXCAVATIONS PRIOR TO BEGINNING THE INSTALLATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH, AND PROVIDE ASSISTANCE TO THE ENGINEER FOR RECORDING UTILITY LOCATIONS AND ELEVATIONS. CONTRACTOR SHALL HAND EXCAVATE WITHIN 3 FEET OF EACH SIDE OF UTILITY CROSSINGS. REFER TO SPECIFICATION 310100.
17. CONTRACTOR SHALL PROVIDE, IN PREPARATION OF HIS BID, THE COST FOR CONNECTING UNDERDRAINS TO NEW STORM CATCH BASINS, AS SHOWN ON UTILITY PLANS.
18. THE DRAWINGS AND PROJECT MANUAL ARE COMPLEMENTARY AND THEIR INTENT IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT. THE ORGANIZATION OF THE DRAWINGS AND PROJECT MANUAL SHALL NOT CONTROL THE CONTRACTOR IN DIVIDING WORK AMONG THE SUBCONTRACTORS OR IN ESTABLISHING THE EXTENT OF WORK PERFORMED BY ANY TRADE.
19. REVIEW DOCUMENTS, VERIFY DIMENSIONS AND FIELD CONDITIONS AND CONFIRM THAT THE WORK IS BUILDABLE AS SHOWN. THE CONTRACTOR SHALL REPORT ANY CONFLICTS AND/OR OMISSIONS TO THE ENGINEER/ARCHITECT PRIOR TO PERFORMING ANY WORK IN QUESTION. OTHERWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS TO COMPLETE THE WORK STATED IN THE CONTRACT DOCUMENTS BASED UPON OPTIMAL ESTABLISHED QUALITY STANDARD.
20. THE CONTRACTOR SHALL VERIFY LOCATIONS, LEVELS, DISTANCES AND FEATURES OF THE SITE AND RELATED IMPROVEMENTS THAT MAY AFFECT THE WORK, INCLUDING RELATED WORK BY SEPARATE CONTRACTORS. NO ALLOWANCE WILL BE MADE ON HIS BEHALF FOR ANY EXTRA EXPENSE RESULTING FROM FAILURE OR NEGLECT IN DETERMINING THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED.
21. SAWCUTTING SHALL BE REQUIRED FOR ALL TRENCHING AND EXCAVATION WORK IN PAVEMENT AREAS. ALL SAWCUTS IN ROADWAYS SHALL BE SEALED AS PER DETAIL C5/C-502.
22. ALL RIGHT OF WAY AND PROPERTY BOUNDARY MARKERS SHALL BE SAFEGUARDED, PROTECTED AND PRESERVED. ANY MARKERS THAT ARE DISTURBED BY THE CONTRACTOR SHALL BE RESET BY A NEW YORK STATE LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

A1 GENERAL NOTES

SCALE: NOT TO SCALE

DEMOLITION NOTES:

1. REMOVE CONCRETE / ASPHALT AND SUBBASE MATERIAL (FULL DEPTH).
2. CONTRACTOR TO COORDINATE ALL UTILITY WORK WITH TOWN OF LOWVILLE AND ASSOCIATED UTILITY COMPANY PRIOR TO PERFORMING ANY UTILITY WORK.
3. CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT, CONCRETE PADS, CONCRETE SIDEWALKS, CONCRETE CURBS, AND EXISTING UTILITY PIPING PRIOR TO REMOVAL OF SUCH. ALL SAWCUTS TO BE PERFORMED WITH WET CUT SAW.
4. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT AS REQUIRED TO INSTALL THE NEW WORK.
5. CONTRACTOR TO COMPLY WITH CODES, LAWS AND REGULATIONS OF ALL GOVERNING AUTHORITIES IN THE EXECUTION OF THE WORK.
6. CONTRACTOR TO REVIEW DOCUMENTS AND FIELD CONDITIONS, VERIFYING THAT THE WORK IS BUILDABLE AS SHOWN. NOTIFY ANY CONFLICTS OR OMISSIONS TO ENGINEER OR ARCHITECT FOR CLARIFICATION PRIOR TO PERFORMING WORK IN QUESTION.
7. COMPLETELY PROTECT IN-PLACE ELEMENTS AND MATERIALS TO REMAIN FROM DAMAGE AND DETERIORATION THAT MIGHT RESULT FROM WORK OF SELECTIVE REMOVAL AND SALVAGE, INCLUDING, BUT NOT LIMITED TO, DUST, DIRT, VIBRATION, WATER, WATER VAPOR, CONDENSATION, CHEMICALS, IMPACT, HUMIDITY, APPLICATION OF PROTECTION, DURATION OF PROTECTION AND REMOVAL OF PROTECTION.

SOIL AND EROSION CONTROL NOTES:

1. REFER TO THE SPECIFICATIONS AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL REQUIREMENTS. THE CONTRACTOR SHALL STRICTLY ADHERE TO THE REQUIREMENTS OF THE SWPPP DURING CONSTRUCTION OPERATIONS. ADDITIONAL EROSION CONTROL MEASURES MAY BE NECESSARY, IF DEEMED BY THE ONSITE SWPPP INSPECTION REPORTS.
2. SOIL EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSTALLED AND FULLY FUNCTIONAL PRIOR TO ANY SITE DISTURBANCE. SOIL EROSION AND SEDIMENT CONTROL FACILITIES ARE TO BE MAINTAINED DURING CONSTRUCTION AND REMOVED UPON COMPLETION OF CONSTRUCTION.
3. ALL ROADWAYS SHALL BE KEPT CLEAN OF MUD AND DEBRIS. FILL SHALL NOT BE SPILLED ONTO ROADWAY. ALL SPILLED MATERIALS SHALL BE PROMPTLY REMOVED.
4. THE AREAS OF CONSTRUCTION SHALL BE LEFT IN STABLE CONDITION AT THE CLOSE OF EACH CONSTRUCTION DAY.
5. STORM INLETS SHALL BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION BY USE OF INLET PROTECTION OR OTHER APPROVED MEANS.
6. SOIL STOCKPILE AREAS ARE TO BE IMMEDIATELY SURROUNDED WITH SILT FENCING, OR OTHER EROSION CONTROL MEASURES OR AS ORDERED BY THE OWNER'S REPRESENTATIVE.
7. 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.
8. ALL EROSION CONTROL FACILITIES SHALL BE INSPECTED AS OUTLINED IN THE APPROVED SWPPP FOR THE PROJECT. ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY TO ENSURE FUNCTIONALITY.
9. CONTRACTOR SHALL TOPSOIL, SEED AND MULCH ALL DISTURBED AREAS WITHIN 7 DAYS OF INACTIVITY.

C4 SOIL AND EROSION CONTROL NOTES

SCALE: NOT TO SCALE

EXISTING FEATURES:

- 530 — EXISTING CONTOUR LINE
- EXISTING PROPERTY LINE
- EXISTING CHAIN LINK FENCE
- EXISTING FIRE HYDRANT
- EXISTING SIGN
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- W — EXISTING WATER LINE AND VALVE
- OHE — EXISTING OVERHEAD ELECTRIC
- INDICATES CONTINUATION OF UNDERGROUND UTILITY
- SOIL BORING LOCATION

WORK OF THIS CONTRACT LEGEND:

- 8" W — NEW WATER MAIN, VALVE & HYDRANT (DOMESTIC WATER)
- 12" STRM — NEW STORM SEWER LINE, DRAINAGE MANHOLE AND CATCH BASIN TO BE REPLACED / INSTALLED
- 8" SSWR — NEW SANITARY SEWER LINE AND MANHOLE TO BE REPLACED / INSTALLED
- PROP — NEW UNDERGROUND PROPANE LINE
- 4" UD — NEW PERFORATED UNDERDRAIN
- UE — NEW UNDERGROUND ELECTRIC (SITE LIGHTING & BLUE LIGHTS)
- UT — NEW UNDERGROUND COMMUNICATION (SITE LIGHTING & BLUE LIGHTS)
- NEW ELECTRICAL MANHOLE
- NEW COMMUNICATIONS MANHOLE
- 200 — NEW CONTOUR
- SILT FENCE
- CONTRACT LIMIT LINE
- NEW PLANTING
- INLET PROTECTION
- CHECK DAM
- TURF REINFORCEMENT
- NEW ASPHALT PARKING LOT
- NEW CONCRETE SIDEWALK/PAD
- NEW GRASS AREA
- STABILIZED CONSTRUCTION ENTRANCE

A4 LEGEND

SCALE: NOT TO SCALE

C&S COMPANIES

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STATE OF NEW YORK — DARREN P. BRODERICK — LICENSED PROFESSIONAL ENGINEER — 6-22-18

LEWIS COUNTY, N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	K. MAGILL-JONES
DESIGNED BY:	T. LONG
CHECKED BY:	D. WETHEY, P.E.

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

CIVIL

SITE GENERAL NOTES, ABBREVIATIONS, AND LEGEND

C-001

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COORDINATION NOTES:

1. THE FOLLOWING SITE WORK ITEMS WILL BE SELF PERFORMED BY LEWIS COUNTY:

   A. INSTALLATION OF THE 10" DIAMETER WATER LINE FROM THE TIE-IN POINT AT THE INTERSECTION OF EBBLY ROAD / EAST ROAD TO THE DEMARCATION POINT THAT IS SHOWN ON THIS DRAWING. BID PACKAGE NO. 1 CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION, PRESSURE TESTING, AND DISINFECTION OF THE REMAINING SECTION OF WATER LINE FROM THE DEMARCATION POINT TO THE PROPOSED BUILDING.

   B. LEWIS COUNTY WILL PERFORM OVERALL TOPSTRIPPING OF THE PROJECT SITE.

   C. LEWIS COUNTY WILL PERFORM SITE EARTHWORK AS SHOWN ON DRAWING C-103, WITH THE EXCEPTION OF ANY GRADING WITHIN A 10 FT PERIMETER OF THE PROPOSED BUILDING. THE BID PACKAGE #1 CONTRACTOR SHALL PERFORM ALL EARTHWORK WITHIN THIS BUILDING FOOTPRINT, COORDINATE ANY DISPOSAL OF SUITABLE FILL MATERIAL WITH THE COUNTY.

   D. LEWIS COUNTY WILL INSTALL PAVEMENT SUBBASE MATERIAL TO THE LIMITS NOTED ABOVE IN NOTE 1C, AND WILL NOT INSTALL ANY SUBBASE MATERIAL BELOW CONCRETE FLATWORK. THE PREPARATION AND PLACEMENT OF ALL CONCRETE FLATWORK SHOWN ON THIS DRAWING IS THE RESPONSIBILITY OF THE BID PACKAGE NO. 1 CONTRACTOR. THE CASING SHALL BE NOT LESS THAN 6.0 FEET FROM THE BASE OF RAILWAY RAIL TO THE TOP OF THE CASING AT ITS CLOSEST POINT.

   E. ALL HOT MIX ASPHALT PAVEMENT, AS SHOWN ON THIS DRAWING WILL BE INSTALLED BY LEWIS COUNTY. PRIOR TO ANY PAVING, THE BID PACKAGE NO. 1 CONTRACTOR IS RESPONSIBLE TO SET ALL VALVE BOXES, MANHOLE RIMS AND CATCH BASIN RIMS TO THE PROPER FINAL ELEVATION.

   F. FINAL PLACEMENT OF TOPSOIL, SEEDING, MULCHING, TURF SOIL DECOMPACTION, AND LANDSCAPE PLANTINGS TO BE PERFORMED BY LEWIS COUNTY. BID PACKAGE NO. 1 CONTRACTOR IS RESPONSIBLE FOR THE STABILIZATION OF SLOPES AND ESTABLISHMENT OF TURF AT AREAS THAT ARE OUTSIDE THE DEPICTED LIMITS OF THIS KEYED NOTE.

2. ANY REWORK THAT IS REQUIRED BY BID PACKAGE NO. 1 CONTRACTOR SHALL BE PERFORMED PRIOR TO ANY FINAL RESTORATION BY LEWIS COUNTY.
3. ALL WORK ZONE PROTECTION MEASURES REQUIRED FOR THE EXECUTION OF BID PACKAGE NO. 1 WORK ITEMS ARE THE RESPONSIBILITY OF THE BID PACKAGE NO. 1 CONTRACTOR.

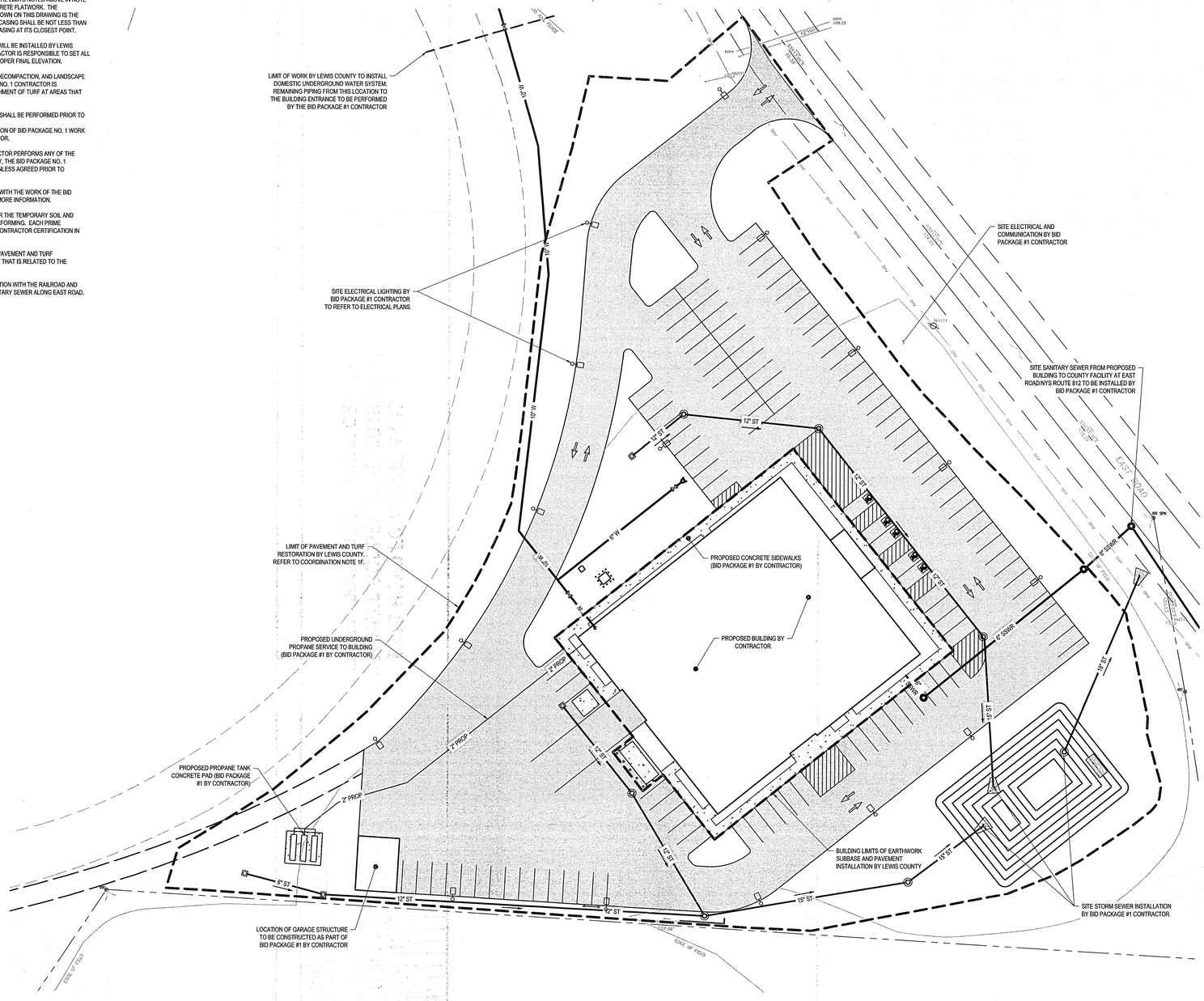
4. UNLESS AGREED TO PRIOR IN WRITING, IF BID PACKAGE NO. 1 CONTRACTOR PERFORMS ANY OF THE WORK SCOPE THAT IS DESIGNATED TO BE PERFORMED BY THE COUNTY, THE BID PACKAGE NO. 1 CONTRACTOR WILL NOT BE ENTITLED TO ANY ADDITIONAL PAYMENT, UNLESS AGREED PRIOR TO OTHERWISE IN WRITING WITH THE COUNTY.

5. BID PACKAGE NO. 1 CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE WORK OF THE BID PACKAGE NO. 2 CONTRACTOR. REFER TO THE PROJECT MANUAL FOR MORE INFORMATION.

6. SOIL AND EROSION CONTROL: EACH CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY SOIL AND EROSION CONTROL RELATED TO THE WORK ITEMS THAT IT WILL BE PERFORMING. EACH PRIME CONTRACTOR AT THE PROJECT SITE WILL BE REQUIRED TO SIGN THE CONTRACTOR CERTIFICATION IN THE PROJECT SWPPP.

7. BID PACKAGE NO. 1 CONTRACTOR IS RESPONSIBLE FOR THE ASPHALT PAVEMENT AND TURF RESTORATION ALONG EAST ROAD AND THE COUNTY HIGHWAY FACILITY THAT IS RELATED TO THE INSTALLATION OF THE SANITARY SEWER LINE.

8. BID PACKAGE NO. 1 CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH THE RAILROAD AND TOWN OF LOWVILLE AS IT RELATES TO THE INSTALLATION OF THE SANITARY SEWER ALONG EAST ROAD.



A1 WORK COORDINATION PLAN
SCALE: 1" = 30'

0 30' 60'

C&S COMPANIES
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LEWIS COUNTY N.Y. 1805

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CIVIL

WORK COORDINATION PLAN

C-002

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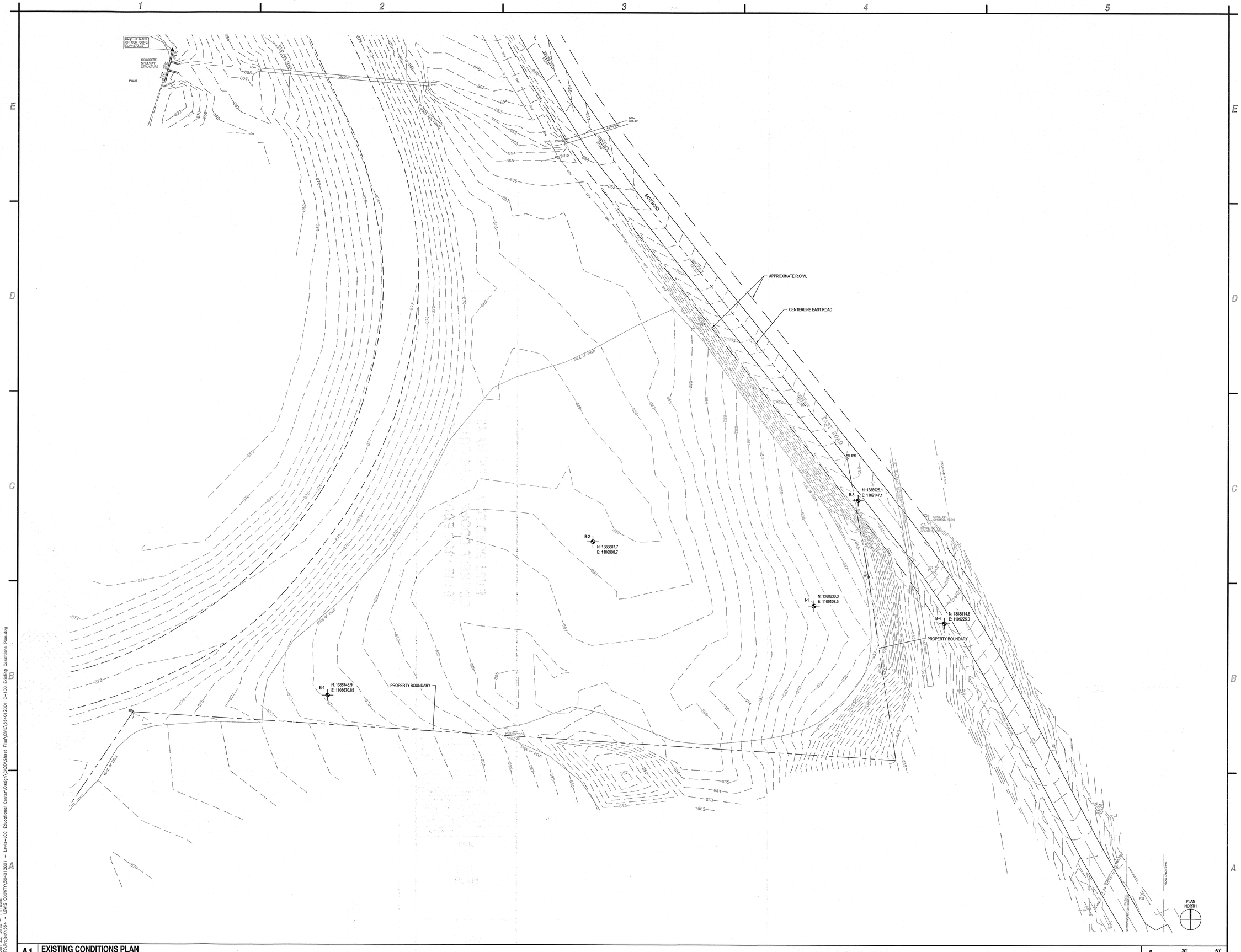

A1 EXISTING CONDITIONS PLAN
SCALE: 1" = 30'

0 30' 90'

C&S COMPANIES
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STATE OF NEW YORK · DARREN T. BURGESS · 089335 · LICENSED PROFESSIONAL ENGINEER · 6-22-18

LEWIS COUNTY, N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
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CIVIL

EXISTING CONDITIONS PLAN

C-100

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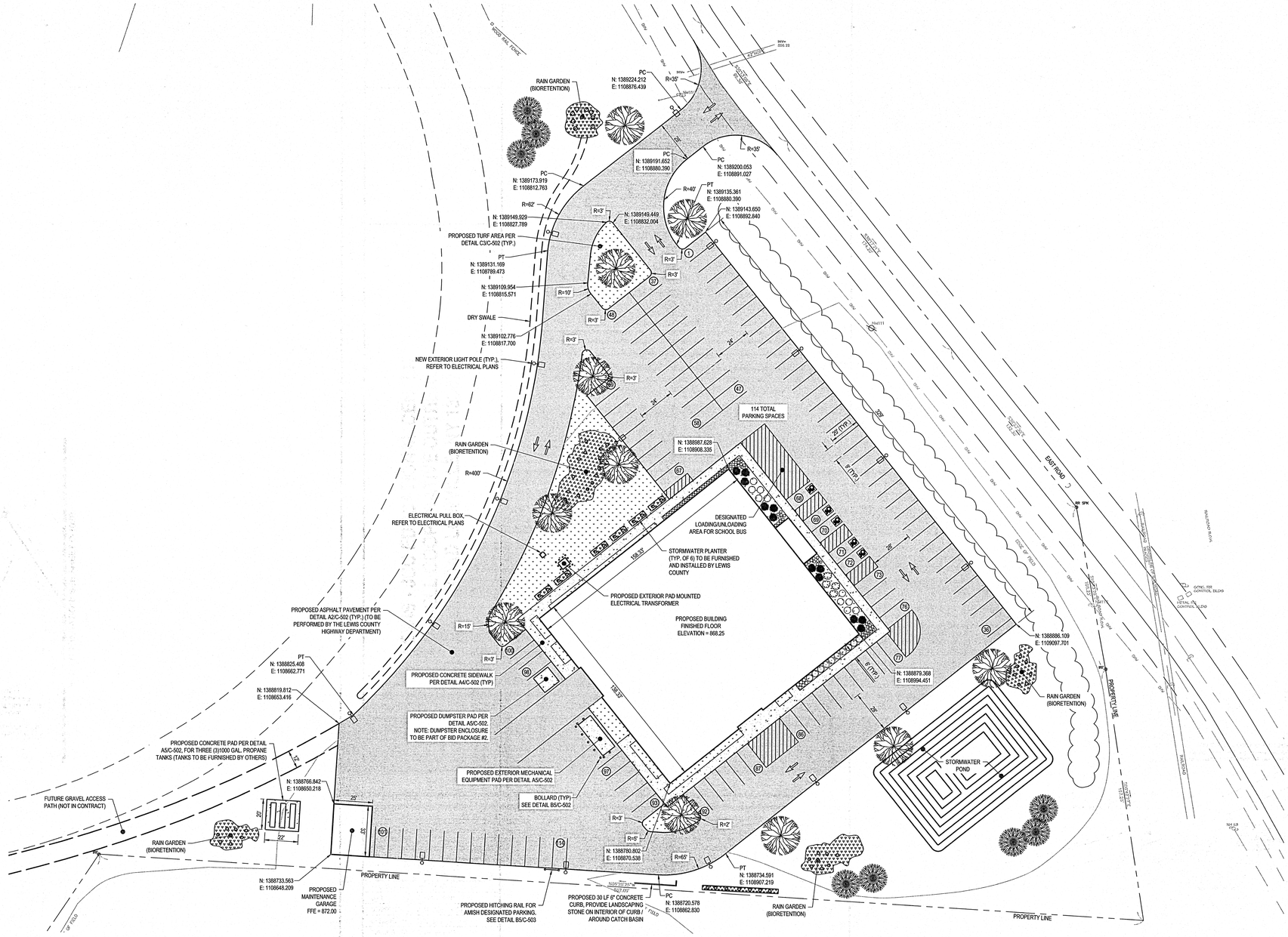
NOTE:

1. REFER TO SHEET C-105 FOR LANDSCAPING NOTES AND PLANTING SCHEDULE. ALL LANDSCAPING AND PLANTING WORK IS TO BE PERFORMED BY THE LEWIS COUNTY HIGHWAY DEPARTMENT.
2. ALL NEW ASPHALT PAVEMENT (INCLUDING SUBBASE AND PAVEMENT STRIPING AND MARKINGS) IS TO BE PERFORMED AND INSTALLED BY THE LEWIS COUNTY HIGHWAY DEPARTMENT.



A1 SITE PLAN
SCALE: 1" = 30'

0 30' 90'

C&S COMPANIES
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
Fax: 315-455-9667
www.cscos.com

STATE OF NEW YORK · CHRISTOPHER P. BAGLEY · 089373 · LICENSED PROFESSIONAL ENGINEER · C-22-18

LEWIS COUNTY N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO: 564.012.001
DATE: JUNE 22, 2018
DRAWN BY: K. MAGILL-JONES
DESIGNED BY: T. LONG
CHECKED BY: D. WETHEY, P.E.

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CIVIL

SITE PLAN

C-101

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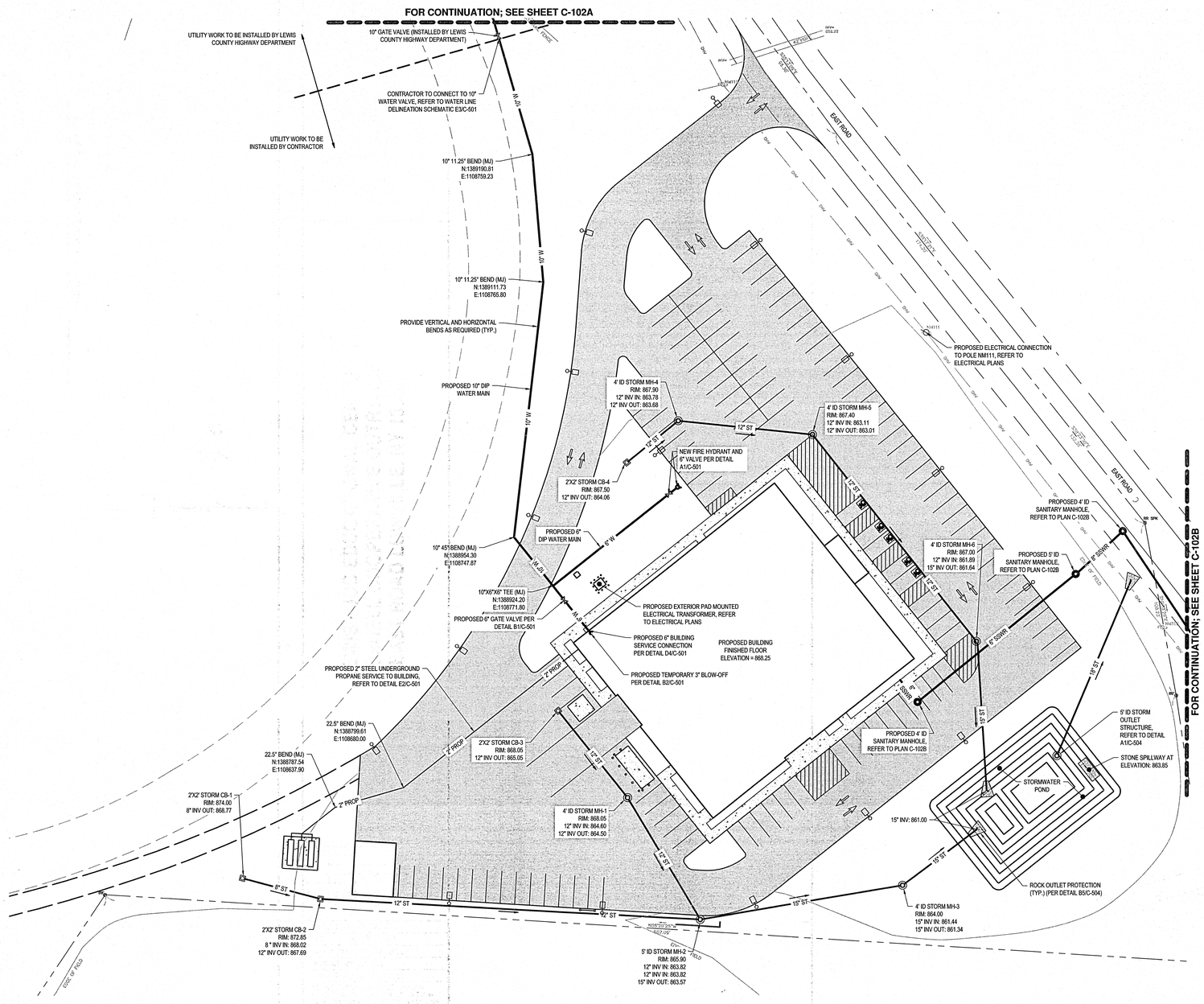
NOTES

1. REFER TO ELECTRICAL SITE PLANS FOR LOCATIONS OF UNDERGROUND ELECTRICAL SERVICE TO NEW ACADEMIC BUILDING AND UNDERGROUND SITE LIGHTING CIRCUITS / CONDUITS. COORDINATE UTILITY INSTALLATION DURING CONSTRUCTION.
2. PROVIDE A MINIMUM OF 5'-0" OF VERTICAL COVER FROM GRADE TO TOP OF PIPE FOR NEW WATER MAINS. PROVIDE A MINIMUM OF 18" OF VERTICAL CLEARANCE WHEN CROSSING ANY STORM OR SANITARY SEWER PIPING.
3. ALL STORM AND SANITARY SEWER STRUCTURES AND PIPE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.



A1 UTILITY PLAN
SCALE: 1" = 30'

0 30' 60'

C&S COMPANIES
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
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CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

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UTILITY PLAN

C-102

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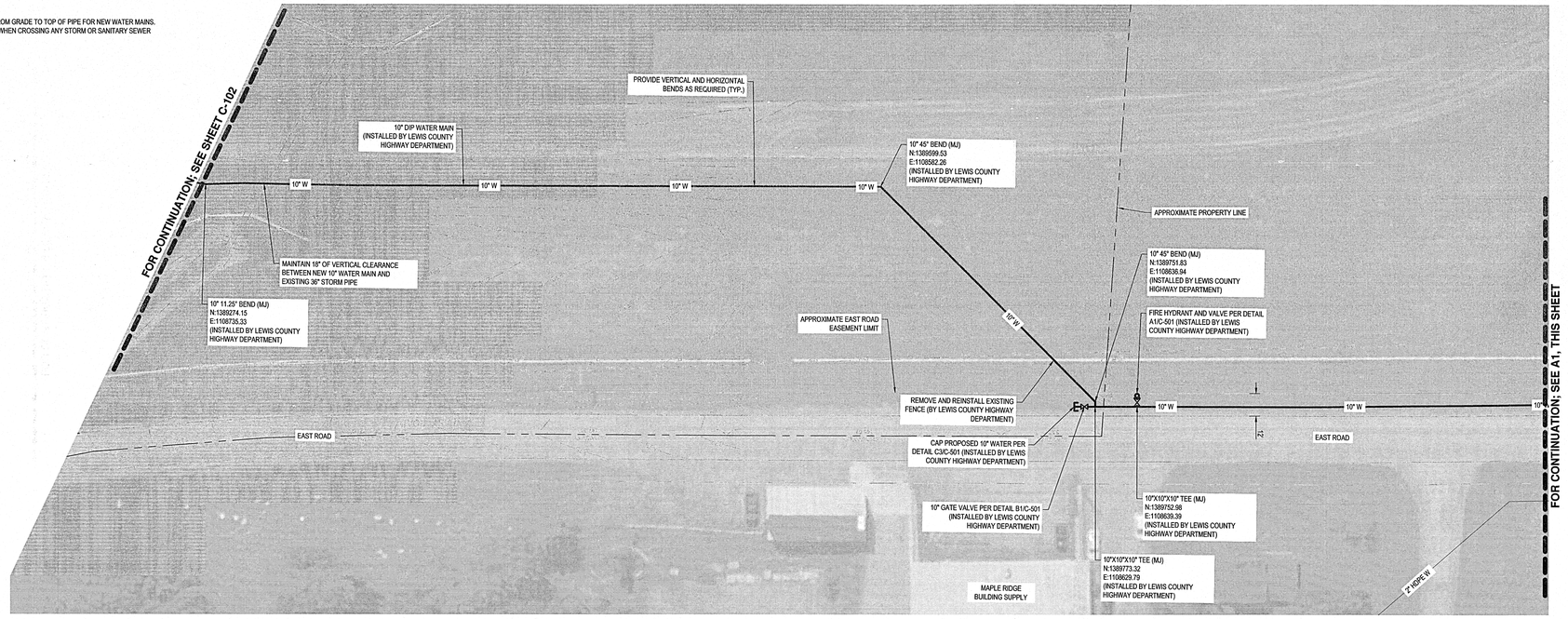
NOTES

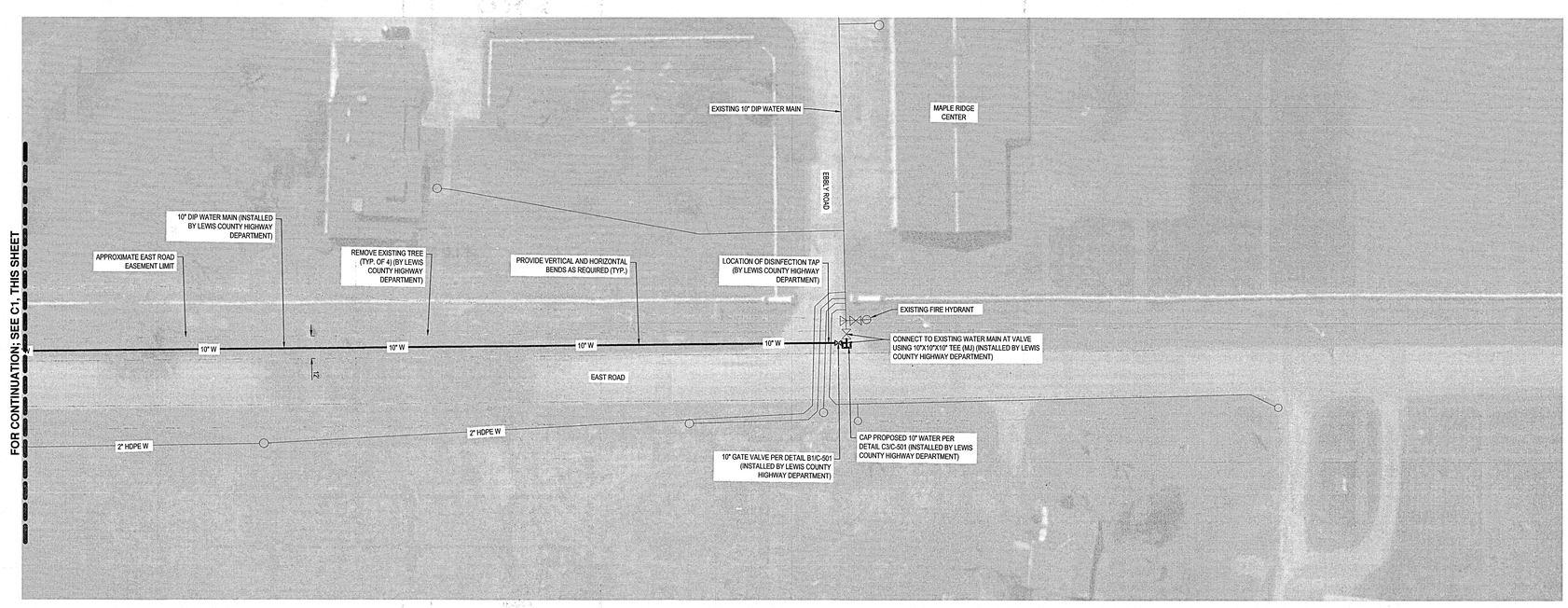
1. PROVIDE A MINIMUM OF 5'-0" OF VERTICAL COVER FROM GRADE TO TOP OF PIPE FOR NEW WATER MAINS. PROVIDE A MINIMUM OF 18" OF VERTICAL CLEARANCE WHEN CROSSING ANY STORM OR SANITARY SEWER PIPING.



PLAN NORTH

C1 UTILITY PLAN
SCALE: 1" = 30'

0 30' 60'



PLAN NORTH

A1 UTILITY PLAN
SCALE: 1" = 30'

0 30' 60'

C&S COMPANIES
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
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LEWIS COUNTY N.Y. 1805

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CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	K. MAGILL-JONES
DESIGNED BY:	T. LONG
CHECKED BY:	D. WETHEY, P.E.

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CIVIL

UTILITY PLAN

C-102A

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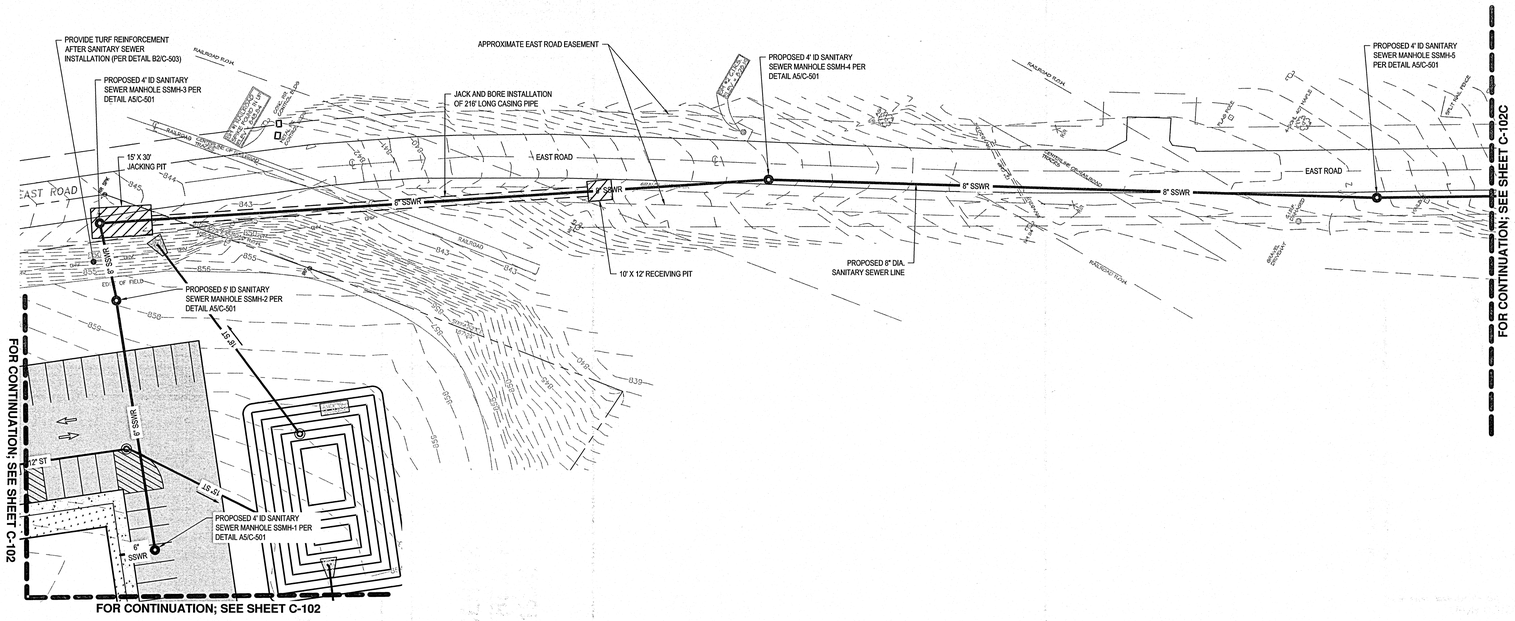
NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND PROTECTION OF TRAFFIC ALONG EAST ROAD DURING SANITARY SEWER INSTALLATION. REFER TO DETAIL E1/C-502.

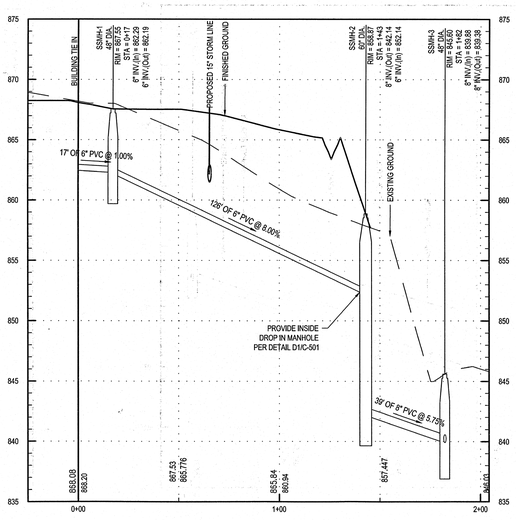


PLAN NORTH

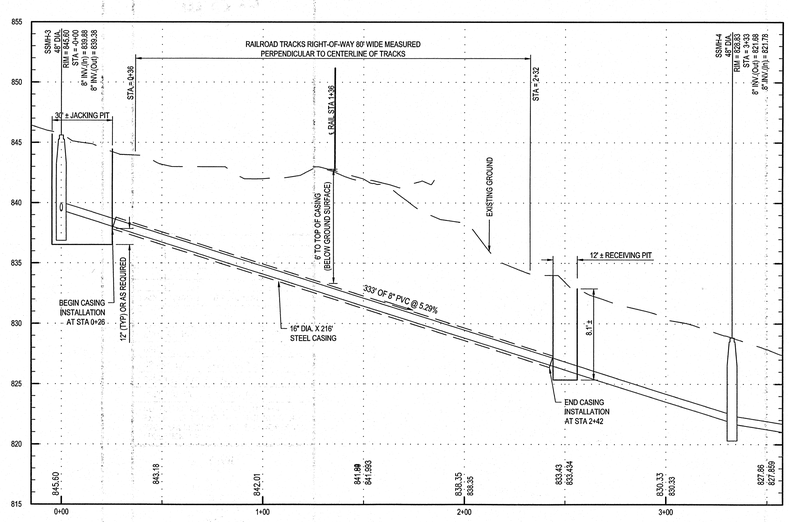
C1 UTILITY PLAN
SCALE: 1" = 30'

0 30' 60'

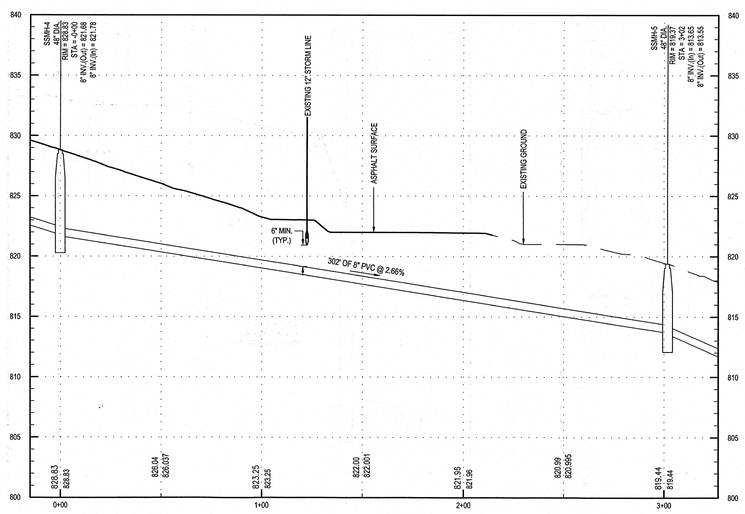
NOTES:
1. ALL NEW SANITARY SEWER SHALL HAVE 5'-0" MINIMUM COVER BELOW GROUND SURFACE.
2. THE CASING PIPE SHALL HAVE A MINIMUM COVER OF 5'-0" MEASURED FROM THE BASE OF THE RAIL TO THE TOP OF THE CASING PIPE AT ITS CLOSEST POINT.
3. FINAL SIZES OF JACKING AND RECEIVING PITS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.



NEW BUILDING CONNECTION TO SSMH-3



NEW SSMH-3 TO NEW SSMH-4



NEW SSMH-4 TO NEW SSMH-5

A1 PROFILES
SCALE: 1" = 30' H; 1" = 5' V

0 5' 10' 0 30' 60'

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EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION
		REVISIONS

PROJECT NO: 564.012.001
DATE: JUNE 22, 2018
DRAWN BY: K. MAGILL-JONES
DESIGNED BY: T. LONG
CHECKED BY: D. WETHEY, P.E.

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CIVIL

UTILITY PLAN AND PROFILES

C-102B

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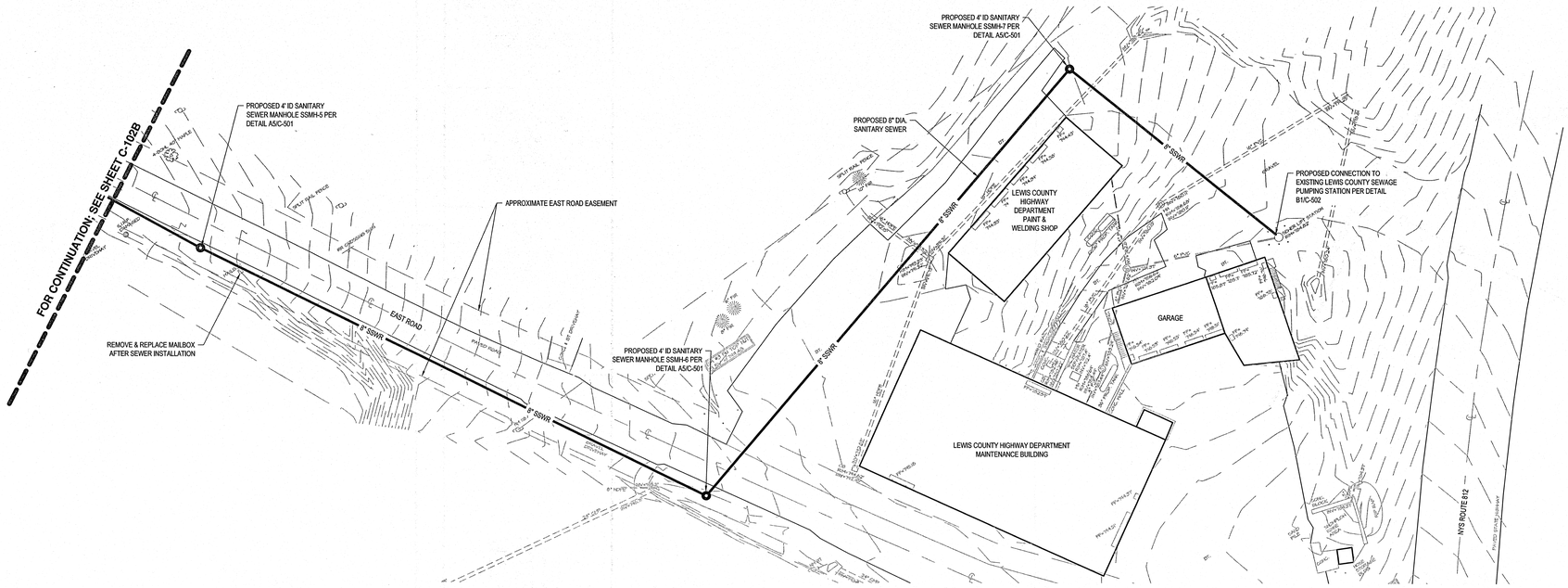
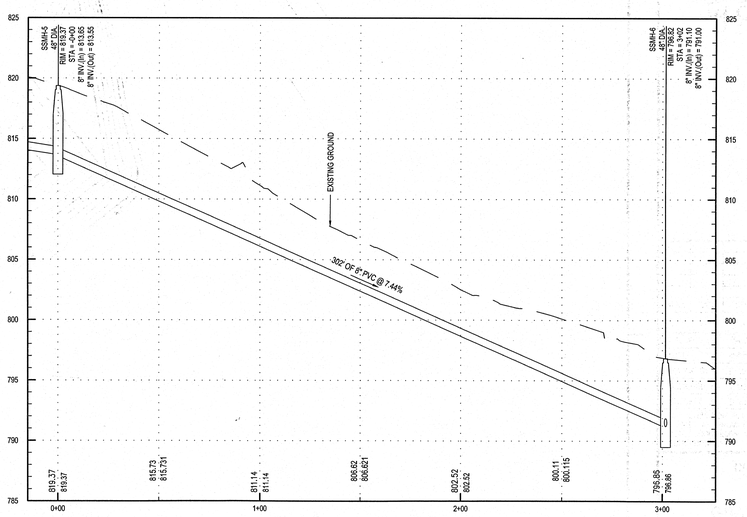
NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND PROTECTION OF TRAFFIC ALONG EAST ROAD DURING SANITARY SEWER INSTALLATION. REFER TO DETAIL E1/C-502.



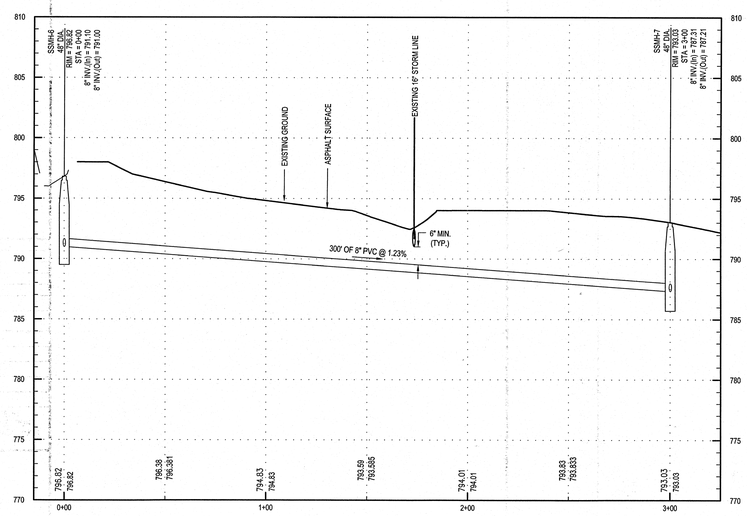
C1 UTILITY PLAN
SCALE: 1" = 30'

0 30' 60'

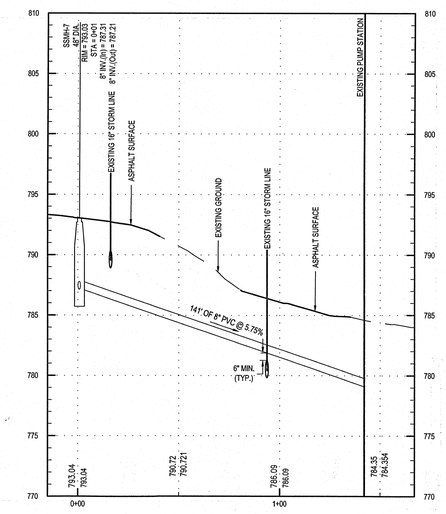
NOTES:
1. ALL NEW SANITARY SEWER SHALL HAVE 5'-0" MINIMUM COVER BELOW GROUND SURFACE.



NEW SSMH-5 TO NEW SSMH-6



NEW SSMH-6 TO NEW SSMH-7



NEW SSMH-7 TO SEWER LIFT STATION CONNECTION

A1 PROFILES
SCALE: 1" = 30' H; 1" = 5' V

0 5' 10' 0 30' 60'

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LEWIS COUNTY N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	K. MAGILL-JONES
DESIGNED BY:	T. LONG
CHECKED BY:	D. WETHEY, P.E.

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CIVIL

UTILITY PLAN AND PROFILES

C-102C

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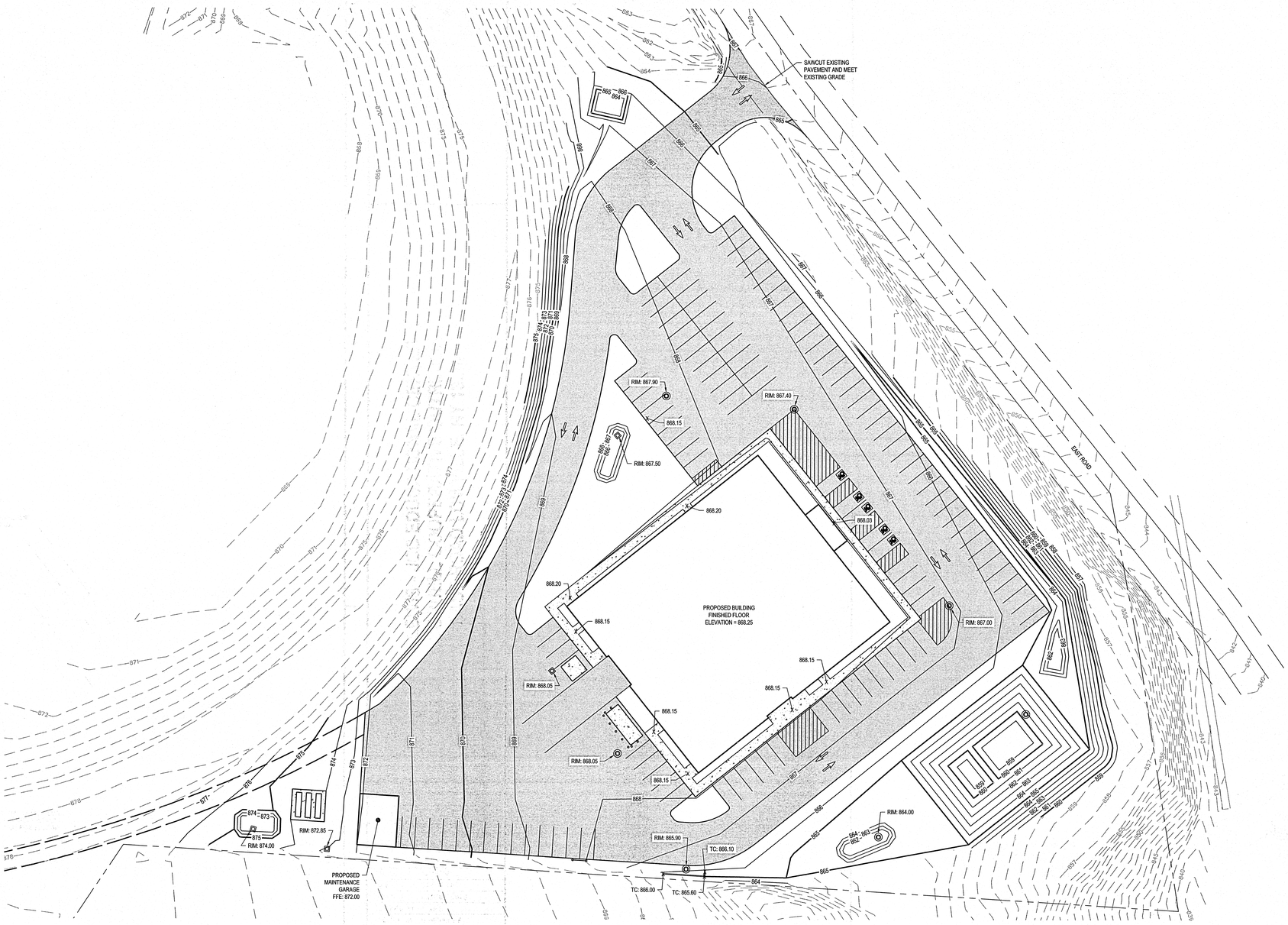
NOTE:

1. ROUGH GRADING OF SITE TO BE PERFORMED BY THE LEWIS COUNTY HIGHWAY DEPARTMENT.
2. PERMANENT TOPSOIL, SEED AND MULCH / TURF ESTABLISHMENT TO BE PERFORMED BY THE LEWIS COUNTY HIGHWAY DEPARTMENT, BOTH CONTRACTOR AND LEWIS COUNTY HIGHWAY DEPARTMENT RESPONSIBLE FOR TEMPORARY TURF ESTABLISHMENT MEASURES PER THE PROJECT SWPPP.



PLAN NORTH

A1 GRADING PLAN
SCALE: 1" = 30'

0 30' 90'

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499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
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LEWIS COUNTY N.Y. 1805

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CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	K. MAGILL-JONES
DESIGNED BY:	T. LONG
CHECKED BY:	D. WETHEY, P.E.

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CIVIL

GRADING PLAN

C-103

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EROSION CONTROL NOTES:

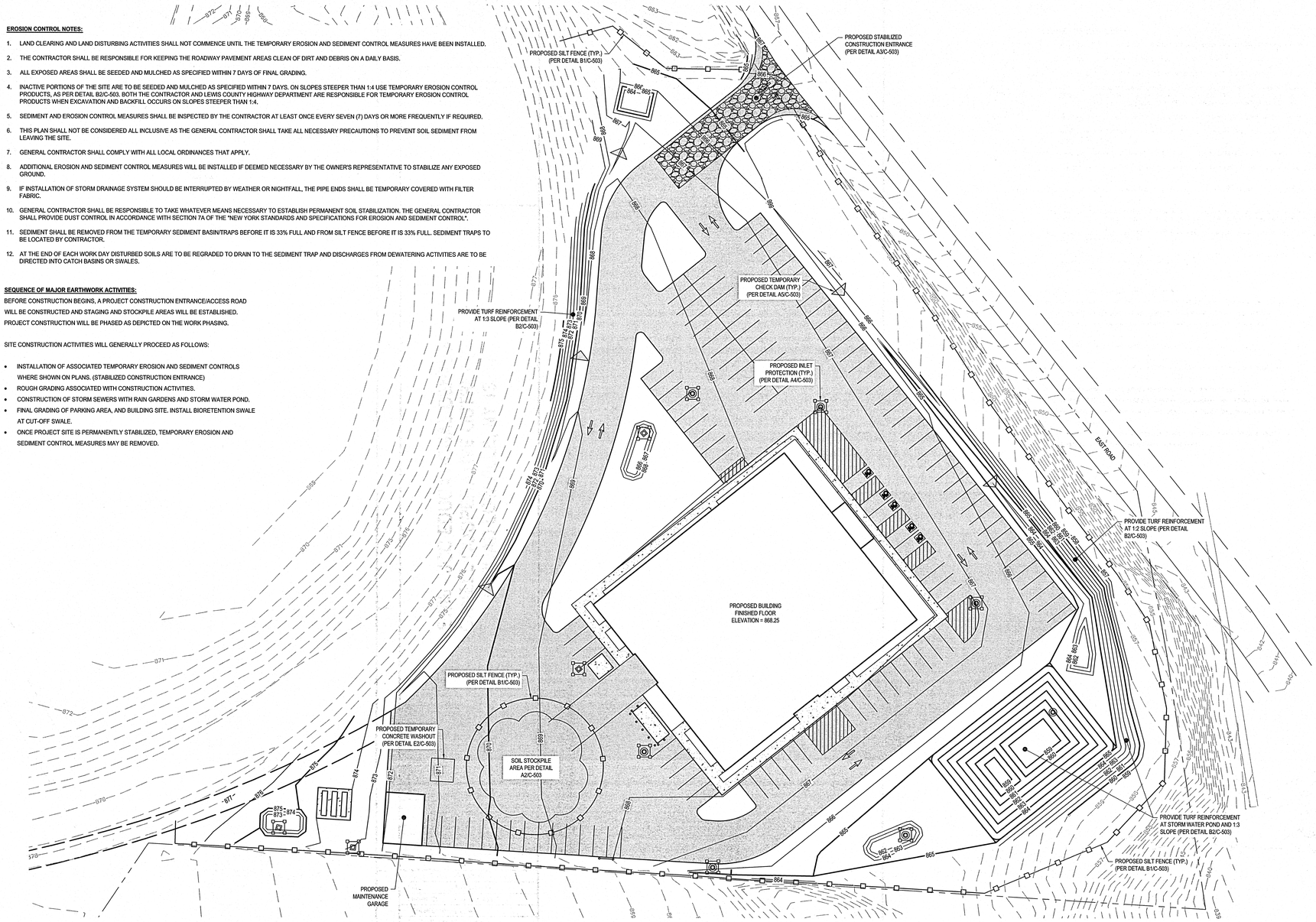
1. LAND CLEARING AND LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE ROADWAY PAVEMENT AREAS CLEAN OF DIRT AND DEBRIS ON A DAILY BASIS.
3. ALL EXPOSED AREAS SHALL BE SEEDED AND MULCHED AS SPECIFIED WITHIN 7 DAYS OF FINAL GRADING.
4. INACTIVE PORTIONS OF THE SITE ARE TO BE SEEDED AND MULCHED AS SPECIFIED WITHIN 7 DAYS. ON SLOPES STEEPER THAN 1:4 USE TEMPORARY EROSION CONTROL PRODUCTS, AS PER DETAIL B2/C-503. BOTH THE CONTRACTOR AND LEWIS COUNTY HIGHWAY DEPARTMENT ARE RESPONSIBLE FOR TEMPORARY EROSION CONTROL PRODUCTS WHEN EXCAVATION AND BACKFILL OCCURS ON SLOPES STEEPER THAN 1:4.
5. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR AT LEAST ONCE EVERY SEVEN (7) DAYS OR MORE FREQUENTLY IF REQUIRED.
6. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
7. GENERAL CONTRACTOR SHALL COMPLY WITH ALL LOCAL ORDINANCES THAT APPLY.
8. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE TO STABILIZE ANY EXPOSED GROUND.
9. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE TEMPORARY COVERED WITH FILTER FABRIC.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION. THE GENERAL CONTRACTOR SHALL PROVIDE DUST CONTROL IN ACCORDANCE WITH SECTION 7A OF THE "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL".
11. SEDIMENT SHALL BE REMOVED FROM THE TEMPORARY SEDIMENT BASIN/TRAPS BEFORE IT IS 33% FULL AND FROM SILT FENCE BEFORE IT IS 33% FULL. SEDIMENT TRAPS TO BE LOCATED BY CONTRACTOR.
12. AT THE END OF EACH WORK DAY DISTURBED SOILS ARE TO BE REGRADED TO DRAIN TO THE SEDIMENT TRAP AND DISCHARGES FROM DEWATERING ACTIVITIES ARE TO BE DIRECTED INTO CATCH BASINS OR SWALES.

SEQUENCE OF MAJOR EARTHWORK ACTIVITIES:

BEFORE CONSTRUCTION BEGINS, A PROJECT CONSTRUCTION ENTRANCE/ACCESS ROAD WILL BE CONSTRUCTED AND STAGING AND STOCKPILE AREAS WILL BE ESTABLISHED. PROJECT CONSTRUCTION WILL BE PHASED AS DEPICTED ON THE WORK PHASING.

SITE CONSTRUCTION ACTIVITIES WILL GENERALLY PROCEED AS FOLLOWS:

- INSTALLATION OF ASSOCIATED TEMPORARY EROSION AND SEDIMENT CONTROLS WHERE SHOWN ON PLANS. (STABILIZED CONSTRUCTION ENTRANCE)
- ROUGH GRADING ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- CONSTRUCTION OF STORM SEWERS WITH RAIN GARDENS AND STORM WATER POND.
- FINAL GRADING OF PARKING AREA, AND BUILDING SITE. INSTALL BIORETENTION SWALE AT CUT-OFF SWALE.
- ONCE PROJECT SITE IS PERMANENTLY STABILIZED, TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MAY BE REMOVED.



PLAN NORTH

0 30' 60'

A1 EROSION & SEDIMENT CONTROL PLAN
SCALE: 1" = 30'

C&S COMPANIES
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499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
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CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION
		REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	K. MAGILL-JONES
DESIGNED BY:	T. LONG
CHECKED BY:	D. WETHEY, P.E.

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CIVIL

EROSION AND SEDIMENT CONTROL PLAN

C-104

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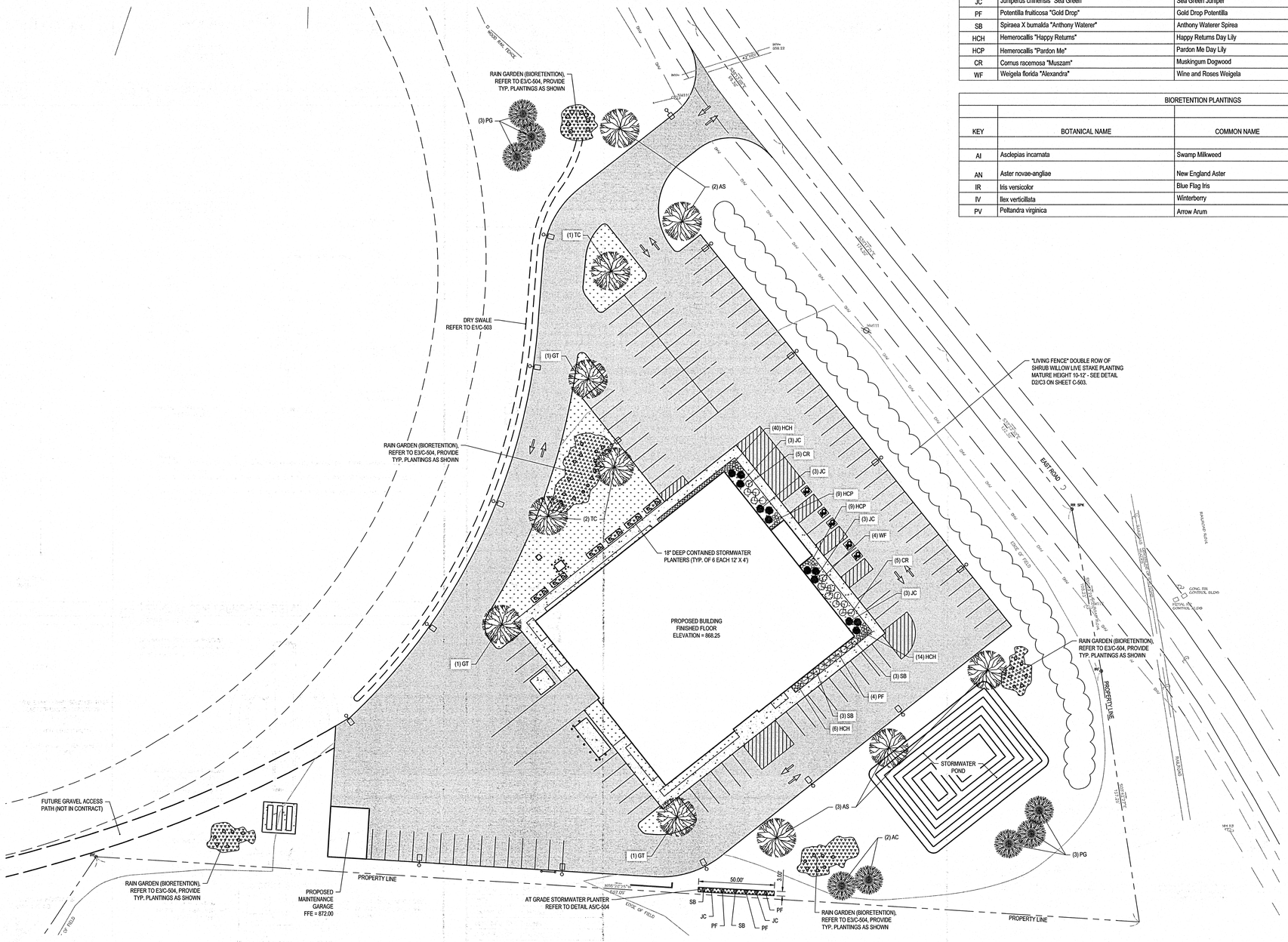
NOTES:

1. ALL LANDSCAPING AND PLANTINGS (INCLUDING RAIN GARDEN PLANTINGS) ARE TO BE PERFORMED (FURNISHED AND INSTALLED) BY THE LEWIS COUNTY HIGHWAY DEPARTMENT.
2. PERMANENT TOPSOIL, SEED AND MULCH / TURF ESTABLISHMENT TO BE PERFORMED BY THE LEWIS COUNTY HIGHWAY DEPARTMENT. BOTH CONTRACTOR AND LEWIS COUNTY HIGHWAY DEPARTMENT RESPONSIBLE FOR TEMPORARY TURF ESTABLISHMENT MEASURES PER THE PROJECT SWPPP.
3. PRIOR TO FINAL TOPSOILING AND ESTABLISHMENT OF TURF, COUNTY FORCES TO PERFORM DECOMPACTION AT OVERALL TURF AREAS, AS CONFIRMED BY THE ENGINEER. DECOMPACTION EFFORTS SHALL MEET THE INTENT OF CHAPTER 5.1.6 OF THE 2010 NYS DEC STORMWATER MANAGEMENT DESIGN MANUAL.

PLANT LIST				
KEY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE	NOTES
SP	Salix purpurea "Streamco"	Streamco Purple Osier Willow	Live stake	See planting detail
GT	Gleditsia triacanthos Inermis	Thornless Honey Locust	2" Caliper	
AS	Acer saccharum "Adirizam"	Adirondack Sugar Maple	2" Caliper	
PG	Picea glauca	White Spruce	5-6" Ht.	Full to Ground
TC	Tilia cordata	Littleleaf Linden	2" Caliper	
AC	Abies concolor	White Fir	5-6' Ht.	Full to Ground
JC	Juniperus chinensis "Sea Green"	Sea Green Juniper	30" Ht. B&B	
PF	Potentilla fruticosa "Gold Drop"	Gold Drop Potentilla	No. 5 Cont.	
SB	Spiraea X bumalda "Anthony Waterer"	Anthony Waterer Spirea	No. 5 Cont.	
HCH	Hemerocallis "Happy Returns"	Happy Returns Day Lily	No. 1 Cont.	
HCP	Hemerocallis "Pardon Me"	Pardon Me Day Lily	No. 1 Cont.	
CR	Cornus racemosa "Muszam"	Muskingum Dogwood	No. 5 Cont.	
WF	Weigela florida "Alexandra"	Wine and Roses Weigela	No. 5 Cont.	

BIORETENTION PLANTINGS				
KEY	BOTANICAL NAME	COMMON NAME	MINIMUM SIZE	SPACING
AI	Asclepias incarnata	Swamp Milkweed	2" Plug	12" O.C.
AN	Aster novae-angliae	New England Aster	2" Plug	12" O.C.
IR	Iris versicolor	Blue Flag Iris	2" Plug	12" O.C.
IV	Ilex verticillata	Winterberry	2" Plug	24" O.C.
PV	Peltandra virginica	Arrow Arum	2" Plug	12" O.C.



A1 PLANTING PLAN
SCALE: 1" = 30'

0 30' 60'

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CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

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DESIGNED BY: T. LONG
CHECKED BY: D. WETHEY, P.E.

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CIVIL

LANDSCAPING PLAN

C-105

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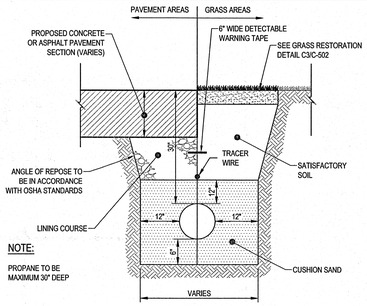
E1 NOT USED
SCALE: NOT TO SCALE

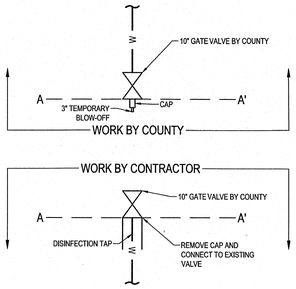
E2 PROPANE PIPING TRENCHING SECTION
SCALE: NOT TO SCALE



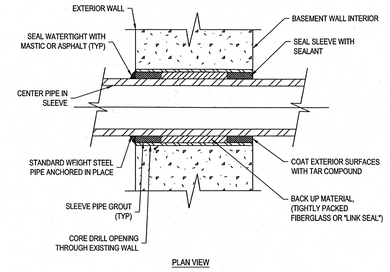
NOTE:

PROPANE TO BE MAXIMUM 30" DEEP

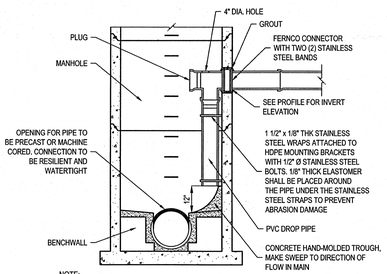
E3 WATER MAIN DELINEATION SCHEMATIC
SCALE: NOT TO SCALE



E5 EXTERIOR WALL PENETRATION DETAIL
SCALE: NOT TO SCALE



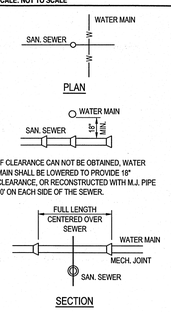
D1 INSIDE DROP CONNECTION DETAIL
SCALE: NOT TO SCALE



NOTE:

1. PROVIDE INSIDE DROP CONNECTION AT NEW SANITARY MH-1.4.

D2 SEWER MAIN AND WATER MAIN SEPARATION DETAIL
SCALE: NOT TO SCALE

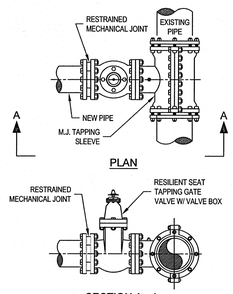


* IF CLEARANCE CAN NOT BE OBTAINED, WATER MAIN SHALL BE LOWERED TO PROVIDE 18" CLEARANCE, OR RECONSTRUCTED WITH M.J. PIPE 10' ON EACH SIDE OF THE SEWER.

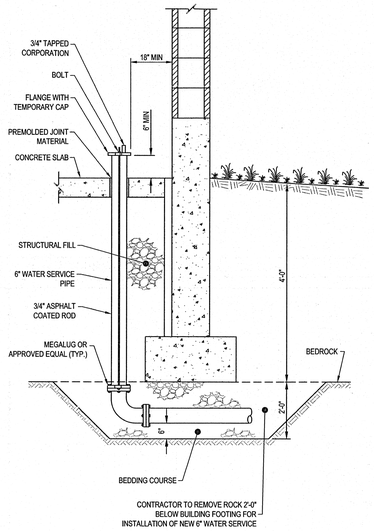
NOTE:

WHEREVER REQUIRED VERTICAL CLEARANCE CAN NOT BE OBTAINED, THE SANITARY SEWER SHALL BE ENCASED IN NYSDOT CLASS "A" CONCRETE FOR A DISTANCE OF 10' EITHER SIDE OF THE INTERSECTION WITH THE WATER MAIN AS INSTRUCTED BY THE ENGINEER. CLEARANCE REQUIREMENTS SHALL BE AS OUTLINED IN PART 8.6 IN THE "RECOMMENDED STANDARDS FOR WATER WORKS." ALSO REQUIRED IS A 10' MINIMUM HORIZONTAL SEPARATION BETWEEN STORM SEWERS & WATER MAINS.

D3 TAPPING SLEEVE AND VALVE DETAIL
SCALE: NOT TO SCALE

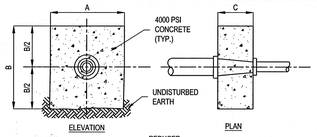


D4 BUILDING CONNECTION DETAIL
SCALE: NOT TO SCALE



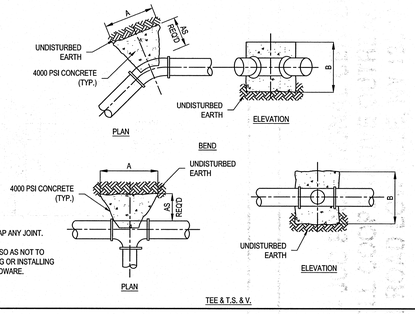
C1 TYPICAL THRUST BLOCK DETAIL
SCALE: NOT TO SCALE

CONCRETE ANCHOR & THRUST BLOCK DIMENSIONS									
SIZE	10"			8"			6"		
DIMENSIONS	A	B	C	A	B	C	A	B	C
BEND 90°	2'-11"	2'-11"	—	2'-4"	2'-4"	—	1'-6"	1'-6"	—
BEND 45°	2'-2"	2'-2"	—	1'-9"	1'-9"	—	1'-2"	1'-2"	—
BEND 22 1/2°	1'-6"	1'-6"	—	1'-3"	1'-3"	—	1'-0"	1'-0"	—
BEND 11 1/4°	1'-2"	1'-2"	—	0'-11"	0'-11"	—	1'-0"	1'-0"	—
D.I. ANCHOR	7'-0"	4'-0"	1'-0"	6'-0"	3'-0"	1'-0"	5'-4"	2'-6"	1'-0"
TS&V, TEE BRANCH SIZE	2'-6"	2'-6"	—	2'-0"	2'-0"	—	1'-10"	1'-10"	—
REDUCER 12"X	2'-6"	2'-6"	1'-2"	3'-8"	3'-8"	1'-2"	4'-0"	4'-0"	1'-2"
REDUCER 10"X	—	—	—	2'-6"	2'-6"	1'-0"	2'-6"	2'-6"	1'-0"
REDUCER 8"X	—	—	—	—	—	—	2'-0"	2'-0"	(0'-11"
REDUCER 6"X	—	—	—	—	—	—	—	—	—

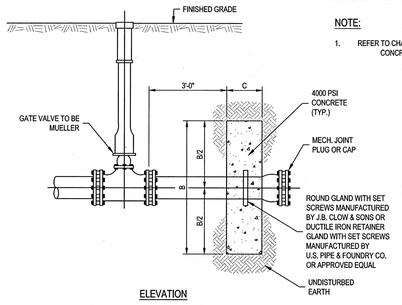


THRUST BLOCK NOTES:

1. CONCRETE NOT TO OVERLAP ANY JOINT.
2. CONCRETE TO BE PLACED SO AS NOT TO INTERFERE WITH REMOVING OR INSTALLING ANY OF THE JOINTING HARDWARE.

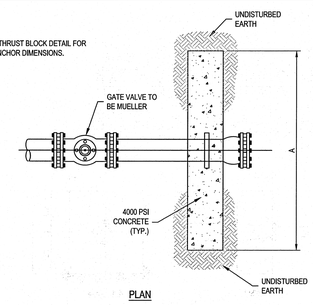


C3 WATER PIPE ANCHOR AND PLUG DETAIL
SCALE: NOT TO SCALE

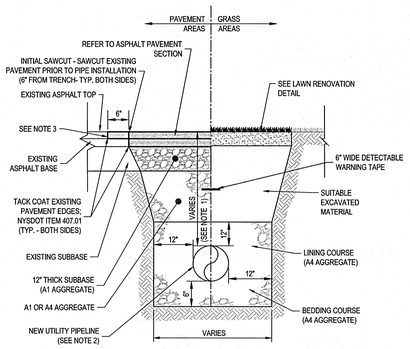


NOTE:

1. REFER TO CHART IN THRUST BLOCK DETAIL FOR CONCRETE ANCHOR DIMENSIONS.



C5 TYPICAL PIPE TRENCHING DETAIL
SCALE: NOT TO SCALE



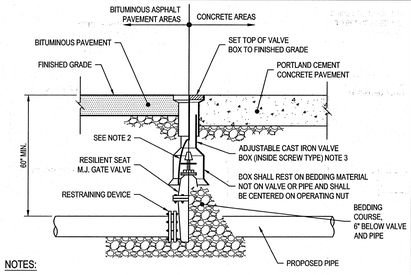
NOTES:

1.) REFER TO PROFILES FOR UTILITY PIPING DEPTHS. PROVIDE MINIMUM 5'-0" COVER FOR NEW WATER MAINS.

2.) THIS UTILITY PIPING DETAIL IS FOR THE CONSTRUCTION OF NEW STORM, SANITARY & WATER PIPING.

3.) FINAL SAWCUT - SAWCUT EXISTING PAVEMENT PRIOR TO FINAL PAVING (6" FROM INITIAL SAWCUT - TYP. BOTH SIDES)

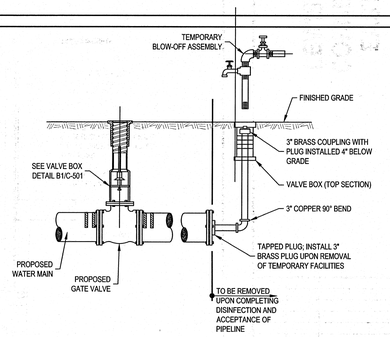
B1 TYPICAL GATE VALVE DETAIL
SCALE: NOT TO SCALE



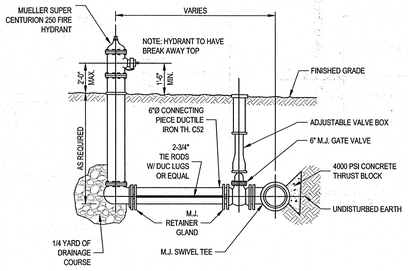
NOTES:

1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR VALVES SHALL BE EXTENDED TO A MAXIMUM OF 30-INCHES BELOW FINISHED GRADE.
3. ADJUST TO MID-RANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.

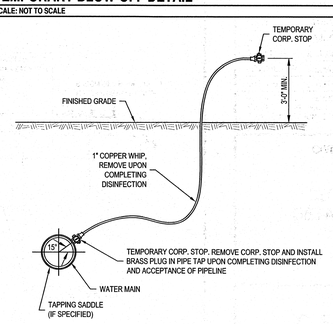
B2 TEMPORARY BLOW-OFF DETAIL
SCALE: NOT TO SCALE



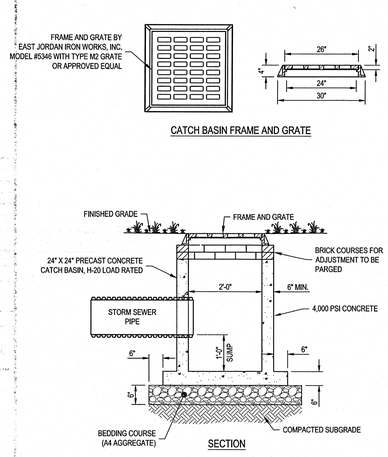
A1 FIRE HYDRANT ASSEMBLY DETAIL
SCALE: NOT TO SCALE



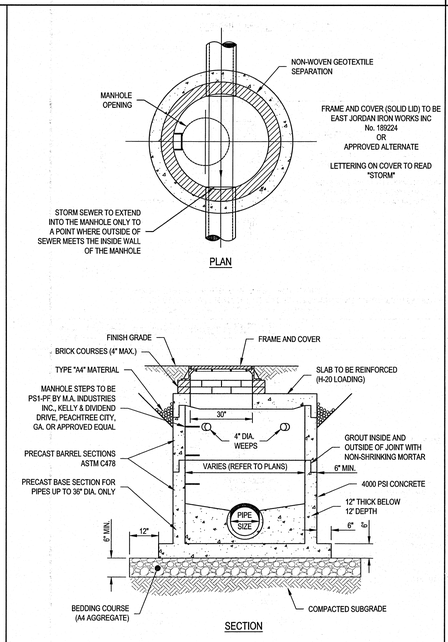
A2 SAMPLING & DISINFECTION TAP DETAIL
SCALE: NOT TO SCALE



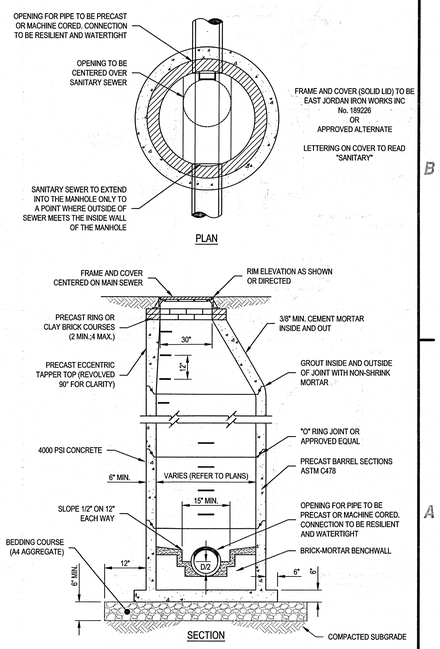
A3 TYPICAL 2'X2' CATCH BASIN - YARD DRAIN
SCALE: NOT TO SCALE



A4 TYPICAL DRAINAGE MANHOLE DETAIL
SCALE: NOT TO SCALE



A5 TYPICAL PRECAST CONCRETE SANITARY SEWER MANHOLE
SCALE: NOT TO SCALE



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LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	K. MAGILL-JONES
DESIGNED BY:	T. LONG
CHECKED BY:	D. WETHEY, P.E.

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

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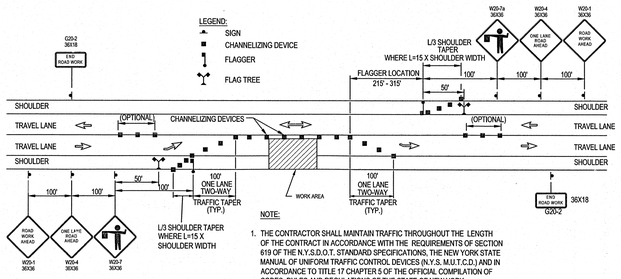
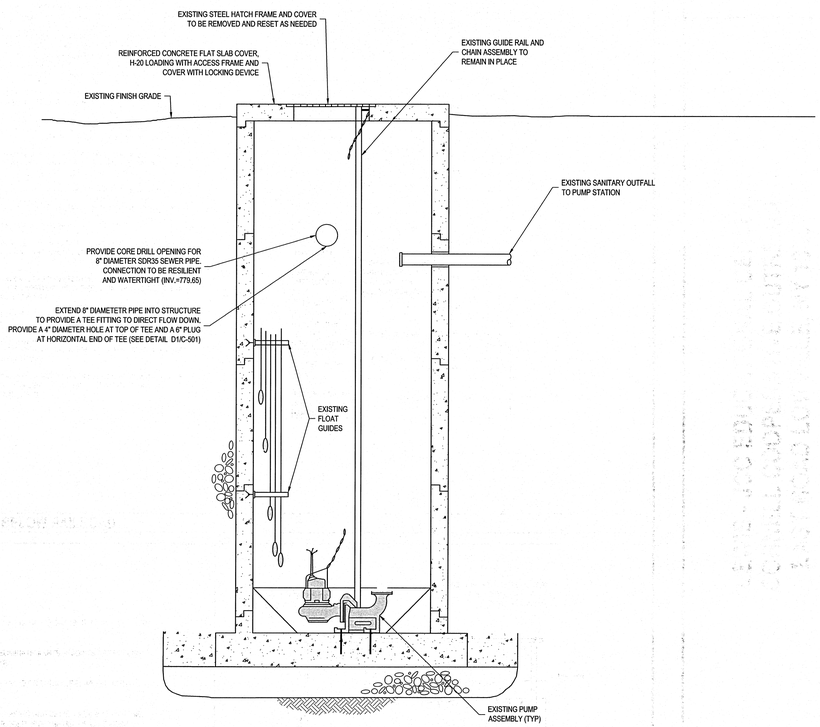


NOTE:

1. THE CONTRACTOR SHALL MAINTAIN TRAFFIC THROUGHOUT THE LENGTH OF THE CONTRACT IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 619 OF THE N.Y.S.D.O.T. STANDARD SPECIFICATIONS, THE NEW YORK STATE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (N.Y.S. M.U.T.C.D.) AND IN ACCORDANCE TO TITLE 17 CHAPTER 5 OF THE OFFICIAL COMPILATION OF CODES, RULES AND REGULATIONS OF THE STATE OF NEW YORK.

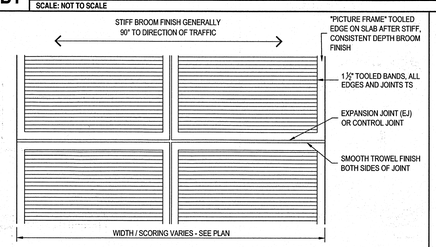
E1 SINGLE LANE CLOSURE MPT PLAN (EAST ROAD)

SCALE: NOT TO SCALE



B1 PUMP STATION CONNECTION DETAIL

SCALE: NOT TO SCALE

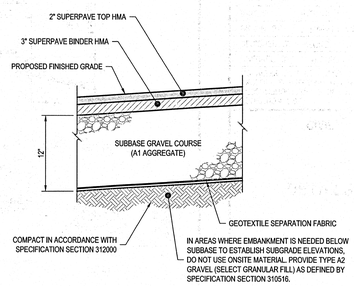


NOTES:

GENERALLY CONFORM TO JOINTING PATTERN ON SITE AT EXISTING ADJACENT WALKWAYS. MAXIMUM JOINT SPACES ARE AS FOLLOWS:
4 FT WIDE SIDE WALK: MAXIMUM JOINT SPACING = 4'-6"
5 FT WIDE SIDE WALK: MAXIMUM JOINT SPACING = 5'-6"
REVIEW FINISH, SCORING, AND JOINT PATERN WITH OWNER'S REPRESENTATIVE.

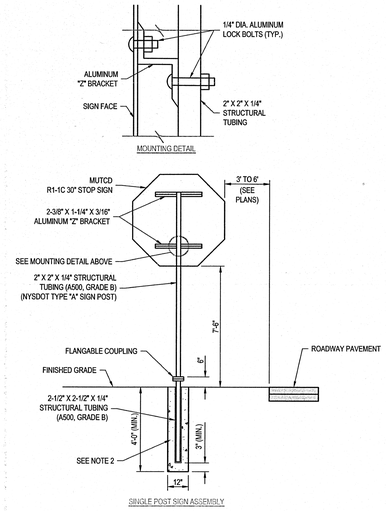
A1 CONCRETE FINISH DETAIL

SCALE: NOT TO SCALE



A2 TYPICAL PAVEMENT SECTION

SCALE: NOT TO SCALE



D3 TRAFFIC SIGN DETAILS AND SIGNAGE TABLE

SCALE: NOT TO SCALE

SIGNAGE TABLE

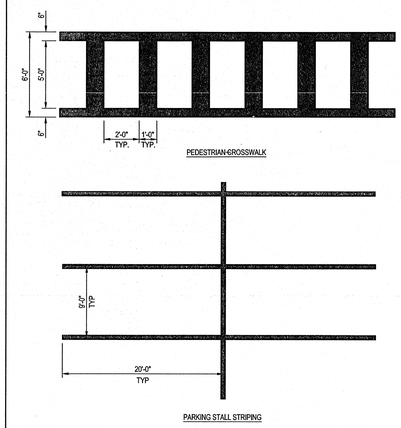
SIGN (N.M.U.T.C.D. #)	BACKGROUND & LEGEND COLOR	SIGN SIZE	QTY.	LOCATION
STOP (R1-1)	RED BACKGROUND WHITE LEGEND	30" X 30"	1	DRIVEWAY INTERSECTION WITH EAST ROAD
RESERVED PARKING (R7-8 MOD)	WHITE BACKGROUND GREEN LEGEND BLUE & WHITE SYMBOL	12" X 18"	5	AT DESIGNATED PARKING AREAS
NO PARKING ANY TIME	WHITE BACKGROUND GREEN LEGEND BLUE & WHITE SYMBOL	12" X 18"	7	AT BUILDING OVERHEAD DOORS AND ADJACENT TO PROPANE TANKS; ADJACENT TO ADA PARKING SPACES
NO PARKING BUS STOP (R7-107)	WHITE BACKGROUND RED LEGEND	12" X 18"	2	AT DESIGNATED BUS AREA
(NFPA 170 HYDRANT MARKER SIGN)	RED BACKGROUND WHITE LEGEND	12" X 18"	1	AT FIRE HYDRANT

NOTES:

1. SIGNS SHALL CONFORM IN SIZE, APPEARANCE AND REFLECTORIZATION TO THE REQUIREMENTS OF THE NATIONAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (NMUTCD), WITH NEW YORK STATE SUPPLEMENTS.

2. NYSDOT TYPE "A" SIGN POSTS SHALL BE INSTALLED INTO THE GROUND SO THAT THEY PROVIDE A MOMENT CAPACITY OF 2,100 FT-LBS PER POST/AS PER NYSDOT STANDARD SPECIFICATIONS SECTION (645-2). IF SOFT SOILS ARE ENCOUNTERED, SIGN POST BASE SHALL BE INSTALLED WITH A SOIL PLATE OR IN 2,500 PSI CONCRETE AS DIRECTED BY OWNER'S REPRESENTATIVE.

3. CONTRACTOR TO COORDINATE SIGN POST LOCATIONS WITH UNDERGROUND UTILITIES. ALL SIGNS SHALL BE STAKED AND LOCATION APPROVED BY THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION



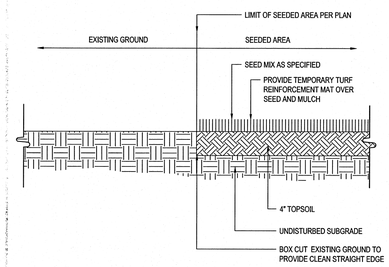
TYPICAL PAVEMENT MARKING NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH PART 3 OF THE 2009 FEDERAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE NEW YORK STATE SUPPLEMENT. LINE WIDTHS AND SPACING SHALL BE THE SAME AS DETAILED ON THIS SHEET.

2. AFTER THE CONTRACTOR HAS ESTABLISHED MARKING LINE POINTS FOR THE MARKINGS, AS PER NYSDOT SPEC. SECT. 640-3, BY PAINT OR OTHER APPROVED MEANS AND BEFORE THE REFLECTORIZED PAVEMENT MARKINGS ARE PLACED, THE OWNER'S REPRESENTATIVE SHALL REVIEW AND APPROVE OR REVISE THESE LOCATIONS TO MEET FIELD CONDITIONS. NECESSARY LOCATION ADJUSTMENTS WILL BE MADE PRIOR TO PLACING THE REFLECTORIZED PAVEMENT MARKINGS.

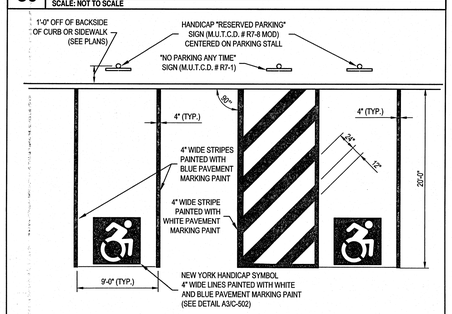
D5 PAVEMENT MARKING DETAILS & NOTES

SCALE: NOT TO SCALE



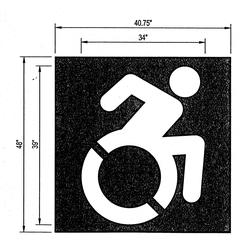
C3 LAWN RESTORATION

SCALE: NOT TO SCALE



B3 ADA PARKING LAYOUT DETAILS

SCALE: NOT TO SCALE

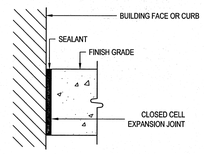


NOTE:

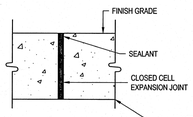
1. HANDICAP LOGO TO BE PAINTED COLOR: WHITE, BACKGROUND COLOR: BLUE.

A3 NEW YORK HANDICAP SYMBOL MARKING DETAIL

SCALE: NOT TO SCALE

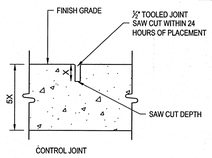


EXPANSION JOINT (EJ)



EXPANSION JOINT (EJ)

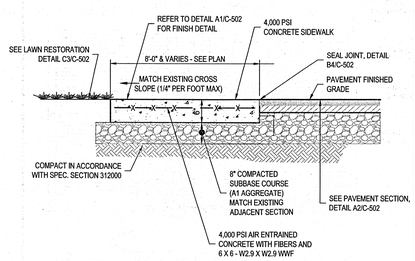
NOTE: EXPANSION JOINTS IN CONCRETE SLABS SHALL BE PLACED AT 12' O.C. WITH A MINIMUM SPACING OF 15'.



CONTROL JOINT

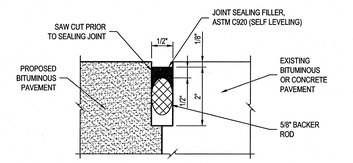
B4 CONCRETE JOINT DETAILS FOR SIDEWALKS & PADS

SCALE: NOT TO SCALE



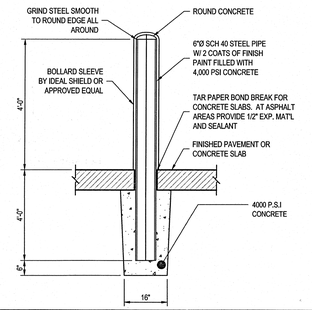
A4 CONCRETE SIDEWALK DETAIL

SCALE: NOT TO SCALE



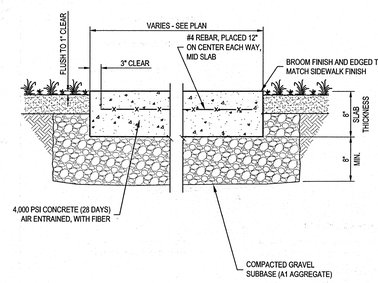
C5 JOINT SEALING DETAIL

SCALE: NOT TO SCALE



B5 TYPICAL BOLLARD DETAIL

SCALE: NOT TO SCALE



A5 TYPICAL CONCRETE PAD DETAIL

SCALE: NOT TO SCALE

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EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION
		REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	K. MAGILL-JONES
DESIGNED BY:	T. LONG
CHECKED BY:	D. WETHEY, P.E.

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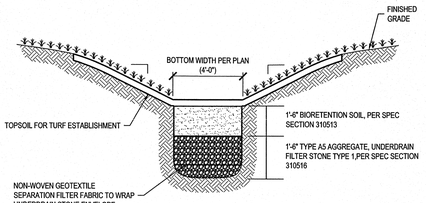
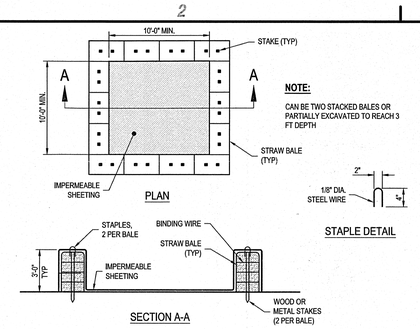


E1 DRY SWALE DETAIL
SCALE: NOT TO SCALE



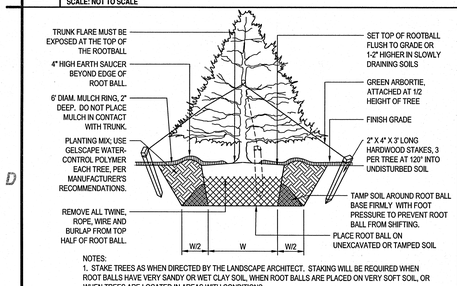
NOTE:

CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

CONSTRUCTION SPECIFICATIONS

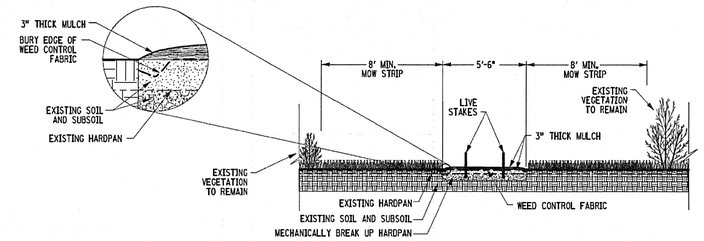
1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY, DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER.
6. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

E2 TEMPORARY CONCRETE WASHOUT AREA DETAIL
SCALE: NOT TO SCALE

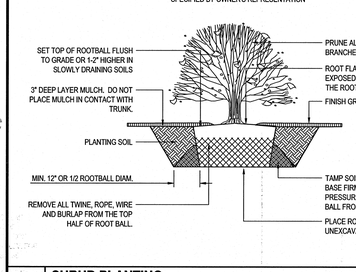


NOTES:
1. STAKE TREES AS WHEN DIRECTED BY THE LANDSCAPE ARCHITECT. STAKING WILL BE REQUIRED WHEN ROOT BALLS HAVE VERY SANDY OR WET CLAY SOIL, WHEN ROOT BALLS ARE PLACED ON VERY SOFT SOIL, OR WHEN TREES ARE LOCATED IN AREAS WITH CONDITIONS.
2. TIGHTEN ARBORTIE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT.
3. PRUNE ANY BROKEN OR DEAD BRANCHES.

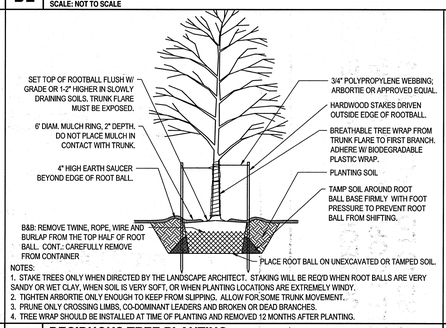
D1 EVERGREEN TREE PLANTING
SCALE: NOT TO SCALE



D2 LIVING FENCE SECTION
SCALE: NOT TO SCALE

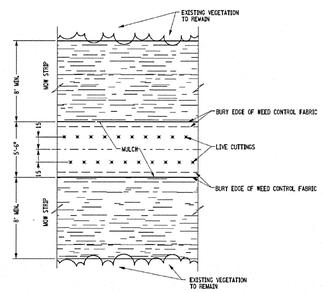


C1 SHRUB PLANTING
SCALE: NOT TO SCALE

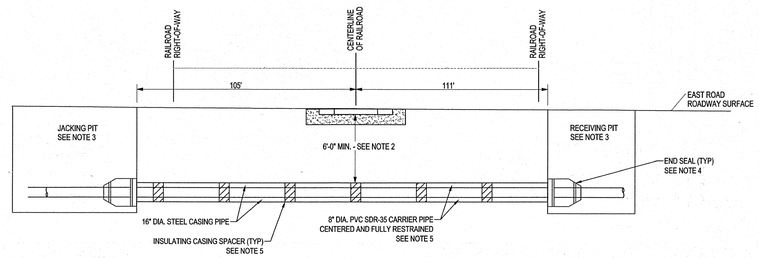


NOTES:
1. STAKE TREES ONLY WHEN DIRECTED BY THE LANDSCAPE ARCHITECT. STAKING WILL BE REQ'D WHEN ROOT BALLS ARE VERY SANDY OR WET CLAY, WHEN SOIL IS VERY SOFT, OR WHEN PLANTING LOCATIONS ARE EXTREMELY WINDY.
2. TIGHTEN ARBORTIE ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT.
3. PRUNE ONLY CROSSING LIMBS, CO-DOMINANT LEADERS AND BROKEN OR DEAD BRANCHES.
4. TREE WRAP SHOULD BE INSTALLED AT TIME OF PLANTING AND REMOVED 12 MONTHS AFTER PLANTING.

C2 DECIDUOUS TREE PLANTING
SCALE: NOT TO SCALE



C3 LIVING FENCE PLAN
SCALE: NOT TO SCALE



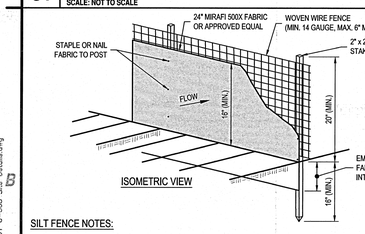
CASING PIPE INSTALLATION SECTION - LOOKING NORTHWEST

NOTES:

1. THE CASING PIPE SHALL EXTEND UNDER THE TRACKS AND ACROSS THE RAILWAY RIGHTS OF WAY, TO THE LIMITS SHOWN ON DWG C-102B.
2. THE CASING SHALL BE NOT LESS THAN 6.0 FEET FROM THE BASE OF RAILWAY RAIL TO THE TOP OF THE CASING AT ITS CLOSEST POINT.
3. THE FACES OF THE JACKING AND RECEIVING PITS SHALL BE LOCATED A MINIMUM OF 42 FEET FROM THE CENTERLINE OF THE ADJACENT TRACK, MEASURED AT RIGHT ANGLES TO THE TRACK. SUPPORT OF JACKING AND RECEIVING PITS: THE CONTRACTOR SHALL SUBMIT DESIGN PLANS AND CALCULATIONS FOR THE INSTALLATION OF AN EXCAVATION PROTECTION SYSTEM WHILE THE JACK AND BORE PITS ARE IN PLACE.
4. EACH END OF THE CASING PIPE SHALL BE SEALED WITH A WATERTIGHT RUBBER SEAL (MINIMUM 0.125 INCHES THICK), WITH 0.5 INCH WIDE STAINLESS STEEL CLAMPS.
5. AS PART OF THE INSTALLATION OF THE CARRIER PIPE INTO THE CASING PIPE, CONTRACTOR TO FURNISH AND INSTALL POLYETHYLENE INSULATED CASING SPACERS (CENTERED AND RESTRAINED), PLACED AT 6.0 FEET INTERVALS, OR AS RECOMMENDED BY THE MANUFACTURER.
6. STEEL CASING PIPE ENDS TO HAVE 37 DEGREE BEVELS FOR BUTT WELDS DURING CASING INSTALLATION. WELDING OF THE CASING PIPE ENDS SHALL BE PERFORMED BY A CERTIFIED WELDER.
7. ANY WORK AFFECTING A RAILROAD COMPANY'S PROPERTY, RIGHT OF WAY FACILITIES, OR OPERATIONS SHALL BE CARRIED OUT UNDER THE JOINT SUPERVISION OF THE OWNER'S REPRESENTATIVE AND THE RAILROAD COMPANY, IN A MANNER SATISFACTORY TO BOTH AGENCIES.
8. JACK AND BORE INSTALLATION OF THE STEEL CASING PIPE:
   - A. NO WORK AT THE RAILROAD RIGHT-OF-WAY CAN BEGIN UNTIL THE CONTRACTOR HAS THE APPROPRIATE PERMITS IN PLACE FROM THE MOHAWK, ADIRONDACK, AND NORTHERN RAILROAD.
   - B. THE JACK AND BORE OPERATION SHALL BE PROGRESSED ON A 24 HOUR PER DAY BASIS WITHOUT STOPPAGE (EXCEPT FOR ADDING LENGTHS OF PIPE), UNTIL THE LEADING EDGE OF THE PIPE HAS REACHED THE RECEIVING PIT.
   - C. THE USE OF WATER OR OTHER LIQUIDS TO FACILITATE SPOIL REMOVAL AND CASING PLACEMENT IS NOT ALLOWED.
   - D. DURING BORING OPERATIONS, THE OVERCUT BY THE CUTTING HEAD SHALL NOT EXCEED THE OUTSIDE DIAMETER OF THE PIPE BY MORE THAN 0.5 INCHES. ANY VOIDS GREATER THAN THIS SHALL BE FILLED WITH NON-SHRINK GROUT.
   - E. WORK ZONE PROTECTION OF TRAFFIC: REFER TO THE WORK ZONE TRAFFIC CONTROL NOTES AND PLANS FOR WORK ZONE REQUIREMENTS AT THE RAILROAD CROSSING, INCLUDING LIGHTING FOR NIGHTTIME CONSTRUCTION.

	CARRIER PIPE	CASING PIPE
CONTENTS TO BE HANDLED	DOMESTIC SANITARY SEWAGE	CARRIER PIPE AND CASING SPACERS
NORMAL OPERATING PRESSURE	0 PSI	0 PSI
NOMINAL SIZE OF PIPE	8 INCH DIAMETER	16 INCH DIAMETER
OUTSIDE DIAMETER	8.40 INCHES 9.36 INCHES AT JOINT	16.0 INCHES MINIMUM
INSIDE DIAMETER	7.92 INCHES	15.376 INCHES
WALL THICKNESS	0.24 INCHES	0.312 INCHES
WEIGHT PER FOOT	4.24 POUNDS PER FOOT	52.32 POUNDS PER FOOT
PIPE MATERIAL	POLYVINYL CHLORIDE (PVC)	CARBON STEEL PIPE
PROCESS OF MANUFACTURE	FACTORY: PVC CAST AND CURED	FACTORY: HOT ROLLED, SEAMLESS
SPECIFICATION AND GRADE	ASTM 3034	ASTM A252
GRADE OR CLASS	SDR-35	GRADE 2 SCHEDULE 20
TEST PRESSURE	25 FT HEAD PRESSURE	N/A
TYPE OF JOINT	INTEGRAL GASKET, BELL AND SPIGOT JOINTS	WELDED
TYPE OF COATING	NONE	NONE
DETAILS OF CATHODIC PROTECTION	NONE	NONE
DETAILS OF END SEALS OR PROTECTION	N/A	RUBBER CASING SEAL
METHOD OF INSTALLATION	PUSHING INTO CASING WITH BLOCKING AS PER MANUFACTURER'S RECOMMENDATIONS	JACKING
BURY (DEPTH TO TOP OF CASING)	MINIMUM 6 FEET	
CHARACTER OF SUBSTRATE AT CROSSING LOCATION	SOME FINE COARSE GRAVEL WITH SILTY CLAY	
APPROXIMATE GROUND WATER LEVEL	NO FREE STANDING WATER ENCOUNTERED AT DEPTH OF 15 FT	
SOURCE OF INFORMATION FOR SUBSURFACE CONDITIONS	SOIL BORINGS (MAY 2018)	

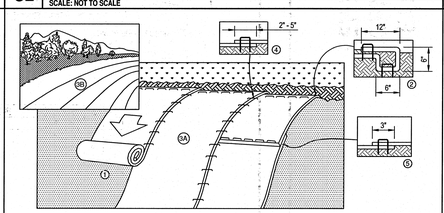
C4 UTILITY CROSSING SECTION BELOW RAILROAD
SCALE: NOT TO SCALE



SILT FENCE NOTES:

1. WOVEN WIRE FENCE SHALL BE SECURELY FASTENED TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. SILT FENCE FABRIC SHALL BE SECURELY FASTENED TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID-SECTION. WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
3. MAINTENANCE SHALL BE PROVIDED BY THE CONTRACTOR AS DIRECTED BY ENGINEER AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
4. CONTRACTOR SHALL REMOVE THE SILT FENCE AT THE APPROPRIATE TIME, DRESS THE DISTURBED AREAS, AND DISPOSE OF THE FENCE.

B1 TYPICAL SILT FENCE DETAIL
SCALE: NOT TO SCALE

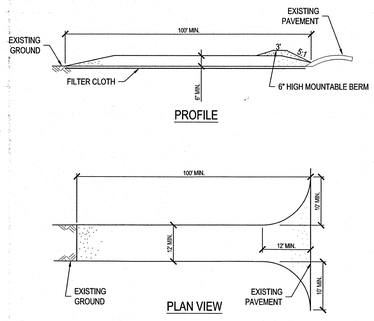


NOTE: ROLLED EROSION CONTROL PRODUCTS (RECP's) SHALL BE EITHER "TEMPORARY" OR "PERMANENT," AS CALLED FOR ON THE PLANS. TEMPORARY PRODUCTS SHALL BE SPECIFIED AS "EROSION CONTROL BLANKETS" OR "ECB's", WHILE PERMANENT PRODUCTS SHALL BE SPECIFIED AS "TURF REINFORCEMENT MAT'S" OR "TRM's." ECB's SHALL BE TENSAR / NORTH AMERICAN GREEN "SC150" OR APPROVED EQUAL. TRM'S SHALL BE TENSAR / NORTH AMERICAN GREEN "C350" OR APPROVED EQUAL. ALL RECP's SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

B2 TYPICAL ROLLED EROSION PRODUCT DETAIL
SCALE: NOT TO SCALE

STABILIZED CONSTRUCTION ENTRANCE NOTES:

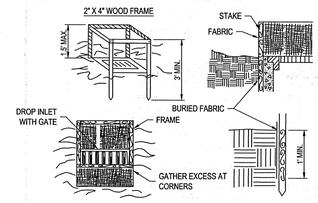
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF- WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



A3 TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
SCALE: NOT TO SCALE

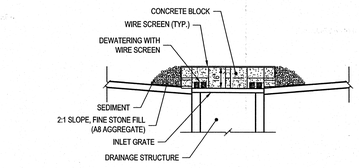
SILT FENCE INLET PROTECTION NOTES:

1. FILTER FABRIC SHALL MEET THE SPECIFICATION REQUIREMENTS. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" X 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" X 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY. MAXIMUM DRAINAGE AREA 1 ACRE.
7. COIR ROLL SHALL BE PLACED ALONG THE FRONT OF THE INLET TO THE CATCH BASIN EXTENDING ACROSS THE ENTIRE WIDTH OF THE INLET TO THE CONCRETE GUTTER APRON LIMITS ON BOTH SIDE OF THE CATCH BASIN INLET. COIR ROLL SHALL BE WEIGHTED DOWN AS NEEDED WITH SAND BAGS OR EQUAL.
8. REFER TO THE SEQUENCE OF CONSTRUCTION ACTIVITIES LOCATED WITHIN THE SWPPP FOR TIMING OF THESE MEASURES TO BE INSTALLED.



STORM DRAIN INLET PROTECTION DETAIL (GRASS AREA)

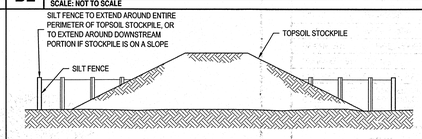
A4 TYPICAL INLET PROTECTION DETAIL (GRASS AREAS)
SCALE: NOT TO SCALE



STORM DRAIN INLET PROTECTION NOTES:

1. SEDIMENT TRAP SHALL BE INSPECTED AND CLEANED IF NEEDED AFTER EVERY RAIN STORM OR AS DIRECTED BY THE ENGINEER.
2. WEEPS SHALL BE BULKHEADED BY CONTRACTOR UPON COMPLETION OF PROJECT.
3. CONTRACTOR HAS OPTION OF USING NYSDEC APPROVED PREFORMED INLET PROTECTION BLOCKS, AS APPROVED BY THE ENGINEER.

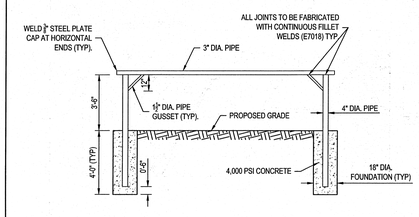
A1 TYPICAL INLET PROTECTION DETAIL (PAVED AREAS)
SCALE: NOT TO SCALE



TEMPORARY TOPSOIL STOCKPILE NOTES:

1. REFER TO SILT FENCE DETAIL FOR MATERIALS AND INSTALLATION METHODS.
2. IF THE STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, IT SHALL BE STABILIZED WITH BURLAP MATTING OR SEEDED WITHIN 7 DAYS OF COMPLETION TO MINIMIZE EROSION.
3. INSPECTION OF SILT FENCE SHALL BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF 1/2". REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
4. SEDIMENT TRAPPED BY THE SILT FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
5. SILT FENCE SHALL BE MAINTAINED IN PLACE UNTIL TOPSOIL STOCKPILE HAS BEEN ELIMINATED AND SHALL BE REMOVED ONLY WHEN DIRECTED BY THE ENGINEER.
6. TOPSOIL STOCKPILE LOCATION SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE OWNER OR AN AUTHORIZED REPRESENTATIVE

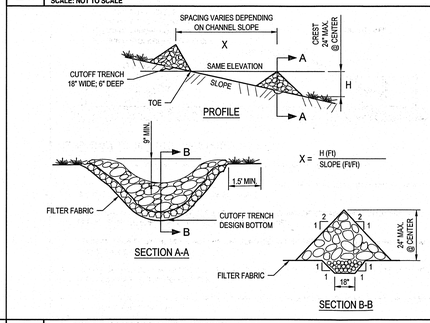
A2 TEMPORARY SOIL STOCKPILE DETAIL
SCALE: NOT TO SCALE



HITCHING RAIL NOTES:

1. ALL PIPE IS TO BE SCHEDULE 40 STEEL. DIAMETERS SHOWN ARE NOMINAL PIPE SIZE. ALL JOINTS TO BE WELDED ALL AROUND WITH 3/16" WELDS.
2. ALL METAL USED SHALL BE PRIMED AND PAINTED AS PER SPECIFICATION SECTION 129300.

B5 HITCHING RAIL DETAIL
SCALE: NOT TO SCALE



A5 TYPICAL CHECK DAM DETAIL
SCALE: NOT TO SCALE

C&S COMPANIES
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
Fax: 315-455-9667
www.cscos.com

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LEWIS COUNTY N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO: 564.012.001
DATE: JUNE 22, 2018
DRAWN BY: K. MAGILL-JONES
DESIGNED BY: T. LONG
CHECKED BY: D. WETHEY, P.E.

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

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SITE DETAILS

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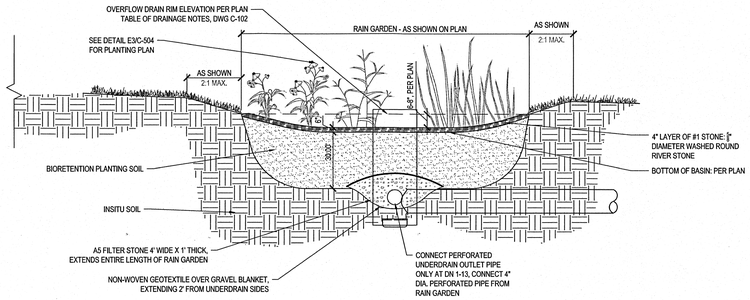
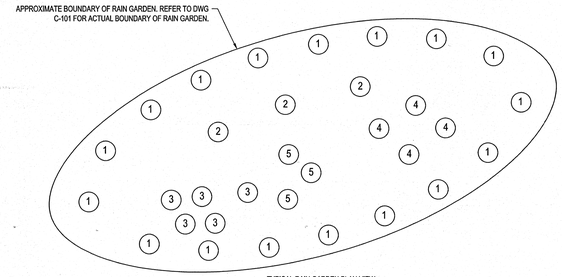


E1 RAIN GARDEN DETAIL
SCALE: NOT TO SCALE

RAIN GARDEN NOTES:
1.) PLANTING PLAN IS TYPICAL FOR RAIN GARDEN.
2.) REVIEW LOCATIONS ON-SITE WITH DIRECTORS REPRESENTATIVE PRIOR TO ACTUAL PLANTING.
3.) REFER TO DWG C-103 FOR GRADING AT RAIN GARDEN.
4.) RAIN GARDEN PLANTINGS TO BE FURNISHED AND INSTALLED BY LEWIS COUNTY HIGHWAY DEPARTMENT.

RAIN GARDEN PLANTING TABLE

KEY #	BOTANICAL NAME	COMMON NAME	NOTES
1	PANICUM VIRGATOM	SWITCH GRASS	4' SPACING
2	ILEX VERTICILLATA	WINTERBERRY	3 SHRUBS AT RAIN GARDEN
3	MONARDA FISTOLOSA	WILD BERGAMOT	MINIMUM 12 PLANTS PER RAIN GARDEN
4	CAREX VULPINOIDEA	FOX SEDGE	PLACE IN TWO GROUPS, 4 TO 8 PLANTS PER GROUP
5	OSMUNDA CINNAMOMEA	CINNAMON FERN	PLACE PLANTINGS IN A GROUP AROUND OUTLET STRUCTURE



TYPICAL RAIN GARDEN PLAN VIEW

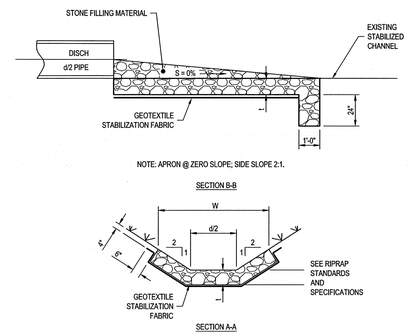
E3 RAIN GARDEN DETAIL
SCALE: NOT TO SCALE

D1 NOT USED
SCALE: NOT TO SCALE

D2 NOT USED
SCALE: NOT TO SCALE

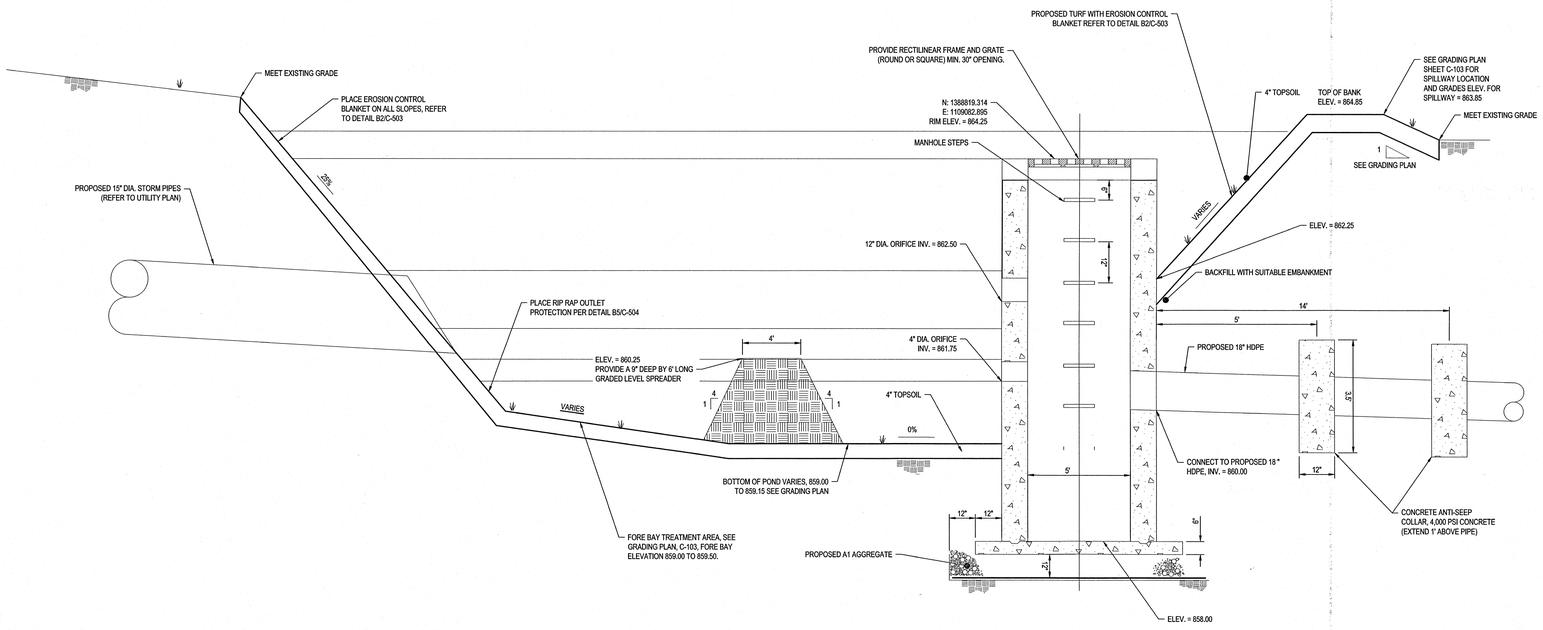
D3 NOT USED
SCALE: NOT TO SCALE

D4 NOT USED
SCALE: NOT TO SCALE



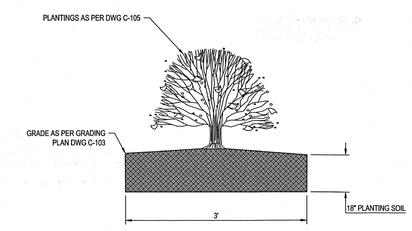
PROPOSED ROCK OUTLET PROTECTION	d	t	W	La
NORTH POND OUTLET	15"	14"	9'	11'
WEST POND OUTLET	15"	14"	9'	11'
ROAD SIDE OUTLET	18"	14"	9'	11'

B5 ROCK OUTLET PROTECTION DETAIL
SCALE: NOT TO SCALE



NOTES:
1. CATCH BASIN SHALL BE CONSTRUCTED TO SUPPORT H-20 LOADINGS. PRE-CAST OR CAST IN PLACE REINFORCED CONCRETE PER DETAIL A3/C-501.
2. SEE SPECIFICATION 334413 FOR OTHER REQUIREMENTS.
3. LINING, STABILIZATION FABRIC, EROSION CONTROL BLANKET, AND CATCH BASIN SHALL BE INCLUDED IN THE CONSTRUCTION OF THE STORMWATER POND.
4. REFER TO GRADING PLAN C-103. TYPICALLY, THE BASIN END WILL HAVE 1:4 EMBANKMENTS, THE EAST BASIN END HAS VARIABLE SLOPES WITH 1:4 SLOPES ALONG THE LONGITUDINAL SIDES OF THE ENTIRE BASIN.
5. EROSION CONTROL BLANKET: AGRICULTURAL STRAW MATRIX EROSION CONTROL BLANKET WITH A FUNCTIONAL LONGEVITY OF UP TO 12 MONTHS (TENSAR MODEL SC150 OR APPROVED EQUAL) REFER TO DETAIL B2/C-503.
6. SEEDING AND EROSION CONTROL BLANKET SHALL BE COMPLETED WITHIN 48 HOURS OF FINAL GRADING.

A1 STORMWATER POND AND OUTLET STRUCTURE DETAIL
SCALE: NOT TO SCALE



A5 AT GRADE STORMWATER PLANTER
SCALE: NOT TO SCALE

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STATE OF NEW YORK — DARREN F. BADGLEY — LICENSED PROFESSIONAL ENGINEER — 075393 — 6-22-18

LEWIS COUNTY N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

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		REVISIONS

PROJECT NO: 564.012.001
DATE: JUNE 22, 2018
DRAWN BY: K. MAGILL-JONES
DESIGNED BY: T. LONG
CHECKED BY: D. WETHEY, P.E.

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

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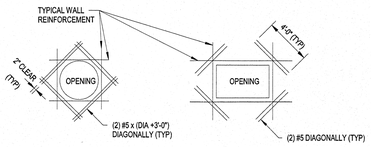
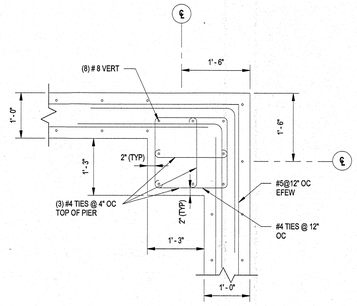
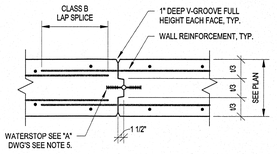


NOTES:
1.) FOR WALLS WITH OPENINGS GREATER THAN 6" IN ANY DIRECTION, PLACE BARS AT EACH FACE FOR WALLS WITH (2) LAYERS OF REINFORCING.
2.) FOR WALLS WITH REINFORCEMENT LARGER THAN #6 BARS, MATCH WALL REINFORCEMENT BAR SIZE.

E1 WALL OPENING REINFORCING DETAIL
SCALE: 3/4" = 1'-0"

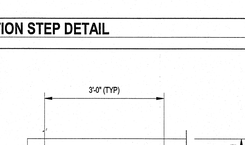


E2 TYPICAL PIER - INSIDE WALL CORNER DETAIL
SCALE: 3/4" = 1'-0"



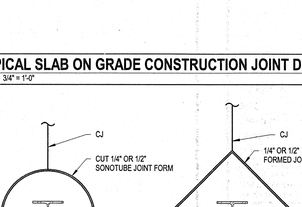
NOTES: 1) SUBMIT PROPOSED JOINT LOCATIONS TO ENGINEER FOR REVIEW AND APPROVAL.
2) IF FEASIBLE, LOCATE AT VENEER EXPANSION JOINTS.
3) DO NOT LOCATE WITHIN 3'-0" OF COLUMN PIER / PILASTER.
4) OMIT V-GROOVES IF JOINT NOT EXPOSED.
5) PROVIDE WATERSTOP FOR ALL CONTROL JOINTS IN RECESS BAGGAGE AREA, ELEVATOR, ESCALATOR AND SUMP PITS WALLS NOT WATERPROOFED WITH SHEET MEMBRANE WATERPROOFING. PROVIDE ADDL REINFORCING BARS IN WALL AS REQ'D TO HOLD WATERSTOP IN PLACE DURING CONCRETE PLACEMENT.

E3 TYP WALL CONSTRUCTION JOINT
SCALE: 3/4" = 1'-0"



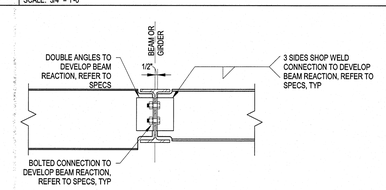
NOTE: JOINT SPACING SHALL BE 30'-0" OR LESS. SEE CONCRETE GENERAL NOTE 13.

D1 TYPICAL WALL CONSTRUCTION JOINT DETAIL
SCALE: 3/4" = 1'-0"



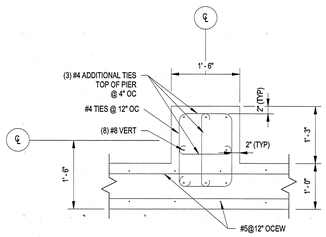
NOTES:
1. JOINT TO BE SAWN WITHIN 24 HOURS AFTER PLACING CONCRETE.
2. PROVIDE CONTROL JOINTS AS SHOWN ON PLAN. FILL JOINT WITH JOINT SEALANT.

D2 TYPICAL SLAB-ON-GRADE CONTROL JOINT DETAIL
SCALE: 3/4" = 1'-0"

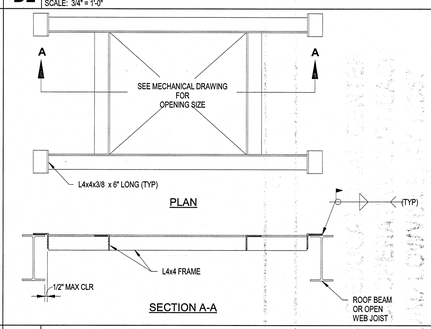


NOTES:
1. SEE OTHER DETAILS FOR REQUIRED WALL THICKNESS AND REINFORCING.
2. THERE SHALL BE NO VERTICAL CONSTRUCTION JOINTS IN WALLS WITHIN 5'-0" OF INTERSECTION OR PILASTER UNLESS SPECIFICALLY DETAILED ON THE DRAWINGS.
3. UNLESS SHOWN OTHERWISE, ANGLE BETWEEN ADJACENT WALLS SHALL BE 90°. IF ANGLE IS SHOWN OTHERWISE, PROVIDE SIMILAR REINFORCING LAYOUT.

D3 TYPICAL CONCRETE "T" INTERSECTION DETAIL
SCALE: 3/4" = 1'-0"



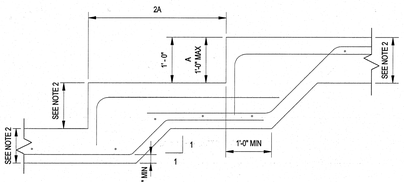
C1 TYPICAL PIER DETAIL
SCALE: 3/4" = 1'-0"



C2 TYPICAL ROOF OPENING FRAMING
SCALE: 3/4" = 1'-0"

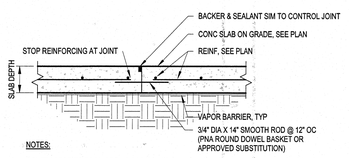
NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE STRUCTURAL STEEL CONNECTIONS NOT DESIGNED OR SHOWN. REFER TO AISC MANUAL PART 3 FOR TABULATED BEAM MAXIMUM TOTAL UNIFORM LOAD VALUES.
2. PROVIDE PREDESIGNED CONNECTIONS AS SHOWN IN AISC MANUAL PART 10 (14TH EDITION) WHERE APPLICABLE.
3. REFER TO SPECIFICATIONS AND/OR GENERAL NOTES FOR BOLT TYPE.
4. REFER TO SPECIFICATIONS FOR BEAM REACTION DESIGN CRITERIA.

C3 TYPICAL BEAM TO BEAM CONNECTION
SCALE: 1" = 1'-0"



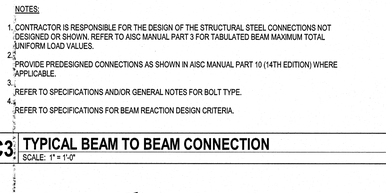
NOTE:
1.) REINFORCING SIZE AND SPACING TO MATCH FOOTING REINFORCEMENT.
2.) THICKNESS TO MATCH CONTINUOUS FOUNDATION. SEE PLAN.

B1 FOUNDATION STEP DETAIL
SCALE: 3/4" = 1'-0"



NOTES:
1 CONTRACTOR TO PROVIDE A PROPOSED CONSTRUCTION JOINT LAYOUT PLAN FOR APPROVAL. SEE THE STRUCTURAL GENERAL NOTES FOR LAYOUT GUIDELINES.

B2 TYPICAL SLAB ON GRADE CONSTRUCTION JOINT DETAIL
SCALE: 3/4" = 1'-0"



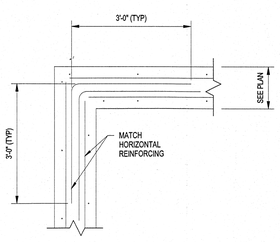
NOTES:
1. ROOF CONSTRUCTION NOT SHOWN FOR CLARIFY
2. WHEN WIDTH OF BEAM FLANGE IS LESS THAN 5 1/2", OFFSET THE LOCATION OF THE BAR JOISTS ON ONE SIDE OF BEAM

B3 TYP ROOF JOIST TO BEAM CONN
SCALE: 1" = 1'-0"

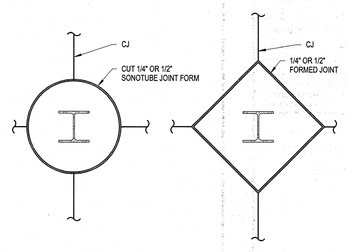
CLASS B LAP SPLICE TABLE (SPLICE LENGTH IN INCHES)

		REBAR SIZE	#3			#4			#5			#6			#7			#8		
		Fy STEEL (ksi)	60 ksi			60 ksi			60 ksi			60 ksi			60 ksi			60 ksi		
		f'c CONC. (ksi)	3	4	5	3	4	5	3	4	5	3	4	5	3	4	5	3	4	5
LOCATION	WEIGHT	COATING																		
CLEAR SPACING & COVER >=db AND STIRRUPS AS PRESCRIBED, OR CLEAR SPACING >= 2db & COVER >=db																				
TOP BARS	NORMAL	1	28	25	22	38	33	29	47	41	36	56	49	44	81	71	63	93	81	72
TOP BARS	NORMAL	1	22	19	17	29	25	23	36	31	28	43	37	34	63	54	49	72	62	56
OTHER CASES																				
TOP BARS	NORMAL	1	42	37	33	56	49	44	70	61	54	84	73	65	122	106	95	139	121	108
TOP BARS	NORMAL	1	33	28	25	43	37	34	54	47	42	65	56	50	94	81	73	107	93	83

B4 LAP SPLICE TABLE
SCALE: NOT TO SCALE

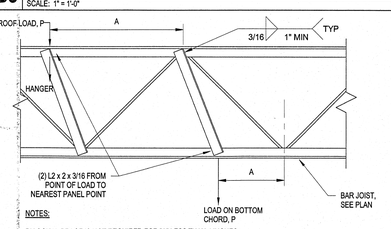


A1 TYPICAL CONCRETE WALL CORNER DETAIL
SCALE: 3/4" = 1'-0"



NOTE:
INSTALL JOINT FILLER AND SEALANT IN EXPOSED JOINTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

A2 TYP ISOLATION JOINT AT COLUMN
SCALE: 3/4" = 1'-0"



NOTES:
1. DIAGONAL BRACE IS NOT REQUIRED FOR "A" LESS THAN 4 INCHES.
2. PROVIDE DIAGONAL BRACE AT LOCATIONS OF CONCENTRATED LOADS SUCH AS PARTITIONS, HEAVY PIPES, MECHANICAL UNITS, HEAVY LIGHTS, AND ANY OTHER CONCENTRATED LOADS AS DIRECTED BY STRUCTURAL ENGINEER.
3. P = CONCENTRATED LOAD. MAXIMUM LOAD = 150 LBS. CONTACT ENGINEER FOR LOADS THAT EXCEED THE MAXIMUM.
4. DETAIL DOES NOT APPLY FOR SUPPORT OF HANGERS TO RIGGING, CATWALKS OR MECHANICAL FLOORS.
5. STRUTS ARE NOT REQUIRED FOR LOADS AT OR UNDER 100 LBS, UNO.

A3 TYPICAL JOIST MODIFICATION DETAIL
SCALE: 1" = 1'-0"

LEGEND / ABBREVIATIONS:

UNO - UNLESS NOTED OTHERWISE
RO - ROOF OPENING
OC - ON CENTER
OCEW - ON CENTER, EACH WAY
CONT - CONTINUOUS
℄ - CENTER LINE
T/WALL - TOP OF WALL ELEVATION
AFF - ABOVE FINISH FLOOR
FF - FINISH FLOOR
FD - FLOOR DRAIN
SOG - SLAB ON GRADE
WWF - WELDED WIRE FABRIC
T/PIER - TOP OF PIER ELEVATION
T/SLAB - TOP OF SLAB ELEVATION
BPE - BOTTOM OF PILE ELEVATION
EW - EACH WAY
EF - EACH FACE
EFEW - EACH FACE, EACH WAY
COL - COLUMN
GALV - GALVANIZED
T/S - TOP OF STEEL ELEVATION
CMU - CONCRETE MASONRY UNIT
MO - MASONRY OPENING
VERT - VERTICAL
HORIZ - HORIZONTAL
EMB - EMBEDMENT
EXP - EXPANSION
T&B - TOP AND BOTTOM
EL - ELEVATION
EXIST - EXISTING
DIA - DIAMETER
F.S - FOUNDATION STEP
SIM - SIMILAR

A4 LEGEND
SCALE: NOT TO SCALE

GENERAL NOTES:

1. CODES AND REFERENCE STANDARDS
   2015 IBC WITH NYS SUPPLEMENTS
2. ALLOWABLE SOIL BEARING PRESSURE: 2000 PSF
3. ALL ELEVATIONS ARE REFERENCED FROM FINISHED FLOOR - 0'-0"
4. DESIGN LOADS:
   A. ROOF DEAD LOAD: 20 PSF
   B. SNOW LOAD:
      a. GROUND SNOW LOAD: Pg = 70 PSF
      b. FLAT ROOF SNOW LOAD: Pf = 50 PSF
      c. SNOW LOAD IMPORTANCE FACTOR: Is = 1.1
      d. THERMAL FACTOR: Ct = 1.0-
      e. SLOPE FACTOR: Cs = 1.0-
      f. DRIFT LOAD CALCULATED PER ASCE-7
   C. ROOF COLLATERAL LOAD: 10 PSF
   D. FLOOR LIVE LOAD:
      a. CLASSROOMS: 40 PSF
      b. HALLWAYS: 100 PSF
      c. STORAGE: 125 PSF
   E. WIND LOAD (ASCE 7-10):
      a. BASIC WIND SPEED (3-SECOND GUST) 110 MPH
      b. RISK CATEGORY III
      c. EXPOSURE CATEGORY C
      d. INTERNAL PRESSURE COEFFICIENT +/- 0.18
   F. EARTHQUAKE LOAD
      a. RISK CATEGORY III
      b. SPECTRAL RESPONSE ACCELERATIONS Ss = 0.219 g, S1 = 0.079 g
      c. SITE CLASS B
      d. SPECTRAL RESPONSE COEFFICIENT Sds = 0.146 g, Sd1 = 0.053 g
      e. DESIGN CATEGORY A
      f. BASIC SEISMIC-FORCE-RESISTING SYSTEM
         STEEL FRAMING WITH MOMENT CONNECTIONS
      g. RESPONSE MODIFICATION FACTOR R = 3.0
      h. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
      i. DESIGN BASE SHEAR 4.4 KIPS
5. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECTURAL, PLUMBING, HVAC, AND ELECTRICAL DRAWINGS, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT INDICATED ON THE STRUCTURAL DRAWINGS. SUCH INFORMATION INCLUDES, AT A MINIMUM, EMBEDDED SLEEVES AND INSERTS, MISCELLANEOUS DETAILS, SPECIAL FLOOR FINISHES, DOOR THRESHOLDS, SLOPES TO DRAINS, NAILERS, OPENINGS IN STRUCTURAL ELEMENTS, ETC.
6. PROVIDE SPECIAL INSPECTIONS FOR STRUCTURAL STEEL, CONCRETE, MASONRY, WOOD AND FOUNDATIONS PER SPECIFICATION.

EXCAVATION AND FILL:

1. THE BOTTOM OF ALL SLABS SHALL REST ON 12 INCHES OF APPROVED COMPACTED SELECT STRUCTURAL FILL AS NOTED IN THE EARTH MOVING SPECIFICATION. ALL SELECT STRUCTURAL FILL MATERIALS BELOW SLABS SHALL BE OF THE THICKNESS SHOWN AND SHALL BE COMPACTED TO MINIMUM 90%.
2. THE CONTRACTOR SHALL NOT COMMENCE FOUNDATION CONSTRUCTION WORK PRIOR TO INSPECTION AND APPROVAL OF THE BEARING SOIL BY THE ENGINEER.
3. ALL EXCAVATIONS SHALL BE DEWATERED TO MAINTAIN GROUNDWATER AT LEAST 24" BELOW FOOTING BEFORE PLACING OF CONCRETE. FOR EXCAVATIONS TO BEDROCK, EXCAVATIONS SHALL BE KEPT DRY.
4. SUBGRADES SHALL BE TAMPED USING VIBRATORY EQUIPMENT TO THE GREAT EXTENT POSSIBLE WITHOUT LOOSENING THE SUBGRADE SOILS. WHERE SPACE PERMITS (SUCH AS SLABS OR PAVEMENT AREAS) SUBGRADES SHALL BE PROOFROLLED USING A FULLY LOADED TEN WHEEL DUMP TRUCK OR A FULL SIZE TEN TON ROLLER. NO FILL OR FOUNDATION CONCRETE SHALL BE PLACED OVER MATERIAL THAT IS LOOSE, SOFT, WET, FROZEN, ORGANIC, OR OTHERWISE UNSUITABLE.
5. CONTRACTOR SHALL COMPACT BELOW ALL FOUNDATIONS WITH A TAMPER.
6. PROVIDE VAPR RETARDER UNDER ALL BUILDING SLABS.
7. CONTRACTOR SHALL EXCAVATE BY HAND AT LOCATIONS ON DRAWINGS TO EXCAVATE WITH CAUTION AND EXPOSE UTILITY FOR IDENTIFICATION.

CONCRETE:

1. DESIGN STRENGTH:
   A. STRUCTURAL CONCRETE AND SLAB ON GRADE 4000 PSI @ 28 DAYS - NORMAL WEIGHT CONCRETE
2. STANDARDS
   A. DESIGN: ACI 318 - LATEST EDITION
   B. DETAILS: ACI 315 - LATEST EDITION
   C. MATERIALS: ACI 301 - LATEST EDITION
3. REINFORCING
   A. MESH: ASTM A-185 (FLAT SHEETS)
   B. BARS: ASTM A-615 GRADE 60 - DEFORMED
4. AIR CONTENT: ALL SLABS ON GRADE AND EXTERIOR CONCRETE SHALL BE AIR ENTRANED IN ACCORDANCE WITH SPECIFICATIONS.
5. CONCRETE COVER OVER BARS:
   A. CONCRETE DEPOSITED ON GROUND: 3"
   B. FORMED CONCRETE EXPOSED TO GROUND, WEATHER, OR WATER: 2" U.N.O.
   C. WALLS & SLABS NOT DIRECTLY EXPOSED TO GROUND, WATER, OR WEATHER: 1-1/2"
6. SPLICES IN REINFORCEMENT: UNLESS OTHERWISE NOTED, ALL SPLICES AND ANCHORAGES SHALL BE CLASS B LAP SPLICE AS LISTED IN TABLE. STAGGER SPLICES WHEREVER POSSIBLE AND LOCATE SO AS NOT TO IMPAIR THE STRENGTH OF MEMBERS.
7. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" CHAMFER.
8. PROVIDE ONE LAYER 6x6 - W2.9x2.9 WELDED WIRE FABRIC IN ALL FLOOR SLABS UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL NOT PLACE ANY CONCRETE PRIOR TO INSPECTION OF THE REINFORCING STEEL AND AUTHORIZATION BY THE ENGINEER.
10. PROVIDE WALL CORNER BARS SAME AS HORIZONTAL REINFORCING, INCLUDING TOP AND BOTTOM BARS, TYPICAL AT ALL CORNERS, MINIMUM #4 @ 12" O.C. 3'-0" x 3'-0" LONG.
11. PROVIDE EXTRA BARS AT RE-ENTRANT CORNERS (2 - #4 @ 6" O.C. 4'-0" LONG)
12. CLEAN AND APPLY BONDING AGENT TO ALL EXISTING CONCRETE SURFACES TO RECEIVE NEW CONCRETE.
13. PROVIDE FOUNDATION WALL CONTROL JOINTS WITH A MAXIMUM SPACING OF 30' +/-. PROVIDE SLAB CONTROL JOINTS AS SHOWN ON PLANS AT A SPACING NOT TO EXCEED 15' +/-. SUBMIT PROPOSED JOINT LAYOUTS FOR REVIEW AND APPROVAL BY ENGINEER.
14. ALL EPOXY GROUTED DOWELS SHALL USE HILTI HIT RE500, HIT-HY200 OR APPROVED EQUAL.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL: ASTEM A992 OR A572 (Fy = 50 KSI) FOR STEEL SHAPES NOT AVAILABLE IN Fy = 50 KSI, USE ASTM A-36
   HIGH STRENGTH BOLTS: ASTM A-325, MINIMU 3/4" DIAMETER
2. ALL TOP OF STEEL ELEVATIONS ARE NOTED ON PLANS (+/- ___) DENOTES ELEVATION FROM PLAN ELEVATION.
3. WELDING ELECTRODES SHALL BE AWS E-70XX. ALL SHOP CONNECTIONS SHALL BE WELDED AND ALL FIELD CONNECTIONS SHALL BE BOLTED UNLESS OTHERWISE SHOWN.
4. THE FABRICATOR SHALL DESIGN AND DETAIL BEAM CONNECTIONS WHERE THE REACTIONS ARE GIVEN (EX. 20K), PER AISC. WHERE THE REACTIONS ARE NOT STATED, THE FABRICATOR SHALL PROVIDE FRAMED OR SEATED BEAM CONNECTIONS IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION. THE BEAM CONNECTIONS SHALL HAVE A CAPACITY OF NOT LESS THAN ONE-HALF THE TOTAL UNIFORM LOAD DETERMINED IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION TABLE (ASD) FOR "UNIFORM LOAD CONSTRAINTS FOR BEAMS LATERALLY SUPPORTED", FOR BEAMS AND SPANS IN QUESTION. HOLES FOR SHOP AND FIELD CONNECTIONS SHALL BE DRILLED OR PUNCHED. NO BURNT HOLES.
5. CONTRACTOR SHALL SUPPLY AND USE ALL NECESSARY BRACING AND OTHER MEANS TO MAINTAIN STABILITY AND LOCATION OF STEEL FRAMING DURING CONSTRUCTION.
6. STEEL JOISTS - "K" AND "LH" TO COMPLY WITH THE LATEST SPECIFICATIONS. COORDINATE TOP POF STEEL GIRDER ELEVATION WITH BEAM SEAT DEPTH.
7. ▶ DENOTES MOMENT CONNECTION. SEE DRAWINGS FOR DETAILS. REFER TO MOMENT CONNECTION SCHEDULE.
8. BRIDGING SHOWN ═══ DENOTES HORIZONTAL BRIDGING AT TOP AND BOTTOM CHORDS (TOP CHORD AT PERIMETER BEAMS.
9. BRIDGING SHOWN ─┼─┼─ DENOTES "X" BRIDGING
10. VERIFY NUMBER AND SIZE AND LOCATION OF ALL ROOF OPENINGS WITH ARCHITECTURAL, PLUMBING, AND MECHANICAL DRAWINGS PRIOR TO PLACEMENT OF ROOF DECK.
11. FOR MISCELLANEOUS METALS AND FABRICATION, REFER TO ARCHITECTURAL DRAWINGS.
12. COORDINATE JOIST BRIDGING LOCATION WITH ROOF OPENINGS.
13. ALL STEEL MEMBERS EXPOSED TO WEATHER SHALL BE GALVANIZED.

MASONRY:

1. HOLLOW CORE MASORY BLOCK: ASTM C90 GRADE "N", F'm = 1900 PSI @ 28 DAYS
2. MASONRY MORTAR: ASTM C270, TYPE "S"
3. MASONRY GROUT: ASTM C476, Fc = 3000 PSI @ 28 DAYS WITH 9" SLUMP
4. HORIZONTAL JOINT REINFORCEMENT SHALL BE LADDER TYPE, 9 GA. (W1.7) SIDE AND CROSS RODS CONTINUOUS HORIZONTAL REINFORCING (DUR-O-WALL OR EQUIVALENT). PLACE THE REINFORCING IN THE FIRST JOINT ABOVE THE FOUNDATION, THE FIRST AND SECOND JOINTS (8" C TO C) ABOVE AND BELOW OPENINGS AND AT EVERY SECOND BED JOINT (16" C TO C) THROUGHOUT THE STRUCTURE. PLACE THE REINFORCING IN THE FIRST BED JOINT IMMEDIATELY ABOVE AND BELOW OPENINGS CONTINUOUSLY. EXTEND TWO FEET BEYOND EACH SIDE OF OPENING IN THE SECOND BED JOINT. LAP REINFORCING A MNUM OF 6". CUT AND BEND AT CORNERS AS RECOMMENDED BY THE REINFORCING MANUFACTURER.

WOOD:

1. ALL LUMBER SHALL BE PS 20, NEW AND UNDAMAGED GRADED LUMBER IN ACCORDANCE WITH NFPA GRADING RULES. LUMBER STRESSES SPECIFIED DO NOT INCLUDE REPETITIVE MEMBER USE. FRAMING MEMBERS SHALL BE S4S UNLESS NOTED OTHERWISE. ALL WOOD BEARING ON CONCRETE OR MASONRY SHALL BE WOLMANIZED.
2. ROUGHT FRAMING (2x4 - 2x12) SHALL BE #2 SOUTHER YELLOW PINE WITH 19 PERCENT MAXIMUM MOISTURE CONTENT HAVING NO LESS THAN AN ALLOWABLE BENDING STRESS (Fb) OF 1500 PSI (2x4), 1250 PSI (2x6), 1200 (2x8), 1050 PSI (2x10), AND 975 PSI (2x12), A MODULOUS OF ELASTICITY OF 1,600,000 PSI AND AN ALLOWABLE SHEAR STRESS OF 90 PSI.
3. FASTENERS SHALL BE TOGGLE BOLT TYPE FOR ANCHORAGE TO SOLID MASONRY OR CONCRETE AND BOLTS OR POWER TYPE ACTIVATED FOR ANCHORAGE TO STEEL.
4. ADHESIVE SHALL BE GUN GRADE ACRYLIC COMPOUND, SUCH AS LIQUID NAILS BY MACCO ADHESIVES.
5. STORE FRAMING MATERIAL A MINIMUM OF 12" ABOVE GROUND IN A MANNER THAT ALLOWS FOR PROPER DRAINAGE, VENTILATION, AND PROTECTION FROM THE WEATHER.
6. FRAMING MEMBERS SHALL BE INSTALLED WITHIN 1/4" FROM TRUE POSITION. SQUARE END CUTS SHALL BE WITHIN 1/16" PER FOOT OF DEPTH AND WIDTH. END SURFACES SHALL BE CUTT TO PROVIDE CONTACT OVER SUBSTANTIALLY THE ENTIRE SURFACE. LENGTHS OF FRAMING MEMBERS SHALL BE 1/16" + LIP TO 20 FEET IN LENGTH, AND 1/16" PER 20 FEET OF SPECIFIED LENGTH FOR MEMBERS OVER 20 FEET IN LENGTH.
7. TRUSSES SHALL BE ERECTED, BRACED, AND BLOCKED IN ACCORDANCE WITH COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING, AND BRACING OF METAL PLATE CONNECTED TRUSSES (HIB-91) BY THE TRUSS PLATE INSTITUTE.
8. ROOF TRUSSES SHALL BE CONNECTED TO BEARING PLATE WITH SIMPSON STRONG-TIE HURRICANE CLIPS (H3) UNLESS NOTED OTHERWISE.
9. PLYWOOD ROOF DECK SHALL BE 1/2" APA RATED DECK, 48/24, EXPOSURE 1, NAIL TO FRAMING MEMBERS AT PLYWOOD EDGES AT 6" O.C. AND AT INTERMEDIATE SUPPORTS AT 6" O.C. WITH 8d COMMON NAILS.

A5 GENERAL NOTES
SCALE: NOT TO SCALE

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LEWIS COUNTY, N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	M.BUCKINGHAM
DESIGNED BY:	C. BROOKS, P.E.
CHECKED BY:	C. BROOKS, P.E.

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GENERAL NOTES & TYPICAL DETAILS

S-001

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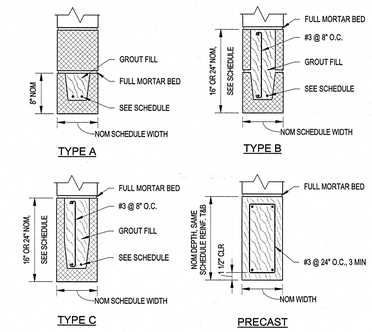
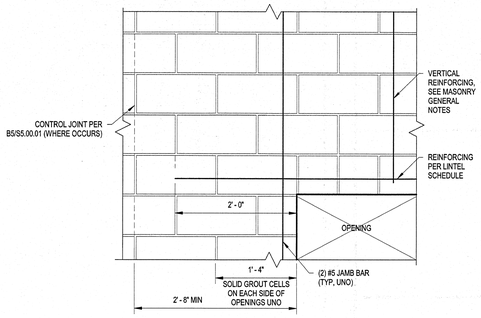
CMU LINTEL SCHEDULE			
CLEAR SPAN	REINFORCING REQUIREMENTS IN NOMINAL LINTEL SECTION		
[ft-in]	8x8	8x16	8x24
3-4	2 - #4	N/A	N/A
4-0	2 - #4	N/A	N/A
4-8	N/A	2 - #4	N/A
5-4	N/A	2 - #4	N/A
6-0	N/A	2 - #4	N/A
6-8	N/A	2 - #4	N/A
7-4	N/A	2 - #5	N/A
8-0	N/A	N/A	2 - #6 T&B
8-8	N/A	N/A	2 - #6 T&B
9-4	N/A	N/A	2 - #6 T&B
10-0	N/A	N/A	2 - #6 T&B

NOTES:

1. SEE ARCHITECTURAL DWGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 16" OF BEARING AT EACH JAMB REINFORCEMENT SHALL PROJECT A MINIMUM OF 16" ONTO THE BEARING.
3. MINIMUM MASONRY COMPRESSIVE STRENGTH OF GROUTED PRISM, f'm=1900 PSI.
4. LINTELS SCHEDULED AS 16" OR 24" HIGH MAY BE EITHER TYPE B OR TYPE C AS DETAILED.
5. PRECAST CONCRETE LINTELS AS SHOWN MAY BE USED WITH ARCHITECTURAL APPROVAL, f'c=4000 PSI MINIMUM.
6. 8 x 16 = NOMINAL WIDTH x MIN. DEPTH OF LINTEL.

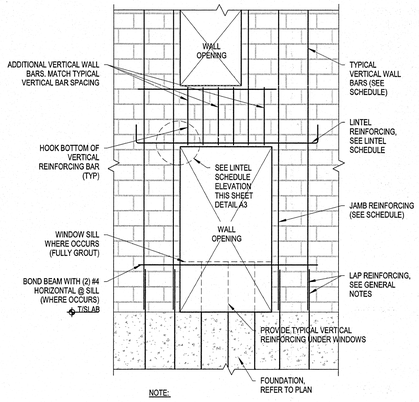




ELEVATION

D1 TYP CMU LINTEL SCHEDULE

SCALE: 1" = 1'-0"



NOTE:

HORIZ LADDER REINFORCING NOT SHOWN FOR CLARITY.

NOTES:

1. BOND BEAMS AT ROOF BEARING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS.
2. SEE SCHEDULE FOR SPLICE LENGTH.
3. EXTEND JAMB BARS FLOOR TO ROOF WHERE OPENING WIDTH EXCEED 1'-4". OTHERWISE EXTEND ONE SPLICE LENGTH OR 2'-0" MIN PAST OPENINGS.

D3 TYP CMU WALL ELEVATION REINF. DETAIL

SCALE: 3/4" = 1'-0"

MINIMUM CMU REINFORCING SCHEDULE			
WALL THICKNESS	WALL HEIGHT	VERTICAL REINF	HORIZ REINF
		EXTERIOR WALL	EXTERIOR WALL
8"	<= 12'-0"	#5 @ 48" OC	LADDER REINF AS PER A3 / S-001
WALL THICKNESS	WALL HEIGHT	VERTICAL REINF	HORIZ REINF
		INTERIOR WALL	INTERIOR WALL
8"	<= 8'-0"	#5 @ 48" OC	LADDER REINF AS PER A3 / S-001

JAMB REINFORCING SCHEDULE			
WALL THICKNESS	WALL HEIGHT	OPENING WIDTH	EXTERIOR WALL REINF
8"	<= 12'-0"	<= 4'-0"	1 EA #5 EF
		<= 12'-0"	1 EA #5 EF

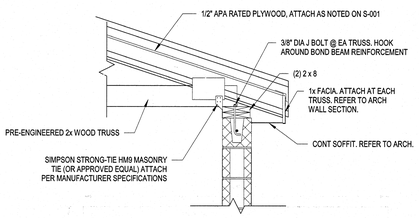
LAP LENGTH OF LAP SPLICES FOR CMU WALL REINFORCEMENT	
BAR SIZE	10" CMU
	SINGLE REINF
3	19"
4	24"
5	30"
6	36"

NOTES:

1. WALL HEIGHT IS THE DISTANCE FROM BOTTOM OF MASONRY WALL TO THE LOCATION OF THE TOP LATERAL SUPPORT.
2. WHERE BARS ARE CALLED OUT EACH FACE (EF), BARS SHALL BE PLACED IN A DOUBLE CURTAIN W/ ONE BAR TOWARD EACH FACE OF THE WALL. OTHERWISE BARS SHALL BE CENTERED IN THE WALL.
3. IN ADDITION TO THE SCHEDULED REINFORCEMENT, WALLS SHALL HAVE A CONTINUOUS BOND BEAM W/ AT LEAST 1 EA #5 BARS AT OR NEAR THE TOP OF THE HEIGHT INDICATED IN NOTE #1 OR DOUBLE THE DISTANCE FROM THE LATERAL SUPPORT TO THE TOP OF THE WALL.

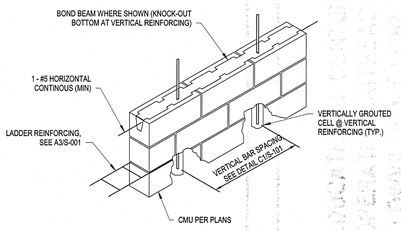
D5 MASONRY WALL REINF TABLE

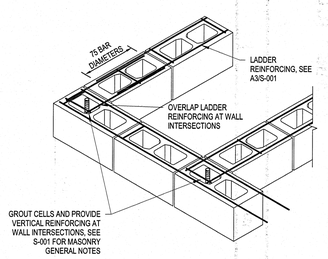
SCALE: 1/8" = 1'-0"



C1 WOOD TRUSS TO WALL DETAIL

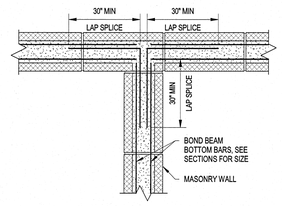
SCALE: 3/4" = 1'-0"



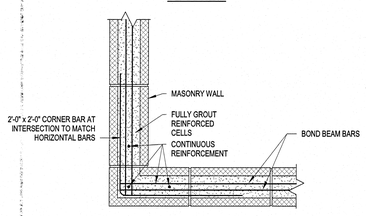


B2 CMU REINFORCING DETAIL

SCALE: 1/16" = 1'-0"



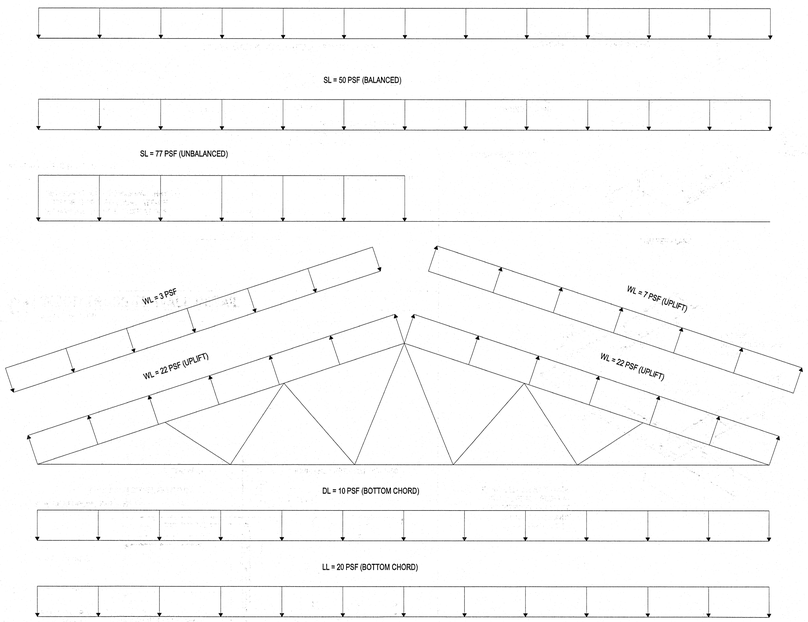
PLAN VIEW



PLAN VIEW

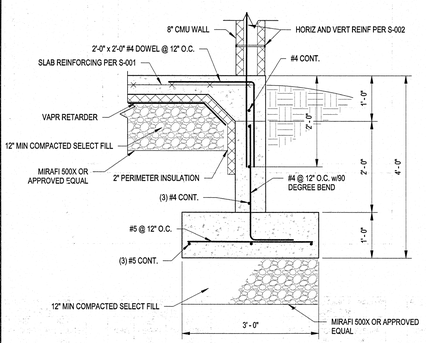
B3 TYP CMU REINFORCING @ BOND BEAM DETAIL

SCALE: 1" = 1'-0"



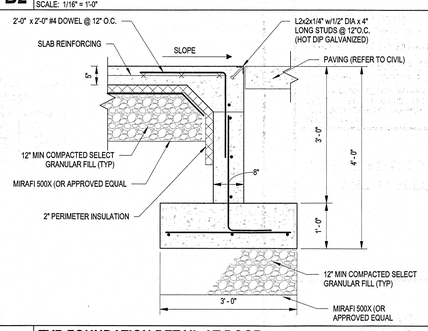
B4 WOOD TRUSS LOADING DIAGRAM

SCALE: 1/2" = 1'-0"



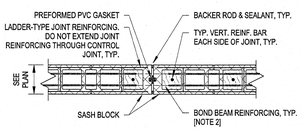
A1 CMU WALL AND FOOTING DETAIL

SCALE: 3/4" = 1'-0"



A2 TYP FOUNDATION DETAIL AT DOOR

SCALE: 3/4" = 1'-0"



NOTES:1) SEE PLAN FOR CONTROL JOINT LOCATIONS. IF NOT SHOWN, JOINT SPACING SHALL BE LESSER OF 25'-0" AND 2x WALL HEIGHT.
2) UNLESS OTHERWISE NOTED, BOND BEAM REINFORCING FOR BOND BEAMS AT FLOOR OR ROOF LEVELS IS CONTINUOUS AND REINFORCING FOR INTERMEDIATE BOND BEAMS BETWEEN LEVELS IS NOT CONTINUOUS THROUGH CONTROL JOINTS.

A3 TYP CMU CONTROL JOINT DETAIL

SCALE: 3/4" = 1'-0"

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LEWIS COUNTY, N.Y. 1805

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EAST ROAD LOWVILLE, NY 13367

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REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	M.BUCKINGHAM
DESIGNED BY:	C.BROOKS, P.E.
CHECKED BY:	C.BROOKS, P.E.

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GARAGE TYPICAL DETAILS

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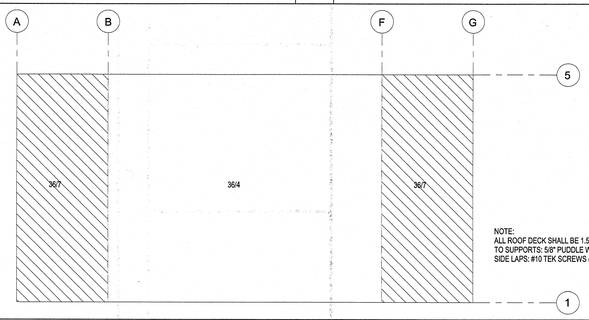
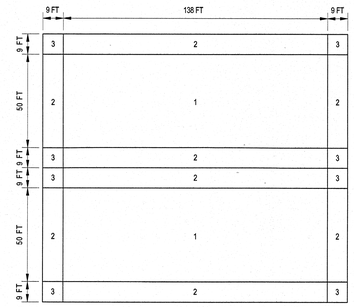
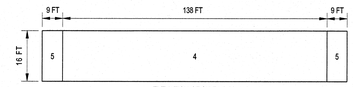


NOTE:
ALL ROOF DECK SHALL BE 1.5B 22 GAUGE.
TO SUPPORTS: 5/8" PUDDLE WELDS (WELD PATTERN SHOWN ABOVE)
SIDE LAPS: #10 TEK SCREWS @ 12" O.C.

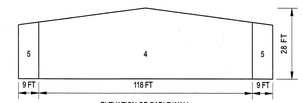
D2 STEEL ROOF DECK ATTACHMENT
SCALE: NOT TO SCALE



PLAN ON ROOF



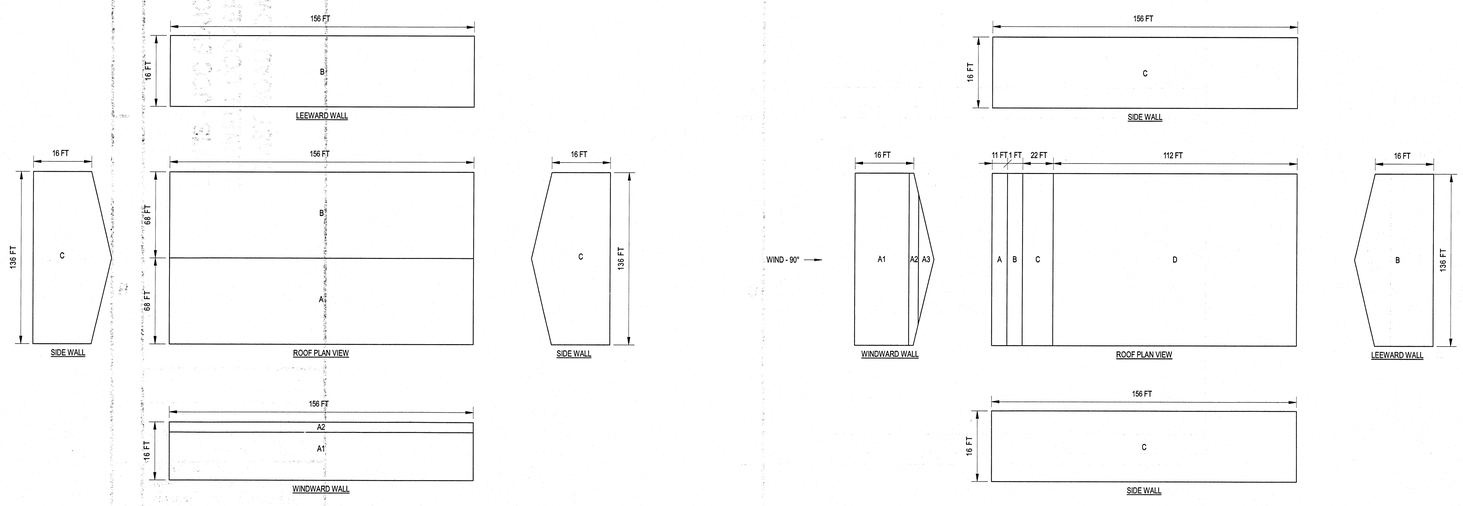
ELEVATION OF SIDE WALL



ELEVATION OF GABLE WALL

ZONE	EFF. AREA (SQFT)	PRES (+VE) (PSF)	PRES (-VE) (PSF)
1	<10sf	16.4	-26.0
	25sf	16.5#	-25.1
	50sf	13.0#	-24.4
	>100sf	11.6#	-23.6
2	<10sf	16.4	-45.3
	25sf	14.5#	-40.5
	50sf	13.0#	-36.9
	>100sf	11.6#	-33.3
3	<10sf	16.4	-67.0
	25sf	14.5#	-61.3
	50sf	13.0#	-56.9
	>100sf	11.6#	-52.6
4	<10sf	26.0	-28.2
	50sf	23.4	-25.5
	200sf	21.1	-23.2
	>500sf	19.5	-21.7
5	<10sf	26.0	-34.7
	50sf	23.4	-29.4
	200sf	21.1	-24.8
	>500sf	19.5	-21.7

D4 C&C WIND LOAD DIAGRAM
SCALE: 1" = 1'-0"



WALLS LOAD CASE 1 - WIND 0° GCpi = 0.18		
ZONE	REF. HEIGHT (ft)	NET PRESSURE (psf)
A1	15	10.88
A2	16	11.06
B	22	-14.59
C	22	-18.69
D	22	-18.69

ROOF LOAD CASE 1 - WIND 0° GCpi = 0.18		
ZONE	REF. HEIGHT (ft)	NET PRESSURE (psf)
A	22	-18.69
B	22	-10.49

WALLS LOAD CASE 2 - WIND 0° GCpi = 0.18		
ZONE	REF. HEIGHT (ft)	NET PRESSURE (psf)
A1	15	19.56
A2	16	19.74
B	22	-5.91
C	22	-10.01
D	22	-10.01

ROOF LOAD CASE 2 - WIND 0° GCpi = 0.18		
ZONE	REF. HEIGHT (ft)	NET PRESSURE (psf)
A	22	0.65
B	22	-1.81

WALLS LOAD CASE 3 - WIND 90° GCpi = 0.18		
ZONE	REF. HEIGHT (ft)	NET PRESSURE (psf)
A1	15	10.88
A2	20	11.77
A3	27.99	12.92
B	22	-13.99
C	22	-18.69
D	22	-18.69

ROOF LOAD CASE 3 - WIND 90° GCpi = 0.18		
ZONE	REF. HEIGHT (ft)	NET PRESSURE (psf)
A	22	-22.79
B	22	-22.79
C	22	-14.59
D	22	-10.49

WALLS LOAD CASE 4 - WIND 90° GCpi = 0.18		
ZONE	REF. HEIGHT (ft)	NET PRESSURE (psf)
A1	15	19.56
A2	20	20.45
A3	27.99	21.60
B	22	-5.31
C	22	-10.01
D	22	-10.01

ROOF LOAD CASE 4 - WIND 90° GCpi = 0.18		
ZONE	REF. HEIGHT (ft)	NET PRESSURE (psf)
A	22	0.65
B	22	0.65
C	22	0.65
D	22	0.65

A2 MWFRS WIND LOAD DIAGRAMS AND TABLES
SCALE: 1" = 1'-0"

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DATE:	JUNE 22, 2018
DRAWN BY:	M. BUCKINGHAM
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CHECKED BY:	C. BROOKS, P.E.

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WIND LOAD DIAGRAMS AND TABLES

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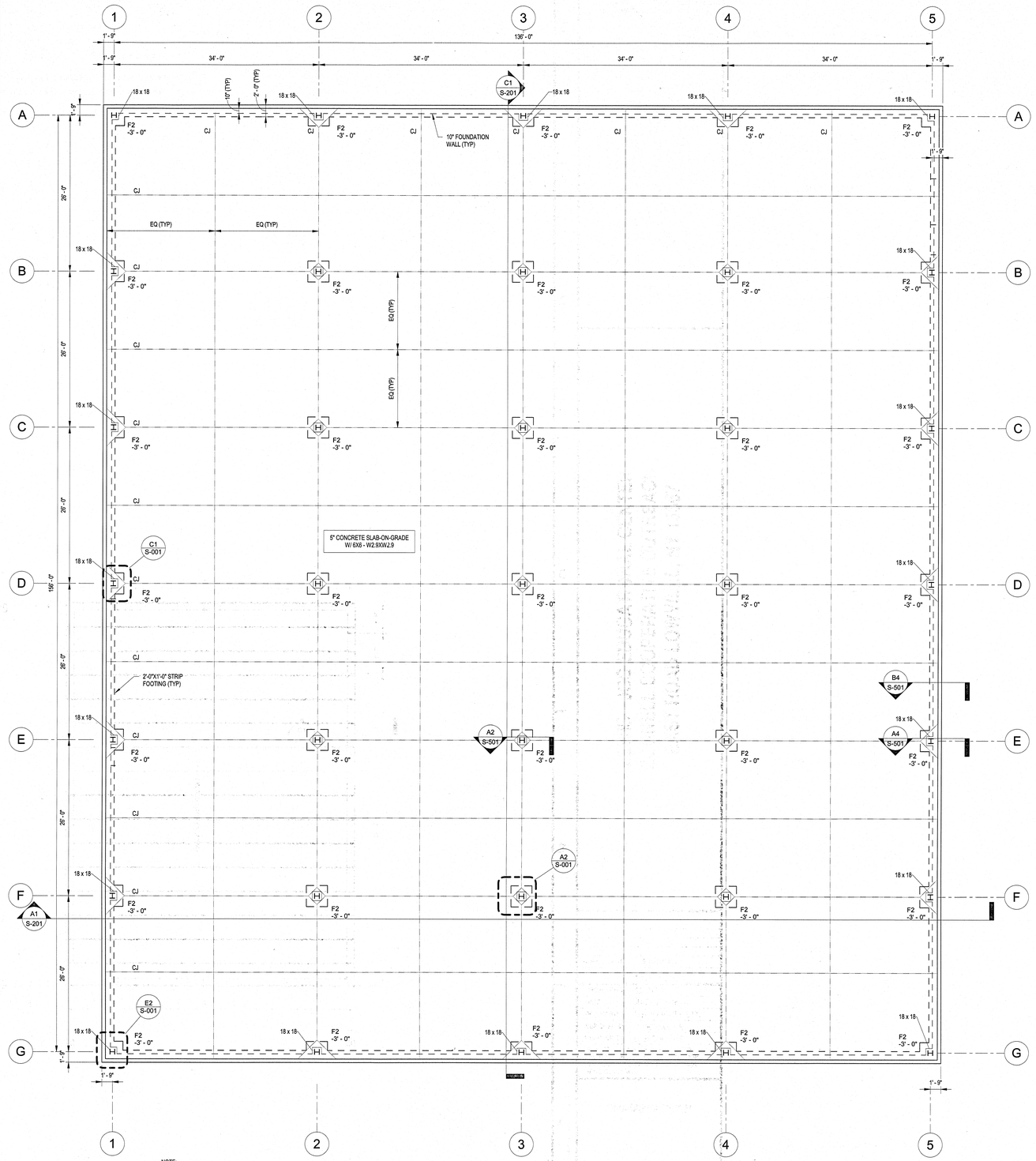
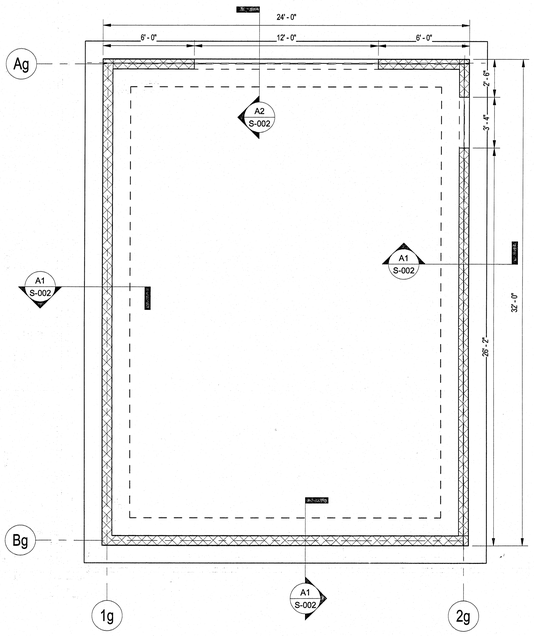


NOTE:
REFER TO P-100 FOR ANY SLAB PENETRATIONS

A1 FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



A4 GARAGE FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

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DESIGNED BY:	C. BROOKS, P.E.
CHECKED BY:	C. BROOKS, P.E.

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FOUNDATION PLANS

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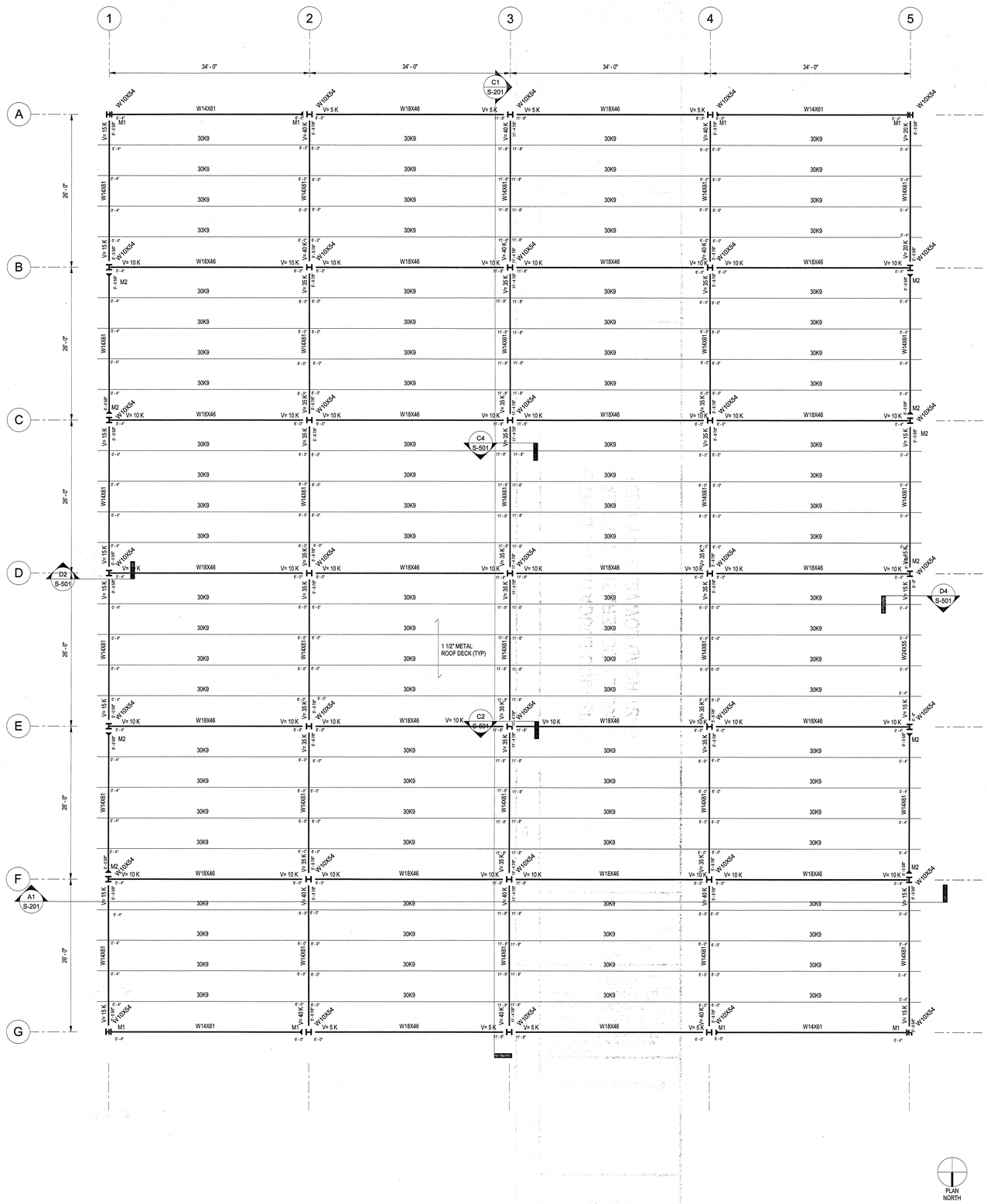
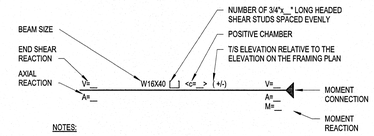


A1 ROOF FRAMING PLAN (T/S = 18' -0")

SCALE: 1/8" = 1'-0"



NOTES:

1. REACTIONS UNITS: SHEAR = KIPS, AXIAL = KIPS AND MOMENT KIP-FT
2. DO NOT CHAMBER BEAMS UNLESS A VALUE FOR CAMBER IS SPECIFIED.
3. REFER TO THE SPECIFICATION FOR CONNECTION DESIGN CRITERIA WHERE LOADS AND MOMENTS ARE NOT SHOWN.
4. LOADS AND MOMENTS ARE ASD (ALLOWABLE STRESS DESIGN) UNLESS NOTED OTHERWISE.
5. SHEAR REACTIONS ARE THE SAME AT EACH END OF THE BEAM, UNLESS OTHERWISE NOTED.

E4 STEEL BEAM LEGEND

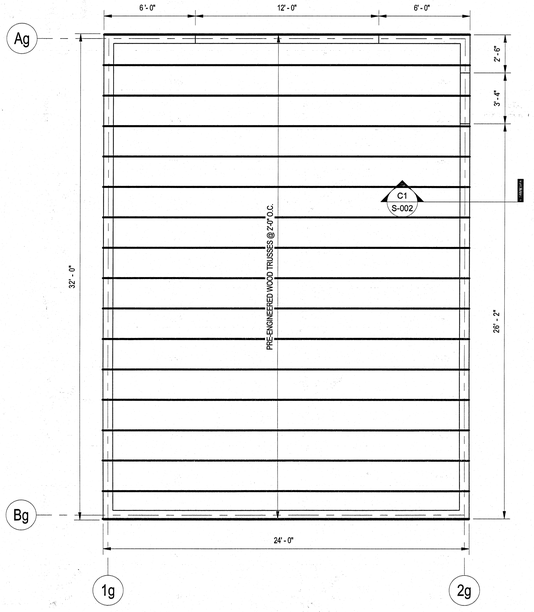
SCALE: 1" = 1'-0"

MOMENT CONNECTION SCHEDULE

MARK	V (KIPS)	M (KIP-FT)	M (KIP-FT)
M1	15	15	W14X61
M1	12	12	W14X61

D1 MOMENT SCHEDULE

SCALE: 1 1/2" = 1'-0"



A4 GARAGE ROOF FRAMING PLAN (T/S = 12'0")

SCALE: 1/4" = 1'-0"

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FRAMING PLAN

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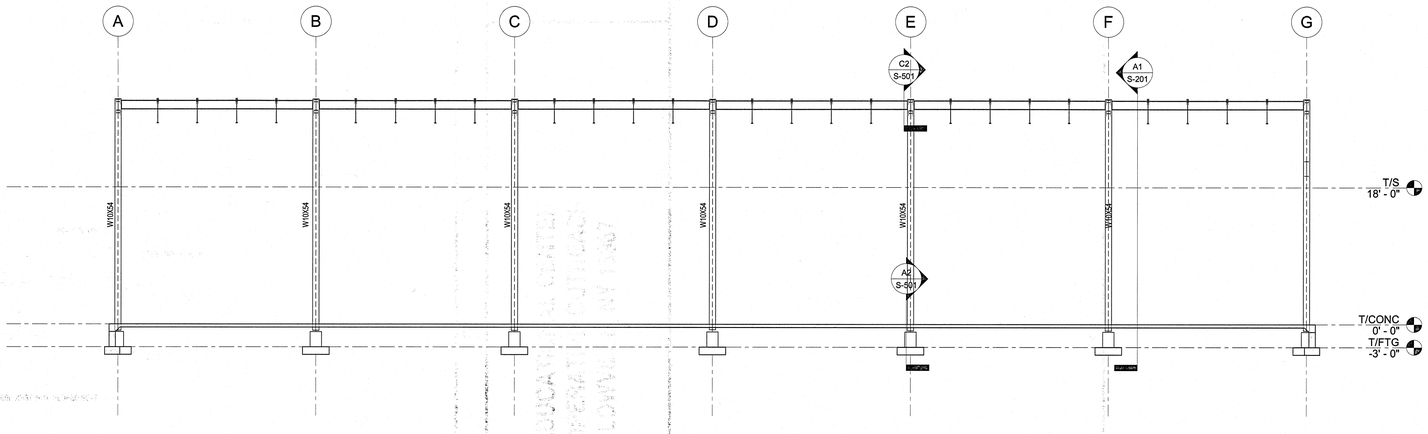
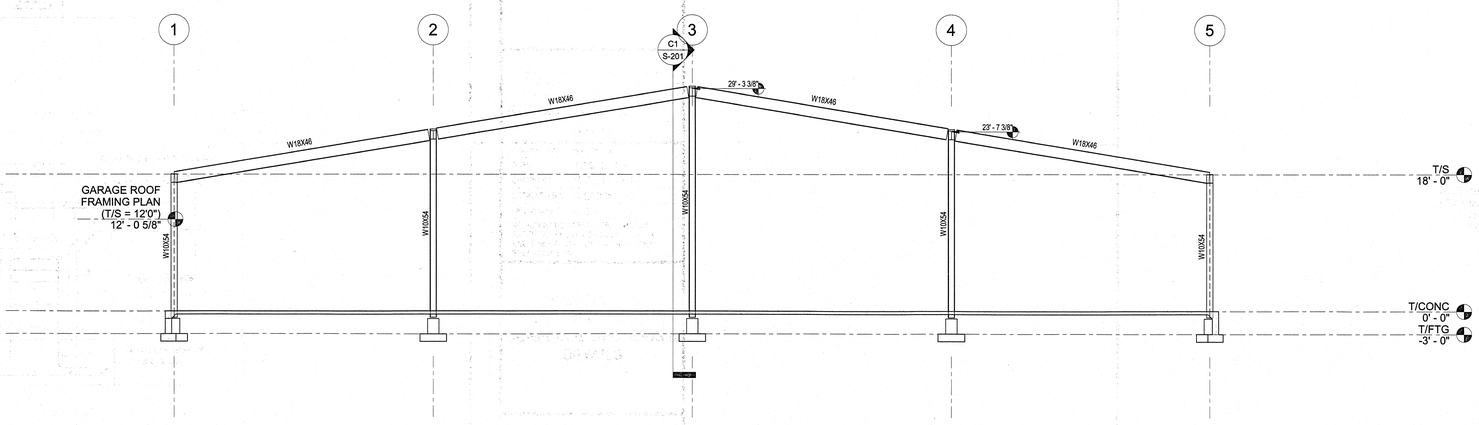


C1 TRANSVERSE BUILDING SECTION
SCALE: 1/8" = 1'-0"



A1 SECTION
SCALE: 1/8" = 1'-0"

C&S COMPANIES
C&S Engineers, Inc.
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LEWIS COUNTY, N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	M.B. TOUKATLY, E.I.T.
DESIGNED BY:	C. BROOKS, P.E.
CHECKED BY:	C. BROOKS, P.E.

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BUILDING SECTIONS

S-201

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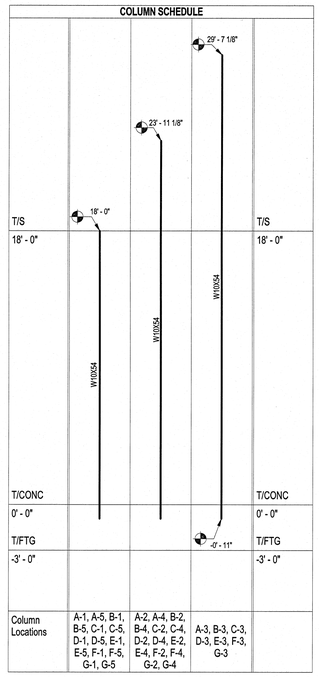
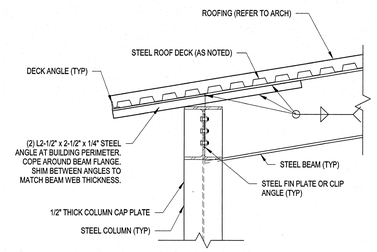
FOOTING SCHEDULE		
MARK	DIMENSIONS	REINFORCEMENT
F2	3-6" x 3-6" x 12"	#6 @ 8" O.C.E.W

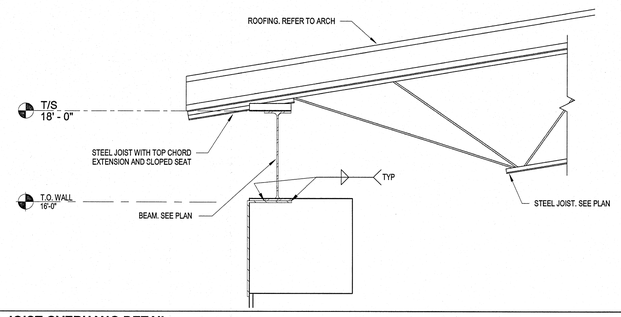
PIER SCHEDULE					
MARK	SIZE (WIDTH)x(LENGTH)	VERT. REINF.	ANCHOR REINF.	T/PIER EL.	REF. DETAIL
P1	18 x 18	(4) #4	(4) #4 w/ 90	-1' - 0"	

COLUMN SCHEDULE

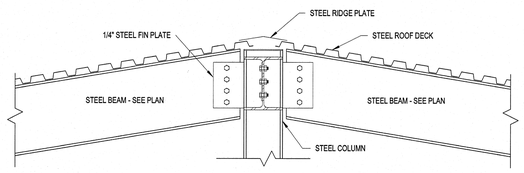




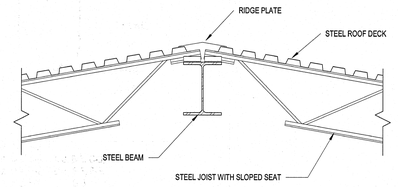
D2 BEAM TO COLUMN AT PERIMETER
SCALE: 3/4" = 1'-0"



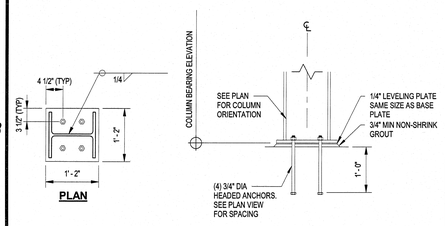
D4 TYPICAL JOIST OVERHANG DETAIL
SCALE: 3/4" = 1'-0"



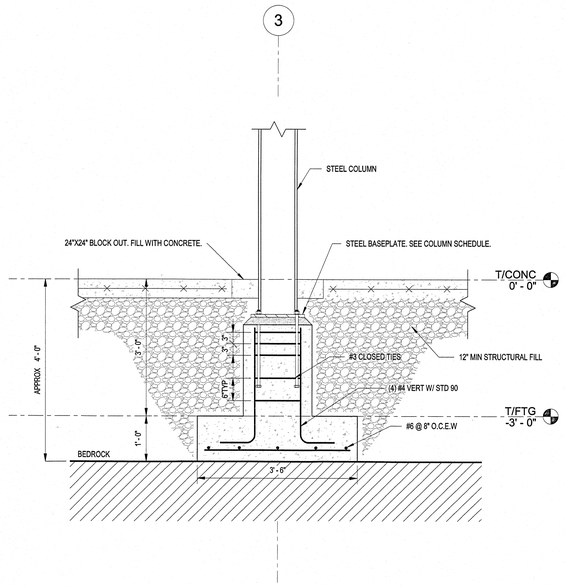
C2 TYPICAL BEAM TO COLUMN
SCALE: 3/4" = 1'-0"



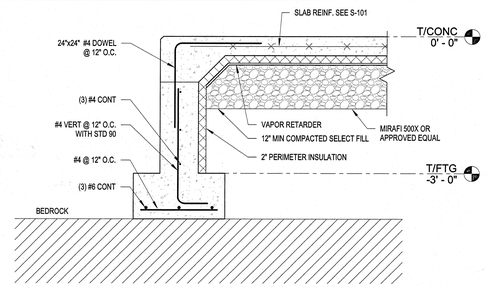
C4 TYPICAL JOIST TO BEAM
SCALE: 3/4" = 1'-0"



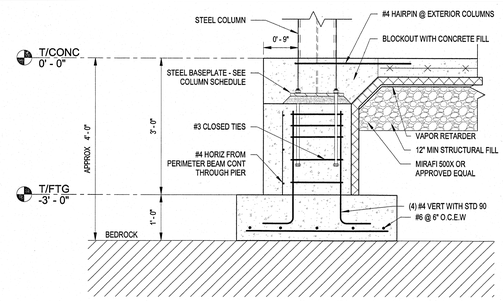
B1 TYPICAL COLUMN BASE PLATE DETAIL
SCALE: 3/4" = 1'-0"



A2 TYPICAL INTERIOR FOOTING
SCALE: 3/4" = 1'-0"



B4 TYPICAL PERIMETER BEAM
SCALE: 3/4" = 1'-0"



A4 TYPICAL EXTERIOR FOOTING
SCALE: 3/4" = 1'-0"

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LEWIS COUNTY, N.Y. 1805

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CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	M. BUCKINGHAM
DESIGNED BY:	C. BROOKS, P.E.
CHECKED BY:	C. BROOKS, P.E.

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FOUNDATION SCHEDULE, COLUMN SCHEDULE, SECTIONS & DETAILS

S-501

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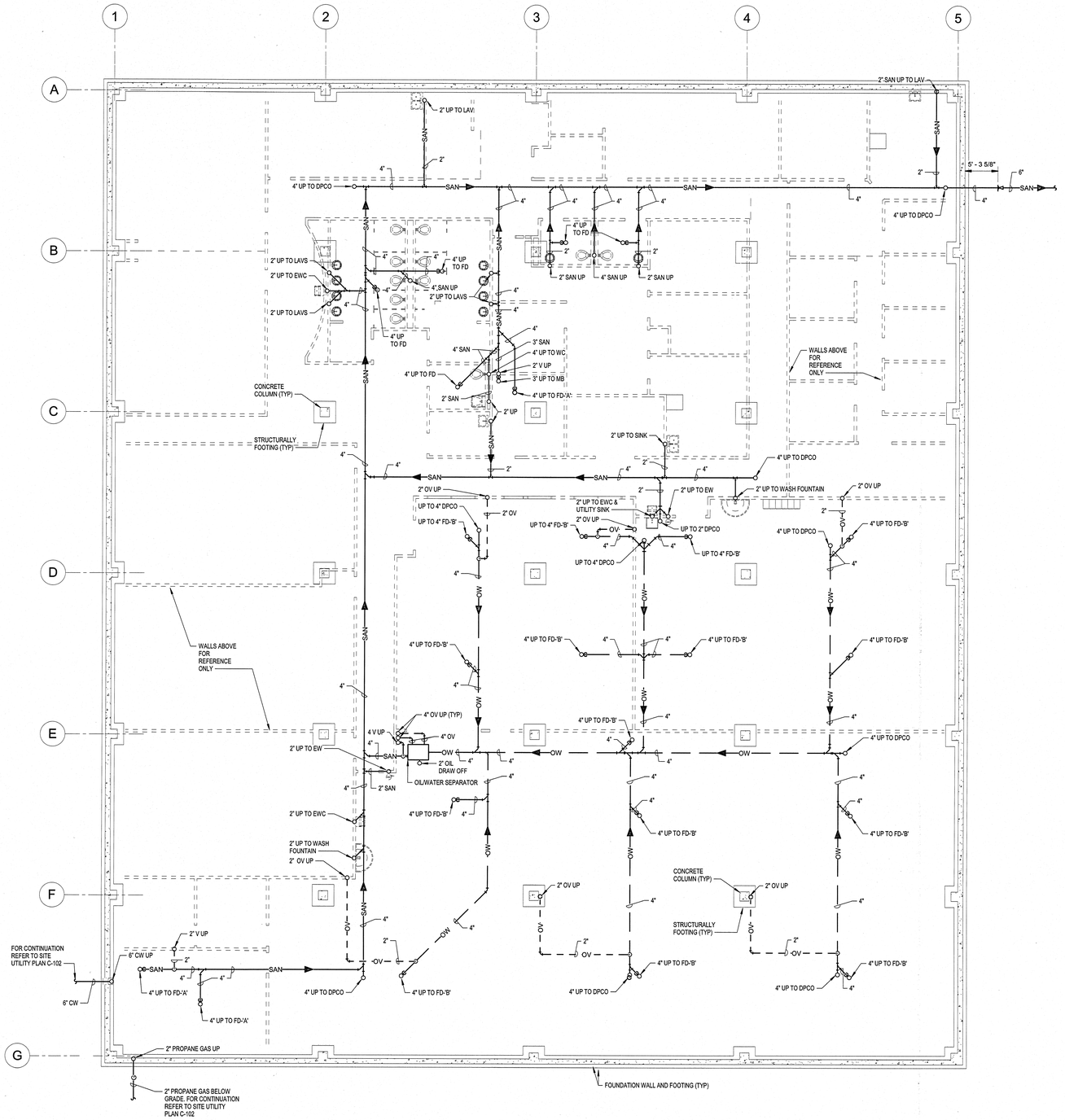
DOMESTIC COLD WATER PIPING (CW)	
G	PROPANE GAS (G)
SAN	SANITARY PIPING (SAN)
OW	OIL WASTE PIPING (OW)
OV	OIL VENT PIPING (OV)
V	VENT PIPING (V)
	DIRECTION OF FLOW
	TRAP
	PIPE BREAK
DPCO	DECK PLATE CLEANOUT
DWH	DOMESTIC WATER HEATER
EWC	ELECTRIC WATER COOLER
EX	EXISTING
FD	FLOOR DRAIN
OV	OIL VENT
OW	OIL WASTE
UR	URINAL
WC	WATERCLOSET
SK	KITCHEN SINK

E5 PLUMBING LEGEND & SYMBOLS
SCALE: NOT TO SCALE



A1 BELOW SLAB PLAN
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

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EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	M. SHERIDAN
DESIGNED BY:	J. DELEO
CHECKED BY:	J. DELEO

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BELOW SLAB PIPING PLAN

P-100

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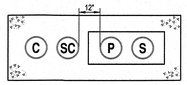
P = 4"C (ACTIVE PRIMARY POWER)

S = 4"C (SPARE PRIMARY POWER)

C = 2"C (ACTIVE COMMUNICATIONS SERVICE)

SC = 2"C (SPARE COMMUNICATIONS SERVICE)



1 ES-101 **DUCT BANK SECTION**
NOT TO SCALE

NOTES

A. MAINTAIN 12" SEPARATION BETWEEN POWER AND COMMUNICATION CONDUITS.

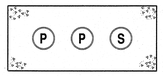
B. PROVIDE CONCRETE ENCASED DUCT BANK CONSTRUCTION FOR POWER DUCT BANK.

C. PROVIDE SAND BED OR CONCRETE ENCASED DUCT BANK CONSTRUCTION FOR COMMUNICATION DUCT BANK.

D. REFER TO DETAILS FOR DUCT BANK CONSTRUCTION REQUIREMENTS.

P = 4"C (ACTIVE SECONDARY POWER)

S = 4"C (SPARE SECONDARY POWER)



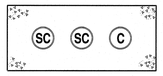
2 ES-101 **DUCT BANK SECTION**
NOT TO SCALE

NOTES

A. REFER TO DETAILS FOR DUCT BANK CONSTRUCTION REQUIREMENTS.

C = 2"C (ACTIVE COMMUNICATIONS SERVICE)

SC = 2"C (SPARE COMMUNICATIONS SERVICE)



3 ES-101 **DUCT BANK SECTION**
NOT TO SCALE

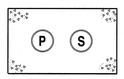
NOTES

A. REFER TO DETAILS FOR DUCT BANK CONSTRUCTION REQUIREMENTS.

B. THIS SECTION DOES NOT INCLUDE THE 1" SITE LIGHTING CONDUIT.

P = 2"C (ACTIVE POWER TO MAINTENANCE SHED)

S = 2"C (SPARE CONDUIT TO MAINTENANCE SHED)

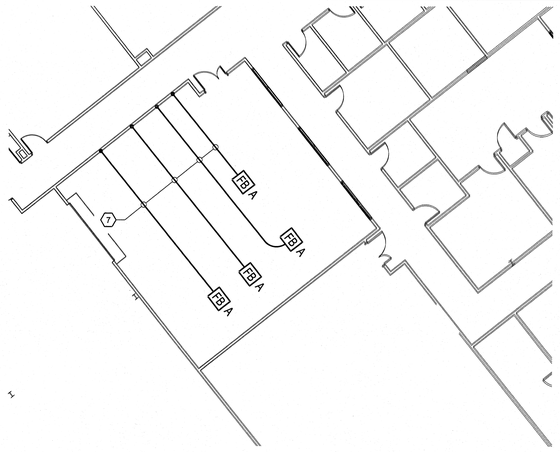


4 ES-101 **DUCT BANK SECTION**
NOT TO SCALE

NOTES

A. REFER TO DETAILS FOR DUCT BANK CONSTRUCTION REQUIREMENTS.

C1 DUCT BANK SECTIONS
NOT TO SCALE

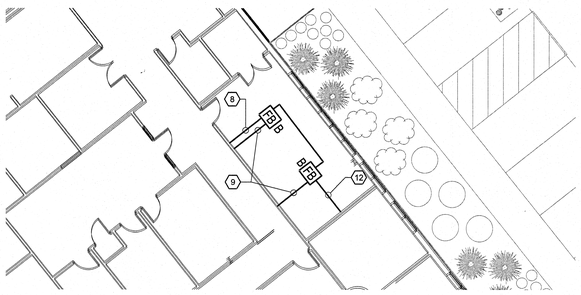


GENERAL NOTES:

A. REFER TO C1/ES-101 KEYED NOTES FOR NOTES ON THIS ENLARGED PLAN.

B. COORDINATE EXACT LOCATION OF FLOOR BOXES WITH THE OWNERS REPRESENTATIVE PRIOR TO ROUGHING.

B1 MECHATRONICS
SCALE: 1" = 10'

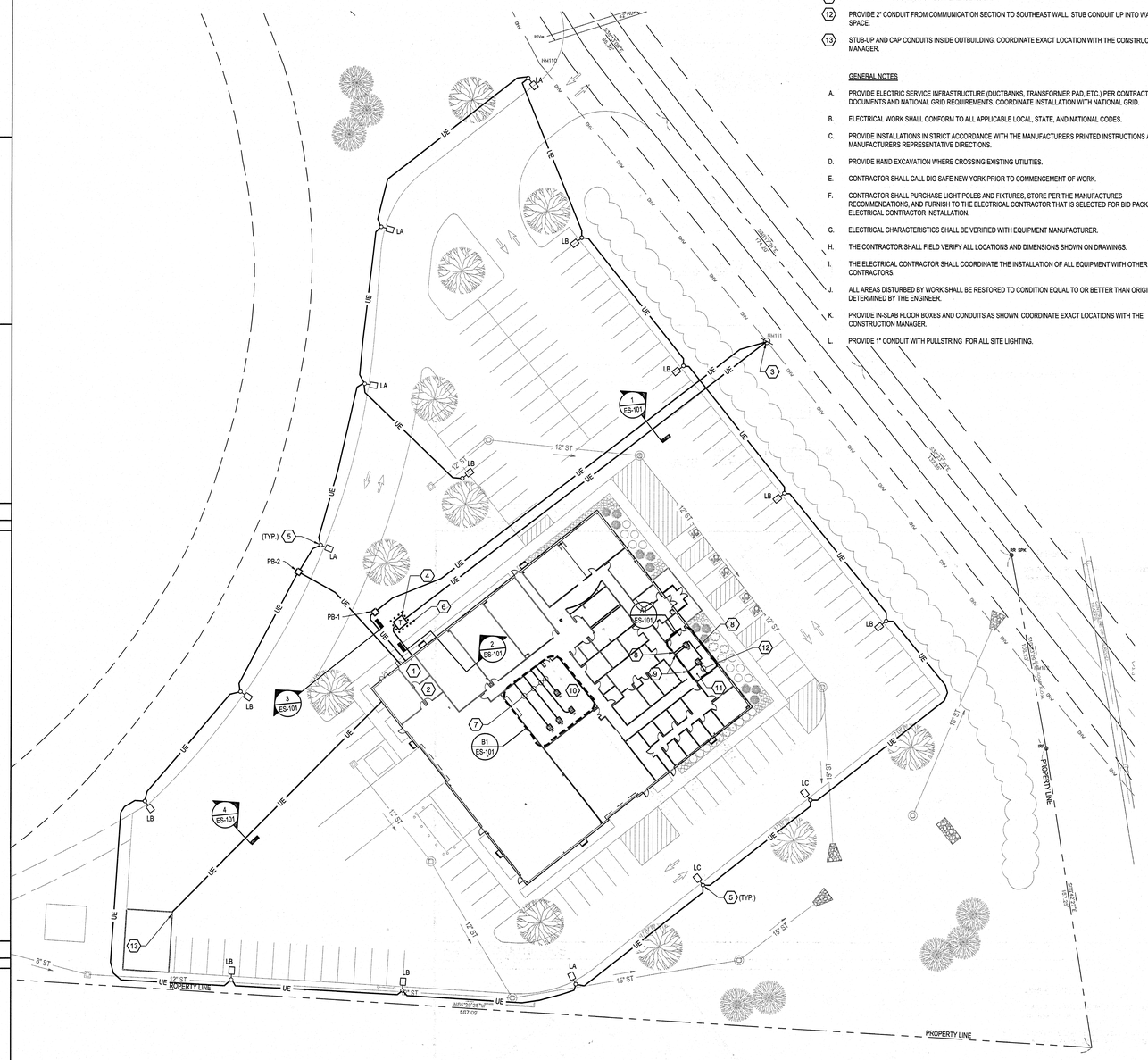


GENERAL NOTES:

A. REFER TO C1/ES-101 KEYED NOTES FOR NOTES ON THIS ENLARGED PLAN.

B. COORDINATE EXACT LOCATION OF FLOOR BOXES WITH CONSTRUCTION MANAGER PRIOR TO ROUGHING.

A1 CONFERENCE ROOM
SCALE: 1" = 10'



C1 SITE PLAN
SCALE: 1" = 30'

0 30' 90'

KEYED NOTES:

1. APPROXIMATE LOCATION OF ELECTRIC ROOM. STUB-UP CONDUITS THROUGH SLAB AND CAP. REFER TO TYPICAL CONDUIT STUB-UP INSIDE BUILDING DETAIL. COORDINATE STUB-UP LOCATION WITH THE CONSTRUCTION MANAGER AND ELECTRICAL ENGINEER.
2. APPROXIMATE LOCATION OF TELECOM ROOM. STUB-UP CONDUITS THROUGH SLAB AND CAP. REFER TO TYPICAL CONDUIT STUB-UP INSIDE BUILDING DETAIL. COORDINATE STUB-UP LOCATION WITH THE CONSTRUCTION MANAGER AND ELECTRICAL ENGINEER.
3. EXISTING NATIONAL GRID UTILITY POLE NM111.
4. PROVIDE TRANSFORMER PAD. REFER TO REINFORCED CONCRETE PAD FOR PAD - MOUNTED TRANSFORMER DETAIL AND NATIONAL GRID REQUIREMENTS.
5. PROVIDE LIGHT POLE BASE. REFER TO FOUNDATION DETAIL - SITE LUMINAIRES ROUND BASE DETAIL.
6. PROVIDE BOLLARDS AROUND PAD MOUNTED TRANSFORMERS. REFER TO TYPICAL BOLLARD INSTALLATION AT PAD MOUNTED TRANSFORMER DETAIL.
7. PROVIDE 1" CONDUIT FROM FLOOR BOX TO THE NORTHWEST WALL. STUB CONDUITS UP INTO WALL CAVITY SPACE.
8. PROVIDE 1" CONDUIT BETWEEN FLOOR BOX POWER SECTIONS. PROVIDE 1" CONDUIT FROM ONE FLOOR BOX POWER SECTION TO THE SOUTHWEST WALL. STUB CONDUIT UP INTO WALL CAVITY SPACE.
9. PROVIDE 1" CONDUIT FROM EACH FLOOR BOX COMMUNICATION SECTION TO THE SOUTHWEST WALL. STUB CONDUIT UP INTO WALL CAVITY SPACE.
10. APPROXIMATE LOCATION OF MECHATRONICS LAB.
11. APPROXIMATE LOCATION OF CONFERENCE ROOM.
12. PROVIDE 2" CONDUIT FROM COMMUNICATION SECTION TO SOUTHEAST WALL. STUB CONDUIT UP INTO WALL CAVITY SPACE.
13. STUB-UP AND CAP CONDUITS INSIDE OUTBUILDING. COORDINATE EXACT LOCATION WITH THE CONSTRUCTION MANAGER.

GENERAL NOTES

A. PROVIDE ELECTRIC SERVICE INFRASTRUCTURE (DUCTBANKS, TRANSFORMER PAD, ETC.) PER CONTRACT DOCUMENTS AND NATIONAL GRID REQUIREMENTS. COORDINATE INSTALLATION WITH NATIONAL GRID.

B. ELECTRICAL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES.

C. PROVIDE INSTALLATIONS IN STRICT ACCORDANCE WITH THE MANUFACTURERS PRINTED INSTRUCTIONS AND/OR THE MANUFACTURERS REPRESENTATIVE DIRECTIONS.

D. PROVIDE HAND EXCAVATION WHERE CROSSING EXISTING UTILITIES.

E. CONTRACTOR SHALL CALL DIG SAFE NEW YORK PRIOR TO COMMENCEMENT OF WORK.

F. CONTRACTOR SHALL PURCHASE LIGHT POLES AND FIXTURES, STORE PER THE MANUFACTURES RECOMMENDATIONS, AND FURNISH TO THE ELECTRICAL CONTRACTOR THAT IS SELECTED FOR BID PACKAGE 2 FOR ELECTRICAL CONTRACTOR INSTALLATION.

G. ELECTRICAL CHARACTERISTICS SHALL BE VERIFIED WITH EQUIPMENT MANUFACTURER.

H. THE CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS AND DIMENSIONS SHOWN ON DRAWINGS.

I. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL EQUIPMENT WITH OTHER CONTRACTORS.

J. ALL AREAS DISTURBED BY WORK SHALL BE RESTORED TO CONDITION EQUAL TO OR BETTER THAN ORIGINAL AS DETERMINED BY THE ENGINEER.

K. PROVIDE IN-SLAB FLOOR BOXES AND CONDUITS AS SHOWN. COORDINATE EXACT LOCATIONS WITH THE CONSTRUCTION MANAGER.

L. PROVIDE 1" CONDUIT WITH PULLSTRING FOR ALL SITE LIGHTING.

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LEWIS COUNTY, N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	J. BOSHART
DESIGNED BY:	K. OBINE
CHECKED BY:	-

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CIVIL

ELECTRICAL SITE PLAN

ES-101

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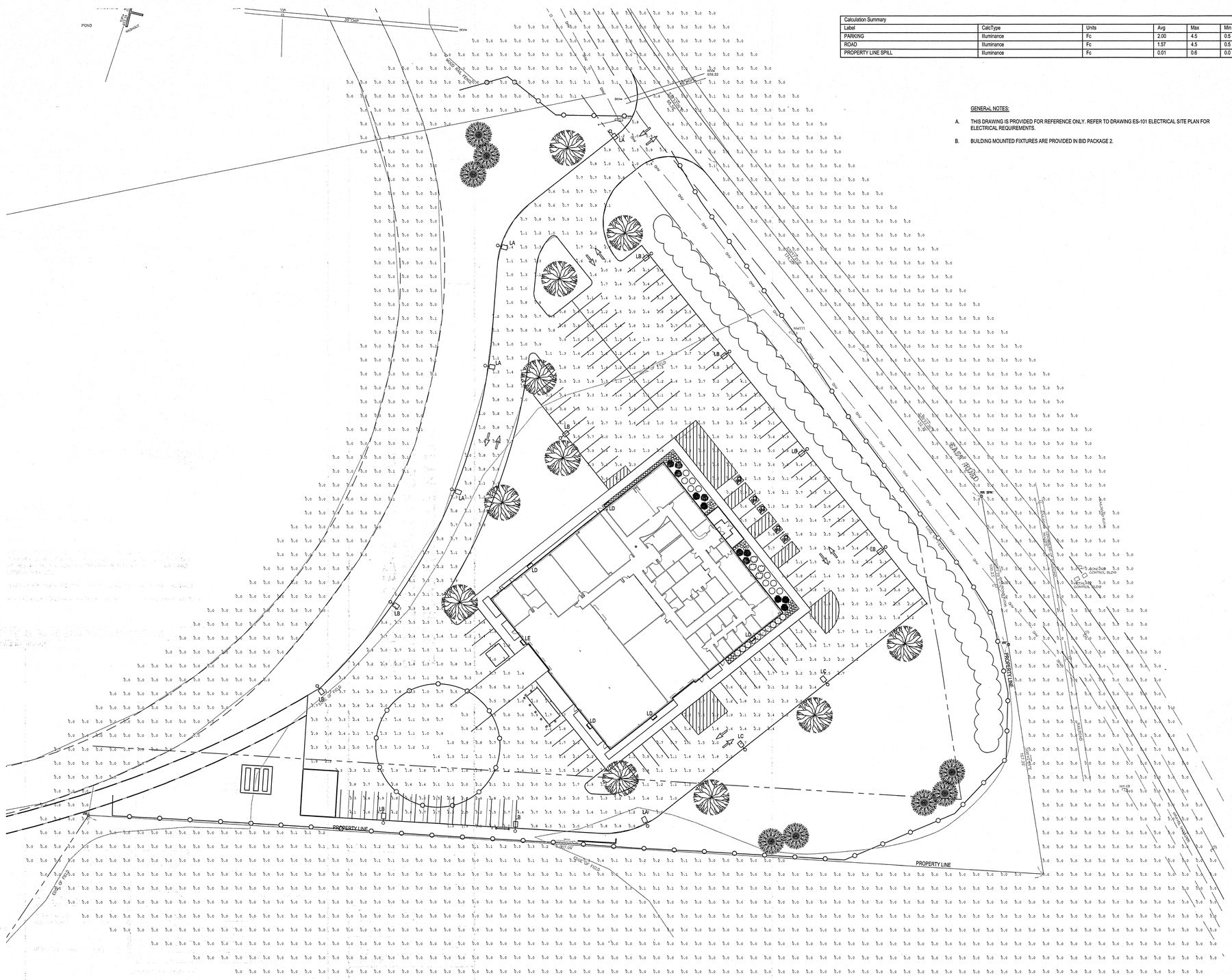
Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING	Illuminance	Fc	2.00	4.5	0.5	4.00	9.00
ROAD	Illuminance	Fc	1.57	4.5	0.5	3.14	9.00
PROPERTY LINE SPILL	Illuminance	Fc	0.01	0.6	0.0	N.A.	N.A.



GENERAL NOTES:

A. THIS DRAWING IS PROVIDED FOR REFERENCE ONLY. REFER TO DRAWING ES-101 ELECTRICAL SITE PLAN FOR ELECTRICAL REQUIREMENTS.

B. BUILDING MOUNTED FIXTURES ARE PROVIDED IN BID PACKAGE 2.

PLAN NORTH

A1 SITE LIGHTING PLAN
SCALE: 1" = 30'

0 30' 60'

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LEWIS COUNTY, N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

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DRAWN BY: J. BOSHART
DESIGNED BY: K. OBINE
CHECKED BY: -

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SITE LIGHTING PHOTOMETRIC PLAN

ES-102

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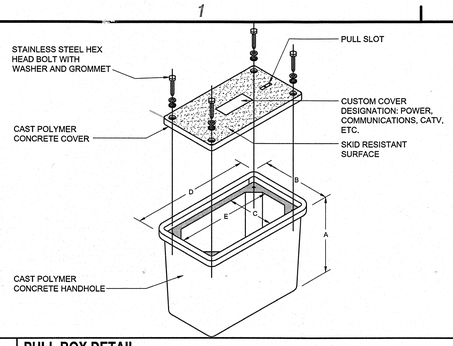
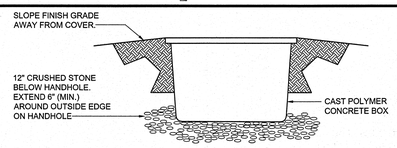




DIMENSION SCHEDULE					
HANDHOLE TYPE	DIMENSION				
	A	B	C	D	E
PB-1	30"	26"	24"	37"	35"
PB-2	24"	15"	14"	24"	23"

GENERAL NOTE:

A. DO NOT LOCATE IN VEHICULAR TRAFFIC OR SIDEWALK AREAS.

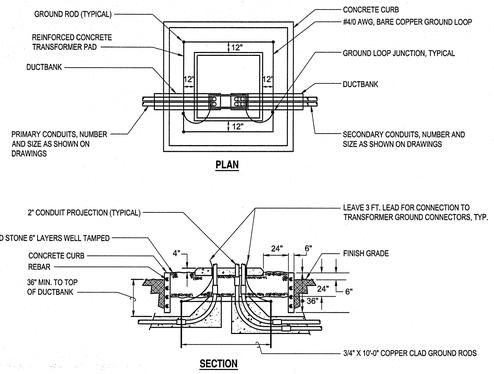
B. PULL BOXES SHALL BE TIER 22 RATED.

E1 PULL BOX DETAIL
SCALE: NOT TO SCALE

LIGHTING FIXTURE SCHEDULE

TYPE	LAMPS	VOLTAGE	NOMINAL WATTAGE	DESCRIPTION	LENS / SHIELDING	FINISH	DESIGN FIXTURE SERIES	NOTES
LA	5783 LUMENS, 3000K COLOR TEMP	277	113	POLE MOUNTED PARKING LOT AND ROADWAY FIXTURE, TYPE SL IV ROADWAY DISTRIBUTION	FACTORY INSTALLED HOUSE SIDE SHIELD	GRAPHITE METALLIC	MCGRAW EDISON GALLEON	
LB	15902 LUMENS, 3000K COLOR TEMP	277	225	POLE MOUNTED PARKING LOT AND ROADWAY FIXTURE, TYPE SL IV ROADWAY DISTRIBUTION	FACTORY INSTALLED HOUSE SIDE SHIELD	GRAPHITE METALLIC	MCGRAW EDISON GALLEON	
LC	8490 LUMENS, 3000K COLOR TEMP	277	113	POLE MOUNTED PARKING LOT AND ROADWAY FIXTURE, TYPE SL III ROADWAY DISTRIBUTION	FACTORY INSTALLED HOUSE SIDE SHIELD	GRAPHITE METALLIC	MCGRAW EDISON GALLEON	

E3 LIGHT FIXTURE SCHEDULE
SCALE: NOT TO SCALE



GENERAL NOTES:

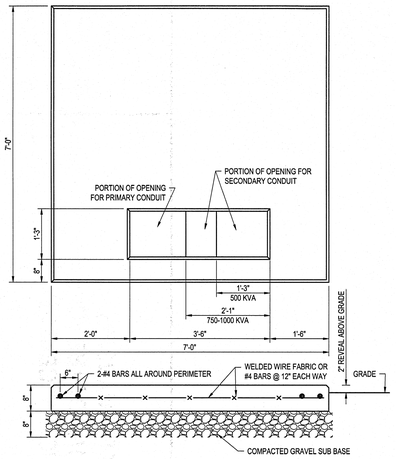
A. DIRECTION OF CONDUITS AND DUCTBANK TO BE AS SHOWN ON DRAWINGS.

B. METALLIC CONDUITS, WHEN USED, SHALL BE GROUNDED USING GROUNDING BUSHINGS CONNECTED TO GROUND GRID, EACH END.

C. REFER TO REINFORCED CONCRETE PAD DETAIL FOR PAD MOUNTED TRANSFORMER SIZE AND CONSTRUCTION REQUIREMENTS OF TRANSFORMER PAD.

D. COORDINATE AND ADJUST WORK AS REQUIRED BY UTILITY COMPANY BEFORE PROCEEDING, AS PART OF CONTRACT.

C1 GROUNDING AND CONDUIT PLAN THREE-PHASE PLAN PAD MOUNTED TRANSFORMER
SCALE: NOT TO SCALE

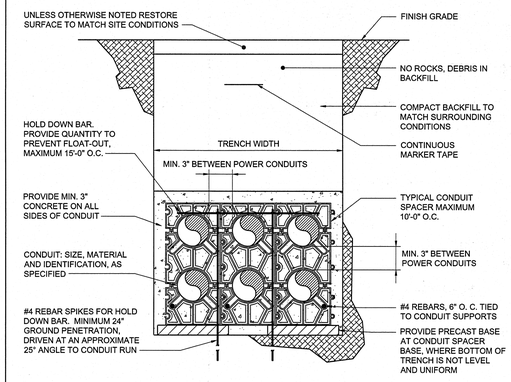


NOTES:

1. CONCRETE 3500 PSI @ 28 DAYS.
2. WELDED WIRE FABRIC - ASTM A-185.
3. DEFORMED BARS - ASTM A-615, GRADE 40.
4. TOP SURFACE SHALL BE TROWEL FINISHED.
5. 3/4" CHAMFER ALL EXPOSED EDGES, INCLUDING OPENING.
6. USE THIS PAD FOR A MAXIMUM SIZE TRANSFORMER OF 750 KVA.
7. PROVIDE CONCRETE CURB AND CRUSHED STONE PER GROUNDING AND CONDUIT PLAN THREE PHASE PAD MOUNTED TRANSFORMER AND UTILITY REQUIREMENTS.

REINFORCING SCHEDULE	
	APPROX. WT.
#4 BARS @ 12" EACH WAY	60 LBS
OR, WWF 4 X 4 X4/4	38 LBS
OR, WWF 6 X 6 X 2/2	42 LBS
CONCRETE VOLUME	0.83 CU. YD.

C2 REINFORCED CONCRETE PAD FOR PAD-MOUNTED TRANSFORMER
SCALE: NOT TO SCALE



GENERAL NOTES:

A. REFER TO DUCTBANK SECTIONS FOR ACTUAL QUANTITY AND SIZE OF CONDUITS REQUIRED.

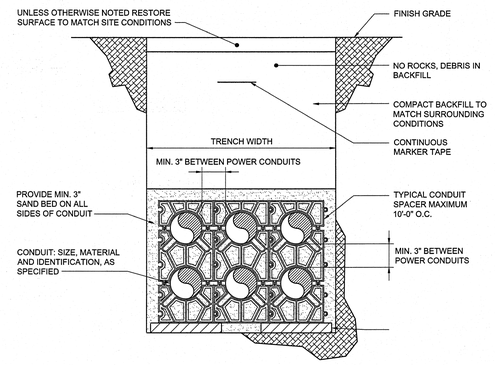
B. LEAVE PULL ROPE IN ALL SPARES.

C. EXCAVATED MATERIAL MEETING SPECIFICATIONS MAY BE USED FOR BACKFILL IN TRENCHES. IN THE EVENT EXCAVATED MATERIAL DOES NOT MEET SPECIFICATIONS, PROVIDE GRANULAR BACKFILL AS SPECIFIED FOR BACKFILL. REMOVE UNSUITABLE MATERIAL FROM SITE.

D. UNLESS OTHERWISE NOTED, TOP OF CONDUIT SHALL BE 30" BELOW FINISHED GRADE.

E. COMPLY WITH NATIONAL GRID REQUIREMENTS FOR PRIMARY DUCTBANK SYSTEMS.

C3 TYPICAL REINFORCED CONCRETE ENCASED DUCTBANK DETAIL
SCALE: NOT TO SCALE



GENERAL NOTES:

A. REFER TO DUCTBANK SECTIONS FOR ACTUAL QUANTITY AND SIZE OF CONDUITS REQUIRED.

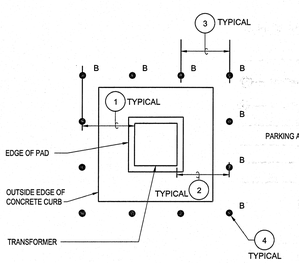
B. LEAVE PULL ROPE IN ALL SPARES.

C. EXCAVATED MATERIAL MEETING SPECIFICATIONS MAY BE USED FOR BACKFILL IN TRENCHES. IN THE EVENT EXCAVATED MATERIAL DOES NOT MEET SPECIFICATIONS, PROVIDE GRANULAR BACKFILL AS SPECIFIED FOR BACKFILL. REMOVE UNSUITABLE MATERIAL FROM SITE.

D. UNLESS OTHERWISE NOTED, TOP OF CONDUIT SHALL BE 30" BELOW FINISHED GRADE.

E. SPACERS AND PRECAST BASE MAY BE DELETED FOR SINGLE TIER DUCTBANK SECTIONS.

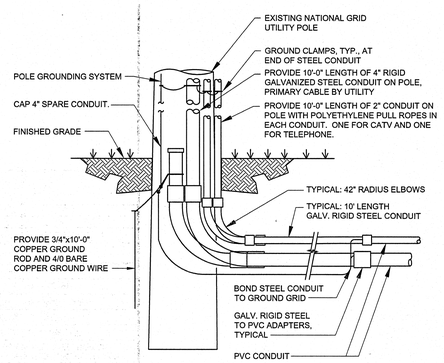
C4 TYPICAL SAND BED DUCTBANK DETAIL
SCALE: NOT TO SCALE



KEYED NOTES:

1. EXTEND BOLLARDS MINIMUM 5' BEYOND END OF PROTECTED EDGE OF EQUIPMENT. MINIMUM FOUR BOLLARDS PER SIDE.
2. MINIMUM 5' SPACING FROM EDGE OF EQUIPMENT ENCLOSURE TO BOLLARD.
3. PROVIDE BOLLARDS MAXIMUM 48" ON CENTER WHERE TRANSFORMER INSTALLATION IS EXPOSED TO VEHICULAR TRAFFIC, GRASS CUTTING EQUIPMENT OR SNOW PLOWING EQUIPMENT.
4. REFER TO BOLLARD DETAIL FOR CONSTRUCTION.

A1 SYMBOL LIST
SCALE: NOT TO SCALE

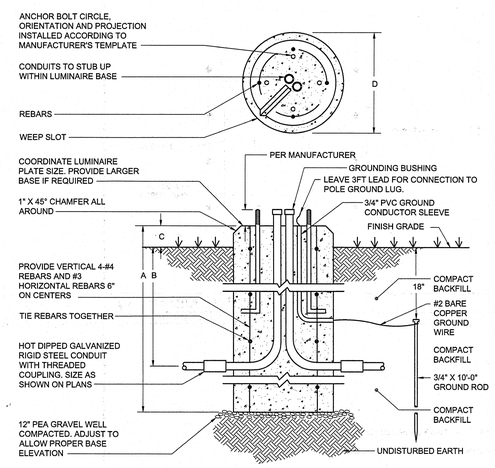


GENERAL NOTES:

A. ALL WORK PROVIDED BY THE GENERAL CONTRACTOR WITH EXCEPTION OF POLE, PRIMARY CABLE AND COMMUNICATION CABLES. COORDINATE ALL WORK WITH UTILITY COMPANY.

B. ADJUST ORIENTATION, QUANTITIES AND DETAILS TO ACCOMMODATE ACTUAL SITE AND JOB CONDITIONS.

A2 RISER POLE SECTION
SCALE: NOT TO SCALE

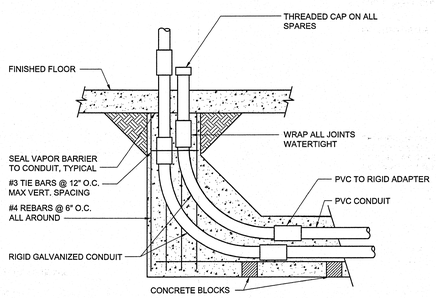


GENERAL NOTES:

A. CONTRACTOR TO MATCH BOLT PATTERN TO LIGHT POLE REQUIREMENTS.

DIMENSION SCHEDULE				
LUMINAIRE TYPE DESIGNATION	DIMENSION			
	A	B	C	D
L-SERIES	90"	30"	20"	30"

A3 SITE LUMINAIRE ROUND BASE DETAIL
SCALE: NOT TO SCALE



A5 TYPICAL CONDUIT STUB-UP INSIDE BUILDING
SCALE: NOT TO SCALE

FB	FLOOR BOX
LA	POLE MOUNTED SITE LIGHTING FIXTURE, REFER TO LIGHTING FIXTURE SCHEDULE
T	REINFORCED CONCRETE PAD FOR PAD MOUNTED TRANSFORMER
PB	PULL BOX
#	KEYED NOTE
∅	UTILITY POLE
—UE—	UNDERGROUND ELECTRIC OR COMMUNICATION DUCTBANK SYSTEM

A1 SYMBOL LIST
SCALE: NOT TO SCALE

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LEWIS COUNTY, N.Y. 1805

LEWIS - JCC EDUCATIONAL CENTER
CORNELL COOPERATIVE OUTREACH
EAST ROAD LOWVILLE, NY 13367

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	564.012.001
DATE:	JUNE 22, 2018
DRAWN BY:	J. BOSHART
DESIGNED BY:	K. OBINE
CHECKED BY:	

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

ELECTRICAL DETAILS

E-501

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