

GOODWIN COLLEGE
ONE RIVERSIDE DRIVE EAST HARTFORD, CT

ENSIGN STREET DRAINAGE DESIGN

EAST HARTFORD, CT

PROJECT NUMBER
1962

OCTOBER, 2018

FINAL DESIGN



INSPECTION NOTES

1. THE DEVELOPER SHALL NOTIFY THE TOWN OF EAST HARTFORD ENGINEERING DIVISION 24 HOURS PRIOR TO BEGINNING ANY STORM DRAINAGE, ROADWAY PREPARATION, PAVING, SIDEWALK, CURBING, STREET LINE MONUMENTATION, PROPERTY CORNER PINS, ETC., TO SCHEDULE INSPECTIONS. THE DIVISION CAN BE REACHED BETWEEN 8:30 A.M. - 4:30 P.M. AT 291-7380.
2. THE TOWN SHALL BE NOTIFIED IN WRITING AT LEAST 2 DAYS IN ADVANCE OF THE PRE-CONSTRUCTION MEETING BETWEEN THE CONTRACTOR AND THE ENGINEER.

LIST OF DRAWINGS

--	COVER SHEET
GN-1	GENERAL NOTES AND LEGENDS
EC-1	EXISTING CONDITIONS PLAN
EC-2	EXISTING CONDITIONS PLAN
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PP-1	PLAN AND PROFILE
PP-2	PLAN AND PROFILE
RR-1	ROADWAY RECONSTRUCTION PLAN
GP-1	INTERSECTION GRADING PLAN
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CD-2	CIVIL DETAILS
CD-3	CIVIL DETAILS

PROJECT SITE - PROPERTY OF GOODWIN COLLEGE

NO.	MAP-LOT	PROPERTY ADDRESS
1	10-79	84-86 ENSIGN STREET
2	10-80	82 ENSIGN STREET
3	10-81	76 ENSIGN STREET
4	10-82	74-72 ENSIGN STREET
5	10-83	66 ENSIGN STREET
7	10-85	58-56 ENSIGN STREET
8	10-86	54-52 ENSIGN STREET
9	10-87	50-48 ENSIGN STREET
11	10-89	38-36 ENSIGN STREET
12	10-91	26 ENSIGN STREET
13	10-92	24 ENSIGN STREET
17	10-54	83 ENSIGN STREET
18	10-53	81 ENSIGN STREET
19	10-52	77 ENSIGN STREET
20	10-51	71 ENSIGN STREET
21	10-50	63 ENSIGN STREET
22	10-49	57 ENSIGN STREET
23	10-48	53-55 ENSIGN STREET
24	10-47	47 ENSIGN STREET
25	10-46	43 ENSIGN STREET
26	10-45	33 ENSIGN STREET
27	10-44	27-29 ENSIGN STREET
28	10-43	21-23 ENSIGN STREET
29	10-42	13-15 ENSIGN STREET
30	10-41	9 ENSIGN STREET
31	10-40	365 MAIN STREET

PREPARED FOR



PREPARED BY



ABUTTING PROPERTY OWNERS

NO.	MAP-LOT	PROPERTY ADDRESS	OWNER NAME	OWNER ADDRESS
6	10-84	62 ENSIGN STREET	TOMBARI G. & CATHERINE B. McFINI	62 ENSIGN STREET EAST HARTFORD, CT 06118
10	10-88	44 ENSIGN STREET	PSALM D. JOHNSON	44 ENSIGN STREET EAST HARTFORD, CT 06118
14	10-93	18 ENSIGN STREET	ROLAND L. VEGIARD	18 ENSIGN STREET EAST HARTFORD, CT 06118
15	10-96	14 ENSIGN STREET	ROLAND L. VEGIARD & ROLAND LEE VEGIARD	14 ENSIGN STREET EAST HARTFORD, CT 06118
16	10-98	373 MAIN STREET	FRENCH SOCIAL CIRCLE BUILDING ASSOCIATION	P.O. BOX 280921 EAST HARTFORD, CT 06118

GENERAL NOTES

1. ALL CONSTRUCTION ACTIVITIES SHALL BE COMPLETED AS INDICATED IN THE CONTRACT DOCUMENTS AND SHALL COMPLY WITH THE REQUIREMENTS OF THE TOWN OF EAST HARTFORD, AND THE CONNECTICUT DEPARTMENT OF TRANSPORTATION (CT DOT) STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 817, DATED 2016, WITH LATEST UPDATES.
2. THE CONTRACTOR SHALL NOTIFY ALL LOCAL UTILITY COMPANIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES AND THE TOWN OF EAST HARTFORD FOR UTILITY LINE RELOCATIONS.
3. THE CONTRACTOR SHALL MAINTAIN ONE SET OF CONTRACT DOCUMENTS ON THE PREMISES IN GOOD CONDITION AT ALL TIMES. THE SET SHALL INCLUDE ALL ADDENDA AND CHANGE ORDERS.
4. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE CONSTRUCTION MANAGER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONTRACT DOCUMENTS, AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO CONSTRUCTION. ANY CONFLICT BETWEEN THE DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE CONSTRUCTION MANAGER PRIOR TO BIDDING.
5. STATED DIMENSIONS TAKE PRECEDENCE OVER GRAPHICS. DO NOT SCALE DRAWINGS TO DETERMINE LOCATION AND/OR DIMENSIONS.
6. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE ENGINEER, AND THE APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES, STRUCTURES AND OTHER SITE FEATURES NOT BEING REMOVED AND/OR ALTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH EXECUTION OF THE WORK.
8. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL REQUIRED SUBMITTALS TO THE CONSTRUCTION MANAGER AND SITE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 15 WORKING DAYS FOR REVIEW.
9. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UTILITIES) TO THE TOWN AT THE END OF CONSTRUCTION.
10. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES AND UNIFORMED TRAFFIC MEN AS REQUIRED OR ORDERED BY THE CONSTRUCTION MANAGER OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITIES.
11. INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. THE LOCATIONS ARE APPROXIMATE. ALL UTILITIES MAY NOT BE SHOWN. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL NOTIFY "CALL BEFORE YOU DIG" AT 1-800-922-4455.
12. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF SUPPORT FOR PROTECTION OF PERSONNEL DURING EXCAVATION AND BACKFILLING OPERATIONS.
13. THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO ANY WORK AND SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY THE SUBCONTRACTORS.
14. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPE OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER AND RESPECTIVE UTILITY COMPANY IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH THE WORK IN THIS AREA.
15. DO NOT INTERRUPT EXISTING UTILITIES SERVICING ADJACENT PROPERTIES EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER.
16. OSHA REGULATIONS MAKE IT UNLAWFUL TO OPERATE CRANES, BOOMS, HOISTS, ETC. WITHIN TEN (10) FEET OF ANY ELECTRIC LINE UNDER 50 KV. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS.
17. THE CONSTRUCTION MANAGER SHALL RETAIN AN INDEPENDENT TESTING LABORATORY FOR SOIL AND PAVEMENT TESTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS INCURRED DUE TO SCHEDULING ISSUES OR FOR REPEATED TESTING DUE TO IMPROPER CONSTRUCTION TECHNIQUES.
18. THE SITE CONTRACTOR SHALL NOTIFY THE TOWN OF EAST HARTFORD PRIOR TO COMMENCEMENT OF PAVING WITHIN TOWN RIGHTS OF WAY AND ON-SITE DRAINAGE WORK.
19. NO DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL LOCAL AND STATE GOVERNING AND REGULATORY AGENCIES.
20. ALL DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PREMISES AND SHALL BE PROPERLY DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. ALL AREAS SHALL BE KEPT IN A NEAT AND ORDERLY MANNER AT ALL TIMES.
21. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AT ALL TIMES.
22. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND NOTIFICATION GIVEN TO THE TOWN FOR INSPECTION AS REQUIRED.
23. UTILITY CONNECTION LOCATIONS AS DEPICTED ON THESE DRAWINGS MAY CHANGE SUBJECT TO REVIEW BY THE APPLICABLE UTILITY COMPANY.
24. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE TOWN OF EAST HARTFORD, THE APPLICABLE UTILITY COMPANY REQUIREMENTS, AND AS SPECIFIED ON THE DRAWINGS.
25. ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION PRIOR TO BACKFILLING IN ACCORDANCE WITH THE APPLICABLE UTILITY COMPANY AND/OR THE REQUIREMENTS OF THE TOWN OF EAST HARTFORD.
26. ALL DISTURBANCE INCURRED WITHIN THE STATE OR TOWN OF EAST HARTFORD'S RIGHT-OF-WAY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE DEPARTMENT OF TRANSPORTATION OR PUBLIC WORKS REPRESENTATIVE.
27. THE CONTRACTOR SHALL VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. THE CONTRACTOR SHALL CONTACT THE CONSTRUCTION MANAGER IN THE EVENT OF ANY UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES SO THAT APPROPRIATE MODIFICATIONS MAY BE MADE.

ABBREVIATIONS

(NOT ALL ABBREVIATIONS MAY BE USED)

ABAND. APPROX.	ABANDONED APPROXIMATE	LP	LOW POINT
BCLC	BITUMINOUS CONCRETE LIP CURB	MH	MANHOLE
BOT.	BOTTOM	NPT	NATIONAL PIPE TRHEAD
BIT.	BITUMINOUS	NTS	NOT TO SCALE
CL	CENTER LINE	O.C.	ON CENTER
CB	CATCH BASIN	O.D.	OUTSIDE DIAMETER
C.I.P.	CAST IRON PIPE	R	RADIUS
CLF	CHAIN LINK FENCE	RCP	REINFORCED CONCRETE PIPE
COMM.	COMMUNICATIONS	RCAP	REINFORCED CONCRETE ARCHED PIPE
D.I.	DUCTILE IRON	PVMT.	PAVEMENT
D.I.P.	DUCTILE IRON PIPE	PVC	POLYVINYL CHLORIDE
DEG.	DEGREES	SAN.	SANITARY
CJ.	CHAIN LINK FENCE	SCHED.	SCHEDULE
DMH	DRAINAGE MANHOLE	SMH	SANITARY MANHOLE
ELEC.	ELECTRICAL	S.S.	STAINLESS STEEL
EL.	ELEVATION	STRM	STORM
EMH	ELECTRICAL MANHOLE	TEMP.	TEMPORARY
EOP	EDGE OF PAVEMENT	TEL.	TELEPHONE
EX.	EXISTING	TF	TOP OF FRAME
EXIST.	EXISTING	TOG	TOP OF GRATE
FF.	FINISHED FLOOR	TOS	TOP OF SLAB
FLR	FLOOR	TYP.	TYPICAL
G	GAS	UKWN	UNKNOWN
GM	GAS METER	W	WATER
GTD	GRADE TO DRAIN	WV	WATER VALVE
HH	HANDHOLE	YD	YARD DRAIN
HP	HIGH POINT		
HYD	HYDRANT		
I.D.	INSIDE DIAMETER		
INV.	INVERT		

LEGEND

(NOT ALL SYMBOLS MAY BE USED)

---	PROPERTY LINE	△	CONTROL POINT
----	EASEMENT LINE	□	MONUMENT
====	CURB	○/P	IRON PIPE
----	EDGE OF PAVEMENT (EOP)	○/PIN	IRON PIN
—[35]—	MAJOR CONTOUR	W	WETLAND FLAG
—[31]—	MINOR CONTOUR	☐	TYPE 'C' CATCH BASIN
×[31.25]	SPOT ELEVATION	☐	TYPE 'CL' CATCH BASIN
×[31.25] [33.75]	TOP/BOTTOM OF CURB EL.	⊙	YARD DRAIN
—12" RCP—	PIPES ≥ 12" (SIZE, MATERIAL, AND FLOW DIRECTION)	⊙	STORM DRAINAGE MANHOLE
—D—	STORM DRAINAGE	⊙	SANITARY SEWER MANHOLE
—E—	UNDERGROUND ELECTRIC	⊙	ELECTRICAL MANHOLE
—F—	FIRE PROTECTION LINE	⊙	TELEPHONE MANHOLE
—OE—	OVERHEAD ELECTRIC	⊙	WATER MANHOLE
—S—	SANITARY SEWER	⊙	MISCELLANEOUS MANHOLE
—T—	TELECOMMUNICATIONS	⊙	GAS VALVE
—W—	WATER	⊙	WATER VALVE
—//—	TEMPORARY SEDIMENTATION CONTROL	⊙	HYDRANT
—	FLUSH CONDITION	⊙	ELECTRICAL BOX
☀	TREES	⊙	HAND HOLE
☀	SHRUBS	⊙	UTILITY POLE W/ GUY WIRE
		⊙	LUMINAIRE
		⊙	LUMINAIRE ON STANDARD
		⊙	SIGNS
		⊙	POST
		⊙	BOLLARD

SOIL EROSION AND SEDIMENT CONTROL NOTES

NARRATIVE

THE SUBJECT SITE IS A SECTION OF ENSIGN STREET IN THE TOWN OF EAST HARTFORD, CONNECTICUT AND ABUTTED BY 31 PROPERTIES. THE PROPERTIES ARE OCCUPIED BY GENERALLY ABUTTED BY RESIDENTIAL HOMES, WITH ONE COMMERCIAL BUILDING ON THE CORNER OF ENSIGN AND MAIN STREET. THE SITE IS LOCATED WITHIN A B-2 BUSINESS ZONE AND R-4 RESIDENTIAL ZONE.

THE SITE GENERALLY SLOPES IN A NORTHWESTERLY DIRECTION DOWN TOWARDS THE CONNECTICUT RIVER. A PIPED STORMWATER COLLECTION SYSTEM COLLECTS STORM WATER IN AND AROUND THE SITE AND WILL DISCHARGE THROUGH A 54" OUTFALL TO THE CONNECTICUT RIVER (TO BE CONSTRUCTED UNDER SEPARATE CONTRACT).

WORK INCLUDES THE INSTALLATION OF CATCH BASINS WITH 4' SUMPS AND TRAP HOODS FOR WATER QUALITY CONTROL. MEASURES TO COLLECT STORMWATER RUNOFF FROM ENSIGN STREET AND ADJACENT PROPERTIES. THE STORMWATER RUNOFF WILL THEN BE DIRECTED THROUGH A NEW DRAINAGE SYSTEM CONSISTING OF 12", 15" 18", 24" AND 36" REINFORCED CONCRETE PIPES AND PRECAST CONCRETE MANHOLES. THE NEW SYSTEM WILL CONNECT INTO THE EXISTING 36" STORM SEWER PIPES AT THE INTERSECTION OF ENSIGN STREET AND WILLOWBROOK ROAD.

AFTER COMPLETION OF THE STORM DRAINAGE SYSTEM, ENSIGN STREET WILL RECEIVE A FULL DEPTH PAVEMENT RECONSTRUCTION, WITH NEW CURBING, SIDEWALKS WHERE DISTURBED BY CONSTRUCTION ACTIVITIES, AND NEW DRIVEWAY APRONS.

THE ESTIMATED TOTAL AREA OF THE SITE THAT IS EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES IS APPROXIMATELY 1.15 ACRES (50,273 SF).

CONSTRUCTION SCHEDULE

ESTIMATED START OF CONSTRUCTION IS SPRING 2019. ESTIMATED COMPLETION OF CONSTRUCTION IS FALL 2019.

RESPONSIBLE CONTACT

THE RESPONSIBLE CONTACT PERSON FOR ASSURING THAT ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE PROPERLY INSTALLED AND MAINTAINED WILL BE DESIGNATED BY THE SITE CONTRACTOR. THE RESPONSIBLE CONTACT PERSON FOR MAINTAINING THE PERMANENT MEASURES WHEN THE PROJECT IS COMPLETE WILL BE THE TOWN OF EAST HARTFORD PUBLIC WORKS.

GENERAL CONSTRUCTION SEQUENCE

1. INSTALL SOIL AND EROSION CONTROL MEASURES PRIOR TO THE START OF CONSTRUCTION.
2. DURING INSTALLATION OF STORM DRAINAGE, CONTRACTOR TO ONLY DISTURB AREAS TO THE EXTENTS REQUIRED FOR WORK ON THAT DAY (DAILY WORK ZONE).
3. IMPLEMENT TEMPORARY MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED WITHIN LIMITS OF DAILY WORK ZONE.
4. REMOVE PAVEMENT, CONCRETE WALKS, AND OTHER SURFACE FEATURES AS REQUIRED WITHIN DAILY WORK ZONE.
5. EXCAVATE TRENCH FOR STORM STRUCTURES AND PIPE INSTALLATION WITHIN DAILY WORK ZONE..
6. COMPLETE INSTALLATION OF STORM STRUCTURES AND PIPE WITHIN DAILY WORK ZONE.
5. BACKFILL TRENCH AND CONSTRUCT TEMPORARY TRENCH PAVEMENT REPAIR WITHIN DAILY WORK ZONE.
6. REPLACE SIDEWALKS WITHIN WORK AREAS AS SOON AS PERMISSIBLE.
7. INSTALL CONCRETE SIDEWALK RAMPS AND GRANITE CURB.
8. AFTER COMPLETION OF STORM DRAINAGE INSTALLATION, FOR RECONSTRUCTION OF ROADWAY, COMMENCE REMOVAL OF ALL BITUMINOUS PAVEMENT, CURBING, ETC.
9. PERFORM ROUGH GRADING. EXCESS MATERIAL SHALL BE TAKEN DIRECTLY OFF-SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
10. INSTALL ROADWAY SUB-BASE, BASE AND PAVEMENT AND CURBS.
11. INSPECT THE DRAINAGE SYSTEM AND CLEAN AS NEEDED.
12. INSTALL PAVEMENT STRIPING AND SIGNAGE AS REQUIRED.
13. PREPARE FINAL GRADE FOR AREAS DISTURBED BY CONSTRUCTION NOT RECEIVING A HARD SURFACE. PLACE 6" OF TOPSOIL ON DISTURBED AREAS. APPLY FERTILIZER, SEED AND MULCH.
14. REMOVE EROSION CONTROLS AFTER AREAS ARE STABILIZED.

GENERAL EROSION AND SEDIMENTATION CONTROL NOTES

1. THE EROSION AND SEDIMENT CONTROLS SHOWN ON THE DRAWINGS DEPICT THE MINIMUM EROSION AND SEDIMENT CONTROL PRACTICES REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT ERODED MATERIALS FROM LEAVING THE SITE.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND APPROVED PRIOR TO THE START OF DEMOLITION AND CONSTRUCTION.
3. EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL AREAS ARE STABILIZED. IF FULL IMPLEMENTATION OF APPROVED EROSION CONTROL PLANS DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS DIRECTED BY THE ENGINEER/OWNER TO CONTROL OR TREAT THE SEDIMENT SOURCE AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL KEEP ALL PUBLIC ROADWAYS CLEAN AND CLEAR OF ALL MUD AND DEBRIS DURING CONSTRUCTION. THE CONTRACTOR SHALL IMPLEMENT MEASURES NECESSARY FOR DUST CONTROL, INCLUDING BUT NOT LIMITED TO ROADWAY SWEEPING AND WATERING.
5. APPLY TEMPORARY SEEDING OR MULCH TO AREAS WHERE ROUGH GRADING HAS BEEN COMPLETED BUT FINAL GRADING IS NOT ANTICIPATED TO BEGIN WITHIN 30 DAYS OF THE COMPLETION OF ROUGH GRADING. WHEN CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR WHEN FINAL GRADES ARE REACHED, STABILIZATION AND PROTECTION MEASURES SHALL BE IMPLEMENTED WITHIN SEVEN (7) DAYS.
6. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL CONFORM TO THE REQUIREMENTS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" AS AMENDED.

INSTALLATION OF SEDIMENTATION AND EROSION CONTROL MEASURES

SILT FENCE

- A. SILT FENCE SHALL BE INSTALLED AT LOCATIONS SHOWN ON THIS PLAN AND AS DIRECTED BY THE ENGINEER.
- B. DIG A SIX INCH TRENCH ON THE UPHILL SIDE OF THE DESIGNATED FENCE LINE LOCATION.
- C. POSITION THE POST AT THE BACK OF THE TRENCH (DOWNHILL SIDE), AND INSTALL THE POST AT LEAST 1.5 FEET INTO THE GROUND.
- D. LAY THE BOTTOM SIX INCHES OF THE FABRIC INTO THE TRENCH TO PREVENT UNDERMINING BY STORM WATER RUN-OFF.
- E. BACKFILL THE TRENCH AND COMPACT.

SEDIMENT CONTROL AT CATCH BASINS

- A. PLACE SILT SACKS UNDER GRATE AT EACH CATCH BASIN AT LOCATIONS SHOWN ON DRAWINGS.

OPERATION AND MAINTENANCE OF TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

SILT FENCE

- A. ALL SILT FENCES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL. ALL DETERIORATED FABRIC AND DAMAGED POSTS SHALL BE REPLACED AND PROPERLY REPOSITIONED.
- B. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY EXCEED A HEIGHT OF ONE FOOT OR 1/2 THE HEIGHT OF THE BARRIER.

SEDIMENT CONTROL AT CATCH BASINS

- A. INSPECT SILT SACKS WEEKLY AND AFTER EACH RAINFALL.
- B. SILT SACKS SHALL BE EMPTIED WHEN THEY HAVE COLLECTED 6" TO 12" OF SEDIMENT.

GENERAL

- A. CONTRACTOR TO KEEP WEEKLY CHECKLIST LOGS FOR INSPECTIONS OF ALL SEDIMENT AND EROSION CONTROL DEVICES AND HAVE THEM READILY AVAILABLE ON-SITE AT ALL TIMES FOR INSPECTION BY THE ENGINEER, OWNER'S REPRESENTATIVE OR CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION (CT DEEP).

CONTINGENCY EROSION PLAN

SHOULD UNFORESEEN EROSION OR SEDIMENTATION PROBLEMS ARISE, THE DESIGN ENGINEER OF RECORD (ZUVIC, CARR AND ASSOCIATES) SHALL BE NOTIFIED IMMEDIATELY. AN INSPECTION OF THE AFFECTED AREA(S) SHALL BE PROMPTLY PERFORMED. A REMEDIAL ACTION PLAN SHALL BE FORMULATED. THE SITE CONTRACTOR SHALL THEN IMPLEMENT THE RECOMMENDED COURSE OF ACTION WHICH HAS BEEN DETERMINED BY THE ENGINEER.


FINAL DESIGN

FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\1962 - GN-1.dwg PLOT DATE: 4/15/2019 PLOT TIME: 10:23:33 AM

REV. NO.	DATE	DRWN	CHKD	REMARKS

PROJECT NO.:	1962
DESIGNED BY:	SJH
DRAWN BY:	SJH
SHEET CHK'D BY:	GBS
CROSS CHK'D BY:	
APPROVED BY:	
DATE:	OCTOBER, 2018

PREPARED FOR:



ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

PREPARED BY:



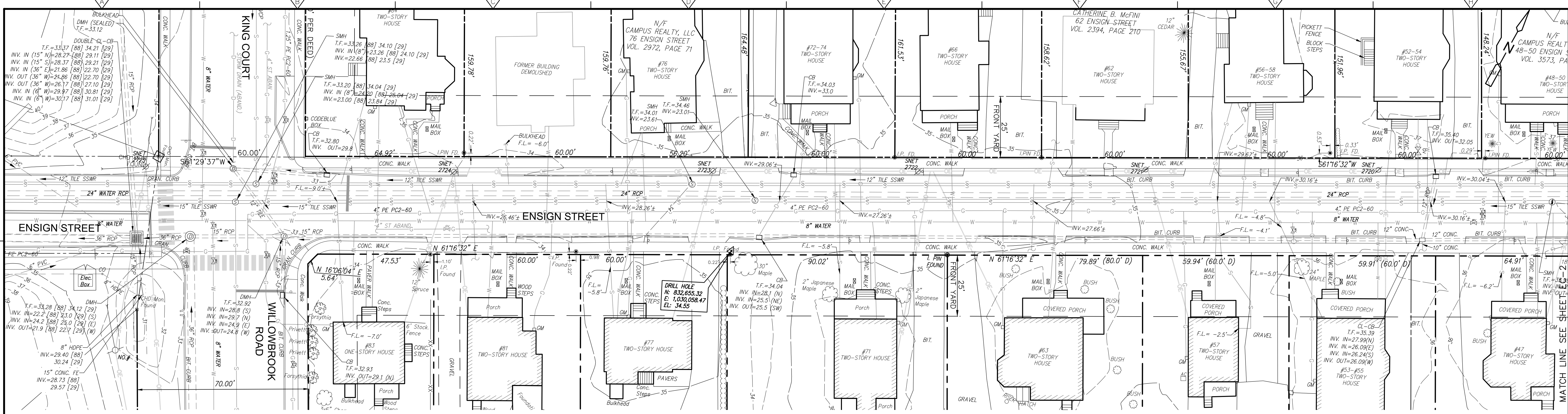
40 Cold Spring Road • Rocky Hill, CT 06067
Phone 860.436.4901 • Fax 860.436.4953

ENSIGN STREET
DRAINAGE DESIGN

ENSIGN STREET
EAST HARTFORD, CONNECTICUT

GENERAL NOTES AND LEGEND

SHEET NO.
GN-1



PLAN
SCALE: 1" = 20'-0"

SURVEY NOTES:

1. SURVEY PROVIDED BY: ZUVIC, CARR AND ASSOCIATES, INC.
40 COLD SPRING ROAD, ROCKY HILL, CT 06067
TEL. 860-436-4901
2. THIS SURVEY AND MAP WERE PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE SECTIONS 20-300b-1 THRU 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. IT IS A PROPERTY AND TOPOGRAPHIC SURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHIC ACCURACY CLASS T-2. IT IS INTENDED TO DEPICT DEED LINES, LINES OF OCCUPATION, EASEMENTS, ENCROACHMENTS AND ENCUMBRANCES AFFECTING THE PROPERTY. THE PROPERTY/ ELEVATIONS DEPICTED HEREON CONFORM TO VERTICAL ACCURACY CLASS V-2.
3. ELEVATIONS DEPICTED HEREON ARE BASED ON THE NAVD 88.
4. BEARINGS ARE BASED ON THE CONNECTICUT COORDINATE SYSTEM, NAD83.
5. WESTERLY MOST UTILITY STRUCTURES SHOWN WITH BOTH NAVD [88] AND NGVD [29] TOP OF FRAME AND INVERT ELEVATION INFORMATION.
6. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.
7. SOME ABANDONED PIPES ARE NOT SHOWN.
8. LOCATION OF UNDERGROUND SEWER, WATER AND GAS LATERALS AND CONNECTIONS TAKEN FROM RECORD DRAWINGS WHEREVER INFORMATION AVAILABLE.
9. LOCATION OF UNDERGROUND COMMUNICATIONS AND ELECTRICAL FACILITIES TAKEN FROM RECORD DRAWINGS WHEREVER INFORMATION AVAILABLE.
10. SIDE YARD AND REAR YARD SET-BACK LINES FOR INDIVIDUAL LOTS ARE NOT SHOWN.

LEGEND

(NOT ALL SYMBOLS MAY BE USED)

- | | | | |
|-----|--|---|--------------------------|
| --- | PROPERTY LINE | △ | CONTROL POINT |
| --- | EASEMENT LINE | □ | MONUMENT |
| --- | CURB | ⊗ | BENCHMARK |
| --- | EDGE OF PAVEMENT (EOP) | □ | TYPE 'C' CATCH BASIN |
| --- | STOCKADE FENCE | □ | TYPE 'CL' CATCH BASIN |
| X | CHAIN LINK FENCE | ⊙ | STORM DRAINAGE MANHOLE |
| --- | TREE/VEGETATION LINE | ⊙ | SANITARY SEWER MANHOLE |
| --- | MAJOR CONTOUR | ⊙ | WATER MANHOLE |
| --- | MINOR CONTOUR | ⊙ | GAS VALVE |
| --- | PIPES ≥ 12" (SIZE, MATERIAL, AND FLOW DIRECTION) | ⊙ | ELECTRICAL BOX |
| G | GAS | ⊙ | HAND HOLE |
| D | STORM DRAINAGE | ⊙ | HYDRANT |
| E | UNDERGROUND ELECTRIC | ⊙ | WATER VALVE |
| OE | OVERHEAD ELECTRIC | ⊙ | UTILITY POLE W/ GUY WIRE |
| S | SANITARY SEWER | ⊙ | LUMINAIRE |
| W | WATER | ⊙ | SIGN |
| | | ⊙ | TREES |
| | | ⊙ | SHRUBS |

ABBREVIATIONS

(NOT ALL ABBREVIATIONS MAY BE USED)

- | | | | |
|--------|------------------------------|-------|--------------------------|
| ABAND. | ABANDONED | MB | MAILBOX |
| BCLC | BITUMINOUS CONCRETE LIP CURB | MH | MANHOLE |
| BIT. | BITUMINOUS | MON | MONUMENT |
| C-CB | CURBED CATCH BASIN | NTS | NOT TO SCALE |
| CL-CB | CURBLESS CATCH BASIN | OE | OVERHEAD ELECTRIC |
| CLF | CHAIN LINK FENCE | PL | PROPERTY LINE |
| CONC. | CONCRETE | PVM | PAVEMENT |
| D.I. | DUCTILE IRON PIPE | PVC | POLYVINYL CHLORIDE |
| D.I.P. | DUCTILE IRON PIPE | RCP | REINFORCED CONCRETE PIPE |
| DMH | DRAINAGE MANHOLE | S | SANITARY |
| ELEC. | ELECTRICAL | SAN | SANITARY |
| EL | ELEVATION | SD | STORM DRAIN |
| EMH | ELECTRICAL MANHOLE | SMH | SANITARY MAN HOLE |
| EOP | EDGE OF PAVEMENT | SSWR | SANITARY SEWER |
| EX. | EXISTING | STM | STORM |
| F.F. | FINISHED FLOOR | SW | SERVICE WATER |
| F.L. | FLOW LINE | TEMP. | TEMPORARY |
| FND. | FOUND | TEL | TELEPHONE |
| G | GAS | T.F. | TOP OF FRAME |
| GM | GAS METER | TOG | TOP OF GRATE |
| GRAN | GRANITE | TOS | TOP OF SLAB |
| GV | GATE VALVE | TYP | TYPICAL |
| HDPE | HIGH DENSITY POLYETHYLENE | UKWN | UNKNOWN |
| HYD | HYDRANT | W | WATER |
| IPIN | IRON PIN | WM | WATER METER |
| INV. | INVERT | WMH | WATER MANHOLE |
| | | WV | WATER VALVE |

FINAL DESIGN



PROJECT NO.:	1962
DESIGNED BY:	
DRAWN BY:	NJM
SHEET CHK'D BY:	SJH
CROSS CHK'D BY:	GBS
APPROVED BY:	TG
DATE:	OCTOBER, 2018

PREPARED FOR:

GOODWIN COLLEGE

ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

PREPARED BY:

ZUVIC-CARR AND ASSOCIATES
CONSULTING ENGINEERS

40 Cold Spring Road • Rocky Hill, CT 06067
Phone 860.436.4901 • Fax 860.436.4953

ENSIGN STREET DRAINAGE DESIGN

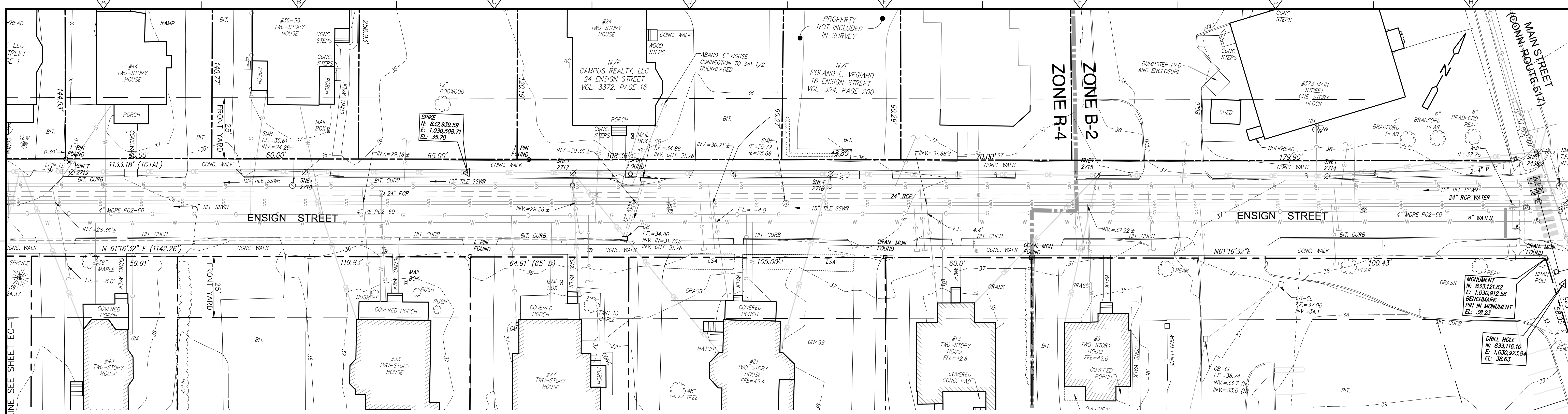
ENSIGN STREET
EAST HARTFORD, CONNECTICUT

EXISTING CONDITIONS

EC-1

SHEET NO.

FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\1962 - EC.dwg PLOT DATE: 4/19/2019 PLOT TIME: 10:23:56 AM



PLAN
SCALE: 1" = 20'-0"

LEGEND
(NOT ALL SYMBOLS MAY BE USED)

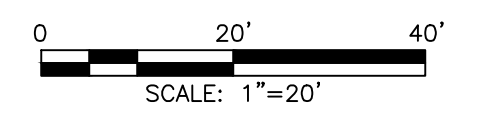
- | | | | |
|-----|--|---|--------------------------|
| --- | PROPERTY LINE | △ | CONTROL POINT |
| --- | EASEMENT LINE | □ | MONUMENT |
| --- | CURB | ⊗ | BENCHMARK |
| --- | EDGE OF PAVEMENT (EOP) | □ | TYPE 'C' CATCH BASIN |
| --- | STOCKADE FENCE | □ | TYPE 'CL' CATCH BASIN |
| --- | CHAIN LINK FENCE | ⊙ | STORM DRAINAGE MANHOLE |
| --- | TREE/VEGETATION LINE | ⊙ | SANITARY SEWER MANHOLE |
| --- | MAJOR CONTOUR | ⊙ | WATER MANHOLE |
| --- | MINOR CONTOUR | ⊙ | GAS VALVE |
| --- | PIPES ≥ 12" (SIZE, MATERIAL, AND FLOW DIRECTION) | ⊙ | ELECTRICAL BOX |
| --- | GAS | ⊙ | HAND HOLE |
| --- | STORM DRAINAGE | ⊙ | HYDRANT |
| --- | UNDERGROUND ELECTRIC | ⊙ | WATER VALVE |
| --- | OVERHEAD ELECTRIC | ⊙ | UTILITY POLE W/ GUY WIRE |
| --- | SANITARY SEWER | ⊙ | LUMINAIRE |
| --- | WATER | ⊙ | SIGN |
| | | ⊙ | TREES |
| | | ⊙ | SHRUBS |

ABBREVIATIONS
(NOT ALL ABBREVIATIONS MAY BE USED)

- | | | | |
|--------|------------------------------|-------|--------------------------|
| ABAND. | ABANDONED | MB | MAILBOX |
| BCLC | BITUMINOUS CONCRETE LIP CURB | MH | MANHOLE |
| BIT. | BITUMINOUS | MON | MONUMENT |
| C-CB | CURBED CATCH BASIN | NTS | NOT TO SCALE |
| CL-CB | CURBLESS CATCH BASIN | OE | OVERHEAD ELECTRIC |
| CLF | CHAIN LINK FENCE | P | PROPERTY LINE |
| CONC. | CONCRETE | P/MT | PAVEMENT |
| D.I. | DUCTILE IRON PIPE | PVC | POLYVINYL CHLORIDE |
| D.M.H. | DRAINAGE MANHOLE | RCP | REINFORCED CONCRETE PIPE |
| ELEC. | ELECTRICAL | S | SANITARY |
| EL. | ELEVATION | SD | STORM DRAIN |
| EMH | ELECTRICAL MANHOLE | SMH | SANITARY MAN HOLE |
| EOP | EDGE OF PAVEMENT | SSWR | SANITARY SEWER |
| EX. | EXISTING | STM | STORM |
| F.F. | FINISHED FLOOR | SW | SERVICE WATER |
| F.L. | FLOW LINE | TEMP. | TEMPORARY |
| FND. | FOUND | TEL. | TELEPHONE |
| G | GAS | T.F. | TOP OF FRAME |
| GM | GAS METER | TOG | TOP OF GRATE |
| GRAN | GRANITE | TOS | TOP OF SLAB |
| GV | GATE VALVE | TYP | TYPICAL |
| HDPE | HIGH DENSITY POLYETHYLENE | UKWN | UNKNOWN |
| HYD | HYDRANT | W | WATER |
| LPIN | IRON PIN | WM | WATER METER |
| INV. | INVERT | WMH | WATER MANHOLE |
| | | WV | WATER VALVE |

SURVEY NOTES:

- SURVEY PROVIDED BY: ZUVIC, CARR AND ASSOCIATES, INC. 40 COLD SPRING ROAD, ROCKY HILL, CT 06067 TEL. 860-436-4901
- THIS SURVEY AND MAP WERE PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THRU 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. IT IS A PROPERTY AND TOPOGRAPHIC SURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHIC ACCURACY CLASS T-2. IT IS INTENDED TO DEPICT DEED LINES, LINES OF OCCUPATION, EASEMENTS, ENCROACHMENTS AND ENCUMBRANCES AFFECTING THE PROPERTY. THE PROPERTY/ ELEVATIONS DEPICTED HEREON CONFORM TO VERTICAL ACCURACY CLASS V-2.
- ELEVATIONS DEPICTED HEREON ARE BASED ON THE NAVD 88.
- BEARINGS ARE BASED ON THE CONNECTICUT COORDINATE SYSTEM, NAD83.
- WESTERLY MOST UTILITY STRUCTURES SHOWN WITH BOTH NAVD [88] AND NGVD [29] TOP OF FRAME AND INVERT ELEVATION INFORMATION.
- THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.
- SOME ABANDONED PIPES ARE NOT SHOWN.
- LOCATION OF UNDERGROUND SEWER, WATER AND GAS LATERALS AND CONNECTIONS TAKEN FROM RECORD DRAWINGS WHEREVER INFORMATION AVAILABLE.
- LOCATION OF UNDERGROUND COMMUNICATIONS AND ELECTRICAL FACILITIES TAKEN FROM RECORD DRAWINGS WHEREVER INFORMATION AVAILABLE.
- SIDE YARD AND REAR YARD SET-BACK LINES FOR INDIVIDUAL LOTS ARE NOT SHOWN.



FINAL DESIGN

PROJECT NO.:	1962
DESIGNED BY:	X
DRAWN BY:	NUM
SHEET CHK'D BY:	SJH
CROSS CHK'D BY:	GBS
APPROVED BY:	TG
DATE:	OCTOBER, 2018

PREPARED FOR:

GOODWIN COLLEGE
ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

PREPARED BY:

ZUVIC-CARR AND ASSOCIATES
CONSULTING ENGINEERS
40 Cold Spring Road • Rocky Hill, CT 06067
Phone 860.436.4901 • Fax 860.436.4953

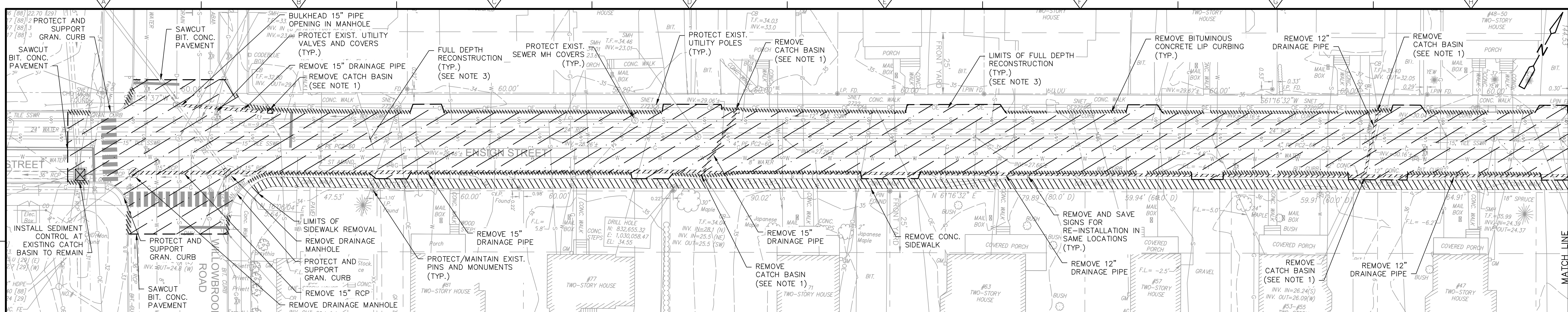
ENSIGN STREET DRAINAGE DESIGN
ENSIGN STREET
EAST HARTFORD, CONNECTICUT

EXISTING CONDITIONS

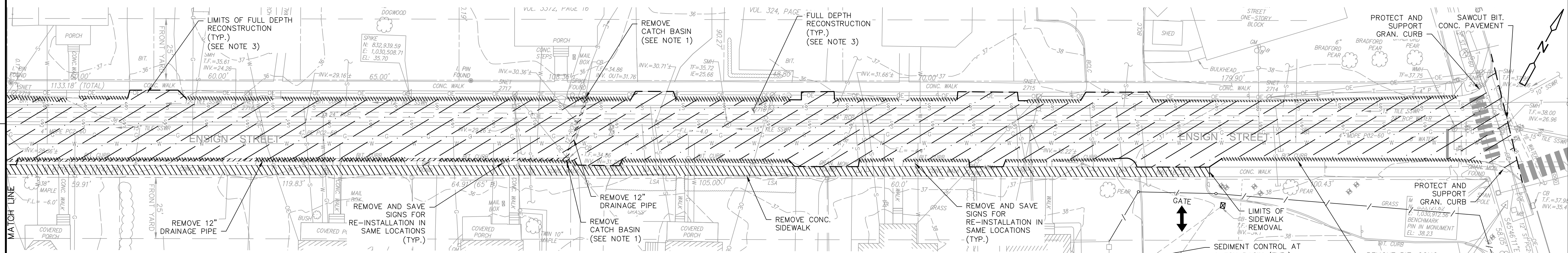
EC-2

SHEET NO.

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PLAN
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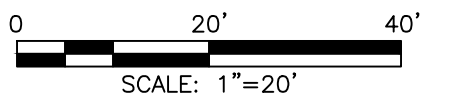
PLAN
SCALE: 1" = 20'-0"

NOTES:

1. INSTALL SEDIMENT CONTROL AT CATCH BASIN IN ALL CATCH BASINS THAT WILL RECEIVE SEDIMENT LADEN STORM RUNOFF DUE TO CONSTRUCTION ACTIVITIES PRIOR TO CATCH BASIN REMOVAL.
2. INSTALL SEDIMENT CONTROL AT CATCH BASIN IN ALL NEW CATCH BASINS IMMEDIATELY AFTER CONSTRUCTION OF CATCH BASINS.
3. ENSIGN STREET TO RECEIVE FULL DEPTH RECONSTRUCTION. REMOVE EXISTING BITUMINOUS CONCRETE PAVEMENT, BASE AND SUBBASE/SUBGRADE TO ALLOW FOR INSTALLATION OF 21" PAVEMENT STRUCTURE - SEE MINOR STREET (RESIDENTIAL) - FULL DEPTH RECONSTRUCTION DETAIL ON SHEET CD-2. FOR CENTERLINE GRADE SEE SHEETS PP-1 AND PP-2.
4. SEE SECTION 01540 - MAINTENANCE AND PROTECTION OF TRAFFIC FOR TRAFFIC CONTROL REQUIREMENTS DURING CONSTRUCTION.
5. SEE SECTION 31 23 16 - EXCAVATION FOR USE OF PLATES/TEMPORARY PAVING DURING CONSTRUCTION.

LEGEND

- REMOVAL BIT. LIP CURBING
- REMOVAL OF BIT. CONC.
- REMOVAL OF EXISTING DRAIN PIPE
- DIRECTION OF TRAFFIC



FINAL DESIGN

PROJECT NO.:	1962
DESIGNED BY:	GBS
DRAWN BY:	NJM
SHEET CHK'D BY:	SJH
CROSS CHK'D BY:	GBS
APPROVED BY:	TG
DATE:	OCTOBER, 2018

REV. NO.	DATE	DRWN	CHKD	REMARKS

PREPARED FOR:

GOODWIN COLLEGE
ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

PREPARED BY:

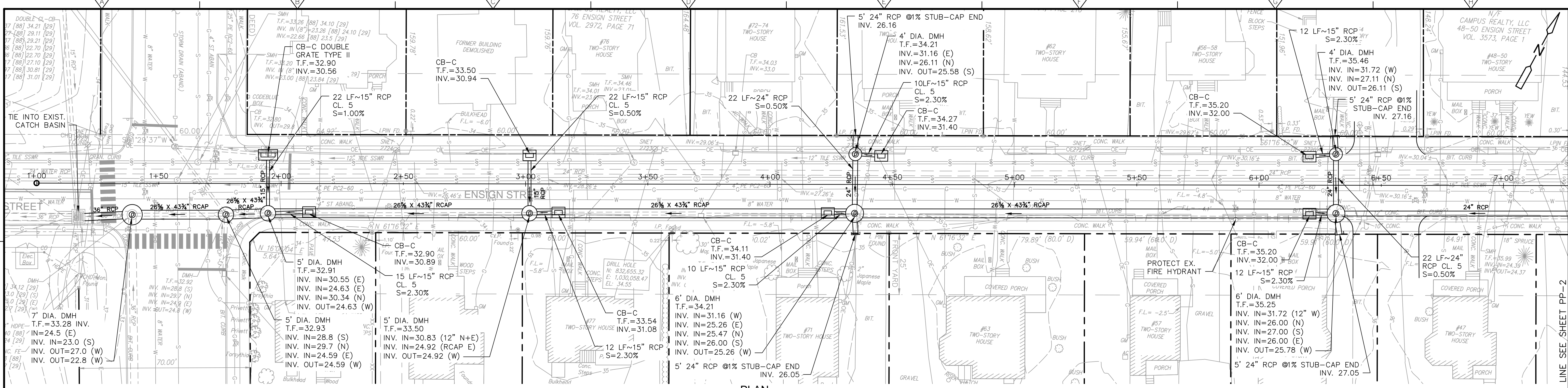
ZUVIC-CARR AND ASSOCIATES
CONSULTING ENGINEERS
40 Cold Spring Road • Rocky Hill, CT 06067
Phone 860.436.4901 • Fax 860.436.4953

ENSIGN STREET DRAINAGE DESIGN
ENSIGN STREET
EAST HARTFORD, CONNECTICUT

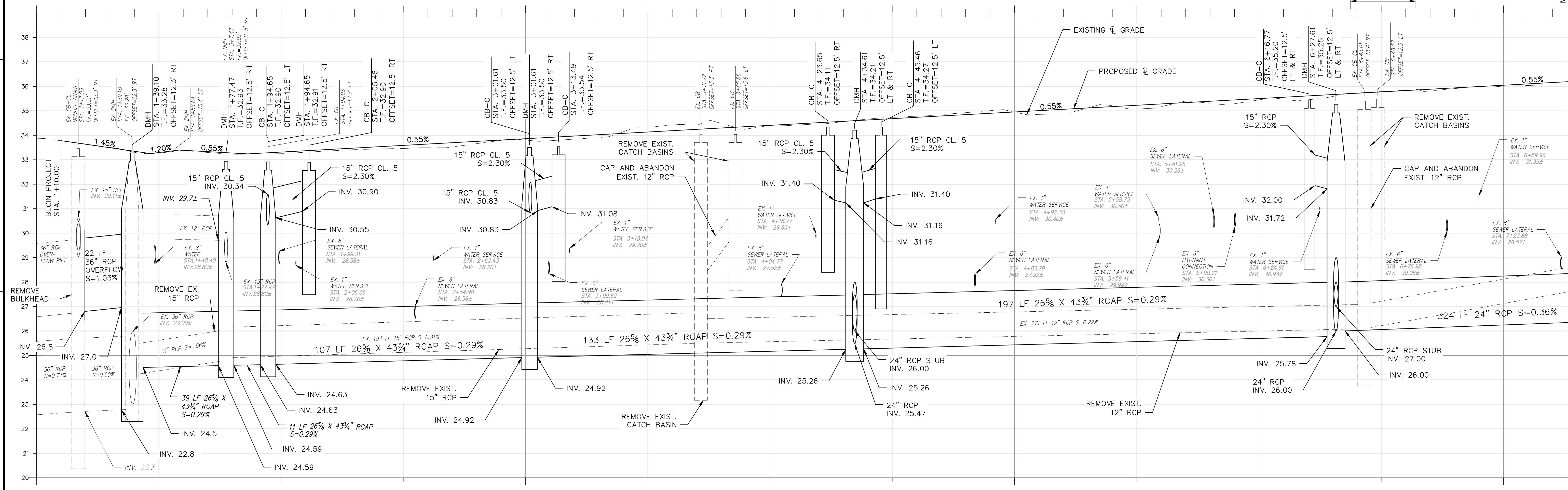
DEMOLITION AND EROSION CONTROL PLAN

SHEET NO.
DP-1

FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\1962 - DP.dwg PLOT DATE: 4/19/2018 PLOT TIME: 10:25:09 AM



PLAN
SCALE: 1" = 20'-0"



PROFILE
SCALE: 1" = 20'-0"; 1" = 2'-0"

NOTE:
1. ALL CATCH BASINS TO HAVE 4' SUMPS AND HOODS, UNLESS OTHERWISE NOTED.

FINAL DESIGN

PROJECT NO.:	1962
DESIGNED BY:	GBS
DRAWN BY:	NUM
SHEET CHK'D BY:	SJH
CROSS CHK'D BY:	GBS
APPROVED BY:	TG
DATE:	OCTOBER, 2018

PREPARED FOR:



ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

PREPARED BY:



40 Cold Spring Road • Rocky Hill, CT 06067
Phone 860.436.4901 • Fax 860.436.4953

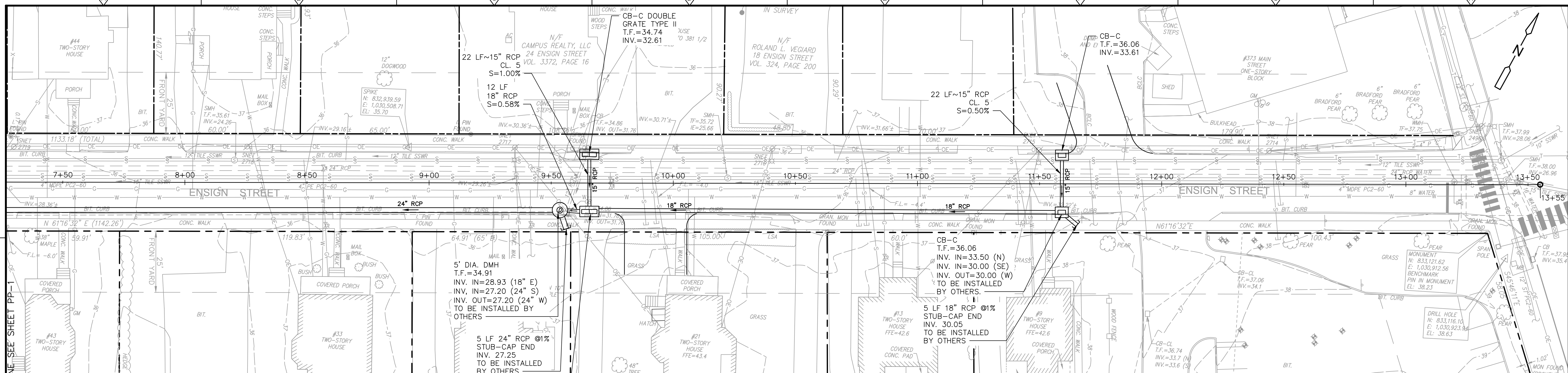
ENSIGN STREET
DRAINAGE DESIGN

ENSIGN STREET
EAST HARTFORD, CONNECTICUT

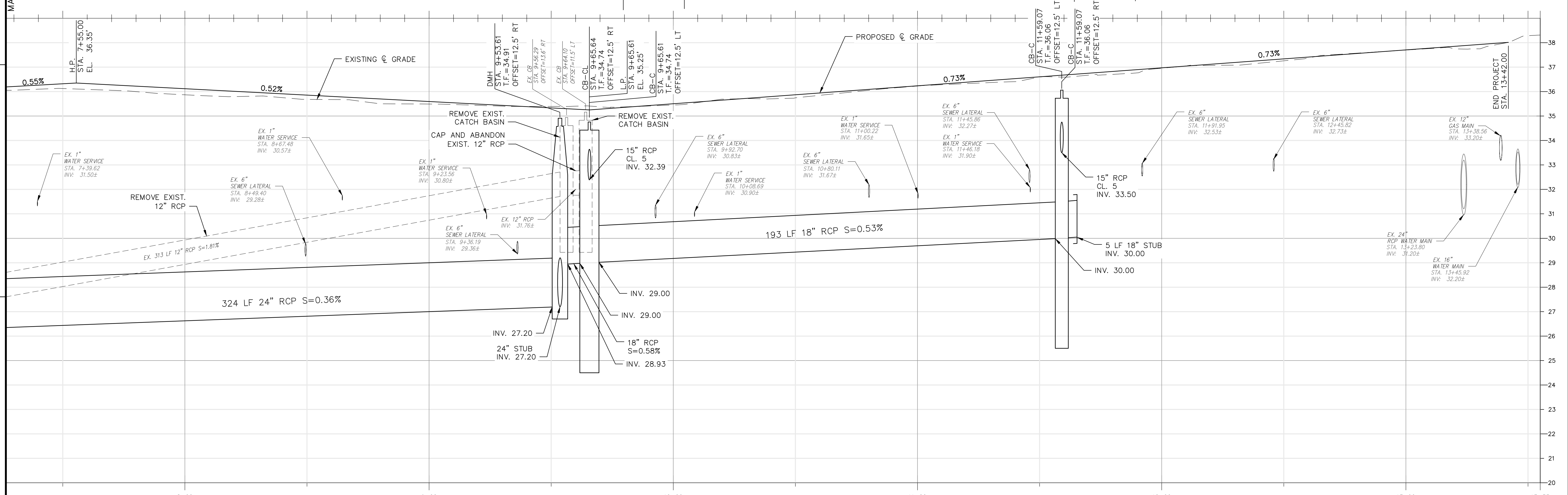
PLAN AND PROFILE

SHEET NO.
PP-1

FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\1962 - PP.dwg PLOT DATE: 4/15/2019 PLOT TIME: 10:25:52 AM



PLAN
SCALE: 1" = 20'-0"



PROFILE
SCALE: 1" = 20'-0"; 1" = 2'-0" V


NOTE:
1. ALL CATCH BASINS TO HAVE 4' SUMPS AND HOODS, UNLESS OTHERWISE NOTED.

FINAL DESIGN

PROJECT NO.:	1962
DESIGNED BY:	GBS
DRAWN BY:	NJM
SHEET CHK'D BY:	SJH
CROSS CHK'D BY:	GBS
APPROVED BY:	TG
DATE:	OCTOBER, 2018

REV. NO.	DATE	DRWN	CHKD	REMARKS

PREPARED FOR:



ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

PREPARED BY:



40 Cold Spring Road • Rocky Hill, CT 06067
Phone 860.436.4901 • Fax 860.436.4953

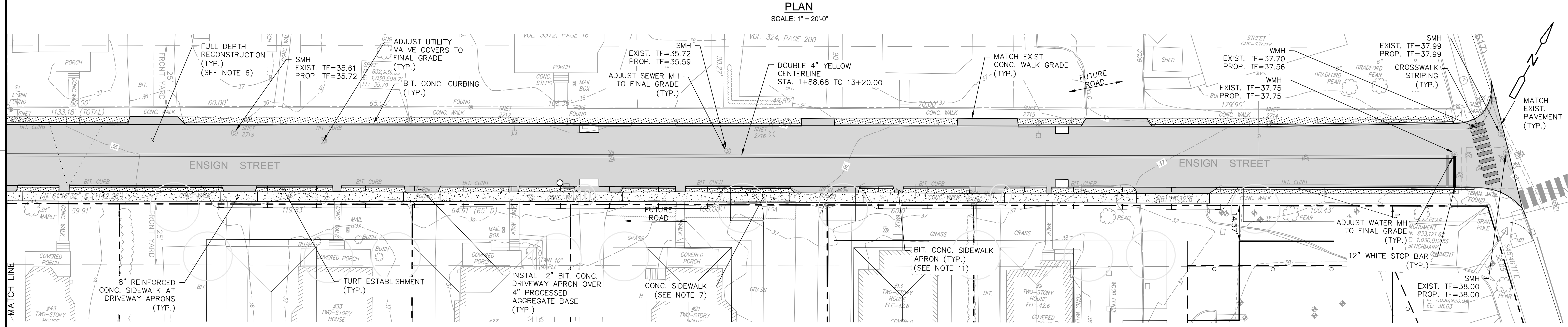
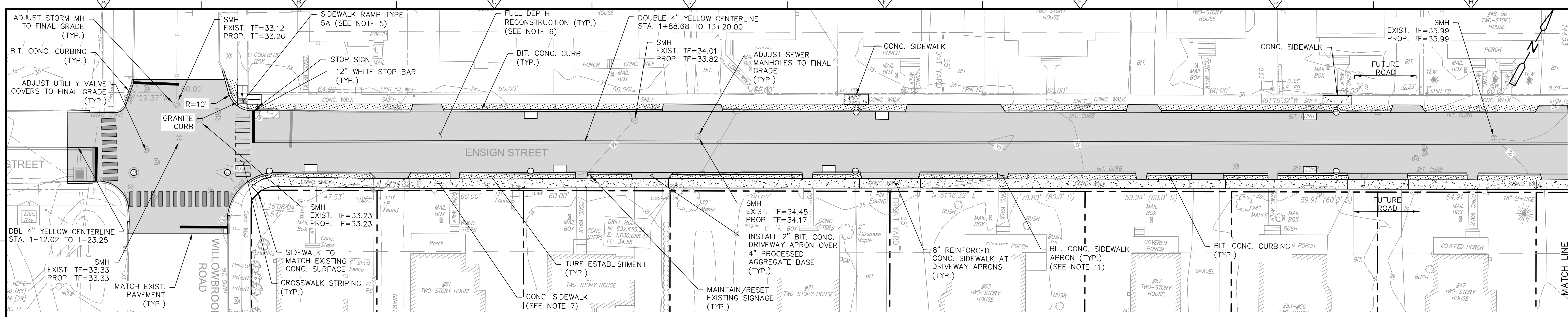
ENSIGN STREET
DRAINAGE DESIGN

ENSIGN STREET
EAST HARTFORD, CONNECTICUT

PLAN AND PROFILE

SHEET NO.
PP-2

FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\1962 - PP.dwg PLOT DATE: 4/15/2019 PLOT TIME: 10:28:29 AM

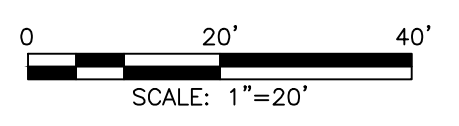


SITE LAYOUT NOTES:

- ALL PAVEMENT MARKINGS SHALL MATCH EXISTING COLORS.
- ALL AREAS DISTURBED BY CONSTRUCTION NOT RECEIVING A HARD SURFACE OR TO BE LANDSCAPED SHALL BE TURF PER THE TURF ESTABLISHMENT DETAIL.
- CONTRACTOR SHALL REPAINT DOUBLE 4" YELLOW STRIPING FOR CENTERLINE PAVEMENT MARKING UPON COMPLETION OF CONSTRUCTION. PAVEMENT MARKINGS SHALL CONFORM TO DOT FORM 817 SECTION 12.09. APPLY TWO COATS OF PAINT.
- FINAL PAVING TO BE COMPLETED FOR BOTH SIDES OF ROAD AT SAME TIME.
- GRANITE CURB TO BE INSTALLED AT NEW SIDEWALK RAMPS.
- ENSIGN STREET TO RECEIVE FULL DEPTH RECONSTRUCTION. REMOVE EXISTING BITUMINOUS CONCRETE PAVEMENT, BASE AND SUBBASE/SUBGRADE TO ALLOW FOR INSTALLATION OF 21" PAVEMENT STRUCTURE - SEE MINOR STREET (RESIDENTIAL) - FULL DEPTH RECONSTRUCTION DETAIL ON SHEET CD-2. FOR CENTERLINE GRADE SEE SHEETS PP-1 AND PP-2.
- CONCRETE SIDEWALK TO BE RECONSTRUCTED TO MATCH EXISTING GRADE ON SOUTH SIDE (R.O.W.) OF WALK.
- SEE SECTION 01540 - MAINTENANCE AND PROTECTION OF TRAFFIC FOR TRAFFIC CONTROL REQUIREMENTS DURING CONSTRUCTION.
- SEE SECTION 31 23 16 - EXCAVATION FOR USE OF PLATES/TEMPORARY PAVING DURING CONSTRUCTION.
- SEE SHEETS PP-1 AND PP-2 FOR TOP OF FRAME ELEVATIONS FOR ALL PROPOSED STORM DRAINAGE STRUCTURES.
- BITUMINOUS CONCRETE SIDEWALK APRON TO BE CONSTRUCTED TO SAME STANDARDS AS 2" BITUMINOUS CONCRETE DRIVEWAY APRON

NOTES:

- THE DEVELOPER SHALL NOTIFY THE TOWN OF EAST HARTFORD ENGINEERING DIVISION 24 HOURS PRIOR TO BEGINNING ANY STORM DRAINAGE, ROADWAY PREPARATION, PAVING, SIDEWALK, CURBING, STREET LINE MONUMENTATION, PROPERTY CORNER PINS, ETC., TO SCHEDULE INSPECTIONS. THE DIVISION CAN BE REACHED BETWEEN 8:30 A.M. - 4:30 P.M. AT 291-7380.
- THE TOWN SHALL BE NOTIFIED IN WRITING AT LEAST 2 DAYS IN ADVANCE OF THE PRE-CONSTRUCTION MEETING BETWEEN THE CONTRACTOR AND THE ENGINEER.



FINAL DESIGN

PROJECT NO.:	1962
DESIGNED BY:	GBS
DRAWN BY:	NJM
SHEET CHK'D BY:	SJH
CROSS CHK'D BY:	GBS
APPROVED BY:	TG
DATE:	OCTOBER, 2018

PREPARED FOR:

GOODWIN COLLEGE

ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

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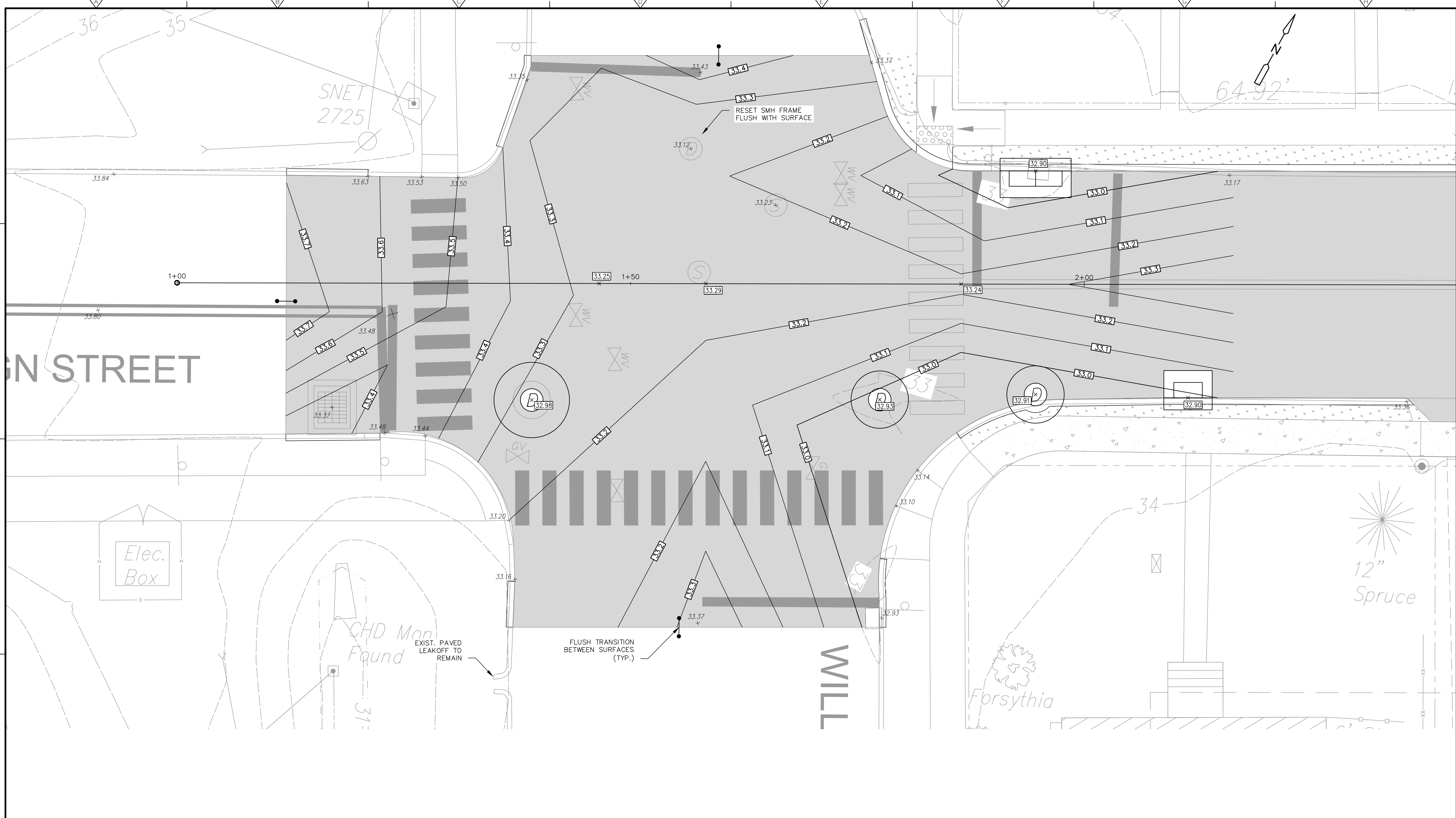
ENSIGN STREET DRAINAGE DESIGN

ENSIGN STREET
EAST HARTFORD, CONNECTICUT

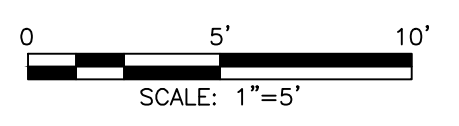
ROADWAY RECONSTRUCTION PLAN

SHEET NO.
RR-1

FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\CAD\C11962 - RR.dwg PLOT DATE: 4/15/2018 PLOT TIME: 10:27:19 AM



FINAL DESIGN



FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\1962 - GP.dwg PLOT DATE: 4/15/2018 PLOT TIME: 10:27:46 AM

REV. NO.	DATE	DRWN	CHKD	REMARKS

PROJECT NO.: 1962
 DESIGNED BY: GBS
 DRAWN BY: NJM
 SHEET CHK'D BY: SJH
 GROSS CHK'D BY:
 APPROVED BY: GBS
 DATE: OCTOBER, 2018

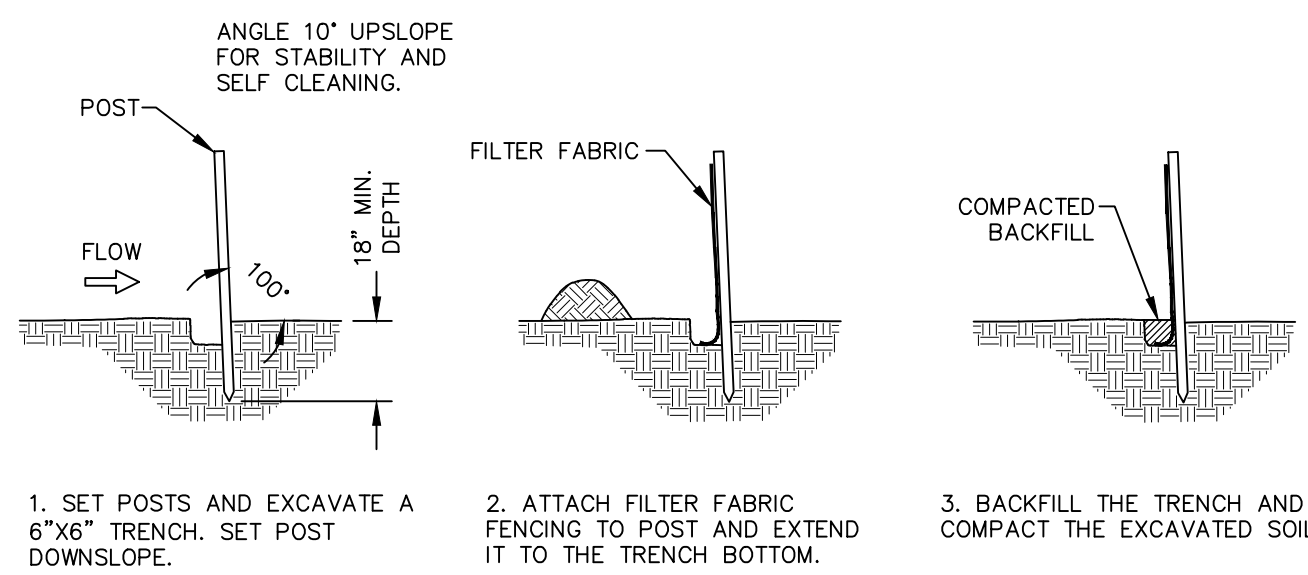
PREPARED FOR:
GOODWIN COLLEGE
 ONE RIVERSIDE DRIVE
 EAST HARTFORD, CONNECTICUT

PREPARED BY:
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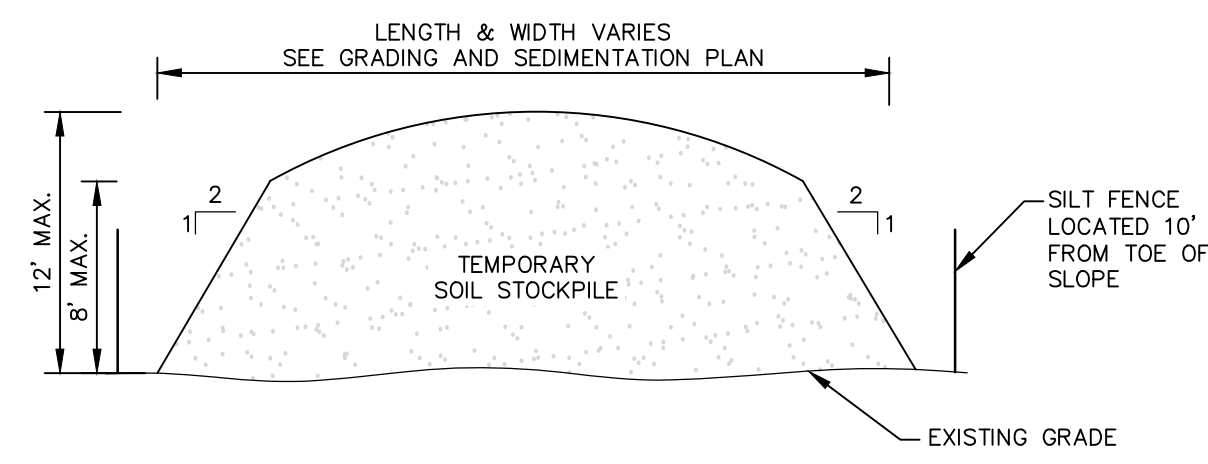
ENSIGN STREET DRAINAGE DESIGN
 ENSIGN STREET
 EAST HARTFORD, CONNECTICUT

INTERSECTION GRADING PLAN

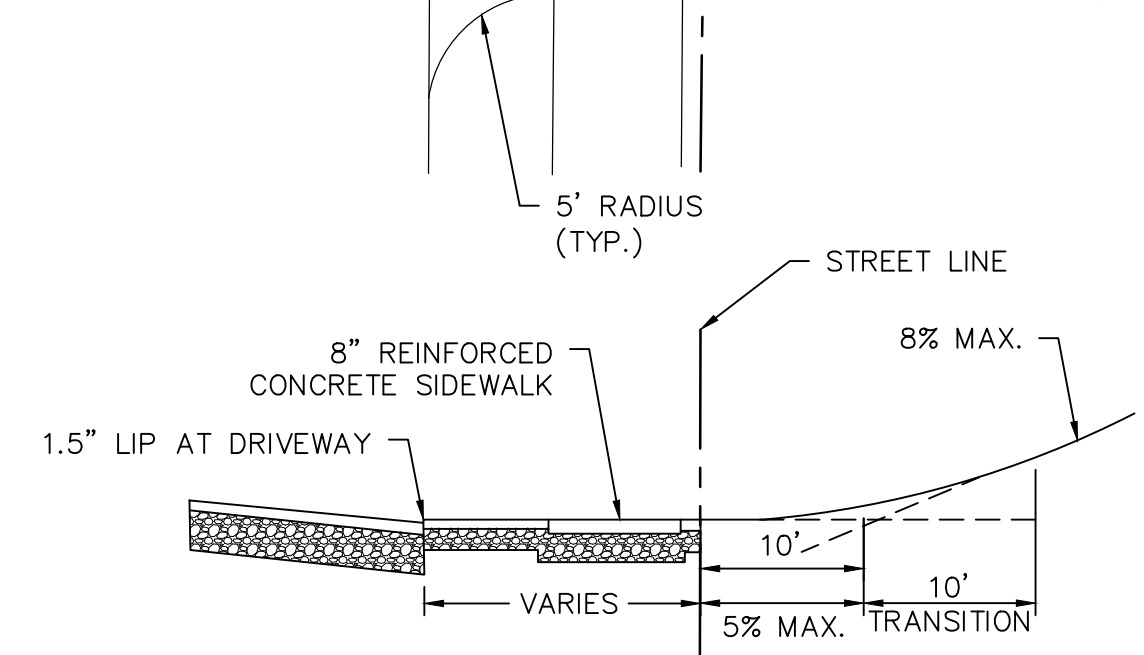
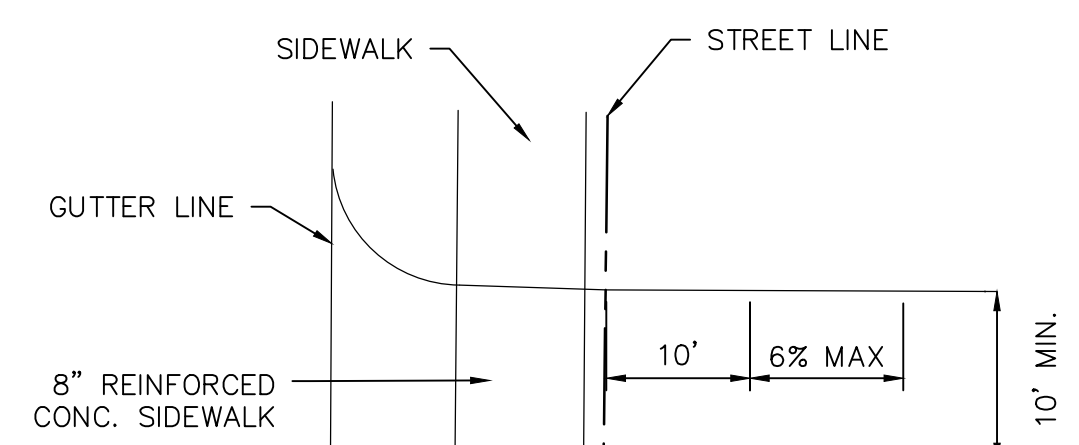
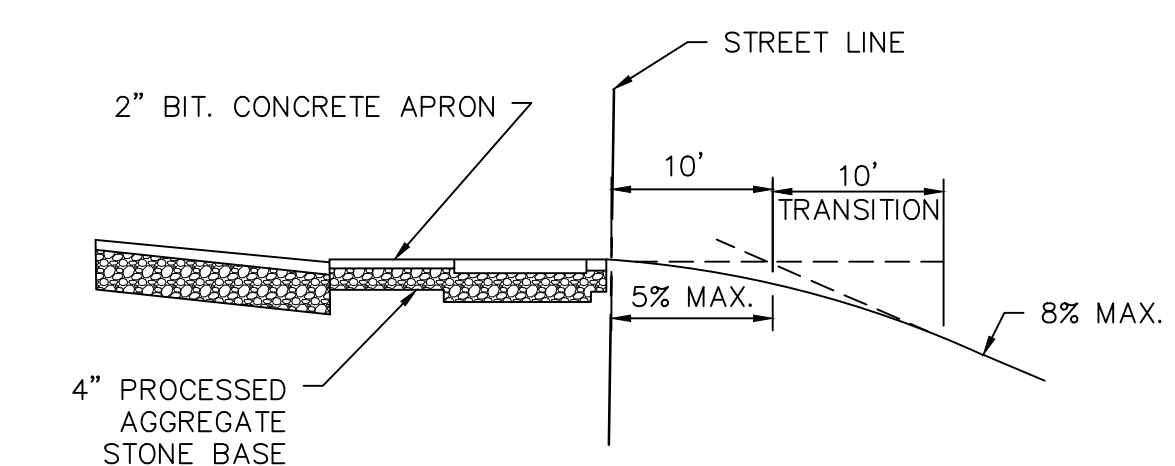
SHEET NO.
GP-1



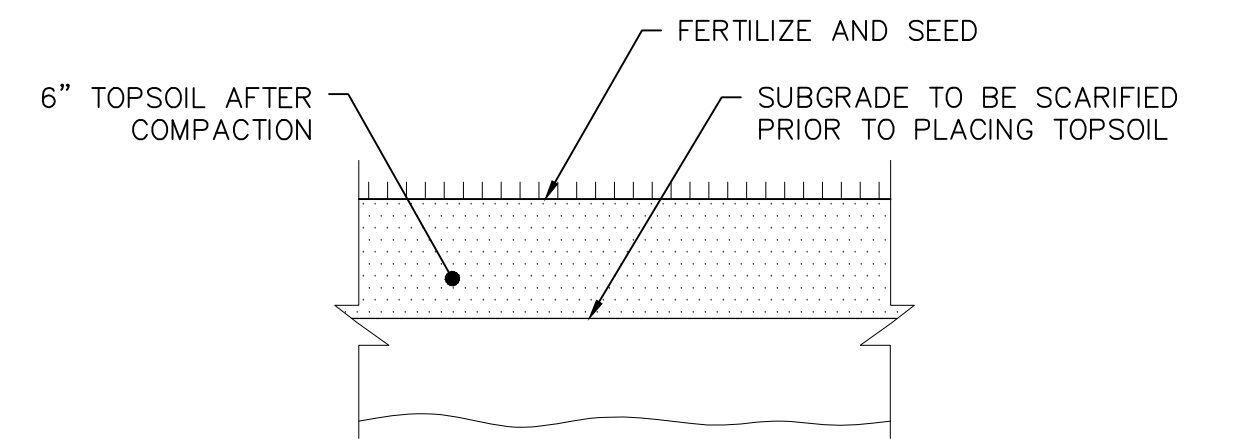
TYPICAL SILT FENCE INSTALLATION
NOT TO SCALE



TEMPORARY SOIL STOCKPILE
NOT TO SCALE

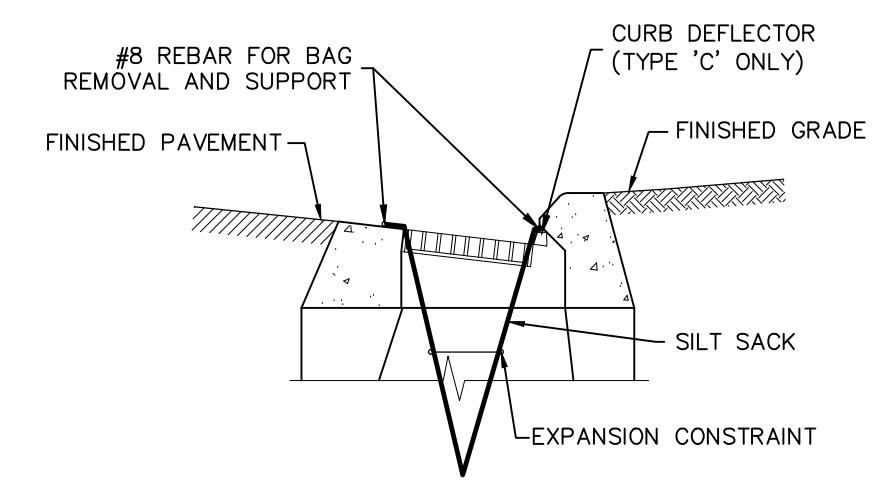


DRIVEWAY APRON
NOT TO SCALE



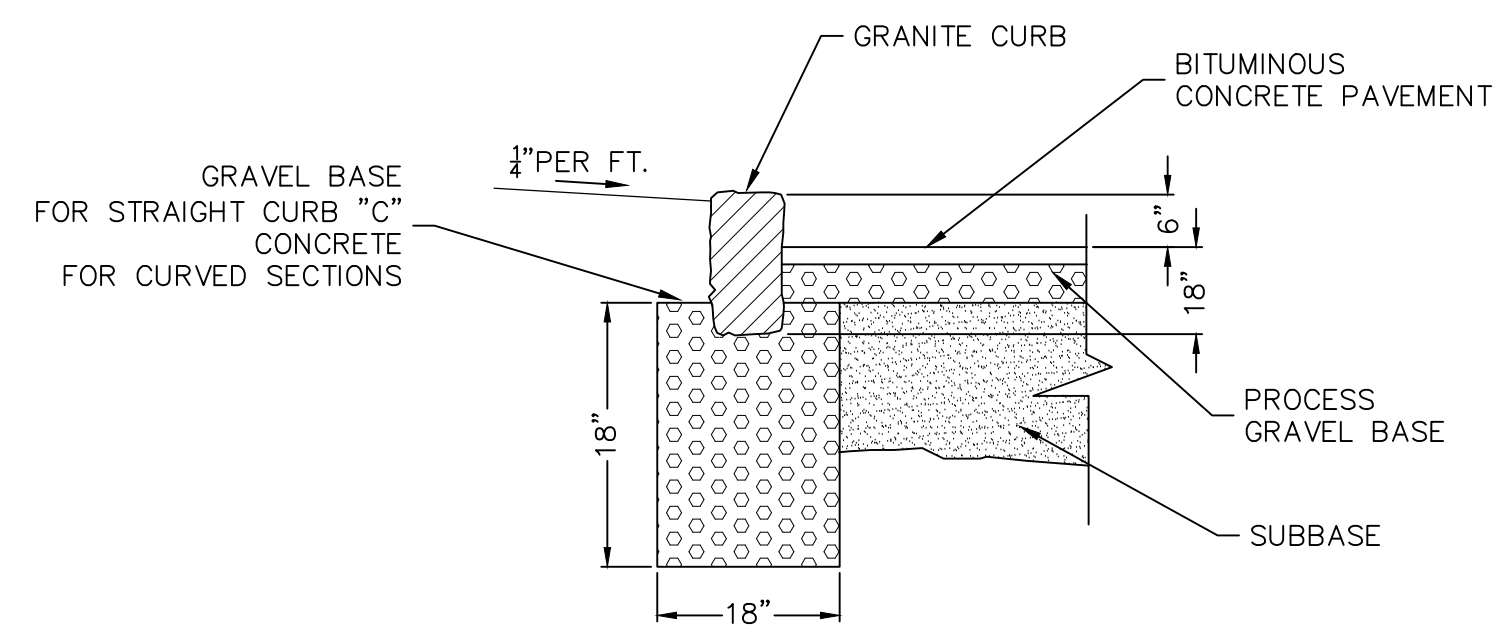
- NOTES:**
- THE PERMANENT SEED MIX FOR TURF ESTABLISHMENT IS AS FOLLOWS:
- | NAME | MINIMUM PROPORTION BY WEIGHT |
|---------------------|------------------------------|
| KENTUCKY BLUEGRASS | 45% |
| CREeping RED FESCUE | 10% |
| PERENNIAL RYE GRASS | 45% |
- SEED SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET. THE SEEDED AREA SHALL BE MULCHED WITH A LAYER OF GRASS, HAY OR STRAW AT A RATE OF 10 POUNDS PER 100 SQUARE FEET. THE SEEDED AREAS SHALL BE THOROUGHLY WATERED UNTIL SATISFACTORY STAND OF GRASS HAS BEEN ESTABLISHED.

TURF ESTABLISHMENT
NOT TO SCALE

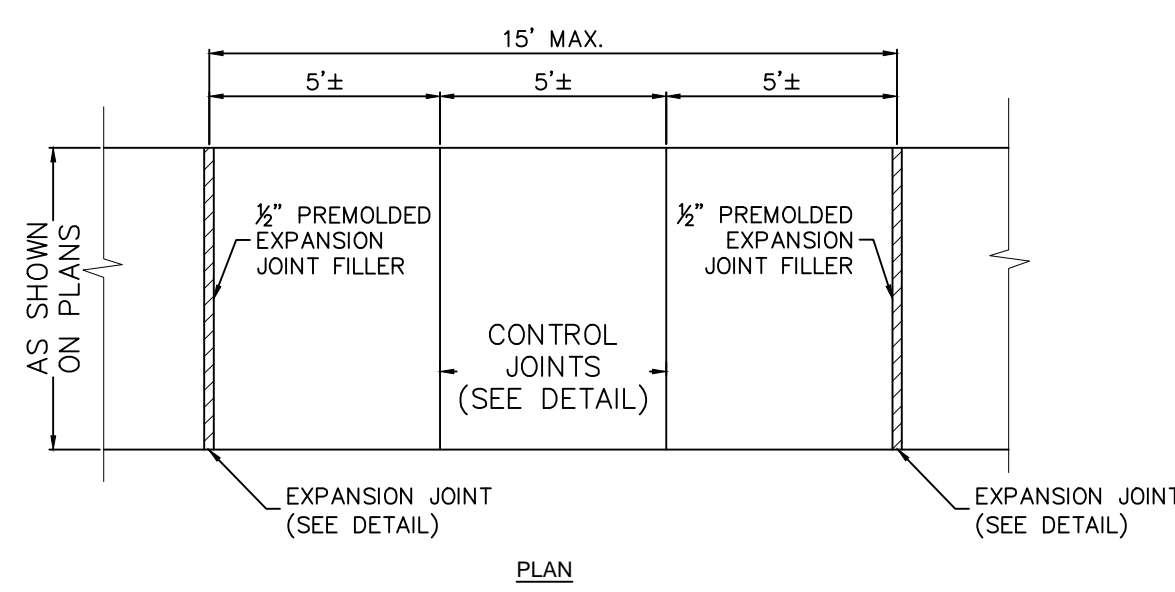


- NOTE:**
- SILT SACKS MAY BE USED IN OTHER TYPES OF STORM DRAINAGE INLETS. TYPE 'C' CATCH BASIN SHOWN FOR CLARITY.

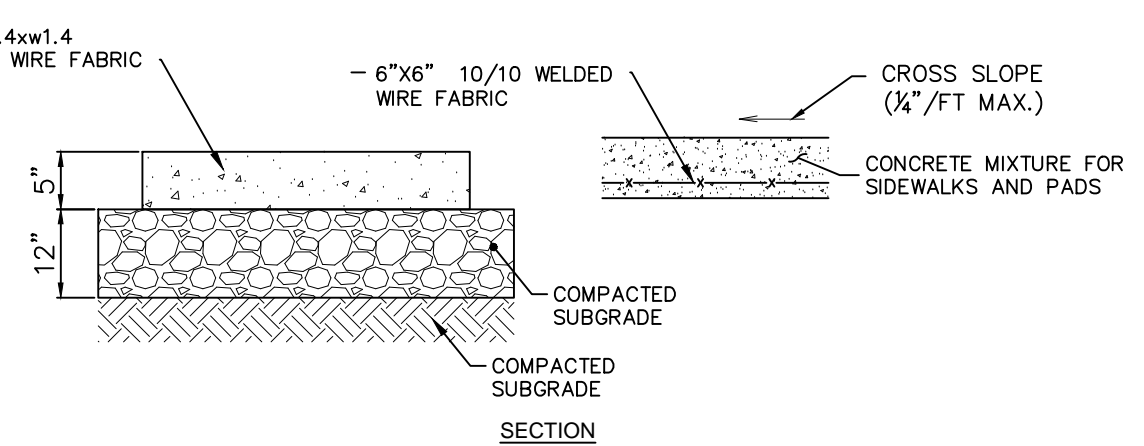
SEDIMENT CONTROL AT CATCH BASIN
NOT TO SCALE



GRANITE CURB SECTION
NOT TO SCALE



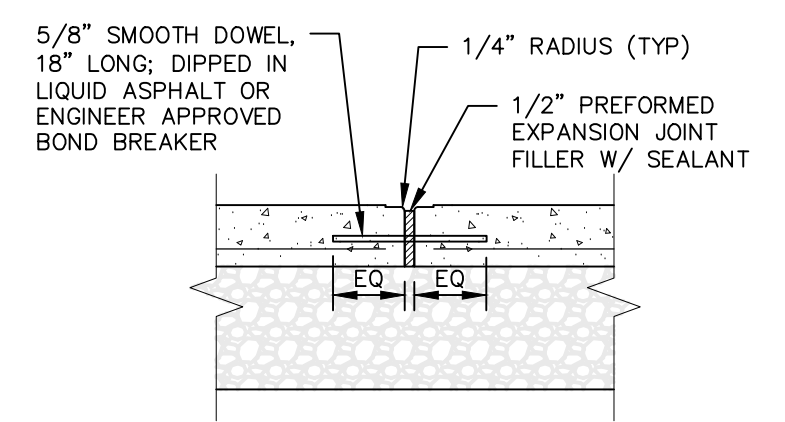
PLAN



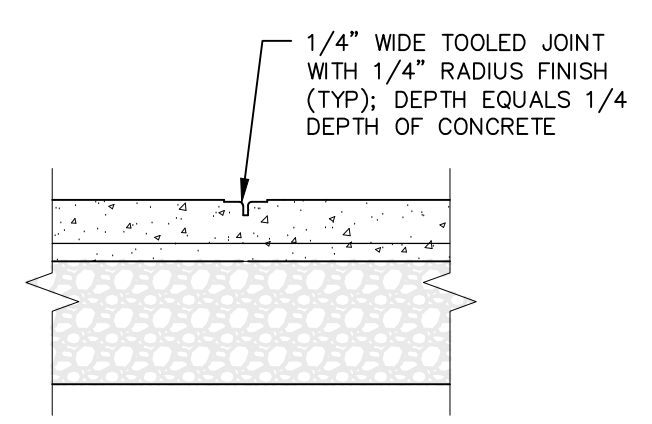
SECTION

- NOTES:**
- INCREASE SLAB THICKNESS TO 8" OVER 9" GRAVEL BASE FOR SIDEWALKS CROSSING DRIVEWAYS AND OTHER VEHICULAR TRAFFIC LOADED AREAS.
 - REMOVE CONCRETE WALKS TO THE NEAREST EXPANSION JOINT AT THE LOCATIONS NOTED ON THE PLANS.
 - MATCH WIDTH AND PROVIDE FLUSH TRANSITION BETWEEN NEW AND EXISTING CONCRETE SIDEWALK.

CONCRETE SIDEWALK
NOT TO SCALE

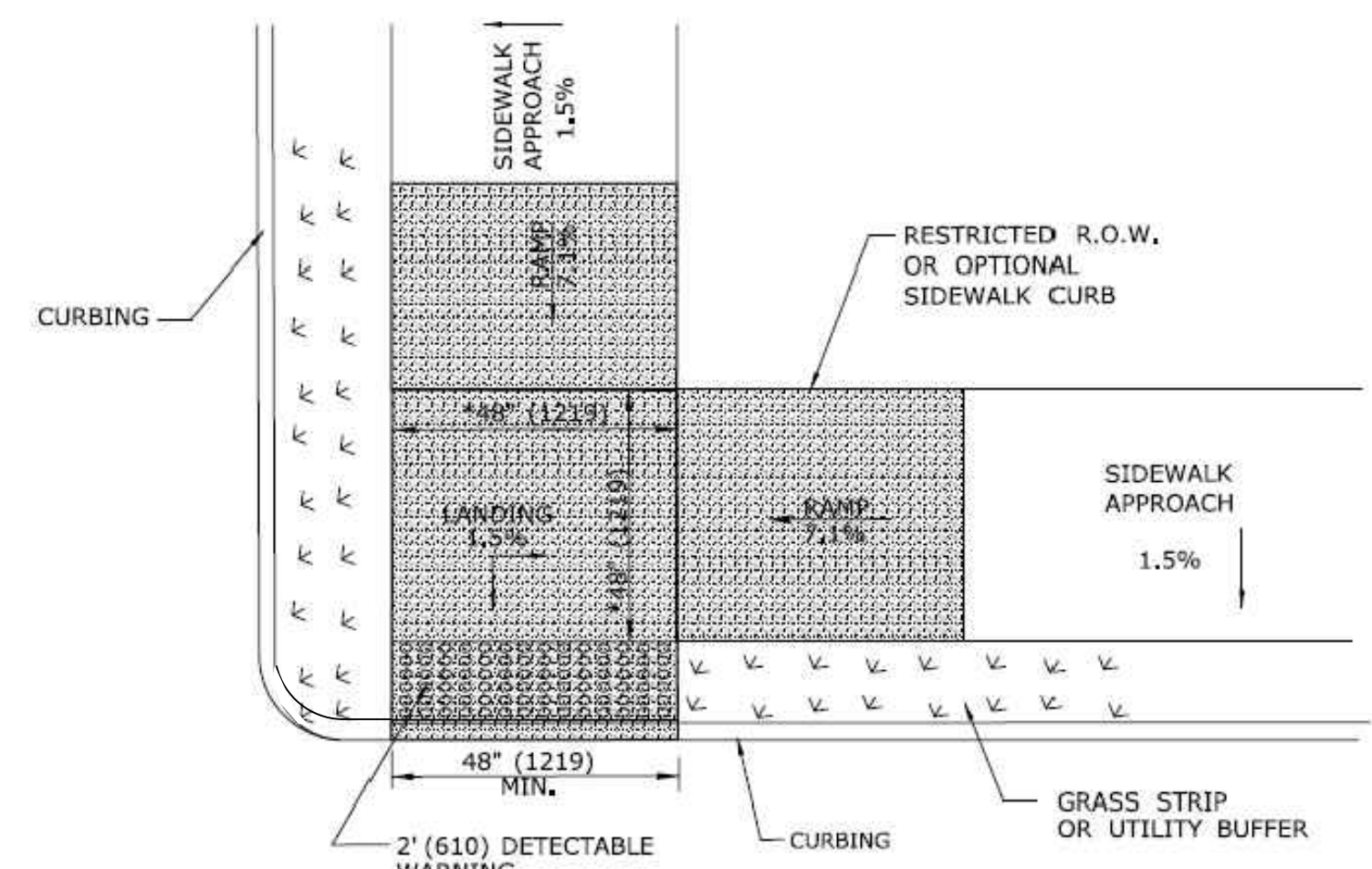


EXPANSION JOINT

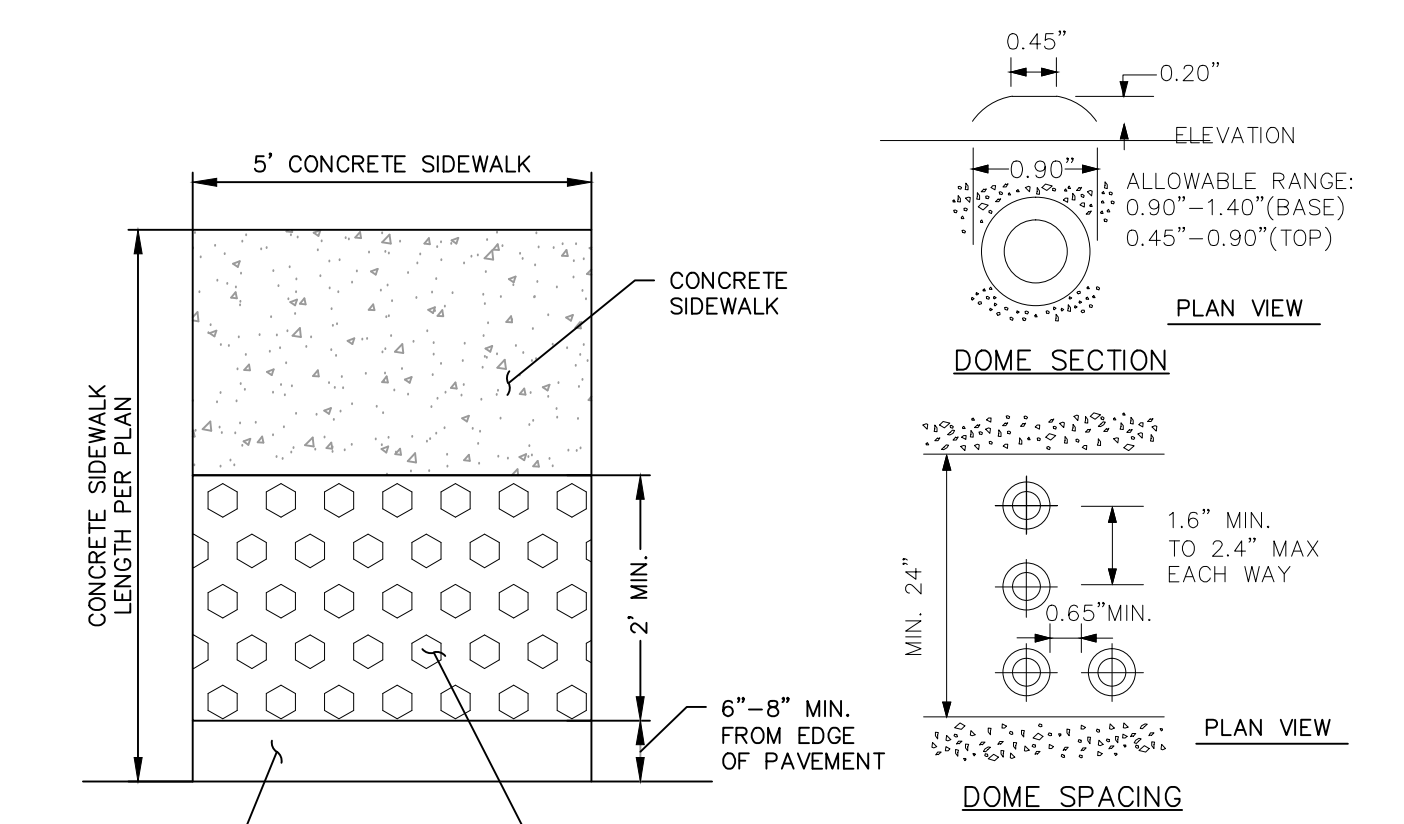


CONTROL JOINT

TYPICAL CONCRETE SIDEWALK JOINTS
NOT TO SCALE



RESTRICTED CORNER PARALLEL DOUBLE SIDEWALK RAMPS W/CENTER LANDING AND UTILITY GRASS STRIP (TYPE 5a)



DETECTABLE WARNING PANEL
NOT TO SCALE

FINAL DESIGN

FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\CD\1962 - CD.dwg PLOT DATE: 4/15/2018 PLOT TIME: 10:27:53 AM

REV. NO.	DATE	DRWN	CHKD	REMARKS

PROJECT NO.:	1962
DESIGNED BY:	SJH
DRAWN BY:	NJM
SHEET CHK'D BY:	SJH
CROSS CHK'D BY:	GBS
APPROVED BY:	TG
DATE:	OCTOBER, 2018

PREPARED FOR:

GOODWIN COLLEGE
ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

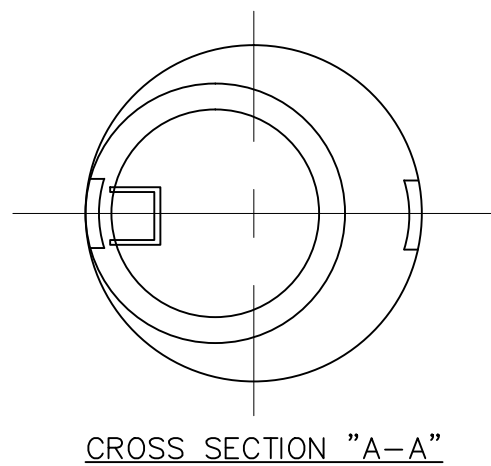
PREPARED BY:

ZUVIC-CARR AND ASSOCIATES CONSULTING ENGINEERS
40 Cold Spring Road • Rocky Hill, CT 06067
Phone 860.436.4901 • Fax 860.436.4953

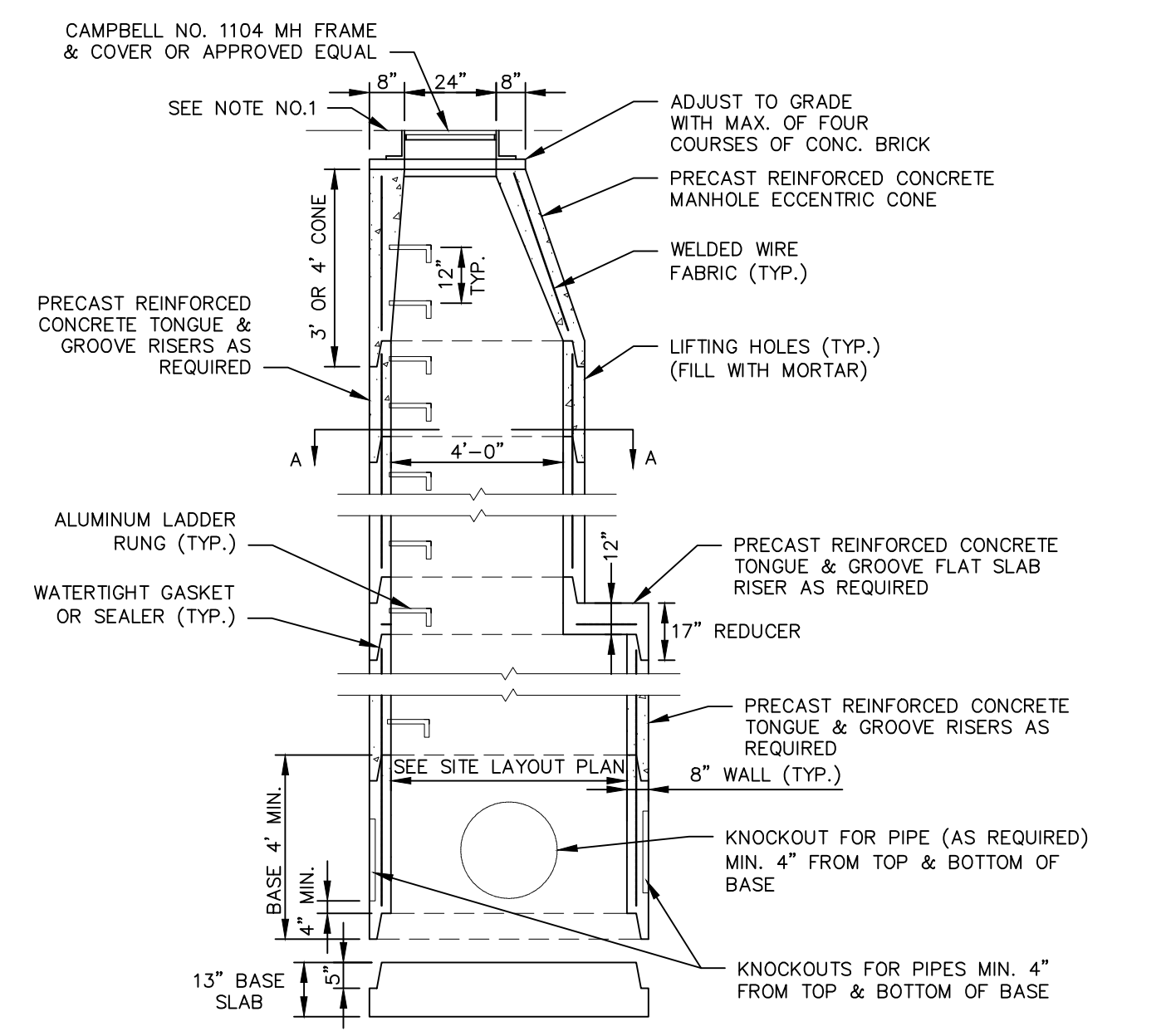
ENSIGN STREET DRAINAGE DESIGN
ENSIGN STREET
EAST HARTFORD, CONNECTICUT

CIVIL DETAILS

SHEET NO.
CD-1

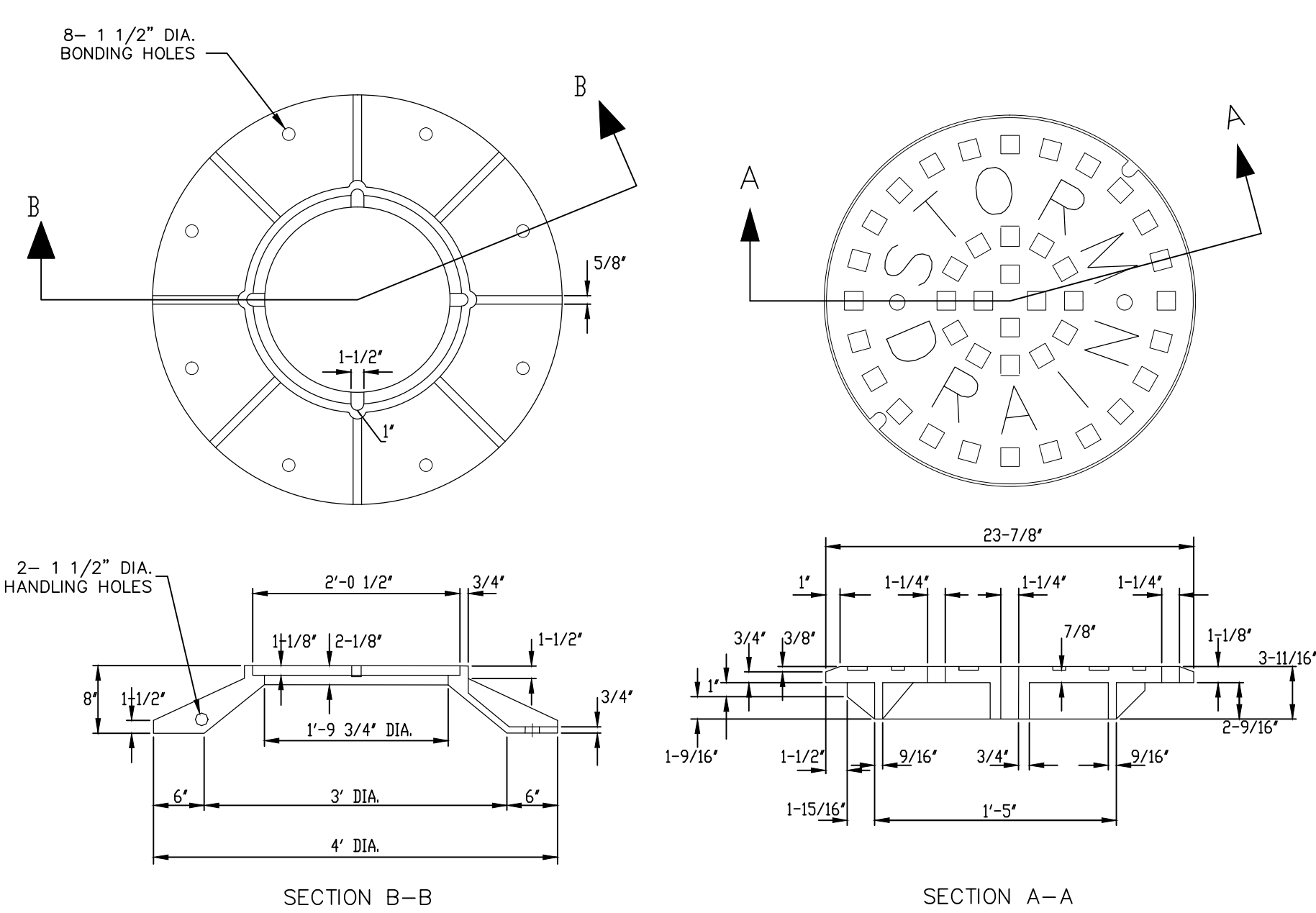


NOTES:
1. ALL MANHOLE FRAME COVERS TO BE SET FLUSH WITH BINDER COURSE. A MANHOLE RISER RING SHALL BE USED TO BRING MANHOLE COVER TO FINISHED GRADE PRIOR TO THE COMPLETION OF THE FINAL SURFACE COURSE.



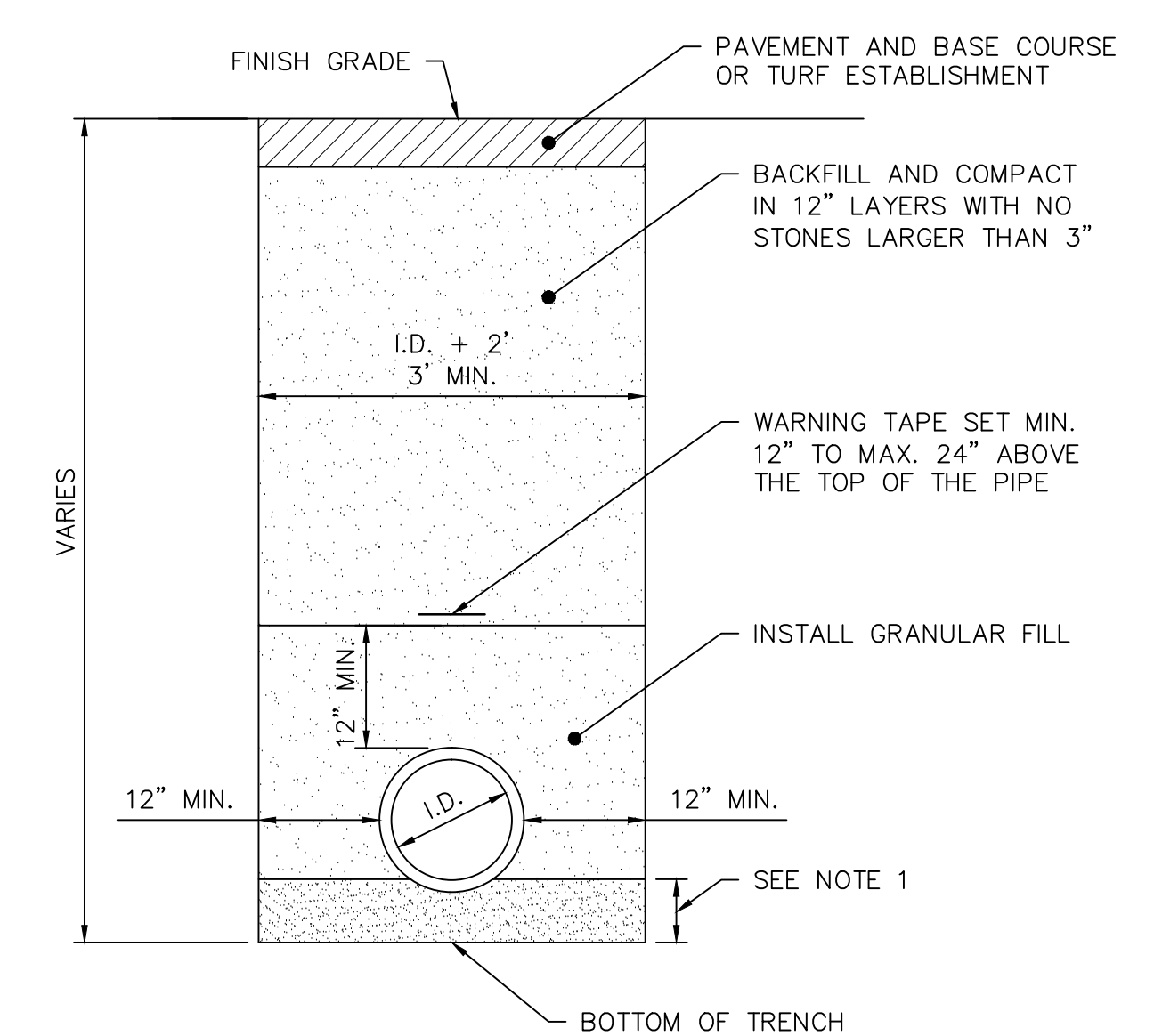
PROFILE VIEW

PRECAST CONCRETE MANHOLE
NOT TO SCALE



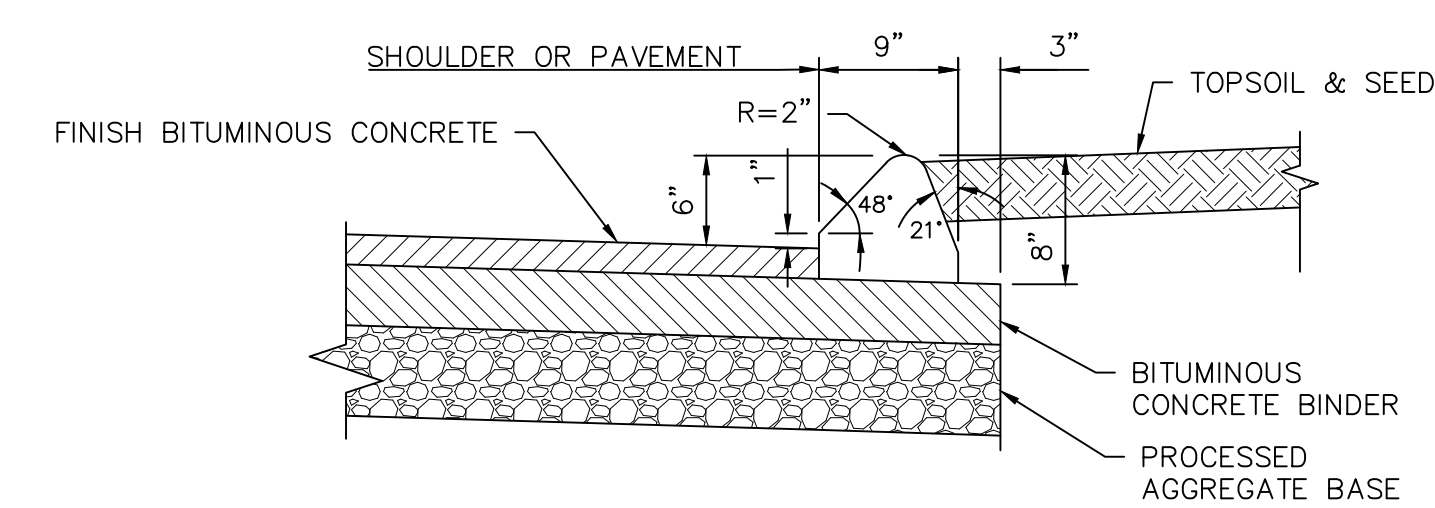
NOTE:
1. THE LOWER SURFACE OF THE COVER AND THE CORRESPONDING UPPER SURFACE OF THE FRAME SHALL BE MACHINE FINISHED TO PROVIDE A SMOOTH FLAT CONTACT FOR FIT, WITHOUT ANY TENDENCY FOR THE COVER TO ROCK OR RATTLE.

CAST IRON MANHOLE COVER
NOT TO SCALE



NOTES:
1. INSTALL 3" GRANULAR FILL WHEN IN ROCK OR UNSUITABLE MATERIAL.

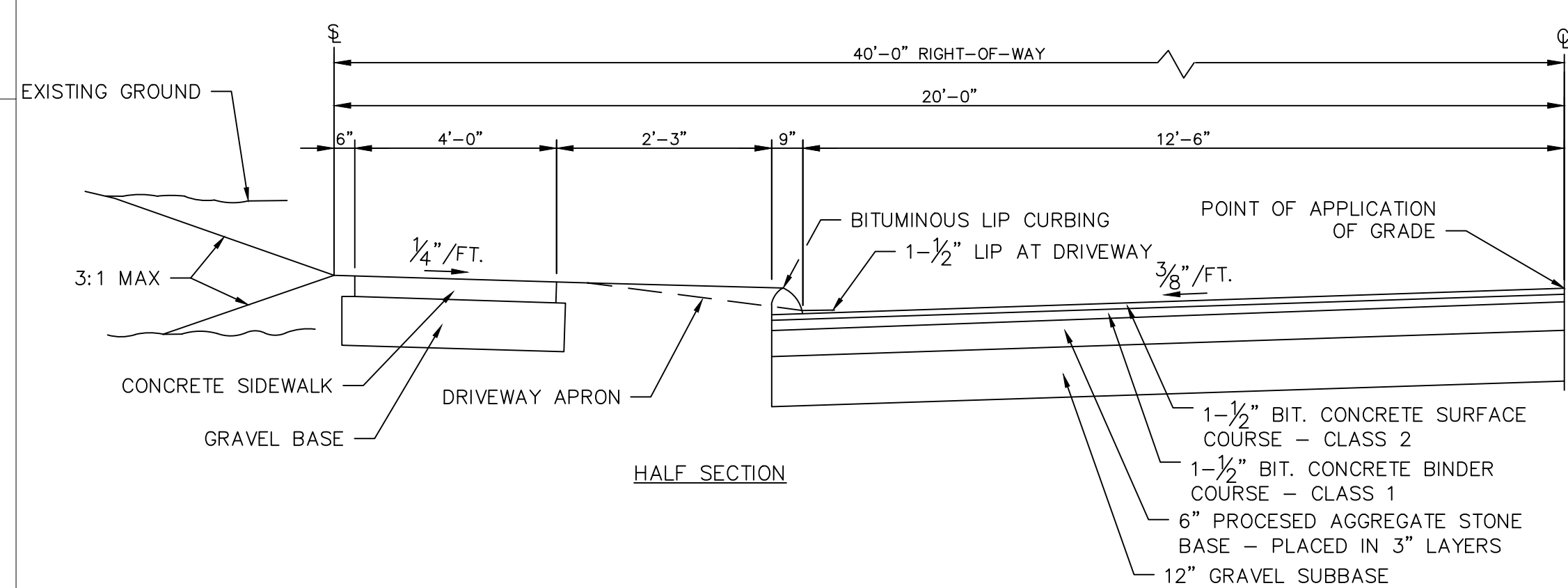
TYPICAL STORM TRENCH
NOT TO SCALE



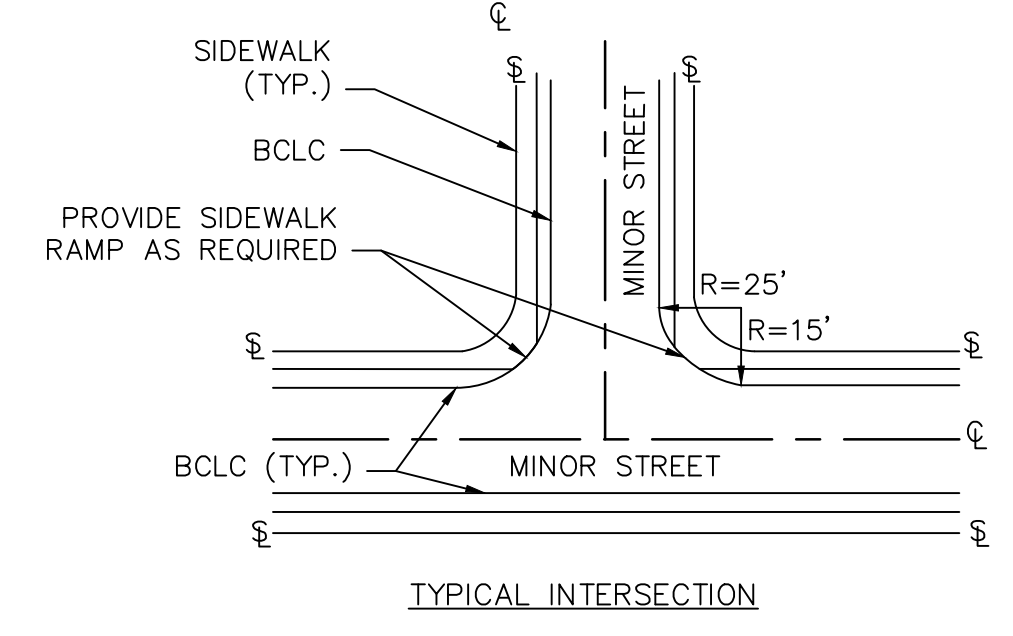
NOTES:
1. CURBING MATERIAL TO BE CURB MIX BITUMINOUS CONCRETE PER CT D.O.T. FORM 817 SECTION M.04.02-1.
2. CURBING TO BE LAID ON TOP OF BINDER COURSE.
3. TACK COAT TO BE APPLIED PRIOR TO CURB PLACEMENT WHERE REQUIRED. COATING TO BE APPLIED PER CT D.O.T. FORM 817 SECTION M.04.06.03-6.

BITUMINOUS CONCRETE LIP CURBING
NOT TO SCALE

FINAL DESIGN



HALF SECTION

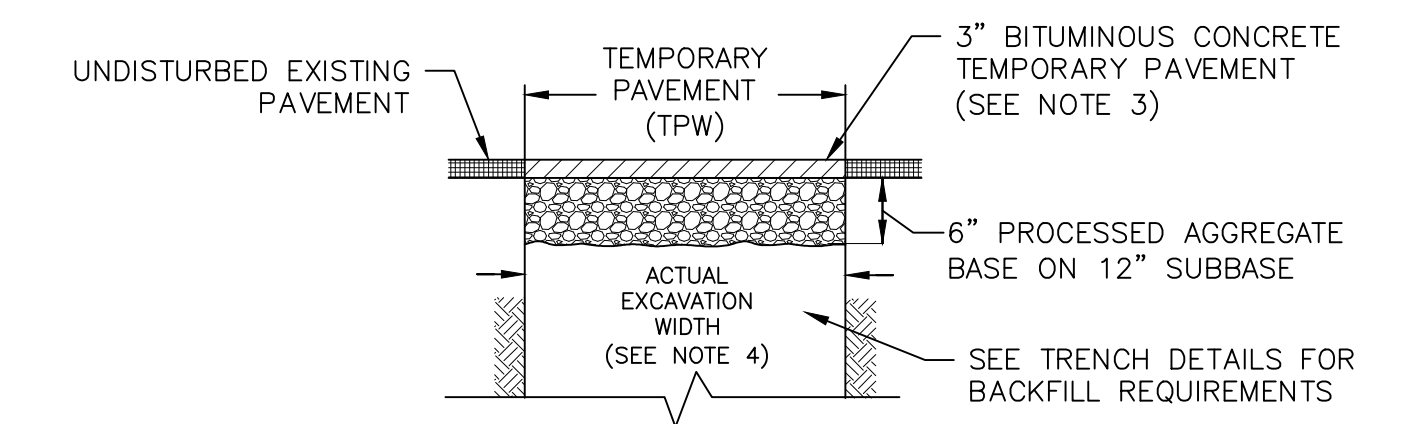


TYPICAL INTERSECTION

MINOR STREET (RESIDENTIAL) - FULL DEPTH RECONSTRUCTION
NOT TO SCALE

DESIGN CRITERIA	
DESIGN SPEED	30 MPH
STOPPING SIGHT DISTANCE	200 FEET MINIMUM
MAXIMUM GRADE	8%
MINIMUM GRADE	0.50%
MAXIMUM C _c RADIUS	200 FEET

NOTE:
1. IF BINDER COURSE IS LEFT AS A TOP COURSE FOR AN EXTENDED PERIOD A TACK COAT OF BITUMINOUS MATERIAL SHALL BE APPLIED PRIOR TO LAYING THE BITUMINOUS CONCRETE SURFACE COURSE.



NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EMERGENCY AND GENERAL MAINTENANCE OF TEMPORARY TRENCH PAVEMENT.
2. TEMPORARY TRENCH REPAIR SHALL BE COMPLETED AT THE END OF EACH WORK DAY. TEMPORARY PAVEMENT SHALL BE MAINTAINED IN A CONDITION SUITABLE FOR TRAFFIC UNTIL REPLACED OR OVERLAID BY FINAL PAVEMENT. DEFECTS SHALL BE REPAIRED WITHIN 1 DAY OF NOTIFICATION OF SUCH DEFECTS.
3. MINIMUM THICKNESS FOR PERMANENT FINISH AND BINDER COURSES SHALL BE THICKNESS AND PAVEMENT CLASS AS STATED IN THE CONTRACT DRAWINGS. REFER TO PAVEMENT RESTORATION DETAILS.
4. THE PAY WIDTH DIMENSIONS SHOWN REPRESENT THE MAXIMUM PAY WIDTHS TO BE PAID. WHEN THE ACTUAL SURFACE REPAIR OR TRENCH WIDTH IS LESS, THE ACTUAL WIDTH SHALL BE PAID FOR AT THE APPLICABLE UNIT PRICE.
5. THE MAXIMUM TEMPORARY PAVEMENT PAY WIDTH AT MANHOLES IS 12" OUTSIDE THE BASE.

MAXIMUM TEMPORARY TRENCH PAVEMENT PAY WIDTHS (TPW)		
DEPTH TO PIPE INVERT	0-12" PIPE TPW (FT)	>12" PIPE TPW (FT)
0-8	6.0	PIPE I.D. + 5
8-12	7.0	PIPE I.D. + 6
12-16	8.0	PIPE I.D. + 7
>16	9.0	PIPE I.D. + 8

TEMPORARY TRENCH PAVEMENT REPAIR
NOT TO SCALE

FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\1962 - CD.dwg PLOT DATE: 4/15/2018 PLOT TIME: 10:27:56 AM

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DESIGNED BY:	SJH
DRAWN BY:	NJM
SHEET CHK'D BY:	SJH
CROSS CHK'D BY:	GBS
APPROVED BY:	TG
DATE:	OCTOBER, 2018

PREPARED FOR:

ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

PREPARED BY:

40 Cold Spring Road • Rocky Hill, CT 06067
Phone 860.436.4901 • Fax 860.436.4953

ENSIGN STREET DRAINAGE DESIGN

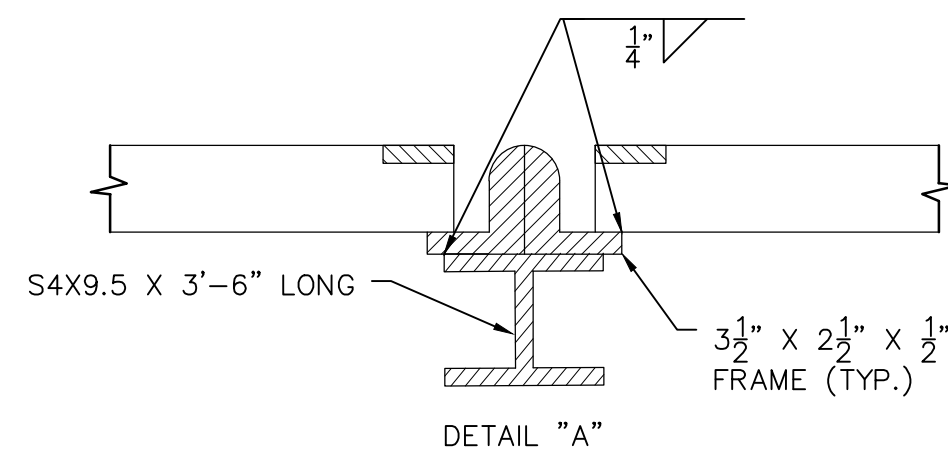
ENSIGN STREET
EAST HARTFORD, CONNECTICUT

CIVIL DETAILS

SHEET NO.

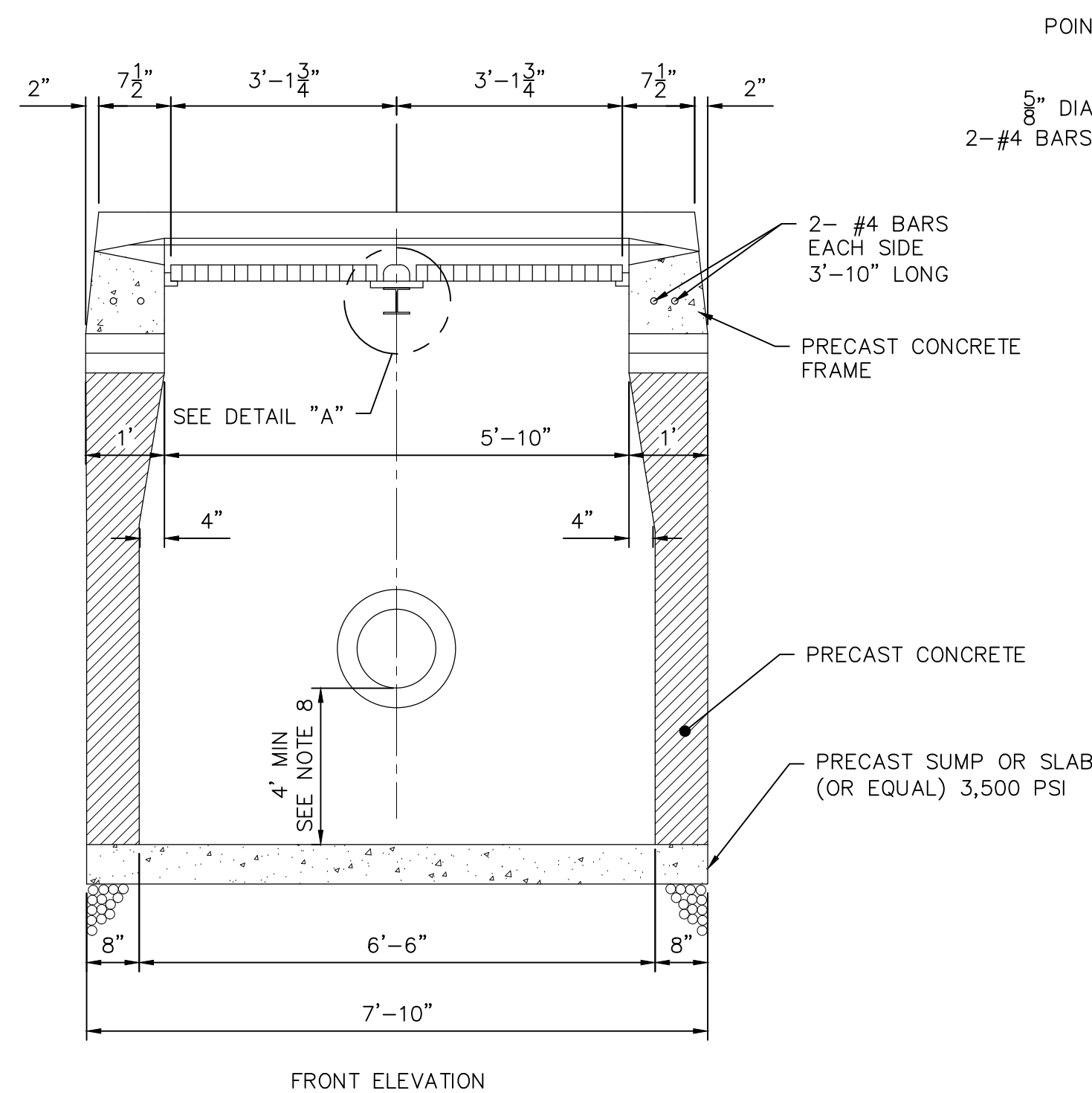
CD-2

NOTE: USE C-L GRATE FOR A TYPE C-L DOUBLE GRATE BASIN.

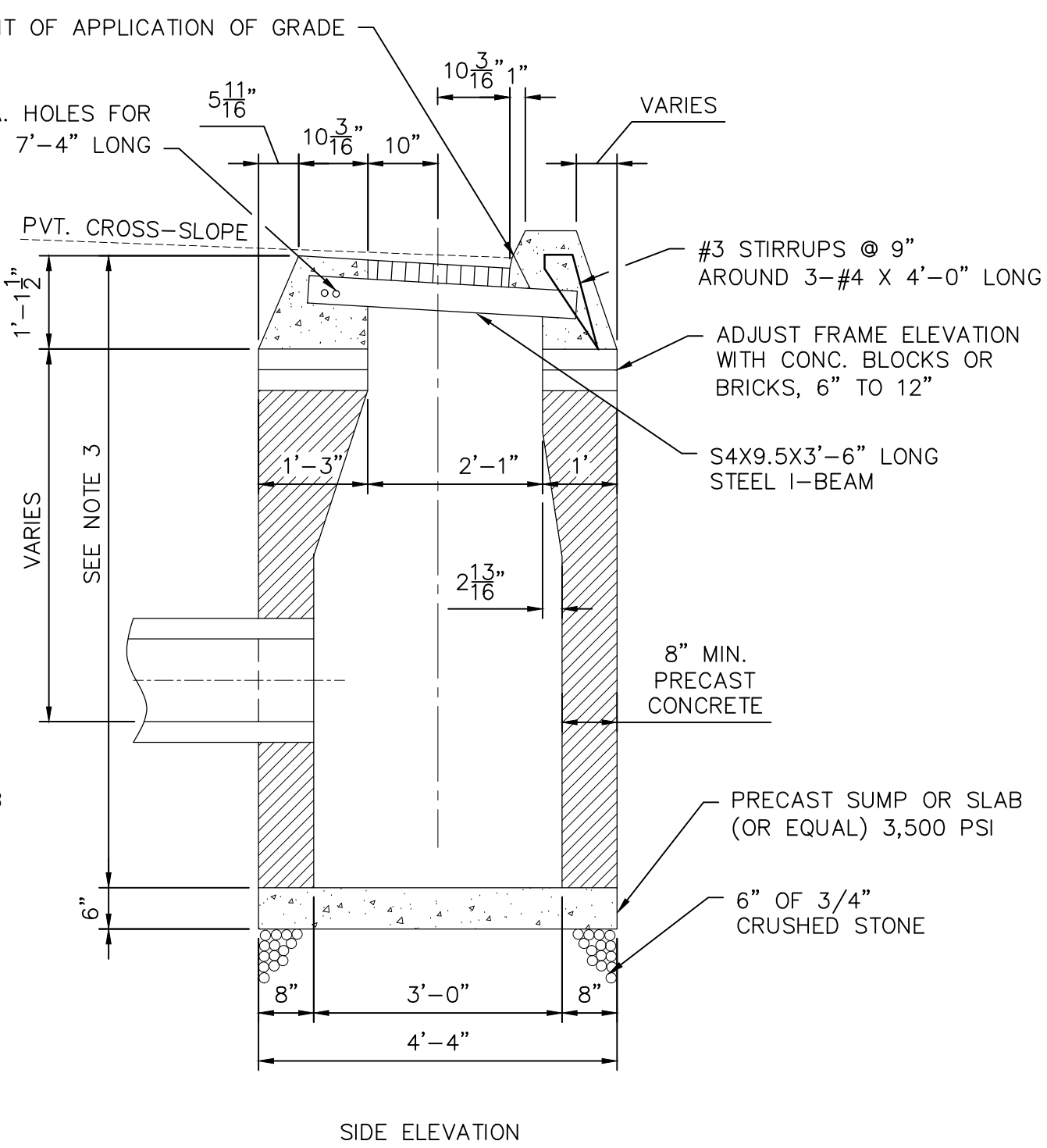


NOTES:

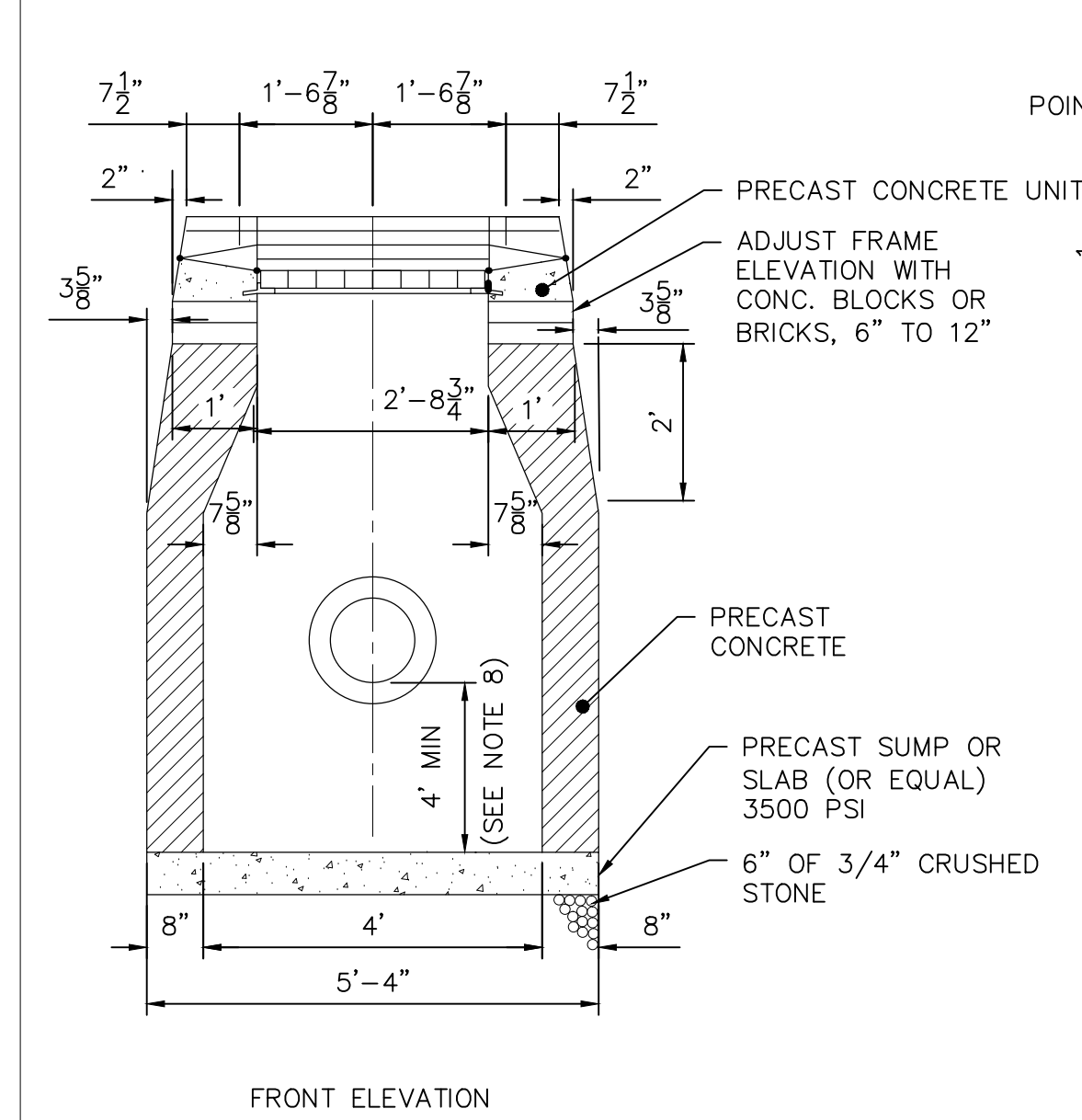
- EXCEPT FOR CLASS V RCP, MINIMUM COVER OVER TOP OF PIPE SHALL BE 2'-0".
- WALL THICKNESS SHALL BE SUFFICIENT TO MEET HS-20 LOADING.
- WALL THICKNESS FOR STRUCTURES OVER 10' HIGH IS 12" FOR CONCRETE BLOCK UNITS. INSIDE DIMENSIONS REMAIN THE SAME.
- ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS.
- ALL BRICKS SHALL BE CONCRETE.
- ALL PIPE PENETRATIONS SHALL BE PARGED SMOOTH TO PROVIDE A WATERTIGHT SEAL BOTH INSIDE AND OUTSIDE THE BASIN.
- INSIDE WALLS OF STRUCTURE TO BE SMOOTH. NO SHELVES ALLOWED.
- IF A 4' SUMP IS NOT POSSIBLE DUE TO UTILITY CONFLICTS OR SITE CONSTRAINTS, A 2' SUMP MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER.
- FRAME AND GRATE SHALL BE GALVANIZED.



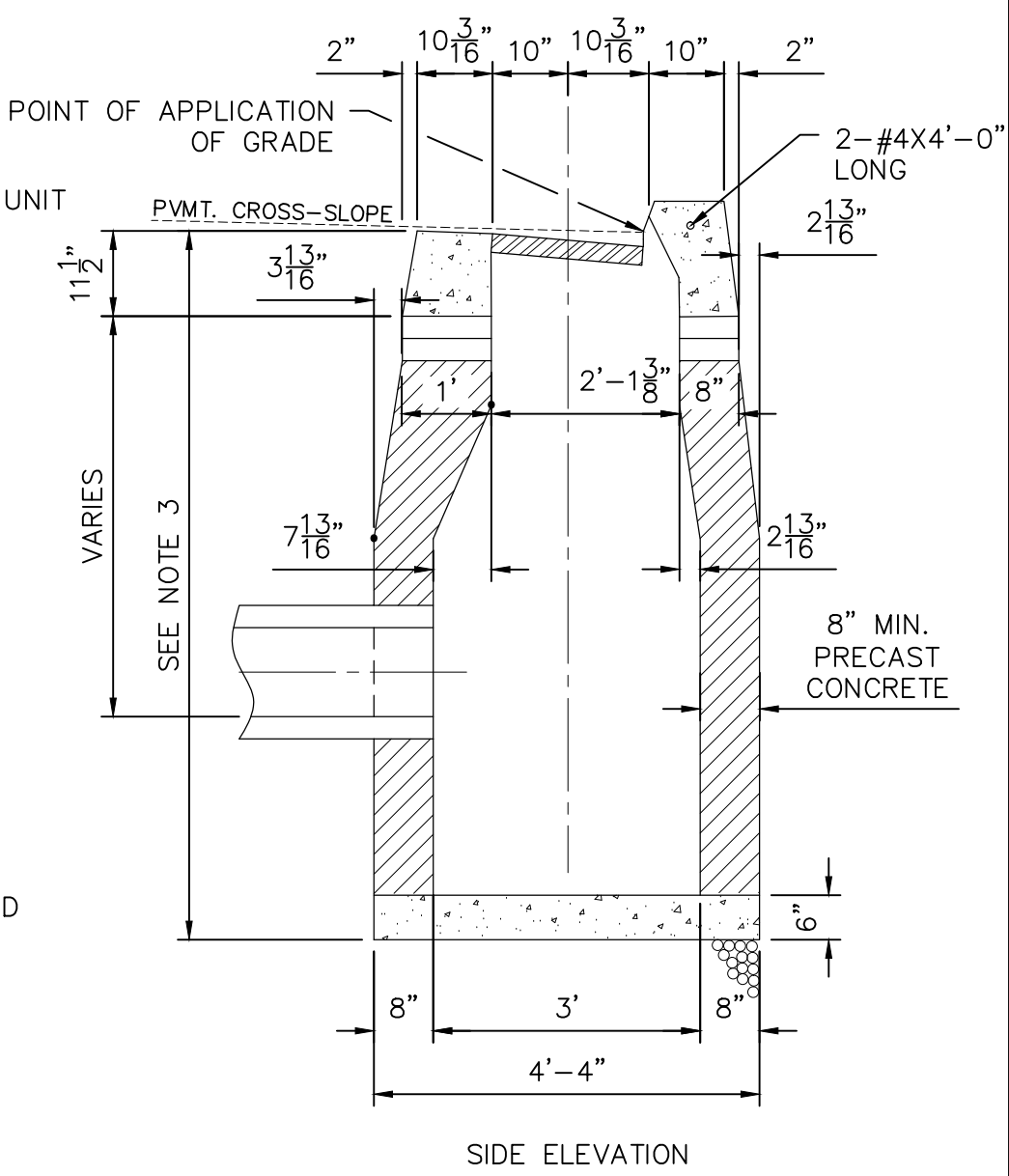
TYPE "C" CATCH BASIN DOUBLE GRATE TYPE II
NOT TO SCALE



SIDE ELEVATION



FRONT ELEVATION

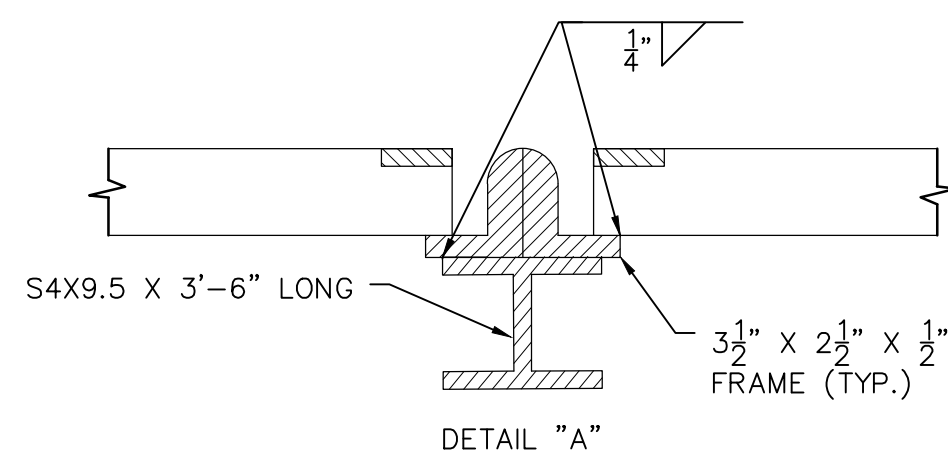


SIDE ELEVATION

NOTES:

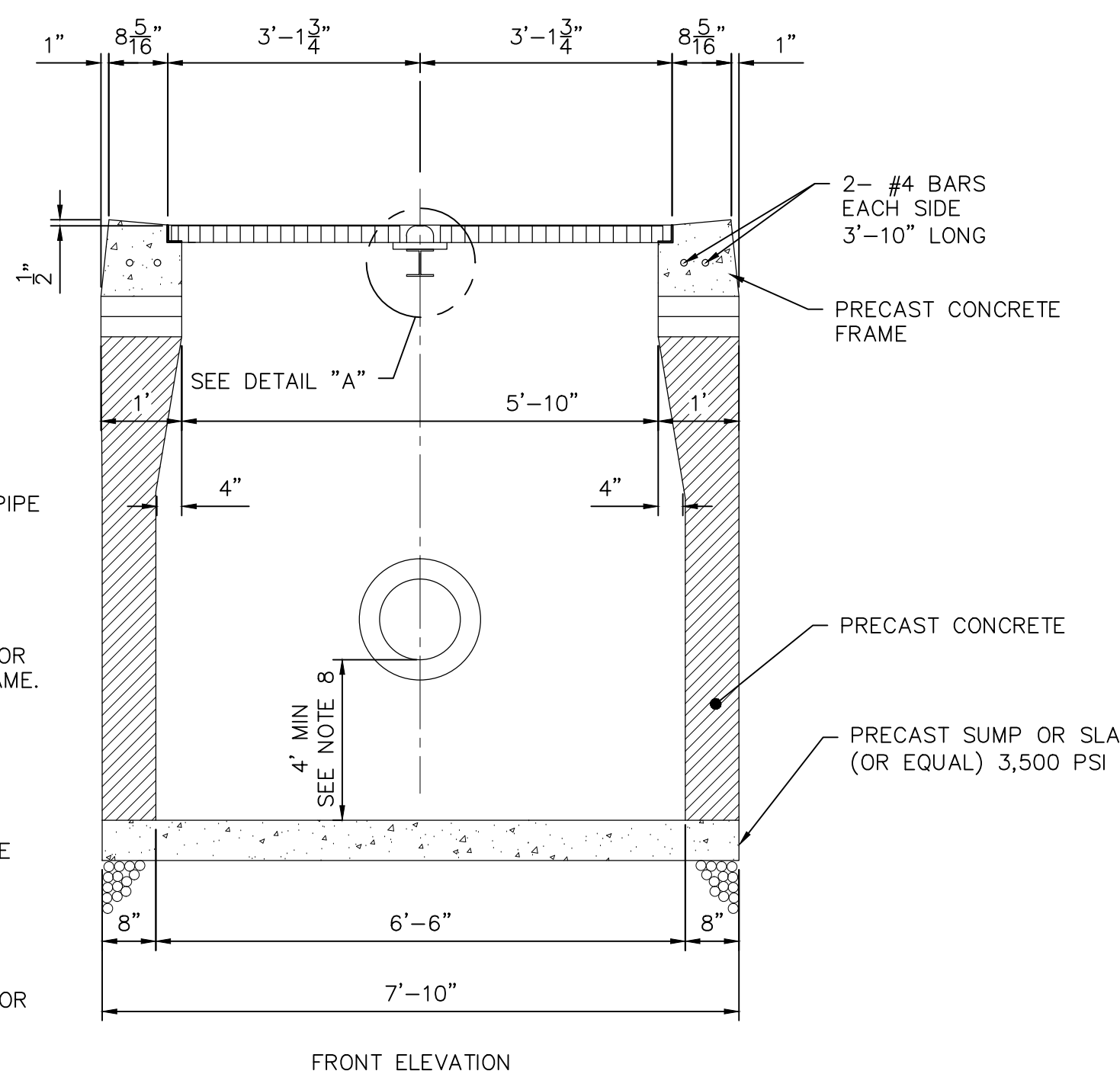
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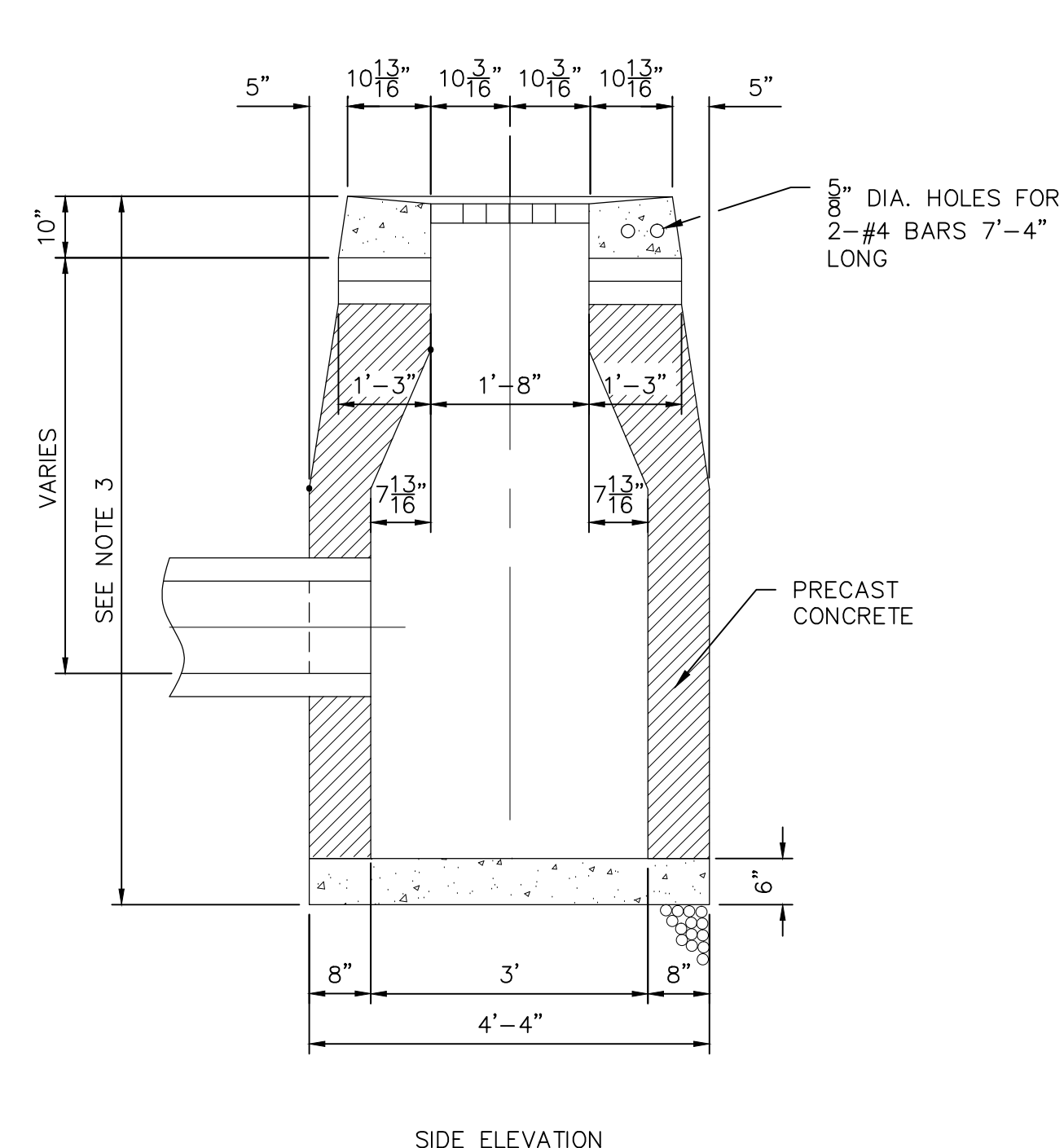


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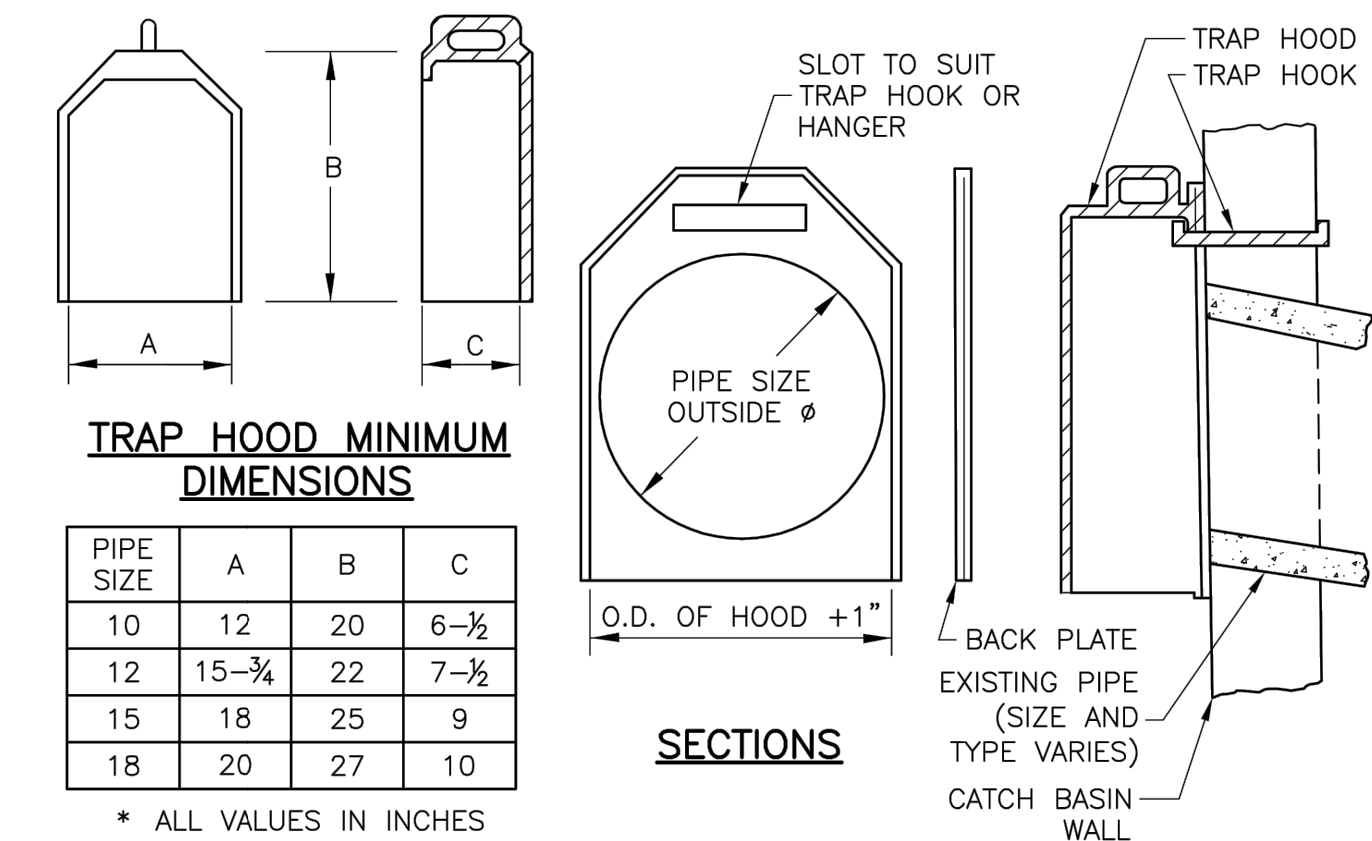


TYPE "CL" CATCH BASIN DOUBLE GRATE TYPE II
NOT TO SCALE



SIDE ELEVATION

TYPE "C" CATCH BASIN
NOT TO SCALE



NOTES:

- TRAP HOODS SHALL BE CAST IRON FOR 10", 12", 15" AND 18" PIPE SIZES AND FABRICATED ALUMINUM FOR PIPES 21" AND GREATER.
- ALL TRAP HOODS SHALL INCLUDE STAINLESS STEEL HOOKS OR HANGERS FOR MOUNTING TO THE CATCH BASIN WALL. BACK PLATES SHALL BE FURNISHED ONLY WHEN REQUESTED.
- TRAP HOODS SHALL BE FROM CAMPBELL FOUNDRY, NEENAH FOUNDRY, EAST JORDAN IRON WORKS OR APPROVED EQUAL. DIMENSIONS AND MODEL NUMBERS VARY BASED ON DISCHARGE PIPE SIZE AND MANUFACTURER.
- SEE MANUFACTURER FOR INSTALLATION INSTRUCTIONS.

CATCH BASIN TRAP HOOD
NOT TO SCALE

FINAL DESIGN

FILE PATH: H:\Projects\Goodwin College\1962 - Ensign Drainage Design\AutoCAD\1962 - CD.dwg PLOT DATE: 4/15/2018 PLOT TIME: 10:28:01 AM

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PROJECT NO.:	1962
DESIGNED BY:	SJH
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SHEET CHK'D BY:	SJH
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ENSIGN STREET DRAINAGE DESIGN

ENSIGN STREET
EAST HARTFORD, CONNECTICUT

CIVIL DETAILS

CD-3

SHEET NO.

CD-3