PLAINFIELD COMMUNITY
SCHOOL CORPORATION

PLAINFIELD OUTBUILDINGS

PLAINFIELD, IN

100% CONSTRUCTION DOCUMENTS MAY 08, 2025

CLARKS CREEK ELEMENTARY SCHOOL

401 ELM DR., PLAINFILED, IN 46168

BRENTWOOD ELEMENTARY SCHOOL

1630 W OLIVER AVE, PLAINFIELD, IN 46168

SHEET INDEX

SHEET LIST CIVIL

Sheet Number	Sheet Name
C100	TITLE SHEET
C101-C102	EXISTING TOPOGRAPHY AND DEMO PLAN
C103	OVERALL PLAN
C110-C111	SITE DEVELOPMENT PLAN
C400-C401	EROSION CONTROL PLAN
1-29	TOWN OF PLAINFIELD STANDARDS

SHEET LIST STRUCTURAL

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S002	GENERAL STRUCTURAL NOTES & SCHEDULES
S201	FOUNDATION AND ROOF FRAMING PLANS
S401	TYPICAL DETAILS
S402	TYPICAL DETAILS
S701	SECTIONS AND DETAILS

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A203	WALL SECTIONS

SHEET LIST ELECTRICAL

Sheet Number	Sheet Name
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E100	SITE PLAN - CLARKS CREEK - ELECTRICAL
E101	SITE PLAN - BRENTWOOD - ELECTRICAL
E201	OUTBUILDING PLANS - ELECTRICAL
E601	SCHEDULES - ELECTRICAL

CONSTRUCTION MANAGER

GARMONG Construction Services (Since 1923)

ARCHITECT

CSO

8831 Keystone Crossing, Indianapolis, IN 46240
317.848.7800 | csoinc.net

MECHANICAL/ELECTRICAL/PLUMBING ENGINEER

R.E. Dimond and Associates, Inc. Consulting Engineers

STRUCTURAL ENGINEER

Lynch, Harrison & Brumleve, Inc.
550 Virginia Avenue
Indianapolis, IN 46203
P 317.423.1550
F 317.423.1551
STRUCTURAL ENGINEERS

CIVIL ENGINEER

BANNING ENGINEERING

CSO
8831 Keystone Crossing, Indianapolis IN 46240
317.848.7800 | csoinc.net

PLAINFIELD COMMUNITY
SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:

These drawings indicate the general scope of the project in terms of architectural design concept, the dimensions of the building, the major architectural elements and the type of structural, mechanical and electrical systems.

The drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Contract.

On the basis of the general scope indicated or described, the trade contractors shall furnish all items required for the proper execution and completion of the work.

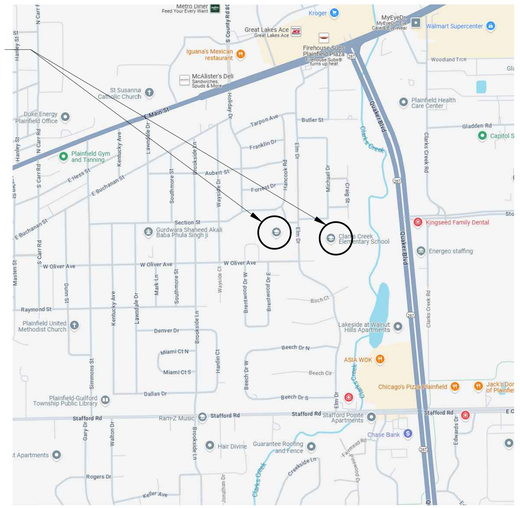
PLAINFIELD COMMUNITY
SCHOOL CORPORATION
100% CONSTRUCTION DOCUMENTS
MAY 08, 2025

2025016

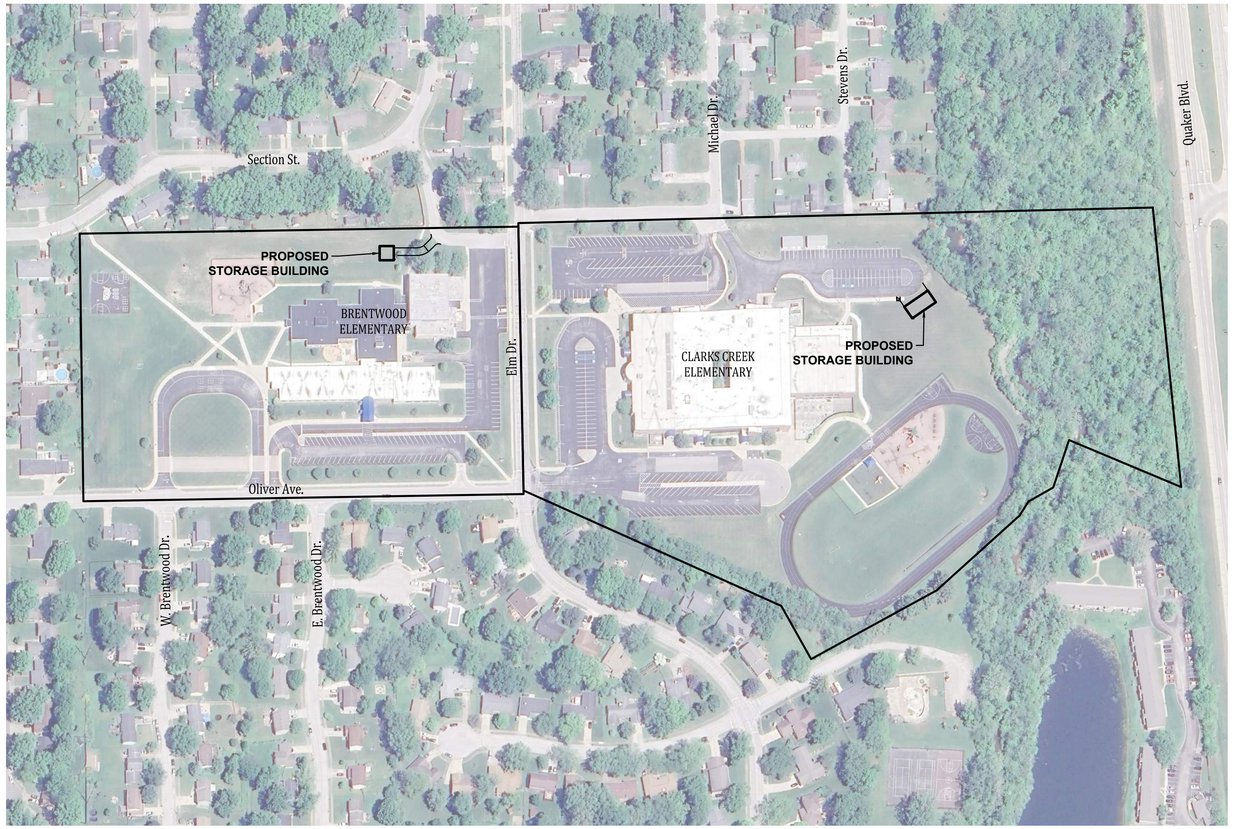
BRENTWOOD & CLARKS CREEK ELEMENTARY - STORAGE BUILDINGS

NW 1/4, SEC. 36-T15N-R1E, HENDRICKS COUNTY, GUILFORD TOWNSHIP, PLAINFIELD, INDIANA
PROJECT ADDRESS: BRENTWOOD - 1630 OLIVER AVE., CLARKS CREEK - 401 ELM DR.
ZONED: S

PROJECT LOCATION

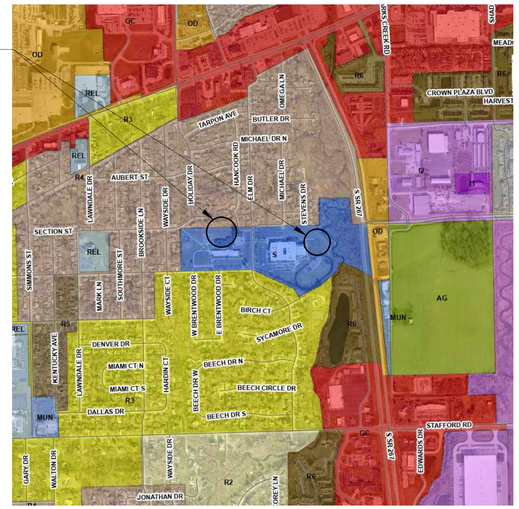


VICINITY MAP
NO SCALE



SITE MAP
NO SCALE

PROJECT LOCATION



LOCATION MAP
NO SCALE

OPERATING AUTHORITIES

GAS
CenterPoint Energy
1995 E. Main Street
Danville, IN 46122
317-718-3617

ELECTRIC
Duke Energy
5095 E. Main Street
P.O. Box 29
Danville, IN 46122
317-745-4481

SANITARY
Town of Plainfield
986 S. Center Street
Plainfield, IN 46168
317-839-3490

SCHOOL DISTRICT
Plainfield Community
School Corporation
985 Longfellow Drive
Plainfield, IN 46168
317-839-2578

FIBER OPTIC
Zayo Bandwith
722 N. High School Road
Indianapolis, IN 46214
765-341-1199

COMMUNICATIONS
Windstream
4005 N Rodney Parham Road
Little Rock, AK 72212
800-289-1901

STORM
Town of Plainfield
986 S. Center Street
Plainfield, IN 46168
317-839-3490

CABLE
Comcast of Indiana
P.O. Box 20911
Indianapolis, IN 46220
317-594-8509

WATER
Town of Plainfield
986 S. Center Street
Plainfield, IN 46168
317-839-3490

COMMUNICATIONS
AT&T
240 N. Meridian Street
Indianapolis, IN 46207
317-722-2299

FIRE DEPARTMENT
Plainfield Fire Territory
591 Moon Road
Plainfield, IN 46168
317-839-6939

Indiana 811
Know what's below. Call before you dig.

PLANS PREPARED FOR:
CSO ARCHITECTS
8831 KEYSTONE CROSSING
INDIANAPOLIS, IN 46240
317-848-7800
CONTACT: BRET HITE
EMAIL: bhite@csoinc.net

OWNER:
PLAINFIELD COMMUNITY
SCHOOL CORPORATION
985 LONGFELLOW DRIVE
PLAINFIELD, IN 46168
317-839-2578
CONTACT: MARK SHAYOTOVICH
EMAIL: mshayotovich@plainfield.k12.in.us

PLANS PREPARED BY:
BANNING ENGINEERING
853 COLUMBIA ROAD, SUITE #101
PLAINFIELD, IN 46168
BUS: (317) 707-3700, FAX: (317) 707-3800
E-MAIL: Banning@BanningEngineering.com
WEB: www.BanningEngineering.com
CONTACT: RYAN LINDLEY
EMAIL: rlindley@banning-eng.com

CONSTRUCTION DOCUMENTS

PROJECT MANAGER: Ryan R. Lindley DATE: 05-19-2025

THESE PLANS ARE NOT TO BE CONSIDERED FINAL OR TO BE UTILIZED FOR CONSTRUCTION UNLESS SIGNED AND DATED BY THE APPROPRIATE BANNING ENGINEERING PROJECT MANAGER.

THESE PLANS ARE NOT INTENDED TO BE REPRESENTED AS A RETRACEMENT OR ORIGINAL BOUNDARY SURVEY, A ROUTE SURVEY, OR A SURVEYOR LOCATION REPORT.

CHAD ZIEGLER
REGISTERED
No.
PE11200667
STATE OF
INDIANA
PROFESSIONAL ENGINEER

CERTIFIED BY: W. Chad Ziegler

SHEET INDEX

SHEET NO	DESCRIPTION
C100	TITLE SHEET
C101-C102	EXISTING TOPOGRAPHY AND DEMO PLAN
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C400-C401	EROSION CONTROL PLAN
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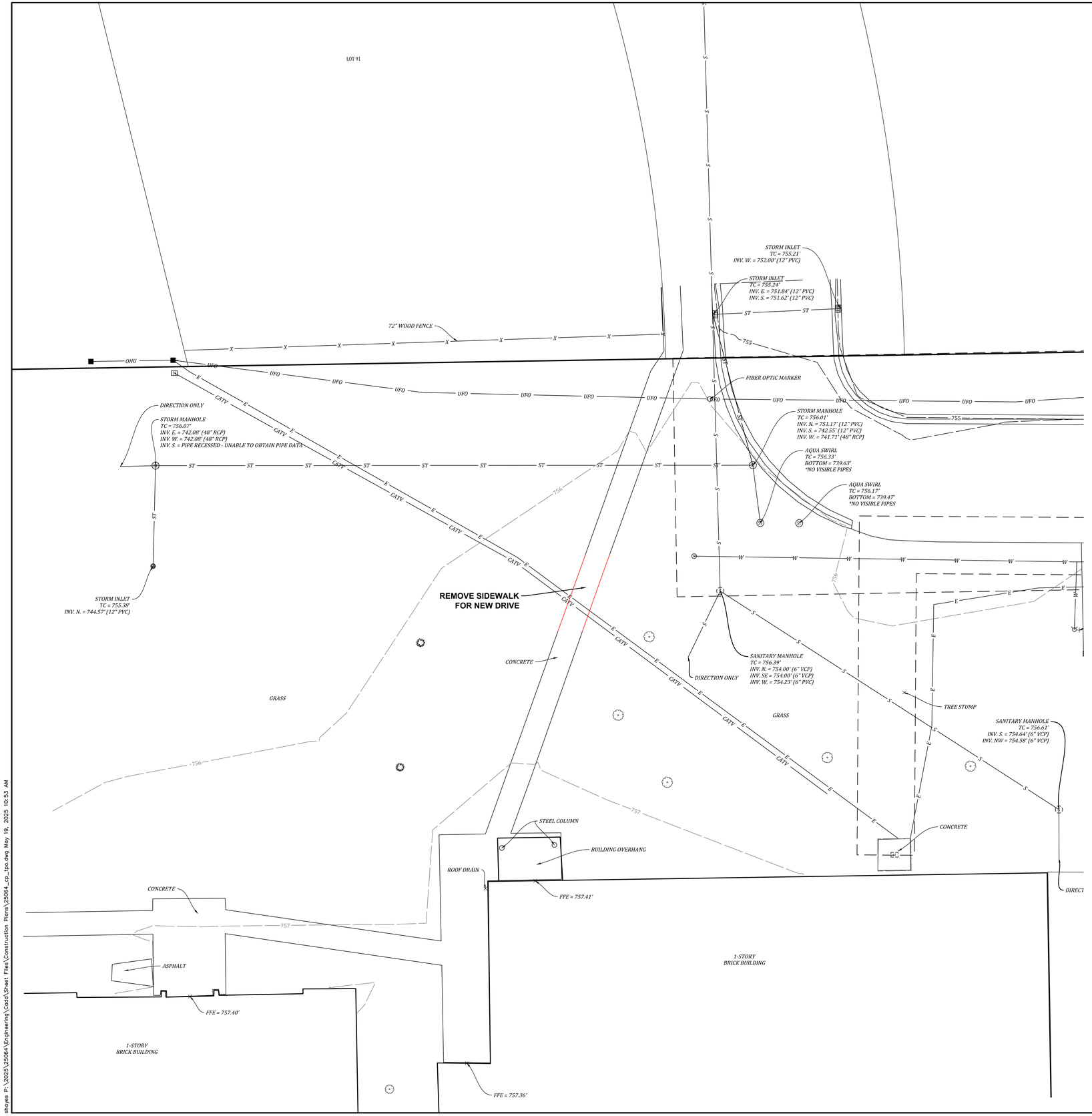
REVISIONS

NUMBER	DESCRIPTION	DATE

Date: 05-06-2025
Project No: 25064
Sheet No: C100

BRENTWOOD & CLARKS CREEK ELEMENTARY - STORAGE BUILDINGS



Project Benchmark
The elevations shown hereon were derived from GPS observation using NAVD 88 Datum from the VRS (Virtual Reference Station) Control Network established by Seiler Company. The elevations were established for this network by continuously streaming data through fixed reference stations ((CORS)-Continuously Operating Reference Station) distributed throughout the network area to a central server running Trimble GPSNet and RTKNet software. Through previous survey work, the elevations derived from GPS observations are relatively accurate to published benchmarks (usually within +/-0.2 feet). Control point 1 was used as the benchmark and levels were ran through the temporary benchmarks shown below.
C.P. #1 Elev = 752.12' (NAVD 88)

Site Benchmark
TBM #50
Cut square on the southeast side of concrete light base located about 115 feet north of the Clarks Creek Elementary School building, about 100 feet east of the centerline of Michael Drive and 2.5 feet north of the back of curb.
Elev. = 755.49' (NAVD 88)

TBM #51
Cut "X" on the east bonnet bolt of fire hydrant located about 51 feet north of the northeast corner of the Brentwood Elementary School building, about 112 feet west of the centerline of Elm Drive, about 31 feet south of the centerline of Hancook Road.
Elev. = 758.23' (NAVD 88)

Notes:
Per 865 IAC 1-12-12 this drawing is not intended to be represented as a retracement or original boundary survey, a route survey, or a Surveyor Location Report.

The horizontal data shown on this exhibit is based upon standard radial survey techniques and by global positioning equipment, utilizing the VRS Network, a real-time kinematic (RTK) correction service over the internet. The coordinate values shown are in Indiana State Plane West Zone on the 1983 North American Datum.

All bearings, distances and coordinates are referenced to the Indiana State Plane West Zone (NAD 83) Coordinate System. The Combined Scale Factor for this project is 1.000000. Distances shown hereon are GRID distances (US survey feet).

The topographic information shown hereon was obtained in the field during March 2025. The topographic data was gathered using a robotic total station and data collector applying standard radial surveying techniques and by global positioning equipment, utilizing the VRS Network, a real-time kinematic (RTK) correction service over the internet.

Elevations on hard surfaces or structures are accurate to within 0.05 feet, elevations on natural surfaces are accurate to within 0.15 feet. The contours shown hereon were plotted based upon interpolation of spot elevations and other topographic information and are accurate to within one half of the contour interval.

This survey reflects above ground indications of utilities and information available from utility companies. The surveyor makes no guarantee that 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 they are located as accurately as possible from the information available. The surveyor has not physically located the underground utilities.

Underground utilities shown per private utility locates were provided internally via Banning Engineering's Utilities Coordinator.

FLOOD STATEMENT
The surveyed property appears to be located in Zone "X" (areas determined to be outside the 0.2% annual chance floodplain) per the Flood Insurance Rate Map (FIRM) for Hendricks County, Indiana, community panel 18063C0259D, dated September 25, 2009, Federal Emergency Management Agency, National Flood Insurance Program. Per said FIRM, this parcel does not lie within the boundary of a Special Flood Hazard Area. The accuracy of any flood hazard statement is subject to map scale uncertainty.

0 10' 20'

LEGEND

EXISTING

- OHU — OVERHEAD UTILITY LINE
- W — WATER LINE
- G — GAS LINE
- E — UNDERGROUND ELECTRIC LINE
- UFO — UNDERGROUND FIBER OPTIC LINE
- CATV — UNDERGROUND CABLE TV LINE
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- LIGHT POLE
- UTILITY VAULT
- WATER METER
- ELECTRIC TRANSFORMER
- FIRE HYDRANT
- SEWER CLEAN-OUT
- SIGN
- TREE

Control Point				
Pt. #	Northing	Easting	Elev.	Description
1	1623640.709	3152139.164	752.12	Cut "X"
2	1623778.087	3151727.105	758.85	Cut "X"
3	1623732.377	3151305.536	756.51	Cut "X"

Indiana 811 Know what's below. Call before you dig.

Revisions

Sym.	Date

Designed: SJH/RRL
Drawn: SJH
Checked: RRL
Scale: 1"= 10'
Date: 05-08-2025

EXISTING TOPOGRAPHY AND DEMO PLAN
BRENTWOOD & CLARKS CREEK ELEMENTARY - STORAGE BUILDINGS
PLAINFIELD, INDIANA

I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, unless required by law. W. Chad Ziegler

BANNING ENGINEERING
853 COLUMBIA ROAD SUITE #101
PLAINFIELD, IN 46168
BUS: (317) 707-3700 FAX: (317) 707-3800
E-MAIL: Banning@BanningEngineering.com
WEB: www.BanningEngineering.com

Project No: 25064
Sheet No: C101

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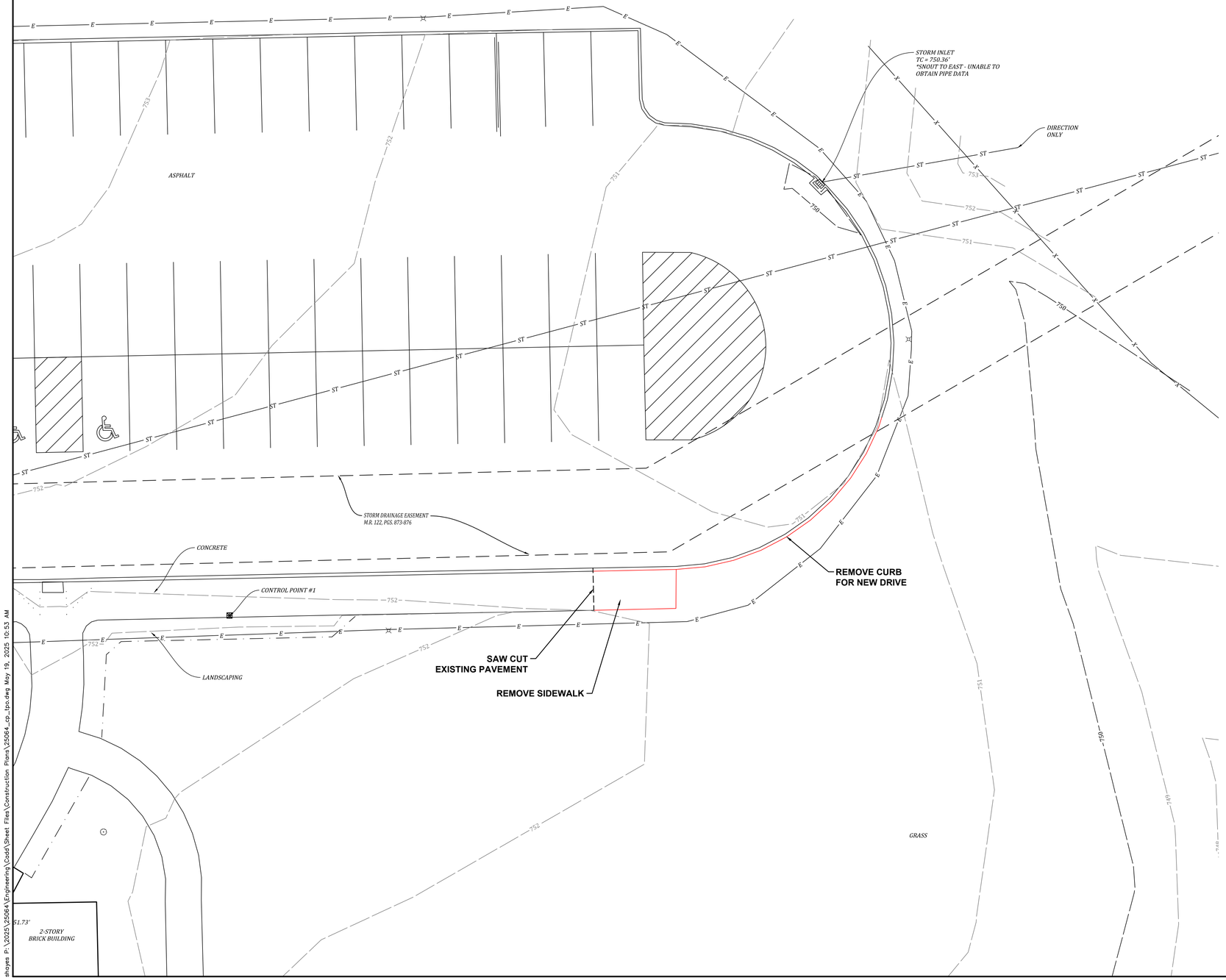

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Revisions | Sym. | Date

Designed: SJH/RRL
Drawn: SJH
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Scale: 1"=10'
Date: 05-08-2025

EXISTING TOPOGRAPHY AND DEMO PLAN
BRENTWOOD & CLARKS CREEK ELEMENTARY - STORAGE BUILDINGS
PLAINFIELD, INDIANA

W. CHAD ZIEGLER — REGISTERED No. PE11200667 — STATE OF INDIANA — PROFESSIONAL ENGINEER

BANNING ENGINEERING
853 COLUMBIA ROAD SUITE #101
PLAINFIELD, IN 46168
BUS: (317) 707-3700 FAX: (317) 707-3800
E-MAIL: Banning@BanningEngineering.com
WEB: www.BanningEngineering.com

Project No: 25064
Sheet No: C102

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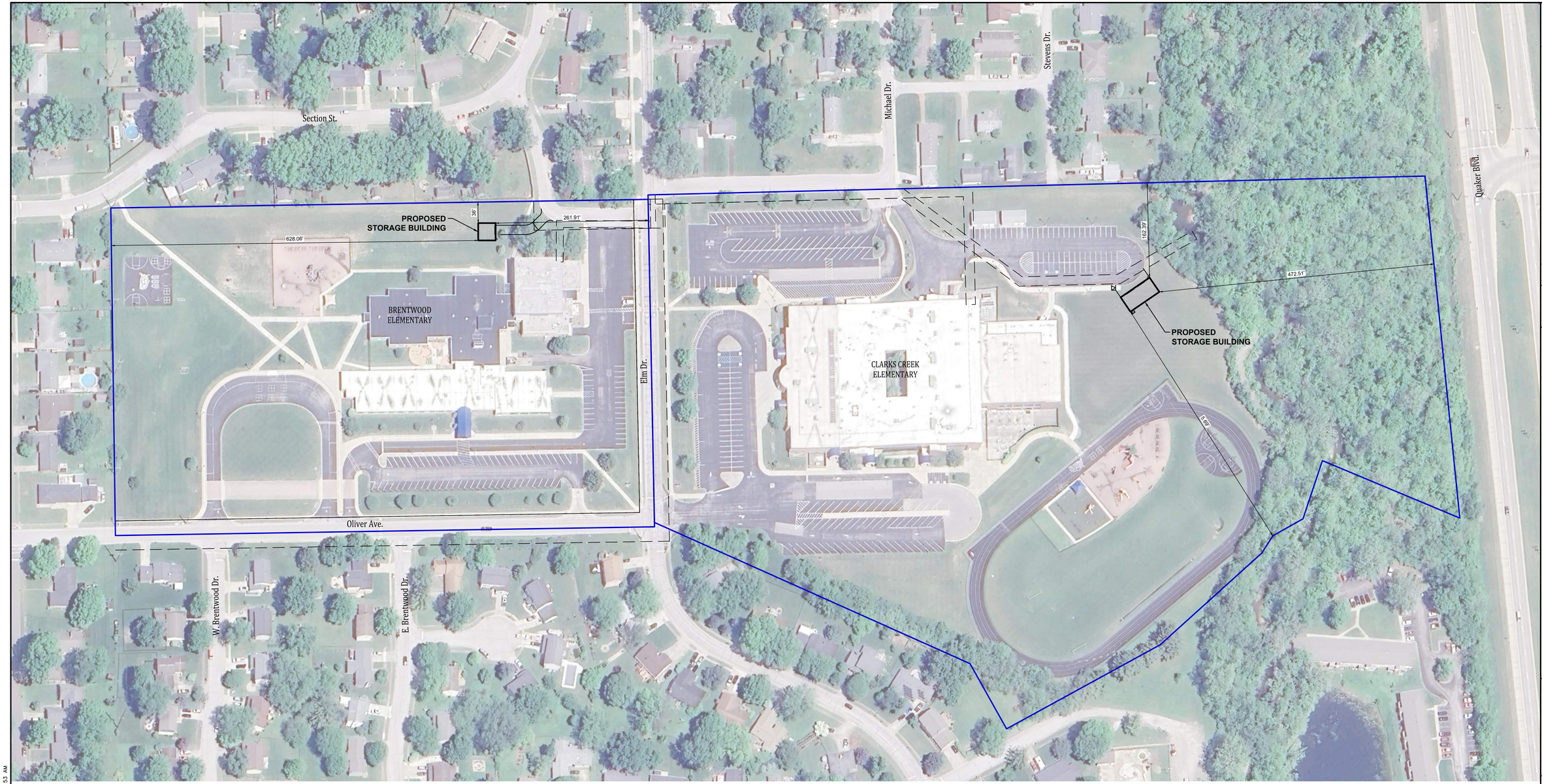


LAND DESCRIPTION
(BRENTWOOD ELEMENTARY)

Part of the Northwest quarter of the Northwest quarter of Section 36, Township 15 North Range 1 East, bounded and described as follows, to wit: From an iron pin marking the northwest corner of said quarter quarter section run thence south 89 degrees 45 minutes 45 seconds East (reference is made to the west line of the south

west quarter of Section 25, township 15 north, range 1 east for (an assumed meridian) on and along the north line of said quarter quarter section 907.33 feet to an old corner stone , thence run North 89 degrees 52 minutes east on and along said North line12.50 feet and to the center of a street known as Elm Drive; Thence run South 00 degrees 02 minutes 45 seconds west on and along an extension of said Elm Drive 561.08 feet; thence North 89 degrees 45 minute s 45 seconds West a distance of 922. 83 feet and to the west line of said quarter quarter section, at the center of Oliver Avenue in the town of Plainfield, Indiana; thence run North 00 degrees 21 minutes East on and along said west line 561.00 feet and to the place of beginning. Containing 11.91 acres, more or less. Subject to any and all easements or rights of way which may affect the above real estate.

LAND DESCRIPTION
(CLARKS CREEK ELEMENTARY)

Part of the Northwest quarter of Section 36, Township 15 North, Range 1 East of the Second Principal Meridian in Guilford Township, Hendricks County, Indiana, more particularly described as follows,
to-wit:

Commencing at the Southwest corner of said quarter section: thence north 88 degrees 47 minutes 00 seconds East (assumed bearing) on and along the South line of said quarter section 243l.l9 feet to a point that is south 88 degrees 47 minutes 00 seconds west 269.69 feet from the Southwest corner of said quarter section; thence north 00 degrees 29 minutes 40 seconds west 16.44 feet to the West right-of-way line of State Road 267 as now located and established; thence north 46 degrees 38 minutes 13 seconds East on and along said west right-of-way line 63.33 feet; thence north 05 degrees 30 minutes 00 seconds west continuing on and along said west right- of-way line 2018.72 feet to the beginning point of this description; thence continue north 05 degrees 30 minutes 00 seconds west on and along the last described course 588.94 feet to a point on the north line of said quarter section, said point being south 88 degrees 54 minutes 53 seconds west 450.80 feet from the Northeast corner of said quarter section; thence south 88 degrees 54 minutes 53 seconds west on and along said North line 1330.39 feet to a point that is north 88 degrees 54 minutes 53 seconds east 919.83 feet from the northwest corner of said quarter section; thence south 00 degrees 48 minutes 19 seconds east 560.98 feet to a point on the Northerly boundary of Walnut Hill Section Four as recorded n Plat Book 9, page 66 in the office of the Recorder of Hendricks County, Indiana; thence with northerly and easterly boundaries of said Walnut Hill Section Four south 65 degrees 34 minutes 12 seconds east 592.00 feet; thence south 28 degrees 53 minutes 15 seconds east 127.96 feet; thence north 61 degrees 36 minutes 05 seconds east 100.00 feet; thence continue north 61 degrees 36 minutes 05 seconds east leaving the boundary of Walnut Hill Section Four 200.00 feet; thence north 48 degrees 12 minutes 36 seconds east 234.31 feet to a point in the centerline of Clark's Creek as now located and established; thence on and along the centerline of Clark's Creek the following three courses and distances: north 33 degrees 03 minutes 03 seconds east 35.01 feet; thence north 60 degrees 48 minutes 08 seconds east 59.25 feet; thence north 18 degrees 46 minutes 30 seconds east 105.00 feet; thence south 66 degrees 58 minutes 54 seconds east 255.00 feet to the point of beginning containing 21.79 acres; more or less and subject to all legal highways, rights-of-way and easements of record.

0 80' 160'

Indiana 811. Know what's below. Call before you dig.

Designed:	SJH/RRL
Drawn:	SJH
Checked:	RRL
Scale:	1"= XX'
Date:	05-08-2025

Sym.	Revisions	Date

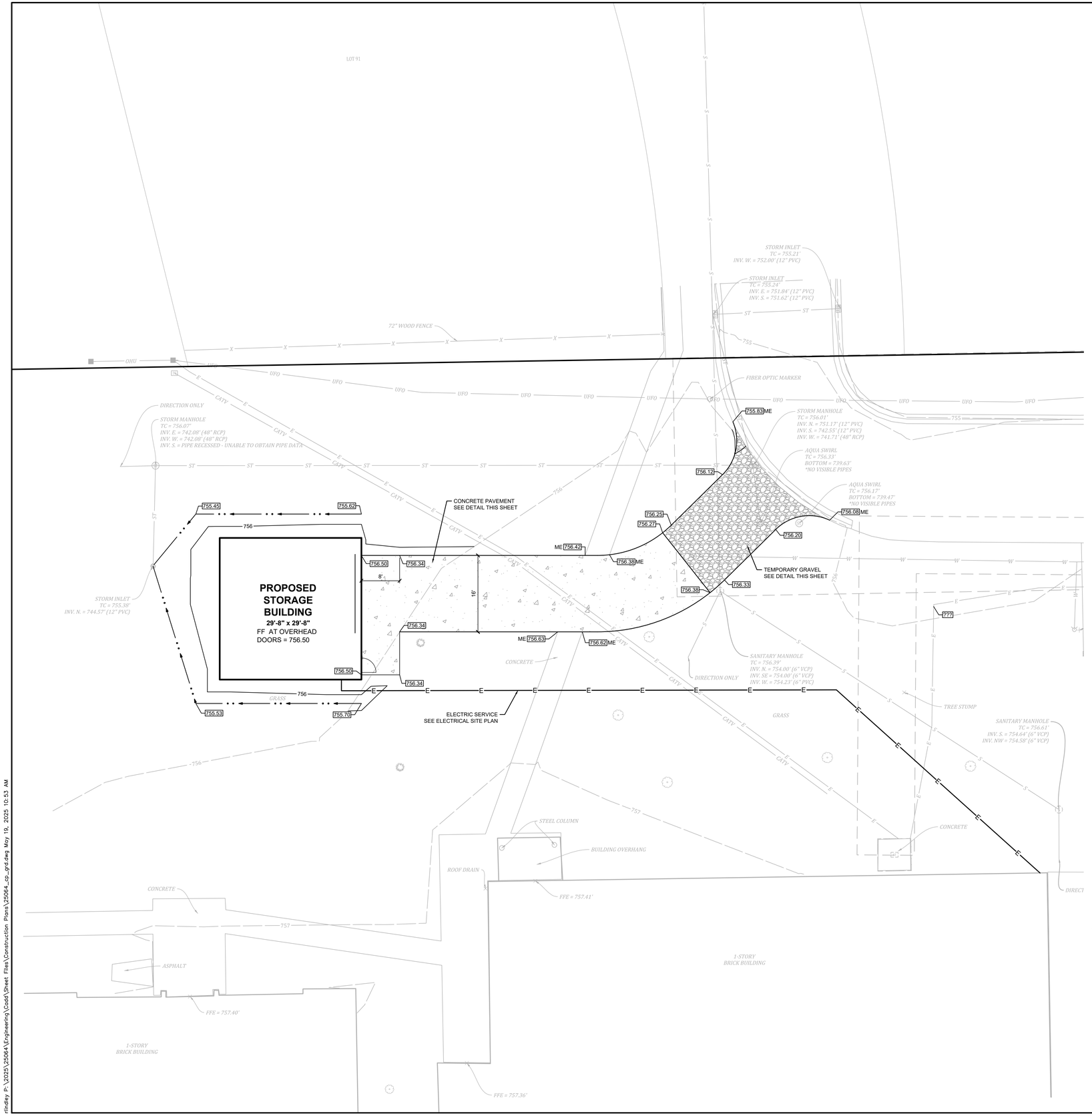
OVERALL PLAN
BRENTWOOD & CLARKS CREEK ELEMENTARY - STORAGE BUILDINGS
PLAINFIELD, INDIANA

W. CHAD ZIEGLER
REGISTERED
No. PE11200667
STATE OF INDIANA
PROFESSIONAL ENGINEER

BANNING ENGINEERING
853 COLUMBIA ROAD, SUITE #101
PLAINFIELD, IN 46168
BUS: (317) 707-3700, FAX: (317) 707-3800
E-MAIL: Banning@BanningEngineering.com
WEB: www.BanningEngineering.com

Project No: 25064

Sheet No: C103



GENERAL NOTES

1. All work shall be performed in conformance with the Subdivision Control Ordinance of the Town of Plainfield and all other ordinances which pertain to this type of work.
2. No changes in or departure from the plans or specifications shall be made without prior approval, in writing, by the Engineer.
3. The Contractor shall be responsible for obtaining all Federal, State, County and Town of Plainfield permits, or any other permits required.
4. Before construction begins, the Contractor shall field verify the location of all utilities shown on the plans, and contact all utility companies to locate all mains, conduits, service lines, etc., in the construction area, and shall protect all such utilities during construction.
5. Before construction begins, the Contractor shall notify the Owners, and/or the Owner's Engineer, so that an inspector may be present.
6. It shall be the responsibility of the Contractor to maintain quality control throughout the project; failure to do so may result in removal and replacement of the defective work. It is recommended that the Owner have a qualified inspector on the job site at all times during construction.
7. The Engineer shall be notified of all field tile located on the site during construction. All such field tile shall be incorporated into the storm sewer system so that it remains in working condition.
8. Plans shall be bid as a working system. Any errors or omissions shall be brought to the attention of the Engineer prior to construction. In the event of the Contractor's failing to give such notice, they shall be held responsible for the results of any such errors or omissions, and the cost of rectifying the same.
9. Structural fill shall be compacted in maximum 6" lifts to 95% standard proctor.
10. Liability Insurance Policy shall be furnished to the Owner before any work is started.
11. The contractor shall notify the Town of Plainfield at least 72 hours prior to any bonded or bank credit letter site improvements are installed. A pre-construction meeting shall be set up with the Town of Plainfield, Contractor, engineer & owner prior to any construction.
12. All accessible pathways, sidewalks and drive crossings shall not exceed 5% running slope and 2% cross slope or the latest requirements of the Americans with Disabilities Act (ADA). Accessible ramps shall not exceed 1/12 slope and 2% cross slope or the latest requirements of the Americans with Disabilities Act (ADA).
13. Accessible Ramp Detectable Warning Surface. A detectable warning surface shall consists of truncated domes and be placed at each street, highway or railroad crossing. The detectable warning surface shall extend a minimum of 2ft in the pedestrian travel and be placed the entire width of a ramp, blended transition, or turning space.
14. These plans shall be used in conjunction with Town of Plainfield standards, refer to sheet 1 of 29 for "directions for use."
15. Refer to general note #11 on sheet 1 of 29 of the Town of Plainfield standards for "Land Disturbing Mitigation Options".

LEGEND

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- OHU — OVERHEAD UTILITY LINE
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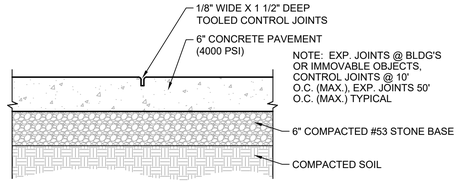
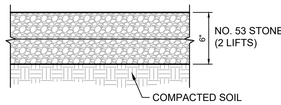
- FIRE HYDRANT
- SEWER CLEAN-OUT
- SIGN
- TREE

PROPOSED

- E — ELECTRIC LINE
- FLOWLINE
- FLOW DIRECTION
- 100.00 — SPOT GRADE
- ME — MATCH EXISTING



CONCRETE PAVEMENT
NO SCALE

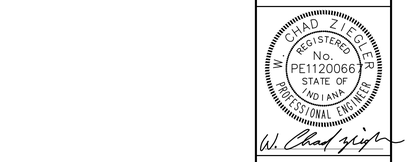


GRAVEL SECTION
NO SCALE

Designed:	SJH/RRL
Drawn:	SJH
Checked:	RRL
Scale:	1"= 10'
Date:	05-06-2025

Sym. | Revisions | Date

SITE DEVELOPMENT PLAN
BRENTWOOD & CLARKS CREEK ELEMENTARY - STORAGE BUILDINGS
PLAINFIELD, INDIANA

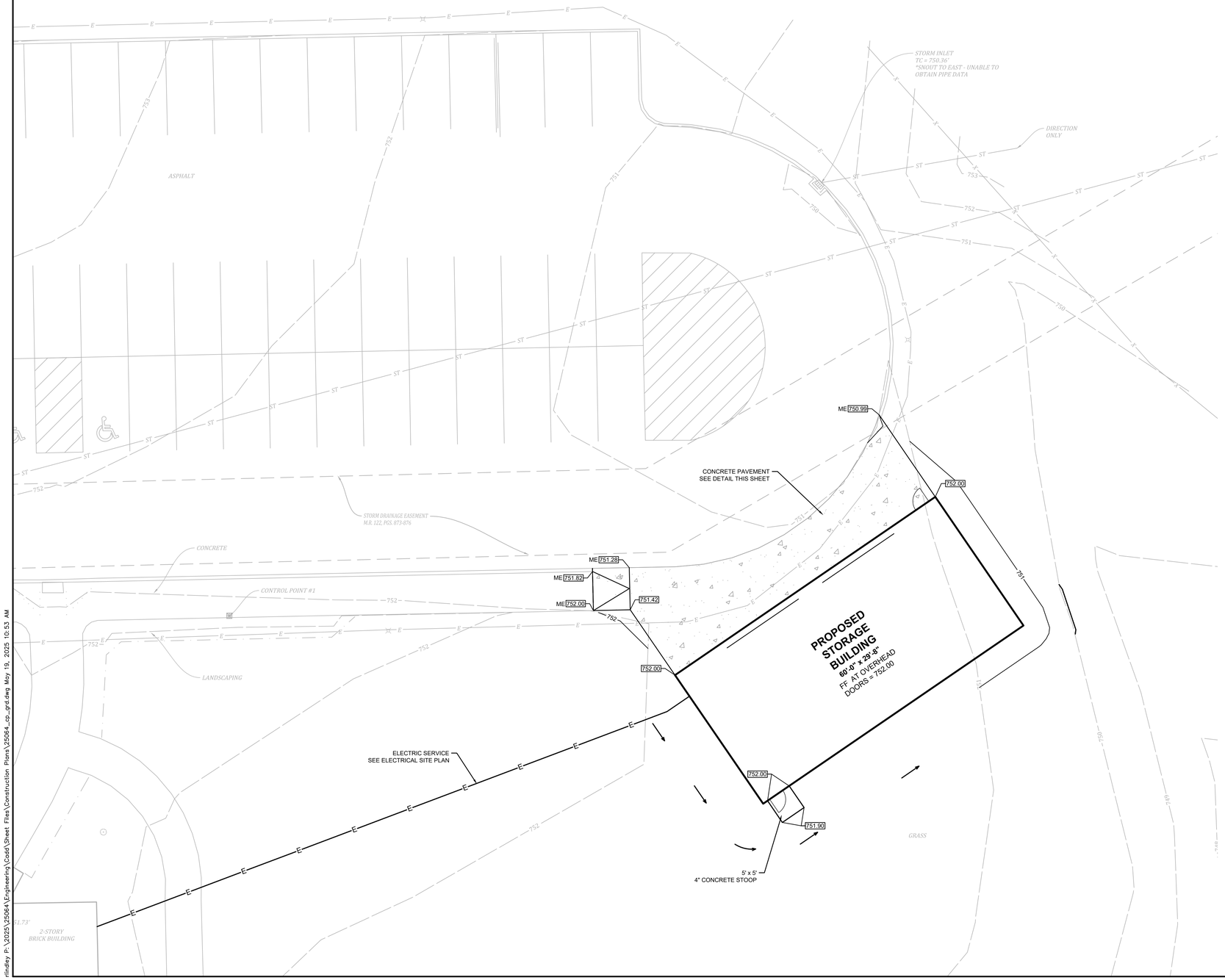


BANNING ENGINEERING
853 COLUMBIA ROAD, SUITE #101
PLAINFIELD, IN. 46168
BUS: (317) 707-3700, FAX: (317) 707-3800
E-MAIL: Banning@BanningEngineering.com
WEB: www.BanningEngineering.com

Project No: 25064

Sheet No: C110

Indiana 811 Know what's below. Call before you dig.



GENERAL NOTES

1. All work shall be performed in conformance with the Subdivision Control Ordinance of the Town of Plainfield and all other ordinances which pertain to this type of work.
2. No changes in or departure from the plans or specifications shall be made without prior approval, in writing, by the Engineer.
3. The Contractor shall be responsible for obtaining all Federal, State, County and Town of Plainfield permits, or any other permits required.
4. Before construction begins, the Contractor shall field verify the location of all utilities shown on the plans, and contact all utility companies to locate all mains, conduits, service lines, etc., in the construction area, and shall protect all such utilities during construction.
5. Before construction begins, the Contractor shall notify the Owners, and/or the Owner's Engineer, so that an inspector may be present.
6. It shall be the responsibility of the Contractor to maintain quality control throughout the project; failure to do so may result in removal and replacement of the defective work. It is recommended that the Owner have a qualified inspector on the job site at all times during construction.
7. The Engineer shall be notified of all field tile located on the site during construction. All such field tile shall be incorporated into the storm sewer system so that it remains in working condition.
8. Plans shall be bid as a working system. Any errors or omissions shall be brought to the attention of the Engineer prior to construction. In the event of the Contractor's failing to give such notice, they shall be held responsible for the results of any such errors or omissions, and the cost of rectifying the same.
9. Structural fill shall be compacted in maximum 6" lifts to 95% standard proctor.
10. Liability Insurance Policy shall be furnished to the Owner before any work is started.
11. The contractor shall notify the Town of Plainfield at least 72 hours prior to any bonded or bank credit letter site improvements are installed. A pre-construction meeting shall be set up with the Town of Plainfield, Contractor, engineer & owner prior to any construction.
12. All accessible pathways, sidewalks and drive crossings shall not exceed 5% running slope and 2% cross slope or the latest requirements of the Americans with Disabilities Act (ADA). Accessible ramps shall not exceed 1/12 slope and 2% cross slope or the latest requirements of the Americans with Disabilities Act (ADA).
13. Accessible Ramp Detectable Warning Surface. A detectable warning surface shall consists of truncated domes and be placed at each street, highway or railroad crossing. The detectable warning surface shall extend a minimum of 2ft in the pedestrian travel and be placed the entire width of a ramp, blended transition, or turning space.
14. These plans shall be used in conjunction with Town of Plainfield standards, refer to sheet 1 of 29 for "directions for use."
15. Refer to general note #11 on sheet 1 of 29 of the Town of Plainfield standards for "Land Disturbing Mitigation Options".

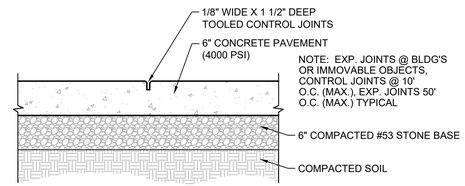
LEGEND

EXISTING

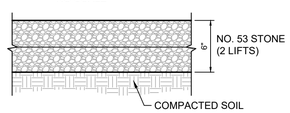
- OHU — OVERHEAD UTILITY LINE
- W — WATER LINE
- G — GAS LINE
- E — UNDERGROUND ELECTRIC LINE
- UFO — UNDERGROUND FIBER OPTIC LINE
- UNDERGROUND CABLE TV LINE
- ST — STORM SEWER LINE
- S — SANITARY SEWER LINE
- X — FENCE
- STORM SEWER STRUCTURES
- SANITARY SEWER STRUCTURES
- UTILITY POLE
- LIGHT POLE
- UTILITY VAULT
- WATER METER
- ELECTRIC TRANSFORMER
- FIRE HYDRANT
- SEWER CLEAN-OUT
- SIGN
- TREE

PROPOSED

- E — ELECTRIC LINE
- FLOWLINE
- FLOW DIRECTION
- 100.00 — SPOT GRADE
- ME — MATCH EXISTING



CONCRETE PAVEMENT
NO SCALE



GRAVEL SECTION
NO SCALE

Indiana 811
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Designed: SJH/RRL
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SITE DEVELOPMENT PLAN
BRENTWOOD & CLARKS CREEK ELEMENTARY - STORAGE BUILDINGS
PLAINFIELD, INDIANA

CHAD ZIEGLER — REGISTERED — No. PE11200667 — STATE OF INDIANA — PROFESSIONAL ENGINEER

BANNING ENGINEERING
853 COLUMBIA ROAD, SUITE #101
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BUS: (317) 707-3700 FAX: (317) 707-3800
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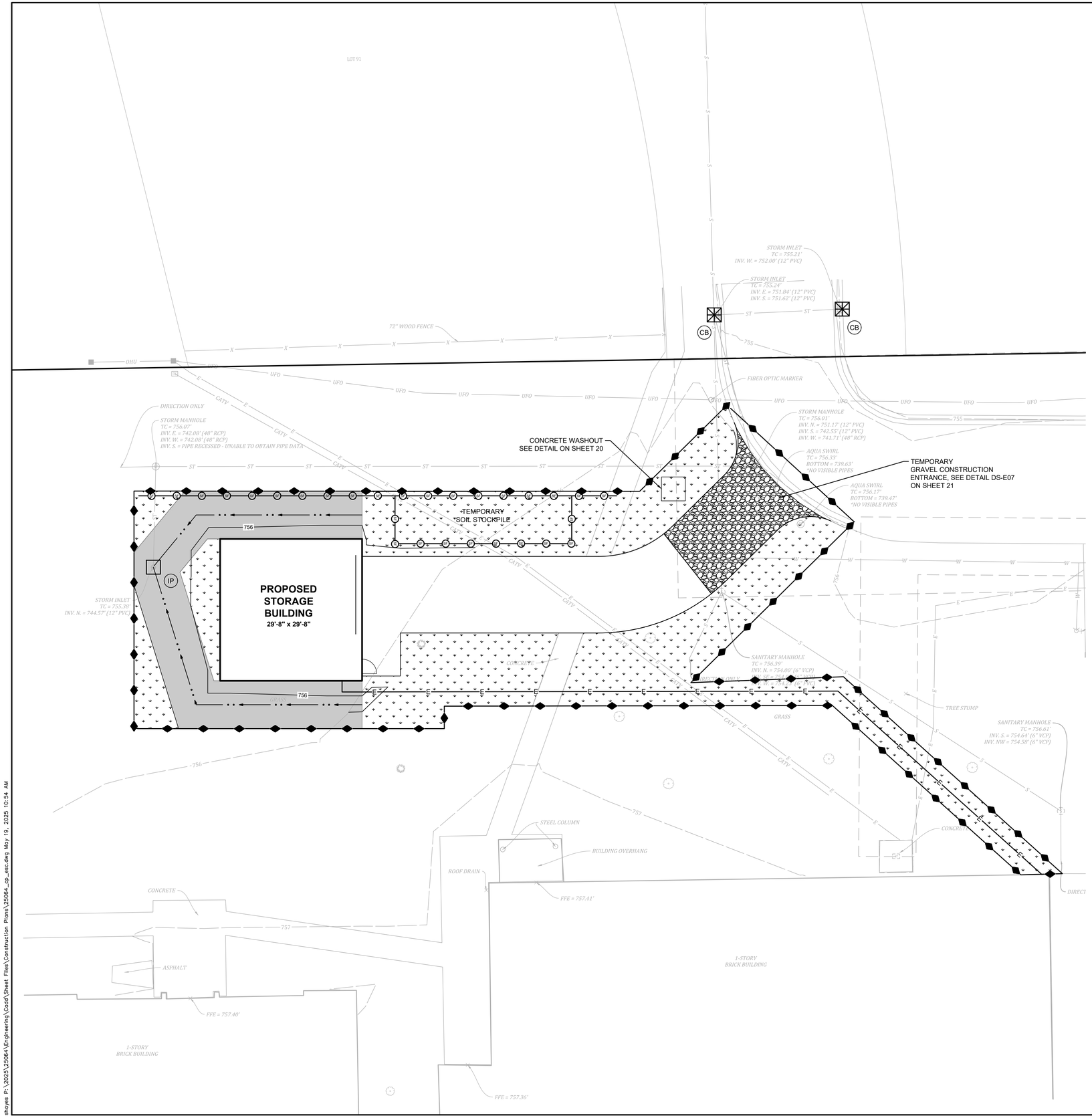
Project No: 25064
Sheet No: C111



0 10' 20'

EROSION CONTROL GENERAL NOTES

1. Only those areas within the designated construction limits are to be disturbed during construction.
2. Contractor to provide temporary surface stabilization of any area scheduled or likely to remain inactive for a period of 7 days or more.
3. Contractor to provide temporary signage near the entrance of the project identifying the responsible parties and other information about the project. Contractor is responsible for obtaining any necessary sign permits for this.
4. Contractor shall implement design concepts and storm water quality measures, which are shown on this plan, to reduce post construction pollutants discharging from the site.
5. All erosion control measures shall meet the Construction Stormwater General Permit requirements.
6. Refer to the "Indiana Storm Water Quality Manual", "The Urban Development Planning Guide", and Manufactures Recommendations for Installation for all required measures.
7. Inspection and repair of erosion control measures shall be done weekly and after each ½" rainfall event.

INITIAL EROSION CONTROL SEQUENCING

1. Setup a pre-construction meeting (at least 72 hours prior to construction) with Contractor, Developer, Engineer, and Town of Plainfield representative to discuss scheduling and sequencing of project.
2. Contractor shall prepare a self-monitoring plan and procedure, including documentation of weekly self monitoring operations. These documents must be kept on file and made available upon request.
3. Start construction log. This log will document the performance of each pollution prevention measure. A thorough site inspection should be completed weekly, and within 24 hours of every ½"rain event.
4. Install construction entrance drive and construction staging area on site as delineated on this sheet.
5. Establish concrete washout as delineated on this plan and associated details.
6. Post the approved clean water permit issued by the Town of Plainfield. Notify IDEM at (317-233-1684) and the Town of Plainfield within forty-eight hours of the beginning of construction activities.
7. Install perimeter silt fence and protection barriers.
8. Remove trees and rubbish only as needed for construction.
9. Begin mass earth work with the stripping of the topsoil. Stockpile topsoil in those areas designated on this plan. Any proposed offsite storage locations must receive prior written approval from the Developer and have a current clean-water permit. Temporary seed and mulch all stockpiles immediately upon completion.
10. Rough grade site, install erosion control measures as required.
11. Install remaining utilities.
12. Finish grade drives, stone base and concrete.
13. Finish grade site and replace topsoil.
14. Install erosion control blankets with permanent seeding, and other erosion control measures as shown.
15. Temporarily seed and mulch all areas scheduled or likely to remain inactive for 7 days or more.
16. Permanent seed and mulch all disturbed areas not covered by erosion control blankets or temporary seeding measures.
17. After construction is completed, vegetation established and permission received from Town of Plainfield representative, remove temporary erosion control measures.

EROSION CONTROL PLAN LEGEND

- (EB) EROSION CONTROL BLANKET W/PERMANENT SEEDING (NORTH AMERICAN GREEN S-150) SEE DETAIL ON SHEET 22
- (PS) PERMANENT SEEDING & MULCHING SEE DETAIL ON SHEET 22
- (CB) BASKET CURB INLET PROTECTION SEE DETAIL DS-E02 ON SHEET 21
- (IP) WELDED WIRE INLET PROTECTION SEE DETAIL DS-E03 ON SHEET 21
- CONSTRUCTION LIMITS
- (SF) SILT FENCE SEE DETAIL ON SHEET 20

REFERENCE:
'PLAINFIELD TOWN STANDARDS' FOR SHEETS 1-29

Indiana 811 Know what's below. Call before you dig.

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Drawn: SJH
Checked: RRL
Scale: 1"=10'
Date: 05-08-2025

Sym. | Revisions | Date

EROSION CONTROL PLAN
BRENTWOOD & CLARKS CREEK ELEMENTARY - STORAGE BUILDINGS
PLAINFIELD, INDIANA

W. CHAD ZIGLER REGISTERED No. PE11200667 STATE OF INDIANA PROFESSIONAL ENGINEER

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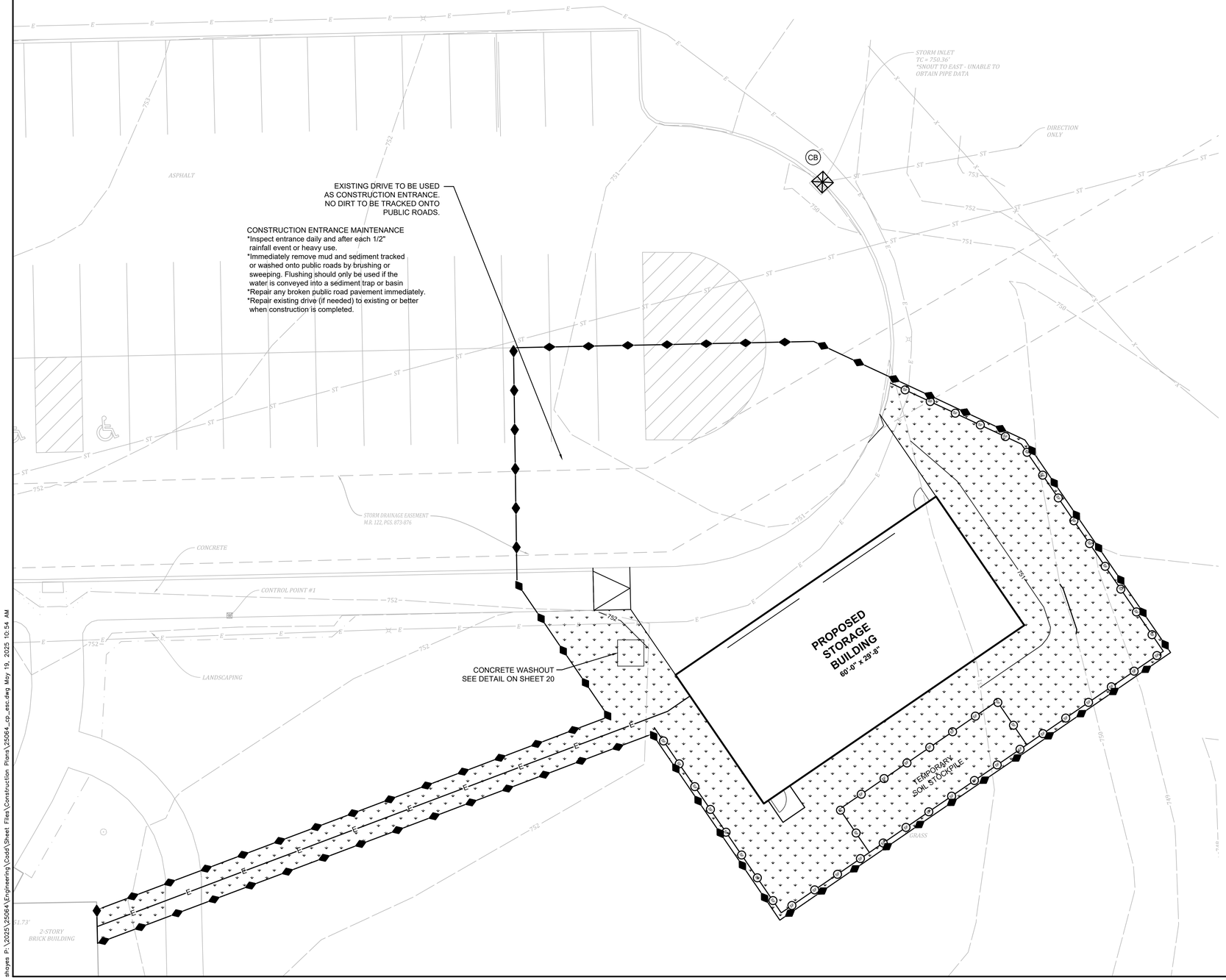
Project No: 25064
Sheet No: C400



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REFERENCE:
'PLAINFIELD TOWN STANDARDS' FOR SHEETS 1-29

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EROSION CONTROL PLAN
BRENTWOOD & CLARKS CREEK ELEMENTARY - STORAGE BUILDINGS
PLAINFIELD, INDIANA

W. CHAD ZIEGLER — REGISTERED No. PE11200667 STATE OF INDIANA — PROFESSIONAL ENGINEER

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Project No: 25064
Sheet No: C401

PLAINFIELD, INDIANA

TOWN STANDARDS

Town Standards Apply To Public Property & Private Property.

Developed In Accordance With Subdivision Control Ordinance & Zoning Ordinance.

The Entire Set Of Full Size Town Standards Shall Be Attached To The Construction Drawings And Shall Be Considered Part Thereto.

DATE OF CURRENT ISSUANCE: 01/01/2025

DIRECTIONS FOR USE

1.) Details, Notes, Or Specifications Prepared By Outside Sources Shall Not Be Included In The Construction Drawings When Said Details Cover Work Which Is Covered By Town Standards.

2.) Individual Town Standards That Do Not Apply May Be Crossed–Out By Design Engineer Through The Placement Of A Single Large X Over The Detail. Minor Reference Notations May Be Placed Adjacent To Individual Standard Titles For Coordination However, The Standards Themselves Shall Not Be Modified In Any Way.

3.) Details Prepared By Outside Sources Covering Work Which Is Not Covered By Town Standards Are The Sole Responsibility Of The Design Engineer And Shall Be Placed On Sheets Other Than The Town Standards Sheets.

4.) Failure To Properly Execute The Above Directions For Use Will Not Effect The Applicability Nor The Enforcement Of The Town Standards.

5.) Town Of Plainfield Shall Be Contacted When Required By Calling 317–839–3490.

INDEX

PLAINFIELD

GENERAL NOTES

1.) Contractor Shall Verify The Exact Location Of All Existing Utilities At Least 24 Hours Prior To Any Construction Or Excavation. During Construction, All Utilities Shall Be Adequately Supported To Minimize Damage. The Contractor Shall Be Responsible For Repairing Or Replacing Damaged Utilities To The Satisfaction Of The Town Of Plainfield And The Owner Of The Affected Utility.

2.) Installation Of Or Provisions For The Installation Of All Underground Utilities (Including Service Laterals) To Be Placed Under Pavement Areas Shall Be Established Prior To The Construction Of The Pavement. The Town Reserves The Right To Require Trenchless Construction For Crossing Of Existing Streets.

3.) All Benchmarks And Elevations Shall Be U.S.C. & G.S. Datum.

4.) Wherever Proprietary Equipment Is Specified, All Proposals For Substitution Shall Be Submitted In Writing To The Plainfield DPW And Shall Be Subject To The Findings Of The Plainfield DPW.

5.) Whenever A Non–Parallel Trench Opening Encroaches Within 5' Of An Existing Street Or Whenever Centerline Of Water Main Is Within 3' Of An Existing Street, Flowable Fill Shall Be Used For Trench Backfill.

6.) Except For Water Main Construction, Whenever A Non–Parallel Trench Opening Encroaches Within 5' Of A Proposed Street, Private Drive Or Sidewalk, Granular Backfill If Testing Confirms Compaction. Coarse Aggregate No. 8, Or Flowable Fill Shall Be Used For Trench Backfill.

7.) For Water Main Parallel With Adjacent Pavement And Having A Centerline Of Pipe At Least 3' Behind Back–Of–Curb, Approved Backfill Material May Be Used For Trench Backfill. Whenever Centerline Of Water Main Encroaches Within 3' Of A Proposed Street, Private Drive Or Sidewalk, Coarse Aggregate No. 8, Or Flowable Fill Shall Be Used For Trench Backfill.

8.) Approved Excavated Material May Be Used For Backfill Outside Of Limits Specified Herein And Under Proposed Sidewalks Provided Sidewalks Are Constructed 6 Months After Backfilling Of Trench. In Order For Excavated Material To Be Approved For Backfill It Shall Be Free Of Organic Material, Rocks Larger Than 6 Inches, Frozen Material, Debris, Excessive Water, Or Other Unsuitable Material As Determined By Plainfield DPW.

9.) Black Foundry Sand Is NOT Approved For Use In The Town Of Plainfield.

10.) Whenever Granular Backfill Is Placed In A Trench, Contractor Shall Compact Material To A Minimum Of 95% Maximum Dry Density As Per AASHTO T99. The Contractor Shall Demonstrate That Compaction Is Achieved By Means Of In Place Density Tests Performed By An Independent Testing Firm. Testing Frequency Shall Be One Test Per Trench Or 1 Test Per 100 Linear Feet Of Trench, Whichever Is Greater.

11.) In Order To Mitigate The Impact Of Land Disturbing Activities On The Public, The Town Currently Allows Two Options. Option 1: Preparation, Implementation, & Maintenance Of A Lime Stabilization Plan For Building Area, Activity Area Adjacent To Building, Access Road(s), & Staging Area Utilizing A Minimum Of 4" Of Compacted Aggregate No. 53 Over A Minimum Of 8" Thickness Lime Subgrade Treatment. Option 2: Preparation, Implementation, & Maintenance Of A Sufficient Washbay Area. If Option 2 Is Deemed Insufficient At The Sole Discretion Of The Town Engineer, Option 1 Will Need To Be Implemented Prior To Any Other Construction Activity Proceeding At The Site.

12.) The Construction Of New Combined Sewers Within The Town Of Plainfield's Service Area Is Prohibited. New Construction That Is Tributary To An Existing Combined Sewer Shall Be Designed To Minimize Or Delay The Inflow Contribution To The Existing Combined Sewer. Where New Construction Is Served By Existing Combined Sewers, The Inflow/Clear Water Connection To The Existing Combined Sewer Shall Be Made Separate And Distinct From The Sanitary Waste Connection To Facilitate Disconnection Of The Former If A Separate Storm Sewer Subsequently Becomes Available.

13.) As–Built Drawings Of All Storm Sewer, Water Main, And Sanitary Sewer Installation Shall Be Submitted To The Town Of Plainfield. As–Built Drawings Shall Be A Red Lined PDF Version Of The Drawing Showing All Changes And Deviations And GIS Shapefiles Showing Coordinates Of All Utility Locations. All Horizontal Coordinates Shall Be In The Horizontal Datum NAD 83 Indiana State Plane West Datum And All Elevations Provided In The As–Built Drawings Shall Be In The Vertical Datum NGVD 1988. GPS Collected Coordinates Shall Depict Actual Horizontal And Vertical Locations Of Utility Assets Such As, But Not Limited To: Manholes, System Valves, Hydrant, Blow–Offs, Air Release Valves, Master Meters, Cleanouts, Risers, Pump Stations/Wet Wells, And BMPs. Contractor Shall Submit As–Built Drawings Within 30 Days Of Successful Completion Of All Testing Requirements.

REVISIONS		
Rev. No.	Description	Date

DAVID LAFEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

DIRECTIONS FOR USE, GENERAL NOTES

SHEET 01 OF 29

GENERAL NOTES

1. The Right–Of–Way Widths, Pavement Widths, And Easement Widths Indicated On This Sheet Are Minimum Distances Required By The Town Of Plainfield. Greater Widths May Be Provided. The Contractor Shall Review The Plat And The Plans To Confirm The Various Widths Indicated On This Sheet And Shall Report Any Discrepancy To The Town Engineer Prior To Proceeding With Construction.

2. The Location Of Proposed Utilities As Indicated Hereon Are Based Upon The Experience Of The Town Of Plainfield And Are So Indicated To Ensure The Orderly Development Of The Land. Strict Adherence To The Indicated Location Is Required. Requests To Change The Location Of The Proposed Utilities Shall Be Submitted In Writing To The Town Engineer And The Director Of Public Works. Utilities Not Meeting These Requirements Shall Be Removed And And Replaced As Directed By The Town Engineer.

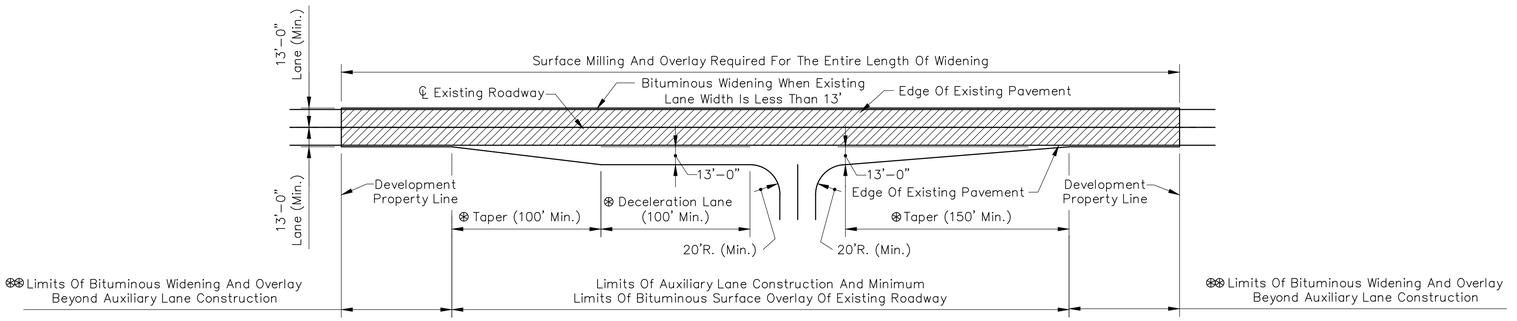
3. Arterial Streets And Divided Arterial Streets Are To Be Coordinated With The Town Engineer And Shall Be In Accordance With The Minimum Design Standards Outlined By The Subdivision Control Ordinance.

4. Local Residential Streets Require Only Stop Bars And Crosswalk Marking. Markings Shall Be Thermoplastic In Accordance With The Most Recent INDOT Standard Specification. Refer To Such Drawings Covering Pavement Markings, Street Signs, And Traffic Control Signs. A Plan Of Proposed Pavement Markings Shall Be Submitted To The Plainfield DPW For Approval. For Streets Requiring Resurfacing With Surface Overlay, Mill 8 Feet Wide Along Sides Of Street To A Depth Of 2". Overlay Terminations Shall Also Be Milled 2".

5. Vertical Curves Of A Minimum Length Of 20 Feet Shall Be Provided At All Grade Changes in Accordance with The Town Of Plainfield Subdivision Control Ordinance. For Phased Development, The Vertical Curve Shall Be Constructed To The EVC.

6. Provide A Minimum 0.5% Grade At Curb Flowlines.

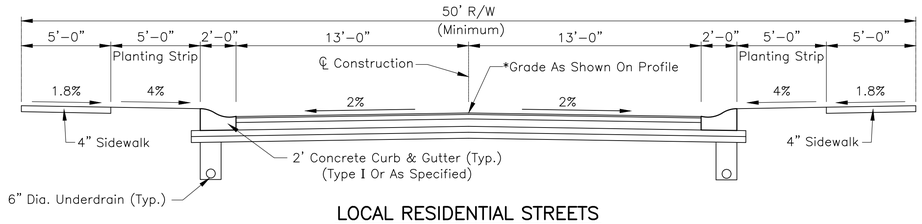
7. Selection Of Combination Of Sidepath, Sidewalk, And Planting Strip Widths Shall Be Selected And Approved By The Town Of Plainfield.



NOTES:
⊛ Taper and Deceleration Lane Length Shall Be Designed Based Upon Design Speed Of Existing Roadway
⊛⊛ Bituminous Widening And Overlay Required When Development's Frontage Extends Beyond the Limits Of The Auxiliary Lane Construction

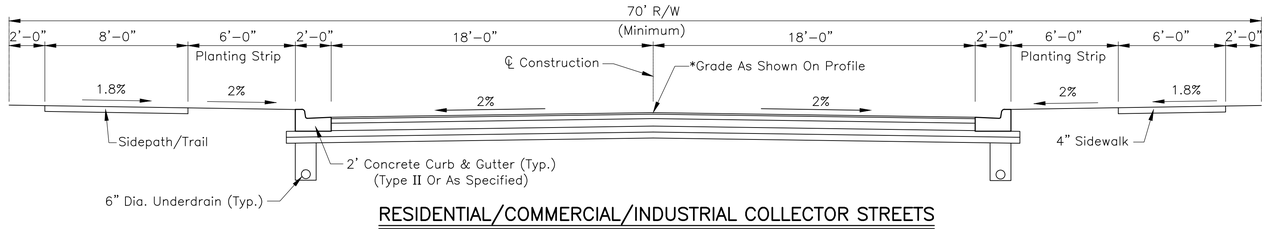
AUXILIARY LANE CONSTRUCTION

Scale: 1/4" = 1'–0"



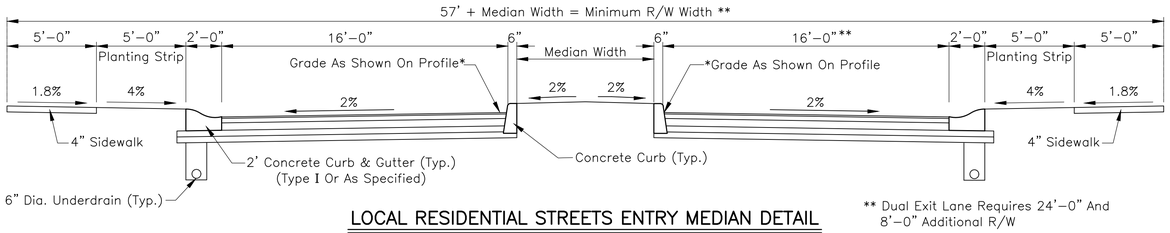
LOCAL RESIDENTIAL STREETS

Scale: ¼"=1'–0"



RESIDENTIAL/COMMERCIAL/INDUSTRIAL COLLECTOR STREETS

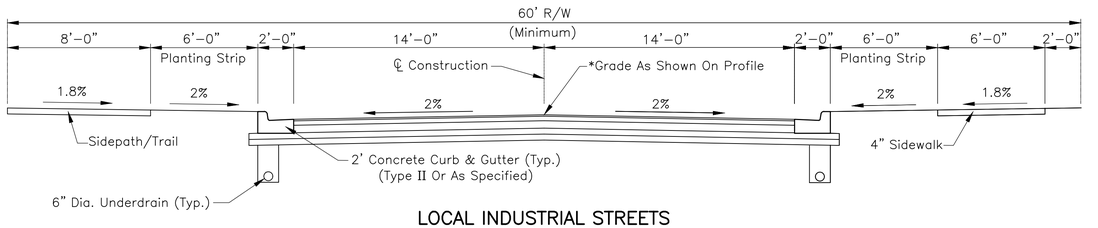
Scale: ¼"=1'–0"



LOCAL RESIDENTIAL STREETS ENTRY MEDIAN DETAIL

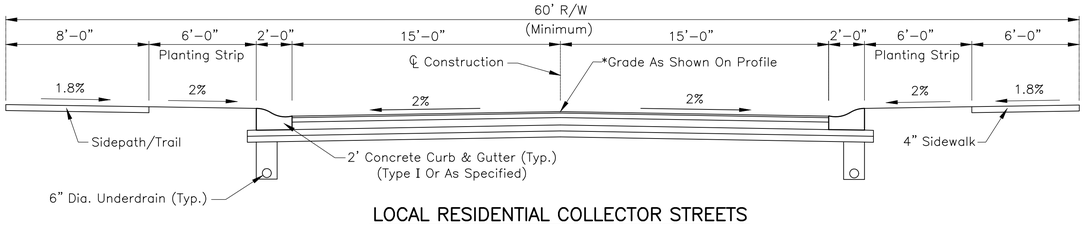
Scale: ¼"=1'–0"

** Dual Exit Lane Requires 24'–0" And 8'–0" Additional R/W



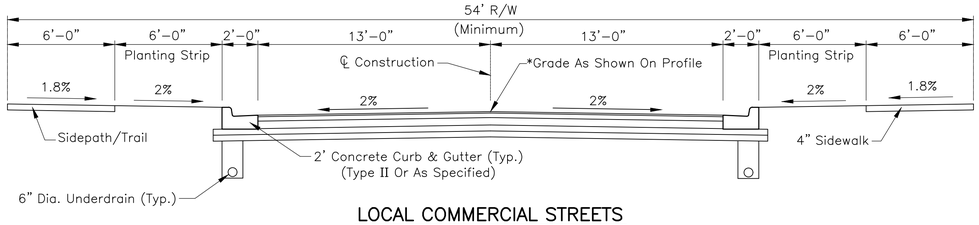
LOCAL INDUSTRIAL STREETS

Scale: ¼"=1'–0"



LOCAL RESIDENTIAL COLLECTOR STREETS

Scale: ¼"=1'–0"



LOCAL COMMERCIAL STREETS

Scale: ¼"=1'–0"

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DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

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APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

RIGHT–OF–WAY, UTILITY EASEMENT & UTILITY LOCATION GUIDELINES

SHEET 02 OF 29

PAVEMENT CONSTRUCTION

1.) Subbase And Subgrade Shall Be At Least 100 Percent Of The Maximum Dry Density In Accordance With AASHTO T99. Compaction Testing Shall Be At The Contractor's Expense And Shall Be Preformed By An Independent Laboratory. Test Results Shall Be Submitted To The Director Of Public Works Prior To Placing Any Material On The Subbase Subgrade. One In-Place Density Test Shall Be Completed For Each Lift For Every 400 Linear Feet Of Traffic Lanes.

2.) For Local Residential Streets With Concrete Pavement, Four Inch Compacted Aggregate No. 53 Is Optional If Adequate Subgrade Is Present. Adequacy Of Subgrade Shall Be Determined Solely By The Town Based On A Contractor Performed Proof-Roll With A Fully Loaded Tri Axle Dump Truck.

3.) Hot Poured Joint Adhesive Shall Be Applied To Longitudinal Joints Constructed Between Two Adjacent HMA Surface And Intermediate Courses In Accordance With The Most Recent INDOT Standard Specifications.

Liquid Asphalt Sealant Shall Be Applied To Longitudinal Joints A Minimum Width Of 24 In., Centered On The Joint Line In Accordance With The Most Recent INDOT Standard Specifications.

4.) Wherever Rigid Pavement Is To Be Used, The Contractor Shall Submit A Detailed Paving Plan To The Town Engineer. The Paving Plan Shall Show The Location And Type Of Jointing To Be Used In The Construction. The Location And Type Of Jointing Shall Meet The Requirements Of The Most Recent INDOT Standard Details.

5.) Upon Approval Of The Mix Design By The Town Engineer, Chemical Modification Of Soils Per INDOT Standard Specifications Section 215, Shall Be Performed To A Minimum Depth Of 14 Inches. Following Soil Modification, Compaction Shall Be Performed Until The Modified Layer Has A Density Not Less Than 100% Of The Maximum Dry Density Or The Zone Below The Modified Layer Has A Density Not Less Than 95% Of The Maximum Dry Density. Maximum Dry Densities Shall Be Determined In Accordance With AASHTO T99. The Mix Design Shall Be Determined In Accordance With INDOT Design Procedures For Soil Modification Or Stabilization. The Proposed Design And Construction Procedure Shall Be Submitted To The Town Engineer. Unsatisfactory Soil Modifications, As Determined By The Town Engineer, May Require An Increase In Depth Of The Aggregate Base Or Binder. Tensar TriAx Geogrid May Be Used In Lieu Of, Or In Conjunction With, The Chemical Modification Of Soils, As Directed By The Town Engineer. In Conjunction With The Usage Of Tensar TriAx Geogrid, A Modified Pavement Section May Be Provided By The Town Engineer.

6.) The Town Engineer May Require Polypropylene (PP) Fiber In The Surface HMA Mixture Where Heavy Truck Traffic Is Expected To Impact Pavement Sections.

CURB RAMP CONSTRUCTION

1.) All Curb Ramps Shall Meet The Requirements Of The Americans With Disabilities Act, The Most Recent INDOT Standard Specifications And The Town Of Plainfield's Most Recent Standards. Curb Swipes Required For Handicap Ramps Shall Be Provided With Initial Curb Construction.

2.) Minimum Width Of Curb Ramp Shall Be 4 Feet, Not Including Flares. Maximum Slope Of Ramps Shall Be 8.33% (12:1). Handicap Ramps Are To Be Located As Shown On The Plans, Or As Directed By The Town Engineer Or Director Of Public Works.

3.) Type E Ramps Shall Be Provided At The Center Line Of The Radius At All Corners Of Every Street Intersection Where There Is An Existing Or Proposed Sidewalk And Curb. In Case Of "T" Intersection, A Type C Ramp Shall Be Provided Adjacent To Each Corner Ramp. Type C Ramps Also Shall Be Provided At Walk Locations At Mid-Block In Hospital, Medical Center Or Athletic Stadium Vicinities. The Use Of Details Contrary To Those Shown Hereon Shall Require The Prior Written Approval Of The Town Engineer.

4.) Surface Texture Of The Ramp Shall Be That Obtained By A Coarse Brooming Transverse To The Slope Of The Ramp.

5.) Ramps Shall Be Provided Where The Driveway Curb Extends Across The Sidewalk.

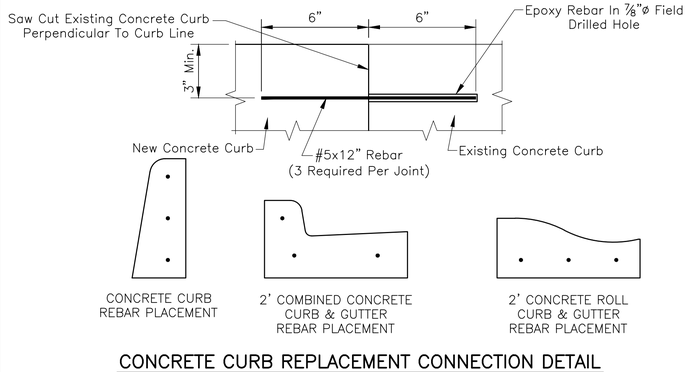
6.) Care Shall Be Taken To Assure A Uniform Grade On All Ramps With No Grade Breaks.

7.) Drainage Structures Shall Not Be Placed In Line With The Ramps Except Where Existing Drainage Structures Are Being Utilized In The New Construction. Location Of The Ramps Shall Take Precedence Over Location Of Drainage Structures.

8.) The Normal Gutter Line Profile Shall Be Maintained Through The Area Of The Ramp.

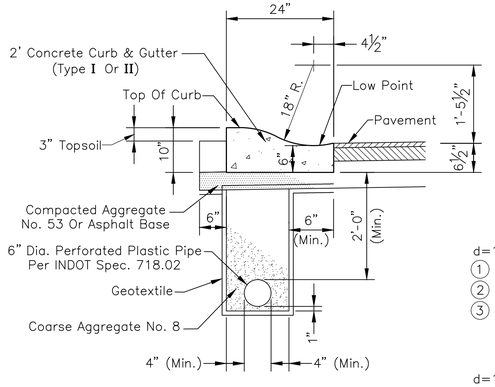
9.) Expansion Joint For The Ramp Shall Be A Maximum 1/2" Wide. The Top Of The Joint Filler For All Ramp Types Shall Be Flush With Adjacent Concrete.

10.) Slope Of Ramp May Be Warped When Field Conditions Warrant And When Approved By The Town Engineer Or Director Of Public Works.



CONCRETE CURB REPLACEMENT CONNECTION DETAIL

Not To Scale

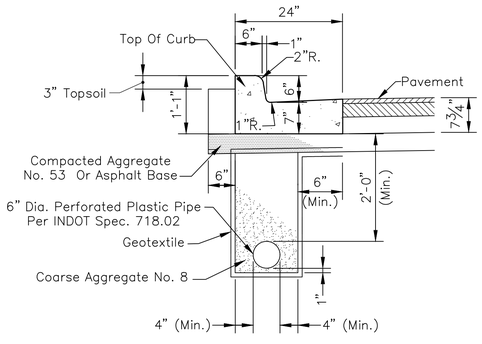


TYPE I

See Development Standards For Depressed Concrete Roll Curb If Desired At A Private Drive That Intersects A Public Road With Type I Curb.

2' CONCRETE ROLL CURB & GUTTER

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

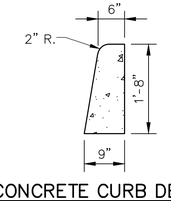


TYPE II

See Development Standards For Reinforced Concrete Gutter Which Is Required At All Private Drives That Intersect A Public Road With Type II Curb Or Similar.

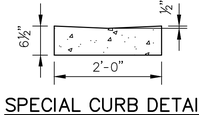
2' COMBINED CONCRETE CURB & GUTTER

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



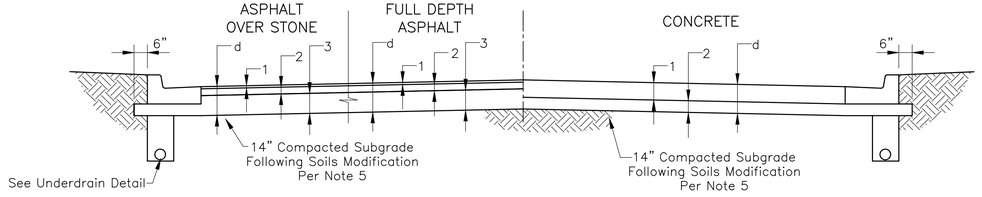
CONCRETE CURB DETAIL

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



SPECIAL CURB DETAIL

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



LOCAL RESIDENTIAL STREETS

d=11"
1. 165 lbs/sys, QC/QA-HMA, 2, PG 58S-28, Surface, 9.5mm
2. 385 lbs/sys, QC/QA-HMA, 2, PG 58S-28, Inter., 19.0mm
3. 6" Compacted Aggregate No. 53 (2 Lifts)

d=10"
1. 6", PCCP
2. 4" Compacted Aggregated No. 53 (See Note 2)

LOCAL RESIDENTIAL COLLECTOR AND LOCAL COMMERCIAL/INDUSTRIAL STREETS

d=12"
1. 220 lbs/sys, QC/QA-HMA, 2, PG 58S-28, Surface, 12.5mm
2. 275 lbs/sys, QC/QA-HMA, 2, PG 58S-28, Inter., 19.0mm Over 385 lbs/sys, QC/QA-HMA, 2, PG 58S-28, Base, 25.0mm
3. 4" Compacted Aggregate No. 53

d=10"
1. 220 lbs/sys, QC/QA-HMA, 2, PG 58S-28, Surface, 12.5mm
2. 275 lbs/sys, QC/QA-HMA, 2, PG 58S-28, Inter., 19.0mm
3. 275 lbs/sys, QC/QA-HMA, 2, PG 58S-28, Base, 19.0mm Over 330 lbs/sys, QC/QA-HMA, 2, PG 58S-28, Base, 25.0mm

d=11"
1. 7", PCCP
2. 4" Compacted Aggregated No. 53

RESIDENTIAL/COMMERCIAL/INDUSTRIAL COLLECTOR AND SECONDARY ARTERIAL STREETS

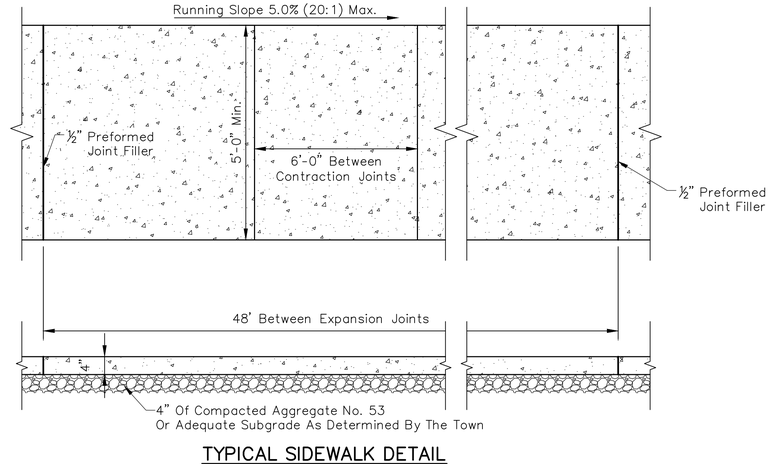
d=13"
1. 220 lbs/sys, QC/QA-HMA, 3, PG 58H-28, Surface, 12.5mm
2. 275 lbs/sys, QC/QA-HMA, 3, PG 58H-28, Inter., 19.0mm Over 385 lbs/sys, QC/QA-HMA, 3, PG 58H-28, Base, 25.0mm
3. 5" Compacted Aggregate No. 53

d=12"
1. 220 lbs/sys, QC/QA-HMA, 3, PG 58H-28, Surface, 12.5mm
2. 330 lbs/sys, QC/QA-HMA, 3, PG 58H-28, Inter., 19.0mm
3. 330 lbs/sys, QC/QA-HMA, 3, PG 58H-28, Base, 25.0mm Over 440 lbs/sys, QC/QA-HMA, 3, PG 58H-28, Base, 25.0mm

d=11½"
1. 7.5", PCCP
2. 4" Compacted Aggregated No. 53

PAVEMENT CONSTRUCTION

Not To Scale



TYPICAL SIDEWALK DETAIL

Not To Scale

REVISIONS		
Rev. No.	Description	Date

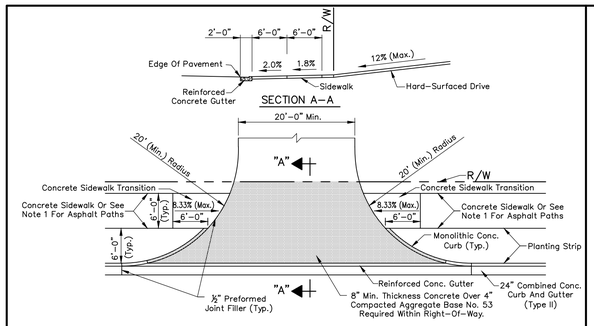
DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

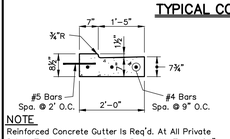
PAVEMENT, CURB & SIDEWALK DETAILS & NOTES

SHEET 03 OF 29



TYPICAL COMMERCIAL PRIVATE DRIVE

Scale: None



NOTE

Reinforced Concrete Gutter Is Req'd. At All Private Drives That Intersect A Public Road With Type II 24" Combined Concrete Curb And Gutter Or Similar.

REINFORCED CONCRETE GUTTER

Scale: None

1.) Asphalt Path Terminations Within The Public Right-Of-Way At Commercial Drives, Private Drives, Or Approaches Shall Be Accomplished With A 6' Minimum Length Of Concrete Sidewalk Transition (Increase Length Of Concrete Sidewalk Transition As Required To Meet The 8.33% (12:1) Maximum Slope Requirement) So That The Asphalt Path Meets The Concrete Sidewalk Transition At A Neat Line Perpendicular To The Path Alignment.

2.) The Maximum Algebraic Difference In Grades For Any 10 Foot Interval Shall Not Exceed 8% For Crests, Nor 10% For Sags.

3.) Concrete Drives Require Control Joints At A Maximum Of Every 10 Feet Each Way.

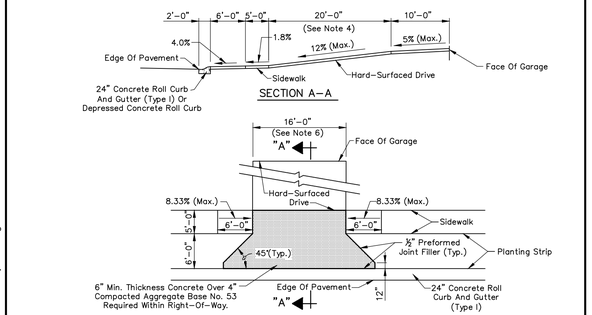
4.) Use Actual Setback As Shown On Plat And As Provided By The Town Of Plainfield Zoning Ordinance.

5.) Plainfield DPW May Approve Alternate Paving Materials Matching Suitable Mainline Pavement.

PRIVATE DRIVE CULVERT PIPE AND END SECTIONS

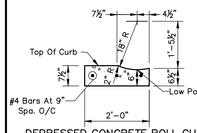
1.) Except With The Prior Written Approval Of The Town Engineer, Culvert Pipe, And End Sections For New Installations Shall Be Reinforced Concrete Pipe In Accordance With The Town Standards. Zinc Coated Or Aluminum Coated Corrugated Metal Pipe Culverts, Couplers, And End Sections In Accordance With The Most Recent INDOT Specification May Be Permitted For Replacement Culverts In Areas Where Reinforced Concrete Pipe Is Used By One-Third Or Less Of 3 Properties Upstream And Downstream Of The Subject Replacement On The Same Side Of The Subject Street.

DEVELOPMENT STANDARD - DETAIL DS-R01



TYPICAL RESIDENTIAL PRIVATE DRIVE

Scale: None



DEPRESSED CONCRETE ROLL CURB

Scale: None

1.) The Maximum Algebraic Difference In Grades For Any 10 Foot Interval Shall Not Exceed 8% For Crests, Nor 10% For Sags.

2.) Frontage Of Lots Shall Drain To Adjacent Streets Except With The Prior Approval Of Plainfield DPW.

3.) Concrete Drives Require Control Joints At A Maximum Of Every 10 Feet Each Way.

4.) Use Actual Setback As Shown On Plat And As Provided By The Town Of Plainfield Zoning Ordinance.

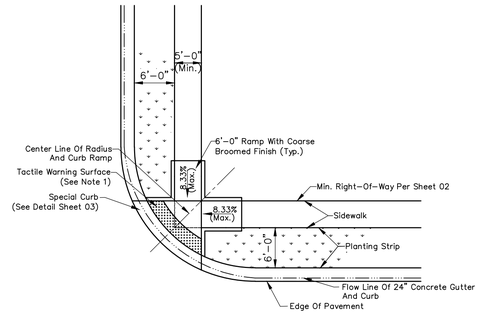
5.) Plainfield DPW May Approve Depressed Concrete Roll Curb And Alternate Paving Materials.

6.) A Minimum Width Of 16 Feet Is Required And A Maximum Width Of 24 Feet May Be Approved By The Plainfield DPW.

PRIVATE DRIVE CULVERT PIPE AND END SECTIONS

1.) Except With The Prior Written Approval Of The Town Engineer, Culvert Pipe, And End Sections For New Installations Shall Be Reinforced Concrete Pipe In Accordance With The Town Standards. Zinc Coated Or Aluminum Coated Corrugated Metal Pipe Culverts, Couplers, And End Sections In Accordance With The Most Recent INDOT Specification May Be Permitted For Replacement Culverts In Areas Where Reinforced Concrete Pipe Is Used By One-Third Or Less Of 3 Properties Upstream And Downstream Of The Subject Replacement On The Same Side Of The Subject Street.

DEVELOPMENT STANDARD - DETAIL DS-R02



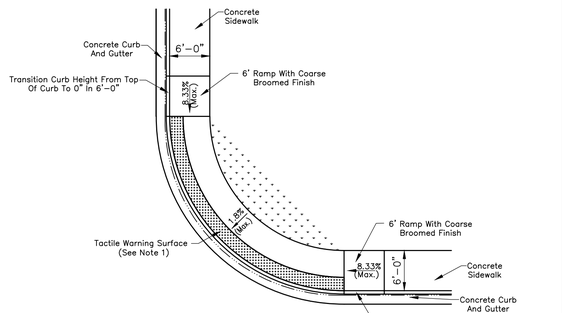
(See Curb Ramp Construction Notes On Sheet 03 Of Plainfield Standards)

CURB RAMP, TYPE F

Scale: None

NOTES:
1.) Tactile Warning Surface Shall Be Dark Brick Red Color And Shall Be Manufactured By ADA Solutions, INC., Or As Approved By Plainfield DPW.
2.) Transition Gutter Flowline To Midpoint Of Concrete Curb And Gutter At Curb Ramp.

DEVELOPMENT STANDARD - DETAIL DS-R03



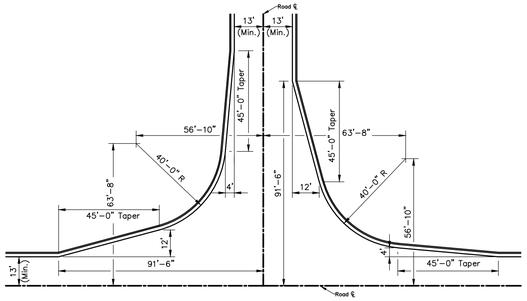
(See Curb Ramp Construction Notes On Sheet 03 Of Plainfield Standards)

CURB RAMP, TYPE F

Scale: None

NOTES:
1.) Tactile Warning Surface Shall Be Dark Brick Red Color And Shall Be Manufactured By ADA Solutions, INC., Or As Approved By Plainfield DPW.
2.) Transition Gutter Flowline To Midpoint Of Concrete Curb And Gutter At Curb Ramp.

DEVELOPMENT STANDARD - DETAIL DS-R04



Direction Of Traffic

PUBLIC ROAD APPROACH/INDUSTRIAL TRUCK ENTRANCE

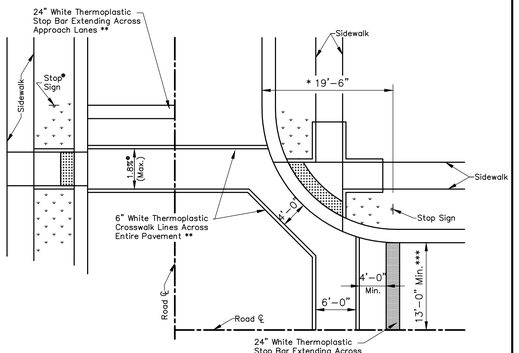
Scale: 1/32"=1'-0"

1.) Public Road Approaches And Commercial Private Drives Shall Accommodate Semi-Trailers And Other Large Vehicles Where Right-Turn Movements Are Expected.

2.) Design And Pavement Material Of Public Roads Shall Be Developed Per Sheet 02 And 03 Of The Town Standards. Design And Pavement Material Of Typical Commercial Private Drives Shall Be Per Development Standard DS-R01 On This Sheet.

3.) Minimum Recommended Dimensions Are Indicated. Approaches Should Be Adjusted For Angled Intersections, Functional Class Of Intersecting Routes, And Location Of Intersection.

DEVELOPMENT STANDARD - DETAIL DS-R05



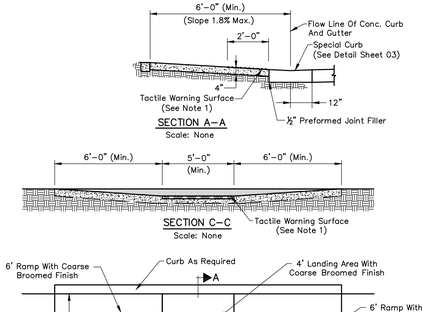
(See Curb Ramp Construction Notes On Sheet 03 Of Plainfield Standards)

PUBLIC ROAD APPROACH-RESIDENTIAL

Scale: None

* Distance To Be Adjusted For Acute Angle Intersections
** See General Note 4 On Sheet 02 For Thermoplastic Requirements
*** Unless Otherwise Approved By The Town Engineer
● Ped. Crossing Sign Shall Be Used And A 5.0% Max Cross Slope Is Allowed If Intersection Is Not Stop Or Yield Controlled

DEVELOPMENT STANDARD - DETAIL DS-R06



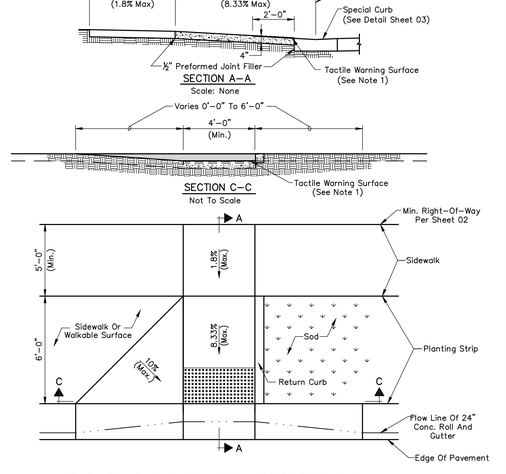
(See Curb Ramp Construction Notes On Sheet 03 Of Plainfield Standards)

CURB RAMP, TYPE K

Scale: None

NOTES:
1.) Tactile Warning Surface Shall Be Dark Brick Red Color And Shall Be Manufactured By ADA Solutions, INC., Or As Approved By Plainfield DPW.
2.) Transition Gutter Flowline To Midpoint Of Concrete Curb And Gutter At Curb Ramp.

DEVELOPMENT STANDARD - DETAIL DS-R07



(See Curb Ramp Construction Notes On Sheet 03 Of Plainfield Standards)

CURB RAMP, TYPE C

Scale: None

NOTES:
1.) Tactile Warning Surface Shall Be Dark Brick Red Color And Shall Be Manufactured By ADA Solutions, INC., Or As Approved By Plainfield DPW.
2.) Transition Gutter Flowline To Midpoint Of Concrete Curb And Gutter At Curb Ramp.

DEVELOPMENT STANDARD - DETAIL DS-R08

REVISIONS		
Rev. No.	Description	Date

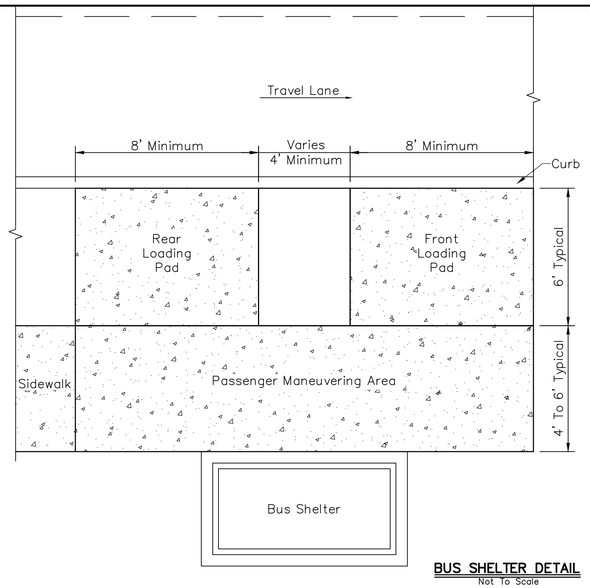
DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

ROADWAY (R)
DEVELOPMENT STANDARDS

SHEET 04 OF 29



BUS SHELTER DETAIL
Not To Scale

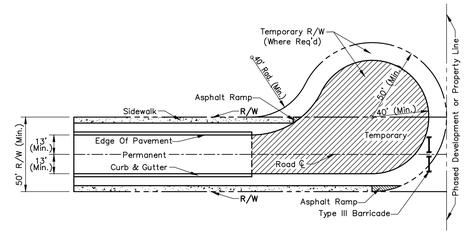
Bus Shelter Location And Pad Notes:

1. Shelters Shall Be Located A Minimum Of 100 Feet From Any Intersection Measured Mid-Radius From The Intersection Curb Subject To Town Review.
2. The Shelter Opening Shall Be Oriented Toward The Passenger Maneuvering Area.
3. Loading Pads And Passenger Maneuvering Area Shall Be 4 Inches Of Concrete On Top Of 4 Inches Of Compacted Aggregate Base, No. 53.
4. The Pad For The Bus Shelter Shall Be A Minimum Of 1 Foot Wider And 1 Foot Longer Than The Dimensions Of The Bus Shelter. The Pad Shall Be Engineered Per Manufacturer's Recommendations Based Upon The Sizing Of The Shelter.

Bus Shelter Notes:

1. Shelter And Wall Accessories Shall Be The Slimline Arched Model As Manufactured By Brasco International Or A Town Approved Equal. Shelters Shall Be Engineered By The Manufacturer To Meet Wind, Snow, And Seismic Loadings. Shelters May Vary In Size Between 4 Feet Wide By 8 Feet Long and 6 Feet Wide By 18 Feet Long Depending On The Amount Of Passengers Estimated At An Individual Stop.
2. Shelter Frame Shall Be Powder Coated Signal Gray (RAL 7004).
3. Shelter Roof Shall Be Shed Style With A Minimum 6 Inches Of Overhang Past The Opening, Acrylic, And Shall Be Signal White (RAL 9003).
4. Shelter Wall Panels Shall Be Glass. Shelter Wall Side Wall Panels Shall Include The Plainfield "P" Logo Ceramic Baked Into The Glass. An Advertisement Box May Be Included As One Of The Shelter Wall Panels.
5. Shelters Shall Be Provided With Wall Mount Benches On The Interior Of All Walls. Wall Mount Benches Shall Be Powder Coated Signal Gray (RAL 7004).
6. Shelters Shall Include A Solar Powered Lighting Package And Wall-Mounted Map Case.
7. A Signal White (RAL 9003) "Stop Name" Plate With Luminous Bright Red (RAL 3026) Lettering Shall Be Provided On The Front Of The Shelter.

DEVELOPMENT STANDARD – DETAIL DS-R09



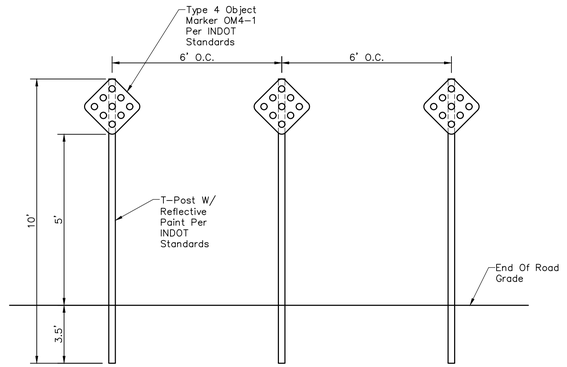
TEMPORARY CUL-DE-SAC
Scale: None

1.) When Streets Are Temporarily Dead-End, A Temporary Cul-De-Sac Shall Be Constructed. Permanently Dead-End Streets Are Prohibited By The Subdivision Control Ordinance.

2.) Right-Of-Way And Back-Of-Curb Diameter Shall Be In Conformance With The Minimum Design Standards For Streets In The Subdivision Control Ordinance.

3.) Temporary Pavement Section Shall Match The Thickness Of The Permanent Pavement Section. Temporary Pavement Section Shall Consist Of 4" Of HMA Intermediate And No. 53 Stone To Match The Depth Of The Permanent Pavement Section.

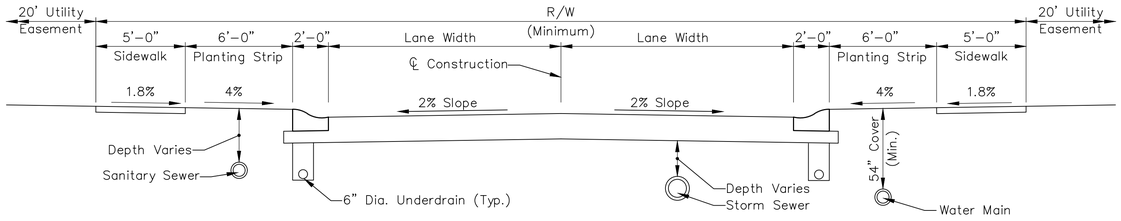
DEVELOPMENT STANDARD – DETAIL DS-R10



Note:
End Of Street Detail For Collector Or Above Subject To Town Engineer Approval.

END OF STREET BARRICADE DETAIL
No Scale

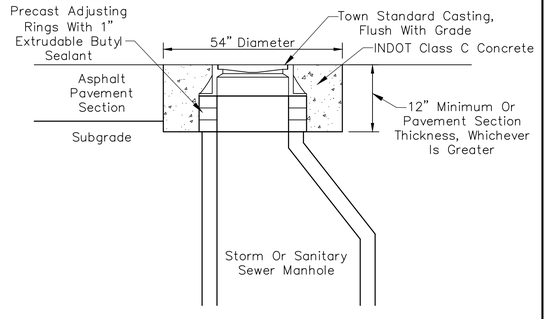
DEVELOPMENT STANDARD – DETAIL DS-R11



TYPICAL ROAD UTILITY SECTION
Scale: ¼"=1'-0"

1.) Utility easements located along a Street Right-of-Way shall have a minimum width of twenty (20) feet, provided, however, the first five (5) feet of such utility easement measured from the Street Right-of-Way shall be reserved exclusively for use as a Town utility easement for sewer and water.

DEVELOPMENT STANDARD – DETAIL DS-R12



MANHOLE CASTING AND PAVEMENT REPAIR
Scale: None

Notes:

1.) Contractor Shall Survey The Center Of The Casting Location So That It Can Be Established After Paving.

2.) Cover The Manhole Opening With A Steel Plate And Pave Over The Manhole With All Necessary Layers Of HMA Including Surface.

3.) Perform A Circular Cut Of 54-Inch Diameter To A Depth Below The HMA Courses.

4.) Remove And Replace HMA With A Concrete Collar Repair With The Required Casting Adjusted To Grade Via Precast Concrete Adjusting Rings.

DEVELOPMENT STANDARD – DETAIL DS-R13

REVISIONS		
Rev. No.	Description	Date

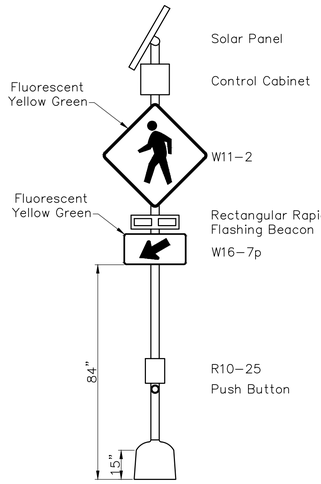
DAVID LAHEY
REGISTERED
No. PE19700063
STATE OF
INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

BUS SHELTER DETAILS & MISCELLANEOUS DETAILS

SHEET 05 OF 29

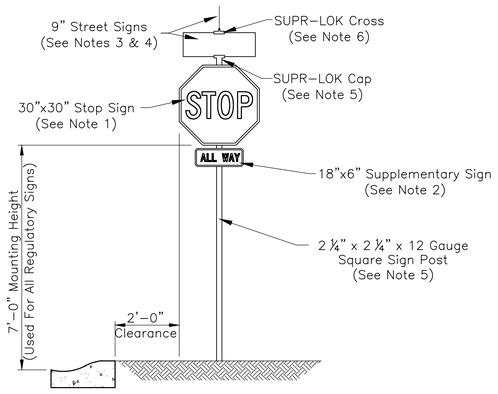


RECTANGULAR RAPID FLASHING BEACON ASSEMBLY

Scale: None

Notes:

1.) Push Button And R10–25 Sign Shall Be Installed On Reverse Side Of Assembly.
2.) All Pedestrian Warning Signs Shall Have A Black Legend And Border On A Fluorescent Yellow–Green Background.
3.) The Center On The Push Button Shall Be Installed 42" Vertically Above The Accessible Pedestrian All Weather Surface.
4.) Push Buttons Shall Be Installed Within A 10" Horizontal Reach Of The Accessible Pedestrian All Weather Surface.
5.) Town Of Plainfield May Require Pole Painting Depending On Location.

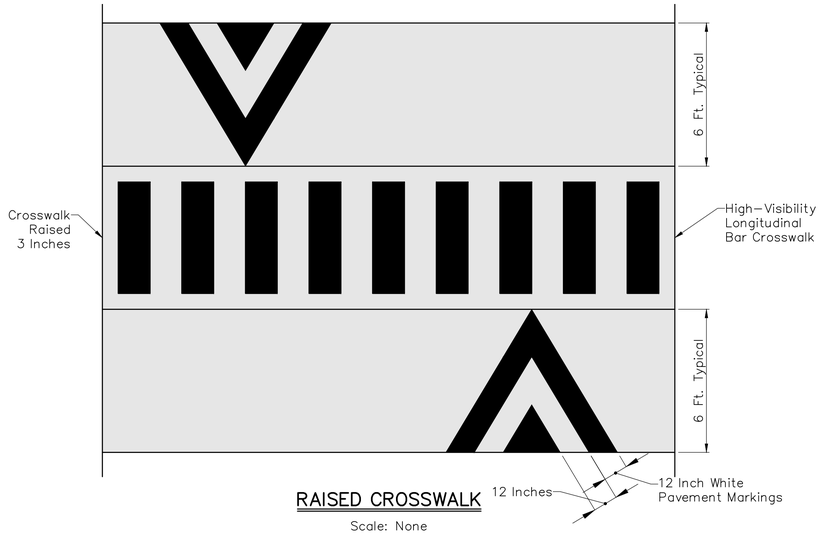


All Bolts And Hardware Shall Be Aluminum Or Stainless Steel

TYPICAL REGULATORY/WARNING SIGN REQUIREMENTS

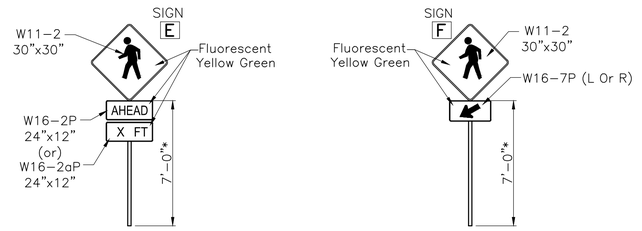
Scale: None

1.) Stop Sign (R1–1) Shall Be High Intensity And In Accordance With Most Recent Indiana Manual On Uniform Traffic Control Devices. Unless Otherwise Detailed On This Sheet, Other Regulatory Signs Shall Be A Minimum Of 18"x24".
2.) A Multi–Way Stop Intersection Requires An "ALL WAY" (R1–3P) Supplementary Sign 18" Wide By 6" Tall In Accordance With Said Manual.
3.) Streets Shall Be So Signed At Non–Signalized Intersections With Two Such Street Sign Assemblies Typically Required. Separate 12' Square Sign Post For Street Signs Permitted Only At Signalized Intersections.
4.) Street Signs Shall Be 9" Tall Extruded Aluminum (6063–T6) Green Background With White Letters.
5.) Regulatory Signs, Other Than Stop Signs, Shall Be Mounted On 12' – 2 ¼" x 2 ¼" x 12 Gauge Square Sign Posts. SUPR–LOK Cap Shall Be Model #97SQX. Regardless If Material For Posts Is Other Than As Shown Hereon, Mounting Height Shall Be 7'–0" From Roadway Edge Of Pavement
6.) SUPR–LOK Cross Shall Be Model #990X. For Non–Urban Intersections, Stop Sign To Be Placed A Minimum Of 6' From Cross–Street.
7.) For Urban Intersections See Handicap Ramp Detail On Sheet 4 Of The Town Standards.



RAISED CROSSWALK

Scale: None



NOTES:

1.) * Mounting Height From Roadway Edge Of Pavement. (Typ. 2.)
2.) All Black Lettering Is Scotchcal 7725 (Or Equal)

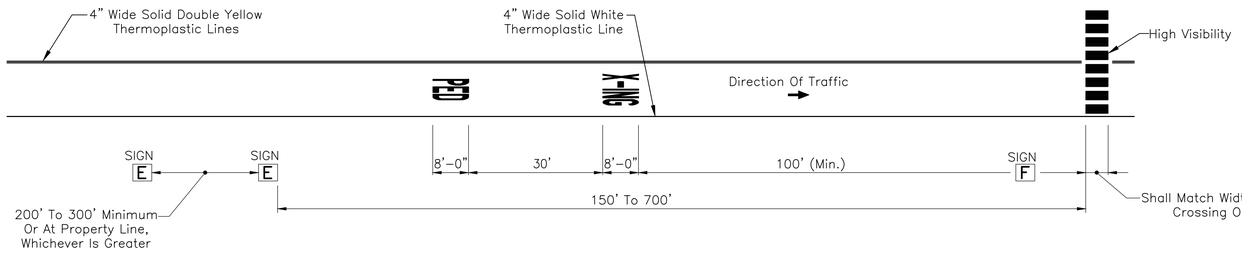
REGULATORY/WARNING SIGN DETAILS

Scale: None

GENERAL NOTES:

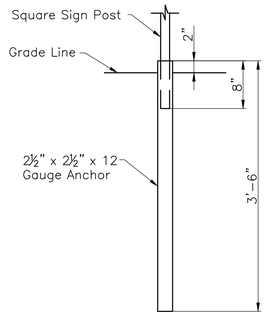
1.) All Regulatory Signs Shall Be High Intensity And In Accordance With The Indiana Manual On Uniform Traffic Control Devices, Most Recent Edition.

2.) All Pavement Markings Shall Be White Thermoplastic And Span Across Approach Lanes.



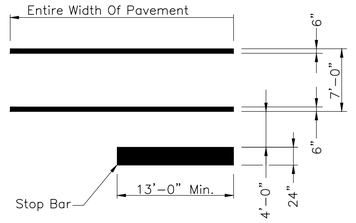
PEDESTRIAN CROSSING APPROACH DETAIL – COLLECTOR OR ABOVE

Not To Scale



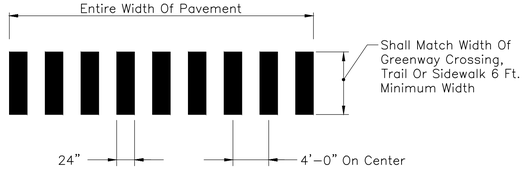
UNREINFORCED ANCHOR BASE

Scale: None



INTERSECTION CROSSWALK DETAIL

Scale: ⅛" =1'–0"



HIGH–VISIBILITY LONGITUDINAL BAR CROSSWALK DETAIL

Scale: ⅛" =1'–0"

REVISIONS		
Rev. No.	Description	Date

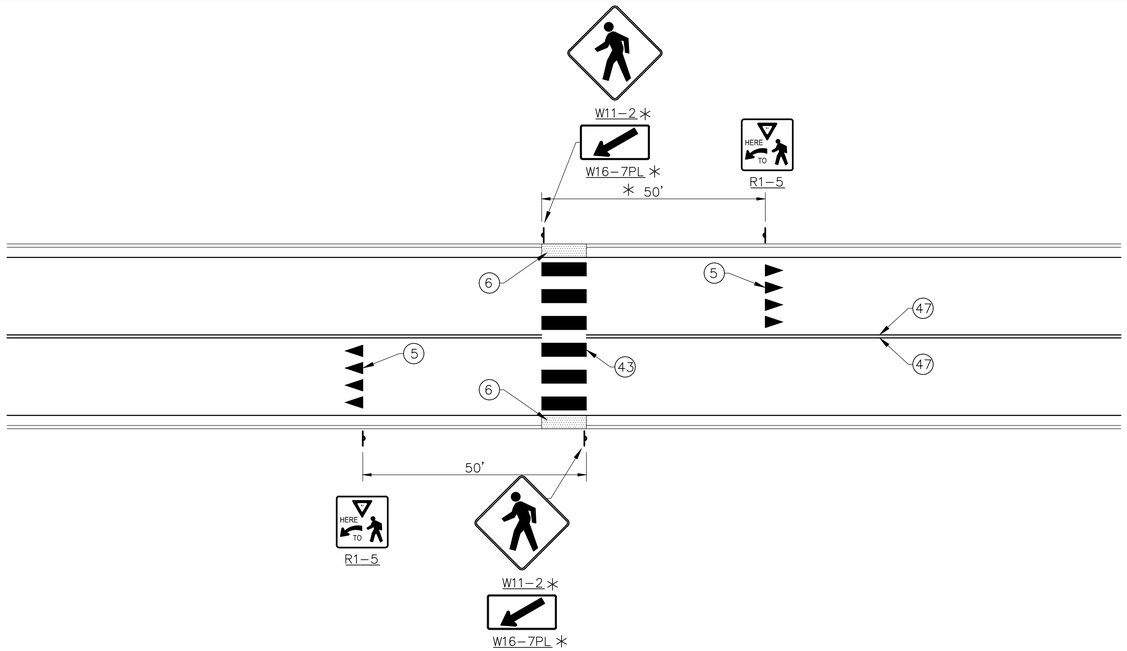
DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

MISCELLANEOUS DETAILS AND NOTES

SHEET 06 OF 29

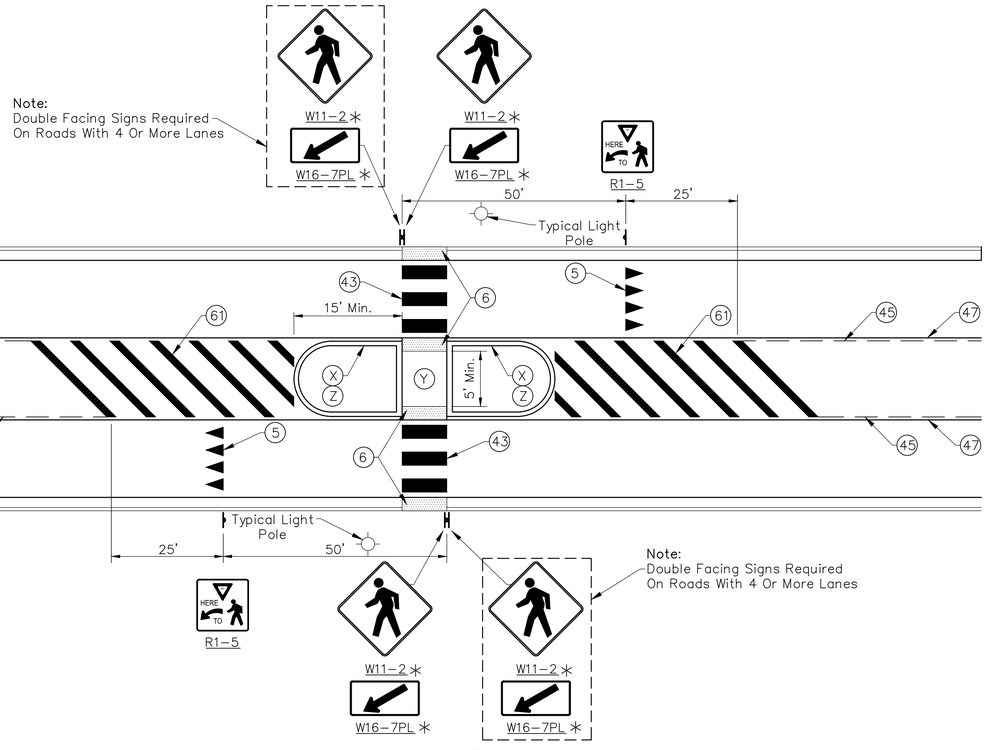


UNSIGNALIZED MIDBLOCK CROSSWALK DETAIL

Not To Scale
✳ Fluorescent Yellow Green

LEGEND

- (5) Shark Tooth Yield Triangle 2'W x3'H
- (6) Tactile Warning Surface Shall Be Dark Brick Red Color And Shall Be Manufactured By ADA Solutions, INC., Or As Approved By Plainfield DPW.
- (43) Line, Thermo., Solid, White, 24"
- (45) Line, Thermo., Broken, Yellow, 4"
- (46) Line, Thermo., Solid, White, 4"
- (47) Line, Thermo., Solid, Yellow, 4"
- (61) Line, Thermo., Solid 45°, Yellow 12" (10' Spacing)
- (X) 18" Standard Curb
- (Y) 8" Concrete Sidewalk
- (Z) Low Height Shrub Vegetation In 18" Of Topsoil Covered With 3" Black Mulch
- Sign



UNSIGNALIZED MIDBLOCK CROSSWALK WITH PEDESTRIAN ISLAND DETAIL

Not To Scale
✳ Fluorescent Yellow Green

REVISIONS		
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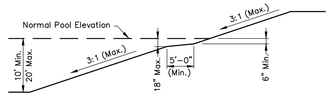
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

MISCELLANEOUS DETAILS AND NOTES

SHEET 07 OF 29



TYPICAL DETENTION POND SECTION

Not To Scale

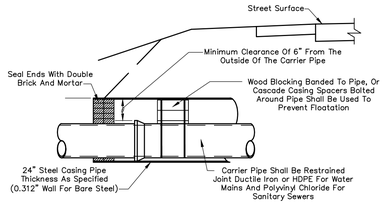
NOTES:

1.) Dry Bottom Basins Shall Be Subject To The Maximum Of 3:1 Slope Above The Basin Floor. The Longitudinal Slope Shall Be Subject To General Note 1 As Set Out On Sheet 09. The Transverse Grade Shall Be 2% Minimum.

2.) Emergency Overflow Facilities Such As A Weir Or Spillway Shall Be Provided For The Release Of Exceptional Storm Runoff Or In Emergency Conditions Should The Normal Discharge Devices Become Totally Or Partially Inoperative.

3.) Plainfield DPW May Approve Alternate Detention Pond/Basin Sections.

DEVELOPMENT STANDARD – DETAIL DS-G01



TYPICAL STREET CASING DETAIL FOR UP TO 12" CARRIERS

Not To Scale

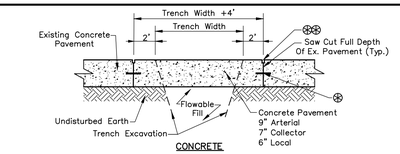
NOTES:

1.) Bored Or Jacked Crossings Require Intimate Knowledge Of Site Conditions; Therefore, Construction Is Subject To Certified Special Provisions Prepared By The Design Engineer.

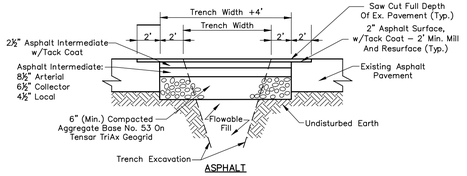
2.) Casings Depicted Hereon Do Not Necessarily Comply With INDOT Permit Requirements, But Are Intended To Be Used For Crossings Of Public Roads Under The Jurisdiction Of The Town Of Plainfield When Open Cut Of Such Roads Is Not Permitted.

3.) Refer To Appropriate Plainfield Standards For Carrier Pipe Requirements.

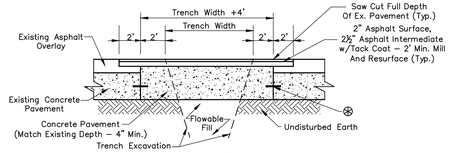
DEVELOPMENT STANDARD – DETAIL DS-G02



CONCRETE



ASPHALT



ASPHALT OVER CONCRETE

PAVEMENT RECONSTRUCTION DETAILS

Not To Scale

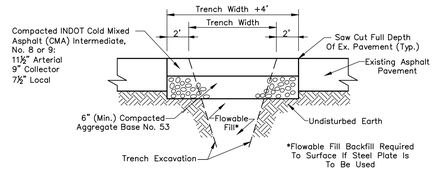
NOTES:

1.) All Concrete Shall Be Air Entrained, 6 Bag Per Cubic Yard With 4,000 PSI Minimum 28 Day Strength. Concrete Surface Shall Be Broom Finished Perpendicular To Traffic Flow.

⊛ Refer To INDOT Standard Drawing E506-CCPP-01 For Dowel Bar Spacing and Diameter And E503-CCPJ-08 For Retrofit Tie Bar Spacing and Diameter.

⊛⊛ Refer To INDOT Standard Drawing E503-CCPJ-03 For Joint Seal Details. Joint Seals Are Not Required If Concrete Pavement Is Overlaid.

DEVELOPMENT STANDARD – DETAIL DS-G03



TEMPORARY ASPHALT PATCH

TEMPORARY PAVEMENT PATCH DETAIL

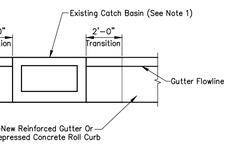
Not To Scale

NOTES:

1.) Steel Plate Required Over Trench To Open Roadway To Traffic. Pavement Reconstruction Or Temporary Asphalt Patch To Be Placed Within 48 Hours.

2.) Cold Mixed Asphalt (CMA) Shall Not Be Used When The Ambient Temperature Is Less Than 40°F. Use Flowable Fill To Surface.

DEVELOPMENT STANDARD – DETAIL DS-G04



EXISTING CATCH BASIN MODIFICATION

Scale: ¼"=1'-0"

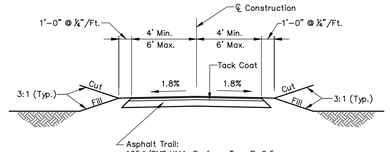
NOTES:

1.) Contractor To Verify Existing Casting Size To Determine Replacement.

2.) Existing Catch Basin Within Limits Of New Approach That Can Not Be Relocated Due To Existing Gutter Flow, As Approved By Plainfield DPW.

3.) As Required To Accept: Neenah R-3405 For Type A Inlet Or, Neenah R3454-B For Type B Inlet Or, Neenah R3287-5 For Type C Inlet, Or Town Approved Equal. Adjust Casting To Grade.

DEVELOPMENT STANDARD – DETAIL DS-G05



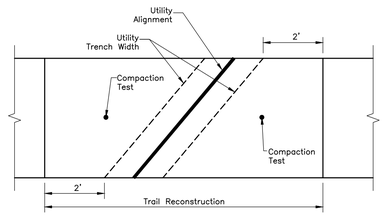
TYPICAL SIDEPATH/TRAIL CROSS SECTION

Not To Scale

NOTES:

1.) Cross Slope Shall Be 1.8% Maximum For Crowns, Transitions, And Superelevations.

DEVELOPMENT STANDARD – DETAIL DS-G06



EXISTING TRAIL RECONSTRUCTION

Not To Scale

NOTES:

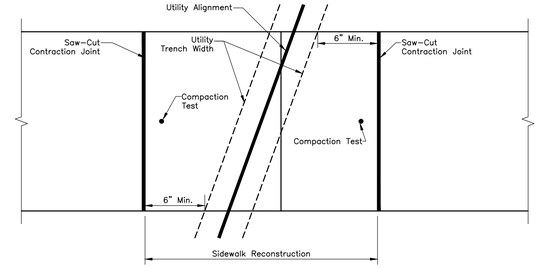
1.) Full Depth Saw-Cut 2 Feet On Either Side Of The Outer Limits Of The Utility Trench And Remove Pavement. Saw-Cut Should Be Made Perpendicular To The Trail's Centerline.

2.) Backfill Utility Trench With Flowable Fill Per Pavement Reconstruction Detail DS-G03.

3.) Aggregate Subbase Compaction Adjacent To The Utility Trench Shall Not Be Less Than 95% Of The Maximum Dry Density As Determined By AASHTO T99. One Compaction Test On Each Side Of The Utility Trench Shall Be Performed.

4.) Replace Asphalt Per Typical Trail Cross Section Detail DS-G06 Making Sure To Match Existing Grades.

DEVELOPMENT STANDARD – DETAIL DS-G07



EXISTING SIDEWALK RECONSTRUCTION

Not To Scale

NOTES:

1.) Full Depth Saw-Cut Nearest Contraction Joints Outside Of Utility Trench And Remove Existing Sidewalk.

2.) Backfill Utility Trench With Flowable Fill Per Pavement Reconstruction Detail DS-G03.

3.) Aggregate Subbase Compaction Adjacent To The Utility Trench Shall Not Be Less Than 95% Of The Maximum Dry Density As Determined By AASHTO T99. One Compaction Test On Each Side Of The Utility Trench Shall Be Performed.

4.) Replace Preformed Joint Filler If Removed During Sidewalk Removal.

5.) If Utility Alignment Follows The Sidewalk Joint Take Adjacent Sidewalk Panels Out.

6.) If Utility Trench Encroaches Within 6" Inches Of Contraction Joint Take Adjacent Sidewalk Panel Out.

7.) Replace Sidewalk Per Typical Sidewalk Detail On Sheet 03 Making Sure To Match Existing Grades.

DEVELOPMENT STANDARD – DETAIL DS-G08

REVISIONS		
Rev. No.	Description	Date

DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

GENERAL (G)
DEVELOPMENT STANDARDS

SHEET 08 OF 29

STORM SEWER GENERAL NOTES AND AS–BUILT DRAWINGS

1.) Storm Sewer Greater Than 18 Inches Shall Be Reinforced Concrete Pipe, Alternate Materials Subject To DPW Approval.

2.) Storm Sewer Pipe Of Other Material Or Material Not Meeting These Specifications Shall Require The Prior Written Approval Of Plainfield DPW.

3.) The Contractor Shall Submit Information To The Town Engineer Showing Conformance With These Specifications Upon Request.

4.) To Get Relief From The Town's Inlet And Manhole Requirements, A Structural Best Management Practice Or Isolation From The Town's System Is Required. The Town Standards For Bedding Of Pipe And Pipe Material For Storm Sewers Are Required Regardless.

5.) The Centerline Of Storm Water Quality Structures Shall Be Located As Required So As To Be Within 15' From Edge Of Pavement. Structure Cone Sections Shall Be Rotated Towards The Street.

6.) As–Built Drawings Shall Be Submitted To Plainfield DPW. GPS Collected Coordinates Shall Depict Actual Horizontal And Vertical Locations Of Utility Assets Such As: Manholes, Catch Basins, End Sections, Outfalls, And BMPs.

STORM SEWER REINFORCED CONCRETE PIPE

1.) Reinforced Concrete Pipe Shall Be Class **III**, **IV**, Or **V** As Specified In ASTM C76.

2.) Reinforced Elliptical Concrete Pipe Shall Be Class HE–**II** Or HE–**IV** As Specified In ASTM C507.

3.) Lift Holes Are Not Allowed For Pipe Less Than 24 Inches In Diameter. A Maximum Of Two Lift Holes Are Allowed For Pipe 24 Inches In Diameter Or Larger. Lift Holes Shall Be Repaired According To Most Recent INDOT Standard Specifications.

4.) Fittings And Specialties Shall Be In Accordance With The Specifications For The Type Of Pipe Being Used.

5.) Each Pipe Section Shall Be Marked With Date Of Manufacture, Size And Class Of Pipe, Specification Designation, Manufacturer And Plant Identification.

6.) Pipe Shall Be Furnished With A Bell Or Groove On One End Of A Unit Of Pipe And A Spigot Or Tongue On The Adjacent End Of The Adjoining Pipe. All Joints Shall Have A Groove On The Spigot For Placement Of A Rubber "O"–Ring Or Profile Gasket In Accordance With ASTM C443. The Gasket Shall Be A Continuous Ring Which Fits Snugly Into The Annular Space Between The Overlapping Surfaces Of The Assembled Pipe Joint.

STORM SEWER POLYVINYL CHLORIDE (PVC) PIPE

1.) Pipe Diameters Of 12 Inches Through 15 Inches Shall Meet Or Exceed All The Requirements Of ASTM D3034, And Shall Have A Minimum Cell Classification Of 12454. Reference Should Be Made To ASTM D1784 For A Summarization Of Cell Class Properties. Pipe Diameters Greater Than 15 Inches Shall Meet Or Exceed All Requirements Of ASTM F679, And Shall Have A Minimum Cell Classification Of 12454. PVC Ribbed Sewer Pipe Shall Meet Or Exceed All Requirements Of ASTM F794, And Shall Have A Minimum Cell Classification Of 12454.

2.) The Minimum Wall Thickness Of Pipe 12 Inches Through 15 Inches In Diameter Shall Conform To SDR–26, Type PSM, As Specified In ASTM D3034. The Minimum Wall Thickness For Pipe Diameters Greater Than 15 Inches Shall Conform To PS 115 As Specified In ASTM F679. PVC Pipe Shall Have A Minimum Pipe Stiffness Of 115 Pounds Per Square Inch For Each Diameter When Measured At Five Percent Deflection And Tested In Accordance With ASTM D2412.

3.) Pipe Joints Shall Have A Bell Wall, Gasket Groove, And Spigot Which Are Integral With The Pipe. The Assembly Of Joints Shall Be In Accordance With The Pipe Manufacturer's Recommendations And ASTM D3212. No Solvent Cement Joints Shall Be Allowed. Gasket Material Shall Be Constructed Of Styrene Butadiene Or Butyl Rubber And Meet The Requirements Of ASTM F477.

4.) Each Pipe Section Shall Be Marked With Name Of Manufacturer, Trademark Or Tradename, Nominal Pipe Size, Production/Extrusion Code, Material And Cell Classification, And ASTM Number.

5.) Installation Shall Be In Accordance With Recommended Practice ASTM D2321.

STORM SEWER HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED PIPE

1.) Requirements For Test Methods, Dimensions, And Markings Are Those Found In AASHTO Specifications M–252 And M–294.

2.) Pipe And Fittings Shall Be Made Of Polyethylene Compounds Which Meet Or Exceed The Requirements Of Type **III**, Category 4 Or 5, Grade P33 Or P34, Class C Per ASTM D1248.

3.) Minimum Pipe Stiffness Values Shall Be In Accordance With AASHTO Specifications M–294.

4.) The HDPE Corrugated Pipe Shall Have An Integrally Formed Smooth Interior. Male And Female Pipe Ends Which Allow The Construction Of Overlapping Gasket Joints Shall Be Made In Conformance With ASTM D3212. Neoprene Gaskets Shall Meet ASTM F477.

5.) Installation Shall Be In Accordance With Recommended Practice ASTM D2321.

STORM SEWER CORRUGATED POLYPROPYLENE (PP) PIPE

1.) 12–inch through 18–inches Pipe Shall Be Smooth Interior And Annular Exterior Corrugated Polypropylene (PP) Pipe Meeting The Requirements Of ASTM F2764, ASTM F2881 or AASHTO M330 Type S (Double–Wall) Or D (Triple–Wall), For Respective Diameters.

2.) Material For Pipe And Fitting Production Shall Be An Impact Modified Copolymer Meeting The Material Requirements Of ASTM F2764, ASTM F2881 And AASHTO M330, For Respective Pipe Diameters.

3.) Watertight Joints Shall Be Bell–And–Spigot Meeting The Watertight Requirements Of ASTM D3212. Gaskets Shall Comply With The Requirements Of ASTM F477. Gaskets Shall Be Installed By The Pipe Manufacturer And Covered With A Removable Wrap To Ensure The Gasket Is Free From Debris. A Joint Lubricant Supplied By The Manufacturer Shall Be Used On The Gasket And Bell During Assembly.

4.) Fittings Shall Conform To ASTM F2764, ASTM F2881 Or AASHTO M330, With The Exception Of Meeting The Watertight Joint Performance Requirements Of ASTM D3212. Gasketed Bell And Spigot Connections Shall Utilize A Spun–on, Welded Or Integral Bell And Spigot With Gaskets Meeting ASTM F477.

5.) Each Pipe Section Shall Be Marked With Nominal Pipe Size, Class Size And Wall, Date of Manufacture, Trademark or Tradename and ASTM Specification.

6.) Installation Shall Be In Accordance With ASTM D2321 And Manufacture's Recommended Installation Guidelines.

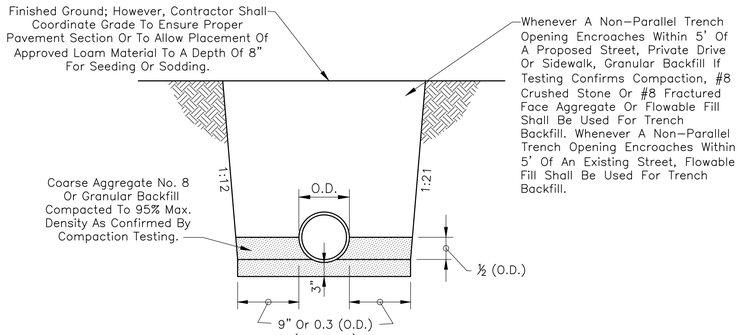
STORM SEWER DEFLECTION TESTING AND TELEVISING

1.) Deflection Testing Is Required For All Mainline Flexible Pipe And Plainfield DPW Shall Be Given 24 Hour Written Notice Of Deflection Testing. An Allowable Deflection Of 5 Percent Inside Pipe Diameter Will Be Acceptable After All Backfilling Has Been In Place For 30 Days. A Nine–Point "Go–No–Go" Mandrel Shall Be Used For The Deflection Test. A Proving Ring Shall Be Provided For Each Mandrel. All Pipe Exceeding The Allowable Deflection Shall Be Televised To Determine The Extent Of Replacement Or Rerounding Required. The Reworked Section Shall Be Retested 30 Days After Completion. Contractor Shall Bear All Testing Costs. The "Go–No–Go" Mandrel Shall Be Manually Pulled Without The Use Of Mechanical Devices.

2.) Televising Is Required For All Pipe Installations. Plainfield DPW Shall Be Given 24 Hour Written Notice Of Televising. A Camera Equipped With Remote Control Devices To Adjust Light Intensity And 1,000 Linear Feet Of Sewer Cable Shall Be Provided. The Camera Shall Transmit A Continuous Image To The Television Monitor As It Is Being Pulled Through Pipe. The Image Shall Be Clear Enough To Enable The Town Of Plainfield Representative And Others Viewing The Monitor To Easily Evaluate The Interior Condition Of The Pipe. The Camera Shall Stamp The Video Tape With Linear Footage And Project Number, And An Audio Voice–Over Shall Be Made During The Inspection Identifying Problems. Contractor Shall Bear All Televising Costs.

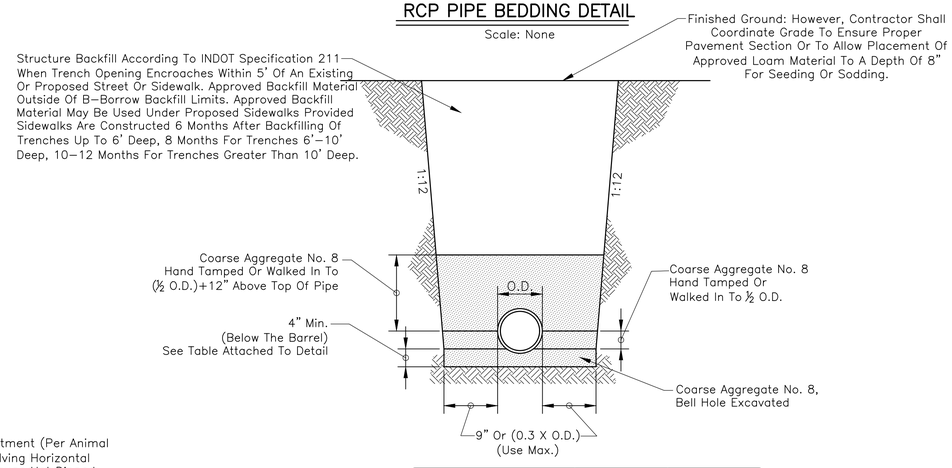
3.) The Pipe Shall Be Thoroughly Cleaned Before Installing Camera And Commencing Televising.

4.) If Any Pipe And/Or Joint Is Found To Be Leaking In Such A Way As Soil Migration Is Likely In The Sole Judgment Of The Town, The Contractor Shall Repair That Portion Of The Work To The Satisfaction And Approval Of The Town Of Plainfield.



RCP PIPE BEDDING DETAIL

Scale: None



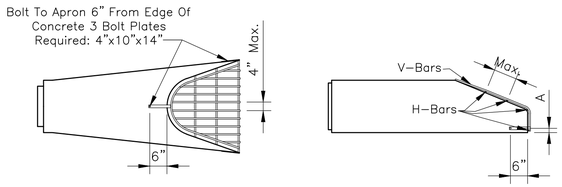
Pipe Size	12" TO 15"	18" And Over
Bedding Below The Pipe Barrel	O.D./4 Min.=4"	O.D./4 Min.=8"

FLEXIBLE (PVC, PP OR HDPE) PIPE BEDDING DETAIL

Scale: None

NOTES:

1. Special Consideration Should Be Made For Shallow Depth Flexible Pipe Where Flotation Is A Possibility.
2. Anti–Flotation Measures Should Be Considered Per Manufacturers Recommendation.



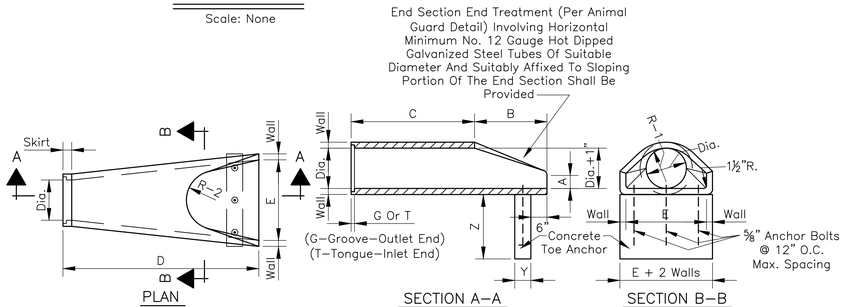
APRON SIZE	V–BAR SIZE (ø)	H–BAR SIZE (ø)	No. OF H–BARS	BOLT DIA.	"A" DIM
12	½	⅝	3	½	4
15	½	⅝	3	½	4 ½
18	½	⅝	4	½	4 ½
21	½	⅝	4	½	5
24	⅝	¾	4	½	5
27	⅝	¾	4	½	5 ½
30	⅝	¾	4	½	5 ½
36	¾	1	4	¾	8
42	¾	1	4	¾	8
48	¾	1	5	¾	8
54	¾	1 ½	5	¾	8
60	¾	1 ½	5	¾	8
66	¾	1 ½	5	¾	8
72	¾	1 ½	5	¾	9
84	¾	1 ½	5	¾	10
90	¾	1 ½	5	¾	10

NOTES:

1. Animal Guard Is Not Required For Culvert Crossings

ANIMAL GUARD

Scale: None



DIA.	WALL	G or T	WT. SEC.	A	B	C	D	E	DIA.+1"	R–1	R–2	SKIRT	Y	Z
12	2	1 1/2	530	4	24	48 7/8	72 7/8	24	13	10 1/16	9	3 1/2	12	24
15	2 1/4	2	740	6	27	46	73	30	16	12 1/2	11	3 1/2	12	24
18	2 1/2	2 1/2	990	9	27	46	73	36	19	15 1/2	12	4	12	24
21	2 3/4	2 1/2	1280	9	35	38	73	42	22	16 1/8	13	4	12	36
24	3	2 1/2	1520	9 1/2	43 1/2	30	73 1/2	48	25	16 11/16	14	4 1/2	18	36
27	3 1/4	2 1/2	1930	10 1/2	48	25 1/2	73 1/2	54	28	17 3/4	14 1/2	4 1/2	12	36
30	3 1/2	3	2190	12	54	19 3/4	73 3/4	60	31	18 5/16	15	5	12	36
33	3 3/4	3 3/8	3150	13 1/2	58 1/2	39 1/4	97 3/4	66	34	23 3/4	17 1/2	5 1/2	18	36
36	4	3 1/2	4100	15	63	34 3/4	97 3/4	72	37	24 1/16	20	5 1/2	18	36
42	4 1/2	3 3/4	5380	21	63	35	98	78	43	27 1/4	22	5 1/2	24	36
48	5	4 1/4	6550	24	72	26	98	84	49	28 1/8	22	5 3/4	24	36
54	5 1/2	4 3/4	8040	27	65	35	100	90	55	32 7/8	24	6 1/4	30	36
60	6	5	8750	30	60	39	99	96	61	36 3/4	24	6 3/4	30	36
66	6 1/2	5 1/2	10630	24	78	21	99	102	67	35 11/16	24	7 1/4	30	36
72	7	6	12520	34	78	21	99	108	73	38 5/8	24	7 3/4	36	36
78	7 1/2	6 1/2	14430	24	78	21	99	114	79	41 15/16	24	8 1/2	36	36
84	8	7	16350	24	78	21	99	120	85	44 13/16	24	9	39	36

NOTES:

1. Precast Flared Reinforced Concrete Pipe End Sections Shall Be Used At Exposed Pipe Ends. Concrete Toe Anchors Shall Be Required. Plastic Pipe Shall Require A Full Length Section Of Reinforced Concrete Pipe Jointed By A Concrete Collar Prior To The Precast Concrete Pipe End Section.
2. Revetment Riprap In Accordance With The Most Recent INDOT Channel Design Guide Set On Geotextile In Accordance With The Most Recent INDOT Standard Specifications Shall Be Required At Inlet And Outlet Precast Flared Reinforced Concrete Pipe End Sections.
3. Pipe End Sections Shall Have Appropriately Designed Riprap Outlet Protection. Refer To Outlet Protection Detail On Sheet 18.

PRECAST CONCRETE PIPE END SECTION

Scale: None

REVISIONS		
Rev. No.	Description	Date

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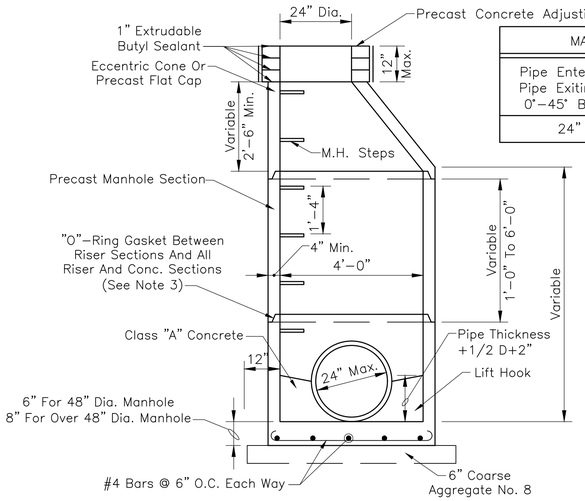
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF PUBLIC WORKS	01/01/2025 DATE

TOWN OF PLAINFIELD

STORM SEWER BEDDING DETAILS AND NOTES

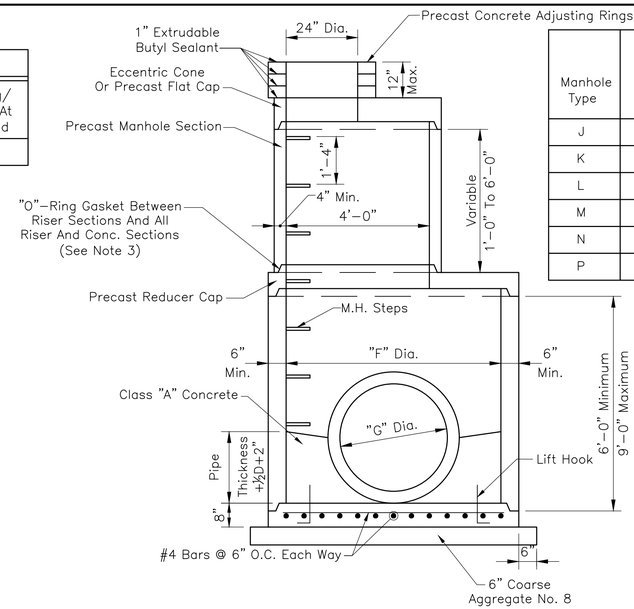
SHEET 09 OF 29



MANHOLE TYPE C

Scale: ½"=1'-0"

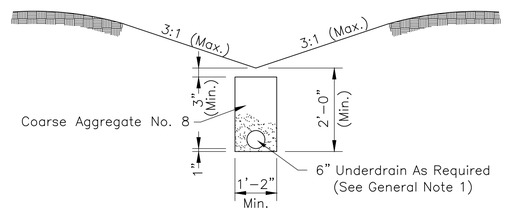
MAXIMUM PIPE SIZE	
Pipe Entering/ Pipe Exiting At 0°-45° Bend	Pipe Entering/ Pipe Exiting At 45°-90° Bend
24"	21"



Manhole Type	Manhole Diameter "F"	MAXIMUM PIPE SIZE "G"	
		Pipe Entering/ Pipe Exiting At 0°-45° Bend	Pipe Entering/ Pipe Exiting At 45°-90° Bend
J	60"	36"	33"
K	72"	48"	36"
L	96"	54"	48"
M	102"	72"	66"
N	108"	84"	72"
P	84"	54"	42"

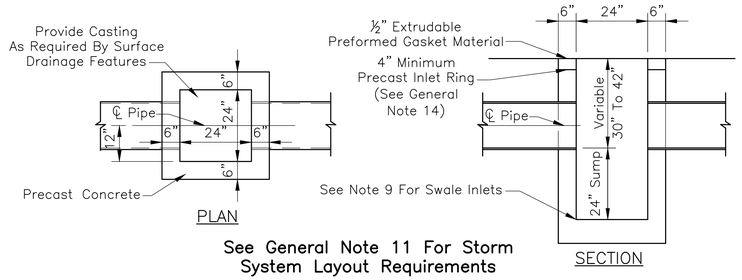
MANHOLES-TYPE J, K, L, M, N & P

Scale: ½"=1'-0"



SWALE UNDERDRAIN DETAIL

Scale: ½"=1'-0"



See General Note 11 For Storm System Layout Requirements

CATCH BASIN, TYPE A

Scale: ½"=1'-0"

GENERAL NOTES

1.) Swales Shall Be Constructed With A Minimum 0.3 Percent Profile Grade Provided That A 6 Inch Diameter Underdrain Is Provided For Residential Swales And Commercial/Industrial Swales With Less Than A 0.5 Percent Profile Grade. See Detail On This Sheet.

2.) Type J, K, L, M, N, And P Manholes As Detailed Hereon Require A Certain Minimum Depth. In Cases Where The Depth Of The Storm Sewer Is Not Sufficient To Meet The Minimum Depth As Required By The Detail, "F" Diameter Manhole Section May Be Used Throughout The Depth Of The Manhole.

3.) Manholes Shall Conform To ASTM C478. Joints Shall Conform To ASTM C443. The Use Of Cast-In-Place Concrete Structures Shall Require The Prior Written Approval Of The Town Engineer. Regardless Of The Type Of Casting Used, The Casting Shall Be Centered Over The Manhole Steps.

4.) Manhole Steps Shall Be Neenah R-1981-J, M.A. Industries PS 1-PF, Or As Approved By Plainfield DPW.

5.) For Drainage Of Roll Curb And Gutter, Type **I**, Provide As Per Development Standard Detail DS-D01 Or As Approved By Plainfield DPW.

6.) For Drainage Of Combined Curb And Gutter, Type **II**, Provide As Per Development Standard Detail DS-D02 Or As Approved By Plainfield DPW. For Additional Capacity As Directed By The Engineer, Provide As Per Development Standard Detail DS-D03 Or As Approved By Plainfield DPW. Manholes Shall NOT Directly Drain Type **II** Curb.

7.) For Drainage Of Open Pavement Areas Without Curbing At An Inlet, Provide As Per Development Standard Detail DS-D04 Or As Approved By Plainfield DPW.

8.) For Drainage Of Open Pavement Areas Without Curbing At A Manhole, Provide As Per Development Standard Detail DS-D05 Or As Approved By Plainfield DPW.

9.) Castings For Use On Inlets Or Manholes Which Drain Swales Or Dry Bottom Detention Basins Shall Be As Per Development Standard Detail DS-D06 Or As Approved By Plainfield DPW.

10.) Castings For Manholes Which Do Not Drain Surface Water Shall As Per Development Standard Detail DS-D07 Or As Approved By Plainfield DPW.

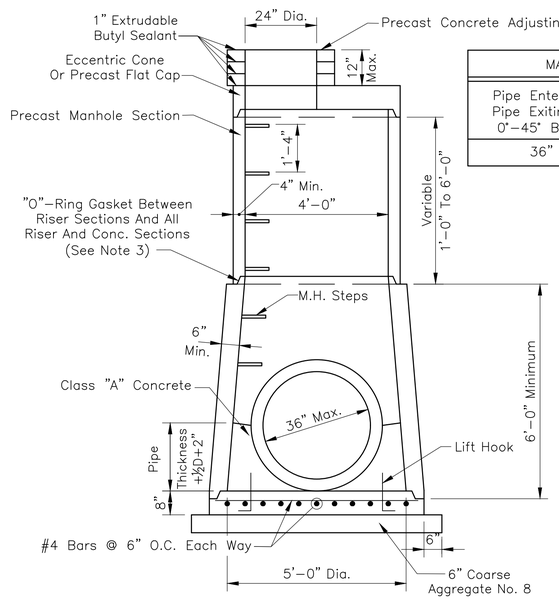
11.) Mainline Pipe Shall NOT Connect To Catch Basins. Catch Basin Connections Occur At A Manhole. Mainline Pipe Is Any Pipe Downstream Of A Single Set Of Two Catch Basins Or Any Pipe Larger Than Or Equal To 15 Inch Diameter. Pipe Less Than Or Equal To 15 Inch Diameter Which Drains One Swale Inlet May Be Connected To Catch Basins When The Invert Depth Of Such Catch Basin Is Not Greater Than Shown On The Catch Basin Detail. A 10'-15' Offset Is Required For Inlet Pipes Parallel To Mainline Pipe. It Is Noted That On Commercial Sites No Pipe Is Considered Mainline Pipe Until It Enters The Public R-O-W. Further, On Commercial Sites Precast Concrete Structures, As Detailed By Outside Sources, May Be Used Subject To The Providing Of A Suitable Transition So That Castings Prescribed For Use Within Plainfield Are Used, And Subject To Storm Sewer General Note 4 On Sheet 7.

12.) Catch Basins Require Back Plaster Inside And Out. Castings May Be Adjusted As Much As 1½" Using Cretex Penngrout Or As Approved By Plainfield DPW. Special Adjustment Up To 6" Using Precast Adjusting Ring With ½" Butyl Rubber Gasket May Be Used If Approved By Plainfield DPW.

13.) All Castings Shall Be Per Sheet No. 10 Of The Town Standards.

14.) All Inlets And Catch Basins Shall Have A Minimum Of 3" Allowed For Riser Rings Or Adjustment; Manholes Shall Have A Minimum Of 4".

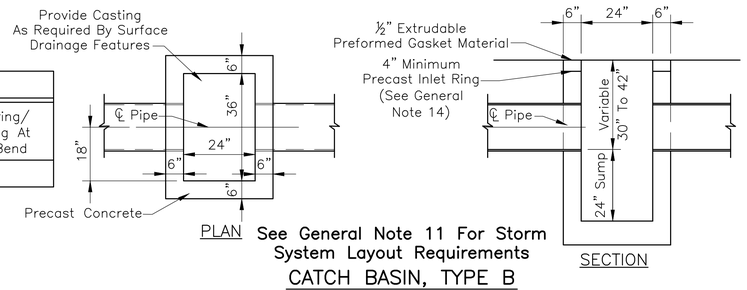
15.) When A Structure Encroaches Within 5' Of A Roadway, Or At The Discretion Of Plainfield DPW, It Shall Be Backfilled With Coarse Aggregate No. 8.



MAXIMUM PIPE SIZE	
Pipe Entering/ Pipe Exiting At 0°-45° Bend	Pipe Entering/ Pipe Exiting At 45°-90° Bend
36"	30"

MANHOLE TYPE H

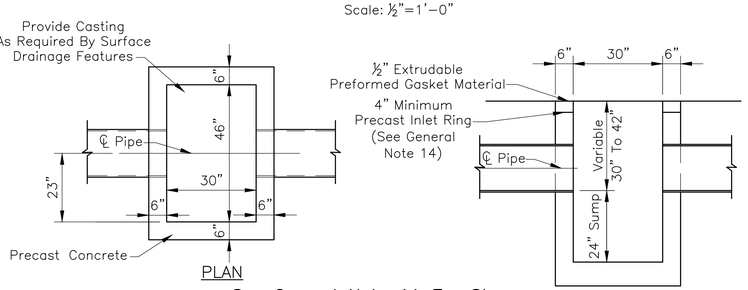
Scale: ½"=1'-0"



See General Note 11 For Storm System Layout Requirements

CATCH BASIN, TYPE B

Scale: ½"=1'-0"



See General Note 11 For Storm System Layout Requirements

CATCH BASIN, TYPE C

Scale: ½"=1'-0"

REVISIONS		
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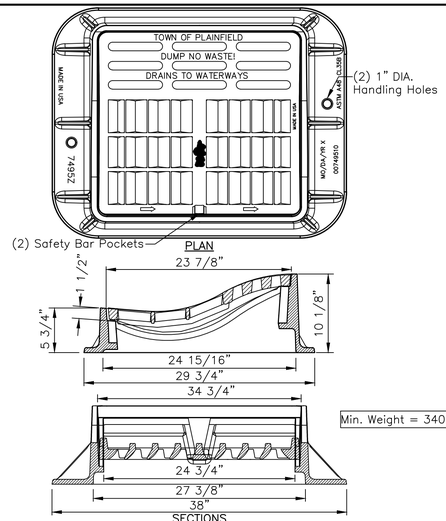
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025	DATE
APPROVED	DIRECTOR OF PUBLIC WORKS	01/01/2025	DATE

TOWN OF PLAINFIELD

STORM SEWER DETAILS AND NOTES

SHEET 10 OF 29

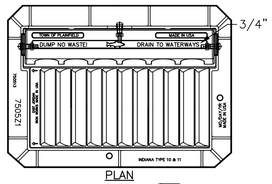


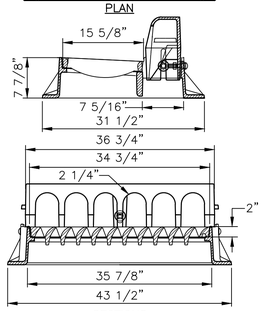
Min. Weight = 340 Lbs.

NEENAH R–3501–TR/TL
EJ 7495Z and (M1 or M2, M4)
OR US FOUNDRY 5254–6233R/L

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS–D01



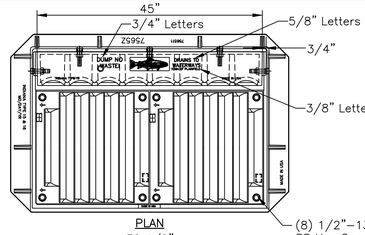


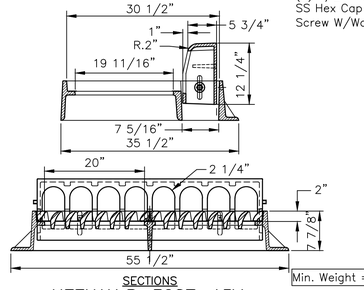
Min. Weight = 497 Lbs.

NEENAH R–3287–10V,
EJ 7505Z1/T4 and M3,
OR US FOUNDRY 5239–6139

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS–D02



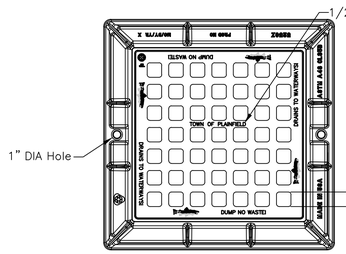


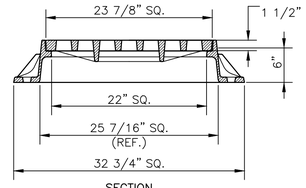
Min. Weight = 924 Lbs.

NEENAH R–3287–15V,
EJ 7565ZPT/T3 and M2,
OR US FOUNDRY 5235–6132

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS–D03



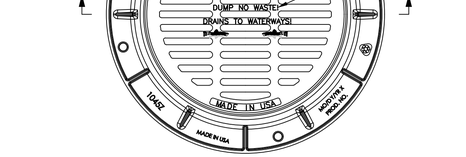


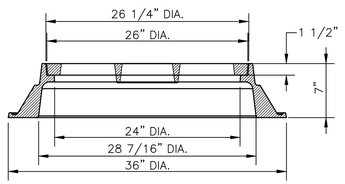
Min. Weight = 260 Lbs.

NEENAH R–3405–AH,
EJ 5250Z AND 5250M,
OR US FOUNDRY 4116–6027

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS–D04



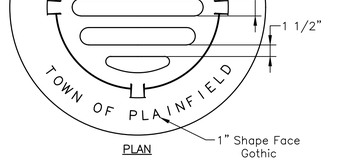


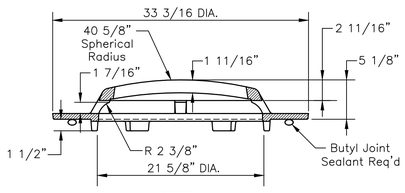
Min. Weight = 245 Lbs.

NEENAH R–2501–G,
EJ 1045Z2 AND 1040M2,
OR US FOUNDRY 755–5755

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS–D05



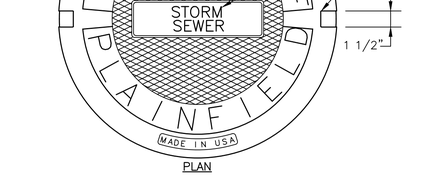


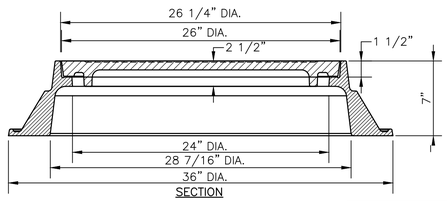
Min. Weight = 174 Lbs.

NEENAH R–4342,
EJ 6489N,
OR US FOUNDRY 5695

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS–D06



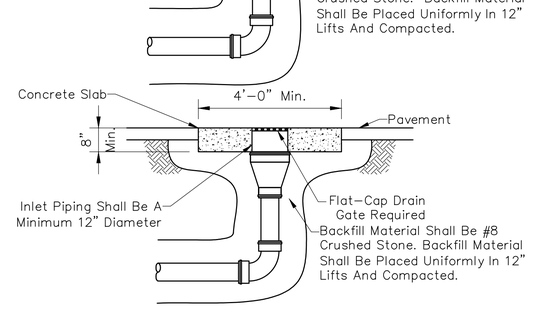


Min. Weight = 251 Lbs.

NEENAH R–1642,
EJ 1045Z2 AND 1040A,
OR US FOUNDRY 755–NC

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS–D07



MINOR STORM CONNECTION

Scale: 1/2"=1'–0"

Notes:

1.) This Connection Is For Single Family Residential Properties Only And Is NOT To Be Used For Direct Connections From Downspouts.
2.) Drainage Piping Shall Be A Minimum 6" Diameter And Pipe Material Shall Meet Town Standards.
3.) Piping Shall Be Core–Drilled Into Existing Structure And Annular Space Must Be Grouted.
4.) Clean–Outs Shall Be Required At Angular Bends And Every 100' Thereafter.

DEVELOPMENT STANDARD – DETAIL DS–D08

REVISIONS		
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DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF PUBLIC WORKS	01/01/2025 DATE

TOWN OF PLAINFIELD

STORM DRAINAGE (D)
DEVELOPMENT STANDARDS

SHEET 11 OF 29

WATER MAIN MATERIALS

1.) All Pipe Provided For Use In The Town Of Plainfield Water System Shall Be Of U.S. Production Manufactured By American, U.S. Pipe, Or Town Approved Equal. All Fittings Provided For Use In The Town Of Plainfield Water System Shall Be Of U.S. Production Manufactured By U.S. Pipe, Tyler, American, Or As Approved By Plainfield DPW.

2.) Ductile Iron Pipe For Water Mains Shall Be Centrifugally Cast And Shall Conform To The Latest Revision Of ANSI A21.5 And AWWA C151. Ductile Iron Pipe With Push–On Or Mechanical Joints Shall Be Special Thickness Class 50. The Pipe Shall Be Provided With A Minimum Laying Length Of 18 Feet.

3.) Ductile Iron Fittings 3 Inches Through 48 Inches Shall Conform To The Latest Revision Of ANSI A21.10 And AWWA C110. Ductile Iron Compact Fittings 3 Inches Through 16 Inches Shall Conform To The Latest Revision Of ANSI A21.53 And AWWA C153. Fittings In, And Within 2 Feet Of, Structures Shall Be Flanged. All Other Fittings Shall Be Mechanical Joint Type.

4.) Ductile Iron Pipe Coatings Shall Conform To The Latest Revision Of ANSI A21.51, AWWA C151, ANSI A21.4, And AWWA C104. Interior Pipe Lining Shall Be Cementious Mortar With Asphaltic Seal Coat. Exterior Pipe Coating Shall Be Standard Asphaltic Coating, Except Exposed Piping Within Structures Shall Receive Shop Priming Compatible With Finish Coat.

5.) Mechanical Joints And Accessories Shall Conform To The Latest Revision Of ANSI A21.10 And AWWA C110. Rubber Gaskets Shall Be Vulcanized Synthetic Rubber And Shall Conform To The Latest Revision Of ANSI A21.11 And AWWA C111.

6.) Flanged Joints Shall Conform To The Latest Revision Of ANSI A21.15 And AWWA C115. Rubber Gaskets Shall Be Either Ring Or Full Face And Shall Be 1/8" Thick. Bolts And Nuts Shall Conform To ANSI B18.2.1 And ANSI B18.2.2.

7.) Push–On Joints Shall Conform To The Latest Revision Of ANSI A21.11 And AWWA C111. Rubber Gaskets Shall Be Vulcanized Synthetic Rubber And Shall Conform To The Latest Revision Of ANSI A21.11 And AWWA C111.

8.) Service Tubing To Customer Shall Be Copper Water Tube, Type K, Soft Temper For 3/4" Through 2" For Underground Service, Conforming To ASTM B88, ASTM B251, And AWWA C800. Pipe Shall Be Marked With The Manufacturer's Name Or Trademark And Mark Indicative Of The Type Of Pipe. Outside Diameter Of The Pipe And Minimum Weight Per Foot Of Pipe Shall Not Be Less Than Listed In ASTM B251, Table II.

9.) Gate Valves Shall Be In Accordance With AWWA C515 Having Fused Epoxy Coating Inside And Outside Assembled With S.S. Bolts And Shall Be American Flow Control Series 2500. Consult Plainfield DPW For Valves Larger Than 16 Inches. Valves Shall Pass A 250 PSI Factory Test. Valve Boxes Shall Be Furnished With Posi–Caps To Align Box Over Stem.

WATER MAIN PRESSURE AND LEAKAGE TESTING

1.) The Town Of Plainfield Shall Be Given 24 Hour Written Notice Of The Required Pressure And Leakage Test To Be Performed By The Contractor. The Pressure And Leakage Test Shall Be Performed In Accordance With The Basic Provisions Of AWWA C600. The Testing Procedure Shall Assume A 100 PSIG Working Pressure. The Test Pressure Shall Not Be Less Than 1.25 Times The Working Pressure At The Highest Point Along The Test Section But Not Less Than 1.5 Times The Assumed Working Pressure At The Point Of Testing. Test Pressure Shall Not Exceed Pipe Or Thrust Restraint Design Pressures Or Rated Pressure Of The Valves. The Test Pressure Shall Not Vary By More Than +5 PSI For The 2 Hour Test Duration.

2.) Valves Shall Not Be Operated In Either Direction At Differential Pressures Exceeding The Rated Valve Working Pressure.

3.) The Pressure And Leakage Test Shall Be Performed Following The General Form Of The Following:

A. Record Time And Line Pressure Prior To Start Of Test.

B. Pump Water Into New Main Until Pressure Reaches 150 PSIG, Stop Pumping When Pressure Reaches 150 PSIG, Record Time And Line Pressure.

C. Contractor Shall Remain At Site For One Hour. The Test Shall Be Voided If Any Adjustments Are Made To The Main, Test Equipment, Or Appurtenances. Tightening Of Fittings On Test Equipment Is Allowed. Following The One Hour Period, Record Time And Line Pressure.

D. Pump Water Into New Main From A Calibrated Container Of Water Until Pressure Reaches 150 PSIG, Stop Pumping When Pressure Reaches 150 PSIG, Record Time, Line Pressure, And Amount Of Water Pumped To The Nearest 1/100 Gallon. The Calibrated Container Shall Have Markings At 1/10 Gallon Increments.

E. Repeat Steps C And D One Additional Time.

4.) A Test Section Of Water Main Is Considered Satisfactory If It Meets The Following:

Main Size (Inches)	Allowable Leakage (Gal./Hr./1000 Ft.)
6	0.50
8	0.66
10	0.83
12	0.99
16	1.32

5.) If The Leakage From A Test Section Is Greater Than Permitted Under These Specifications, The Contractor Shall Locate And Repair The Defective Joints, Mains, And Appurtenances. The Pressure And Leakage Test Shall Then Be Repeated Until Satisfactory Results Are Obtained. All Labor And Materials Required To Meet The Requirements Of The Pressure And Leakage Test Shall Be At The Expense Of The Contractor.

WATER MAIN GENERAL NOTES AND AS–BUILT DRAWINGS

1.) Provide A Valve On All Runs And Branches Per The Connection Details On Sheet 12 Of The Plainfield Standards Even When Such Runs Or Branches Are Stubs For Future Extension.

2.) Storm Pipe Conflicts Require Special Attention In That Proposed Water Mains Shall Pass Over Proposed Mainline Storm Pipe. Such Situations May Require Upsizing Of Downstream Storm Pipes To Enable Flatter Slopes To The Point Of Conflict Such That 30 Inch Minimum Cover Is Maintained Over The Water Main. Vertical Water Main Fittings Shall Not Be Used. All Water Main Crossings Of Storm Pipe Shall Be Shown On Storm Sewer Profiles. When It Is Necessary To Decrease Water Main Cover To Less Than 54 Inches, Inlet Pipes That May Conflict With The Water Main Shall Be Laid At Such Slope To Pass Below The Water Main.

3.) Water Mains Shall Follow The Alignment Of The Road ℄ And Shall Remain 3½ Feet Behind The Back Of Curb On One Side Of The Street Without Alternating From Such Side.

4.) All Water Pipe Shall Be Installed In Accordance With AWWA C600 And With A Minimum Depth Of Cover Of 54 Inches, Except As Provided By General Note No. 2.

5.) Terminate Dead End Mains With A Mainline Valve Followed By A Fire Hydrant Assembly. For Cul–De–Sacs, Eliminate Hydrant Assembly Tee And Terminate With 6" Valve And Fire Hydrant. As Directed Or Approved By The Plainfield DPW, Terminate Temporary Dead End Mains With A #2 Eclipse Post Hydrant With Tamper–Proof Options And Provide #492 Tamper–Proof Wrench With A Brass Street Elbow, Brass Nipple, Mueller B20283 Ball Curb Valve With Box, And A Brass Nipple Tapped Into Restrained Cap. See Development Standard DS–W05.

6.) Unless Unavoidable As Determined By Plainfield DPW, Double Tees Shall Not Be Permitted. Utilize A Cross At Intersection Of Four Water Mains With Cross Sized To Match The Largest Pipe.

7.) See Development Standard DS–W01 For Water Main Abandonment Procedure.

8.) As–Built Drawings Shall Be Submitted To Plainfield DPW. GPS Collected Coordinates Shall Depict Actual Horizontal And Vertical Locations Of Utility Assets Such As: System Valves, Hydrants, Blow–Offs, Air Release Valves, And Master Meters.

WATER MAIN DISINFECTION, BACTERIOLOGICAL TESTING

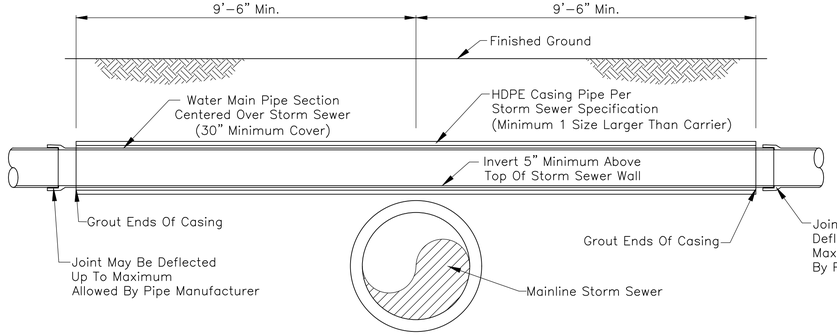
1.) The Town Of Plainfield Shall Be Given 24 Hour Written Notice Of The Required Disinfection, Flushing And Testing Procedures To Be Performed By The Contractor. All Newly Installed Water Mains Shall Be Disinfected In Accordance With ANSI/AWWA C–651. Liquid Chlorine, High–Test Calcium Hypochlorite (70 Percent Chlorine), Or High–Test Sodium Hypochlorite (14.7 Percent Chlorine) May Be Used To Provide An Initial Minimum Concentration Of 25 mg/L Of Free Chlorine In All Newly Installed Mains.

2.) A Minimum Concentration Of 10 mg/L Of Free Chlorine Shall Be Maintained In All Parts Of The Newly Installed Mains For 24 Hours Of Contact Time.

3.) Following The Initial 24 Hour Contact Time But Prior To 48 Hours Of Contact Time, All Treated Water Shall Be Properly Dechlorinated and Thoroughly Flushed From The Newly Laid Pipe At Its Extremity Until The Replacement Water Has A Chlorine Residual Of Less Than 1 mg/L.

4.) After Flushing, Water Samples Collected On Two Successive Days From The Treated Piping System, As Directed By The Town Of Plainfield, Shall Show Satisfactory Bacteriological Tests. Following Satisfactory Bacteriological Tests, Contractor Shall Submit 2 Copies Of The Results To Plainfield DPW And To IDEM Drinking Water Branch.

5.) The Taking Of Samples And The Testing Of Chlorine Residual Shall Be Carried Out By The Contractor At The Direction Of The Town Of Plainfield.

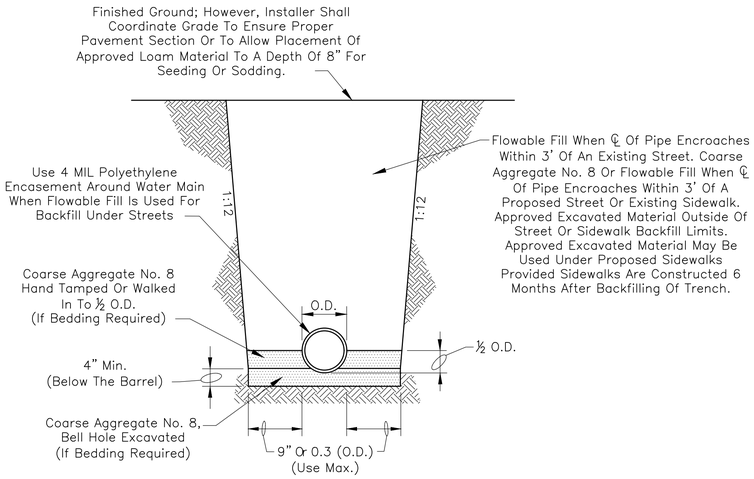


1.) HDPE Casing Pipe Required At All Water Main/Sewer Crossings Which Violate The 18 Inch Minimum Vertical Separation Required By Ten States Standards. Refer To Water Main General Notes.

2.) Fittings May Be Required To Reduce The Overall Length Of Shallower Than Normal Water Main As A Part Of The Special Storm Sewer Conflict Treatment.

SPECIAL STORM SEWER CONFLICT TREATMENT

Scale: None



D.I. PIPE BEDDING TABLE		
Pipe Size (in)	Bedding Depth Below Barrel (in)	Cubic Yards Of Bedding Per Foot Of Pipe (cys/ft)
4	4	0.038
6	4	0.053
8	4	0.070
10	4	0.088
12	4	0.108
14	4	0.131
16	5	0.164
18	5	0.191
20	6	0.230
24	7	0.306
30	8	0.432

Note:
Bedding Is Still Required Where Pipe Requires Structural Backfill (Flowable Fill, Coarse Aggregate No. 8, Etc.)

Experience Of Plainfield DPW Has Been That Bedding Has Not Been Required For Nearly All Installations. However, Plainfield DPW May Direct That Bedding Is Required As Trench Conditions Dictate. Therefore, It Is Recommended That The Project Owner And The Project Contractor Come To Agreement On Payment Methods In The Event That Bedding Is Required.

DI PIPE BEDDING DETAIL

Scale: None

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DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

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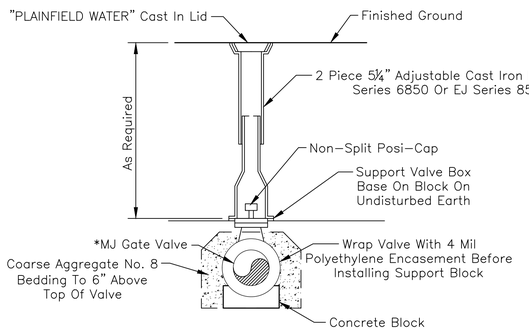
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF PUBLIC WORKS	01/01/2025 DATE

TOWN OF PLAINFIELD

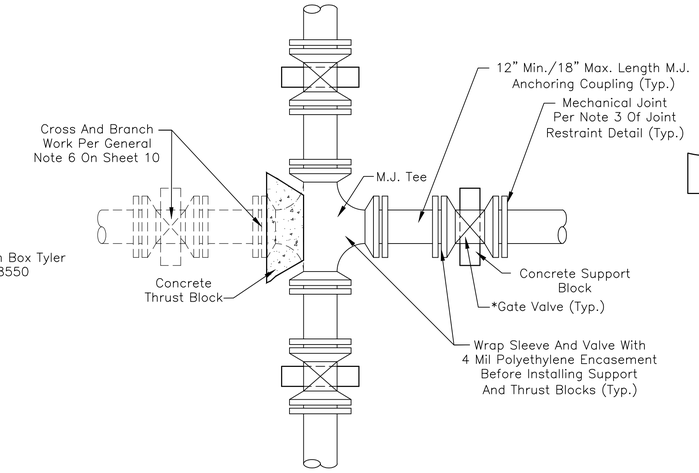
WATER MAIN
BEDDING DETAILS AND NOTES

SHEET 12 OF 29



TYPICAL VALVE INSTALLATION DETAIL

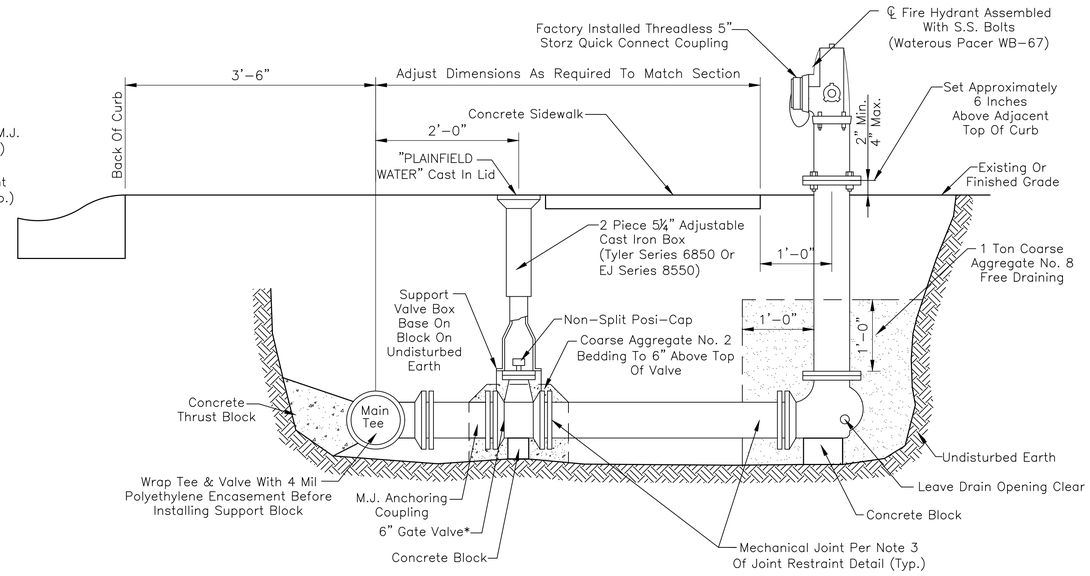
Scale: None



See Development Standard DS–W01 For Tapping Sleeve And Valve Connection, Cutting–In Sleeve And Tee Connection, And Procedures For Abandonment Of Water Mains.

STANDARD NEW WORK BRANCH CONNECTION

Scale: None

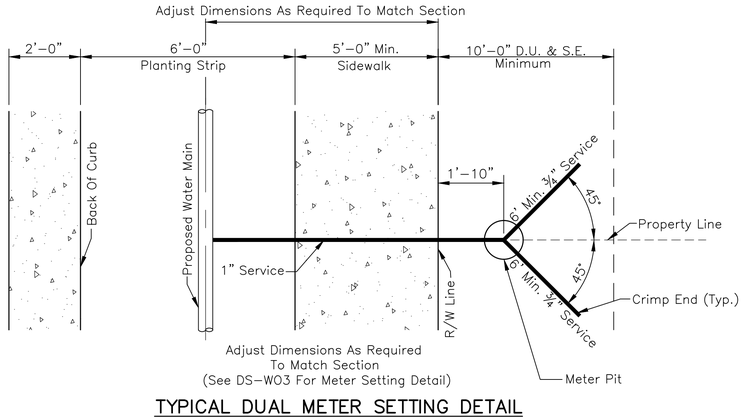


Note: Fire Hydrants Shall Be Painted Safety Yellow If Placed Behind Private Distribution Vault

TYPICAL HYDRANT INSTALLATION DETAIL

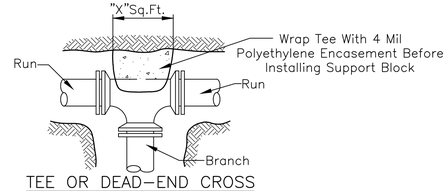
Scale: None

All Gate Valves Shall Be American Flow Control Series 2500 Assembled With Factory Installed Stainless Steel Bolts & With Coarse Aggregate No. 8 Bedding To 6" Above Top Of Valve.



TYPICAL DUAL METER SETTING DETAIL

Scale: None



TEE OR DEAD–END CROSS

Scale: None

MINIMUM LENGTH OF RESTRAINED JOINT D.I. PIPE (WITHOUT POLY WRAP) EACH SIDE OF FITTING (FEET)				
PIPE SIZE	6"	8"	12"	16"
Tee Including Thrust Block (See Note 4)	15	20	28	36
Horizontal 90° OR Vertical 45° Down	15	20	28	36
Horizontal 45° OR Vertical 22½° Down	6	8	11	15
Horizontal 22½° Or Vertical 11¼° Down	3	4	6	7
Horizontal 11¼°	2	2	3	3
Dead End	27	35	50	65

NOTES:

1.) Length Of Restraint Measured From Centerline Of Fitting Requiring Restraint. Length Of Restraint For Vertical Bends Up Are Equal To That For Horizontal Bends.

2.) Length Of Restraint Based Upon 4'–6" Cover, 150 PSI Pressure, And ASTM D2487 Soil Types CL, ML, SC, SM, SP, SW, GC, GM, GP, & GW. For Less Cover, Higher Pressure, Or ASTM D2487 Soil Types PT, OH, CH, MH, & OL, Consult Plainfield DPW.

3.) Restraint To Be Accomplished With Field–Lok Gasket As Manufactured By U.S. Pipe Or Fast–Grip Gaskets As Manufactured By American For Push–On Joints, Anchoring Coupling For Valves And Adjacent Tees, Romac Grip Ring For All Mechanical Joints, Or As Approved By Plainfield DPW. Romac Grip Ring May Be Deleted On The Runs Of Hydrant Tees Unless A Mainline Valve Is Within 18 Feet Of The Hydrant Tee Or Unless Hydrant Tee Is Within Another Fitting's Restraint Length. All Restraints Shall Be Of U.S. Production.

4.) Tees And Dead–End Crosses Require Concrete Thrust Blocks In Addition To Branch Restraint Length, "X" Area For Concrete Thrust Blocks Per Detail Shall Be As Follows; 2, 4, 6, And 10 Square Feet For 6, 8, 12, And 16 Inch Pipe, Respectively. Other Than Restraint Of MJ Fittings Adjacent To Tee, No Run Restraint Length Is Required.

JOINT RESTRAINT DETAIL

Scale: None

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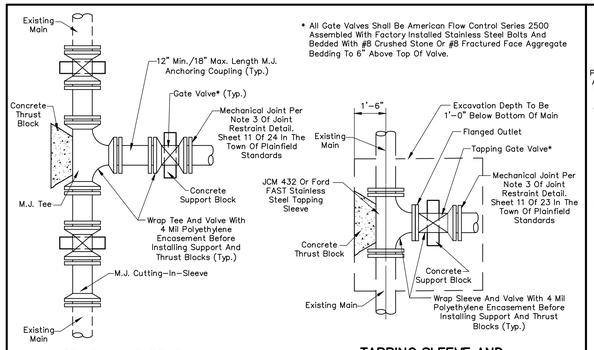
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF PUBLIC WORKS	01/01/2025 DATE

TOWN OF PLAINFIELD

WATER MAIN DETAILS & NOTES

SHEET 13 OF 29



CUTTING-IN-SLEEVE AND TEE CONNECTION

Not To Scale

TAPPING SLEEVE AND VALVE CONNECTION

Not To Scale

WATER MAIN MATERIALS

1.) All Pipe Provided For Use In The Town Of Plainfield Water System Shall Be Manufactured By American, Griffith, U.S. Pipe, Or As Approved By Plainfield DPW. All Fittings Provided For Use In The Town Of Plainfield Water System Shall Be Manufactured By Clow, Tyler, American, Or As Approved By Plainfield DPW.

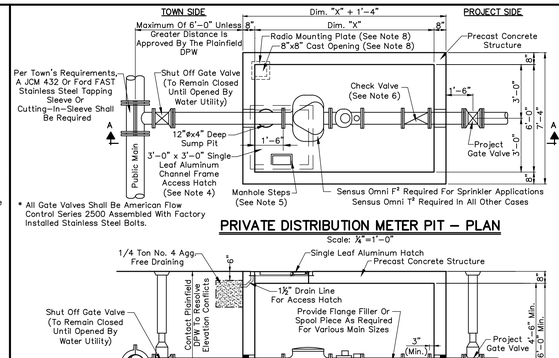
2.) Service Tubing To Customer Shall Be Copper Water Tube, Type K, Soft Temper For 3/4" Thru 2" For Underground Service, Conforming To ASTM B88, ASTM B251, And AWWA C800. Pipe Shall Be Marked With The Manufacturer's Name Or Trademark And Mark Indicative Of The Type Of Pipe, Outside Diameter Of The Pipe And Minimum Weight Per Foot Of Pipe Shall Not Be Less Than Listed In ASTM B251, Table II.

WATER MAIN ABANDONMENT PROCEDURES

1.) In Cases Where An Existing Main Line Is To Be Abandoned, The Abandonment Shall Include The Complete Removal Of The Tee & Replacement With Sleeve And Pipe As Required.

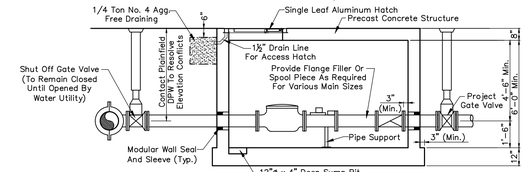
2.) In Cases Where An Existing Service Line Is To Be Abandoned, The Abandonment Shall Include The Complete Removal Of The Service Line To Corporation Stop & Placement Of A Brass Cap At The Stop.

DEVELOPMENT STANDARD – DETAIL DS-W01



PRIVATE DISTRIBUTION METER PIT – PLAN

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



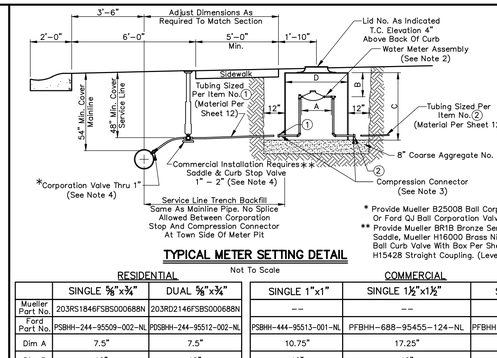
PRIVATE DISTRIBUTION METER PIT – SECTION "A-A"

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

	4" COMPOUND	6" COMPOUND	8" COMPOUND
Dim. "X"	8'-0"	8'-0"	10'-0"

1.) Provide Minimum #4 Rebars On 12" Centers, Each Way In Top, Bottom, And All Sides.
2.) All Labor And Materials including Meters And Radios To Be Provided By The Developer.
3.) Piping, Valves, Double Detector Check Valve Assembly, And Meter Shall Be Same Size Throughout. Other Than Dim. "X", Meter Pit Dimensions Shall Be Maintained For 4", 6", And 8" Mains.
4.) Access Hatch Shall Be On Meter Side Of Pit And Shall Be Bilco Model J-4AL With Drain Coupling Or As Approved By Plainfield DPW.
5.) Manhole Steps Shall Be Neenah R-1981-J, M.A. Industries PS-1-PF, Or As Approved By Plainfield DPW.
6.) Check Valve Shall Be Bronze Seated And Shall Be Provided With Bolted Covers For Easy Access To The Discs. Valve Shall Be Outside Adjustable Weight And Lever As Mueller A-2600-6-01, Kennedy/Clow 1106LW, Or As Approved By The Plainfield DPW.
7.) Piping In And Within 2 Feet Of Meter Pit Shall Be Class 53 Flanged Ductile Iron Pipe. Transition To Class 50 At A Mechanical Joint.
8.) Provide 1/4"x12"x12" Steel Plate, Paint Plate With 5 Mils DFT Tnemec 74-ANSI No. 61 Gray Over 3 Mils DFT Tnemec 90-97 Primer. Center Plate Over 8"x8" Opening. Secure Plate With Four 1/4"ø 304 S.S. Anchor Bolts, Nuts, And Washers.

DEVELOPMENT STANDARD – DETAIL DS-W02



TYPICAL METER SETTING DETAIL

Not To Scale

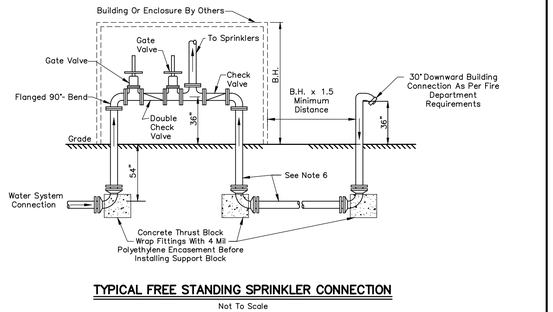
	RESIDENTIAL		COMMERCIAL		
	SINGLE 5/8"x3/4"	DUAL 5/8"x3/4"	SINGLE 1"x1"	SINGLE 1½"x1½"	SINGLE 2"x2"
Mueller Part No.	203RS1846FSBS000688N	203RD2146FSBS000688N	--	--	--
Ford Part No.	FSBHH-244-95509-002-NL	FDSBHH-244-95512-002-NL	FSBHH-444-95513-001-NL	FFBHH-688-95455-124-NL	FFBHH-788-95455-009-NL
Dim A	7.5"	7.5"	10.75"	17.25"	17.25"
Dim B	10"	10"	10"	10"	10"
Dim C	46"	46"	46"	49"	49"
Dim D	18"	21"/20"	21"/20"	36"	36"
Ford Lid No.	A32-C-REC463-T	A4-C-REC463-T	A4-C-REC463-T	MC-36-T	MC-36-T
Vestal Lid No.	32-389	32-434	32-434	32-256/049	32-256/049
①	¾" Compression	1" Compression	1" Compression	2" Compression (See Note 4)	2" Compression
②	¾" Compression	¾" Compression	1" Compression	2" Compression (See Note 4)	2" Compression

METER SETTING NOTES:

1.) Residential Construction Requires The Use Of Dual Meter Installations Whenever Possible. The Meter Box Shall Not Be Installed In A Driveway.
2.) Water Meter Assembly Shall Consist Of Sensus 5/8" x 3/4" Meter, Yoke Valve On The Supply Side Of The Meter, And Ames LF2000B Double Check Assembly On The Customer Side Of The Meter. Meters For Residential Use Provided By Town, All Other Meters, Regardless Of Use, Provided By User.
3.) The Contractor Shall Make All Tubing Connections Utilizing Mueller Or Ford Quick Compression Connectors.
4.) Tubing May Be Used 1½" Or 2" For Such 1½" Meter. Provide Reducing Fittings As Required.
5.) Residential Meters Require A Radio Read System. Commercial Meters And Radios Are Not Provided By The Town.
6.) See Development Standards For Private Distribution Meter Pit And Procedures For Abandonment Of Service Lines.
7.) Meter Lid Adjustment Shall Be Accomplished With Adjusting Rings Manufactured by Mueller Or Ford. The Maximum Adjustment Shall Be 4 Inches.

* Provide Mueller B25008 Ball Corporation Valve Or Ford QJ Ball Corporation Valve.
** Provide Mueller BR1B Bronze Service Saddle, Ford Saddle, Mueller H16000 Brass Nipple, Mueller B20283 Ball Curb Valve With Box Per Sheet 13, And Mueller H15428 Straight Coupling. (Level Top)

DEVELOPMENT STANDARD – DETAIL DS-W03



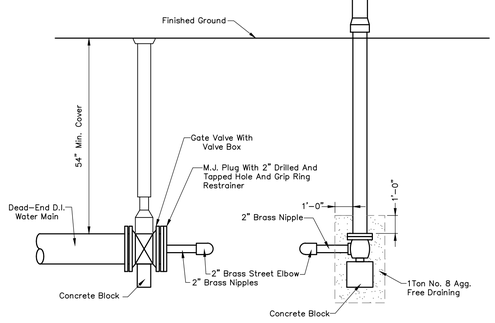
TYPICAL FREE STANDING SPRINKLER CONNECTION

Not To Scale

NOTES:

1.) The Connection Shall Be Within 150', As Measured On A Paved Roadway, Of A Fire Hydrant Supplied By The Public Water Main. The Connection And Hydrant Location Shall Be Such That From The Hydrant To A Fire Department Pumper, And From The Pumper To The Free Standing Sprinkler Connection, Access To Premises Will Not Be Blocked.
2.) Underground Pipe Shall Be Designed And Constructed As Required For An Underground Fire Main Using NFPA 24. Design Shall Allow For Water To Drain After Use.
3.) The Free Standing Sprinkler Connection Shall Be A 5" Threadless 45° Downward Connection.
4.) The Free Standing Sprinkler Connection Shall Be Painted Red, And Labeled "SPRINKLER CONNECTION" Or "STANDPIPE CONNECTION" With The Address Served Displayed.
5.) Where The Connection Is Subject To Vehicular Damage, The Connection Shall Be Protected. Protection Components Shall Not Be Closer Than 36" To The Connection And Shall Not Interfere With The Operation Of The Connection.
6.) Fire Department Connection (FDC) Pipe Diameter Shall Not Be Reduced At Any Point In The FDC Line From The Point Of Connection At The Base Of The Sprinkler/Standpipe Riser (BOR) To The Point Of Attachment Of The 5 Inch Storz Coupling.
7.) Underground Piping For Free Standing Sprinkler Connection Shall Conform To All Water Main Material Notes On Sheet 12.

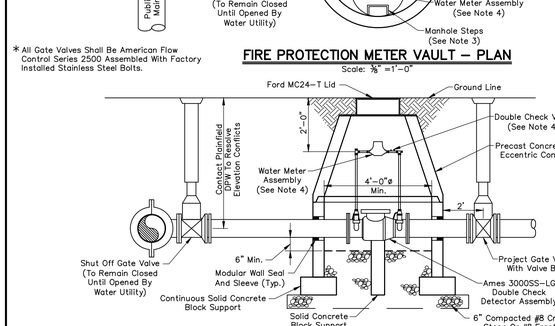
DEVELOPMENT STANDARD – DETAIL DS-W04



TEMPORARY DEAD-END WATER MAIN TERMINATION DETAIL

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS-W05



FIRE PROTECTION METER VAULT – PLAN

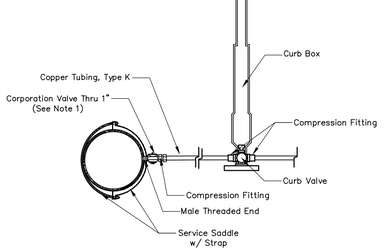
Scale: 3/8" =1'-0"

FIRE PROTECTION METER VAULT – SECTION "A-A"

Scale: 3/8" =1'-0"

1.) All Labor And Materials including Meters And Radios To Be Provided By The Developer.
2.) Piping, Valves, Double Detector Check Valve Assembly, And Meter Shall Be Same Size Throughout. Meter Pit Dimensions Shall Be Maintained For 4", 6", And 8" Mains.
3.) Manhole Steps Shall Be Neenah R-1981-J, M.A. Industries PS-1-PF, Or As Approved By Plainfield DPW.
4.) Water Meter Assembly Shall Consist Of Sensus IPERL 5/8" x 3/4" Meter, Yoke Valve On The Supply Side Of The Meter And Ames LF 2000B Double Check Assembly On The Customer Side Of The Meter.
5.) Piping In And Within 2 Feet Of Meter Pit Shall Be Class 53 Flanged Ductile Iron Pipe. Transition To Class 50 At A Mechanical Joint.
6. Meter Lid Adjustment Shall Be Accomplished With Adjusting Rings Manufactured by Mueller Or Ford. The Maximum Adjustment Shall Be 4 Inches.

DEVELOPMENT STANDARD – DETAIL DS-W06



TYPICAL SERVICE SADDLE AND CURB VALVE

Not To Scale

NOTES:

1.) Corporation Valve Shall Be Provided Through 1" Meters. Tubing May Be Used 1¼" of 2" For Such 1½" Meter. Provide Reducing Fittings As Required. A Mueller B25008 Coll Corporation Valve Shall Be Provided.

2.) Commercial Installations (1"–2") Require Saddle & Curb Stop Valve. Provide Mueller BR2B Bronze Service Saddle, For Saddle, Mueller H16000 Brass Nipple, Mueller B20283 Ball Curb Valve With Box Per Sheet 13, And Mueller H15428 Straight Coupling. The Tap Shall Be Level.

DEVELOPMENT STANDARD – DETAIL DS-W07

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APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF PUBLIC WORKS	01/01/2025 DATE

TOWN OF PLAINFIELD

WATER (W)
DEVELOPMENT STANDARDS

SHEET 14 OF 29

SANITARY SEWER REINFORCED CONCRETE PIPE

1.) Reinforced Concrete Pipe For Use As Sanitary Sewers Shall Be Class III, IV, Or V As Specified By Design Engineer Per ASTM C76. Lift Holes Shall Not Be Permitted.

2.) Each Section Of Reinforced Concrete Pipe Shall Be Vacuum Tested By The Manufacturer Prior To Delivery To The Job Site. Only Pipe Sections Passing Vacuum Test Shall Be Marked As "Vacuum Tested". Vacuum Test Requirements Are As Follows:

A. Each Section Of Pipe Shall Tested By Bringing The Internal Pressure Within The Pipe To 3.5 PSIG Below Atmospheric Pressure And The Pressure Must Not Drop To Less Than 2.5 PSIG Below Atmospheric Pressure Within The Time Limitation As Determined By The Following:

$$T = \frac{0.022\ D^2 L}{2}$$

Where: T = Time In Seconds
D = Diameter Of Pipe In Inches
L = Length Of Pipe In Feet

B. Any Pipe Section Failing To Meet This Test Shall Not Be Permitted For Use As Sanitary Sewers In The Town Of Plainfield.

3.) Lateral Connections Shall Be Made With KOR-N-Tee, Inserta-Tee, Or Town Approved Equal.

4.) Each Pipe Section Shall Be Marked With The Date Of Manufacture, Size, And Class Of Pipe, Specification Designation, Manufacturer And Plant Identification.

5.) Pipe Shall Be Furnished With A Bell Or Groove On One End Of A Unit Of Pipe And A Spigot Or Tongue On The Adjacent End Of The Adjoining Pipe. All Joints Shall Have A Groove On The Spigot For Placement Of A Rubber "O"-Ring Or Profile Gasket In Accordance With ASTM C443. The Gasket Shall Be A Continuous Ring Which Fits Snugly Into The Annular Space Between The Overlapping Surfaces Of The Assembled Pipe Joint To Form A Flexible, Watertight Joint Under All Conditions Of Service.

SANITARY SEWER POLYVINYL CHLORIDE (PVC) PIPE

1.) PVC Pipe Diameters Of 8 Inches Through 15 Inches Shall Meet Or Exceed All Requirements Of ASTM D3034, And Shall Have A Minimum Cell Classification Of 12454. Reference Should Be Made To ASTM D1784 For A Summarization Of Cell Class Properties. PVC Pipe Diameters Greater Than 15 Inches Shall Meet Or Exceed All Requirements Of ASTM F679, And Shall Have A Minimum Cell Classification Of 12454.

2.) The Minimum Wall Thickness Of PVC Pipe 8 Inches Through 15 Inches In Diameter Shall Conform To SDR-35, Type PSM, As Specified In ASTM D3034 (See Note 5 For Fittings). The Minimum Wall Thickness For P.V.C. Pipe Greater Than 15 Inches Shall Conform To PS 46 As Specified In ASTM F679. P.V.C. Pipe Shall Have A Minimum Pipe Stiffness Of 46 Pounds Per Square Inch For Each Diameter When Measured At Five Percent Deflection And Tested In Accordance With ASTM D2412.

3.) All PVC Sanitary Sewers With A Cover Depth Of 15 Feet Or Greater Shall Be SDR 26 Or PS 115 Rated.

4.) PVC Open Profile Or Closed Profile Sewer Pipe Shall Meet Or Exceed All Requirements Of ASTM F794 Or ASTM F949, And Shall Have A Minimum Cell Classification Of 12454 And A Minimum Uniform Pipe Stiffness Of 50 Pounds Per Square Inch For Each Diameter When Measured At Five Percent Deflection And Tested In Accordance With ASTM D2412 (See Note 5 For Fittings).

5.) Pipe Joints Shall Have A Bell Wall, Gasket Groove, And Spigot Which Is Integral With The Pipe. The Assembly Of Joints Shall Be In Accordance With Pipe Manufacturer's Recommendations And ASTM D3212. Solvent Cement Joints Shall Not Be Allowed For Mainline Pipe.

6.) Pipe Fittings Shall Be SDR-26 Manufactured Fittings Made Of PVC Plastic Having A Cell Classification Of 12454 As Defined In ASTM D1784. Saddle Connections Shall Not Be Allowed For New Construction. Lateral Connections Shall Occur At SDR-26 Tee-Wyes.

7.) Each Pipe Section Shall Be Marked With The Name Of Manufacturer, Trademark Or Tradename, Nominal Pipe Size, Production/Extrusion Code, Material And Cell Classification, And ASTM Number.

8.) Installation Shall Be In Accordance With Recommended Practice ASTM D2321.

SANITARY SEWER GENERAL NOTES AND AS-BUILT DRAWINGS

1.) See Development Standards DS-S01, DS-S02, For Sanitary Sewer Lateral Requirements.

2.) Sanitary Sewer Pipe Of Other Material Or Material Not Meeting These Specifications Shall Require The Prior Written Approval Of Plainfield DPW.

3.) The Contractor Shall Submit Information To The Town Engineer Showing Conformance With These Specifications Upon Request.

4.) As-Built Drawings Shall Be Submitted To Plainfield DPW. GPS Collected Coordinates Shall Depict Actual Horizontal And Vertical Locations Of Utility Assets Such As: Manholes, Laterals, Stubs, Air Release Valves, Flushing Stations, Cleanouts, Risers, And Pump Stations/Wet Wells.

SANITARY SEWER DEFLECTION TESTING AND TELEVISING

1.) Deflection Testing Is Required For All Mainline Flexible Pipe And Plainfield DPW Shall Be Given 24 Hour Written Notice Of Deflection Testing. An Allowable Deflection Of 5 Percent Inside Pipe Diameter Will Be Acceptable After All Backfilling Has Been In Place For 30 Days. A Nine Point "Go-No-Go" Mandrel Shall Be Used For The Deflection Test. A Proving Ring Shall Be Provided For Each Mandrel. All Pipe Exceeding The Allowable Deflection Shall Be Televised To Determine The Extent Of Replacement Or Rerounding Required. The Reworked Section Shall Be Retested 30 Days After Completion. Contractor Shall Bear All Testing Costs. The "Go-No-Go" Mandrel Shall Be Manually Pulled Without The Use Of Mechanical Devices.

2.) Following Air And Mandrel Testing, Televising Is Required. Plainfield DPW Shall Be Given 24 Hour Written Notice Of Televising. A Camera Equipped With Remote Control Devices To Adjust Light Intensity And 1,000 Linear Feet Of Sewer Cable Shall Be Provided. The Camera Shall Transmit A Continuous Image To The Television Monitor As It Is Being Pulled Through Pipe. The Image Shall Be Clear Enough To Enable The Town Of Plainfield Representative And Others Viewing The Monitor To Easily Evaluate The Interior Condition Of The Pipe. The Camera Shall Stamp The DVD With Manhole Number, Lateral Distance From Manhole, Linear Footage And Project Number, And An Audio Voice-Over Shall Be Made During The Inspection Identifying Problems. Contractor Shall Bear All Televising Costs.

3.) The Pipe Shall Be Thoroughly Cleaned Before Installing Camera And Commencing Televising.

4.) If Any Pipe And/Or Joint Is Found To Be Leaking, Regardless Of The Results Leakage Testing, In The Sole Judgement Of The Town, The Contractor Shall Repair That Portion Of The Work To The Satisfaction And Approval Of The Town Of Plainfield.

SANITARY SEWER LEAKAGE TESTING

1.) The Town Of Plainfield Shall Be Given 24 Hour Written Notice Of The Required Leakage Testing Procedure To Be Performed By The Contractor. Low Pressure Air Shall Be Slowly Introduced Into The Sealed Line Until The Internal Air Pressure Reaches 4 PSIG Plus The Groundwater Head Divided By 2.31 (Maximum Test Pressure Is 9 PSIG).

2.) At A Stable Internal Air Pressure Within 0.5 PSIG Of The Initial Internal Air Pressure, Timing Shall Commence With A Stopwatch Or Similar Device Of 99.8 Percent Accuracy. Timing Shall End When The Internal Air Pressure Drops 1 PSIG Below The Stable Internal Air Pressure.

3.) The Line Shall Be Accepted If The Time Shown In Table 1 For The Designated Pipe Size And Length Elapses Before The Air Pressure Drops 1 PSIG Below The Stable Internal Air Pressure At Which Time The Test Can Be Discontinued For The Accepted Line.

TABLE 1

SPECIFICATION TIME REQUIRED FOR A 1.0 PSIG PRESSURE DROP
FOR SIZE AND LENGTH OF PIPE INDICATED FOR Q=0.0015

1 Pipe Diameter (In.)	2 Minimum Time (Min:Sec)	3 Length For Minimum Time (Ft.)	4 Time For Longer Length (Sec.)	Specification Time For Length (L) Shown (Min.:Sec.)							
				100 Ft.	150 Ft.	200 Ft.	250 Ft.	300 Ft.	350 Ft.	400 Ft.	450 Ft.
4	3:46	597	.380L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	.854L	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.470L	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.366L	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	31:10	72	25.852L	43:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	34:00	66	30.768L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	230:46

NOTE:
For More Efficient Testing Of Long Test Sections And/Or Sections Of Larger Diameter Pipes, A Timed Pressure Drop Of 0.5 PSIG May Be Used In Lieu Of The 1.0 PSIG Timed Pressure Drop. If A 0.5 PSIG Pressure Drop Is Used, The Required Test Time Shall Be Exactly Half As Long As Those Shown Above.

SANITARY FORCE MAIN PRESSURE AND LEAKAGE TESTING

1.) The Town Of Plainfield Shall Be Given 24 Hour Written Notice Of The Required Pressure And Leakage Test To Be Performed By The Contractor. The Pressure And Leakage Test Shall Be Performed In Accordance With The Basic Provisions Of AWWA C600. All Force Mains Shall Be Given A Hydrostatic Test Of At Least 1.5 Times The Shutoff Head Of The Connected Pumps Or 150 PSI, Whichever is Lesser. Test Pressure Shall Not Exceed Pipe Restraint Design Pressures Or Rated Pressure Of The Valves. Loss Of Water Pressure During Test Shall Not Exceed 5 PSI In A 2 Hour Test Period.

2.) Valves Shall Not Be Operated In Either Direction At Differential Pressures Exceeding The Rated Valve Working Pressure.

3.) The Pressure And Leakage Test Shall Be Performed Following The General Form Of The Following:

A. Record Time And Line Pressure Prior To Start Of Test.

B. Pump Water Into New Force Main Until Pressure Reaches At Least 1.5 Times The Shutoff Head Of The Connected Pumps Or 150 PSIG, Stop Pumping And Record Time And Line Pressure.

C. Contractor Shall Remain At Site For One Hour. The Test Shall Be Voided If Any Adjustments Are Made To The Force Main, Test Equipment, Or Appurtenances. Tightening Of Fittings On Test Equipment Is Allowed. Following The One Hour Period, Record Time And Line Pressure.

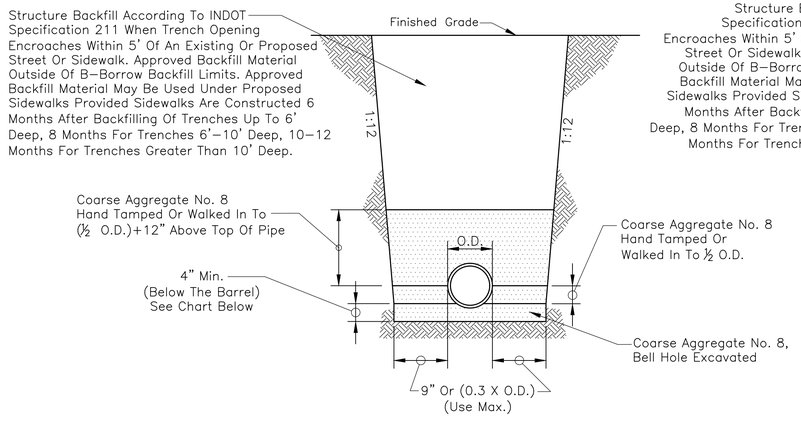
D. Pump Water Into New Force Main From A Calibrated Container Of Water Until Pressure Reaches 150 PSIG, Stop Pumping When Pressure Reaches 150 PSIG, Record Time, Line Pressure, And Amount Of Water Pumped To The Nearest 1/100 Gallon. The Calibrated Container Shall Have Markings At 1/10 Gallon Increments.

E. Repeat Steps C And D One Additional Time.

4.) A Test Section Of Force Main Is Considered Satisfactory If It Meets The Following:

Main Size (Inches)	Allowable Leakage (Gal./Hr./1000 Ft.)
4	0.33
6	0.50
8	0.66
10	0.83
12	0.99

5.) If The Leakage From A Test Section Is Greater Than Permitted Under These Specifications, The Contractor Shall Locate And Repair The Defective Joints, Mains, And Appurtenances. The Pressure And Leakage Test Shall Then Be Repeated Until Satisfactory Results Are Obtained. All Labor And Materials Required To Meet The Requirements Of The Pressure And Leakage Test Shall Be At The Expense Of The Contractor.

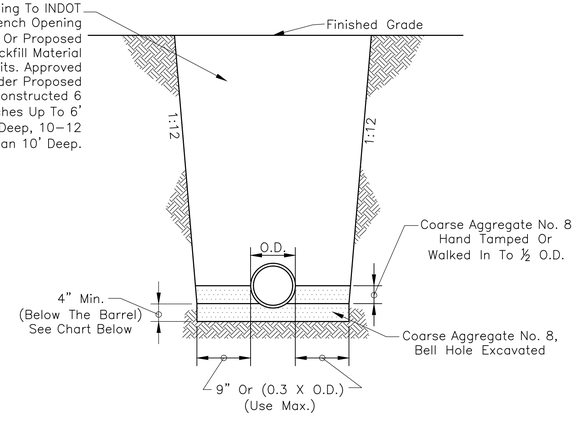


Pipe Size	8" To 15"	18" And Over
Bedding Below The Pipe Barrel	O.D./4 Min.=4"	O.D./4 Min.=8"

See Development Standard DS-S01 For Lateral Pipe Bedding

PVC PIPE BEDDING DETAIL

Scale: None



Pipe Size	8" To 15"	18" And Over
Bedding Below The Pipe Barrel	O.D./4 Min.=4"	O.D./4 Min.=8"

RCP BEDDING DETAIL

Scale: None

REVISIONS		
Rev. No.	Description	Date

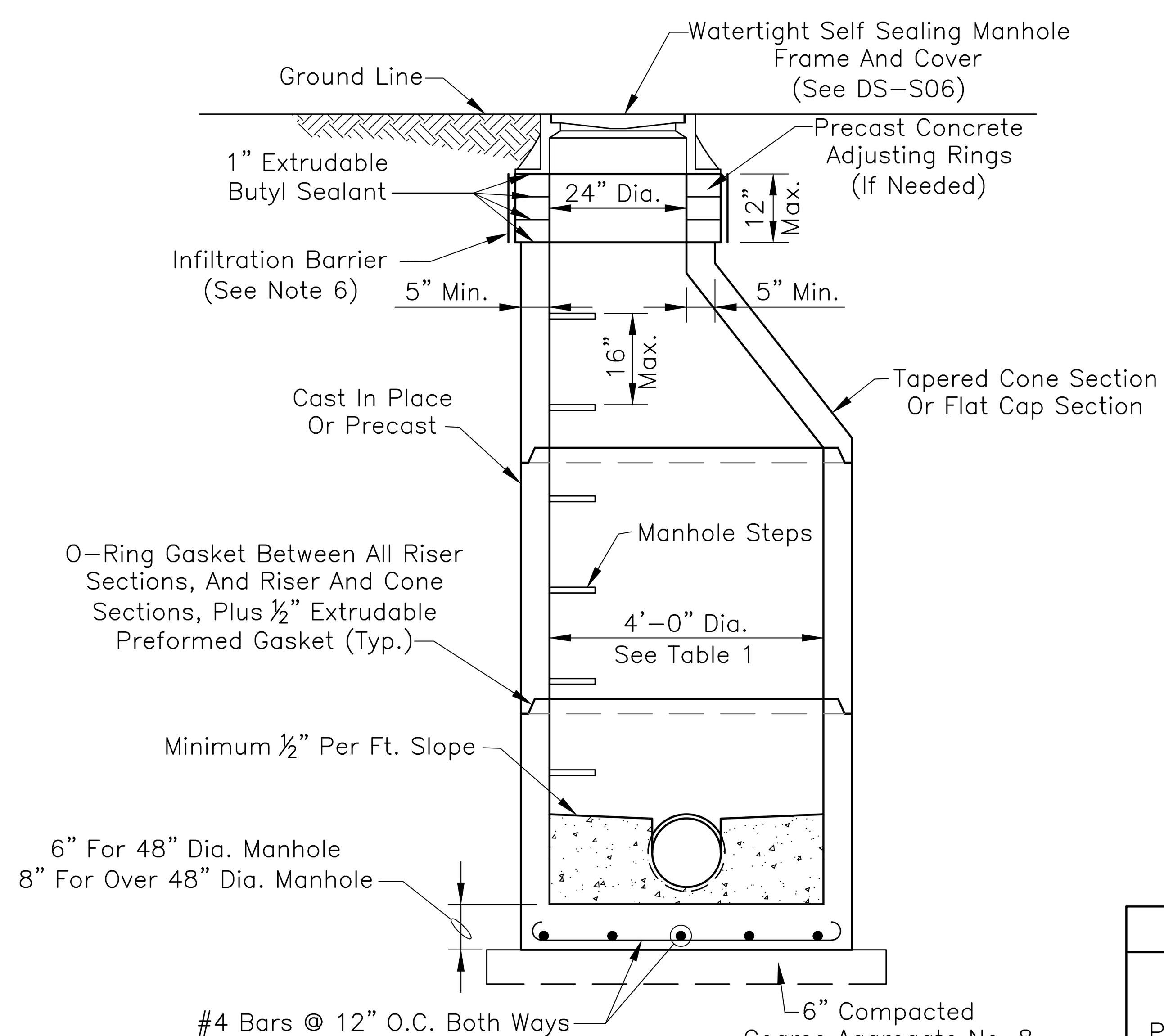
DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 01/01/2025 DATE
APPROVED — EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES — 01/01/2025 DATE
APPROVED — DIRECTOR OF PUBLIC WORKS — 01/01/2025 DATE

TOWN OF PLAINFIELD

SANITARY SEWER
BEDDING DETAILS AND NOTES

SHEET 15 OF 29



See Development Standards DS-S03 & DS-S05 On Sheet 17 For Connection To Existing Sanitary Manholes

SANITARY MANHOLE, TYPE A

Scale: ½" = 1'-0"

SANITARY MANHOLE GENERAL NOTES

1.) Precast Concrete Manholes Shall Conform To ASTM C478, With Rubber Type Gaskets Equal To ASTM C443. Monolithic Cast In Place Manholes Shall Only Be Used With The Prior Written Approval Of The Town. The Base And First Riser Section Of The Precast Concrete Manhole Shall Be Integrally Cast As One Unit. Precast Concrete Cones Shall Be Of The Eccentric Cone Type. No "See Through" Lift Holes Shall Be Allowed On Precast Concrete Manholes 48 Inches In Diameter Or Less. In Addition To The Rubber Type Gaskets, All Joints Shall Receive A 1/2 Inch Diameter Non-Asphaltic Mastic (Kent-Seal Or As Approved By Plainfield DPW) Conforming To ASTM C990. Sewer Connection To Manhole Shall Be KOR-N-SEAL, A-LOK, Press-Seal, Or As Approved By Plainfield DPW.

2.) Where One Solid Riser Or Barrel Section Cannot Be Used, Final Adjustment In Elevation Of The Frame And Cover Shall Be Accomplished By The Use Of A 4 Inch Minimum Thickness Adjusting Ring As Detailed Herein To A Maximum Combined Thickness Of 12 Inches. Brick Or Block Shall NOT Be Used In The Construction Of A Manhole Or To Adjust The Elevation Of The Frame And Cover.

3.) Manhole Steps Shall Be Neenah No. R-1981-J, M.A. Industries No. PS 1-PF, Or As Approved By Plainfield DPW.

4) Manhole Frame And Cover Shall Be Per Development Standards DS-S06 Or Town Approved Equal.

5.) The Lowest Elevation To Receive Gravity Sanitary Service Must Be One Foot Above The Top Of Manhole Casting Elevation Of Either The First Upstream Or Downstream Manhole On The Public Sewer To Which Connection Is To Be Made. Those Portions Of The Building Not Meeting The Stated Gravity Sanitary Service Requirement Shall Be Provided With A Grinder Pump System Or Town Approved Equal Discharging To The Gravity Building Connection Outside Of The Public Right-Of-Way.

6.) Infiltration Barrier Shall Be 60 Mils Minimum EPDM Sealed With A 2 Inch Mastic Strip To Cone (Manhole) And To Top Of Casting Lip And Shall Be Infi-Shield Or Town Approved Equal.

7.) Plainfield DPW May Approve Alternate Drop Connection If There Are Special Circumstances.

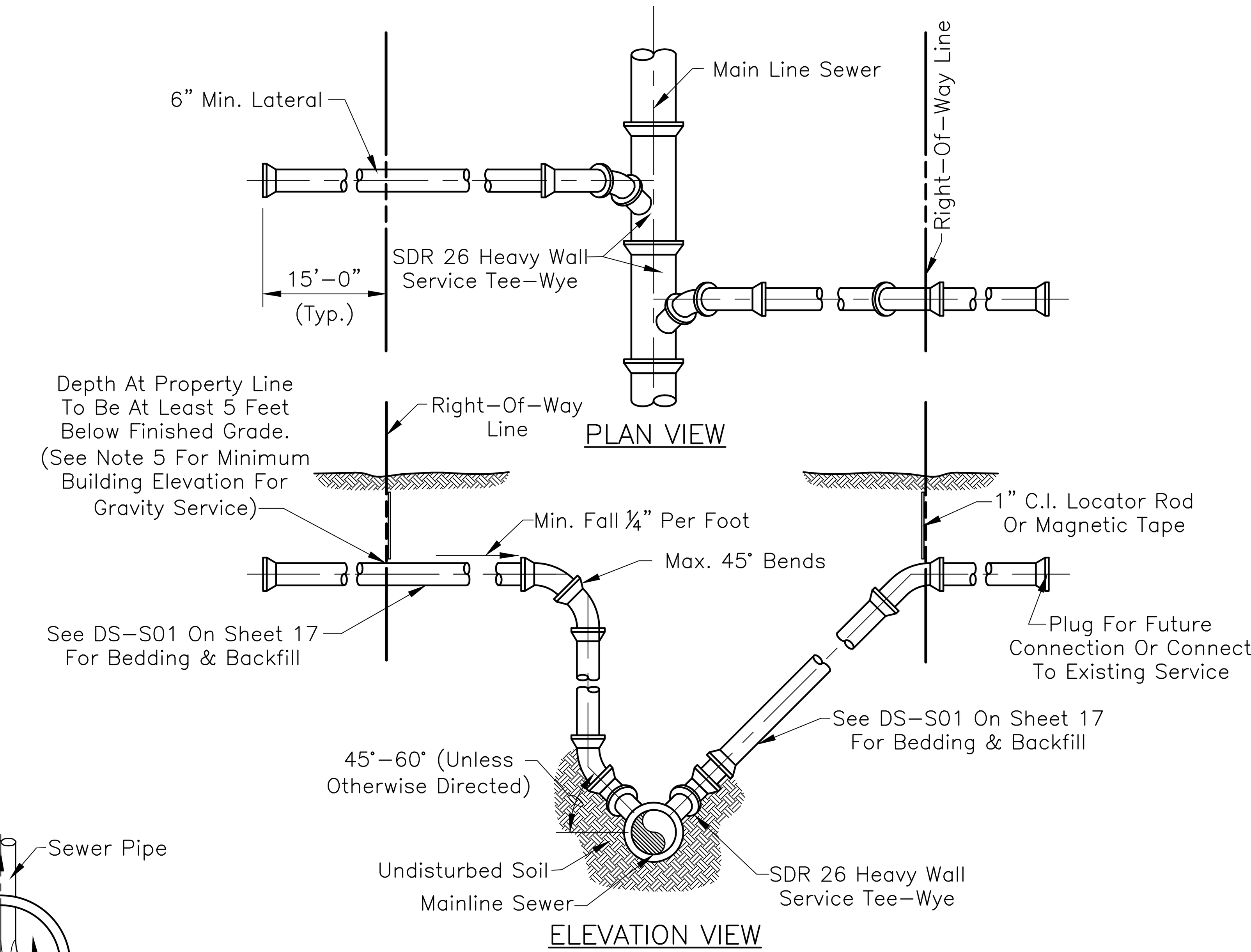
8.) Lateral Connections To A Manholes Are Prohibited.

9.) 10% Of All Sanitary Manholes Shall Be Vacuum Tested With Castings Per ASTM C1244 Following Full Installation. All Sanitary Manhole Sections Shall Be Vacuum Tested In The Shop Prior To Shipment. Dewatering Shall Continue In Order To Prevent Hydrostatic Pressures From Affecting The Test.

TABLE 1

Pipe Size	Minimum Manhole Diameter	
	Pipe Entering/ Pipe Exiting At 0° To 45° Bend	Pipe Entering/ Pipe Exiting At 45° To 90° Bend
8"-21"	48"	48"
24"	48"	60"
27"-30"	60"	60"
33"-36"	60"*	72"

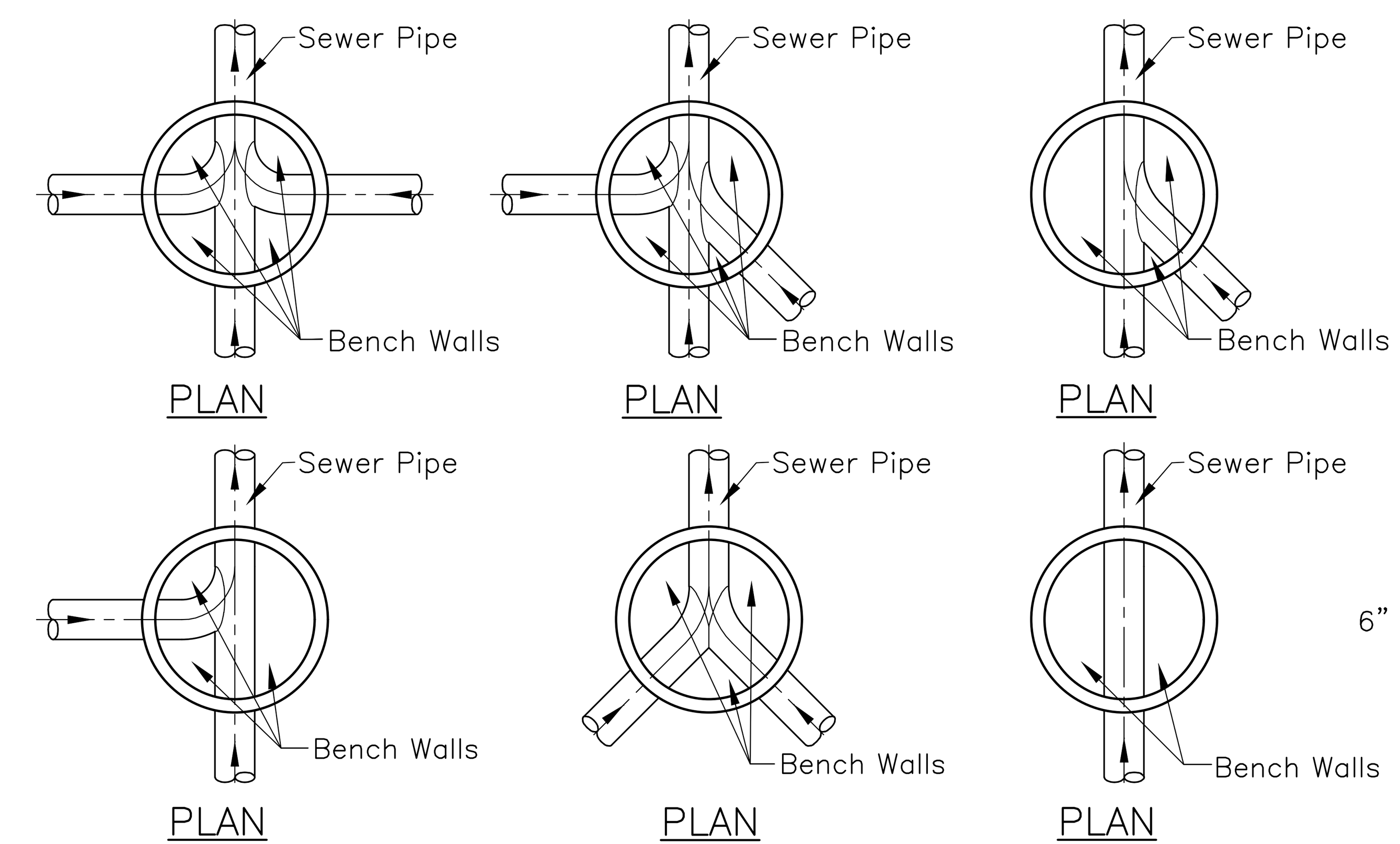
* 72" With A-Lock Connector



See Development Standards DS-S02 On Sheet 17 For Existing Sanitary Lateral Abandonment

SERVICE CONNECTION FOR DEEP SEWERS (15' DEEP AND OVER)

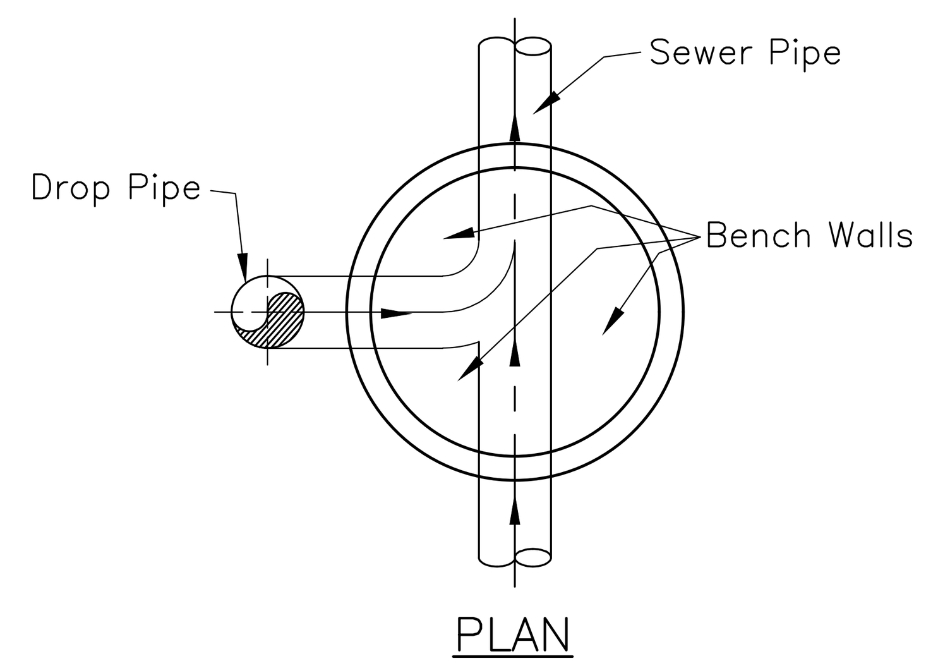
Not To Scale



Note: All Bench Walls To Be Sloped @ ½"/Ft.

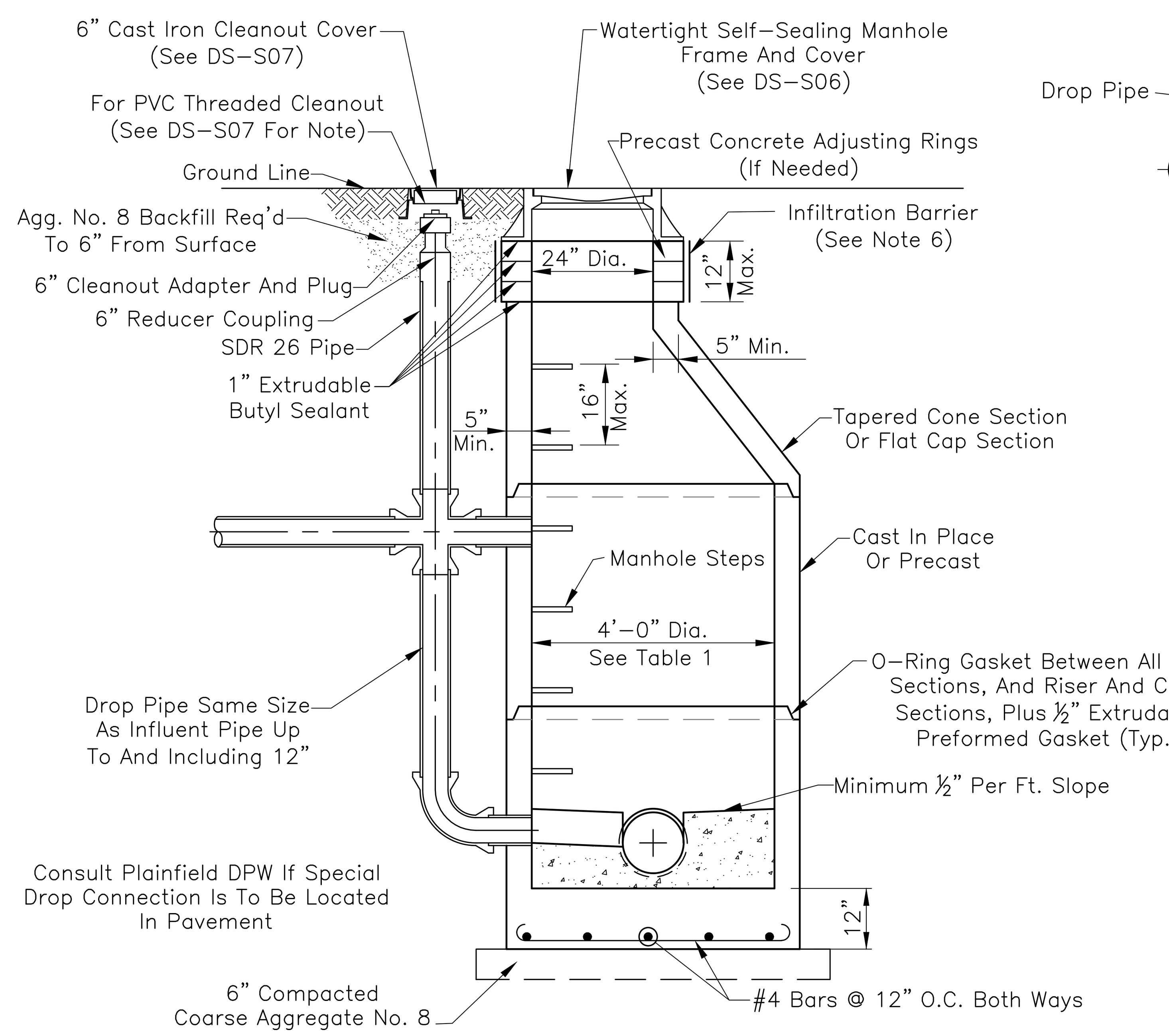
BENCH WALL DETAILS

Not To Scale



BENCH WALL DETAIL

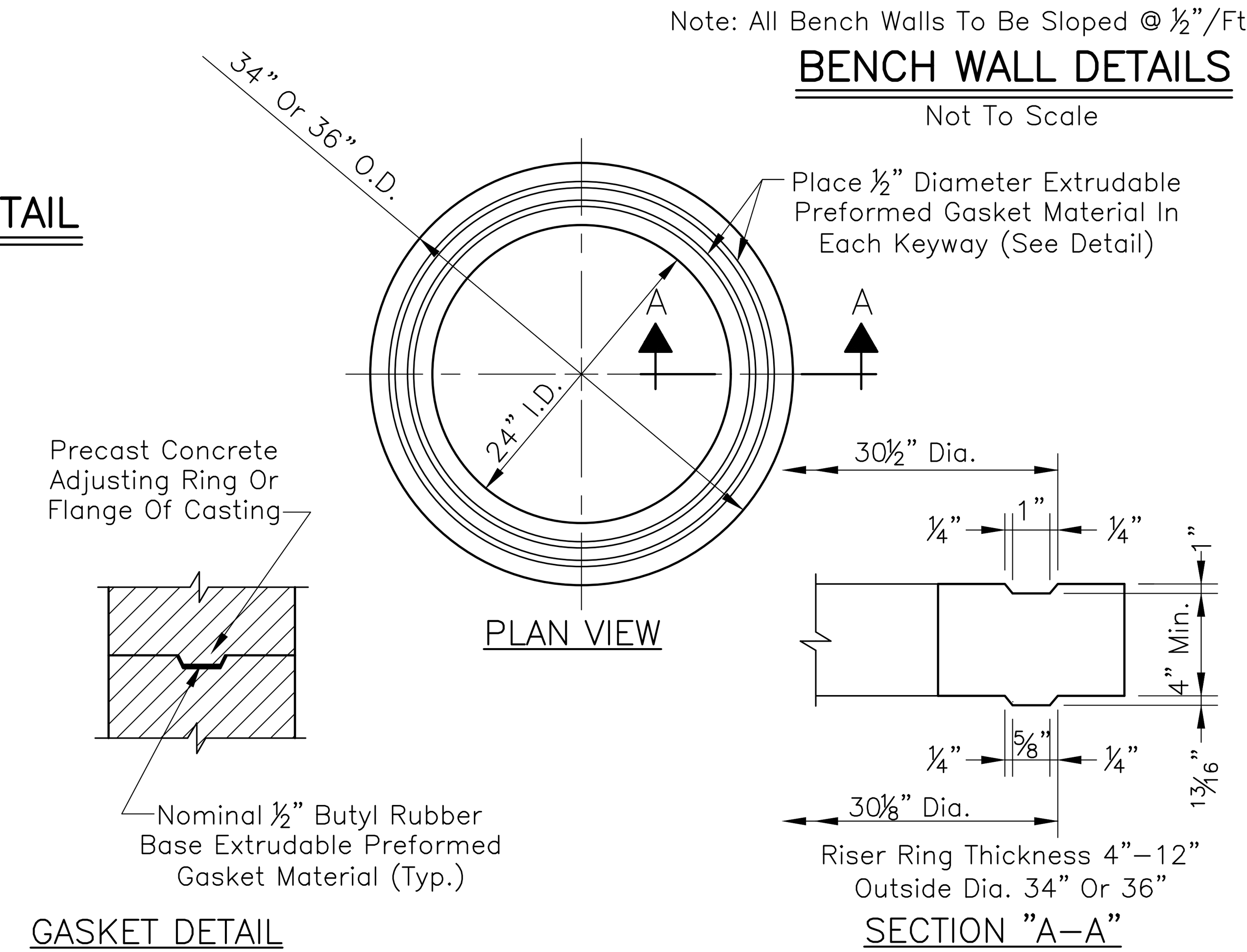
Not To Scale



See Development Standards DS-S03 & DS-S05 On Sheet 17 For Connection To Existing Sanitary Manholes

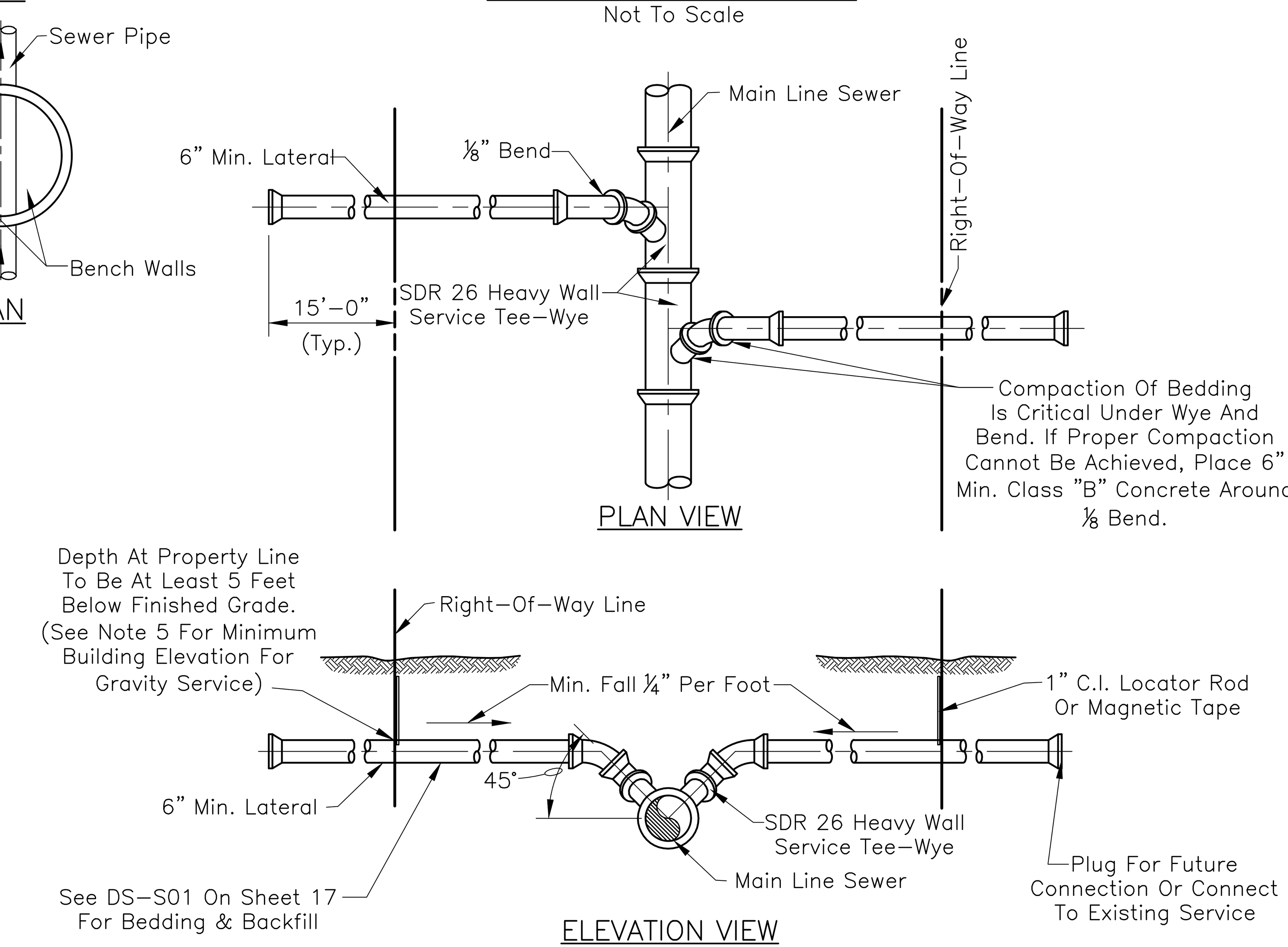
SPECIAL DROP CONNECTION

Scale: ½" = 1'-0"
(*For Use Outside Of Pavement Only*)



PRECAST CONCRETE ADJUSTING RING

Not To Scale



See Development Standards DS-S02 On Sheet 17 For Existing Sanitary Lateral Abandonment

SERVICE CONNECTION FOR SHALLOW SEWERS (LESS THAN 15' DEPTH)

Not To Scale

REVISIONS		
Rev. No.	Description	Date

DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] DESIGN ENGINEER 01/01/2025 DATE

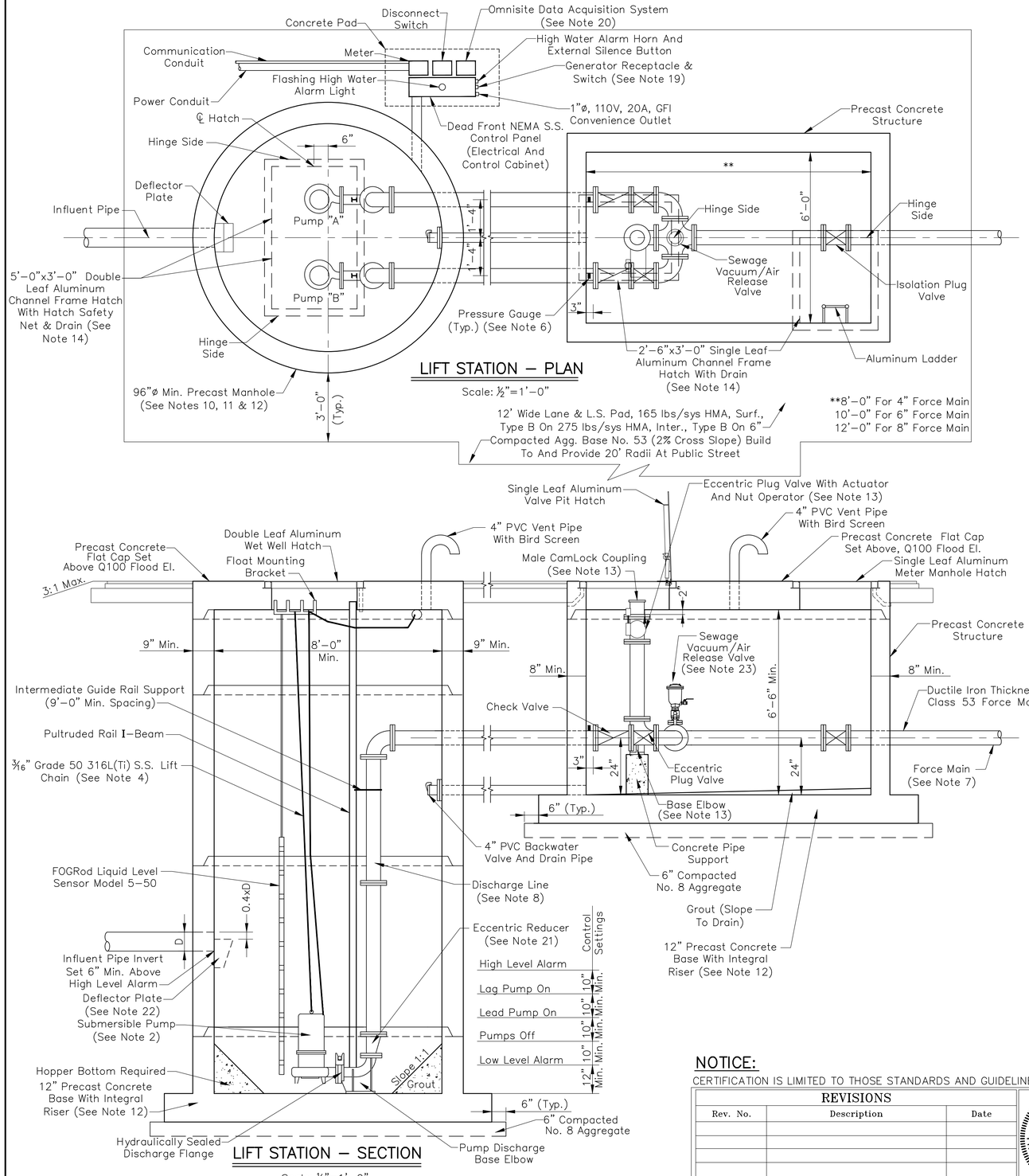
APPROVED [signature] EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES 01/01/2025 DATE

APPROVED [signature] DIRECTOR OF PUBLIC WORKS 01/01/2025 DATE

TOWN OF PLAINFIELD

SANITARY SEWER DETAILS AND NOTES

SHEET 16 OF 29



GENERAL NOTES:

1.) Actual Lift Station Dimensions, Control Settings, And Pump Selection To Be As Indicated By The Design Engineer's Certification Sheet.

Final Orientation And Location Of Hatches And Control Panel Are To Be Field Verified.

2.) Pumps "A" And "B" Shall Be Identical, Centrifugal, Submersible, Solids Handling, Non-Clog Design Capable Of Handling 3 Inch Sphere Solids, Fibrous Material, Sludge, And Material Found In Typical Raw Sewage. Fit Replaceable Bronze Wear Ring To Volute. Pumps Shall Be Hydromatic, Flygt, Or Plainfield DPW Approved Equal. Manufacturer Shall Warrant The Pumps For One Year After Installation.

All Mating Surfaces Intended To Be Watertight Shall Be Machined And Fitted With Nitrile Rubber O-Rings With Sealing Complete When Metal To Metal Contact Is Made, Resulting In Controlled Compression Of O-Rings Without Specific Torque Limit. Fasteners Shall Be 316 S.S.

Mechanical Shaft Seal System Running In An Oil Reservoir Shall Have Separate, Constantly Lubricated Lapped Seal Faces. The Lower Seal Unit Between Media And Oil Reservoir Shall Consist Of One Stationary Seat And One Rotating Ring Held In Place By Its Own Spring. The Rotating Seat Ring And The Stationary Seat Ring Shall Be Made Of Tungsten-Carbide. The Lower Seal Shall Be Removable Without Disassembling The Seal Chamber. The Upper Seal Between Seal Chamber And Motor Shall Be Of The Same Design With Its Own Spring. Seals Shall Be Maintenance Free, But Shall Be Easily Inspectable.

Lower Seal Failure Alarm Shall Be Engaged By Seal Failure Sensor Provided In The Seal Chamber Which Senses Water Intrusion Through Lower Seal.

Over Temperature Alarm, And Pump Shut Down, Shall Be Engaged By Heat Sensor Attached To The Motor Windings. Motor Winding And Stator Lead Insulation Shall Be Class F With Maximum Temperature Capability Of 155° C Or Better. Housing Shall Be Filled With High Dielectric Oil. Air Filled Housing May Be Acceptable When Approved By Plainfield DPW. Pump And Motor Shall Be Designed To Operate Partially Or Fully Submerged In Pumped Media Without The Use Of Cooling Jackets.

Rail System Shall Enable The Easy Removal Of The Pump Without The Need For A Person To Enter The Wet Well. A Non-Corrosive FRP I-Beam Shall Be Provided For Each Pump. The Guide Rail Shall Be Supported At The Bottom By The Discharge Elbow, Aligned Perfectly Plumb And Securely Affixed To Access Frame. One Intermediate Guide Rail Support Is Required For Each 9' Of Guide Rail Length. Schedule 40 S.S. Guide Rails May Be Acceptable If Pump Is Approved By Plainfield DPW.

3.) Check Valve Shall Be Bronze Seated And Shall Be Provided With Bolted Covers For Easy Access To The Disc. Valve Shall Be Outside Adjustable Weight And Lever As Mueller A-2600-6-01, Kennedy/Clow 1106LW, Or As Approved By Plainfield DPW. The Valve Shall Be Furnished With Fusion Bonded Epoxy Coating Inside And Out In Accordance With AWWA C550.

4.) Provide Sufficient Lift Chain, Float Mounting Cable, And Pump Power And Sensor Cable To Enable Non-Spliced Field Adjustment. Lift Chain Shall Have A Minimum Work Load Limit Of 1100 Pounds. Float Mounting Cable Shall Be Held In Place By Weight, Floats Shall Be Fastened To Cable With S.S. Clamps Near Each Float Location. Pump Power And Sensor Cable Shall Be Suitable For Submersible Pump Applications And This Shall Be So Indicated By A Code/Legend Permanently Embossed On The Cable.

5.) Plug Valve Shall Be An Eccentric Buna-N Rubber Faced Plug With Hand Lever Operation In-Line And Gear Operation On Bypass. Valve Shall Be Valmatic F-5800-R, Kennedy/Clow F-5412, Or As Approved By Plainfield DPW. The Valve Shall Be Furnished With Fusion Bonded Epoxy Coating Inside And Out In Accordance With AWWA C550.

6.) Pressure Gauge Shall Be Trerice Model 450 LFB Or Plainfield DPW Approved Equal. Drill And Tap Run Of Pipe To Install Pressure Gauge.

7.) Piping Not Within 2 Feet Of Wet Well And Valve Pit Shall Be DI AWWA C151, HDPE AWWA C906, PVC ASTM D2241, PVC AWWA C900, Or Plainfield DPW Approved Equal. See Design Engineer's Certification Sheet For Pipe Class.

8.) Piping In And Within 2 Feet Of Wet Well And Valve Pit Shall Be Class 53 Flanged Ductile Iron Pipe And Shall Be Manufactured By Tyler, American, Or U.S. Pipe, Or As Approved By Plainfield DPW. All Fasteners Within Wet Well And Valve Vault Shall Be 316 S.S.

9.) Piping And Fittings In Wet Well And Valve Pit Shall Be Factory Primed Tnemec Series Purple Prime To A Dry Film Thickness Of 5.0 To 11.0 Mils And Shall Be Field Painted With Tnemec Series 69-Color To A Dry Film Thickness Of 5.0 To 6.0 Mils. Fittings Shall Be Manufactured By U.S. Pipe, Tyler, Mueller, Or As Approved By Plainfield DPW.

10.) Damp Proof All Exterior Vertical Surfaces Which Are Backfilled Against With Bituminous Coating, Masterseal 614.

11.) Lift Station Manhole And Valve Pit Structures Shall Be Precast Concrete In Accordance With ASTM C478, With Rubber Gaskets Equal To Gasket Material Or Plainfield DPW Approved Equal. See Sanitary Sewer Details And Notes Sheet For Manhole Steps.

12.) Horizontal Projections From Precast Integral Base And Riser May Be Required To Enable The Weight Of The Vertical Soil Ring Above The Projection To Resist Buoyancy Forces. See Design Engineer's Certification Sheet.

13.) CamLock Coupling And Eccentric Plug Valve On Bypass Line Shall Be 4 Inch Diameter With Transition To Force Main Size Occurring With Concentric Reducer Placed On Top Of Base Elbow. Fix Operating Nut For Eccentric Plug In Vertical Position To Enable Wrench Operation From Surface. Layout Of All Valve Vault Fittings And Equipment To Be Based Upon Bypass Line Being Close To Hatch Opening, As Shown.

14.) Aluminum Hatches Shall Be Channel Frame Type Flygt Safe-Hatch. Leaf Shall Be ½ Inch Aluminum Diamond Plate Live Load Rated To 300 PSF. Channel Frame Shall Be ½ Inch Extruded Aluminum With A Mill Finish And Bituminous Coating On Exterior Surfaces. Hatch Shall Be Provided With Type 316 S.S. Hardware Throughout, Automatic Hold-Open Arm With Release Handle, Slam Lock With Removable Handle, 1-½ Inch Drain Coupling, Padlock Hasp, And USF Fabrication Fall-Through Protection Hatch Safety Net.

15.) Sewer Connection To Wet Well Shall Be KOR-N-SEAL, A-LOK, Press-Seal, Or Plainfield DPW Approved Equal.

16.) Force Main Penetrations Of Wet Well And Valve Pit Shall Be Made Watertight Through The Use Of Portland Cement Grout.

17.) Automatic Pump Control Panel Shall Include All Necessary Items And Appurtenances Which Might Normally Be Considered A Part Of A Complete System, Including But Not Limited To: Condensate Heater; Push To Test Button (External); Push To Silence Button (External); Alternator Selector Switch For Manual Designation Of Lead Pump; Time Delay Relay For Lag Pump Start; And Pump Run Time Hour Meters. System Shall Be Supplied By One Manufacturer, Shall Be Factory Assembled, Wired, Tested, And Shall Be Per Complete Electrical Drawings And Instructions. Major Components And Sub-Assemblies Shall Be Identified By Their Function With Laminated, Engraved, Bakelite Nameplates. System Shall Be Built In A Minimum 60"x36"x12" NEMA 4X S.S. Enclosure Suited For The Specified Horsepower And Voltage Of The Pumps. The Outer Door Of The Panel Shall Be A Hinged Dead Front With Provisions For Padlocking. Inside Shall Be A Separate Hinged Panel To Protect All Electrical Components, H-O-A Switches, Run Lights, Circuit Breakers, Etc., Mounted Such That Only The Faces Protrude Through Said Panel With No Wiring Fixed To Said Panel. The Manufacturer Shall Warrant The Control Center For One Year After Installation Covering 100% Parts And Labor.

Provide The Services Of A Factory Trained, Qualified Representative To Inspect, Adjust, Place The System In Trouble Free Operation, And Instruct Operating Personnel In The Proper Operation And Care Of The System.

All Major Components Of Control Center Shall Be American-Made And Available From Local Sources. Pump Manufacturer Shall Accept The Control Center In Writing To Ensure Unit Responsibility And Warranty.

Provide A Manual Transfer Type Disconnect Switch Housed In A Separate NEMA 4X S.S. Enclosure With External Operation Handle Capable Of Being Locked In The "ON" Normal Position Or The "ON" Secondary Position With A Middle "OFF" Position.

A Lightning Arrestor Shall Be Provided At The Phase Relay Block And Connected To Each Line Of The Incoming Side Of The Power Input Terminals. A Single Main Fusible/Breaker Disconnect Switch Of Adequate Size To Provide Power For Control, Operation, And Appurtenant Components Shall Be Provided. Provide A Circuit Breaker And Magnetic Starter With Each Leg Manual Reset Overload Protected For Each Pump. Starters Shall Have Auxiliary Contacts On 3ø Applications To Operate Both Pumps Simultaneously. Provide A Phase Monitor With Phase Fail Relay. Provide A Circuit Breaker And Transformer To Power The Control Panel With 1ø, 115 Volt Service For All Control Functions Including OMNISITE Data Acquisition System, Radio and Flowmeter. Provide A Green "Run" Light, And H-O-A Switch To Enable Field Connections.

Materials And Installation Of The Required Equipment Grounding Shall Be In Accordance With NEC Section 250-83(c). All Wiring Shall Have Not Less Than 600 Volt Insulation. Wiring And Buss Shall Be In Accordance With NEC, State, Local, And NEMA Standards. All Wiring Shall Be Color Coded. Minimum 4 Inch Diameter, Schedule 40 Conduit Shall Be Provided From Wet Well To Control Panel Enabling Pump Power And Sensor Cables, And Float Switch Cables To Be Easily Pulled. Seal Conduit At Control Panel To Prevent Sewer Gases From Entering. All Conduits, Fittings, Or Connections Shall Enter From The Bottom Of Enclosures.

Sump Level Rise To Lead Pump Run Float Causes Lead Pump To Operate. Lead Pump Operating And Sump Level Falling To Pumps Off Float Causes Lead Pump To Shut Off. Lead Pump Operating And Sump Level Rising To Lag Pump Run Float Causes Lag Pump To Operate. Lag Pump Operating And Sump Level Falling To Pumps Off Float Causes Both Pumps To Shut Off. Sump Level Rise To High Level Alarm Causes High Level Alarm To Operate. Sump Level Fall To Low Level Alarm Causes Low Level Alarm To Operate. An Alternating Relay Shall Be Provided To Cause Pumps To Alternate Whenever Pumps Off Float Is De-Energized. If One Pump Fails For Any Reason, The Remaining Pump Shall Operate Upon Sump Level Rise To Lag Pump Run Float. An Hour Meter Shall Be Provided For Each Pump To Record The Elapsed Operating Time Of Each Pump.

18.) Four Manuals Shall Be Presented To The Owner Which Shall Include The Following Minimum Information: 1) Operation Instructions; 2) Maintenance Instructions; 3) Recommended Spare Parts List; 4) Lubrication Schedule; 5) Structural Diagrams; 6) As-Built Wiring Diagrams; And 7) Bill Of Materials.

19.) Generator Receptacles To Be Crouse-Hinds Arktite AR1042 100amp Receptacle Or Crouse-Hinds Arktite AR2041 200amp Receptacle With Factory Sealed Switch For Receipt Of The Town Of Plainfield's Portable Generator Set.

20.) Provide OMNISITE XR 50 Data Acquisition System For Duplex Pump Stations And OMNISITE Crystal Ball Data Acquisition System For Triplex Pump Stations That Incorporates; 1 Spare Input/Output, 1 Input For Flowmeter, 5 Outputs To Control Being Lead Remote On, Lead Remote Off, Lag Remote On, Lag Remote Off, Remote Alarm Acknowledge, 10 Inputs From Control Being Hatch(es) Open Alarm, Panel(s) Open Alarm, Pump "A" On, Pump "B" On, Pump "A" Fail, Pump "B" Fail, Phase Fail Alarm, Power Fail Alarm, High Water Alarm, And Pump(s) Seal Failure. Remote Lead Pump Override And Remote Lag Pump Override.

21.) Eccentric Reducer To Be Installed As Required For Force Main Size. Consult Plainfield DPW If Force Main Piping Is Greater Than 6 Inch Diameter.

22.) ¼" Stainless Steel Deflector Plate Required On All Influent Pipes. As Supplied by Mooresville Welding or DPW Approved Equal.

23.) Air/Vacuum Release Valve Shall Be An ARI D-025P Combination Air Valve For Wastewater And Shall Be Sized By The Design Engineer According To The Volume Of Main And Maximum Force Main Operating Pressure. The Pipe Nipples And Gate Valve For The Air/Vacuum Release Valve Shall Be Stainless Steel.

NOTICE:

CERTIFICATION IS LIMITED TO THOSE STANDARDS AND GUIDELINES PER THIS SHEET. CONSTRUCTION IS SUBJECT TO CONSTRUCTION DRAWINGS, SHOP DRAWINGS, AND DESIGN ENGINEER'S CERTIFICATION SHEET.

REVISIONS		
Rev. No.	Description	Date

DAVID LAKEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF PUBLIC WORKS	01/01/2025 DATE

TOWN OF PLAINFIELD

SANITARY SEWER
LIFT STATION STANDARDS
& GUIDELINES

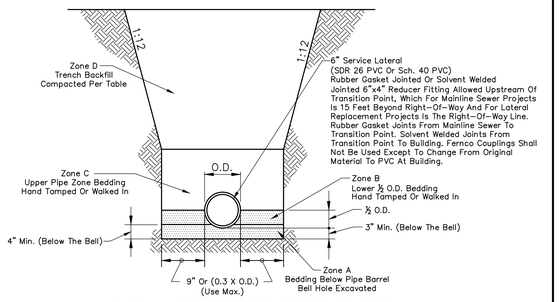
SHEET 17 OF 29

PVC LATERAL PIPE BEDDING & BACKFILL TABLE**

Bedding/Backfill Zone As Indicated On Detail	Back Of Curb To Back Of Curb	Planting Strip Or Existing Sidewalk	Private Property For Repair/Replace	Future Sidewalk Under 6 Month Rule*	Private Property Under 6 Month Rule*
Zone D Trench Backfill Compacted Per Table	Flowable Fill Or Same As Zone 'B'	Flowable Fill Or Same As Zone 'B'	Approved Excavated Material @ 85% Standard Proctor	Approved Excavated Material @ 85% Standard Proctor	Approved Excavated Material @ 85% Standard Proctor
Zone C Upper Pipe Zone Bedding Hand Tamped Or Walked In	Flowable Fill Or Same As Zone 'B'	Flowable Fill Or Same As Zone 'B'	"B"–Borrow Or Well–Graded Sand	Coarse Aggregate No. 8	Coarse Aggregate No. 8
Zone B Lower 1/2 O.D. Bedding Hand Tamped Or Walked In	Coarse Aggregate No. 8	Coarse Aggregate No. 8	"B"–Borrow Or Well–Graded Sand	Coarse Aggregate No. 8	Coarse Aggregate No. 8
Zone A Bedding Below Pipe Barrel Bell Hole Excavated	Coarse Aggregate No. 8	Coarse Aggregate No. 8	"B"–Borrow Or Well–Graded Sand	Coarse Aggregate No. 8	Coarse Aggregate No. 8

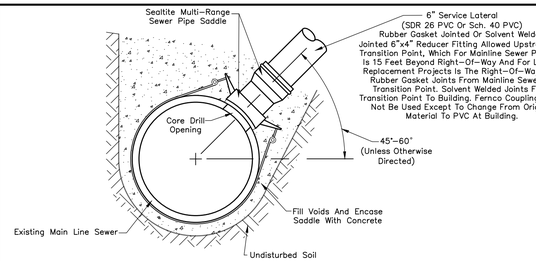
*Approved Excavated Material May Be Used Under Proposed Sidewalks Provided Sidewalks Are Constructed 6 Months After Backfilling Of Trench And As Such Any Additional Lateral Pipe Built On Private Property Under Initial Sewer Construction Shall Be In Accordance With "Private Property Under 6 Month Rule" Column.

**The PVC Lateral Pipe Bedding And Backfill Table Is Intended To Show Minimum Material Requirements. Flowable Fill May Be Used For Any Zone C, Or Zone D Work. "B"–Borrow May Be Used Whenever Excavated Material Is Required By Table. #8 Crushed Stone Or #8 Fractured Face Aggregate May Be Used Whenever "B"–Borrow Is Required By Table.



PVC LATERAL PIPE BEDDING DETAIL

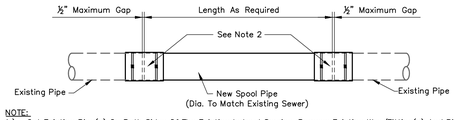
Not To Scale



NOTE:
1.) Sewer Pipe Saddle Shall Be General Engineering Company Sealtite Type "U" For Laterals Connecting To Existing Mainline Sanitary Sewer With A 6.275" OD To 30.00" OD.
2.) Sewer Pipe Saddle Shall Be General Engineering Company Sealtite Type "C" For Laterals Connecting To Existing Mainline Sanitary Sewer Over 30.00" OD.

SANITARY LATERAL SADDLE TAP

Not To Scale

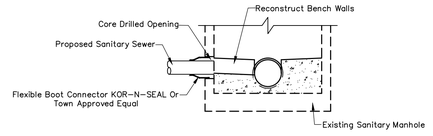


NOTE:
1.) Cut Existing Pipe(s) On Both Sides Of The Existing Lateral Service. Remove Existing Wye/Fitting(s) And Pipe(s) Section And Install New Spool Pipe As Detailed Above.
2.) Fernco Type 1000 RC Strong Back Couplings Are Required Where Plastic (PVC) Is Connected To Clay Or Cast Iron Pipe.

Where New PVC Pipe Is Being Connected To Existing PVC Pipe A Ductile Iron Repair Sleeve With Romac Grip Rings And IPS Transition Gaskets Shall Be Used.

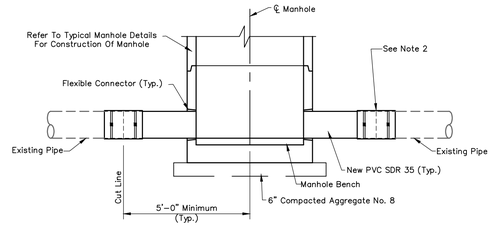
EXISTING SANITARY LATERAL ABANDONMENT

Not To Scale



EXISTING MANHOLE CONNECTION DETAIL

Not To Scale



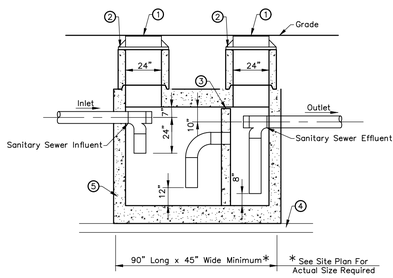
NOTE:
1.) Cut Existing Pipe(s) On The Side Of The Proposed Manhole. Remove Existing Pipe(s) Section And Install Manhole Base. Proceed With Typical Connections And Manhole Construction.
2.) Fernco Type 1000 RC Strong Back Couplings Are Required Where Plastic (PVC) Is Connected To Clay Or Cast Iron Pipe.

Where New PVC Pipe Is Being Connected To Existing PVC Pipe A Ductile Iron Repair Sleeve With Romac Grip Rings And IPS Transition Gaskets Shall Be Used.

SPECIAL MANHOLE CONNECTION DETAIL

Not To Scale

NOTES:
1. Cast Iron Manhole Frame And Cover Neenah R–6462–FH Or Approved Equal
2. 24" Diameter Concrete Pipe Riser
3. Precast Concrete Baffle
4. 6" Of Compacted Aggregate No. 8
5. Precast Concrete Structure Designed For H–20 Loading. (Must Be Approved By The Authority Having Jurisdiction)

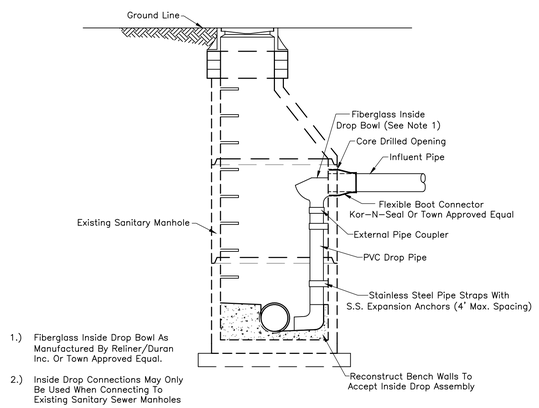


Grease Interceptor Subject To Sanitary Sewer Manhole Construction Requirements Including Vacuum Testing

GREASE INTERCEPTOR DETAIL

Not To Scale

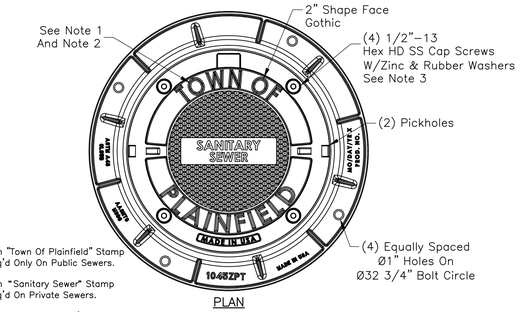
DEVELOPMENT STANDARD – DETAIL DS–S01 | DEVELOPMENT STANDARD – DETAIL DS–S02 | DEVELOPMENT STANDARD – DETAIL DS–S03 | DEVELOPMENT STANDARD – DETAIL DS–S04



1.) Fiberglass Inside Drop Bowl As Manufactured By Reliner/Duran Inc. Or Town Approved Equal.
2.) Inside Drop Connections May Only Be Used When Connecting To Existing Sanitary Sewer Manholes

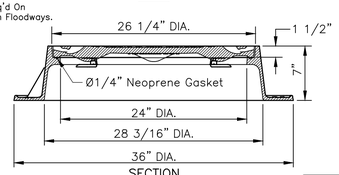
INSIDE DROP ASSEMBLY CONNECTION DETAIL

Not To Scale



Note:
1.) 2 Inch "Town Of Plainfield" Stamp Is Req'd Only On Public Sewers.
2.) 2 Inch "Sanitary Sewer" Stamp Is Req'd On Private Sewers.
3.) Bolt Down Lids Are Req'd On Private Property And In Floodways.

PLAN



SECTION

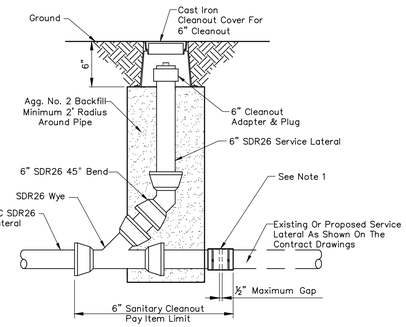
Min. Weight = 315 Lbs.

NEENAH R–1916–F, EJ 1045ZPT AND 1040APT OR US FOUNDRY 755–NC BWT

Not To Scale

NOTE:
1.) Fernco Type 1000 RC Strong Back Couplings Are Required Where Plastic (PVC) Is Connected To Clay Or Cast Iron Pipe.

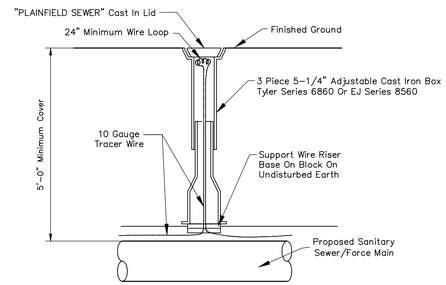
Where New PVC Pipe Is Being Connected To Existing PVC Pipe A Ductile Iron Repair Sleeve With Romac Grip Rings And IPS Transition Gaskets Shall Be Used.



6" SANITARY CLEANOUT

Scale: None

NOTE:
1.) The Tracer Wire Shall Be 10 Gauge, Direct Bury, Solid Copper Wire With A Minimum 35 Mil. Polyethylene Insulation
2.) 2" to 6" Of Separation Is Recommended Between Force Main And Wire
3.) Tracer Wire Risers Shall Be Placed At A 400' Max Spacing Interval
4.) Install Tracer Wire As A Single Continuous Wire. Splicing Of Wire, If Necessary, Shall Be Done In Such A Way To Produce An Electrically And Mechanically Sound Joint.



TRACER WIRE RISER DETAIL

Scale: None

DEVELOPMENT STANDARD – DETAIL DS–S05 | DEVELOPMENT STANDARD – DETAIL DS–S06 | DEVELOPMENT STANDARD – DETAIL DS–S07 | DEVELOPMENT STANDARD – DETAIL DS–S08

REVISIONS		
Rev. No.	Description	Date

DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 01/01/2025 DATE

APPROVED — EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES — 01/01/2025 DATE

APPROVED — DIRECTOR OF PUBLIC WORKS — 01/01/2025 DATE

TOWN OF PLAINFIELD

SANITARY SEWER (S)
DEVELOPMENT STANDARDS

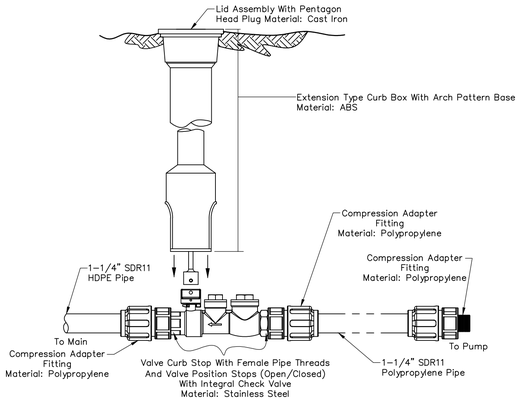
SHEET 18 OF 29

LOW PRESSURE SEWER DESIGN:

1. Calculations Shall Be Developed For LPS System Design Including The Following:
   a. Topographical Map
   b. Soil Conditions
   c. Frost Depth
   d. Water Table
   e. Applicable Codes
   f. Discharge Location
   g. Lot Layout
   h. Total Number Of Lots
   i. Dwelling Types
   j. Use And Flow Factors
   k. Area Development Sequence And Timetable
2. Grinder Pumps Shall Be Sized Based Upon Recommended Flow In GPD And Must Consider The Following:
   a. Wet Well And Discharge Piping Must Be Protected From Freezing
   b. Model And Basin Size Must Be Appropriate For Incoming Peak Flows
   c. Appropriate Alarm Devices Must Be Used
3. Grinder Pumps Shall Be Owned By The Property Owner, Not The Town Of Plainfield.
4. Power For Grinder Pumps Shall Be Provide By Property Owner.
5. Pipe Shall Be Either PVC SDR 21 Or HDPE DR 11.
6. Air/Vacuum Valves Shall Be Installed At All System High Points And Significant Changes In Grade.
7. Air Release Valves Shall Be Installed At Intervals Of 2,000 Feet On All Horizontal Runs That Lack A Clearly Defined High Point.
8. Air Release Valves Shall Be Installed At The Beginning Of Each Downward Leg In The System That Exhibits A 30–Foot Or More Drop.
9. Cleanout And Flushing Stations Shall Be Incorporated Into The Pipe Layout. Cleanouts Shall Be Installed At The Terminal End Of Each Main, At Every 1,000 Feet On Straight Runs Of Pipe, And Whenever Two Or More Mains Come Together And Feed Into Another Main.
10. A Pipe Schedule And Zone Analysis Shall Be Developed To Ensure The Design Conforms With A Criteria Of Flow Velocity Greater Than Or Equal To 2.0 Feet Per Second And Total Design Head Of Less Than Or Equal To 185 Feet.

LOW PRESSURE SEWER DESIGN
Scale: None

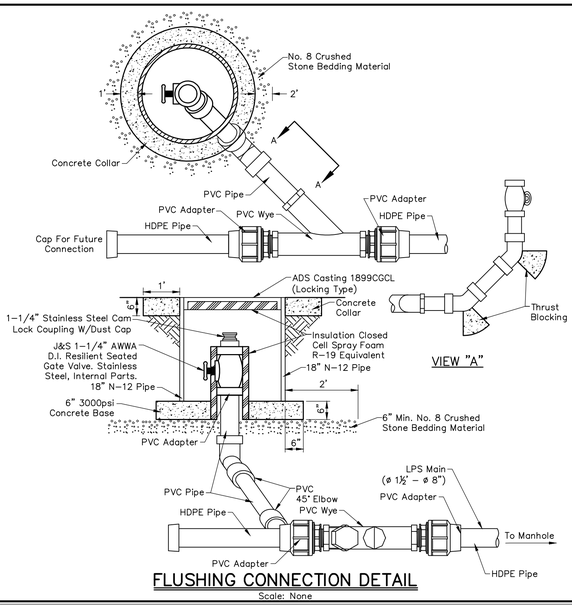
DEVELOPMENT STANDARD – DETAIL DS–S09



NOTE:
1. SS Curb Stop/Check Valve And Fittings Are Provided Separately.
2. To Assemble, Apply A Double Layer Of Teflon Tape, And A Layer Of Pipe Dope To The Threads On Plastic Fittings And Install Per The Manufacturer's Instructions.
3. Assembly Is To Be Pressure Tested.
4. Assembly Is To Be Used With SDR11 HDPE Pipe.
5. Stainless Steel Lateral Kit Is Required Within 5 Feet Of The Force Main Unless Approved Otherwise By Plainfield DPW.

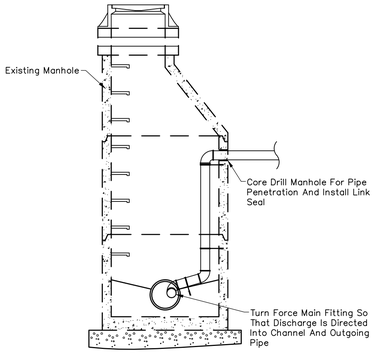
STAINLESS STEEL LATERAL KIT
1–1/4" SDR 11 HDPE PIPE
Scale: None

DEVELOPMENT STANDARD – DETAIL DS–S10



FLUSHING CONNECTION DETAIL
Scale: None

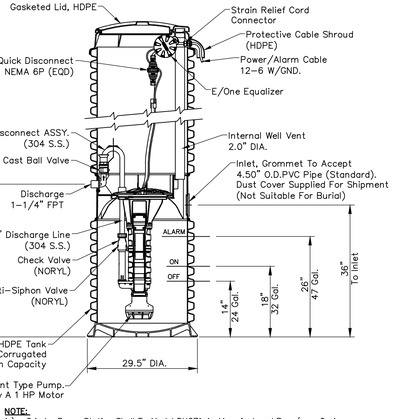
DEVELOPMENT STANDARD – DETAIL DS–S11



NOTE:
1.) Force Main As Specified To Be Anchored To Wall Opposite Steps With Corrosion Resistant Anchors.
2.) Discharge From Force Main Shall Be Installed Over Or Directed To The Flow Line Of The Manhole With Appropriate Fittings Depending On The Orientation On The Force Main Penetration With The Flow Line.
3.) Discharge Shall Not Be Directed Onto The Bench Wall.
4.) Tracer Wire Shall Be Installed Per Tracer Wire Riser Detail on Sheet 17.

SANITARY MANHOLE CONNECTION DETAIL
Scale: None

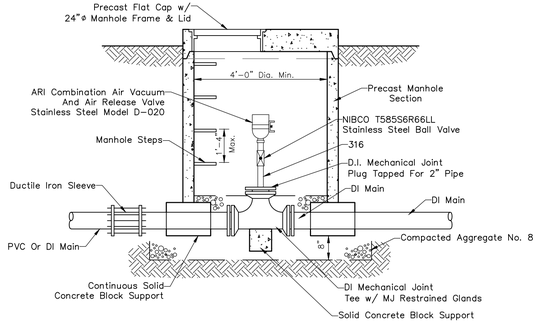
DEVELOPMENT STANDARD – DETAIL DS–S12



NOTE:
1.) Grinder Pump Station Shall Be Model DH071 As Manufactured By e/one, Or As Approved By Plainfield DPW.
2.) Concrete Ballast May Be Required. See Manufacture Installation Instructions For Details.
3.) Dimensions Are For Reference Only.
4.) Property Owner Is Responsible For Installing, Maintaining, And Operating Grinder Pump Station, Sewer Service Lateral Including Curb Stop Valve And Connection To The Low Pressure Force Main.

GRINDER PUMP STATION DETAIL
Scale: None

DEVELOPMENT STANDARD – DETAIL DS–S13



AIR/VACUUM RELEASE VALVE & STRUCTURE
Scale: None

DEVELOPMENT STANDARD – DETAIL DS–S14

REVISIONS		
Rev. No.	Description	Date

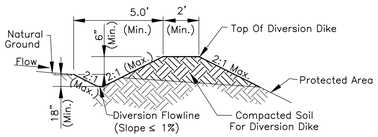
DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025	DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025	DATE
APPROVED	DIRECTOR OF PUBLIC WORKS	01/01/2025	DATE

TOWN OF PLAINFIELD

SANITARY SEWER (S) DEVELOPMENT STANDARDS

SHEET 19 OF 29



Notes:

Installation:
Lay Out The Diversion By Setting Grade And Alignment To Fit Site Needs And Topography, Maintaining A Stable, Positive Channel Grade Towards The Outlet.

Remove And Properly Dispose Of Brush, Trees, And Other Debris From The Foundation Area.

Construct The Diversion To Dimensions And Grades Shown In The Construction Plans.

Construct The Diversion Ridge In Six To Eight–Inch Lifts. Compact Each Lift By Driving Wheels Of Construction Equipment Along The Ridge. Overfill And Compact The Ridge To Design Height Plus 10 Percent To Allow For Settlement.

Stabilize Outlets Prior To Or During Construction Of The Diversion, Diverting Sediment–Laden Storm Water Flow To A Temporary Sediment Trap Or A Temporary Dry Sediment Basin.

Maintenance:
Inspect Within 24 Hours Of Each Rain Event And At Least Once Every Seven Calendar Days.

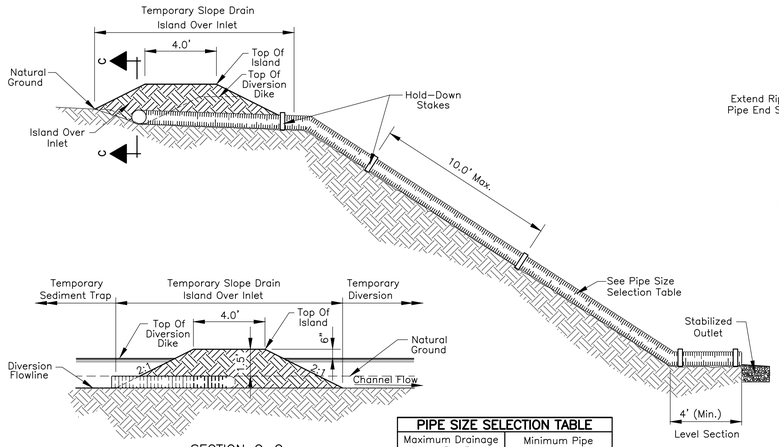
Remove Sediment From Channel To Maintain Positive Grade.

Check Outlets And Make Necessary Repairs Immediately.

Adjust Ridge Height To Prevent Overtopping.

TEMPORARY DIVERSION

Not To Scale



SECTION C–C

PIPE SIZE SELECTION TABLE	
Maximum Drainage Area Per Pipe	Minimum Pipe Diameter
0.50 acre	8 In.
0.75 acre	10 In.
1.00 acre	12 In.
>1.00 acre	Individually Designed

NOTES:

Installation:
Place Temporary Slope Drains On Undisturbed Soil Or Well Compacted Fill. Set The Slope Drain Inlet At The Bottom Of The Diversion Channels. Connect The Pipe To The Inlet Section.

Construct The Diversion Ridge By Placing Fill Over The Pipe In 6 Inch Lifts. Compact Each Lift By Hand Tamping Under And Around The Inlet, And Along The Pipe.

Make The Top Of The Fill 6 Inches Higher Than The Adjoining Diversion.

Make All Pipe Connections Watertight And Secure So That Joints Will Not Separate In Use.

Anchor The Pipe To The Face Of The Slope With Stakes Spaced No More Than 10 Feet Apart. Extend The Pipe Beyond The Toe Of Slope To A Stable Grade. Protect The Outlet From Erosion.

Grade The Diversion Channel At The Top Of The Slope Toward The Temporary Slope Drain (Slope <2%).

Stabilize All Disturbed Areas Following Installation.

Maintenance:
Inspect Weekly And Following Each Storm Event. (Remove Sediment From The Channel And Reinforce The Ridge As Needed.)

Check The Inlet For Sediment Or Trash Accumulation.

Check The Fill Over The Pipe For Settlement, Cracking, Or Piping Holes; Repair Immediately.

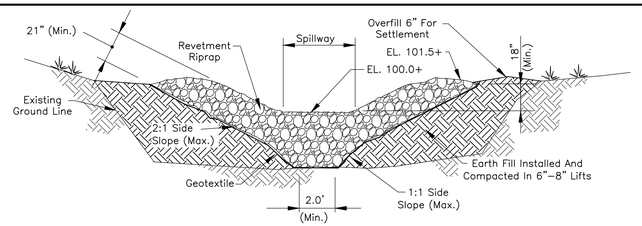
Check For Holes Where The Pipe Emerges Form The Dike; Repair Immediately.

Check The Conduit For Evidence Of Leaks Or Inadequate Anchoring; Repair Immediately.

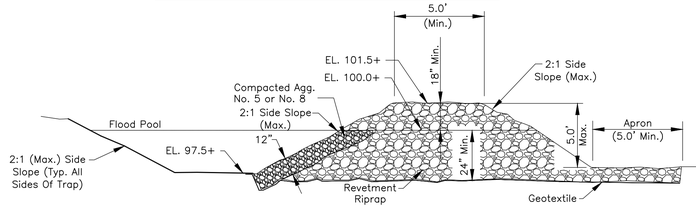
Check The Outlet For Erosion Or Sedimentation; Clean & Repair Or Extend If Necessary.

TEMPORARY SLOPE DRAIN

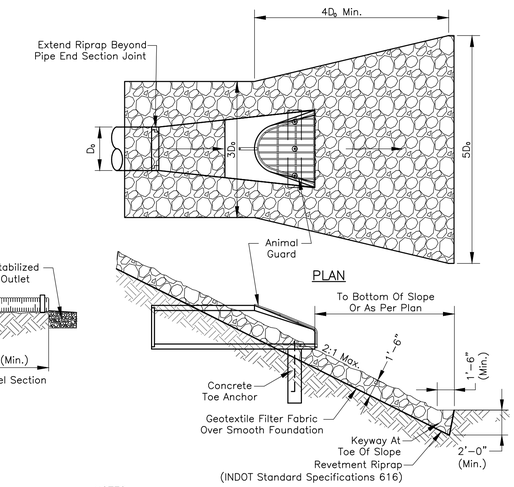
Not To Scale



EARTH EMBANKMENT AND STONE OUTLET SECTION



CROSS SECTION VIEW OF THE STONE OUTLET SECTION



SECTION

NOTES:

Installation:
Excavate Only Deep Enough For Both Filter And Riprap. Compact Any Fill Material to The Density Of The Surrounding Undisturbed Soil.

Cut A Keyway In Stable Material At The Base Of The Slope to Reinforce The Toe; Keyway Depth Should Be 1 ½ Times The Design Thickness Of The Riprap And Should Extend A Horizontal Distance Equal To The Design Thickness.

Place Geotextile Fabric On The Smoothed Foundation, Overlapping The Edges 12 Inches Min. Secure With Anchor Pins Spaced Every 3 Feet Along The Overlap.

Immediately After Installing The Filter, Add The Riprap To Full Thickness In One Operation. Do Not Dump Through Chutes Or Use Any Method That Causes Segregation Of Rock Sizes Or That Will Dislodge Or Damage The Underlying Filter Material.

If Fabric Is Damaged, Remove The Riprap And Repair By Adding Another Layer Of Fabric, Overlapping The Damaged Area By 12 Inches.

Place Smaller Rock In Voids To Form A Dense, Uniform, Well Graded Mass. Blend The Rock Surface Smoothly With The Surrounding Area To Eliminate Protrusions Or Over–Falls.

Inspect Periodically For Displaced Rock Material, Slumping, And Erosion At Edges, Especially Downstream Or Downslope.

Maintenance:
Inspect Periodically For Displaced rock Material, Slumping And Erosion At Edges, Especially Downstream Or Downslope.

PRECAST CONCRETE END SECTION W/ RIP RAP

Not To Scale

Notes:

The Spillway Width Varies With The Drainage Area Contributing To The Temporary Sediment Trap:

Drainage Area (acres)	Width (ft.)
1	4
2	6
3	8
4	10
5	12

The Length And Width Of The Basin Are As Shown On The Erosion Control Plan (Maximum Drainage Area Is 5 Acres).

See The Indiana Storm Water Quality Manual For Additional Information.

Installation:
Clear, Grub, And Strip All Vegetation And Root Mat From The Embankment Area.

Create Embankment Using Material Free Of Roots, Rocks, Brush, And Debris. Overfill The Embankment 6 Inches To Allow For Settling.

Excavate A Trapezoidal Stone Outlet Section From The Compacted Embankment (Section A–A).

Install Geotextile And Place Specified Stone To The Lines And Grades Shown.

Stabilize The Embankment And Other Disturbed Areas With Seed And Mulch Or Another Suitable Erosion Resistant Cover

Maintenance:
Inspect Traps Weekly And Following Each Storm Event And Immediately Repair. Check Embankment For Any Erosion And Piping Holes And Repair.

Remove Sediment When It Has Accumulated To One Half The Design Depth. Check Pool Area Side Slopes For Erosion And Repair.

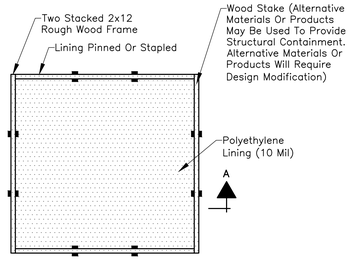
Replace Spillway Gravel Facing If Clogged.

Inspect Vegetation And Reseed Again, If Necessary.

Check The Spillway Depth Periodically To Ensure A Minimum 18 Inch Depth From The Lowest Point Of The Settled Embankment To Highest Point Of The Spillway Crest. Fill Any Low Areas To Maintain The Design Elevation.

TEMPORARY SEDIMENT TRAP

Not To Scale



SECTION A–A

NOTES:

Prefabricated Washout Containers Or Roll–Off Dumpsters Are Preferred. Self–Installed Concrete Washouts With A Concrete Block Or Wood Frame Are Acceptable. Signage Should Be Installed Identifying Washout Areas.

Washouts Shall Not Be Used For Trash. Concrete Washouts Shall Be Located Away From Inlets, Open Drainage Facilities, Watercourses And Construction Traffic.

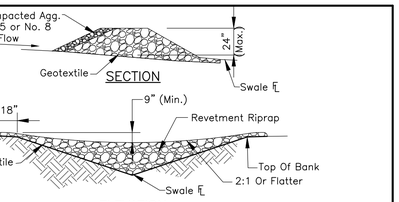
Concrete Washouts Shall Be Of Sufficient Volume And Quantity To Contain All Liquid And Concrete Waste Generated By Washout Operations.

Once Concrete Wastes Are Washed Into The Designated Area And Allowed To Harden, The Concrete Should Be Broken Up, Removed, And Disposed Of Offsite. Washouts Shall Be Monitored Daily. Arrange For Clean–out When 1/2 Full, Potential For Heavy Rainfall, Or Prior To A Large Pour.

Plastic Lining Material Should Be A Minimum Of 10 Mil. Polyethylene Sheeting And Should Be Free Of Holes, Tears, Or Other Defects That Compromise The Impermeability Of The Material

CONCRETE WASHOUT

Not To Scale



ELEVATION

NOTES:

Installation:
Excavate A Cutoff Trench Into The Swale Banks And Extend It A Minimum Of 18 Inches Beyond The Top Of Bank. Place The Rock In The Cutoff Trench And Channel to The Limits And Dimensions Shown.

Extend The Rock At Least 18 Inches Beyond The Top Of Bank To Keep Overflow Water From Undercutting The Dam As It Re–Enters The Channel.

Space Dams So That The Upstream Dam Toe Elevation And The Overflow Weir Of The Downstream Dam Top Elevation Are The Same.
(A 1% Swale Slope Would Equal 200' Spacing)

Stabilize The Channel Above The Uppermost Dam. Erosion Resistant Lining Shall Extend At Least 6" Below Lowest Dam.

Maintenance:
Inspect Check Dams And The Channel After Each Storm Event, And Repair Any Damage Immediately. If Significant Erosion Occurs Between Dams, Install A Riprap Liner In That Portion Of The Channel.

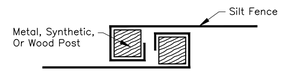
Remove Sediment Accumulated Behind Each Dam As Needed To Maintain Channel Capacity, To Allow Drainage Through The Dam, And To Prevent Large Flows From Displacing Sediment.

Add Aggregate To The Dams As Needed To Maintain Design Height And Cross Section.

When The Dams Are No Longer Needed, Remove The Aggregate And Stabilize Channel Using An Erosion Resistant Lining, If Necessary.

ROCK CHECK DAM

Not To Scale



SILT FENCE JOINT DETAIL

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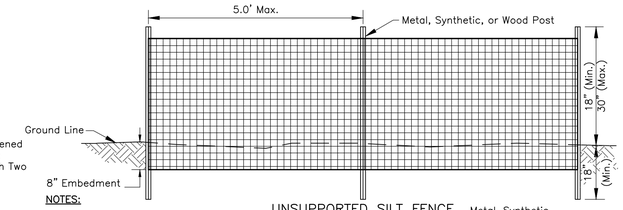


UNSUPPORTED SILT FENCE

NOTES:

Installation:
Silt Fence Is Not Recommended For Use As A Diversion And Should Not Be Used Across A Stream, Channel, Ditch, Swale, Or Anywhere That Concentrated Flow Is Anticipated.

Lay Out The Location Of The Fence So That It Is Parallel To The Contour Of The Slope And At Least 10 Feet Beyond The Toe Of The Slope To Provide A Sediment Storage Area. Turn The Ends Of The Fence Up Slope Such That The Point Of Contact Between The Ground And The Bottom Of The Fence End Terminates At A Higher Elevation Than The Top Of The Fence At Its Lowest Point

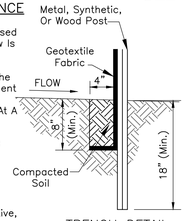
Along The Entire Fence Line, Dig An 8 Inch Deep Flat Bottomed Or V–Shaped Trench. Place Fence According To Manufacturer's Recommendations.

Maintenance:
Inspect The Silt Fence Weekly And After Each Storm Event.

If Fence Fabric Tears, Starts To Decompose, Or In Any Way Becomes Ineffective, Replace The Affected Portion Immediately.

Remove Deposited Sediment When It Reaches Half The Height Of The Fence At Its Lowest Point Or Is Causing The Fabric To Bulge. Take Care To Avoid Undermining The Fence During Clean Out.

After The Contributing Drainage Area Has Been Stabilized, Remove The Fence And Sediment Deposits, Bring The Disturbed Area To Grade, And Stabilize.



TRENCH DETAIL

SILT FENCE (SEDIMENT FENCE)

Not To Scale

REVISIONS		
Rev. No.	Description	Date

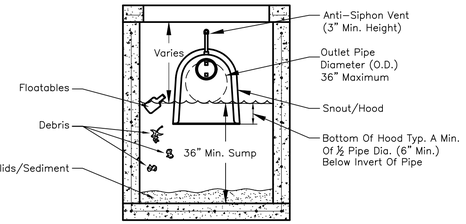
DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	MS4 OPERATOR	01/01/2025 DATE

TOWN OF PLAINFIELD

EROSION CONTROL MEASURES

SHEET 20 OF 29



NOTES:

Installation:

Snout/Hood Is Installed Over The Outlet Pipe Of A Catch Basin Or Stormwater Structure To Reduce Floatable Trash And Debris, Free Oils, And Other Solids From Stormwater Discharges.

Snout/Hood Shall Be Centered And Anchored Over The Outlet Pipe And Must Cover The Pipe O.D. To Ensure Proper Installation.

Structure Shall Be Sumped To Manufacture's Recommended Depth. Minimum Sump Depth Is Typically 2.5 To 3 Times The I.D. Of The Outlet Pipe Size (Minimum Of 36").

Snout/Hood Shall Be Equipped With An Anti-Siphon Vent.

Maximum Flow And Velocity Shall NOT Exceed Manufacture's Recommendation.

Maintenance:

Sediment Depth And Surface Pollutants In The Sump Shall Be Measured Monthly And After Each Rain Event Of 8" or More.

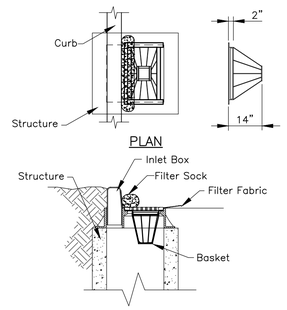
The Sump Shall Be Emptied At Least Yearly And When The Sump Is Half Full, Or Six Inches Of Floatable Pollutants Accumulate On The Surface.

The Snout/Hood Shall Be Inspected Yearly And The Anti-Siphon Vent Shall Be Flushed To Ensure It Is Clear.

SNOUT/HOOD OIL WATER DEBRIS SEPARATOR

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS-E01



NOTES:

Installation:
Install Basket Curb Inlet Protection As Soon As Inlet Boxes Are Installed (New Development) Or Prior To Land Disturbing Activities (Existing Development).

If Necessary, Adapt Basket Dimensions To Fit Inlet Box Dimensions.

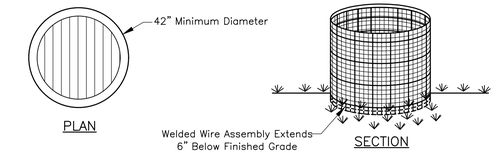
Remove The Grate And Install The Frame Into The Grate Opening. Cut And Install Geotextile Fabric According To The Manufacturer's Recommendations. Replace The Grate. Install Filter Sock Across Inlet Box Opening.

Maintenance:
Inspect Daily And After Each Storm And Remove Sediment. Replace Or Clean Geotextile Fabric And Filter Sock As Needed. Remove Tracked On Sediment From The Street (But Not By Flushing With Water) To Reduce The Sediment Load On This Curb Inlet Practice.

BASKET CURB INLET PROTECTION

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS-E02



NOTES:

Installation:
6" x 6" Welded Wire Mesh Shall Be Formed Of 10Ga. Steel Conforming To ASTM A-185.

Geotextile Shall Be Wrapped Three Inches Over The Top Member Of The 6" x 6" Welded Wire Mesh And Shall Be Secured With Fastening Rings Through Both Geotextile Layers And Close Around A Steel Member At Six Inches On Center. Fastening Rings Shall Be Constructed Of Wire Conforming To ASTM A-641, A-809, A-370, And A-938.

Geotextile Shall Be Secured To The Sides Of Welded Wire Mesh With Fastening Rings At A Spacing Of One Per Square Foot Except For The Bottom 2-Inches Which Shall Extend Past The Welded Wire And Be Left Unsecured For Entrenchment.

Welded Wire Assembly Shall Be Formed Into A Minimum 42" Diameter Circle With a 3" Minimum Overlap On The Ends Secured By Wire Or Zip Ties.

Welded Wire Assembly Shall Then Be Placed In A 6" Deep Trench And Backfilled And Compacted Over The Geotextile Flap.

Maintenance:
Inspect The Welded Wire Inlet Protector Weekly And After Each Rainfall Event.

If Geotextile Tears, Start To Decompose, Or In Any Way Becomes Ineffective, Replace The Affected Portion Immediately.

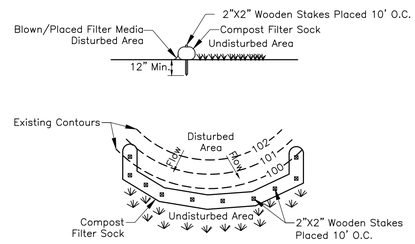
Remove The Deposited Sediment When It Reaches Half The Height Of The Structure At Its Lowest Point Or Is Causing The Structure To Shift. Take Care To Avoid Undermining The Structure During Clean Out.

After The Contributing Drainage Area Has Been Stabilized, Remove The Structure And Sediment Deposits, Bring The Disturbed Area To Grade, And Stabilize.

WELDED WIRE INLET PROTECTION

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS-E03



NOTES:

Installation:
Filter Sock Should Maintain Solid Contact With The Soil And Be Installed In A Manner That Minimizes Gaps Between The Bottom Of The Sock And The Underlying Substrate.

Filter Socks Should Be Installed Parallel To The Contour With Both Ends Of The Sock Extended Upslope At A 45 Degree Angle To The Rest Of The Sock.

Socks Placed On Earthen Slopes Should Be Staked In The Center Of The Sock Or Immediately Downslope Of The Sock At The Interval Recommended By The Manufacturer. Socks Installed On Paved Surfaces Shall Have Concrete Blocks Placed Immediately Downslope Of The Sock At An Interval Recommended By The Manufacturer.

Maintenance:
Traffic Shall Not Be Permitted To Cross Filter Socks.

Inspect The Structure Weekly And After Each Rainfall Event. Damaged Socks Shall Be Repaired According To The Manufacturer's Specifications Or Replaced Within 24 Hours Of Inspection.

Remove Deposited Sediment When It Reaches Half The Height Of The Filter Sock At Its Lowest Point.

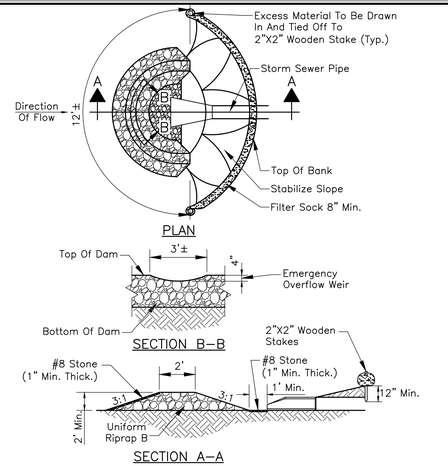
Take Care To Avoid Undermining The Filter Sock During Clean Out.

After The Contributing Drainage Area Has Been Stabilized, Remove And Properly Dispose Of Any Unstable Sediment And Construction Material, And Stabilize.

FILTER SOCK

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS-E04



NOTES:

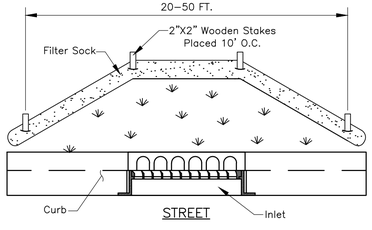
Installation:
Around the Outer Perimeter Of The Excavated Area, Lay A Ring of INDOT Uniform B Riprap To A Height Of 12 to 24 Inches Above The Top Of The Storm Drain. Foundation Shall Be Laid On Geotextile Fabric.

Maintenance:
Inspect The Structure Weekly And After Each Rainfall Event. After The Contributing Drainage Area Has Been Stabilized, Remove And Properly Dispose Of Any Unstable Sediment And Construction Material, And Stabilize.

ROCK DONUT

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS-E05



NOTES:

Installation:
Filter Sock Is Not Recommended For Use As A Diversion And Should Not Be Used Across A Stream, Channel, Ditch, Swale, Or Anywhere That Concentrated Flow Is Anticipated.

Filter Sock Should Maintain Solid Contact With The Soil And Be Installed In A Manner That Minimizes Gaps Between The Bottom Of The Sock And The Underlying Substrate.

Maintenance:
Inspect The Silt Fence Weekly And After Each ½" Rainfall Event.

If Fence Fabric Tears, Starts To Decompose, Or In Any Way Becomes Ineffective, Replace The Affected Portion Immediately.

Inspect The Structure Weekly And After Each Rainfall Event. Damaged Socks Shall Be Repaired According To The Manufacturer's Specifications Or Replaced Within 24 Hours Of Inspection.

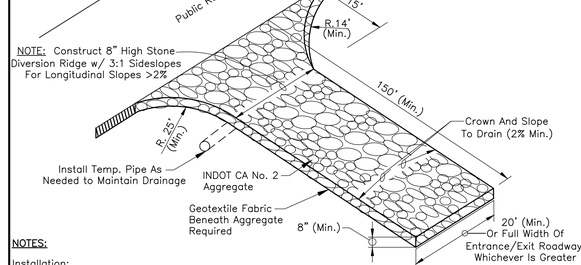
Remove Deposited Sediment When It Reaches Half The Height Of The Filter Sock At Its Lowest Point. Take Care To Avoid Undermining The Filter Sock During Clean Out.

After The Contributing Drainage Area Has Been Stabilized, Remove And Properly Dispose Of Any Unstable Sediment And Construction Material, And Stabilize.

FILTER SOCK BEHIND CURB

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS-E06



NOTES:

Installation:
A Stable Construction Entrance Must Be Provided At All Points Of Construction Traffic Ingress And Egress To The Project Site. Avoid Locating On Steep Slopes Or At Curves In Public Roads.

Remove All Vegetation And Other Objectionable Material From The Foundation Area, And Grade The Foundation And Crown For Positive Drainage.

If Longitudinal Slope Is In Excess Of 2%, Construct A Water Bar (Ridge) About 15 Feet From The Entrance To Divert Runoff Away Form The Road (See Detail Above).

Install Pipe Under The Pad (If Needed) To Maintain Proper Public Road Drainage.

Place Geotextile Fabric On The Graded Foundation To Improve Stability.

Place Aggregate To Dimensions And Grade Shown On The Erosion Control Plan, Leaving The Surface Smooth And Sloped For Drainage.

Divert All Surface Runoff And Drainage From The Stone Pad To A Sediment Trap Or Basin.

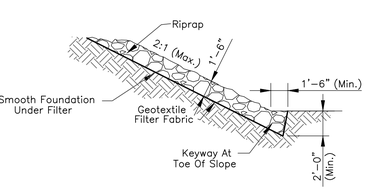
Maintenance:
Inspect Daily And After Each Storm Event Or Heavy Use.

Reshape Pad And Topdress As Needed For Drainage And Runoff Control. Immediately Remove Mud And Sediment Tracked Or Washed Onto Public Roads By Brushing Or Sweeping. Flushing Should Only Be Used If The Water Is Conveyed Into A Sediment Trap Or Basin.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS-E07



NOTES:

Installation:
Excavate Only Deep Enough For Both Filter And Riprap. Compact Any Fill Material To The Density Of The Surrounding Undisturbed Soil.

Cut A Keyway In Stable Material At The Base Of The Slope To Reinforce The Toe. Keyway Depth Should Be 1 ½ Times The Design Thickness Of The Riprap, And Should Extend A Horizontal Distance Equal To The Design Thickness.

Place Geotextile Fabric On The Smoothed Foundation, Overlapping The Edges 12 Inches Minimum. Secure With Anchor Pins Spaced Every 3 Feet Along The Overlap.

Immediately After Installing The Filter, Add The Riprap To Full Thickness In One Operation. Do Not Dump Through Chutes Or Use Any Method That Causes Segregation Of Rock Sizes, Or That Will Dislodge Or Damage The Underlying Filter Material.

If Fabric Is Damaged, Remove The Riprap And Repair By Adding Another Layer Of Fabric, Overlapping The Damaged Area By 12 Inches.

Place Smaller Aggregate In Voids To Form A Dense, Uniform, Well Graded Mass. Blend The Riprap Surface Smoothly With The Surrounding Area To Eliminate Protrusions Or Over Falls.

Maintenance:
Inspect Periodically For Displaced Aggregate Material, Slumping And Erosion At Edges, Especially Downstream Or Downslope.

RIPRAP

Not To Scale

DEVELOPMENT STANDARD – DETAIL DS-E08

REVISIONS		
Rev. No.	Description	Date

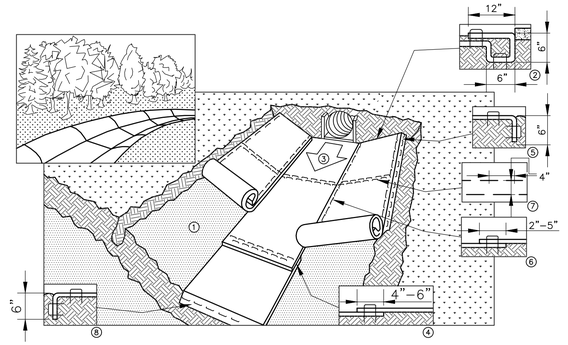
DAVID LAHEY
REGISTERED
No. PE19700063
STATE OF INDIANA
PROFESSIONAL ENGINEER

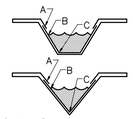
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	MS4 OPERATOR	01/01/2025 DATE

TOWN OF PLAINFIELD

EROSION CONTROL (E)
DEVELOPMENT STANDARDS

SHEET
21
OF
29





Critical Points
A. Overlaps And Seams
B. Projected Water Line
C. Channel Bottom/Side Slope Vertices

① Prepare Soil Before Installing Blankets, Including Any Necessary Application Of Lime, Fertilizer, Or Seed.

② Begin At The Top Of The Channel By Anchoring The Blanket In A 6 Inch Deep By 6 Inch Wide Trench With Approximately 12 Inches Of Blanket Extended Beyond The Upslope Portion Of The Trench. Anchor The Blanket With A Row Of Staples/Stakes Approximately 12 Inches Apart In The Bottom Of The Trench. Backfill And Compact The Trench After Stapling. Apply Seed To Compacted Soil And Fold Remaining 12 Inch Portion Of Blanket Back Over Seed And Compacted Soil. Secure Blanket Over Compacted Soil With A Row Of Staples/Stakes Spaced Approximately 12 Inches Apart Across The Width Of The Blanket.

③ Roll Center Blanket In Direction Of Water Flow In Bottom Of Channel. Blankets Will Unroll With Appropriate Side Against The Soil Surface. All Blankets Must Be Securely Fastened To Soil Surface By Placing Staples/Stakes In Appropriate Locations As Shown In The Staple Pattern Guide. When Using Optional Dot System, Staples/Stakes Should Be Placed Through Each Of The Colored Dots Corresponding To The Appropriate Staple Pattern.

④ Place Consecutive Blankets End Over End (Shingle Style) With A 4–6 Inch Overlap. Use A Double Row Of Staples Staggered 4 Inches Apart And 4 Inches On Center To Secure Blankets.

⑤ Full Length Edge Of Blankets At Top Of Side Slopes Must Be Anchored With A Row Of Staples/Stakes Approximately 12 Inches Apart In A 6 Inch Deep By 6 Inch Wide Trench. Backfill And Compact The Trench After Stapling.

⑥ Adjacent Blankets Must Be Overlapped Approximately 2–5 Inches, (Depending On Blanket Type) And Stapled. To Ensure Proper Seam Alignment, Place The Edge Of The Overlapping Blanket (Blanket Being Installed On Top) Even With The Colored Seam Stitch On The Blanket Being Overlapped.

⑦ In High Flow Channel Applications, A Staple Check Slot Is Recommended At 30–40 Foot Intervals. Use A Double Row Of Staples Staggered 4 Inches Apart And 4 Inches On Center Over Entire Width Of The Channel.

⑧ The Terminal End Of The Blankets Must Be Anchored With A Row Of Staples/Stakes Approximately 12 Inches Apart In A 6 Inch Deep By 6 Inch Wide Trench. Backfill And Compact The Trench After Stapling.

NOTE:
* Horizontal Staple Spacing Should Be Altered If Necessary To Allow Staples To Secure The Critical Points Along The Channel Surface.

** In Loose Soil Conditions, The Use Of Staple Or Stake Lengths Greater Than 6 Inches May Be Necessary To Properly Anchor The Blankets.

EROSION CONTROL BLANKET – FLOWLINE APPLICATION

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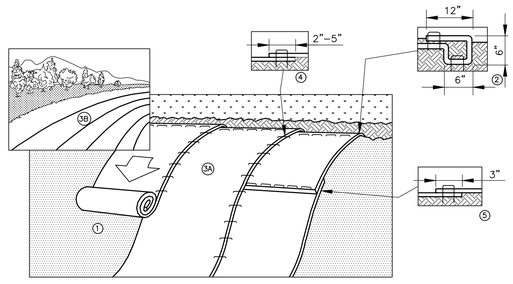


① Prepare Soil Before Installing Blankets, Including Any Necessary Application Of Lime, Fertilizer, And Seed.

② Begin At The Top Of The Slope By Anchoring The Blanket In A 6 Inch Deep By 6 Inch Wide Trench With Approximately 12 Inches Of Blanket Extended Beyond The Upslope Portion Of The Trench. Anchor The Blanket With A Row Of Staples/Stakes Approximately 12 Inches Apart In The Bottom Of The Trench. Backfill And Compact The Trench After Stapling. Apply Seed To Compacted Soil And Fold Remaining 12 Inch Portion Of Blanket Back Over Seed And Compacted Soil. Secure Blanket Over Compacted Soil With A Row Of Staples/Stakes Spaced Approximately 12 Inches Apart Across The Width Of The Blanket.

③ Roll The Blankets (A.) Down Or (B.) Horizontally Across The Slope. Blankets Will Unroll With Appropriate Side Against The Soil Surface. All Blankets Must Be Securely Fastened To Soil Surface By Placing Staples/Stakes In Appropriate Locations As Shown In The Staple Pattern Guide. When Using Optional Dot System, Staples/Stakes Should Be Placed Through Each Of The Colored Dots Corresponding To The Appropriate Staple Pattern.

④ The Edges Of Parallel Blankets Must Be Stapled With Approximately 2–5 Inches Overlap Depending On Blanket Type. To Ensure Proper Seam Alignment, Place The Edge Of The Overlapping Blanket (Blanket Being Installed On Top) Even With The Colored Seam Stitch On The Previously Installed Blanket.

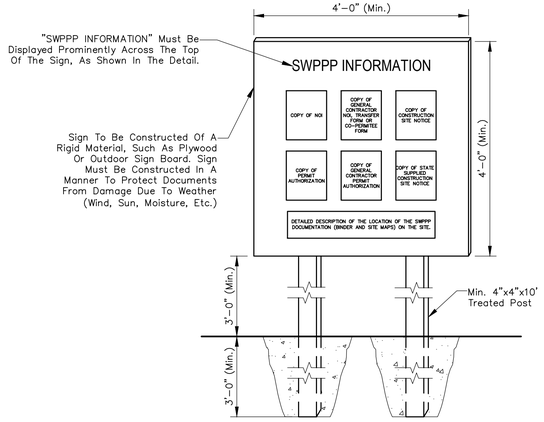
⑤ Consecutive Blankets Spliced Down The Slope Must Be Placed End Over End (Shingle Style) With An Approximate 3 Inch Overlap. Staple Through Overlapped Area, Approximately 12 Inches Apart Across Entire Blanket Width.

Overlap The Blankets With The Direction Of The Flow Of The Water

NOTE:
* In Loose Soil Conditions, The Use Of Staple Or Stake Lengths Greater Than 6 Inches May Be Necessary To Properly Secure The Blankets.

EROSION CONTROL BLANKET – SLOPE APPLICATION

Not To Scale



SWPPP INFORMATION SIGN

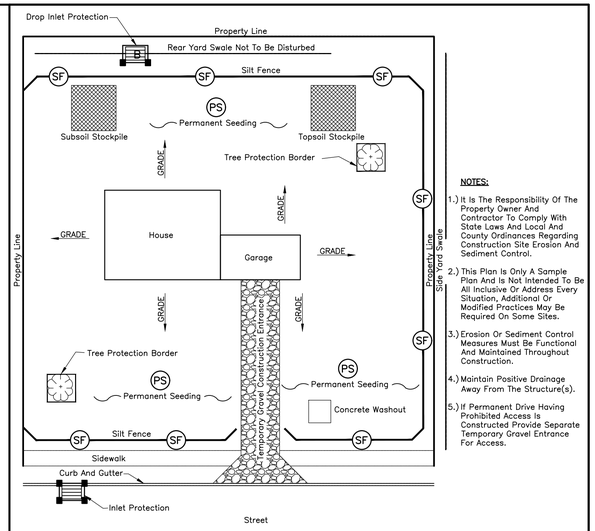
Not To Scale

NOTES:
1.) The SWPPP Information Sign Must Be Located Near The Construction Entrance Of This Site, Such That It Is Accessible And Viewable By The General Public, But Not Obstructing Views As To Cause A Safety Hazard.

2.) All Posted Documents Must Be Maintained In A Clearly Readable Condition At All Times Throughout Construction And Until The Notice–Of–Termination (NOT) Is Filed For The Permit.

3.) Contractor Shall Post Other Storm Water And/Or Erosion And Sediment Control Related Permits On The Sign As Required.

4.) Sign Shall Be Located Outside Of Public Right–Of–Way And Easements Unless Approved By The Plainfield MS4 Operator.



NOTES:
1.) It Is The Responsibility Of The Property Owner And Contractor To Comply With State Laws And Local And County Ordinances Regarding Construction Site Erosion And Sediment Control.

2.) This Plan Is Only A Sample Plan And Is Not Intended To Be All Inclusive Or Address Every Situation, Additional Or Modified Practices May Be Required On Some Sites.

3.) Erosion Or Sediment Control Measures Must Be Functional And Maintained Throughout Construction.

4.) Maintain Positive Drainage Away From The Structure(s).

5.) If Permanent Drive Having Prohibited Access Is Constructed Provide Separate Temporary Gravel Entrance For Access.

SAMPLE EROSION CONTROL SITE PLAN

Not To Scale
(For Construction Of Typical Single Family Dwellings.)

DEVELOPMENT STANDARD – DETAIL DS–E09

SEEDING:
The Following Table Is For General Seeding Information Only. Consult The Indiana Storm Water Quality Manual For Recommendations Relating To Steep Banks And Cuts, High Maintenance Areas, And Channels And Areas Of Concentrated Flow.

SEEDS:
40 Percent Kentucky Bluegrass
40 Percent Creeping Red Fescue
20 Percent Annual Rye Grass

FERTILIZER:
Commercial Fertilizer (12–12–12)

STRAW:
Clean And Free Of Weed Seeds

Spread Fertilizer Uniformly Over Finish Graded Surfaces At A Rate Of 20 Pounds Per 1,000 Square Feet. Thoroughly Disk, Harrow, Or Rake Fertilizer Into Soil To Depth Not Less Than 2 Inches.

Distribute Seed Mix Same Day As Fertilizer Is Applied. Spread Evenly At A Rate Of 3 Pounds Per 1,000 Square Feet. Rake Lightly And Compact Areas With 100 Pound Roller.

Cover Areas With Straw Evenly Spread At A Rate Of 2 Tons Per Acre Immediately After Seeding. Water Areas With Fine Spray. Do Not Flood Or Create Washes. Protect Seeded Areas From Erosion.

Continue Watering Of These Areas On A Daily Basis For The Remainder Of The Construction Period.

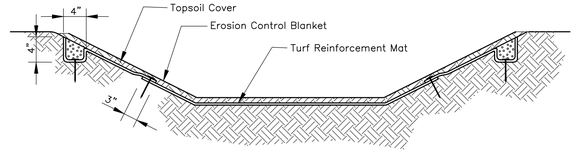
Hold Sloped Areas Steeper Than 2 (Horizontal) To 1 (Vertical) With Wire Mesh Or Stakes And Wire.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Temporary Seeding Dates												
Wheat Or Rye									▨	▨		
Oats				▨	▨							
Annual Rye Grass					▨	■	■	▨				
Permanent Seeding Dates												
Non–Irrigated*			▨	▨					▨			
Irrigated			▨	▨	▨	▨	▨	▨	▨			
Dormant Seeding**	▨	▨									▨	▨

▨ Irrigation Required
* Seeding Dates May Be Extended 5 Days If Mulch Applied And Planted Late Summer
** Increase Seeding Rate By 50%

NOTES:
If Construction Activities Take Place During The Months Of November Through February, Use Dormant Seeding Practices In Place Of Temporary And Permanent Seeding Practices.

See Chapter 7 Of The Indiana Storm Water Quality Manual, For Additional Seeding Recommendations.



Extend Turf Reinforcement Mat To Accommodate Maximum Designed Flow Depth

NOTES:

Installation:
Select The Type Of Mat Recommended For The Site Conditions (Slope, Channel, Flow Velocity) And Problem To Be Addressed.

Install Any Practices Needed To Control Erosion And Runoff, Such As Temporary Or Permanent Diversions, Slope Drains, Sediment Basins/Traps, Silt Fence Or Straw Bale Dams.

Grade The Site As Specified.

Install The Mat According To Manufacturer's Specifications.

Backfill Topsoil To A Depth Equal To The Thickness Of The Mat.

Seed The Area After The Mat Has Been Installed And Backfilled With Soil.

Mulch The Area, Or Use Erosion Control Blankets To Stabilize The Surface.

Maintenance:
Until The Surface Is Stabilized, Inspect Weekly And After Each Storm Event For Erosion Exposing The Mat.

If A Specific Area Shows Erosion, Add Soil And Restabilize.

TURF REINFORCEMENT MAT

Not To Scale

REVISIONS		
Rev. No.	Description	Date

DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	MS4 OPERATOR	01/01/2025 DATE

TOWN OF PLAINFIELD

EROSION CONTROL MEASURES

SHEET 22 OF 29

EROSION CONTROL NOTES

GENERAL:
Take Measures To Control Erosion And Sedimentation By Storm/Wind Events To Assure That Sediment Is Not Transported From The Site By Storm Events. Practices Such As Silt Traps Or Filters Shall Be Installed Prior To Land Disturbing Activities. New Drainage Swales Shall Be Seeded And/Or Sodded, Or Other Protective Practices Applied, Immediately Following Construction. All Practices Shall Be Maintained To Remove Sediment From Runoff Leaving The Site As Long As Unstabilized Soil Conditions Exist.

After Land Disturbing Activities Cease And The Soil Is Stabilized, Temporary Erosion Control Measures May Be Eliminated If Their Purpose Has Been Fulfilled. Any Disturbed Soil Resulting From Removal Of Such Practices Shall Be Stabilized By Approved Methods.

Dispose Properly All Waste And Unused Building Materials Including, But Not Limited To, Garbage, Debris, Cleaning Wastes, Water, Toxic Materials, And Hazardous Substances. Do Not Allow Substances To Be Carried By Runoff Into A Receiving Channel Or Storm Sewer System.

Clean Public Or Private Roadways Daily And After Major Storms Using Acceptable Methods Such as Sweeping To Remove Any Accumulated Sediment. The Developer's Contractors Are Responsible For Supervision Of The Construction Activity Within The Development And Shall Take All Necessary Actions To Remove Sediment From The Streets.

For Construction Sequence, Maintenance, And Other Soil Erosion Requirements, See Specifications For Site Clearing, Slope Protection, Erosion Control, Landscaping, And Seeding.

Erosion And Sediment Control Practices Must Adhere To, Or Exceed Those Shown On The Erosion Control Plan, And Shall Be In Accordance With The Construction Stormwater General Permit, And Indiana Storm Water Quality Manual, Indiana Department Of Environmental Management.

SURFACE STABILIZATION:
Cut Slopes Which Are To Be Topsoiled Should Be Scarified To A Minimum Depth Of 4 Inches Prior To Placement Of Topsoil. Install Erosion Control Blankets On All Slopes Of 3 (Horizontal) To 1 (Vertical).

Stabilize All Disturbed Ground Within Fifteen Days Of Being Left Inactive By Seeding, Sodding, Mulching, Or By Other Equivalent Erosion Control Practices. Immediate Stabilization Shall Be Planned To Aid In Surface Runoff And Stabilization Shall Follow A Linear Progression As The Site Is Developed.

Un-Vegetated Areas That Are Left Idle Or Scheduled To Be Left Inactive Must Be Temporarily Or Permanently Stabilized With Measures Appropriate For The Season To Minimize Erosion Potential. To Meet This Requirement, The Following Apply:

1. Stabilization Must Be Initiated By The End Of The Seventh Day The Area Is Left Idle. The Stabilization Activity Must Be Completed With Fourteen Days After Initiation. Initiation Of Stabilization Includes, But Is Not Limited To, The Seeding And/Or Planting Of The Exposed Area And Applying Mulch Or Other Temporary Surface Stabilization Methods Where Appropriate. Areas That Are Not Accessible Due To An Unexpected And Disruptive Event That Prevents Construction Activities Are Not Considered Idle.

2. Areas That Have Been Compacted May Be Excluded From The Stabilization Requirement When The Areas Are Intended To Be Impervious Surfaces Associated With The Final Land Use, Provided Run-off From The Area Is Directed To Appropriate Sediment Control Measures.

See The Landscape Plan For Permanent Ground Cover Requirements Adjacent To The Building And Parking Areas.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT PAD:
Construct The Temporary Gravel Drive Using 6 Inches INDOT No. 2 Stone Over A Stable Foundation. Geotextile Fabric Shall Be Used Under All Drives Including Individual Lots. Grade For Positive Drainage.

Inspect The Entrance Pad Area Weekly And After Storm Events Or Heavy Use. Reshape The Pad As Needed For Drainage And Runoff Control. Top Dress Pad With Clean Stone.

SODDING:
Do Not Install Sod On Hot, Dry Soil, Frozen Soil, Compacted Clay, Loose Sand Or Gravel, Or Pesticide Treated Soil. Ideal Sodding Time Is May 1-June 1, Or September 1-October 20, Although It Can Be Installed As Early As March 15, If Available And Temperatures Are Above 32° F, Or June 1-September 1 If Irrigated.

Install Sod After Other Erosion Control Practices Have Been Completed. Break Up Compacted Soils Sufficiently To Create A Favorable Rooting Depth Of 6-8 Inches, Using A Chisel Plow, Disk, Harrow, Or Rake.

Soil Compaction Is To Be Minimized, Especially In Areas Where Permanent Vegetation Will Be Established. Topsoil Must Be Preserved, Unless Infeasible.

Apply Topsoil If The Site Is Otherwise Unsuitable For Establishing Vegetation. Shape, Smooth, And Firm The Soil Surface.

Have The Soil In The Sod Bed Tested To Determine Its pH And Nutrient Level. If The pH Is Too Acidic For The Grass Sod To Be Installed, Apply Lime According To Test Results Or At The Rate Recommended By The Sod Supplier.

Fertilize As Recommended By The Soil Test. If Testing Was Not Done, Consider Applying 400-600 Lbs./Acre Of 12-12-12 Analysis Fertilizer, Or Equivalent Fertilizer, As Recommended By The Soil Test. Work The Fertilizer Into The Soil To 2-4 Inches Deep.

Apply Fertilizer At An Appropriate Time Of year For The Project Location, Taking Into Consideration Proximity To A Waterbody, And Preferably Timed To Coincide With The Period Of Maximum Vegetative Uptake And Growth.

Avoid Applying Fertilizer Immediately Prior To Precipitation Events That Are Anticipated To Result In Stormwater Run-Off From The Application Area.

TREE CONSERVATION/PROTECTION:
Protect Trees From Construction Equipment By Fencing Off An Area Equivalent To The Tree's Crown With Temporary Construction Safety Fence. If A Fence Cannot Be Erected, Cushion The Rooting Area With 6 Inches Of Wood Chips, Or Wood Or Brick Paths.

Create Traffic Patterns Such As To Keep Soil Compaction To A Minimum. Store Supplies And Equipment Away From Protected Tree Areas. Aerate Soil Where Compaction Has Been Excessive.

When Clearing Areas Adjacent To Protected Trees, Use Equipment Such As A Brush Cutter Or Rotary Ax, Or Cut By Hand. Where Root Areas Must Be Graded, Cut Large Roots Instead Of Tearing Them With Equipment.

Minimize Changes In The Drainage Pattern. Avoid Putting Fill Over The Root System.

Prune Low Hanging Limbs That Could Otherwise Be Broken Off By Equipment.

EROSION CONTROL NOTES CONT'D

EROSION CONTROL BLANKETS:
Erosion Control Blankets Shall Be Selected Based Upon Application And Shear Strength.

Use Machine Produced Mat Of Straw Fiber Matrix Or Curled Wood Excelsior Of 80 Percent, 6 Inch Or Longer Fiber Length.

Evenly Distribute Fibers Over Entire Area Of Blanket To Provide Consistent Thickness.

Provide Blanket With Top Side Covered With Biodegradable Extruded Plastic Mesh.

Treat Blankets To Impart Smolder Resistance Without Use Of Chemical Additives.

Provide "Curlex Blankets" By American Excelsior Company, Or "S150" By North American Green, Or Accepted Substitute.

EROSION CONTROL BLANKET STAPLES:
Use Minimum 0.091 Inch Diameter Steel Wire "U" Shape With Legs 6 Inches In Length With 1 Inch Crown.

CONCRETE AND CEMENTITIOUS WASHWATER:
Cementitious Washwater Results From The Cleaning Of Tools And Equipment Used In The Delivery, Mixing, Handling, And Working Of Cementitious Materials Often Associated With Concrete, Mortar, Plaster, Stucco, Grout And Flowable Fill.

Concrete Washouts Shall Be Of Sufficient Volume And Quantity To Contain All Liquid And Concrete Waste Generated By Washout Operations. The System Shall Be Designed To Eliminate Run-off And Minimize Precipitation From Entering The Washwater Containment System. Covering Of Containment When Not In Use Is Recommended.

Locate Washwater Containments At Least 50 Feet From Any Creeks, Wetlands, Ditches, Karst Features, Or Storm Drains/manmade Conveyance Systems. Locate When Practical In Relatively Flat Areas With Established Vegetative Cover In Areas That Provide Easy Access For Equipment That Will Require The Use Of Washwater Containment Facilities.

Prefabricated Washout Containers Or Roll-off Dumpsters Are Preferred. Structure Must Be Watertight And Have The Strength To Resist Failure Or Collapse For The Duration Of Use. Below Grade Systems Are To Be Used Only When There Is No Other Feasible Way To Implement Containment. Waterproof Lining Is Required To Have A Minimum Thickness Of 10 Mil, Be A Single Continuous Sheet Sufficient To Adequately Line The Entire Containment And Be Free Of Defects, Holes, Rips, Or Tears. Signage Is Required To Identify Washout Areas.

Washouts Shall Not Be Used For Trash Or Construction Debris. Containers Should Not Be Filled Beyond 75 Percent Of Containment Capacity. When A Containment Is At Capacity And Can No Longer Accept Washwater, Identify With "closed" Sign. No Spillage Of Washwater Shall Occur From The Transport Of The Unit. Closure Of Washwater Shall Be Accomplished When All Fluids Are Removed Or Evaporated. The Remaining Solid Cementitious Material May Be Used As Clean Fill.

FLOATING OUTLET "SKIMMER":
Sediment Basins Where Feasible, Must Withdraw Water From The Surface Of The Water Column Unless Equivalent Sediment Reduction Can Be Achieved By Use Of Alternative Measures. Alternative Measures Include But Are Not Limited To Increasing The Basin Length To Width Ratio To 4:1 Or Greater, Implementation Of Porous Baffles, Use Of Flocculants/polymers, And Or Phasing Of Project Land Disturbance And Rapid Stabilization.

Floating Outlets Can Be Implemented With The Permanent Basin Outlet Structure. The Discharge Capacity:

Dewatering Zone Volume/Dewatering Time = Required Flow Rate Of Skimmer. Locate Floating Devices Where They Can Be Easily Accessed To Facilitate Maintenance Activities And To Be Appropriately Tethered Or Restrained To Prevent Flexible Boom Damage. If Ice Formation Is A Concern, Install Boom And Inlet At An Incline To Maintain Positive Drainage Through The Device. Install Following The Manufacturer's Recommendation.

The Floating Inlet Is Designed To Drain The Dewatering Zone In No Less Than 48 Hours And No Longer Than 72 Hours For The Minimum Required Storage Volume. Inspect Weekly And Prior To Anticipated Rain Events. The Floating Outlet Practice Shall Only Be Removed When The Contributing Drainage Area Has Been Properly Stabilized And No Longer Contributing Sediment-laden Run-off Or When Freezing Conditions Are Anticipated.

NATURAL BUFFERS:
Preserve Existing Natural Buffers That Are Adjacent To Waters Of The State To Promote Infiltration And Provide Protection Of The Water Resource. Natural Buffers Must Be Preserved, Including The Entire Buffer Bordering And/or Surrounding The Water Resource.

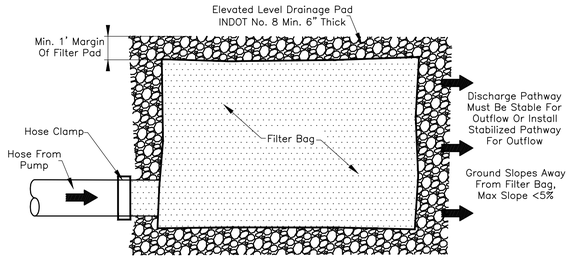
Buffers:
1. 50 Feet Or More In Width Must Be Preserved To A Minimum Of 50 Feet
2. Less Than 50 Feet In Width Must Be Preserved In Their Entirety.
3. May Be Enhanced With Vegetation That Is Native And Promotes Ecological Improvements And Sustainability.

Run-off Directed To The Natural Buffer Must Be Treated With Appropriate Erosion And Sediment Control Measures Prior To Discharging To The Buffer And Managed To Prevent Erosion From Occurring Within The Buffer Area.

Stormwater Conveyances And Outfalls Are Allowed To Impact The Buffer And Must Be Designed To Minimize The Width Of Disturbance And Impact To The Buffer.

WASTE CONTAINERS (TRASH RECEPTACLES):
Must Be Managed To Reduce The Discharge Of Pollutants And Blowing Of Debris. If Stormwater Has The Potential To Come Into Contact With Waste, A Cover Is Required. Waste That Is Not Disposed Of In A Trash Receptacle Must Be Protected From Exposure To The Weather And/or Removed At The End Of The Day From The Site And Disposed Of Properly.

ANIONIC POLYMERS (FLOCCULANTS):
Are Authorized For Sediment Control Provided Their Use Is In Conformance With Current State Of Indiana Standards And Specifications, And The Use Is Identified In The Stormwater Pollution Prevention Plan (SWP3). The Manufacture Representative Or Properly Trained Individual Is Required To Oversee The Use Of All Polymers. Prior To The Use Of The Polymer, An Email Notification Must Be Made To The Town Of Plainfield.



NOTES:
Dewatering Bags Are Used To Minimize The Discharge Of Sediment For Pump Induced Dewatering Activities.

Bag Size Is Dependent On The Pumping Rate And Soil Conditions.

Clamp Pump Hose With Steel Hose Clamp Over The Rigid Hose Connector Area To A Tight Secure Connection To Filter Bag.

Locate Filter Bags Where Outflows Can Easily Drain. Preferred Locations Are Areas Of Undisturbed Densely Vegetated Areas. Locate For Ease Of Access, Monitoring, Maintenance, And Removal.

MATERIALS:
Nonwoven Polyethylene Geotextile Or Geotextile Bag.Steel Hose Clamps Or Equivalent To Tightly Attach Pump Hose To The Filter Bag.Elevated Drainage Pad (No. 8 Stone, Wood Mulch, Straw Bales, Wood Pallet).Secondary Containment Berm (Optional)

FILTER BAGS (PUMP DISCHARGE FILTER BAGS)

Not To Scale

REVISIONS		
Rev. No.	Description	Date

DAVID LAHEY
REGISTERED
No. PE19700063
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	MS4 OPERATOR	01/01/2025 DATE

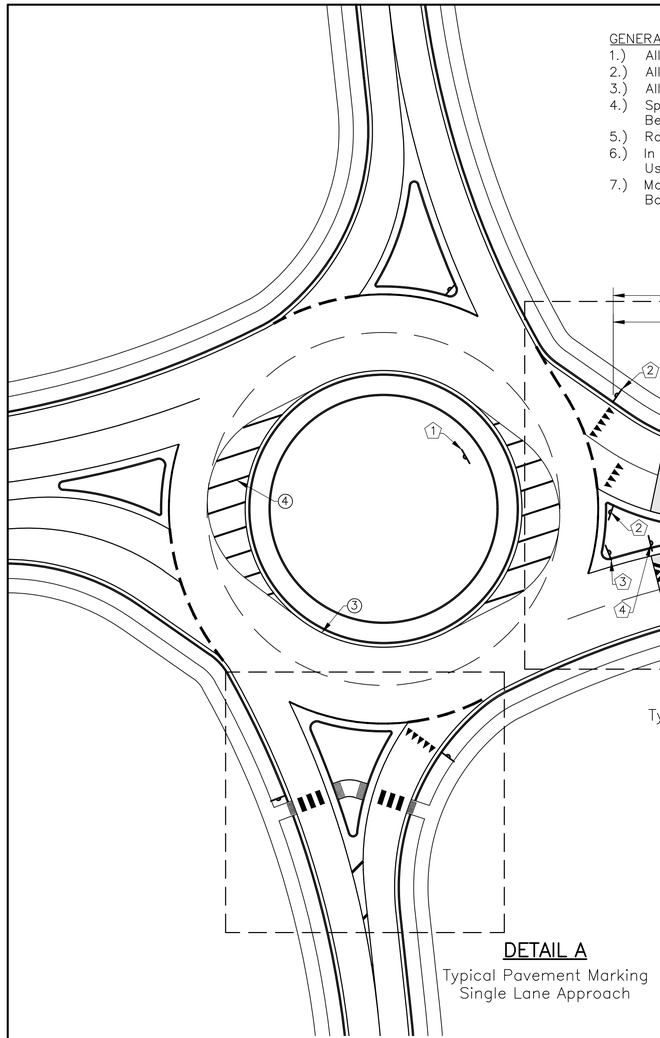
TOWN OF PLAINFIELD

EROSION CONTROL MEASURES

SHEET 23 OF 29

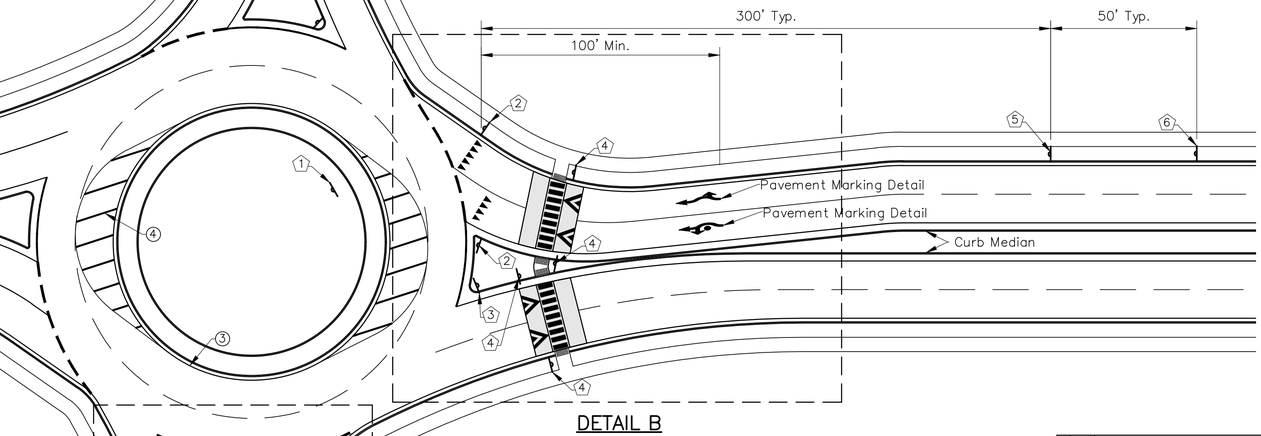
GENERAL NOTES:

1.) All Appropriate Plainfield Town Standards Apply.
2.) All Signs Shall Be High Intensity, High Reflectivity Accordance With The Most Recent M.U.T.C.D.
3.) All Roundabout Designs, Signage And Marking Must Be Approved By The Town Of Plainfield.
4.) Splitter Islands Shall Be A Minimum 6' In Width For Widths 12' Or Greater Island Opening Shall Be Perpendicular To Cross Walk For Each Direction Of Traffic.
5.) Roundabout Design Shall Include Lighting In Accordance With NCHRP 672.
6.) In Accordance With PROWAG R306.4.2, Rectangular Rapid Flashing Beacon Assemblies May Be Used Instead Of Raised Crosswalk On Multilane Crosswalks. See Sheet 06 For Details.
7.) Mounting Height Of ONE WAY Sign Shall Be At Least 4 Feet Measured Vertically From The Bottom Of The Sign To The Elevation Of The Near Edge Of The Travel Roadway.



DETAIL A

Typical Pavement Marking
Single Lane Approach

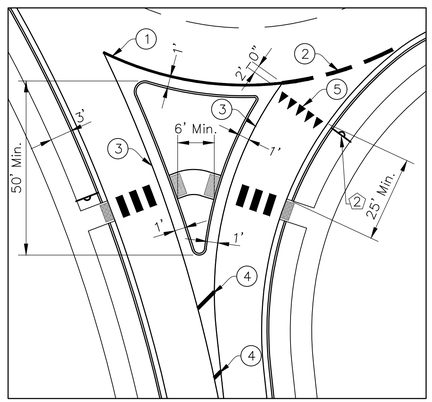


DETAIL B

Typical Pavement Marking
Double Lane Approach

LOW SPEED URBAN / SUBURBAN ROUNDABOUT DETAIL

Scale: 1"=30'



DETAIL A

Scale: 1"=20'
Typical Pavement Marking
Single Lane Approach

DETAIL B

Scale: 1"=20'
Typical Pavement Marking
Double Lane Approach

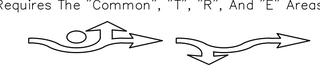
SIGN DETAILS

See Post Detail On Sheet 06

COMPONENT KEY

The Labeled Areas Above Correspond To The Portions Needed For Each Type Of Roundabout Traffic Arrow.

For Example: The Roundabout Traffic Arrow Type Tre Requires The "Common", "T", "R", And "E" Areas.



TYPE LTE TYPE TR

MARKING DETAILS

LEGEND

1. Line, Solid White, 8"
2. Line, Broken White, 8"
3. Line, Solid Yellow, 4"
4. Crosshatch 45°, Solid Yellow, 12" (20' Spacing)
5. Shark Tooth Yield Triangle 2'W x3'H

Sign

REVISIONS		
Rev. No.	Description	Date

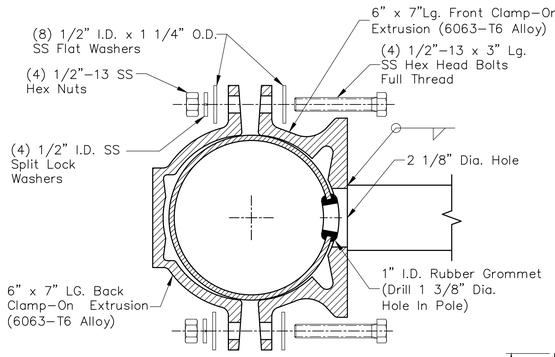
DAVID LAKEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

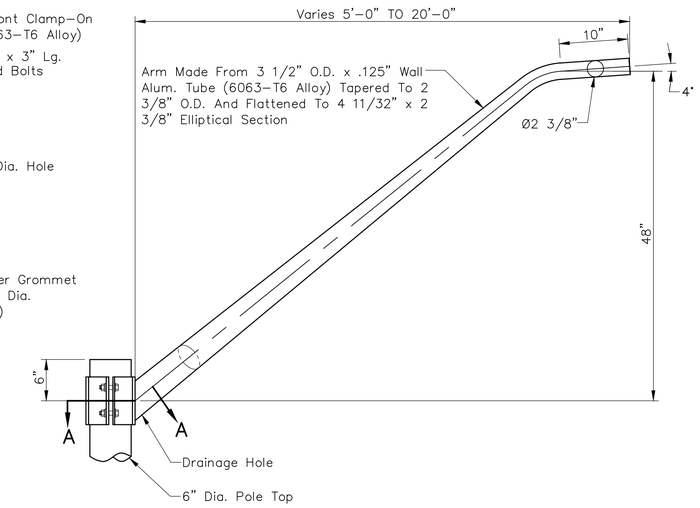
TOWN OF PLAINFIELD

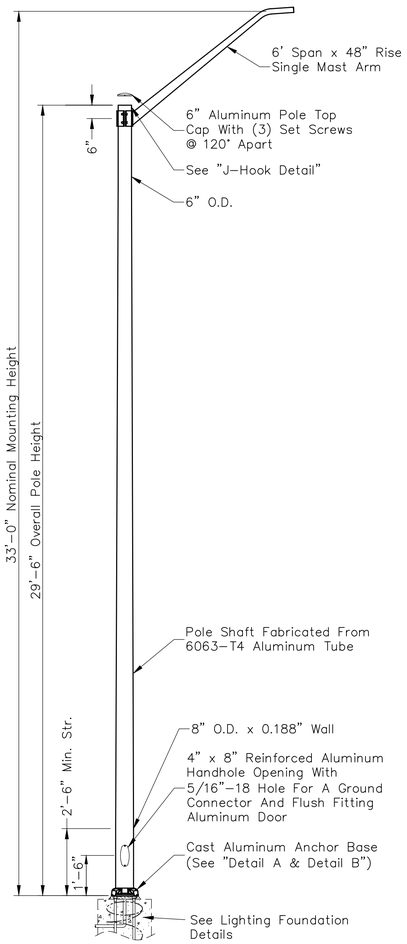
LOW SPEED URBAN / SUBURBAN ROUNDABOUT DETAIL

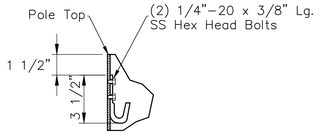
SHEET 24 OF 29



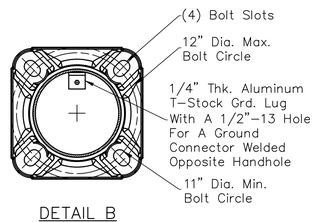
SECTION A-A





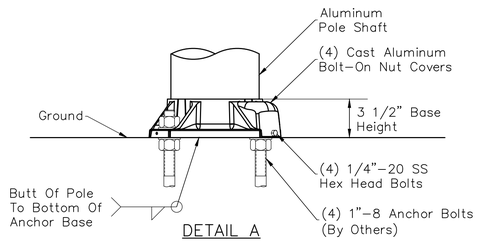


J-HOOK MOUNTING DETAIL



Note: Nut Covers Not Shown

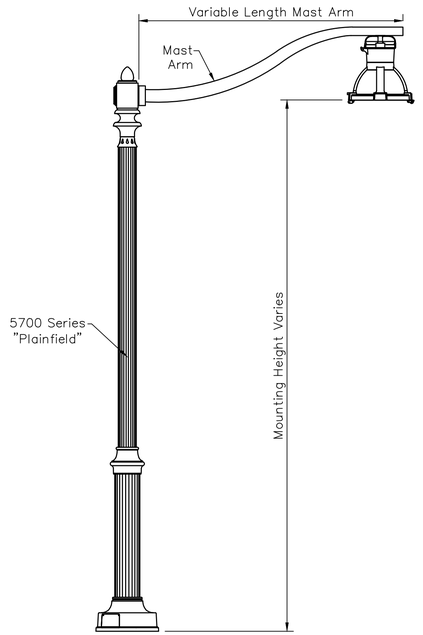
DETAIL B



DETAIL A

TYPICAL LIGHT POLE WITH ARM DETAILS

Not To Scale



ORNAMENTAL LIGHT POLE

Not To Scale

Lighting Component Notes:

1. Ornamental Light Poles Shall Be Manufactured By Valmont Electrical MFG. Co.
2. Standard Light Poles Shall Meet INDOT Design Standards
3. Pole Shafts Shall Be 16-Sharp Flute Tapered. Base Diameter, Top Diameter, Shaft Length, And Gauge Thickness, 19 Ft. Maximum Vertical Clearance From Top Of Pavement To Bottom Of All Signal Heads.
4. Base Coat Shall Be Hot Dipped Galvanized To ASTM: A123.
5. Finish Shall Be TGIC Or Urethane Polyester Powder.
6. Ornamental Light Pole Color Shall Be Woodland Green (Color Code: RAL 6028), Or Black Subject To Town Approval.
7. Structural Design Is To Be Completed By The Contractor Under The Direct Supervision Of An Experienced Professional Engineer Registered In The State Of Indiana. The Successful Bidder Is To Provide Shop Drawings, Which Bear, For All Structural Components The Professional Seal And Signature Of The Engineer Responsible For The Structural Design.
8. Prior To Fabrication, Shop Drawings For All Lighting Components Shall Be Submitted To The Engineer For Approval.
9. Evolve Roadway Scalable Fixture Shall Be The Following: ERS1 Or ERS2 And 4000K Color Temperature. Luminaire Head Shall Be Finished To Match Pole.
10. Technical Specification, Photometric Plan, And Visual File Shall Be Submitted To The Town Of Plainfield For Review Prior To Installation.

Helical Foundation Notes:

1. Finish: Hot Dip Galvanize Per ASTM-A153 (Latest Revision).
2. Baseplate To Be Perpendicular To Shaft Axis (±1°) And Hole Centerline Concentric (±.188) To Shaft Axis.
3. All Material Is To Be New, Unused And Mill Traceable Meeting The Following Specification: Baseplate: ASTM A36-(Latest Revision) Structural Steel (Conform To AASHTO Tech. Bul. #270).

   Shaft: ASTM A252-(Latest Revision) Grade 2, Steel Pipe Piles. Alternate Material: ASTM A53-(Latest Revision) Type E Or S, Grade B, Steel Pipe Or ASTM A500-(Latest Revision) Grade B, Structural Steel Tubing.

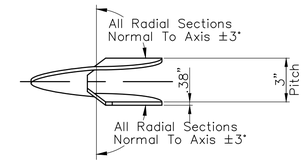
   Helix: ASTM A635-(Latest Revision) 3/8" Thick Hot Rolled Steel Plate Or Coil.

   Pilot Point: ASTM A575-(Latest Revision) 1-1/4" Diameter Hot Rolled Steel Bar. Bolts: Carriage Bolts Per ANSI B-18.5, SAE J429 Grade-5.

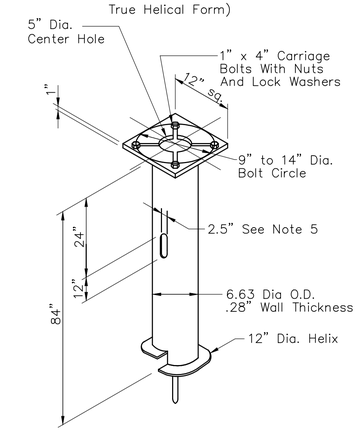
   Nuts: Heavy Hex Nuts Per ASTM A194 Grade 2H Or ASTM A563 Grade DH, Meeting The Supplementary Requirements Of ASTM A563; 1-8UNC-2B Per ANSI B18.2.2.

Lighting Service Point Notes:

1. Lighting Service Point Enclosure Shall Be Manufacturer By APX Enclosures Inc., Or Plainfield DPW Approved Equal.
2. Service Point Enclosure Shall Be A Single Door Configuration, NEMA 3R Rated, And Powder Coated "Black".



Helix Must Be Formed By Matching Metal Die (Side View Of True Helical Form)



HELICAL FOUNDATION DETAILS

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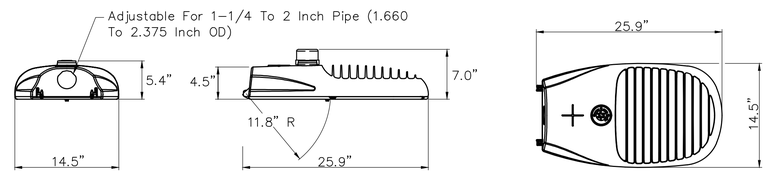

EVOLVE ROADWAY SCALABLE LED LIGHT FIXTURE DETAIL

Not To Scale

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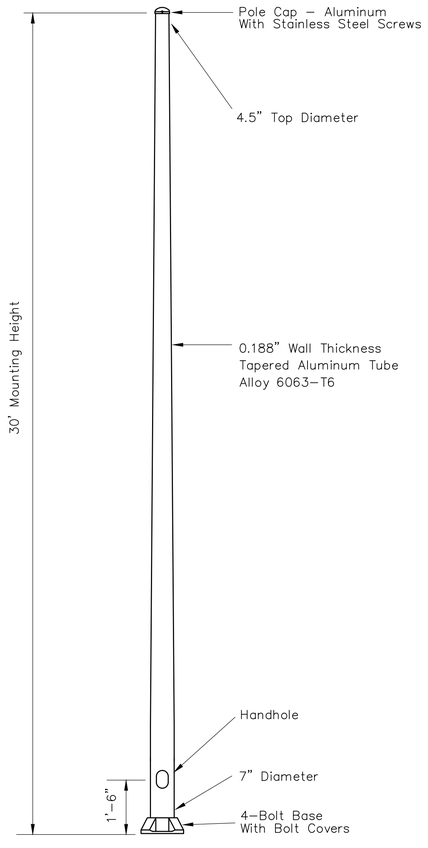
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

STREET LIGHTING DETAILS APPLICABLE TO COLLECTORS & ARTERIALS

SHEET 25 OF 29



TYPICAL LIGHT POLE DETAILS (W/O ARM)

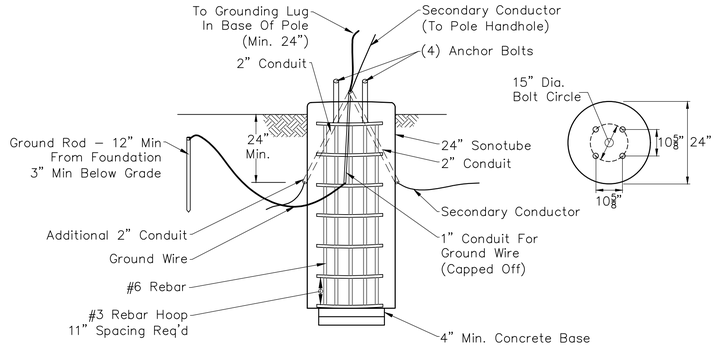
Not To Scale

Lighting Component Notes:

1. Standard Light Poles Shall Meet INDOT Design Standards
2. The Pole Shaft Will Be Constructed Of Seamless Extruded Tube Of 6063 Aluminum Alloy Per The Requirements Of ASTM B221. The Shaft Assembly Ahall Be Full–Length Heat Treated After Base Weld To Produce A T6 Temper.
3. Base Style Shall Be 4–Bolt Cast Aluminum Base Flange Of Alloy 356–T6 With Aluminum Bolt Covers (Alloy 356–F) And Stainless Steel Hex Head Attaching Screws.
4. Steel Anchor Bolts Shall Conform To AASHTO M314–90 Grade 55. Ten Inches (10") Of Threaded End Will Be Galvanized Per ASTM A153.
5. Lighting Fixture Shall Be KIM Lighting Alt120 270 Watt Altitude LED And 4000K Color Temperature.
6. Structural Design Is To Be Completed By The Contractor Under The Direct Supervision Of An Experienced Professional Engineer Registered In The State Of Indiana. The Successful Bidder Is To Provide Shop Drawings, Which Bear, For All Structural Components The Professional Seal And Signature Of The Engineer Responsible For The Structural Design.
7. Prior To Fabrication, Shop Drawings For All Lighting Components Shall Be Submitted To The Engineer For Approval.
8. Technical Specification, Photometric Plan, And Visual File Shall Be Submitted To The Town Of Plainfield For Review Prior To Installation.

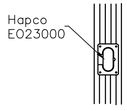
Duke Energy 30' Style A–TB Pole Anchor Base

1. Depth Below Grade 66 Inches
2. Bolt Height 3.5" Above Concrete Surface
3. All Material Is To Be New, Unused And Meeting The Following Specifications:
   Conduit: Conduit, db–120 Heavy Wall, 2" 20' Long, NEMA LC–8, PVC Covered
   Bar: Bar, Reinforcing, #6, 3/4" Dia x 16'–6" Long, 1.502 lb/ft, Deformed, CS, ASTM
   Rebar Hoods: Bar, Reinforcing, #3, 3/8" Dia x 18" Hoop Dia, 0.376 lb/ft, Deformed, CS ASTM
   Sonotube: Mold, Cardboard, 24" Dia x 12' Long, Concrete, Heavy Duty Sonotube
   Conduit: Conduit, Rigid, Heavy Wall, 1", 8' Long, Sch 40, PVC, Rated f/ 90 Deg c Conductor
   Shim: Shim, Slotted, 1/16" Thk, Alum, f/ 3/4" Thru 1–1/4" Bolt Dia
   Ground Rod: Ground Rod, 5/8" Diameter, 8' Long, Steel, Hot Dip Galvanized
   Clamp: Clamp, Grounding, Cable To Rod, 8 Sol–1/0 Str Cond To 5/8" Ground Rod, CU
   Ground Wire: Wire/Cable, Electrical, Bare, Ground, Sol SD, 4 Awg.
   Flush Mounted Anchor Bolts: Bolt, Anchor, 1" Diameter, 8 UNC 36" Long, W/4" Hook

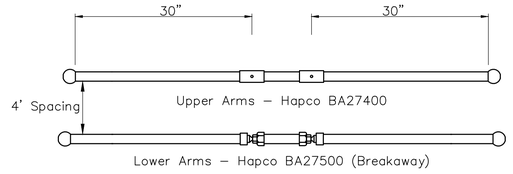


DUKE ENERGY 30' STYLE A–TB POLE ANCHOR BASE

Not To Scale

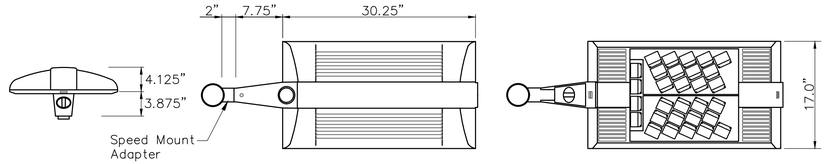


ELECTRIC OUTLET (GFI)



BANNER ARMS

Not To Scale



KIM LIGHTING ALT 120 ALTITUDE LED LIGHT FIXTURE DETAIL

Not To Scale

REVISIONS		
Rev. No.	Description	Date

DAVID LAHEY REGISTERED No. PE19700063 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	01/01/2025 DATE
APPROVED	EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES	01/01/2025 DATE
APPROVED	DIRECTOR OF TRANSPORTATION	01/01/2025 DATE

TOWN OF PLAINFIELD

STREET LIGHTING DETAILS
APPLICABLE TO COLLECTORS &
ARTERIALS (2)

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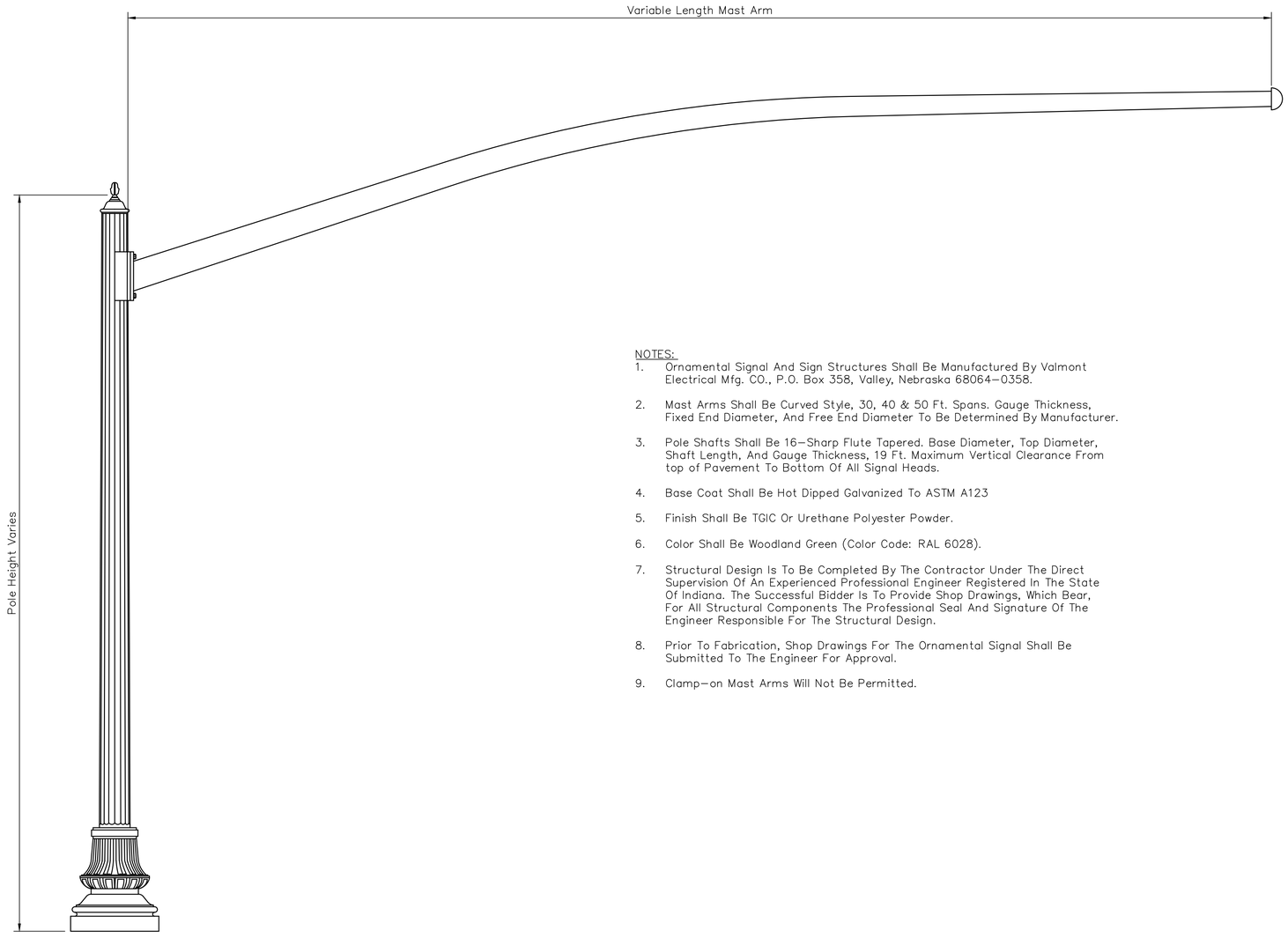
OF
29



NOTES:

1. Ornamental Signal And Sign Structures Shall Be Manufactured By Valmont Electrical Mfg. CO., P.O. Box 358, Valley, Nebraska 68064–0358.
2. Mast Arms Shall Be Curved Style, 30, 40 & 50 Ft. Spans. Gauge Thickness, Fixed End Diameter, And Free End Diameter To Be Determined By Manufacturer.
3. Pole Shafts Shall Be 16–Sharp Flute Tapered. Base Diameter, Top Diameter, Shaft Length, And Gauge Thickness, 19 Ft. Maximum Vertical Clearance From top of Pavement To Bottom Of All Signal Heads.
4. Base Coat Shall Be Hot Dipped Galvanized To ASTM A123
5. Finish Shall Be TGIC Or Urethane Polyester Powder.
6. Color Shall Be Woodland Green (Color Code: RAL 6028).
7. Structural Design Is To Be Completed By The Contractor Under The Direct Supervision Of An Experienced Professional Engineer Registered In The State Of Indiana. The Successful Bidder Is To Provide Shop Drawings, Which Bear, For All Structural Components The Professional Seal And Signature Of The Engineer Responsible For The Structural Design.
8. Prior To Fabrication, Shop Drawings For The Ornamental Signal Shall Be Submitted To The Engineer For Approval.
9. Clamp–on Mast Arms Will Not Be Permitted.

DECORATIVE TRAFFIC SIGNAL POLE

Not To Scale

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TOWN OF PLAINFIELD

TRAFFIC SIGNAL DETAILS APPLICABLE TO COLLECTORS & ARTERIALS

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DAVID LAHEY
REGISTERED
No. PE19700063
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 01/01/2025 DATE

APPROVED — EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES — 01/01/2025 DATE

APPROVED — DIRECTOR OF TRANSPORTATION — 01/01/2025 DATE

TOWN OF PLAINFIELD

WIRELESS DETECTION DETAILS

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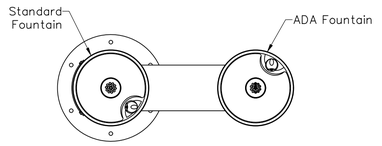
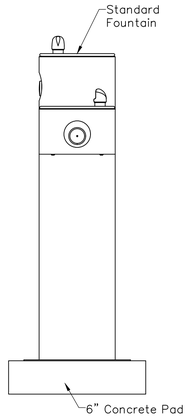
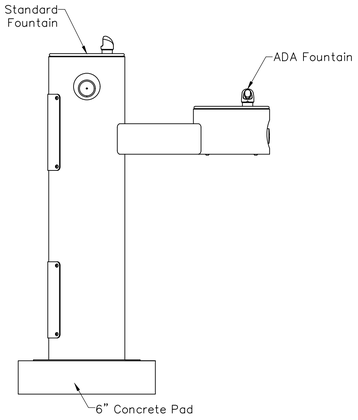


TOP VIEW



SIDE VIEW

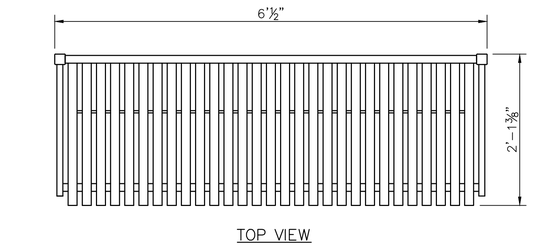


FRONT VIEW

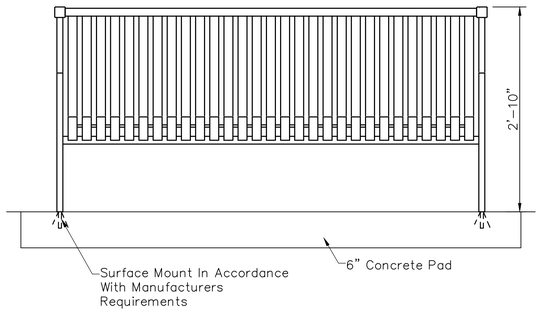
WATER FOUNTAIN NOTES:

1. Water Fountain Shall Be Elkay LK4420FRKEVG Evergreen Or Town Approved Equal:
2. The Water Fountain Shall Also Include A Single ⅝" X ¾" Residential Meter Pit In Accordance With DS-W03 Of The Town Standards. The Water Fountain Shall Be Equipped With Freeze Proof Valves From The Manufacturer.
3. Each Water Fountain Shall Be Securely Mounted To The Concrete Surface Per Manufacturer's Specifications. All Plumbing, Connection, Water Service Connections, And Drain Lines Shall Be Constructed And Installed Per Manufacturer's Specifications And Guidelines.

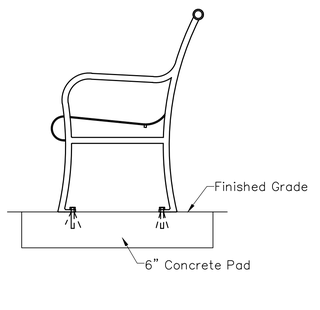
WATER FOUNTAIN



TOP VIEW



FRONT VIEW

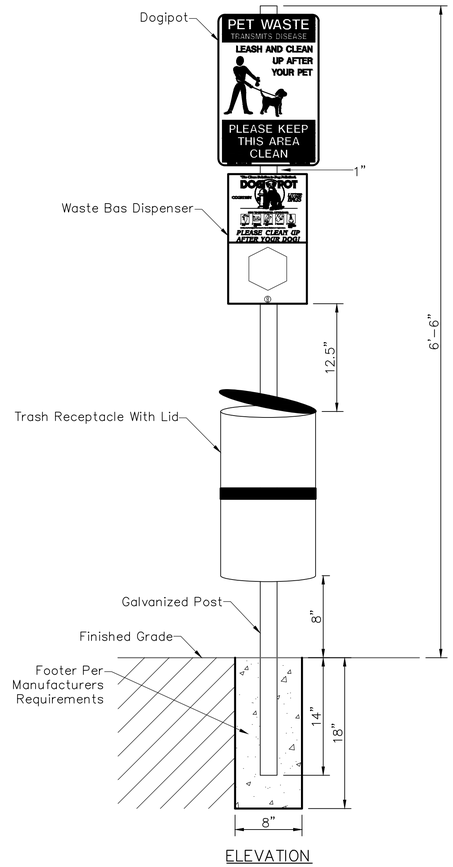


END VIEW

PEDESTRIAN BENCH NOTES:

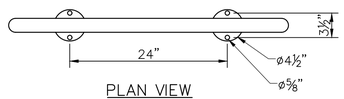
1. Pedestrian Bench Shall Be Timberform Renaissance Bench, Length: 6', Evergreen Color.
2. Each Bench Shall Be Installed Per Manufacturer Instructions And Shall Be Securely Mounted Per Manufacturer's Specifications With Either Surface Bolts, Or In-Ground Posts.
3. Pedestrian Bench Shall Timberform Renaissance Model #2806 Bench (Evergreen).

BENCH

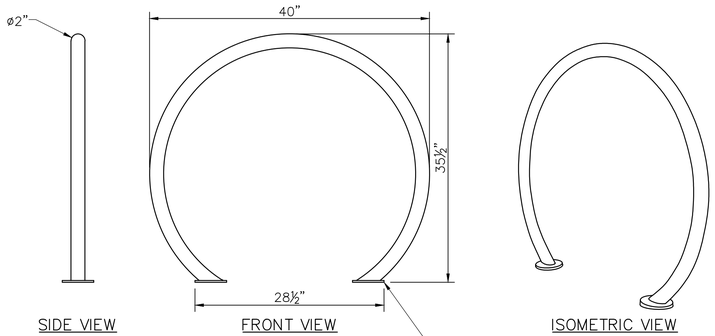


ELEVATION

DOGIPOT PET STATION 1003HP-L



PLAN VIEW



SIDE VIEW FRONT VIEW ISOMETRIC VIEW

BIKE RACK NOTES:
Bike Racks Shall Be Selected From Following Three Options Or Town Approved Equal:

1. Reliance Foundry R-8224 Ring Bike Rack 20, Height: 31½", Color: Dark Green
2. Belson Outdoors Round Rack, Height: 35", Color Green
3. Wabash Valley Open Circular Bike Rack, Height: 35 ¾", Color Green

Each Bike Rack Shall Be Surface Mounted As Per Manufacturer Instructions.

LOOP BIKE RACK

GENERAL NOTES:

1. All Water Fountains, Benches, And Loop Bike Racks To Be Installed On 6" Of Concrete On 6" Of No. 53 Stone.

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TOWN OF PLAINFIELD

LANDSCAPE DETAILS

SHEET 29 OF 29

COORDINATION WITH OTHER TRADES

1. The Contractor shall coordinate and check all dimensions relating to Architectural finishes, mechanical equipment and openings, elevator shafts and overrides, etc. and notify the Architect/Engineer of any discrepancies before proceeding with any work in the area under question.
2. The Structural Drawings shall be used in conjunction with the Drawings of all other disciplines and the Specifications. The Contractor shall verify the requirements of other trades as to sleeves, chases, hangers, inserts, anchors, holes, and other items to be placed or set in the Structural Work.
3. There shall be no vertical or horizontal sleeves set, or holes cut or drilled in any beam or column unless shown on the Structural Drawings or approved in writing by the SER.
4. Mechanical and electrical openings through supported slabs and walls, 8" diameter or larger not shown on the Structural Drawings must be approved by the SER. Openings less than 8" diameter shall have at least 1'-0" clear between openings, unless approved in writing by the SER.
5. Verify locations and dimensions of mechanical and electrical openings through supported slabs and walls shown on the Structural Drawings with the Mechanical and Electrical Contractors.
6. Do not install conduit in supported slabs, slabs on grade, or concrete walls unless explicitly shown or noted on the Structural Drawings.
7. Do not suspend any items, such as ductwork, mechanical or electrical fixtures, ceilings, etc. from steel roof deck or wood roof sheathing.
8. The Mechanical Contractor shall verify that mechanical units supported by steel framing are capable of spanning the distance between the supporting members indicated on the Structural Drawings. The Mechanical Contractor shall supply additional support framing as required.
9. If the Drawings and Specifications are in conflict, the most stringent restrictions and requirements shall govern.

GENERAL NOTES

1. The Contractor shall be responsible for complying with all safety precautions and regulations during the work. The SER will not advise on, nor issue direction as to safety precautions and programs.
2. The Structural Drawings herein represent the finished structure. The Contractor shall provide all temporary guying and bracing required to erect and hold the structure in proper alignment until all Structural Work and connections have been completed. The investigation, design, safety, adequacy and inspection of the bracing, shoring, temporary supports, etc. is the sole responsibility of the Contractor.
3. The SER shall not be responsible for the methods, techniques and sequences of procedures to perform the Work. The supervision of the Work is the sole responsibility of the Contractor.
4. The Drawings indicate general and typical details of construction. Where conditions are not specifically shown, similar details of construction shall be used, subject to approval of the SER.
5. All structural systems which are to be composed of components to be field erected shall be supervised by the Supplier during manufacturing, delivery, handling, storage, and erection in accordance with the Supplier's instructions and requirements.
6. Loading applied to the structure during the process of construction shall not exceed the safe load-carrying capacity of the structural members. The live loads used in the design of this structure are indicated in the "Design Criteria Notes." Do not apply any construction loads until structural framing is properly connected together and until all permanent bracing is in place.
7. All ASTM and other referenced standards and codes are for the latest editions of these publications, unless noted otherwise.
8. Shop drawings and other items shall be submitted to the SER for review prior to fabrication. All Shop Drawings shall be reviewed by the Contractor before submittal. The SER's review is to be for conformance with the design concept and general compliance with the relevant Contract Documents. The SER's review does not relieve the Contractor of the sole responsibility to review, check, and coordinate the Shop Drawings prior to submission. The Contractor remains solely responsible for errors and omissions assocated with the preparation of Shop Drawings as they pertain to member sizes, details, dimensions, etc.
9. Submit Shop Drawings electronically. In no case shall reproductions of the Contract Documents be used as Shop Drawings. As a minimum, submit the following items for review.
   A. Concrete Mix Design(s).
   B. Reinforcing Steel Shop Drawings.
   C. Masonry Wall Reinforcing Steel Shop Drawings.
   D. Structural Steel Shop Drawings.
   E. Steel Joist Shop Drawings.
   F. Steel Deck Shop Drawings.
   G. Cold-Formed Steel Framing Systems.
   H. Prefabricated Wood Truss and Wall Panel Systems.
10. Resubmitted Shop Drawings: Resubmitted shop drawings are reviewed only for responses to comments made in the previous submittal.
11. When calculations are included in the submittals for components of work designed and certified by a Specialty Structural Engineer, the review by the Structural Engineer of Record (SER) shall be for conformance with the relevant Contract Documents. The SER's review does not relieve the Specialty Structural Engineer from responsiblity for the design of the system(s) and the coordination with the elements of the structure under the certification of the Engineer of Record, or other Specialty Structural Engineer. The SER's review does not constitute a warranty of the accuracy or completeness of the Specialty Structural Engineer's design.
12. Contractors shall visit the site prior to bid to ascertain conditions which may adversely affect the work or cost thereof.
13. No structural member may be cut, notched, or otherwise reduced in strength without written direction from the SER.
14. When modifications are proposed to structural elements under the design and certification of a Specialty Engineer, written authorization by the Specialty Engineer must be obtained and submitted to the SER for review, prior to performing the proposed modifications.

FOUNDATIONS

1. Proofroll slab on grade areas with a medium-weight roller or other suitable equipment to check for pockets of soft material hidden beneath a thin crust of better soil. Any unsuitable materials thus exposed should be removed and replaced with compacted, engineered fill as outlined in the specifications. Proofrolling operations shall be monitored by the Geotechnical Testing Agency.
2. All engineered fill beneath slabs and over footings should be compacted to a dry density of at least 95% of the Standard Proctor maximum dry density (ASTM D698). All fill which shall be stressed by foundation loads shall be approved granular materials compacted to a dry density of at least 100% (ASTM D698). Coordinate all fill and compaction operations with the Specifications and the Subsurface Investigation.
3. Compaction shall be accomplished by placing fill in approx. 8" lifts and mechanically compacting each lift to at least the specified minimum dry density. For large areas of fill, field density tests shall be performed for each 3,000 square feet of building area for each lift as necessary to insure adequate compaction is being achieved.
4. Column footings and wall footings to bear on firm natural soils or well-compacted engineered fill with an assumed allowable bearing pressure of 1,600 PSF for column and wall footings.

   It is essential that the foundations be inspected to ensure that all loose, soft or otherwise undesirable material (such as organics, existing fill, etc.) is removed and that the foundation will bear on satisfactory material. The Geotechnical Testing Agency shall inspect the subgade and perform any necessary tests to insure that the actual bearing capacities meet or exceed the design capacities. The Testing Agency shall verify the bearing capacity at each spread column footing and every 10 feet on center for strip footings prior to placement of concrete.
5. Place footings the same day the excavation is performed. If this is not possible, the footings shall be adequately protected against any detrimental change in condition, such as from disturbance, rain and freezing.
6. It is the responsibility of the Contractor and each Sub-Contractor to verify the location of all utilities and services shown, or not shown, and establish safe working conditions before commencing work.
7. The Contractor shall lay out the entire building and field verify all dimensions prior to excavation.

POST-INSTALLED DOWELS & ANCHOR RODS

1. All reinforcing steel and threaded rod anchors to be installed in 2-part chemical anchoring system shall be treated as follows:
   A. Drill holes larger than bar or rod to be embedded. Coordinate hole diameter with Manufacturer's requirements.
   B. Holes must be cleaned and prepared in accordance with Manufacturer's requirements.
   C. When reinforcing steel is encountered during drilling for installation of anchors, stop drilling and use a sensor to locate the reinforcing in the surrounding area and install anchor(s) as close as possible to the original location. Contact the Structural Engineer of Record for direction when the revised location is more than 2" from the original location, or when the original function of the anchorage is significantly altered. When in doubt, contact the SER for direction.
   D. Drill the hole a minimum of 15 bar diameters or as shown on the Drawings.
   E. Use a 2-part adhesive anchoring system, Hilti HIT-HY 200, or approved equal.
   F. For anchorage into hollow substrate, use Hilti HIT-HY 270, or approved equal.
   G. Reinforcing steel dowels shall be ASTM A615, Grade 60, unless noted.
   H. Anchor rods shall be ISO 898 5.8 (Hilti HAS-E), unless noted. Provide finish as noted on the Drawings. If not noted, provide hot-dip galvanized finish for interior applications. Provide stainless steel finish for exterior applications, unless noted.
2. When column anchor bolts/rods have been omitted, or damaged by construction operations, the Contractor must obtain the written approval of the SER prior to repair and/or replacement.
   A. As a precaution, the affected column must be guyed and braced after repair for the balance of the erection period.
   B. As an alternate to guying and bracing, the Contractor may at his option, employ a testing agency to perform a tensile pull test to confirm the strength of the repaired or replaced anchor bolt/rod. The tensile proof load must exceed 1.33 x the design load of the original anchor without causing distress of the anchor bolt/rod or the surrounding concrete. Reference the following table for the minimum proof loads:

3/4" diameter:	11.6 kips
7/8" diameter:	16.0 kips
1" diameter:	20.9 kips

      Note: Values listed above are for ASTM F1554, Grade 36 material. When higher grade or strength materials are specified, refer to the AISC Manual of Steel Construction for minimum allowable loads to be multiplied by 1.33.
   C. When affected anchor bolts/rods are part of a fixed moment-resisting column base, such as those in moment-resisting space frames, canopies, or fixed-base installations, the repaired anchor bolts/rods must be proof-loaded, or the affected column footing and/or pier replaced in its entirety.
   D. When affected anchor bolts/rods are 1-1/8" diameter or larger, the affected column footing and/or pier must be replaced in its entirety.
   E. When affected anchor bolts/rods are part of a braced frame, the affected column footing and/or pier must be replaced in its entirety.
   F. Prior to erection, the controlling Contractor must provide written notification to the Steel Erector if there has been a repair, replacement or modification of the anchor bolts/rods for that column.

DESIGN CRITERIA

1. DESIGN STANDARDS: The intended design standards and/or criteria are as follows:

General	The 2014 Indiana Building Code (2012 International Building Code [IBC] with Indiana Amendments)
Concrete	ACI318
Masonry	ACI 530 / TMS 402
Steel	AISC Manual, Allowable Stress Design (ASD)
Steel Joists/Girders	Steel Joist Institute
Steel Deck	Steel Deck Institute
Cold-Formed Metal	AISI-ASD

   All referenced standards and codes, as well as ASTM numbers are for the latest editions of these publications, unless otherwise noted.
2. DEAD LOADS: Gravity Dead Loads used in the design of the structure are as computed for the materials of construction incorporated into the building, including but not limited to walls, floors, ceilings, stairways, fixed partitions, finishes, cladding and other similar architectural and structural items, as well as mechanical, electrical and plumbing equipment and fixtures, and material handling and fixed service equipment, including the weight of cranes.
3. COLLATERAL LOAD: Unless otherwise noted, a minimum uniform collateral load of 10 PSF has been used to account for ductwork, ceilings, sprinklers, lighting, etc. The collateral load is in addition to the weight of mechanical units, larger piping (greater than 4" diameter) and suspended fixtures or equipment that have been specifically accounted for in the design.
4. ROOF LIVE / SNOW LOADS: Gravity Live Loads used in the design of the roof structure meet or exceed the following table:

A. Snow Load	
Ground Snow Load, p_g	20 PSF
Flat Roof Snow Load, p_f	14 PSF
Low-Slope Minimum Roof Snow Load, p_m	20 PSF
Snow Exposure Factor, C_e	1.0
Risk Category (IBC 2012, Table 1604.5)	II
Snow Importance Factor, I_s	1.0
Thermal Factor, C_t	1.0
B. Minimum Roof Live Load	20 PSF
C. Overhanging Eaves, Canopies & Projections	30 PSF

      1. Drift loads calculated in accordance with Section 7.7, ASCE 7. Specialty Engineers must consider snow drift loads in the design of pre-engineered trusses, frames, skylights, curtain walls, cold-formed metal framing, canopies, etc.
5. HANDRAILS AND GUARDS:

A. Handrail Assemblies and Guards	50 PLF applied in any direction 200 LB concentrated load applied in any direction (non-concurrent with 50 PLF load).
B. Components, Intermediate Rails, Balusters, Fillers, Etc.	50 LBS horizontally applied normal load on an area not to exceed 1 SF, not superimposed with those of handrail assemblies.

6. LATERAL LOADS: Lateral loads were computed using the following criteria:

A. Wind Load	
Ultimate Design Wind Speed, V_{ult}	115 MPH
Nominal Design Wind Speed, V_{asd}	89.1 MPH
Wind Exposure Category	C
Risk Category (IBC 2012, Table 1604.5)	II
Internal Pressure Coefficient, GC_{pi}	+/- 0.18
B. Seismic Load	
Site Class	D (Assumed)
Risk Category (IBC 2012, Table 1604.5)	II
Seismic Importance Factor, I_e	1.00
Mapped Spectral Response Acceleration Parameter, S_S	0.175g
Mapped Spectral Response Acceleration Parameter, S_1	0.091g
Design Spectral Response Acceleration Parameter, S_{DS}	0.187g
Design Spectral Response Acceleration Parameter, S_{D1}	0.146g
Seismic Design Category, SDC	C
Analysis Procedure	Equivalent Lateral Force
Seismic Force-Resisting System	Ordinary Reinforced Masonry Shear Walls
Response Modification Coefficient, R	2
Seismic Response Coefficient, C_s	0.093 0.093W

7. SAFETY FACTORS: This structure has been designed with 'Safety Factors' in accordance with accepted principles of structural engineering. The fundamental nature of the 'Safety Factor' is to compensate for uncertainties in the design, fabrication, and erection of structural building components. It is intended that 'Safety Factors' be used such that the load-carrying capacity of the structure does not fall below the design load and that the building will perform under design load without distress. While the use of 'Safety Factors' implies some excess capacity beyond design load, such excess capacity cannot be adequately predicted and SHALL NOT BE RELIED UPON.

LINTEL SCHEDULE

1. Where lintels are not specifically shown or noted on the Structural or Architectural Drawings, provide the following lintels over all openings and recesses in both interior and exterior non-load-bearing walls.
   A) Brick:

Masonry Opening	Angle Size
Up to 5'-0"	L4x4x5/16
5'-1" to 7'-0"	L6x4x5/16
7'-1" to 12'-0"	L7x4x3/8

      All angles are LLV (long leg vertical) unless noted otherwise. Provide 1" bearing length per foot of span each end with minimum 8".
   B) Block: For openings up to 8'-0" long exposed in the finished room, use lintel block filled with grout. Grout all exposed joints and reinforce as follows:
      1. For 6" thick block: 1 - #5 bar.
      2. For 8" thick block: 2 - #5 bars.
      3. For 10" thick block: 2 - #6 bars.
      4. For 12" thick block: 2 - #6 bars.
   C) Block: For openings between 8'-1" & 12'-0" long exposed in the finished room, use lintel block filled with grout. Grout all exposed joints and reinforce per the "Long Masonry Lintel Detail" on the Typical Detail Drawings.
   D) Shore all block and steel angle lintels over 8'-0" in length until masonry has attained its specified design strength.

CAST IN PLACE CONCRETE

1. Details of fabrication of reinforcement, handling and placing of the concrete, construction of forms and placement of reinforcement not otherwise covered by the Plans and Specifications, shall comply with the ACI Code requirements of the latest revised date.
2. Cold weather concreting shall be in accordance with ACI 306. Cold weather is defined as a period when for more than 3 successive days the average daily air temperature drops below 40F and stays below 50F. The Contractor shall maintain a copy of this publication on site.
3. Hot weather concreting shall be in accordance with ACI 305. Hot weather is defined as any combination of the following conditions that tends to impair the quality of the freshly mixed or hardened concrete: high ambient temperature, high concrete temperature, low relative humidity, wind speed, or solar radiation. The Contractor shall maintain a copy of this publication on site.
4. A certified Testing Agency shall be retained to perform industry standard testing including measurement of slump, air temperature, concrete cylinder testing, etc. to ensure conformance with the Contract Documents. Submit reports to the Architect/Engineer.
5. FINISHING OF SLABS: After screeding, bull floating and floating operations have been completed, apply final finish as indicated below, and as described in the Division 3 Cast In Place Concrete Specification of the Project Manual.

A. Floor Slabs	Hard Trowel Finish, unless noted otherwise
B. Ramps, Stairs & Sidewalks	Broom Finish
C. Surfaces to Recieve Topping Slabs	None - Float Finish
D. Surfaces to recieve thick-set mortar beds or similar cementitious materials	None - Float Finish

   Sample Finishes: See the Specifications for sample and mockup requirements, if any. Coordinate floor finishes with the architectural Finish Plan.

   Floor Tolerances: See the Specifications for specified Ff and Fl tolerances. Ff and Fl testing shall be performed by the Testing Agency in accordance with ASTM E1155. Results, including acceptance or rejection of the work will be provided to the Contractor and the Architect/Engineer within 48 hours after data collection. Remedies for out-of-tolerance work shall be in accordance with the Specifications. When approved by the SER, measurement of the gaps beneath a 10-foot straight edge may be used in lieu of Ff and Fl testing. Approval must be obtained in writing prior to the beginning of concrete operations.
6. FINISHING OF FORMED SURFACES: Finish formed surfaces as indicated below, and as described in the Division 3 Cast In Place Concrete Specification of the Project Manual.

A. Sides of Footings & Pile Caps	Rough Form Finish
B. Sides of Grade Beams	Rough Form Finish
C. Surfaces not exposed to public view	Rough Form Finish
D. Surfaces exposed to public view	Smooth Form Finish

7. The Contractor shall consult with the Engineer before starting concrete work to establish a satisfactory placing schedule and to determine the location of construction joints so as to minimize the effects of shrinkage in the floor system.
8. Sawn or tooled control/contraction joints shall be provided in all slabs on grade. For a framed structure, joints shall be located on all column lines. Provide intermediate joints spaced at a maximum of 36 times the nominal slab thickness. Exterior slabs, and interior slabs without columns, shall also have a maximum joint spacing of 36 times the nominal slab thickness. Lay out joints so that maximum aspect ratio (ratio of long side to short side) does not exceed 1.5.
9. Where vinyl composition tile, vinyl sheet goods, thin-set epoxy terrazzo, or other similar material is the specified finish floor material, the Contractor shall coordinate the locations of control/contraction and construction joints with the Finish Flooring Contractor. Submit a dimensioned plan showing joint locations and proposed sequence of floor pours.
10. Unless specifically noted on the Plans, do not provide sawn control joints in composite and non-composite supported slabs on metal deck or in supported cast-in-place concrete slabs.
11. Joints in slabs to receive a finish floor may remain unfilled, unless required by the Finish Flooring Contractor. All exposed slabs shall be filled with sealant specified in Division 7, or as follows: All slabs in industrial, manufacturing, or warehouse applications subject to wheeled traffic shall be filled with specified epoxy resin sealant, all other joints shall be filled with specified elastometric sealant. Defer filling of joints as long as possible, preferably a minimum of 4 to 6 weeks after the slab has been cured. Prior to filling, remove all debris from the slab joints, the fill in accordance with the manufacturer's recommendations.
12. Refer to the Architectural Drawings for locations and details of reveals (1" maximum depth) in exposed walls.
13. Refer to the Architectural Drawings for chamfer requirements for corners of concrete. Where not indicated, provide 3/4" chamfers on exposed corners of concrete, except those abutting masonry.
14. Refer to the Architectural Drawings for exact locations and dimensions of recessed slabs, ramps, stairs, thickened slabs, etc. Slope slabs to drains where shown on the Architectural and Plumbing Drawings.
15. Sidewalks, stoops, aprons, drives, exterior retaining walls, and other site concrete are not indicated on the Structural Drawings. Refer to the Site/Civil and Architectural Drawings for locations, dimensions, elevations, jointing, and finishing details.

CONCRETE MIX CLASSES

FOOTINGS	
COMPRESSIVE STRENGTH	4000 PSI
MAXIMUM WATER/CEMENT RATIO	0.58
AIR CONTENT	0 - 3 PERCENT
WATER-REDUCING ADMIXTURE	OPTIONAL
SLUMP	4" +/- 1"
FOUNDATION WALLS, RETAINING WALLS, PIERS, GRADE BEAMS & TIE BEAMS	
COMPRESSIVE STRENGTH	4000 PSI
MAXIMUM WATER/CEMENT RATIO	0.50
AIR CONTENT	0 - 3 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	4" +/- 1"
INTERIOR CONCRETE SLABS ON GRADE & SUSPENDED SLABS	
COMPRESSIVE STRENGTH	4000 PSI
MINIMUM CEMENTITIOUS MATERIAL CONTENT	517 LB/CU YD
AIR CONTENT	0 - 3 PERCENT
SLUMP	4" +/- 1"
WATER-REDUCING ADMIXTURE	REQUIRED
E5 INTERNAL CURE ADMIXTURE	REQUIRED
EXTERIOR CONCRETE SUBJECT TO FREEZE-THAW	
COMPRESSIVE STRENGTH	4000 PSI
MINIMUM CEMENTITIOUS MATERIAL CONTENT	564 LB/CU YD
AIR CONTENT	6 +/- 1 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	5" +/- 1"
COARSE AGGREGATE	CRUSHED STONE
INCREASE COMPRESSIVE STRENGTH TO 4500 PSI FOR EXTERIOR REINFORCED CONCRETE SUBJECT TO THE USE OF DEICERS.	
LEAN CONCRETE FILL	
COMPRESSIVE STRENGTH	2000 PSI
MAXIMUM WATER/CEMENT RATIO	0.65
AIR CONTENT	OPTIONAL
WATER-REDUCING ADMIXTURE	OPTIONAL
SLUMP	4" +/- 1"

1. SLUMP:

MIXES CONTAINING TYPE A WRDA	5" MAXIMUM
MIXES CONTAINING MID-RANGE WRDA	5 - 6½"
MIXES CONTAINING HIGH-RANGE WRDA	5 - 8"

2. SPECIFIED MINIMUM CEMENTITIOUS MATERIAL CONTENTS ARE BASED ON THE USE OF WATER REDUCING ADMIXTURES.
3. INCLUDE AN AIR-ENTRAINING ADMIXTURE FOR ALL CONCRETE EXPOSED TO FREEZING AND THAWING IN SERVICE AND FOR ALL CONCRETE EXPOSED TO COLD WEATHER DURING CONSTRUCTION, BEFORE ATTAINING ITS SPECIFIED DESIGN COMPRESSIVE STRENGTH. REF. ACI 306 FOR DEFINITION OF COLD WEATHER.
4. CLASS C FLY ASH MAY BE USED AS A CEMENT SUBSTITUTE WITH A MAXIMUM 20% SUBSTITUTION RATE ON A POUND-PER-POUND BASIS.
5. PROPORTION CONCRETE MIXES TO PROVIDE WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED READILY INTO THE CORNERS AND ANGLES OF THE FORMS AND AROUND REINFORCEMENT BY THE METHODS OF PLACEMENT AND CONSOLIDATION TO BE EMPLOYED, WITHOUT SEGREGATION AND EXCESSIVE BLEEDING.
6. ADJUSTMENTS TO THE APPROVED MIX DESIGNS MAY BE REQUESTED BY THE CONTRACTOR WHEN JOB CONDITIONS, WEATHER, TEST RESULTS, OR OTHER CIRCUMSTANCES WARRANT. THESE REVISED MIX DESIGNS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO USE.

CONCRETE REINFORCING

1. Reinforcement, other than cold drawn wire for spirals and welded wire fabric, shall have deformed surfaces in accordance with ASTM A305.
2. Reinforcing steel shall conform to ASTM A615, Grade 60, unless noted.
3. Welded wire fabric shall conform to ASTM A1064, unless noted.
4. Where hooks are indicated, provide standard hooks per ACI and CRSI for all bars unless other hook dimensions are shown on the plans or details.
5. Reinforcement in footings, walls and beams shall be continuous. Lap bars a minimum of 36 diameters, unless noted otherwise.
6. Reinforcement shall be supported and secured against displacement in accordance with the Concrete Reinforcing Steel Institute's "Manual of Standard Practice."
7. Details of reinforcing steel fabrication and placement shall conform to ACI 315 'Details and Detailing of Concrete Reinforcement' and ACI 315R 'Manual of Engineering and Placing Drawings for Reinforced Concrete Structures', unless otherwise indicated.
8. Spread reinforcing steel around small openings and sleeves in slabs and walls, where possible, and where bar spacing will not exceed 1.5 times the normal spacing. Discontinue bars at all large openings where necessary, and provide an area or reinforcement, equal to the interrupted reinforcement, in full length bars, distributing one-half each side of the opening. Where shrinkage and temperature reinforcement is interrupted, add (2) #5 x *opening dimension +4'-0"* on each side of the opening. Provide #5 x 4'-0" diagonal bars in both faces, at each corner of openings larger than 12" in any direction.
9. Provide standees for the support of top reinforcement for footings, pile caps, and mat foundations.
10. Provide individual high chairs, with support bars, as required for the support of top reinforcement for supported slabs. Do NOT provide standees.
11. Provide snap-on plastic space wheels to maintain required concrete cover for vertical wall reinforcement.
12. Where walls sit on column footings, provide dowels for the wall. Dowels shall be the same size and spacing as the vertical wall reinforcement, unless noted otherwise, with lab splices as shown on the application sections. Install dowels in the footing forms before concrete is placed. Do NOT stick dowels into footings after concrete is placed.
13. Field bending of reinforcing steel is prohibited, unless noted on the drawings.
14. Minimum concrete cover over reinforcing steel shall be as follows, unless noted otherwise on plan, section or note:

MINIMUM COVER FOR REINFORCEMENT

	MINIMUM COVER
SLABS AND JOISTS	
TOP & BOTTOM BARS FOR DRY CONDITIONS:	
#11 BARS & SMALLER	3/4"
#14 & #18 BARS	1 1/2"
FORMED CONCRETE SURFACES EXPOSED TO EARTH, WATER, OR WEATHER, AND OVER OR IN CONTACT WITH SEWAGE AND FOR BOTTOMS BEARING ON WORK MAT, OR SLABS SUPPORTING EARTH COVER:	
#5 BARS & SMALLER	1 1/2"
#6 THROUGH #18 BARS	2"
BEAMS & COLUMNS, FORMED	
FOR DRY CONDITIONS:	
STIRRUPS, SPIRALS & TIES	1 1/2"
PRINCIPAL REINFORCEMENT	2"
EXPOSED TO EARTH, WATER, SEWAGE, OR WEATHER:	
STIRRUPS & TIES	2"
PRINCIPAL REINFORCEMENT	2 1/2"
WALLS	
FOR DRY CONDITIONS:	
#11 BARS & SMALLER	3/4"
#14 & #18 BARS	1 1/2"
FORMED CONCRETE SURFACES EXPOSED TO EARTH, WATER, SEWAGE, WEATHER, OR IN CONTACT WITH GROUND	2"
FOOTINGS & BASE SLABS	
AT FORMED SURFACES & BOTTOMS BEARING ON CONCRETE WORK MAT	2"
AT UNFORMED SURFACES & BOTTOMS IN CONTACT WITH EARTH	3"
TOP OF FOOTINGS	SAME AS SLABS
OVER TOP OF PILES	2"

STRUCTURAL STEEL NOTES

1. Structural steel construction shall conform to the American Institute of Steel Construction "Specification for Structural Steel Bulidings".
2. All structural wide flange members and channels shall be ASTM A992, Fy = 50 ksi.
3. All plates, bars, angles, and rods shall be ASTM A572, Grade 50 unless noted.
4. All rectangular, square, and round structural tube members shall be ASTM A500, Grade C, Fy = 50 ksi unless noted.
5. Details for design, fabrication and erection of all structural steel shall be in accordance with the latest AISC Standards, unless otherwise noted or specified.
6. Provide temporary erection guying and bracing as required.
7. Unless otherwise shown or noted on the Drawings, provide 8" minimum bearing each end for all loose lintels and beams.
8. For loose lintels, masonry shelf angles and other such items generally not shown on the Structural Drawings, refer to the Architectural Drawings. See general notes on lintels this sheet for sizes, reinforcing, etc.
9. Steel columns below grade shall be encased in a minimum of 4" concrete or painted with 2 coats of asphaltum paint, unless otherwise shown.
10. Fabricate simple span beams not specifically noted to receive camber so that after erection, any minor camber due to rolling or shop assembly be upward.
11. Refer to the Division 5 Structural Steel Specification of the Project Manual for structural steel surface preparations and prime painting requirements.
12. The Erector shall shim between parallel roof beams and joists with differential mill and induced cambers for level deck bearing.
13. Provide cap plates/end plates to close off exposed, open ends of all tubular members, unless noted. Seal weld with partial penetration square groove welds for watertight condition.

STEEL CONNECTION NOTES

1. Typical beam-to-beam and beam-to-column connections shall be bearing type using A325 bolts, unless noted otherwise.
2. Shop connections, unless otherwise shown, may be either bolted or welded. All field connections shall be bolted unless otherwise shown on the Structural Drawings.
3. Connections shall be designed by the Steel Fabricator to support the reactions shown on the framing plan(s). Simple span connections without reactions listed on the Structural Drawings shall be designed by the Steel Fabricator's SSE in accordance with Table 3-6 of the AISC "Manual of Steel Construction, 14th Edition". For composite beams where reactions are not indicated, design connections for 75% of the Maximum Total Uniform Load ASD value for the applicable beam size and span given in Table 3-6. For non-composite beams, design connections for 50% of the tabulated ASD value. The minimum shear connection design load shall be 15 kips.
4. Submit calculations for connections not detailed on the Structural Drawings and not covered by the AISC Tables, including but not limited to:
   A. Moment Connections.
   B. Bracing Connections including Collectors and Drag Struts
   C. Skewed Shear Connections.
   D. Girder and Truss Splices.
   E. Truss-to-Column and Truss-to-Truss Connections.
   F. Truss Web-to-Chord and Web-to-Gusset Connections.
5. All beam-to-beam connections shall be double angle, unless shown or noted otherwise.
6. All beam-to-column connections shall be at the column centerline, unless shown or noted otherwise. Shear tab connections to tube columns are permitted unless otherwise noted or detailed.
7. Typical bearing-type beam-to-beam, and beam-to-column field-bolted connections may be tightened to the snug-tight condition, unless otherwise shown or noted.
8. Bolted connections in moment frames, bracing connections, hangers and stub columns, crane connections, and those designated PT (pretensioned) on the Drawings shall be pretensioned joints utilizing tension-control (TC) bolts or direct tension indicators. Holes for bolts in pretensioned joints shall be 1/16" larger than the bolt diameter. All pretensioned joints must be inspected by the Testing Agency.
9. Connect bracing members for two components of stress unless otherwise approved by the SER. Provide a minimum 2-bolt or welded field connection.
10. Locate centerlines of all vertical bracing members on column centerlines in vertical plane and on column and beam centerlines in horizontal plane, unless otherwise shown on the Structural Drawings.
11. All welding shall be in conformance with AWS D1.1, using E70XX electrodes, unless shown or noted otherwise. Welding, both shop and field, shall be performed by welders certified for the weld types and positions involved according to the current edition of AWS D1.1. Perform all AESS welds with care to provide a clean, uniform appearance.
12. Backup bars required for welded connections shall be continuous.
13. Holes in steel shall be drilled or punched. All slotted holes shall be provided with smooth edges. Burning of holes in structural steel shall not be allowed without approval of the SER.
14. The minimum thickness of all connection material shall be 5/16", unless noted.
15. Continuous bent plate and angle slab closures, roof edges, diaphragm chords, etc. around perimeter of the floor and roof, as well as around openings shall be welded with a minimum 1/4" fillet weld x 3" long at 12" o.c., top & bottom, unless noted otherwise. Butt weld joints in continuous diaphragm chords for continuity. For continuous perimeter angles and bent plates perpendicular to and connected to the top chords of joists, provide a minimum 3" of 1/4" weld at each joist. Continuous angle and bent plate closures may be shop-applied to the supporting structural members only when requested and approved in writing by the SER.
16. A qualified independent Testing Agency shall be retained to perform inspection and testing of structural steel field weldments as follows:

WELD INSPECTION SCHEDULE

WELD TYPE	VT	MT	UT	PT	RT	COMMENTS
FILLET (SINGLE PASS)	25%	--	--	--	--	ROOT PASS AND FINISHED WELD
FILLET (MULTIPLE PASS)	50%	25%	--	--	--	
FLARE BEVEL/ FLARE V	25%	--	--	--	--	
GROOVE (PARTIAL PENETRATION)	100%	--	100%	--	--	REFERENCE NOTE 'E' BELOW
GROOVE (FULL PENETRATION)	100%	--	100%	--	--	ALL FULL PENETRATION WELDS

A) Test procedures:
   VT = Visual Test (inspection)
   MT = Magnetic Particle Test: ASTM E109, cracks or incomplete fusion or penetration not acceptable.
   UT = Ultrasonic Test: ASTM E164.
   PT = Penetrant Test: ASTM E165.
   RT = Radiographic Test: ASTM E94 and ASTM E142, min. quality level 2-21.

B) Acceptance standards in AWS D1.1 shall be followed for each test procedure.

C) Test procedures may be substituted to meet feasibility requirements of test based upon weld geometry or other factors with the approval of the SER.

D) Samples shall occur at random locations; additional tests may be required at locations noted on the Drawings.

E) Groove welds include square, bevel, V, U, and J grooves including single and double pass types.

F) Partial penetration square groove welds at end seal plates of tubular members do not require inspection.

G) Weld Procedure Specifications (WPS) shall be produced and maintained in accordance with AWS D1.1. The independent Testing Agency shall have access to all WPS's during the course of testing and inspection.

H) For highly-restrained welded joints, especially in thick plates and/or heavy structural shapes, detail the welds so that shrinkage occurs as much as possible in the direction the steel was rolled. Refer to the AISC Manual for preferred welded-joint arrangements that reduce the possibility for lamellar tearing. Members scheduled to receive highly-restrained connections shall be tested by the independent Testing Agency by Ultrasonic Testing prior to commencing welding.

I) In addition to inspection requirements for fillet welds in Table above, 100% of field welding of diagonal bracing members to gusset plates shall be visually inspected (VT).

SPECIALTY STRUCTURAL ENGINEERING (SSE)

1. A Specialty Structurally Engineer (SSE) is defined as a Professional Engineer licensed in the State of Indiana, not the Structural Engineer of Record (SER), who performs Structural Engineering functions necessary for the structure to be completed and who has shown experience and/or training in the specific speciality.
2. It is the SSE's responsibility to review the Construction Drawings and Specifications to determine the appropriate scope of engineering.
3. It is the intent of the Drawings and Specifications to provide sufficient information for the SSE to perform his design and analysis. If the SSE determines there are details, features, or unanticipated project limits which conflict with the engineering requirements as described in the project documents, the SSE shall in a timely manner contact the SER for resolution of conflicts.
4. The SSE shall forward documents to the SER for review. Such documents shall bear the stamp of the SSE and include:
   A. Drawings introducing engineering input, such as defining the configuration or structural capacity of structural components and/or their assembly into structural systems.
   B. Calculations.
   C. Computer printouts which are an acceptable substitute for manual calculations provided they are accompanied by sufficient design assumptions and identified input and output information to permit their proper evaluation. Such information shall bear the stamp of the SSE as an indication that said SSE has accepted responsibility for the results.
5. Contractors are referred to the specific technical specification sections and the structural drawings for those elements requiring Specialty Structural Engineering. Examples of components requiring Specialty Structural Engineering include, but are not limited to the following:
   A. Temporary and Permanent Retention Systems, if required.
   B. Shoring and Bracing Systems, if required.
   C. Structural Steel Connections.
   D. Prefabricated Wood Trusses.
   E. Steel Stairs.
   F. Handrails and Guards.
   G. Cold-Formed Steel Framing.
   H. Curtain Wall Systems.
6. When modifications are proposed to elements under the design and certification of the SSE, written authorization by the SSE must be obtained and submitted to the SER for review prior to performing the proposed modification.

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STRUCTURAL ENGINEERS

PROJECT:

PLAINFIELD COMMUNITY
SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:

These drawings indicate the general scope of the project in terms of architectural design concept, the dimensions of the building, the major architectural elements and the type of structural, mechanical and electrical systems.

The drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Contract.

On the basis of the general scope indicated or described, the trade contractors shall furnish all items required for the proper execution and completion of the work.

△# REVISIONS:

ISSUE DATE	DRAWN BY	CHECKED BY
05/08/2025	MDL	MDL

DRAWING TITLE:
GENERAL
STRUCTURAL
NOTES

CERTIFIED BY:
MARK D. LAVIER
PE19400114
Mark D LaVier

DRAWING NUMBER
S001

PROJECT NUMBER
2025016

TRENCH FOOTING SCHEDULE

FTG. MARK	FOOTING SIZE		FOOTING REINFORCING	
	WIDTH	DEPTH	LONGITUDINAL	TRANSVERSE
TF24	2'-0"	2'-0"	(2) #5 x CONTIN. T&B	#4 x 1'-6" @ 96" O.C. T&B

NOTES:
1. CENTER FOOTINGS BENEATH WALLS, U.N.O.
2. REF. S401 FOR TYP. WALL FOOTING CONSTRUCTION JOINT DETAIL.
3. LAP FOOTING REINF. A MIN. OF 30 BAR DIAMETERS.
4. PROVIDE BOTH TOP & BOTTOM REINF. AT ALL FOOTINGS.

DIAPHRAGM NAILING SCHEDULES

ROOF DIAPHRAGM

LOCATION	SIZE	SPACING
BOUNDARY	8d	6"
PANEL EDGE	8d	6"
FIELD	8d	12"

1. 1-1/2" MINIMUM PENTRATION INTO FRAMING.
2. DIAPHRAGMS ARE UNBLOCKED, U.N.O.
3. ALL NAILS ARE COMMON NAILS, REF. SCHEDULE THIS SHEET FOR MIN. LENGTHS AND SHANK DIAMETERS.

DIMENSIONS OF COMMON NAILS

PENNYWEIGHT	MIN. LENGTH, IN INCHES	SHANK DIA., IN IN.
6d	2	0.113
8d	2.5	0.131
10d	3	0.148
16d	3.5	0.162
20d	4	0.192

1. NAILS CALLED OUT IN PLAN, SECTION, DETAIL, OR SCHEDULE ARE ALWAYS COMMON NAILS. NAIL DIAMETER IS PER ESR-1539, NDS, AND THE TABLE ABOVE EXCEPT THAT NAIL LENGTH WILL ALWAYS BE 3" MINIMUM WHEN NAILING 2x FRAMING MEMBERS TOGETHER AND 3.5" WHEN NAILING LVL'S.

2. FOR CONNECTIONS NOT SHOWN, REFER TO IBC TABLE 2304.9.1 FOR MINIMUM FASTENING REQUIREMENTS.

3. FOR FASTENING OF MULTIPLE LVL PLIES, FOLLOW THE LVL MANUFACTURER'S REQUIREMENTS.

4. FOR FASTENING OF SIMPSON AND OTHER HARDWARE, FOLLOW THE HARDWARE MANUFACTURER'S REQUIREMENTS. FILL ALL FASTENER HOLES WITH THE REQUIRED FASTENERS, U.N.O.

WOOD STRUCTURAL DATA

1. All interior non-load bearing or shear wall studs, top and bottom wall plates shall be #1 Spruce - Pine - Fir - Northern per N.L.G.A. or better:
   Fb = 875 psi
   Ft = 450 psi
   Fv = 70 psi
   Fc (PER) = 425 psi
   Fc (PAR) = 1,150 psi
   E = 1,400,000 psi
2. All exterior and shear wall studs, top and bottom wall plates shall be #1 Douglas Fir-Larch, or better:
   Fb = 850 psi
   Ft = 500 psi
   Fv = 95 psi
   Fc (PER) = 625 psi
   Fc (PAR) = 1,400 psi
   E = 1,400,000 psi
3. All rafters, ceiling joists, ridge and valley boards, headers and misc. blocking shall be #2 hem-fir, or better: (alternate: Douglas Fir-Larch, see table above).
   Fb =1,000 psi
   Ft = 575 psi
   Fv = 75 psi
   Fc (PER) = 375 psi
   Fc (PAR) = 1,450 psi
   E = 1,600,000 psi
4. All laminated veneer lumber (L.V.L.) shall be manufactured by Trus-Joist McMillan, Alpine Structures, Inc., Or Mitek Wood Products:
   Fb =2,900 psi
   Fv = 285 psi
   E = 2,000,000 psi

   NOTES:
   A. Refer to specifications for additional information.
   B. Alternate grades and species may be proposed. Any substitutions must be approved in writing by the architect/engineer.
   C. Allowable stresses for dimensional lumber listed above are for 2"-4" thick x 2" & wider. Size adjustment factors (Cf), repetitive member factor (Cr), duration of load factor (Cd), etc. have been applied in the design of structural elements.

WOOD FRAMING NOTES

1. For wood connections not specifically noted or detailed, follow the requirements of IBC 2006 Table 2304.9.1 or ESR 1539.
2. All nails are common nails unless noted otherwise. All nails shall be carefully driven and not overdriven. Submit all proposed fasteners for approval prior to construction. Installation of all fasteners shall meet the requirements of NDS and ISANTA guidelines, including those in ESR 1539, and Section 2303.6 of the IBC.
3. All nails are common nails unless noted otherwise. All nails shall be carefully driven and not overdriven. Submit all proposed fasteners for approval prior to construction. Installation of all fasteners shall meet the requirements of NDS and ISANTA guidelines, including those in ESR 1539, and Section 2303.6 of the IBC.
4. Wall plates are to be #1 or #2 Spruce-Pine-Fir (SPF) with stud spacing 16" o/c maximum.
5. Use double top plates on all walls, including non-load-bearing walls, with all splices and corners lapped. At "T" intersections do not lap top plate of intersecting wall cutting the top plate of the continuous wall, rather use a metal tie plate as described in the exception to Section 2308.9.2.1 of the IBC.
6. Coordinate final roof framing including joist or truss layout & truss member configuration with Mechanical, Electrical, & Plumbing (MEP) drawings. Obtain additional MEP information as needed for complete coordination. Keep all mechanical chases free of framing. Do not locate joists or trusses at parallel plumbing walls.
7. Design roof joists or trusses to support the weight of snow drifting where it applies, as well as rooftop mechanical units, exhaust fans, access hatches, etc. Confirm weights & locations before final design and show the loads for these units/fixtures on the sealed drawings. The Contractor shall ensure the units are installed at their design locations.
8. Where framing supported by a joist or truss can cause uplift on that joist or truss (such as at cantilevered balcony framing) the designer shall consider a load case that maximizes the uplift load in combination with no live load applied to the joist or truss supporting the uplift.
9. All hardware to be Simpson Strong Tie or approved equal. Where hardware is not specifically designated, submit proposed hardware for approval. Where more than one type of fastener or fastener pattern is allowed by the hardware manufacturer, hardware fasteners are to be of the type, size, and quantity to maximize the load capacity of the hardware in the specific application shown on these plans, unless noted otherwise.
10. Reference the Architectural Plans for layout of all walls, openings, wall types, etc. Verify all dimensions prior to design of wall panels & immediately notify the Architect and Engineer of any discrepancies.
11. Where a Specialty Structural Engineer (SSE) designs framing (such as trusses), the roof designer shall provide the Wall Panel Designer the loads/reactions and locations of all girder or beam bearing points. The Wall Panel Designer shall specify and the Wall Panel Manufacturer shall install sufficient columns/studs to support all such loads from the girder or beam bearing location down to the supporting foundation or podium framing. The Contractor shall ensure the presence of such columns/studs. Similarly, where walls are field-framed, the Framing Contractor shall install the columns/studs for support of girders and beams. As a minimum, the number of studs shown on the plans shall be used, with a minimum of (2) 2x6 or (3) 2x4 studs.

PREFABRICATED WOOD TRUSSES

1. Wood trusses shall be designed by the manufacturer to support the following loads:
   A. Roof Trusses
      Top chord loading:
      Live (snow) load : 20 psf + drift loads
      Dead loads : 12 psf
      Additional 5 psf at overbuild framing areas
      Bottom chord loading:
      Attic live load : 10 psf
      Dead load : 8 psf
2. Wood trusses shall be designed by the manufacturer in accordance with the applicable provisions of the latest edition of the National Design Specification of the National Forest Products Association. The design specification for the metal plate connected wood trusses of the Truss Plate Institute (TPI). Wood Truss Council of America (WTCA) and the Indiana Building Code, 2008.
3. Wood materials shall be Southern Pine, or Douglas Fir-Larch and shall be kiln-dried and used at 19% maximum moisture content. Provide grade no. 2, or as required to satisfy stress requirements.
4. Connector plates shall be not less than 0.036 inches (20 gauge) in coated thickness, shall meet or exceed ASTM Grade A or higher and shall be hot-dipped galvanized according to ASTM A-653 (coating G60). Minimum steel yield stress shall be 33,999 psi.
5. Trusses shall be fabricated in a properly-equipped manufacturing facility of a permanent nature. Trusses shall be manufacture by experienced workmen, using precision cutting, jigging and pressing equipment under the requirements in quality control standard QST-88 of the Truss Plate Institute.
6. Secondary bending stresses in truss top and bottom chords due to dead, live, and wind loads shall be considered in the design. Load duration factors shall be per the "National Design Specification for Wood Construction."
7. All top and bottom chords shall be a minimum of 2x6, with the exception of valley overbuild trusses, cap trusses, and non-spanning gable-end trusses, unless approved by the Structural Engineer of Record.
8. All girder trusses supporting other trusses of 2x framing members shall be a MINIMUM of 2-plies, unless otherwise approved. Refer to the Mfr's Truss Design Drawing for girder ply-to-ply connection requirements. Attach framing members or loads only after all girder plies are in place and properly fastened together, and the girder truss is properly braced to prevent lateral displacement. Refer to BCSI-B9 "Multi-Ply Girders" as published by WTCA and TPI for additional information.
9. Truss-to-girder connection information shall be on the Mfr's Truss Design Drawing of the carried-truss, girder truss, or the Mfr's Truss Placement Drawing. Unless otherwise approved, all joist hangers, strapping, ties, etc. shall be as manufactured by the Simpson Strong Tie Company.
10. Unless otherwise shown or noted, ALL truss bearings shall be anchored using a mechanical fastener. As a minimum, provide H-1 wind/seismic anchors as manufactured by the Simpson Strong Tie Company.
11. Wood trusses shall be erected in accordance with the truss manufacturer's requirements. This work shall be done by a qualified and experienced contractor. Truss erection by an inexperienced or non-qualified contractor can result in construction collapse and/or serious injury damage.
12. The contractor shall provide all temporary and permanent bracing as required for safe erection and performance of the trusses. The guidelines set forth by the following joint publications of the Truss Plate Institute (TPI) and Wood Truss Council of America (WTCA) shall be adhered to unless otherwise noted in the Contract Documents:
    BCSI-B1 GUIDE FOR HANDLING, INSTALLING AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
    BCSI-B2 TRUSS INSTALLATION AND TEMPORARY BRACING.
    BCSI-B3 WEB MEMBER PERMANENT BRACING/WEB REINFORCEMENT
    BCSI-B4 CONSTRUCTION LOADING
    BCSI-B5 TRUSS DAMAGE, JOBSITE MODIFICATIONS AND INSTALLATION ERRORS
    BCSI-B6 GABLE END FRAME BRACING
    BCSI-B7 TEMPORARY AND PERMANENT BRACING FOR PARALLEL CHORD TRUSSES
    BCSI-B8 TOE-NAILING FOR UPLIFT REACTIONS
    BCSI-B9 MULTI-PLY GIRDERS
    BCSI-B10 POST FRAME TRUSS INSTALLATION AND BRACING
    BCSI-B11 FALL PROTECTION AND WOOD TRUSSES
13. Unless otherwise shown or noted, permanent bracing shall consist of 2x4 stress-graded members spanning a minimum of four trusses and nailed at each intersection with a minimum of (2) 16d nails. Lap continuous bracing a minimum of 2'-0" (2 trusses).
14. Refer to Mfr's Truss Design Drawing for web members requiring web member permanent bracing/web reinforcement. Continuous lateral bracing must ALWAYS be diagonally braced for rigidity.
15. Refer to the Truss Bracing Schematics, and the structural framing plan and sections for permanent bracing requirements. Wherever possible, the temporary erection bracing as described in BCSI-B2 shall be left in place to function as permanent bracing.
16. Trusses which are too tall for delivery to the jobsite in one piece may be manufactured in two or more sections and "piggybacked" at the jobsite. The contractor MUST install temporary and permanent bracing for the lower supporting trusses as shown on the Mfr's Truss Design Drawing and/or the Contract Documents BEFORE installing the cap trusses. Provide 2x4 sleepers laid flat on the top chord of the supporting trusses, spaced at 24" on center and nailed to the top chord with a minimum of (2) 16d nails.
17. Truss members and components shall not be cut, notched, drilled nor otherwise altered in any way without the written approval of the Truss Mfr's Engineer (See Specialty Structural Engineer notes).
18. Submit complete shop drawings for all wood trusses showing member sizes, species, grade, moisture content, span, camber, dimensions, chord pitch, bracing requirements and loading. Shop drawings shall be submitted to the Engineer and shall bear the seal of a Professional Engineer registered in Indiana.

WOOD PANEL/SHEATHING NOTES

1. All plywood construction shall be in accordance with the American Plywood Association (APA) specification.
2. All roof panel sheathing shall be 5/8" (nom.), APA-rated sheathing. Suitable edge support shall be provided by use of panel clips or blocking between framing unless otherwise noted. Fasten roof sheathing with 8d common nails spaced 6" o.c. at supported edges and 12" o.c. at intermediate supports.
3. The use of heavily loaded drywall carts or similar conveyances to transport building materials and/or debris can exceed the APA PS2 concentrated load test standard capacity. In areas subject to cart traffic, the contractor shall place a temporary second layer of 23/32" dry wood structural panel to help avoid failures of the floor panels. Refer to APA Technical Note TT-024, February 2008.
4. Unless otherwise noted or shown, install plywood sheathing with the long dimension of the panel across supports and with panel continuous over two or more spans. Stagger panel end joints. Allow 1/8" spacing at panel ends and edges unless otherwise recommended by the sheathing manufacturer.
5. All nailing shall be carefully driven and not overdriven. The use of staples and pneumatic nail guns are prohibited from use unless approved. Submit proposed staples and/or pneumatic fasteners for approval prior to construction.
6. Provide 2X blocking at unsupported panel edges as follows:
   Roofs and floors - only where indicated on plan
   Walls - per the shearwall schedule

ABBREVIATION LEGEND

ABBR	DEFINITION	ABBR	DEFINITION	ABBR	DEFINITION
AB	ANCHOR BOLT	GA	GAGE (GAUGE)	PAF	POWDER-ACTUATED FASTENER
ABV	ABOVE	GALV	GALVANIZED	PARTN	PARTITION
ACI	AMERICAN CONCRETE INSTITUTE	GB	GRADE BEAM	PC	PRECAST CONCRETE
ACIP	AUGERED CAST IN PLACE PILE	GC	GENERAL CONTRACTOR	PCF	POUNDS PER CUBIC FOOT
ADDL	ADDITIONAL	GLULAM	GLUE LAMINATED WOOD	PCI	PRECAST CONCRETE INSTITUTE
ADDM	ADDENDUM	GRAN	GRANULAR	PDF	POWER-DRIVEN FASTENER
ADJ	ADJUSTABLE	GWB	GYPSUM WALL BOARD	PERIM	PERIMETER
AESS	ARCHITECTURALLY EXPOSED STRUCT. STL.			PL	PLATE
AFF	ABOVE FINISHED FLOOR			PLBG	PLUMBING
AGG	AGGREGATE	H	HIGH (HEIGHT)	PLF	POUNDS PER LINEAL FOOT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRN.	HAS	HEADED ANCHOR STUD	PLYWD	PLYWOOD
AISI	AMERICAN IRON & STEEL INSTITUTE	HC	HOLLOW CORE	PNL	PANEL
ALT	ALTERNATE	HD	HOLD DOWN	PREFAB	PREFABRICATED
ANCH	ANCHORAGE	HK	HOOK	PROJ	PROJECTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	HORIZ	HORIZONTAL	PSF	POUNDS PER SQUARE FOOT
APA	AMERICAN PLYWOOD ASSOCIATION	HP	HIGH POINT	PSI	POUNDS PER SQUARE INCH
APPROX	APPROXIMATE			PSL	PARALLEL STRAND LUMBER
ARCH	ARCHITECT(URAL)			PPT	PRESSURE PRESERVATIVE TREATED
ASSY	ASSEMBLY	IBC	INTERNATIONAL (INDIANA) BUILDING CODE	PSC	PRESTRESSED CONCRETE
ASTM	AMERICAN SOCIETY FOR TESTING & MATLS.	ID	INSIDE DIAMETER	PT	POST TENSIONED
AVG	AVERAGE	IF	INSIDE FACE	PTD	PAINTED
AWS	AMERICAN WELDING SOCIETY	INCR	INCREASE	PRTN	PARTITION
		INFO	INFORMATION	PVMT	PAVEMENT
		INDOT	INDIANA DEPARTMENT OF TRANSPORTATION		
B'X'	BOTTOM OF REFERENCED ITEM	INSUL	INSULATE (INSULATION)		
BB	BOND BEAM	INT	INTERIOR	QTR	QUARTER
BFF	BELOW FINISHED FLOOR	INV	INVERT	QTY	QUANTITY
BLDG	BUILDING	ISO	ISOLATION		
BLKG	BLOCKING	IT	INVERTED TEE BEAM		
BLW	BELOW			R	RADIUS
BM	BEAM			RB	RECTANGULAR BEAM (PRECAST)
BOT	BOTTOM	JBE	JOIST BEARING ELEVATION	REF	REFER TO (REFERENCE)
BP	BASE PLATE	JST	JOIST	REQD	REQUIRED
BRDG	BRIDGING	JT	JOINT	REV	REVISION (REVISED)
BRG	BEARING			RF	ROOF
BS	BOTH SIDES			RO	ROUGH OPENING
BTWN	BETWEEN	KIP	1,000 POUNDS	RTU	ROOF TOP UNIT
		KO	KNOCK OUT	RTN	RETURN
		KSF	KIPS PER SQUARE FOOT	RW	RETAINING WALL
C/C	CENTER TO CENTER	KSI	KIPS PER SQUARE INCH		
CAIS	CAISSON				
CAPY	CAPACITY			SBCA	STRUCTURAL BUILDING COMPONENTS ASSN.
CANT	CANTILEVER	L	LONG (LENGTH)	SCT	STRUCTURAL CLAY TILE
CB	CONCRETE BEAM	Ld	TENSION DEVELOPMENT LENGTH	SCHED	SCHEDULE
CC	CONCRETE COLUMN	LB	'L' BEAM	SDI	STEEL DECK INSTITUTE
CFS	COLD-FORMED STEEL	LBS	POUNDS	SE	SLAB EDGE
CIP	CAST IN PLACE	LGSF	LIGHT GAUGE STEEL FRAMING	SER	STRUCTURAL ENGINEER OF RECORD
CJ	CONTROL JOINT	LL	LIVE LOAD	SECT	SECTION
CNJ	CONSTRUCTION JOINT	LLH	LONG-LEG HORIZONTAL	SHT	SHEET
CL	CENTERLINE	LLO	LONG-LEG OUTSTANDING	SIM	SIMILAR
CLR	CLEAR(ANCE)	LLV	LONG-LEG VERTICAL	SJI	STEEL JOIST INSTITUTE
CMU	CONCRETE MASONRY UNIT	LNTL	LINTEL	SL	SLOPE
COL	COLUMN	LONG	LONGITUDINAL	SOG	SLAB ON GRADE
COLL	COLLATERAL	LP	LOW POINT	SPA	SPACE (S)(D)(ING)
CONC	CONCRETE	LVL	LAMINATED VENEER LUMBER	SPECS	SPECIFICATIONS
CONSTR	CONSTRUCTION	LW	LONG WAY	SQ	SQUARE
CONT	CONTINUOUS	LWC	LIGHTWEIGHT CONCRETE	SS	STAINLESS STEEL
CRSI	CONCRETE REINFORCING STEEL INSTITUTE			SSE	SPECIALTY STRUCTURAL ENGINEER
CTR	CENTER			STD	STANDARD
CTRD	CENTERED	MATL	MATERIAL	STIFF	STIFFENER
CW	CONCRETE WALL	MAX	MAXIMUM	STL	STEEL
		MC	MOMENT CONNECTION	STR	STRENGTH
		MECH	MECHANICAL	STRUCT	STRUCTURAL
D	DEEP (DEPTH)	MEZZ	MEZZANINE	SW	SHORT WAY
DBA	DEFORMED BAR ANCHOR	MFR	MANUFACTURER	SW	SHEAR WALL (OCCASIONAL)
DEG	DEGREE	MIN	MINIMUM	SYMM	SYMMETRICAL
DIA	DIAMETER	MISC	MISCELLANEOUS		
DIAG	DIAGONAL	MO	MASONRY OPENING		
DIM	DIMENSION	MOM	MOMENT	T/'X'	TOP OF REFERENCED ITEM
DL	DEAD LOAD	MTL	METAL	T&B	TOP AND BOTTOM
DN	DOWN			T&G	TONGUE & GROOVE
DP	DRILLED PIER			TB	TIE BEAM
DT	DOUBLE TEE	NDS	NATIONAL DESIGN SPEC'N. FOR WOOD	TD	TRENCH DRAIN
DTL	DETAIL	NIC	NOT IN CONTRACT	TEMP	TEMPERATURE
DWG	DRAWING	NO	NUMBER	TF	TRENCH FOOTING
DWL	DOWEL	NOM	NOMINAL	THK	THICK(NESS)
		NRC	NOISE REDUCTION COEFFICIENT	TOPG	TOPPING
		NS	NEAR SIDE	TPI	TRUSS PLATE INSTITUTE
EA	EACH	NTS	NOT TO SCALE	TRANSV	TRANSVERSE
ECC	ECCENTRIC	NWC	NORMAL WEIGHT CONCRETE	TYP	TYPICAL
EF	EACH FACE				
EIFS	EXTERIOR INSULATION & FINISH SYSTEM				
EJ	EXPANSION JOINT	O/O	OUT TO OUT	UNO	UNLESS NOTED OTHERWISE
EL	ELEVATION	OA	OVERALL	UNEXC	UNEXCAVATED
ELEC	ELECTRICAL	OC	ON CENTER		
ELEV	ELEVATOR	OD	OUTSIDE DIAMETER		
ENG	ENGINEER	OF	OUTSIDE FACE	VERT	VERTICAL
EQ	EQUAL	OH	OPPOSITE HAND		
EQ SPA	EQUALLY SPACED (EQUAL SPACING)	OPNG	OPENING		
EQUIV	EQUIVALENT	OPP	OPPOSITE	W	WIDE (WIDTH)
ES	EACH SIDE	OSB	ORIENTED STRAND BOARD	W/	WITH
EW	EACH WAY			WD	WOOD
EX	EXISTING			WF	WALL FOOTING
EXC	EXCAVATE (EXCAVATION)			WP	WORKING POINT
EXT	EXTERIOR			WPS	WELD PROCEDURE SPECIFICATION
				WRDA	WATER REDUCING ADMIXTURE
				WTCA	WOOD TRUSS COUNCIL OF AMERICA
FABR	FABRICATE (FABRICATOR)			WWF	WELDED WIRE FABRIC
FD	FLOOR DRAIN				
FDN	FOUNDATION				
FIN	FINISH				
FF	FINISHED FLOOR				
FLG	FLANGE				
FS	FAR SIDE				
FT	FOOT (FEET)				
FTG	FOOTING				
FV	FIELD VERIFY				

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STRUCTURAL ENGINEERS

PROJECT:
PLAINFIELD COMMUNITY SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:
These drawings indicate the general scope of the project in terms of architectural design concept, the dimensions of the building, and the general requirements related to the type of structural, mechanical and electrical systems.
The drawings do not necessarily indicate or describe all work required for the complete performance and completion of the requirements of the Contract.
On the basis of the general scope indicated or described, the trade contractors shall furnish all items required for the proper execution and completion of the work.

REVISIONS:

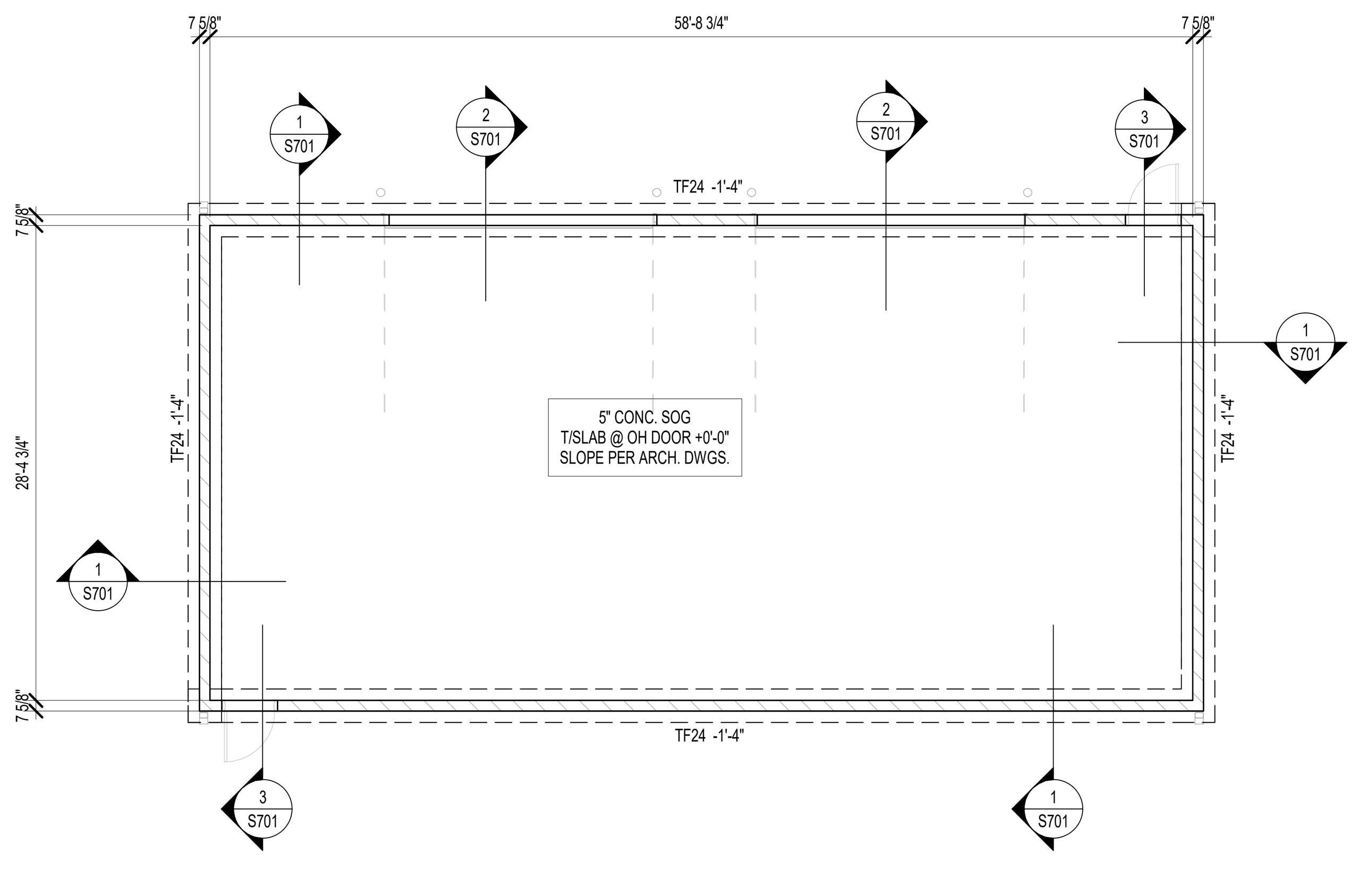
ISSUE DATE	DRAWN BY	CHECKED BY
05/08/2025	MDL	MDL

DRAWING TITLE:
GENERAL STRUCTURAL NOTES & SCHEDULES

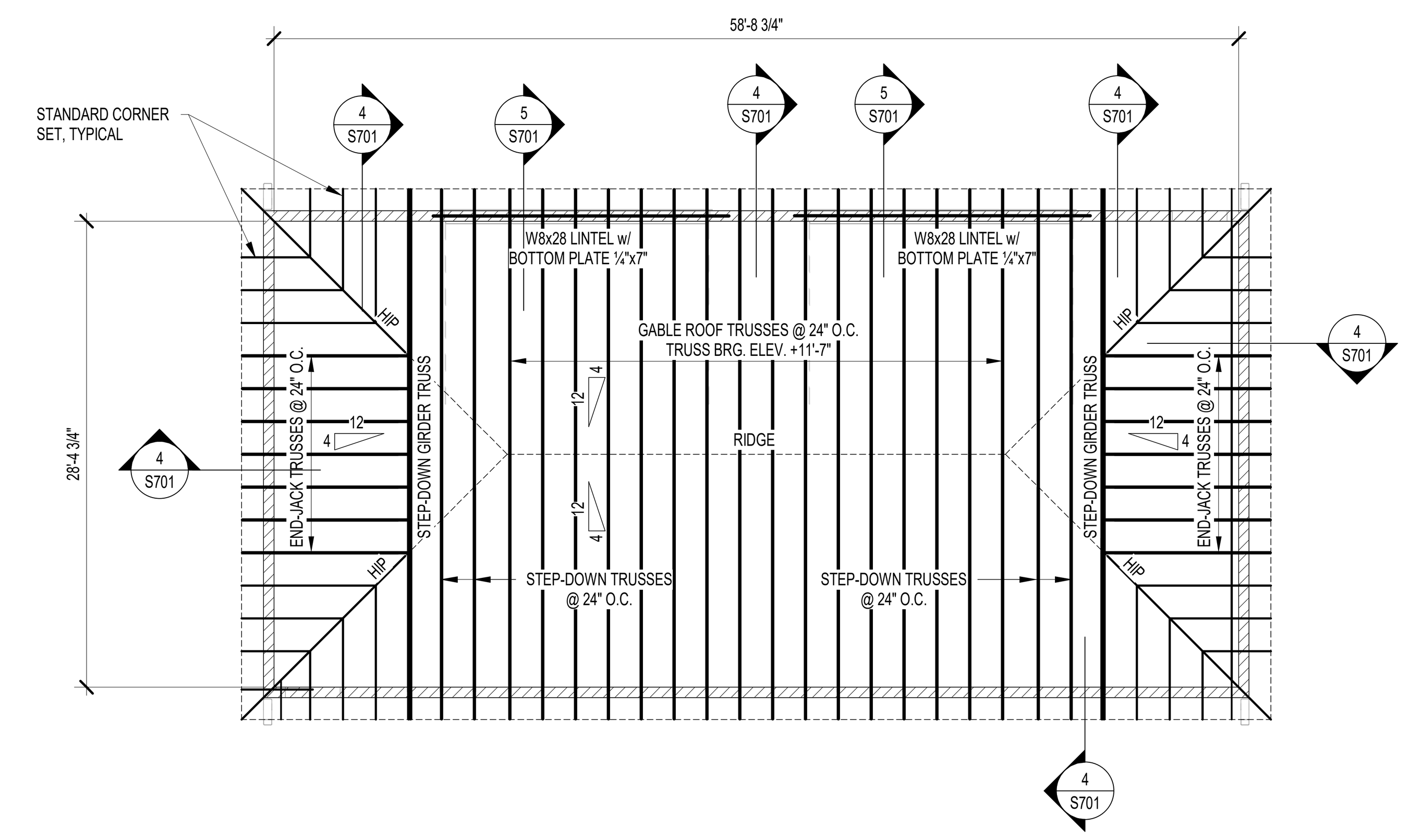
CERTIFIED BY:
MARK D. LAVTER REGISTERED PE19400114 STATE OF INDIANA PROFESSIONAL ENGINEER

DRAWING NUMBER
S002

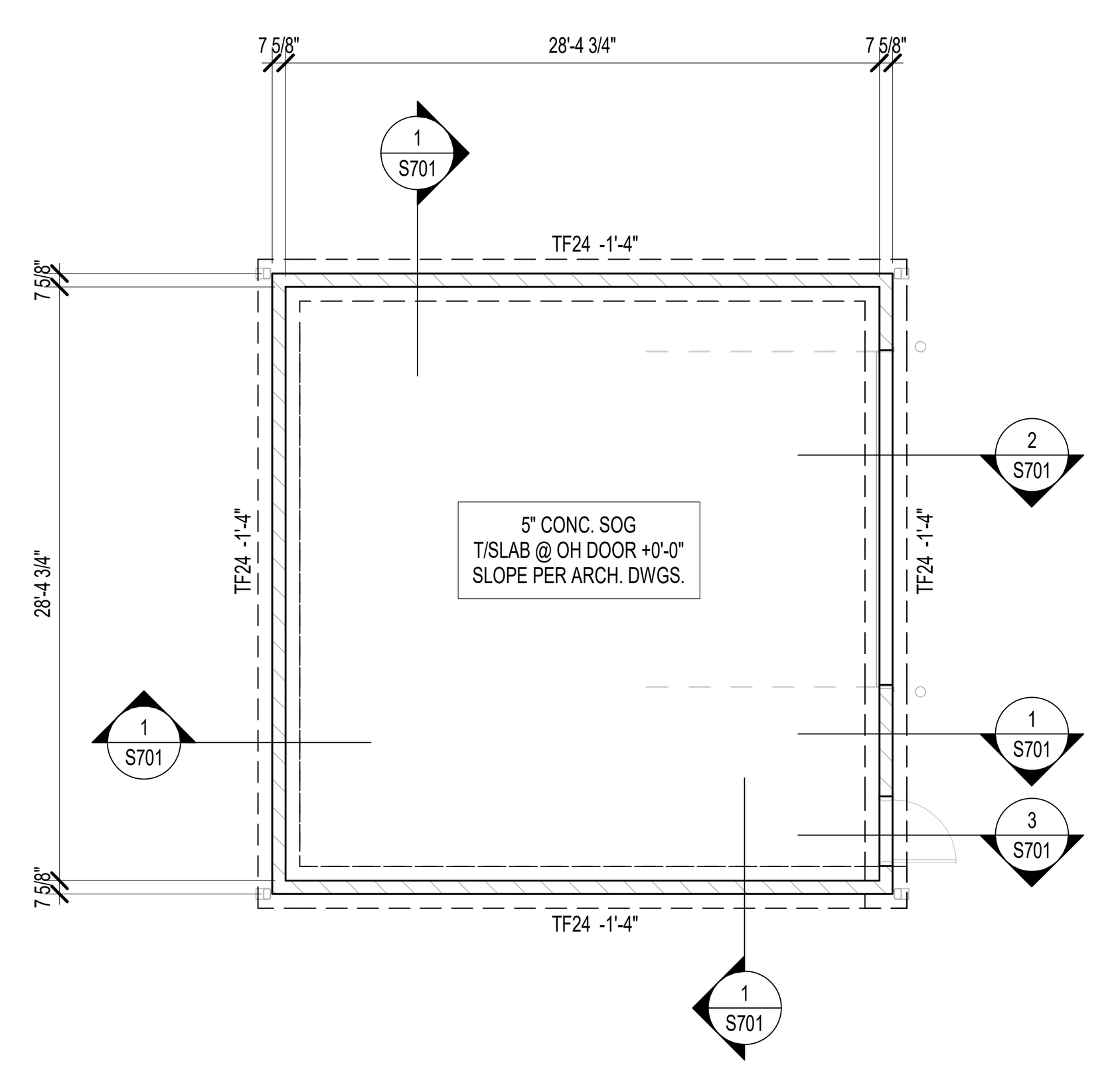
PROJECT NUMBER
2025016



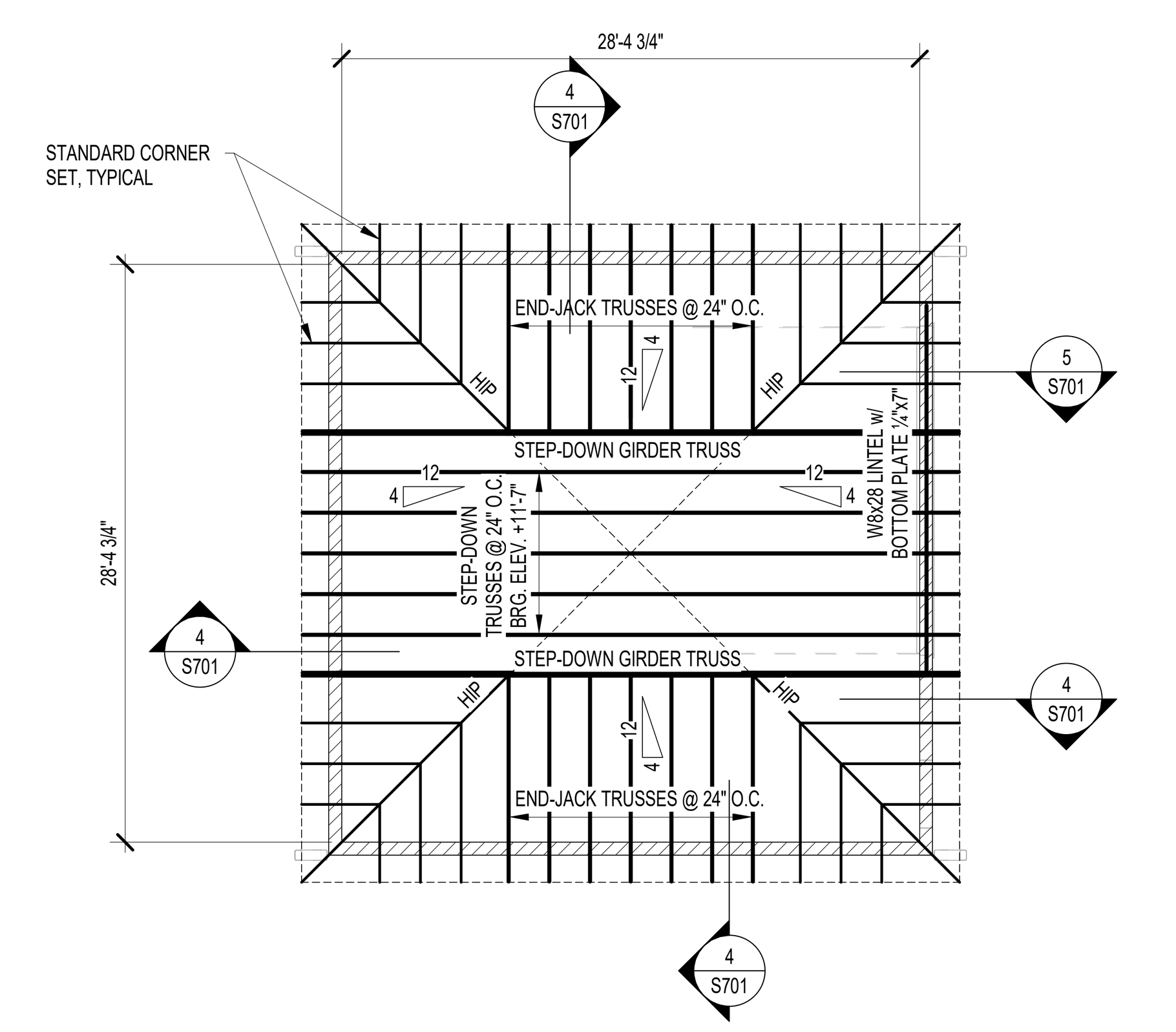
1 S201 **FOUNDATION PLAN - CLARKS CREEK**
SCALE: 1/8" = 1'-0"
NORTH



3 S201 **ROOF FRAMING PLAN - CLARKS CREEK**
SCALE: 1/8" = 1'-0"
NORTH



2 S201 **FOUNDATION PLAN - BRENTWOOD**
SCALE: 1/8" = 1'-0"
NORTH



4 S201 **ROOF FRAMING PLAN - BRENTWOOD**
SCALE: 1/8" = 1'-0"
NORTH

FOUNDATION PLAN NOTES

1. REF. S001 & S002 FOR STRUCTURAL NOTES, DESIGN DATA, SCHEDULES & LEGENDS.
2. REF. THE S400 SERIES FOR TYPICAL FOUNDATION AND MASONRY DETAILS.
3. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. THE MECHANICAL, ELECTRICAL, AND PLUMBING ASPECTS ARE NOT IN THE SCOPE OF THESE DRAWINGS. THEREFORE, ALL REQUIRED MATERIALS AND WORK MAY NOT BE INDICATED.
4. ALL ELEVATIONS ARE REFERENCED FROM THE FIRST FLOOR FIN. FLOOR ELEVATION +0'-0". VERIFY USGS ELEVATION WITH CIVIL DWGS.
5. ALL WALLS SHALL BE LAID OUT FROM THE ARCHITECTURAL DRAWINGS.
6. REF. ARCH. DRAWINGS. FOR ALL DIMENSIONS NOT SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
7. COORDINATE EXACT SIZE & LOCATION OF ALL MECHANICAL OPENINGS IN FDN. WALLS WITH THE MECHANICAL, ELECTRICAL & PLUMBING CONTRACTORS.
8. NOTE: PERIMETER FOOTINGS SHALL BE LOWERED AND/OR SLEEVED TO PASS BELOW PLUMBING LINES (E.G., SANITARY & STORM LINES, WATER LINES, ETC.) SHOWN ON THE PLUMBING DRAWINGS. PROVIDE FOOTING STEPS AS REQUIRED PER THE TYPICAL DETAILS ON S401.
9. ALL SLAB RECESSES SHALL BE LOCATED PER THE ARCHITECTURAL DRAWINGS. COORDINATE DEPTHS OF ALL SLAB RECESSES WITH THE ARCHITECTURAL DRAWINGS AND/OR THE FLOORING SUPPLIER.
10. COORDINATE REINFORCING DOWELS FOR CMU VERTICAL REINFORCING WITH REINF. NOTED ON PLANS & SECTIONS.
11. GROUT ALL CORES OF CMU SOLID BELOW FIN. FLOOR ELEVATION.
12. PROVIDE THICKENED SLAB UNDER ALL INTERIOR CMU WALLS WITHOUT FOOTINGS. SEE S401 FOR THICKENED SLAB DETAIL. REF. THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CMU WALLS.
14. ALL FOOTINGS SHALL BEAR ON APPROVED SOIL. UNDERCUT AS REQ'D. TO SUITABLE BEARING MATERIAL AS DETERMINED BY THE GEOTECHNICAL TESTING AGENCY. REF. TYPICAL FOOTING UNDERCUT DETAILS ON S401.
15. PROVIDE CONTROL/CONTRACTION JOINTS IN SLABS ON GRADE (REF. TYPICAL DETAILS ON S401). ALL JOINTS IN SLABS TO RECEIVE THIN OR THICK-SET TERRAZZO, CERAMIC OR PORCELAIN TILE, VINYL-COMPOSITION TILE (VCT) OR VINYL SHEET GOODS, EPOXY OR SIMILAR THIN-FILM FINISH FLOORING SHALL BE CAREFULLY COORDINATED WITH THE FLOORING CONTRACTOR. THE CONTRACTOR SHALL SUBMIT SLAB JOINT LAYOUT TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO PLACING SLABS.
16. EARTH-FORMED FOOTINGS ARE ACCEPTABLE WHERE SOIL CONDITIONS PERMIT (I.E. WHERE THE BANKS OF THE EXCAVATION WILL HOLD WITHOUT CAVING AND SLOUGHING). HOWEVER, THE PLAN DIMENSION OF EARTH- FORMED FOOTINGS MUST BE INCREASED BY 2" ALONG ALL EDGES TO ACCOUNT FOR INACCURACIES ASSOCIATED WITH EARTH-FORMING (I.E. 2'-0" WIDE WALL FOOTINGS SHALL BE 2'-4" WIDE AND 5'-0" SQUARE COLUMN FOOTINGS SHALL BE 5'-4" SQUARE).
17. SUBSTITUTION OF POLYPROPYLENE FIBER SECONDARY REINFORCING FOR WELDED WIRE FABRIC IS PERMITTED FOR SLABS ON GRADE.
18. REF. ARCHITECTURAL DWGS. FOR MASONRY CONTROL & EXPANSION JOINT LOCATIONS.
19. PLAN LEGEND:

FF	DENOTES FIN. FLOOR
T/'X'	DENOTES TOP OF FTG, SLAB, PIER, ETC.
B/'X'	DENOTES BOTTOM OF FTG, GRADE BEAM, ETC.
CJ	DENOTES SLAB ON GRADE CONTROL/CONTRACTION JOINT
TF24 -1'-4"	DENOTES TRENCH FOOTING MARK & TOP OF FOOTING ELEVATION (REF. WALL FTG SCHED.)
	DENOTES WALL FOOTING WITH STEPS. REF. TYP. DETAIL ON S401
	DENOTES CMU FOUNDATION WALL
	DENOTES CMU FDN. WALL HELD DOWN AT OPENINGS
5" CONC. SOG T/SLAB +0'-0"	DENOTES SLAB ON GRADE THICKNESS & T/SLAB ELEVATION. ALL SLABS ON GRADE TO BE PLACED ON 6" MIN. COMPACTED GRANULAR FILL & VAPOR BARRIER/RETARDER PER SPECS. PROVIDE THE FOLLOWING WELDED WIRE FABRIC REINFORCING: 5" SLAB: 6x6-W2.1xW2.1 WWF

FRAMING PLAN NOTES

1. REF. S001 & S002 FOR STRUCTURAL NOTES, DESIGN DATA, SCHEDULES & LEGENDS.
2. REF. THE S400 SERIES FOR TYPICAL FRAMING AND MASONRY DETAILS.
3. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. THE MECHANICAL, ELECTRICAL, AND PLUMBING ASPECTS ARE NOT IN THE SCOPE OF THESE DRAWINGS. THEREFORE, ALL REQUIRED MATERIALS AND WORK MAY NOT BE INDICATED.
4. ALL ELEVATIONS ARE REFERENCED FROM THE FIRST FLOOR FIN. FLOOR ELEVATION +0'-0". VERIFY USGS ELEVATION WITH CIVIL DWGS.
5. ALL WALLS SHALL BE LAID OUT FROM THE ARCHITECTURAL DRAWINGS.
6. REF. ARCH. DRAWINGS. FOR ALL DIMENSIONS NOT SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
7. COORDINATE EXACT SIZE & LOCATION OF ANY MECHANICAL OPENINGS IN FLOOR SLAB, ROOF DECK, OR WALLS WITH THE MEP CONTRACTOR(S). LOCATION & SIZE OF ALL DUCT OPENINGS, GRILLES, ETC. SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
8. ALL ELEVATIONS SHOWN ON PLAN INDICATE TOP OF STEEL BEAM UNLESS NOTED OTHERWISE.
9. PROVIDE CMU REINFORCING AS NOTED ON PLANS. IF NOT SHOWN ON PLANS OR SECTIONS, MINIMUM CMU WALL REINFORCING TO BE #5 VERTS. @ 48" O.C. PROVIDE OPEN-CORE BOND BEAMS AT TOPS OF WALLS, AT CHANGES IN CMU THICKNESS, AND WHERE INDICATED ON PLANS & SECTIONS (10'-0" O.C. MAX. VERTICAL SPACING). PROVIDE 1/2 OF INTERRUPTED VERTICALS AT JAMBS OF OPENINGS AND PROVIDE ADDITIONAL VERT'S. AT ENDS OF WALLS.
10. ALL MASONRY BOND BEAMS, OTHER THAN BOND BEAM LINTELS OVER OPENINGS, SHALL BE "OPEN-CORE" BOND BEAMS TO ALLOW VERTICAL REINFORCING TO PASS THROUGH, UNLESS NOTED OTHERWISE.
11. REF. ARCH. DWGS. FOR MASONRY CONTROL & EXPANSION JOINT LOCATIONS.
12. PLAN LEGEND:

FF	DENOTES FIN. FLOOR
T/'X'	DENOTES TOP OF STEEL, SLAB, ETC.
B/'X'	DENOTES BOTTOM OF LINTEL, ETC.
BP	DENOTES BEAM BEARING PLATE ON CMU WALL

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PROJECT:
PLAINFIELD COMMUNITY SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:
These drawings indicate the general scope of the project in terms of architectural design concept, the dimensions of the building, the major architectural elements and the type of structural, mechanical and electrical systems.
The drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Contract.
On the basis of the general scope indicated or described, the trade contractors shall furnish all items required for the proper execution and completion of the work.

REVISIONS:

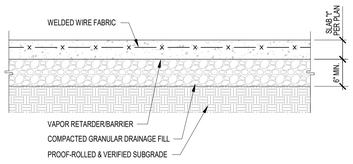
ISSUE DATE	DRAWN BY	CHECKED BY
05/08/2025	MDL	MDL

DRAWING TITLE:
FOUNDATION AND ROOF FRAMING PLANS

CERTIFIED BY:
MARK D. LeVIER REGISTERED PE19400114 STATE OF INDIANA PROFESSIONAL ENGINEER

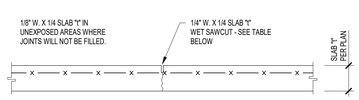
DRAWING NUMBER
S201

PROJECT NUMBER
2025016



1. LOCATE WELDED WIRE FABRIC IN UPPER THIRD OF SLAB. SUPPORT ON BOLSTERS, CHAIRS, OR CONCRETE BRICKS.
2. LAP WELDED WIRE FABRIC A MIN. OF ONE FULL MESH SPACING.
3. THE USE OF POLYPROPYLENE FIBER IN LIEU OF WELDED WIRE FABRIC AS A SECONDARY REINFORCEMENT IS PERMISSIBLE, UNLESS OTHERWISE NOTED. NOTE: FIBER MAY NOT BE SUBSTITUTED FOR W.W.F. IN SUPPORTED SLABS.
4. SEE PLAN, NOTES, AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS SUCH AS FINISH, JOINTING, CURING, ETC.
5. SLAB SLOPES TO FLOOR DRAINS. REF. PLUMBING DRAWINGS.

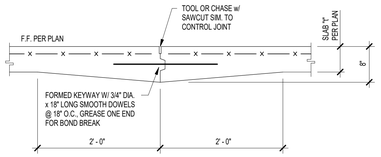
1 S401 SLAB ON GRADE CONSTRUCTION
SCALE: NONE



CONTROL JOINTS SHALL BE SAWN NOT LATER THAN THE FOLLOWING TABLE, OR 16 HOURS AFTER FINAL TROWELING (WHICHEVER IS LESS), WHERE TEMP. EQUALS THE AMBIENT TEMPERATURE IN DEGREES FAHRENHEIT AT THE TIME OF FINAL TROWELING. SAWCUTTING SHALL BE SUSPENDED ONLY IF THE LARGE AGGREGATE IS DISLODGED OR LOOSENED. ALTERNATE: USE PRE-FORMED JOINT FORMER.

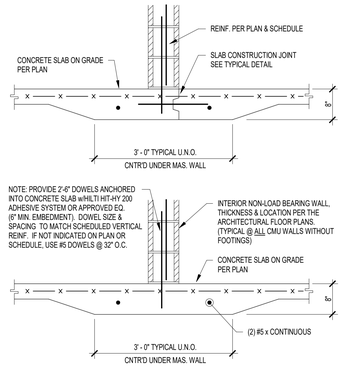
TEMP.^{0}F	TIME, HOURS
<40^0	
50^0	16
60^0	14
70^0	8 1/2
80^0	5 1/2
90^0	4
	3

2 S401 SLAB CONTROL/CONTRACTION JOINT
SCALE: NONE

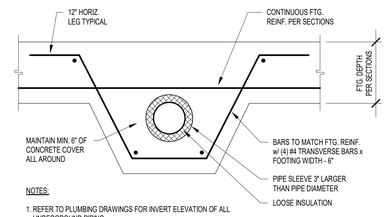


PROVIDE CONSTRUCTION JOINT IN LIEU OF CONTROL JOINT AT TERMINATION OF POUR

3 S401 SLAB CONSTRUCTION JOINT
SCALE: NONE



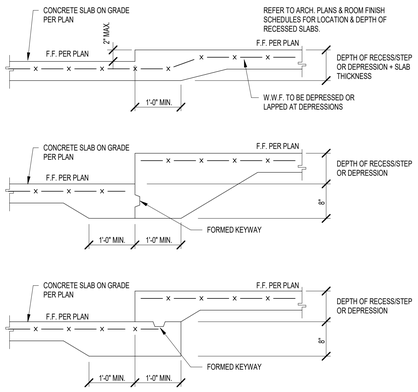
4 S401 THICKENED SLAB DETAILS
SCALE: NONE



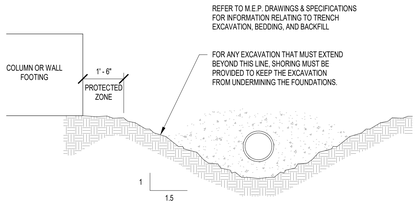
NOTES:

1. REFER TO PLUMBING DRAWINGS FOR INVERT ELEVATION OF ALL UNDERGROUND PIPING.
2. PROVIDE THIS DETAIL WHERE A PENETRATION THROUGH A WALL FOOTING IS UNAVOIDABLE.
3. NO SLEEVES IN COLUMN FOOTINGS ARE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.

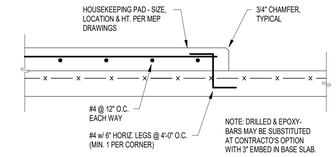
5 S401 WALL FOOTING SLEEVE DETAIL
SCALE: NONE



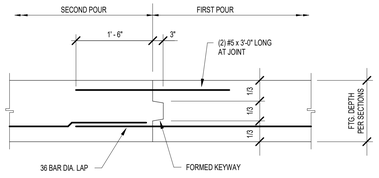
6 S401 RECESSED SLAB DETAIL
SCALE: NONE



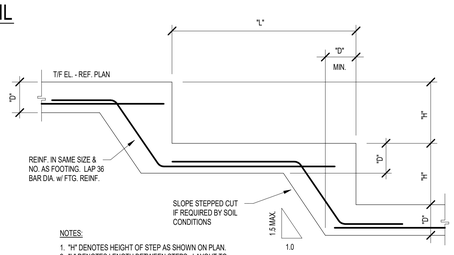
7 S401 EXCAVATION LIMITS DETAIL
SCALE: NONE



8 S401 MECHANICAL EQUIPMENT PAD DETAIL
SCALE: NONE



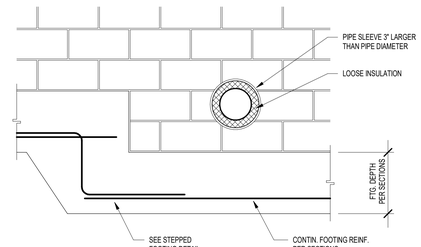
9 S401 WALL FOOTING CONSTRUCTION JOINT
SCALE: NONE



NOTES:

1. "H" DENOTES HEIGHT OF STEP AS SHOWN ON PLAN.
2. "L" DENOTES LENGTH BETWEEN STEPS. LAYOUT TO MAINTAIN SLOPE OF 1 VERTICAL TO 2 HORIZONTAL UNLESS NOTED OTHERWISE.
3. "D" DENOTES FOOTING DEPTH, REFER TO PLANS, SECTIONS & SCHEDULES.

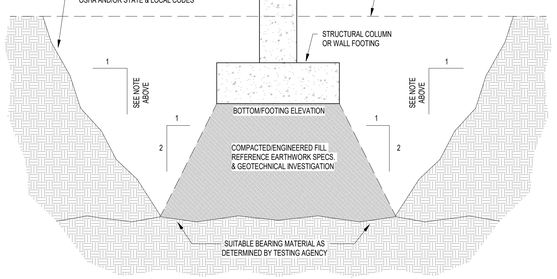
10 S401 STEPPED WALL FOOTING DETAIL
SCALE: NONE



NOTES:

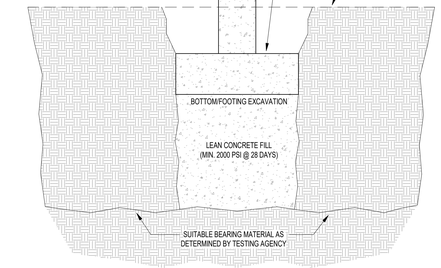
1. REFER TO PLUMBING DRAWINGS FOR INVERT ELEVATION OF ALL UNDERGROUND PIPING.
2. STEP FOOTING FOR PIPE PENETRATION THROUGH FOUNDATION WALL UNLESS WRITTEN PERMISSION IS OBTAINED FROM THE MEP ENGINEER.
3. PROVIDE PRECAST OR BOND BEAM LINTEL FOR MULTIPLE PENETRATIONS OR OPENINGS GREATER THAN 24" IN WIDTH.

11 S401 CMU FOUNDATION WALL SLEEVE
SCALE: NONE



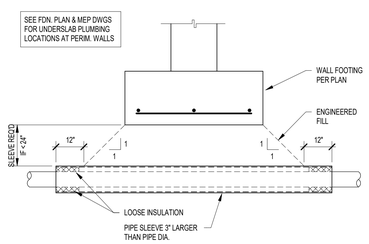
1. REFER TO THE SPECIFICATIONS FOR APPLICATION OF UNIT COSTS FOR REMOVAL OF UNSUITABLE BEARING MATERIAL & REPLACEMENT WITH COMPACTED, ENGINEERED FILL
2. REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR ADDITIONAL INFORMATION RE: EXPECTED SOIL CONDITIONS, SUITABILITY OF EX. SOILS FOR USE AS ENGINEERED FILL, GROUNDWATER CONDITIONS, ETC.

12 S401 OVEREXCAVATION DETAIL - ENGINEERED FILL
SCALE: 3/4" = 1'-0"



1. REFER TO THE SPECIFICATIONS FOR APPLICATION OF UNIT COSTS FOR REMOVAL OF UNSUITABLE BEARING MATERIAL & REPLACEMENT WITH LEAN CONCRETE FILL.
2. REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR ADDITIONAL INFORMATION RE: EXPECTED SOIL CONDITIONS, SUITABILITY OF EX. SOILS FOR USE AS ENGINEERED FILL, GROUNDWATER CONDITIONS, ETC.

13 S401 OVEREXCAVATION DETAIL - LEAN CONC. FILL
SCALE: 3/4" = 1'-0"



14 S401 SLEEVE UNDER WALL FOOTING
SCALE: 3/4" = 1'-0"

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STRUCTURAL ENGINEERS

PROJECT:
PLAINFIELD COMMUNITY SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:
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REVISIONS:

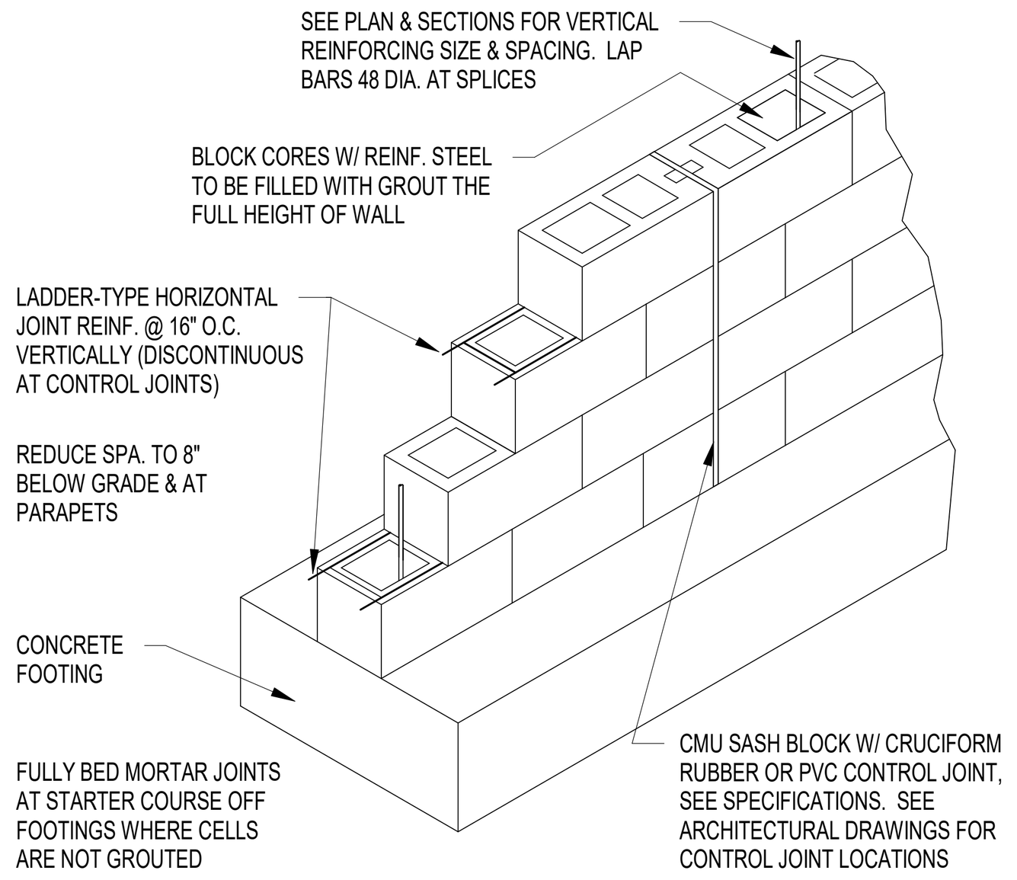
ISSUE DATE	DRAWN BY	CHECKED BY
05/08/2025	MDL	MDL

DRAWING TITLE:
TYPICAL DETAILS

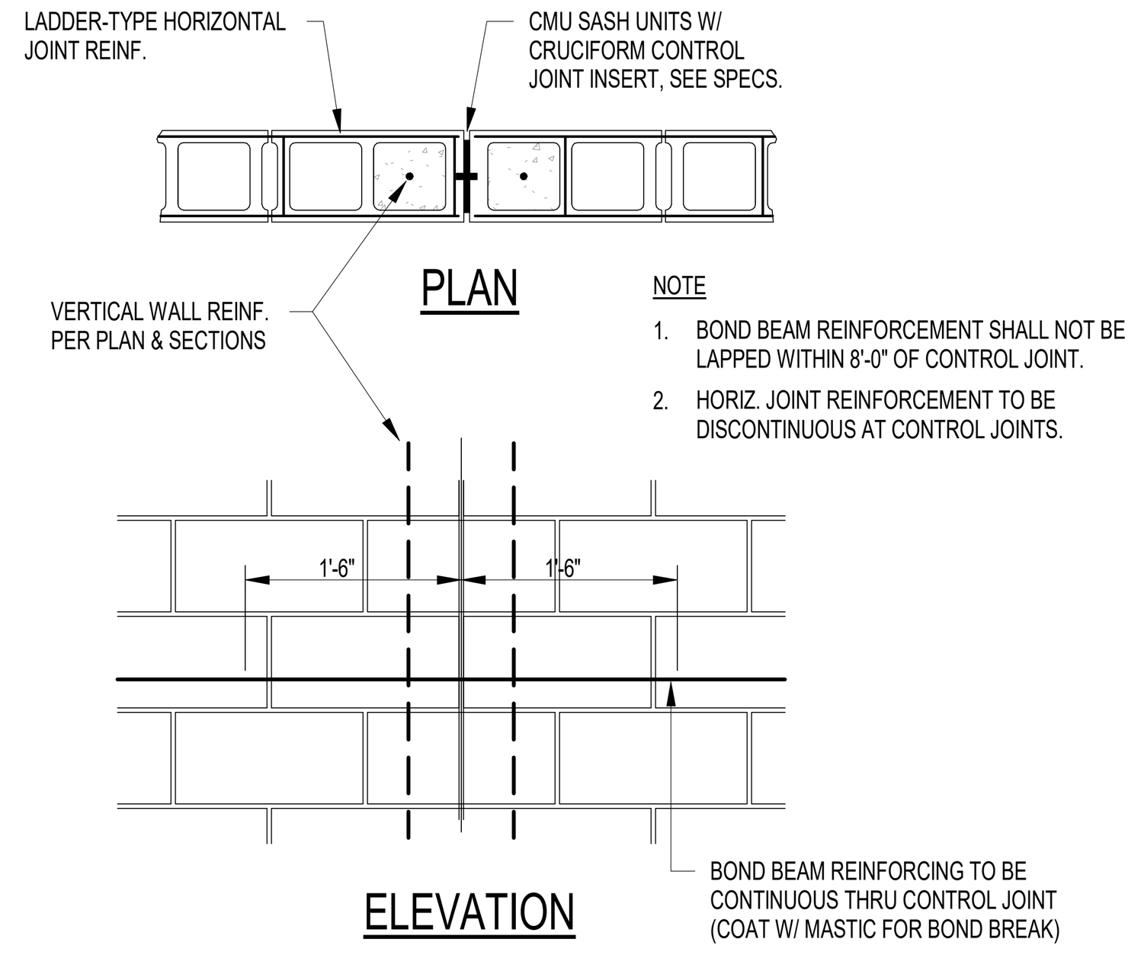
CERTIFIED BY:
MARK D. LAVELLE
REGISTERED
PE19400114
STATE OF INDIANA
PROFESSIONAL ENGINEER

DRAWING NUMBER
S401

PROJECT NUMBER
2025016

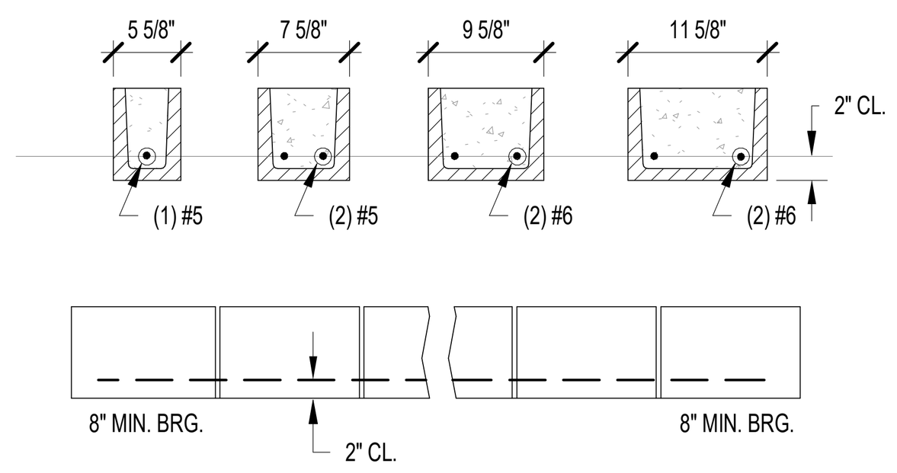


1 / S402 REINFORCED MASONRY DETAIL
SCALE: NONE



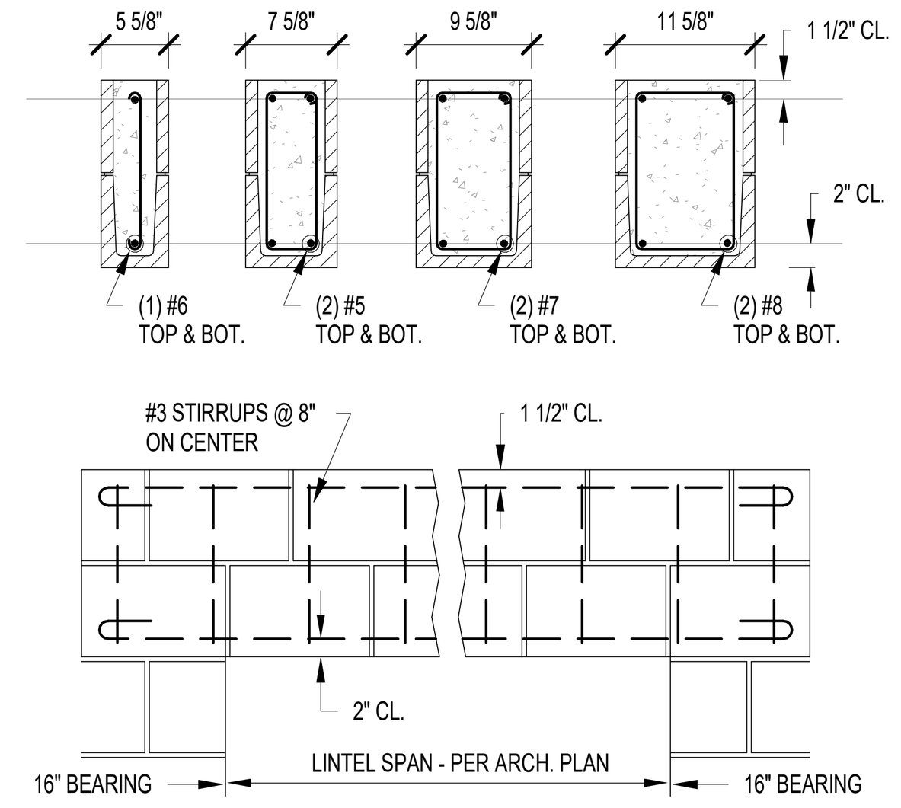
NOTE
1. BOND BEAM REINFORCEMENT SHALL NOT BE LAPPED WITHIN 6'-0" OF CONTROL JOINT.
2. HORIZ. JOINT REINFORCEMENT TO BE DISCONTINUOUS AT CONTROL JOINTS.

2 / S402 CMU CONTROL JOINT DETAIL
SCALE: NONE



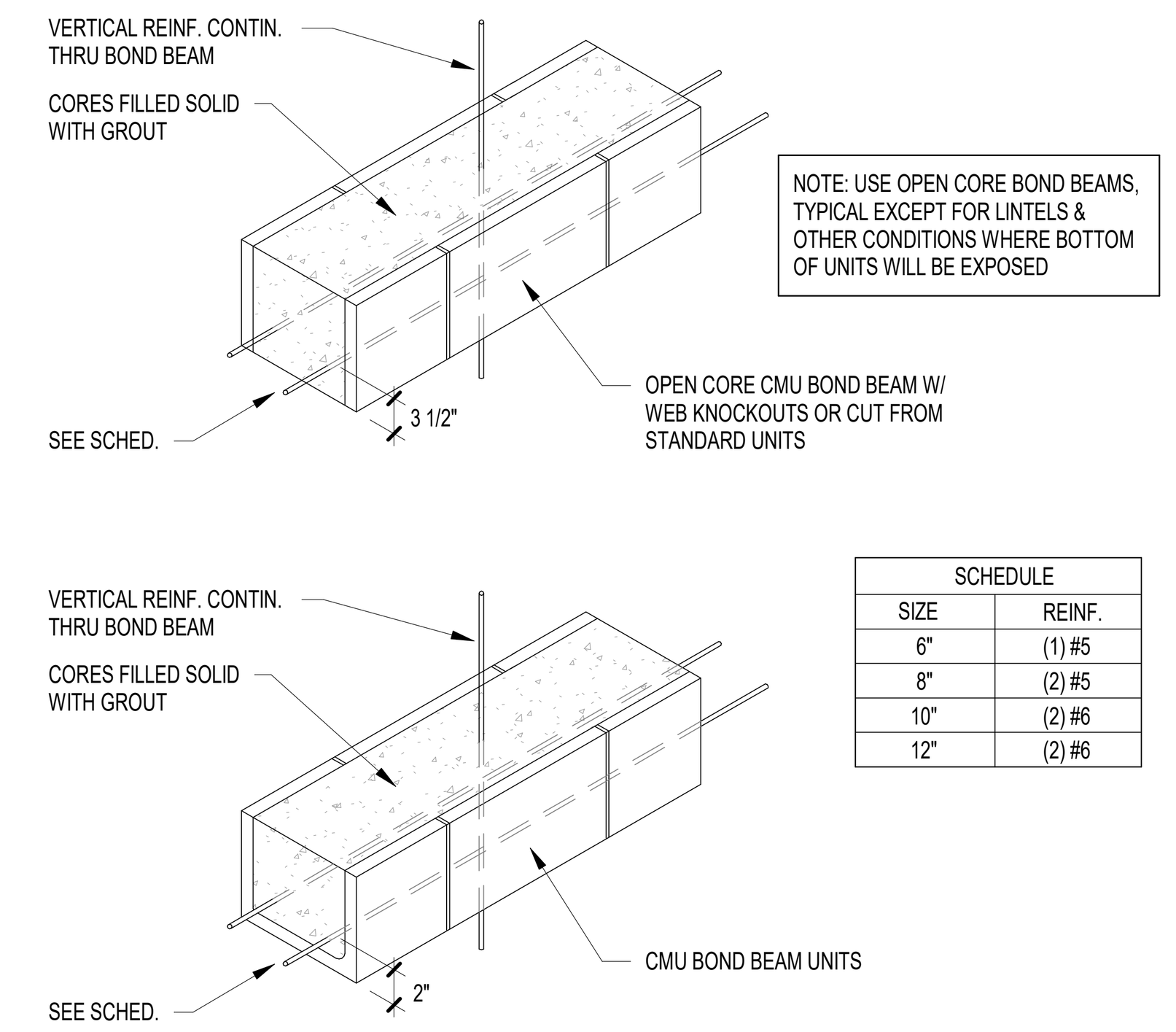
CMU LINTEL NOTES:
1. FILL SHALL BE 2,500 PSI (MINIMUM) GROUT.
2. PROVIDE 1" BRG. PER FOOT OF SPAN WITH 8" MIN.
3. LINTELS SHALL BEAR ON SOLIDLY GROUTED CMU.
4. THIS SCHEDULE DOES NOT APPLY TO LOAD BEARING WALLS, U.N.O.
5. BOND PATTERN OF LINTEL TO BE RUNNING BOND, U.N.O.
6. BOTTOM OF LINTEL SHALL BE SMOOTH MASONRY WITH NO CORES EXPOSED.
7. CONTRACTOR TO PROVIDE TEMPORARY SHORING UNTIL CMU HAS PROPERLY SET (3 DAY MINIMUM).
8. PRECAST LINTELS MAY NOT BE SUBSTITUTED FOR BOND BEAM LINTELS.
9. PROVIDE THIS DETAIL FOR OPENINGS UP TO 7'-11" U.N.O.

3 / S402 TYPICAL CMU LINTEL DETAILS
SCALE: NONE



CMU LINTEL NOTES:
1. FILL SHALL BE 2,500 PSI (MINIMUM) GROUT.
2. ALL REBARS ARE HOOKED AT THE ENDS.
3. REFER TO SPECS. FOR TYPE OF CMU.
4. LINTELS SHALL BEAR ON SOLIDLY GROUTED CMU.
5. THIS SCHEDULE DOES NOT APPLY TO LOAD BEARING WALLS, U.N.O.
6. BOND PATTERN OF LINTEL TO BE RUNNING BOND, U.N.O.
7. BOTTOM OF LINTEL SHALL BE SMOOTH MASONRY WITH NO CORES EXPOSED.
8. CONTRACTOR TO PROVIDE TEMPORARY SHORING UNTIL CMU HAS PROPERLY SET (3 DAY MINIMUM).
9. PROVIDE THIS DETAIL FOR OPENINGS BETWEEN 8'-0" & 12'-0" U.N.O.

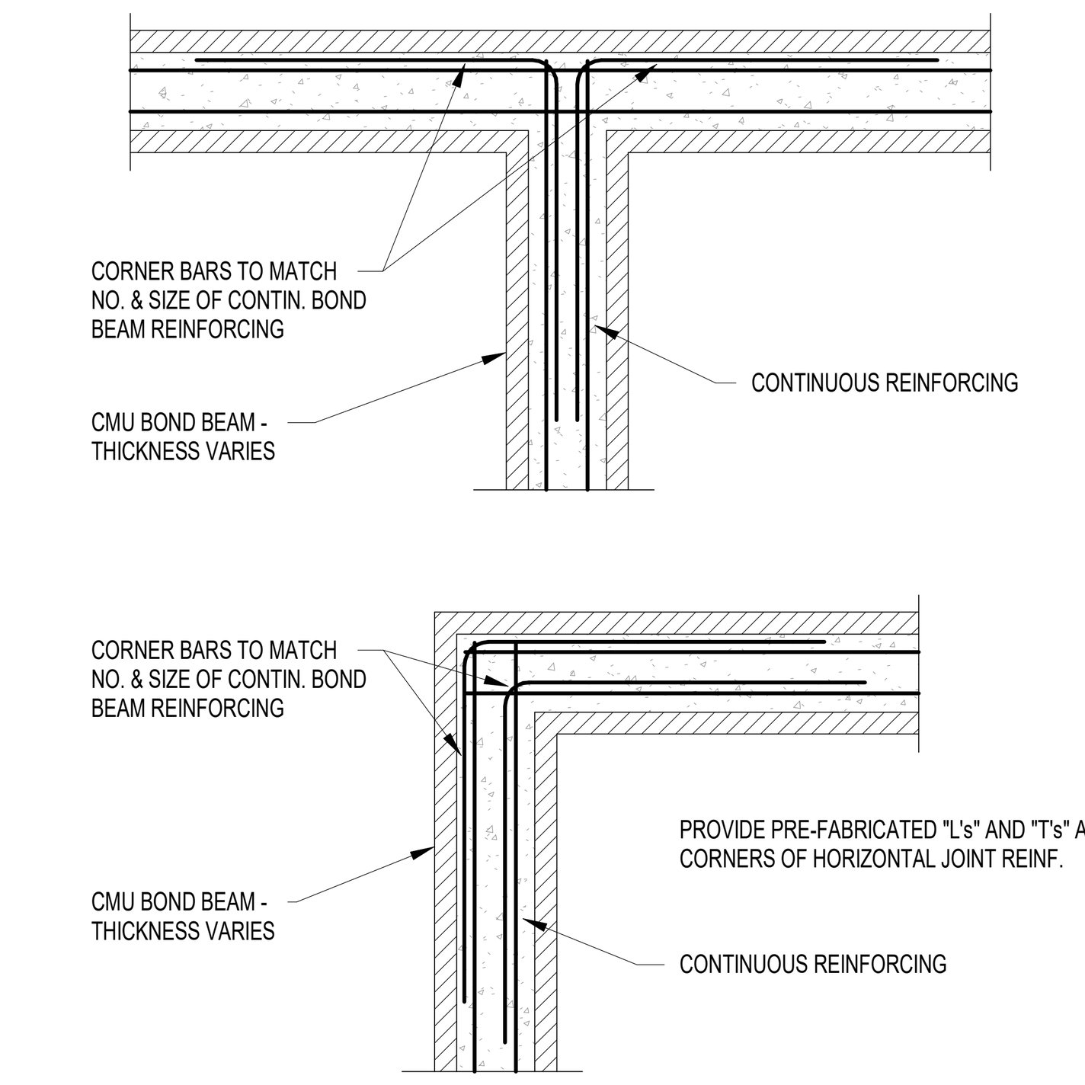
4 / S402 LONG CMU LINTEL DETAILS
SCALE: NONE



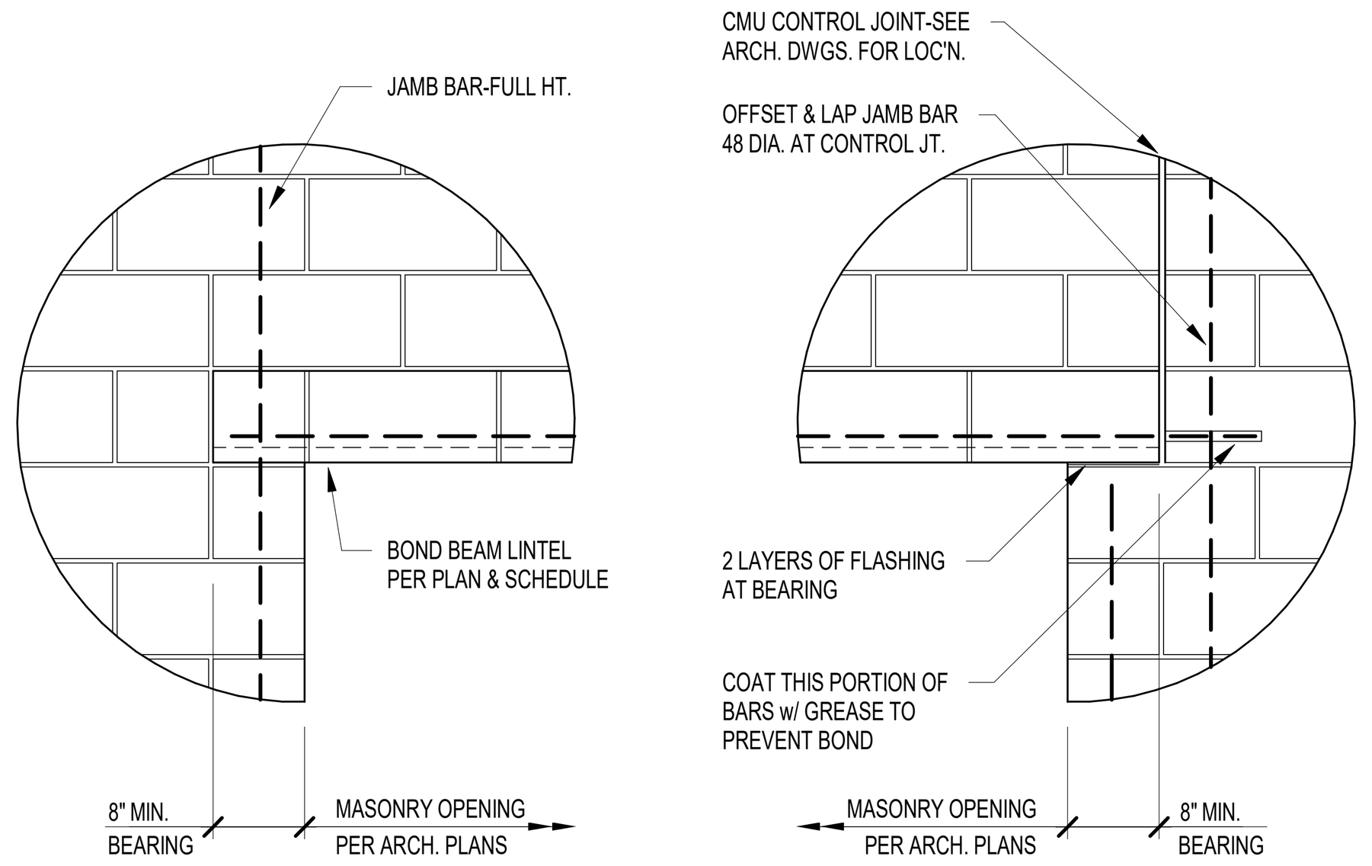
NOTE: USE OPEN CORE BOND BEAMS, TYPICAL EXCEPT FOR LINTELS & OTHER CONDITIONS WHERE BOTTOM OF UNITS WILL BE EXPOSED

SCHEDULE	
SIZE	REINF.
6"	(1) #5
8"	(2) #5
10"	(2) #6
12"	(2) #6

5 / S402 CMU BOND BEAM DETAILS
SCALE: NONE



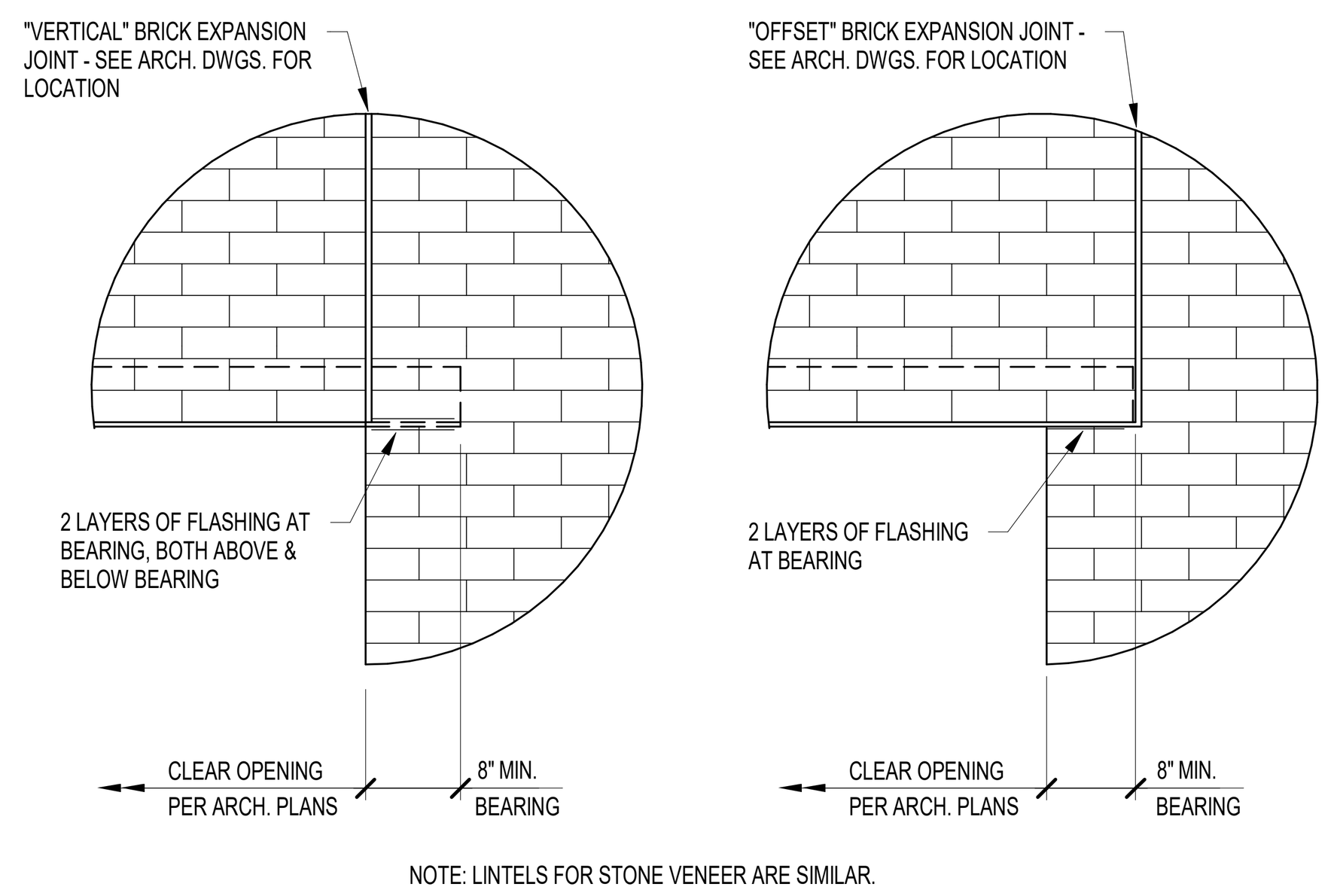
6 / S402 BOND BEAM INTERSECTION DETAILS
SCALE: NONE



NOT AT CONTROL JOINT

AT CONTROL JOINT

7 / S402 BOND BEAM LINTEL BEARING DETAILS
SCALE: NONE

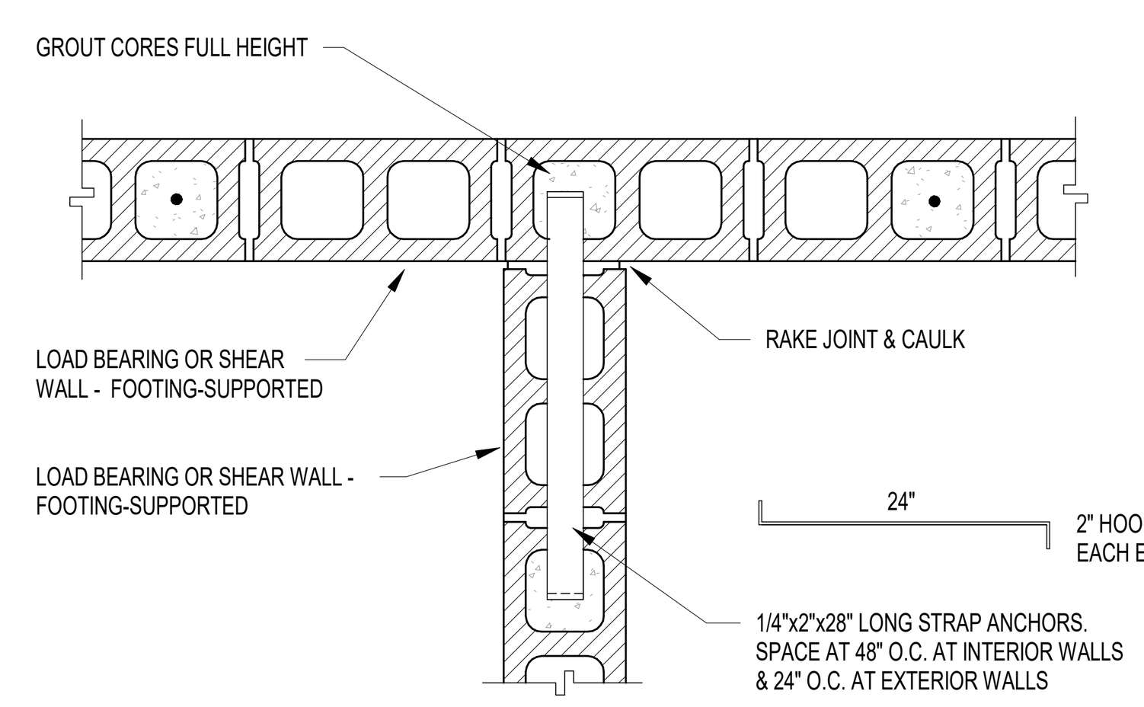


NOTE: LINTELS FOR STONE VENEER ARE SIMILAR.

AT "VERTICAL" BRICK EXPANSION JOINT

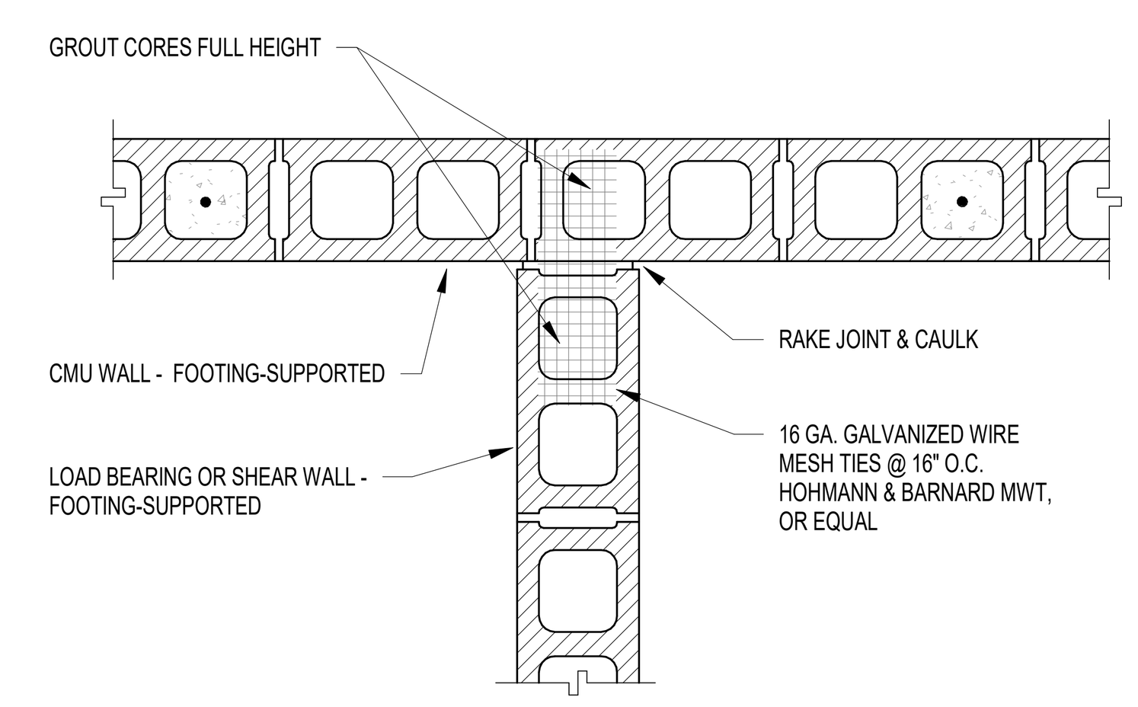
AT "OFFSET" BRICK EXPANSION JOINT

8 / S402 LINTEL BEARING DETAILS
SCALE: NONE



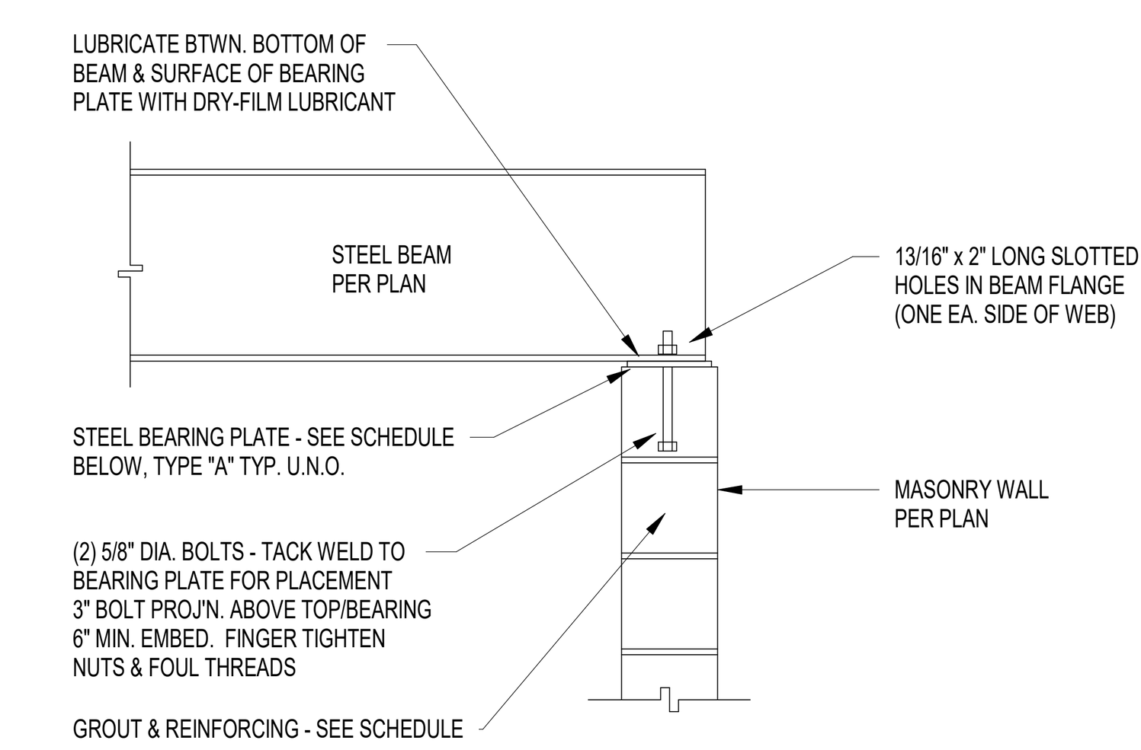
TYPICAL AT INTERSECTION BETWEEN FOOTING-SUPPORTED CMU WALLS

9 / S402 WALL INTERSECTION DETAIL
SCALE: NONE

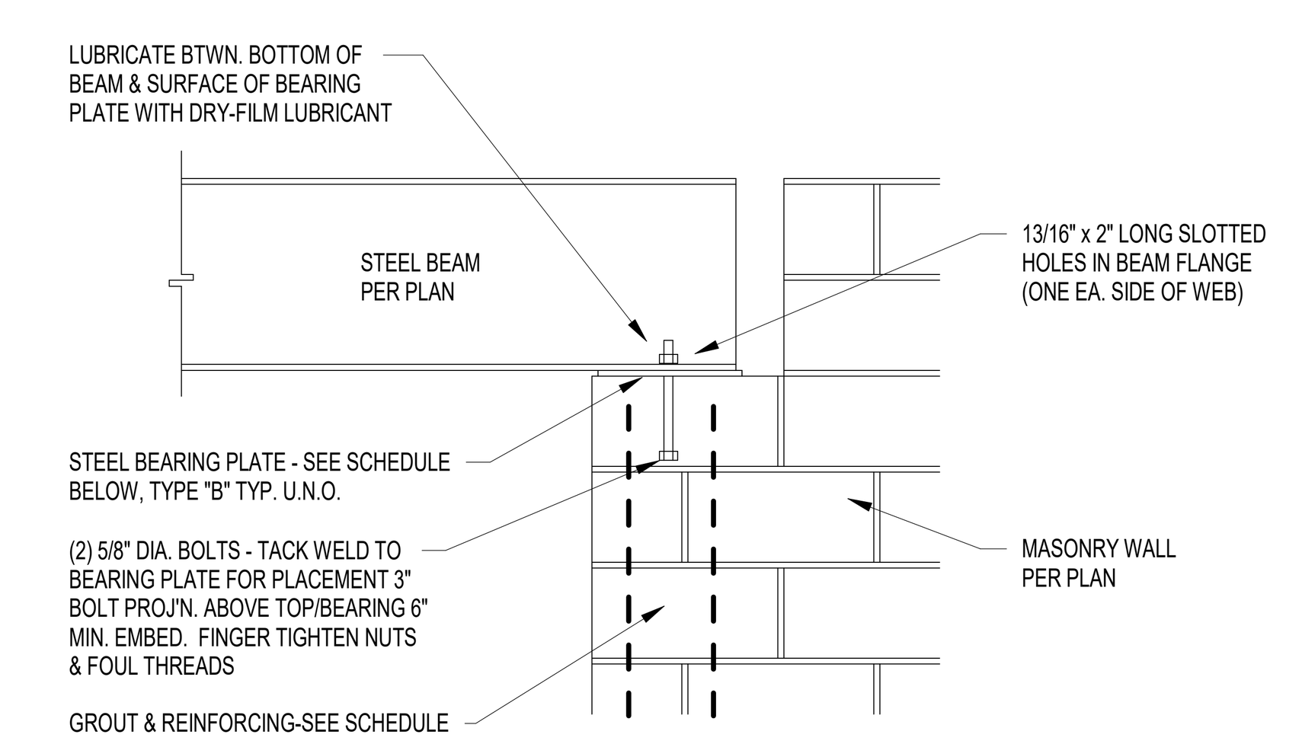


TYPICAL AT INTERSECTION BETWEEN FOOTING-SUPPORTED AND SLAB-SUPPORTED CMU WALLS

10 / S402 WALL INTERSECTION DETAIL
SCALE: NONE



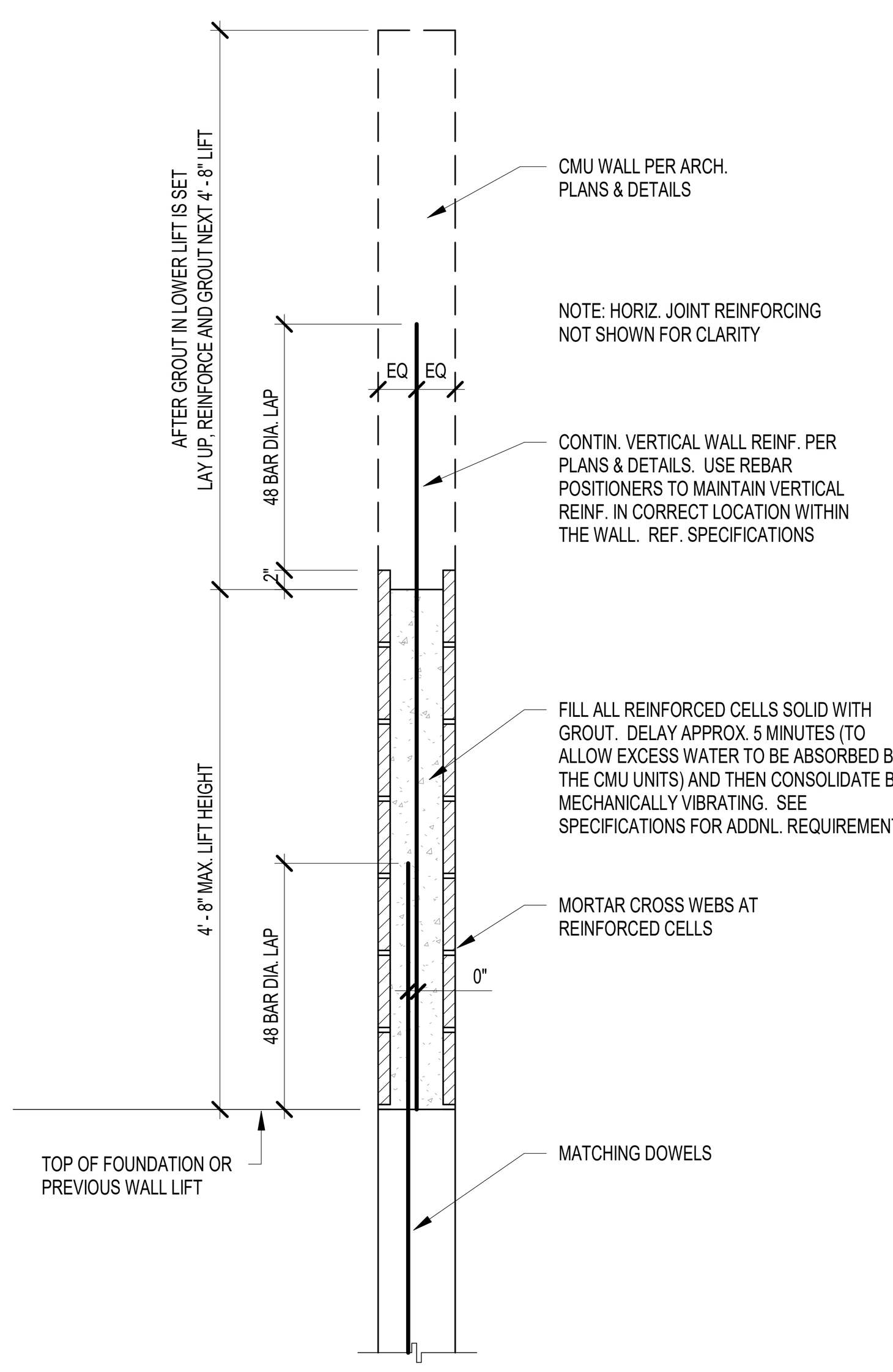
BEAM PERPENDICULAR TO WALL



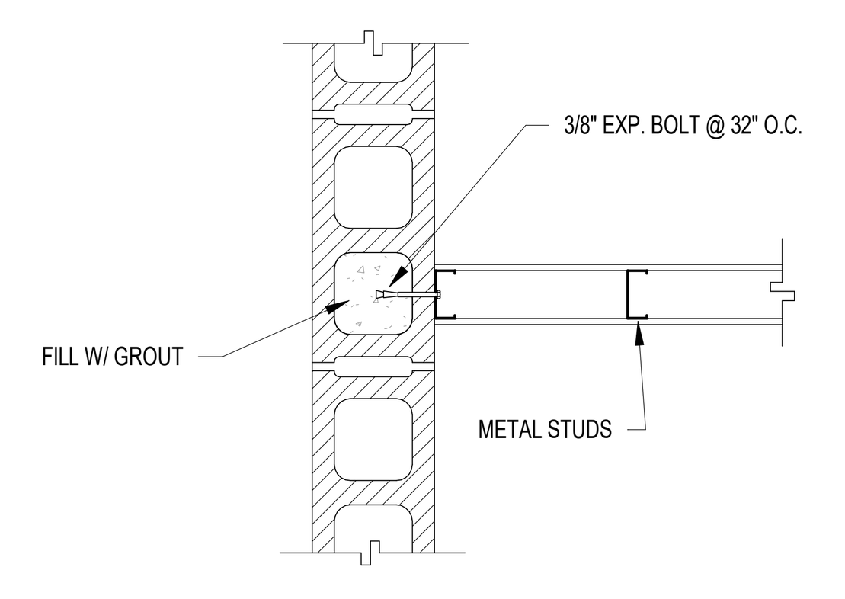
BEAM PARALLEL TO WALL

BEARING PLATE SCHEDULE			
MARK	BEARING PLATE SIZE	GROUT REQUIREMENTS	REINFORCING
A	3/4 x 6 1/2 x 1'-0	MIN. 3 COURSES DEEP x 24" LONG	NONE UNLESS LOCATED AT DISCONTIN. END OF WALL (IF SO, PROVIDE (2) FULL-HEIGHT VERTS. & EXTEND GROUT TO FTG.)
B	1/2 x 6 1/2 x 1'-0	GROUT SOLID TO FTG x 24" LONG	(2) VERTICALS FULL HEIGHT OF WALL. SEE PLANS & DETAILS FOR SIZE.

11 / S402 BEAM BEARING PLATE DETAILS
SCALE: NONE



12 / S402 LOW-LIFT WALL CONSTRUCTION
SCALE: NONE



13 / S402 CMU WALL/STUD WALL INTERSECTION
SCALE: NONE

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STRUCTURAL ENGINEERS

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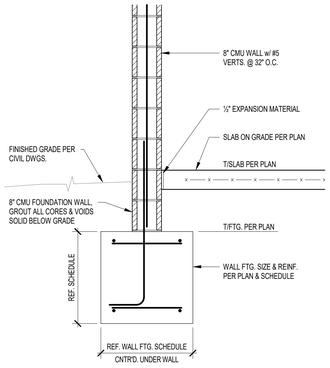
DRAWING TITLE:
TYPICAL DETAILS

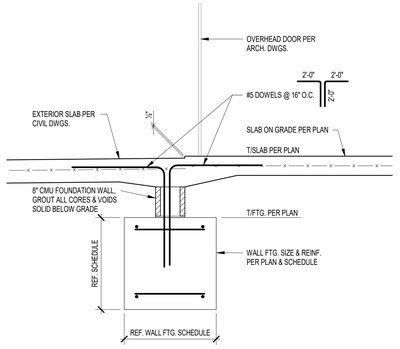
CERTIFIED BY:
MARK D. LaVIER
REGISTERED
PE19400114
STATE OF INDIANA
PROFESSIONAL ENGINEER

DRAWING NUMBER
S402

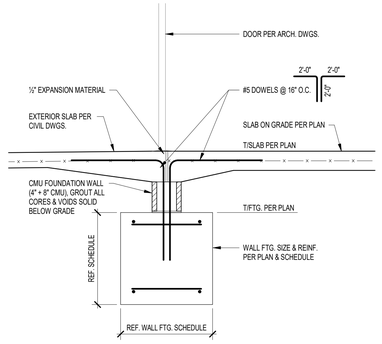
PROJECT NUMBER
2025016



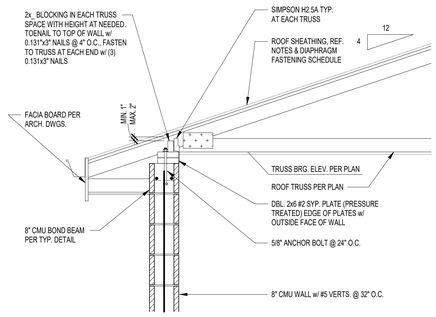
1 S701 SECTION
SCALE: 3/4" = 1'-0"



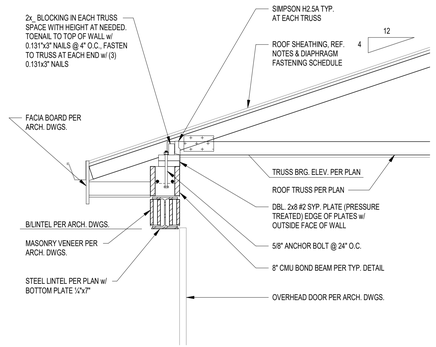
2 S701 SECTION
SCALE: 3/4" = 1'-0"



3 S701 SECTION
SCALE: 3/4" = 1'-0"



4 S701 SECTION
SCALE: 3/4" = 1'-0"



5 S701 SECTION
SCALE: 3/4" = 1'-0"

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05/08/2025	MDL	MDL

DRAWING TITLE:
SECTIONS AND DETAILS

CERTIFIED BY:
MARK D. LAVELEY
REGISTERED
PE19400114
STATE OF
INDIANA
PROFESSIONAL ENGINEER

DRAWING NUMBER
S701

PROJECT NUMBER
2025016

STORAGE BUILDING ROOF PLAN DETAILS

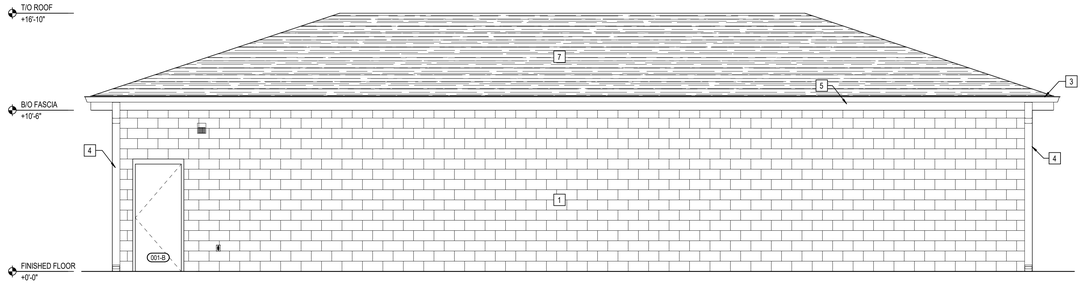
NOTE: IBC 2012 CODE REQUIREMENTS

ATTIC AREA = 2027 S.F.
(NO DRAFTSTOPPING REQUIRED)

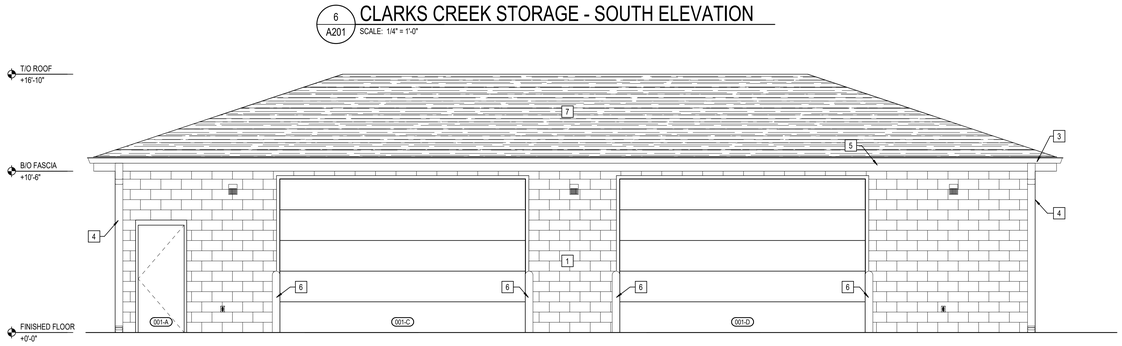
VENTILATION REQUIREMENT: 1/150 = 13.51 S.F.
(50% LOW 50% HIGH)
6.76 S.F. LOW - USE HALF VENTED SOFFIT PANEL AT 6% FREE AREA
0.06 X 246 S.F. = 14.76 S.F.
6.76 S.F. HIGH - USE RIDGE VENT = 1 FT. LENGTH = 20 SQ.IN. FREE VENT AREA
24" VENT LENGTH X 20 SQ.IN. = 3.33 S.F.
EXCEEDS REQUIREMENT

ATTIC ACCESS REQ'D: NOT REQ'D

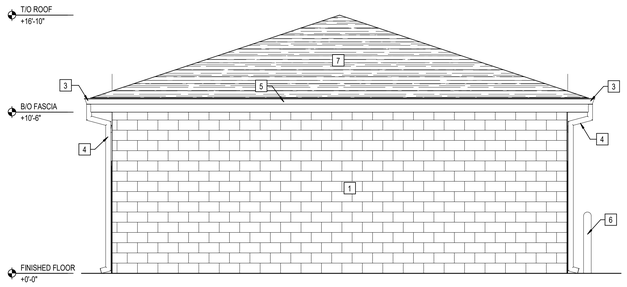
4:12 SHINGLE ROOF:
1 LAYERS UNDERLAYMENT REQUIRED



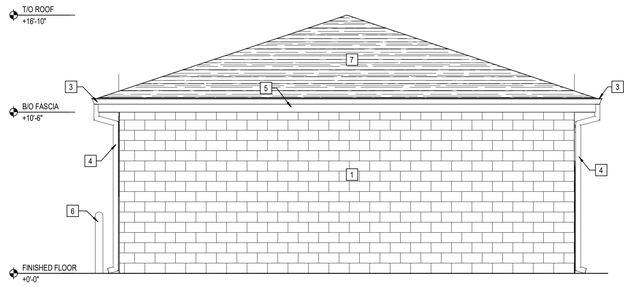
6 A201 CLARKS CREEK STORAGE - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



4 A201 CLARKS CREEK STORAGE - NORTH ELEVATION
SCALE: 1/4" = 1'-0"



7 A201 CLARKS CREEK STORAGE - EAST ELEVATION
SCALE: 1/4" = 1'-0"



2 A201 CLARKS CREEK STORAGE - WEST ELEVATION
SCALE: 1/4" = 1'-0"

FINISH LEGEND

FLOOR FINISHES

WALK-OFF CARPET

SC1 — TYPE: SEALED CONCRETE
LOCATION: STORAGE SPACES
NOTE: SEE SPECIFICATION

WALL FINISHES

EPOXY PAINT

EP1 — MFR: SHERWIN WILLIAMS
COLOR: SW7056 RESERVED WHITE
NOTE: GENERAL

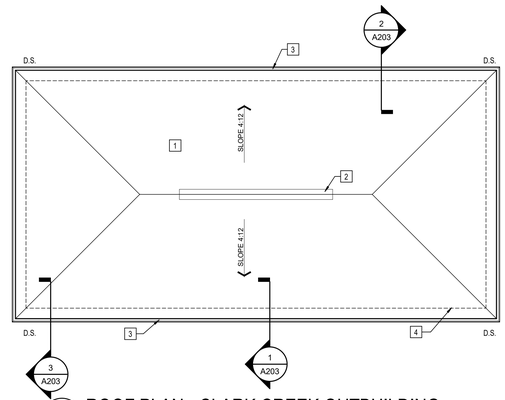
FINISH TAG KEY

XXX — FLOOR FINISH

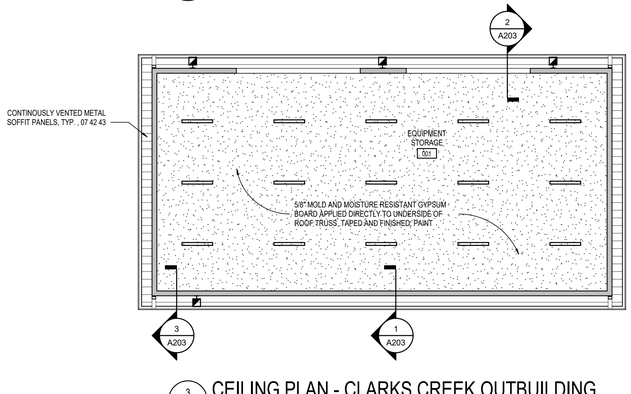
XX — WALL FINISH

ELEVATION NOTES

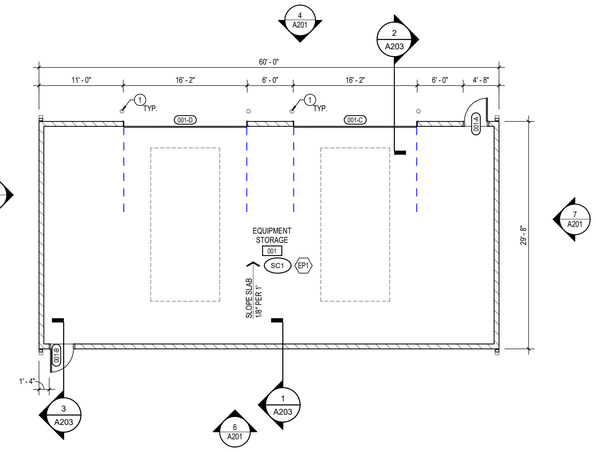
1 STRUCTURAL BRICK - TYPE 1, SEE SPECS.
2 STRUCTURAL BRICK - TYPE 2, SEE SPECS.
3 PRE-MANUFACTURED ALUMINUM GUTTER
4 PRE-MANUFACTURED ALUMINUM DOWNSPOUT
5 PRE-MANUFACTURED FACIA BOARD
6 CONCRETE BOLLARD, PAINT.
7 ASPHAHLT SHINGLE ROOFING SYSTEM.



5 A201 ROOF PLAN - CLARK CREEK OUTBUILDING
SCALE: 1/8" = 1'-0"



3 A201 CEILING PLAN - CLARKS CREEK OUTBUILDING
SCALE: 1/8" = 1'-0"



1 A201 FLOOR PLAN - CLARKS CREEK OUTBUILDING
SCALE: 1/8" = 1'-0"

NORTH

GENERAL NOTES

A. COORDINATE THE WORK OF EACH TRADE WITH THE WORK OF OTHER TRADES.
B. ALL WORK IS TO BE COMPLETED IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, RULES, REGULATIONS AND STANDARDS INCLUDING, BUT NOT LIMITED TO THOSE LISTED ON THE COVER SHEET. ALL APPLICABLE RULES & REGULATIONS ARE TO BE THE MOST CURRENT ADOPTED EDITIONS.
C. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO THE COMMENCEMENT OF WORK. DISCREPANCIES BETWEEN THE DOCUMENTS AND THE ACTUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE COMMENCEMENT OF WORK.
D. ALL DIMENSIONS ARE FROM CENTERLINE OF STRUCTURE, FINISH FACE OF WALL, FACE OF MASONRY, OR FACE OF EXISTING.
E. ANY DIMENSIONS NOT SHOWN OR DEEMED QUESTIONABLE ARE TO BE VERIFIED BY ARCHITECT. DO NOT SCALE DRAWINGS.
F. REFER TO WALL TYPE SCHEDULE, SHEET A200, TO DETERMINE WHICH WALLS EXTEND TO DECK. SEE STRUCTURAL FOR TOP SUPPORT DETAIL. WHERE METAL STUDS EXTEND TO DECK, PROVIDE SLIP CONNECTIONS FOR ROOF/ FLOOR DEFLECTION.
G. ALL STEEL STUDS ARE TO BE BRACED ACCORDING TO MANUFACTURER LIMIT HEIGHT (L/240).
H. WHERE INSULATED OR SOUND WALLS EXTEND TO DECK, FILL DECK FLUTES WITH INSULATION/ SOUND ATTENUATION.
I. REFER TO PLUMBING PLANS FOR LOCATION OF FLOOR DRAINS.
J. WHERE ACCESS PANELS ARE SHOWN IN TOILET ROOM CHASES, FINAL LOCATION SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO INSTALLATION.
K. ALL CONCRETE MASONRY UNITS (CMU) SHALL BE LAID RUNNING BOND U.N.O. CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.
L. ALL INTERIOR MASONRY WALLS THAT RUN TO UNDERSIDE OF DECK ABOVE SHALL HAVE A 2" JOINT (U.N.O.) AT THE DECK TO BE FILLED WITH FIRE STOPPING AT RATED WALLS PER PROJECT MANUAL. AND MINERAL WOOL AT THE NON-RATED WALLS TO ALLOW FOR DEFLECTION.
M. THERE SHALL BE PERIMETER INSULATION CONTINUOUS AROUND THE ENTIRE PERIMETER OF THE BUILDING EXTENDING 2'-0" MINIMUM (R-15 MIN.) HORIZONTAL.
N. PROVIDE MISCELLANEOUS SUPPORT FOR ALL CEILING SUSPENDED ITEMS.
O. DOOR AND FRAME NUMBERS CORRESPOND TO ROOM NUMBERS. WHERE MORE THAN ONE DOOR OCCURS IN A ROOM, A SUFFIX HAS BEEN ADDED (E.G. A100-1). SEE A500 SERIES DRAWINGS FOR DOOR SCHEDULE AND DETAILS.
P. ALL DOOR FRAMES SHALL BE LOCATED 4" OFF FINISH WALLS OR 4" OFF MASONRY WALLS UNLESS NOTED OTHERWISE.
Q. ALL GLASS AT INTERIOR DOOR FRAMES, DOOR LITES AND WINDOW FRAMES IS TO BE 1/4" CLEAR TEMPERED GLASS UNLESS NOTED OTHERWISE.
R. AT BUILDING EXPANSION JOINTS, ALL PARTITIONS, CEILINGS, FLOORS AND ALL WALL, FLOOR OR CEILING MOUNTED ITEMS SHALL BE ANCHORED TO THE BUILDING STRUCTURE ON ONLY ONE SIDE OF THE EXPANSIONS JOINTS. CONTRACTOR SHALL COORDINATE CONSTRUCTION OR INSTALLATION OF ALL ITEMS NOTED TO ASSURE THAT NO SUCH ITEMS BRIDGE ACCROSS THE EXPANSION JOINT.
S. ALL SLAB-ON-GRADE CONTROL JOINTS TO BE CLEANED AND CAULKED PRIOR TO PLACEMENT OF FLOOR FINISH.
T. SEE REFLECTED CEILING PLANS FOR BULKHEAD LOCATIONS AND DETAILS.
U. REFER TO MECHANICAL DRAWINGS FOR WALL LOUVER LOCATIONS, SIZES AND QUANTITIES.
V. SEE A900 SERIES DRAWINGS FOR FINISH SCHEDULE AND PLANS.
W. SEE A900 SERIES DRAWINGS FOR EQUIPMENT SCHEDULE AND PLANS. PROVIDE BLOCKING IN STUD WALLS AND/OR GROUTED MASONRY CORES AS REQUIRED TO SUPPORT EQUIPMENT.
X. PROVIDE FIRE RESISTANT TREATED WOOD BLOCKING SUPPORTS AS REQUIRED FOR ALL SURFACE MOUNTED ITEMS.
Y. WHERE DISIMILAR FLOOR MATERIALS MEET, THEY SHALL DO SO UNDER THE CENTERLINE OF THE DOOR UNLESS NOTED OTHERWISE.
Z. APPLY SEALANT AT ALL JUNCTURES BETWEEN DIFFERENT MATERIALS (E.G. MASONRY TO GYPSUM WALL BOARD) UTILIZING THE APPROPRIATE TYPE PER SPECIFICATIONS. COLOR TO BE SELECTED BY ARCHITECT.
AA. APPLY SEALANT AT ALL COUNTERTOPS AND BLACKSPLASHES AT JUNCTURE WITH WALL.
BB. ALL DOORS MUST BE INSTALLED WITH AT LEAST THE MINIMUM MANEUVERING CLEARANCE AT THE DOOR APPROACH PER THE MOST CURRENT AMERICANS WITH DISABILITIES ACT.
CC. BASE FLOOR ELEVATION INDICATED FOR THIS PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.

PLAN NOTES

1 ALIGN CONCRETE BOLLARD FLUSH WITH DOOR JAMB. SEE SECTION 4/A401 FOR ADDITIONAL INFORMATION.

ROOF ABBREVIATIONS

DR	DUCT THRU ROOF
DS	METAL DOWNSPOUT
EF	EXHAUST FAN; SEE MECHANICAL
EJ	EXPANSION JOINT
FS	FLUE STACK; SEE MECHANICAL
GU	METAL GUTTER
PV	PLUMBING VENT
RAV	RELIEF AIR VENT; SEE MECHANICAL
RH	ROOF HATCH

GENERAL ROOF NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE BEST QUALITY STANDARDS OF THE TRADE, AND SHALL CONFORM WITH THE LATEST EDITION OF ALL FEDERAL, STATE, AND LOCAL CODES AND STANDARDS. THE SAME ARE MADE A PART OF THESE CONTRACT DOCUMENTS, AS IF REPEATED HEREIN.
2. CONTRACT DOCUMENTS CONSIST OF BOTH THE PROJECT MANUAL AND DRAWINGS, AND BOTH ARE INTENDED TO BE COMPLEMENTARY. ANYTHING APPEARING ON EITHER MUST BE EXECUTED THE SAME AS IF SHOWN ON BOTH.
3. CONSTRUCTION DOCUMENTS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE, HOWEVER, SYSTEMS HAVE BEEN SHOWN DIAGRAMMATICALLY AND IN SOME CASES, ENLARGED FOR CLARITY. PROVIDE ADDITIONAL ITEMS AS REQUIRED TO PROVIDE A COMPLETE AND COORDINATED SYSTEM.
4. CONTRACTOR SHALL PROVIDE ANY AND ALL TEMPORARY UTILITY SERVICE REQUIRED TO CONSTRUCT THE WORK. CONTRACTOR MAY EXTEND SERVICES FROM EXISTING LOCATIONS TO WHERE THEY ARE REQUIRED. REMOVE TEMPORARY UTILITIES AND RELATED EXTENSIONS AS SOON AS PRACTICABLE. RESTORE ALL AFFECTED AREAS TO ORIGINAL CONDITION.
5. CONTRACTOR SHALL REMOVE CONSTRUCTION DEBRIS FROM THE BUILDING AND ROOF DAILY.
6. STORE VOLATILE OR FLAMMABLE LIQUIDS IN UL LISTED FIRE CABINETS.
7. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SECURITY OF ALL STORED MATERIALS AND EQUIPMENT INSIDE OR OUTSIDE THE BUILDING.
8. CONTRACTOR SHALL FURNISH NECESSARY TEMPORARY PROTECTION FROM WEATHER TO PROTECT INTERIOR OF BUILDING FROM ELEMENTS OF WEATHER AT ALL TIMES.
9. CONTRACTOR RESPONSIBLE FOR TRAFFIC PROTECTION DURING CONSTRUCTION. AREAS OF WORK SUBJECTED TO TRAFFIC BY VARIOUS TRADES SHALL BE PROTECTED BY TEMPORARY WALK PADS.
10. PROVIDE TREATED WOOD BLOCKING EQUAL IN THICKNESS TO INSULATION SYSTEM AT ROOF PERIMETER AND AROUND ALL ROOF PENETRATIONS. ANCHOR PER SECTION 1-49 OF THE FM GLOBAL LOSS PREVENTION GUIDE.
11. EXTEND ALL PLUMBING VENTS TO PROVIDE A MIN. OF 12" OF HEIGHT FROM TOP OF INSULATION. ALL FITTINGS TO BE AIR AND WATER TIGHT. SEE PLUMBING PLANS FOR LOCATIONS.
12. ROOF INSULATION SADDLES AND CRICKETS ARE DIAGRAMMATIC. ROOF INSULATION MANUFACTURER SHALL DESIGN AND SIZE THESE PER THE ROOF MEMBRANE MANUFACTURERS RECOMMENDATIONS. CRICKETS AND SADDLES SHOULD HAVE A MINIMUM OF TWO TIMES THE SLOPE OF THE PRIMARY TAPERED SYSTEM OR STRUCTURAL SLOPE. THE RATIO OF A CRICKET'S WIDTH TO LENGTH SHOULD BE NO LESS THAN 1 TO 3.
13. PROVIDE SADDLES/CRICKETS AROUND ALL NEW ROOF TOP EQUIPMENT. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR LOCATIONS OF ALL ROOF PENETRATIONS.
14. PROVIDE TAPERED INSULATION WHERE REQUIRED TO TRANSITION FROM ONE INSULATION HEIGHT TO ANOTHER.
15. NOTCH ALL INSULATION AS REQUIRED TO ACCOMMODATE SURFACE MOUNTED CONDUIT, FASTENERS, OFFSETS AND OTHER PROJECTIONS EXTENDING ABOVE THE SURFACE OF THE DECK.
16. PERIMETER EDGE METAL TO COMPLY WITH ANSI/SPRI ES-1 FM GLOBAL 1-49.
17. SEE MECHANICAL, ELECTRICAL AND PLUMBING (MEP) SHEETS FOR ROOF TOP EQUIPMENT.
18. INSPECT ALL WOOD BLOCKING SCHEDULED TO REMAIN. NOTIFY ARCHITECT OF ANY DETERIORATED BLOCKING NEEDING REPLACEMENT. CONTRACTOR TO REPLACE AND DAMAGED BLOCKING ON A TIME AND MATERIAL BASIS, SEE SPECIFICATIONS.
19. ALL ROOF DETAIL DRAWINGS CONTAINED IN THIS SET ARE DIAGRAMMATIC. ADJUST ROOF DETAILS BASED ON SPECIFIC ROOFING SYSTEM SELECTED ACCORDING TO MANUFACTURER'S WRITTEN SPECIFICATIONS AND APPROVED DETAIL DRAWINGS. ALL ASSEMBLY COMPLICATIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
20. THE ROOF CONTRACTOR SHALL PROTECT ALL ROOF DRAINS, GUTTERS AND DOWNSPOUTS FROM DEBRIS CREATED DURING CONSTRUCTION. THE ROOF CONTRACTOR SHALL CLEAR ALL DRAINS, GUTTERS AND DOWNSPOUTS PRIOR TO COMPLETION OF WORK AND TO ENSURE THAT THEY ARE FREE OF DEBRIS AND FUNCTIONING PROPERLY.
21. MECHANICAL, ELECTRICAL AND PLUMBING INFORMATION SHOWN ON THIS PLAN IS GENERAL IN NATURE. REFER TO P, M AND E DRAWINGS FOR FURTHER INFORMATION AND COORDINATE ALL REQUIRED ROOF OPENINGS OR ROOF MOUNTED EQUIPMENT.

ROOF PLAN NOTES

1 ASPHAHLT SHINGLE ROOFING SYSTEM, SEE SPECS.
2 CONTINUOUS RIDGE VENT
3 ALUMINUM GUTTER, TYP.
4 LINE OF BUILDING BELOW

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PROJECT:
PLAINFIELD COMMUNITY SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:
These drawings indicate the general scope of the project in terms of architectural design concept, the dimensions of the building, the major architectural elements and the type of construction and materials to be employed.
The drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Contract.
On the basis of the general scope indicated or described, the Contractor shall furnish all labor and materials required for the proper execution and completion of the work.

REVISIONS:

ISSUE DATE	DRAWN BY	CHECKED BY
05/08/2025	NRS	BCH

DRAWING TITLE:
FLOOR PLANS, CEILING PLANS, AND ROOF PLANS - CLARKS CREEK

CERTIFIED BY:
BRENTON CLINE
REGISTERED
No. AR11700184
STATE OF INDIANA
ARCHITECT

DRAWING NUMBER
A201

PROJECT NUMBER
2025016

STORAGE BUILDING ROOF PLAN DETAILS

NOTE: IBC 2012 CODE REQUIREMENTS

ATTIC AREA = 1000 S.F.
(NO DRAFTSTOPPING REQUIRED)

VENTILATION REQUIREMENT: 1/150 = 6.67 S.F.
(50% LOW 50% HIGH)
3.33 S.F. LOW - USE HALF VENTED SOFFIT PANEL AT 6% FREE AREA
0.06 X 192 S.F. = 11.52 S.F.
3.33 S.F. HIGH - USE RIDGE VENT = 1 FT. LENGTH = 20 SQ.IN. FREE VENT AREA
24' VENT LENGTH X 20 SQ.IN. = 3.33 S.F.
EXCEEDS REQUIREMENT

ATTIC ACCESS REQ'D: NOT REQ'D

4:12 SHINGLE ROOF:
1 LAYERS UNDERLAYMENT REQUIRED

FINISH LEGEND

FLOOR FINISHES

WALK-OFF CARPET

SC1 — TYPE: SEALED CONCRETE; LOCATION: STORAGE SPACES; NOTE: SEE SPECIFICATION

WALL FINISHES

EPOXY PAINT

EP1 — MFR: SHERWIN WILLIAMS; COLOR: SW7056 RESERVED WHITE; NOTE: GENERAL

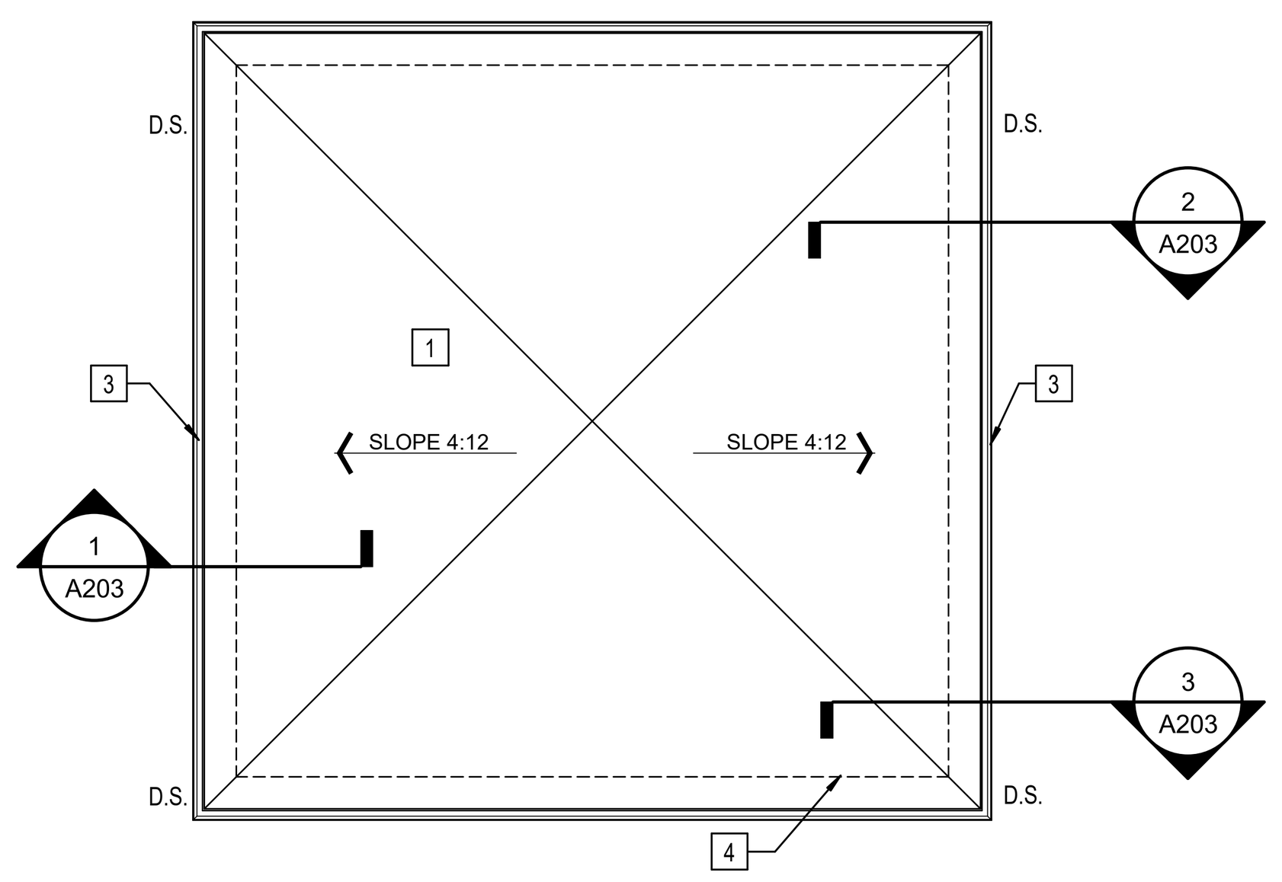
FINISH TAG KEY

XXX — FLOOR FINISH

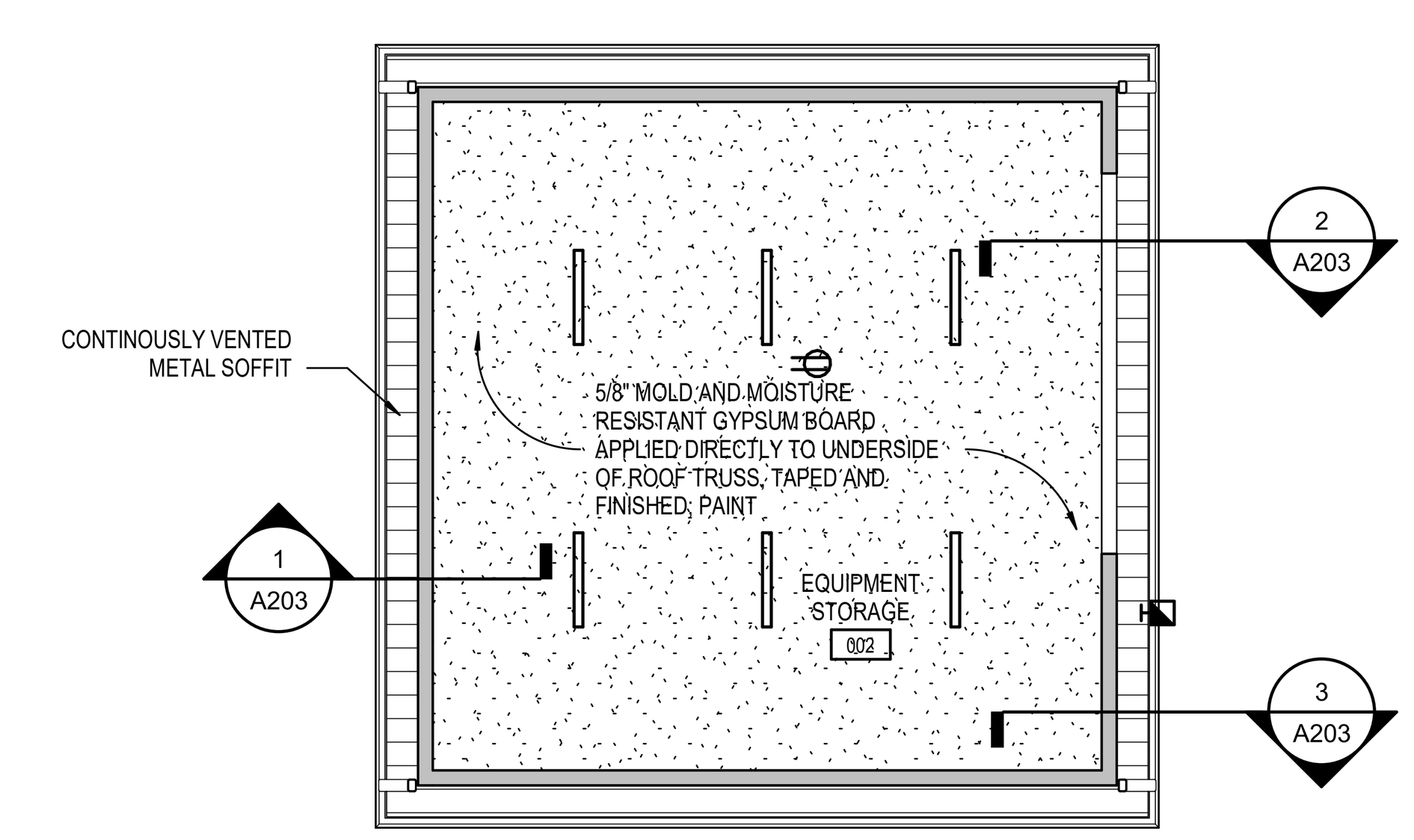
XX — WALL FINISH

ELEVATION NOTES

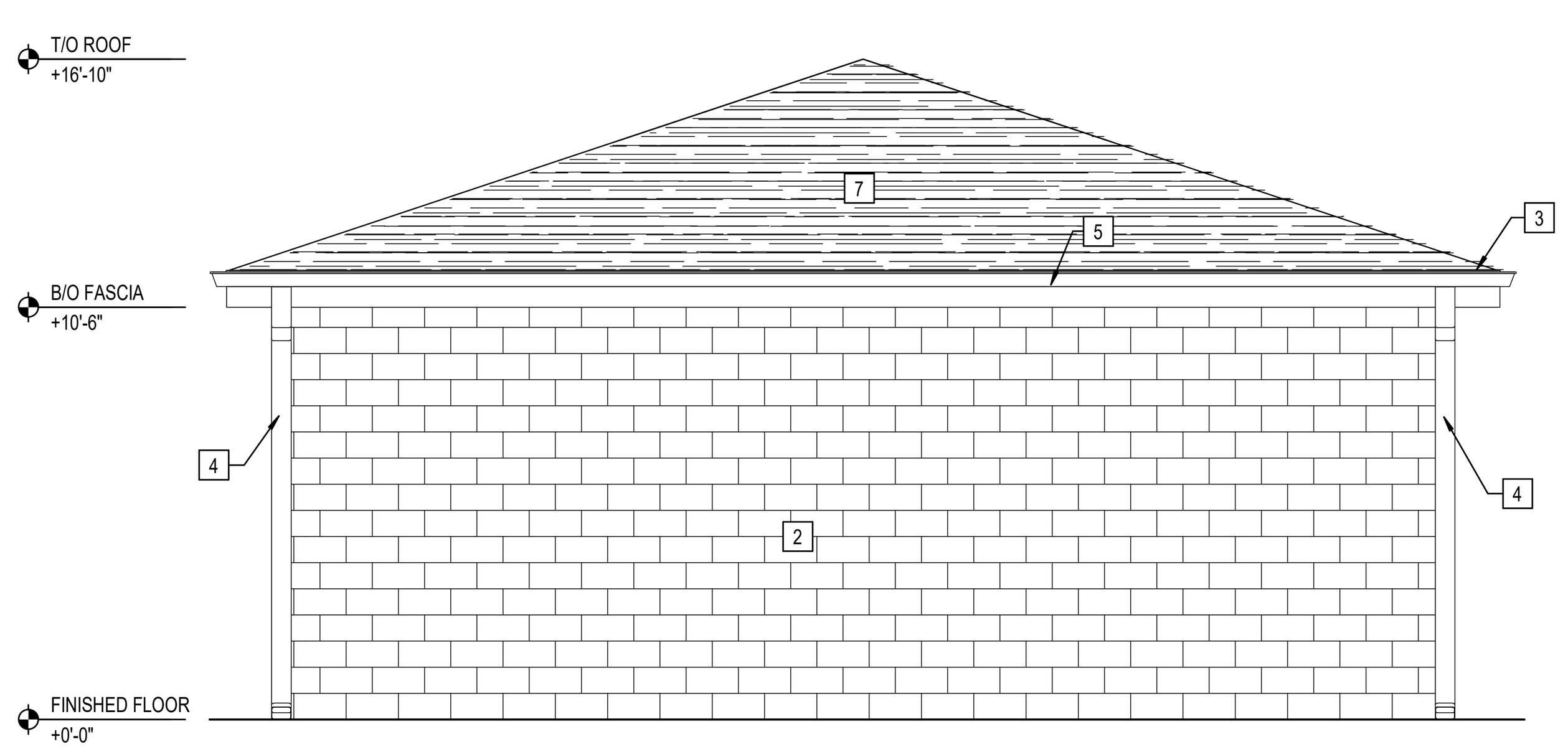
1 STRUCTURAL BRICK - TYPE 1, SEE SPECS.
2 STRUCTURAL BRICK - TYPE 2, SEE SPECS.
3 PRE-MANUFACTURED ALUMINUM GUTTER
4 PRE-MANUFACTURED ALUMINUM DOWNSPOUT
5 PRE-MANUFACTURED FACIA BOARD
6 CONCRETE BOLLARD, PAINT.
7 ASPHAHLT SHINGLE ROOFING SYSTEM,



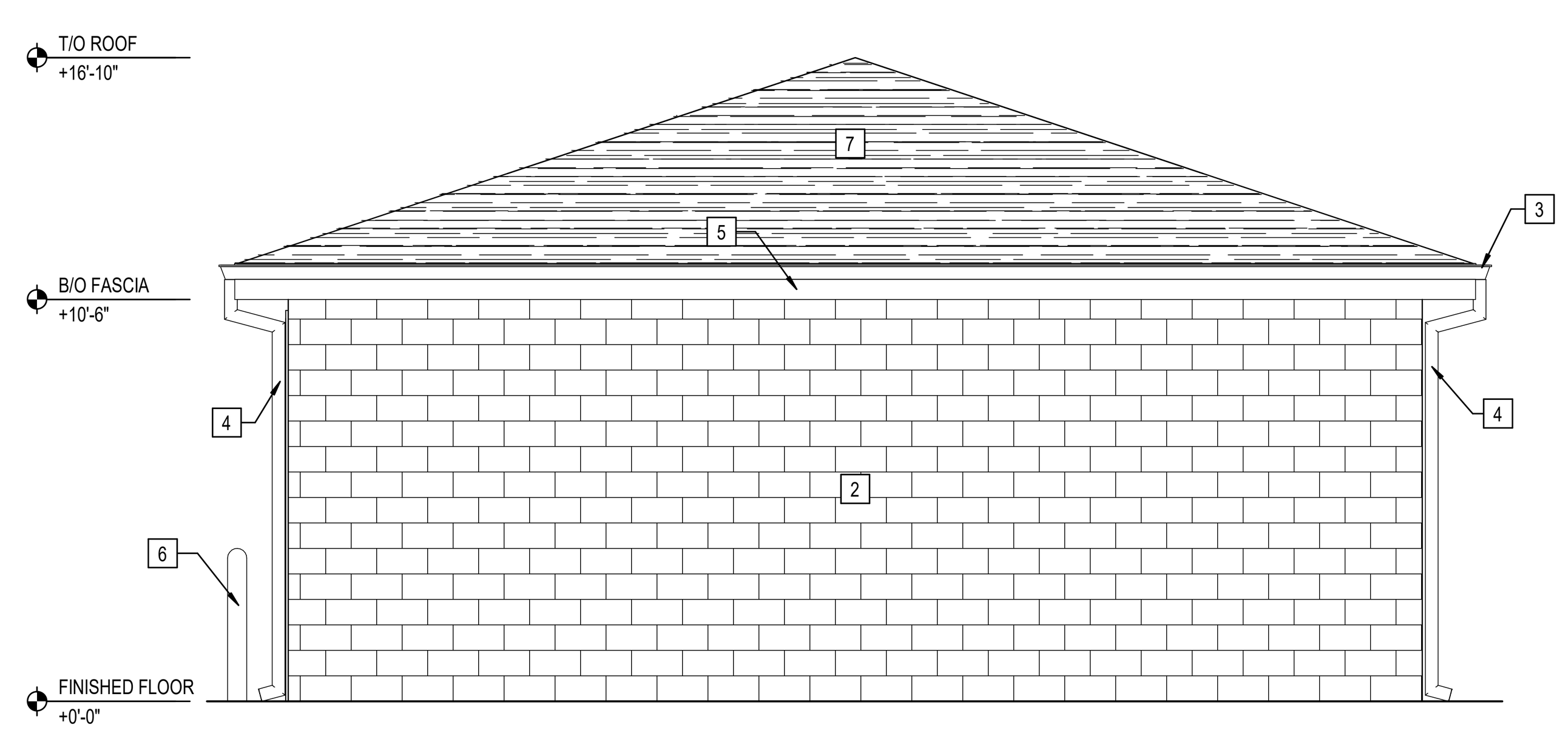
3 / A202 ROOF PLAN - BRENTWOOD OUTBUILDING
SCALE: 1/8" = 1'-0"



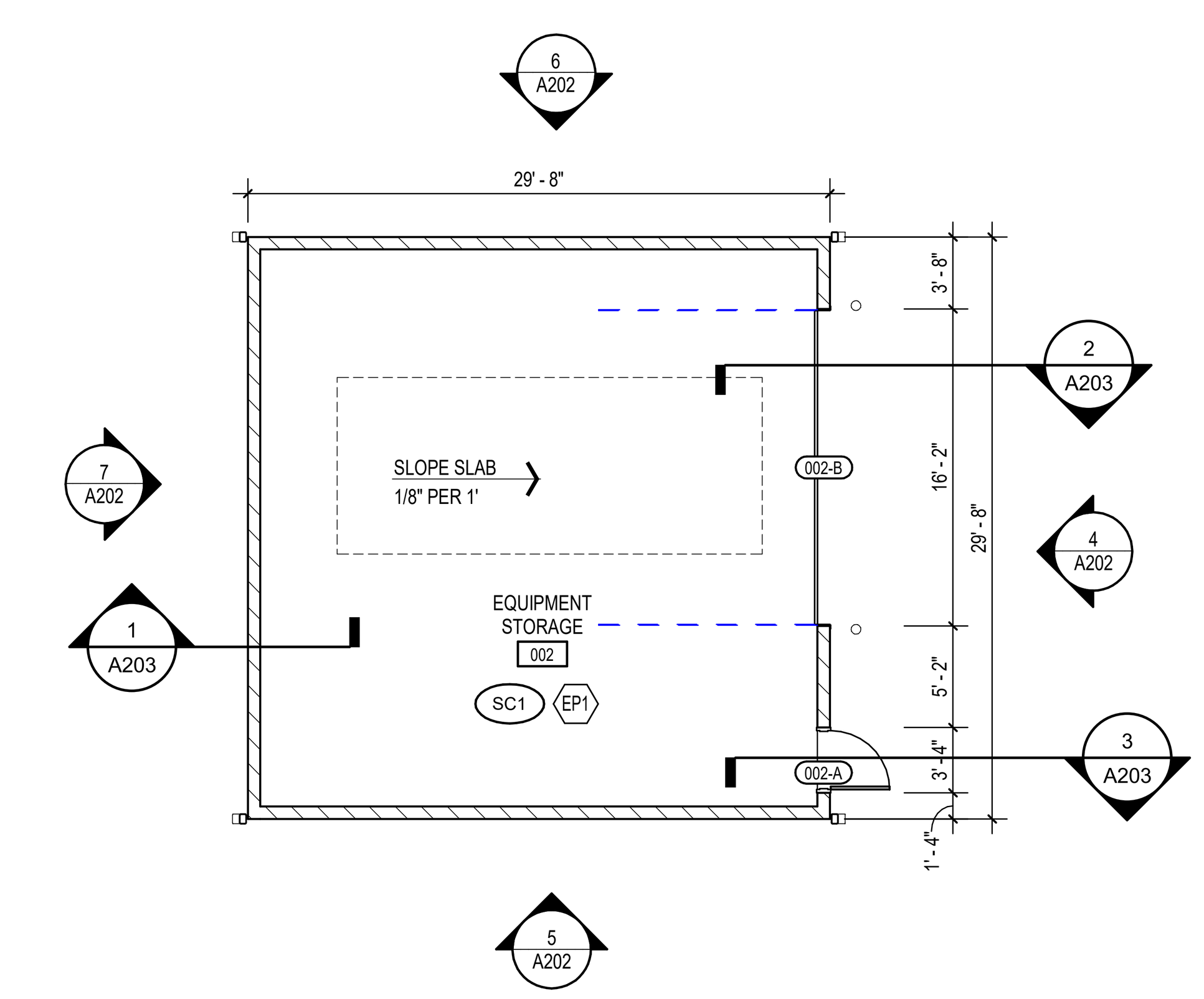
2 / A202 CEILING PLAN - BRENTWOOD OUTBUILDING
SCALE: 1/8" = 1'-0"



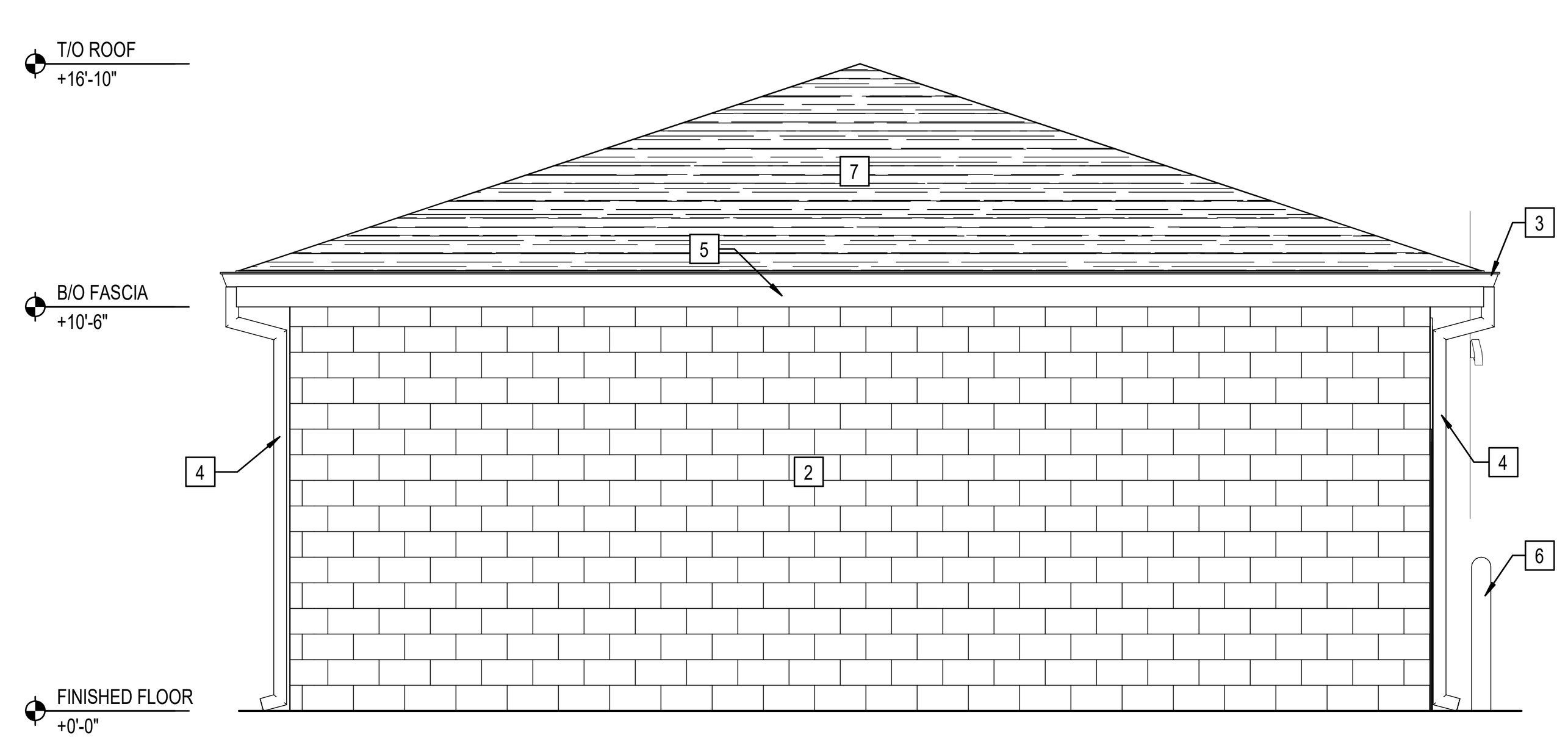
7 / A202 BRENTWOOD ELEVATION - WEST
SCALE: 1/4" = 1'-0"



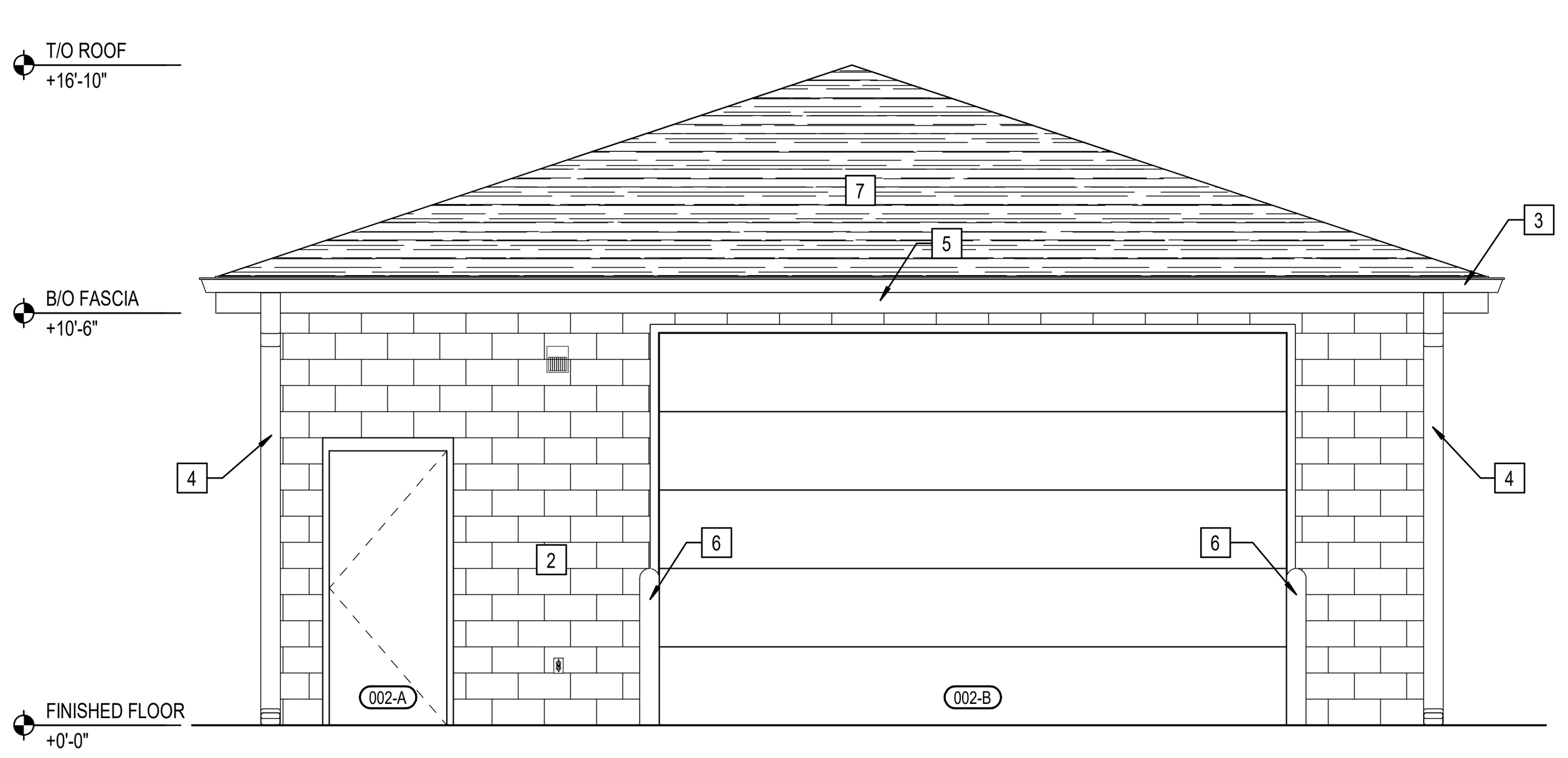
6 / A202 BRENTWOOD ELEVATION - NORTH
SCALE: 1/4" = 1'-0"



1 / A202 FLOOR PLAN - BRENTWOOD OUTBUILDING
SCALE: 1/8" = 1'-0"



5 / A202 BRENTWOOD ELEVATION - SOUTH
SCALE: 1/4" = 1'-0"



4 / A202 BRENTWOOD ELEVATION - EAST
SCALE: 1/4" = 1'-0"

GENERAL NOTES

A. COORDINATE THE WORK OF EACH TRADE WITH THE WORK OF OTHER TRADES.
B. ALL WORK IS TO BE COMPLETED IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, RULES, REGULATIONS AND STANDARDS INCLUDING, BUT NOT LIMITED TO THOSE LISTED ON THE COVER SHEET. ALL APPLICABLE RULES & REGULATIONS ARE TO BE THE MOST CURRENT ADOPTED EDITIONS.
C. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO THE COMMENCEMENT OF WORK. DISCREPANCIES BETWEEN THE DOCUMENTS AND THE ACTUAL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE COMMENCEMENT OF WORK.
D. ALL DIMENSIONS ARE FROM CENTERLINE OF STRUCTURE, FINISH FACE OF WALL, FACE OF MASONRY, OR FACE OF EXISTING.
E. ANY DIMENSIONS NOT SHOWN OR DEEMED QUESTIONABLE ARE TO BE VERIFIED BY ARCHITECT. DO NOT SCALE DRAWINGS.
F. REFER TO WALL TYPE SCHEDULE, SHEET A200, TO DETERMINE WHICH WALLS EXTEND TO DECK. SEE STRUCTURAL FOR TOP SUPPORT DETAIL. WHERE METAL STUDS EXTEND TO DECK, PROVIDE SLIP CONNECTIONS FOR ROOF/ FLOOR DEFLECTION.
G. ALL STEEL STUDS ARE TO BE BRACED ACCORDING TO MANUFACTURER LIMIT HEIGHT (L/240).
H. WHERE INSULATED OR SOUND WALLS EXTEND TO DECK, FILL DECK FLUTES WITH INSULATION/ SOUND ATTENUATION.
I. REFER TO PLUMBING PLANS FOR LOCATION OF FLOOR DRAINS.
J. WHERE ACCESS PANELS ARE SHOWN IN TOILET ROOM CHASES, FINAL LOCATION SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO INSTALLATION.
K. ALL CONCRETE MASONRY UNITS (CMU) SHALL BE LAID RUNNING BOND U.N.O. CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.
L. ALL INTERIOR MASONRY WALLS THAT RUN TO UNDERSIDE OF DECK ABOVE SHALL HAVE A 2" JOINT (U.N.O.) AT THE DECK TO BE FILLED WITH FIRE STOPPING AT RATED WALLS PER PROJECT MANUAL, AND MINERAL WOOL AT THE NON-RATED WALLS TO ALLOW FOR DEFLECTION.
M. THERE SHALL BE PERIMETER INSULATION CONTINUOUS AROUND THE ENTIRE PERIMETER OF THE BUILDING EXTENDING 2'-0" MINIMUM (R-15 MIN.) HORIZONTAL.
N. PROVIDE MISCELLANEOUS SUPPORT FOR ALL CEILING SUSPENDED ITEMS.
O. DOOR AND FRAME NUMBERS CORRESPOND TO ROOM NUMBERS. WHERE MORE THAN ONE DOOR OCCURS IN A ROOM, A SUFFIX HAS BEEN ADDED (E.G. A100-1). SEE A500 SERIES DRAWINGS FOR DOOR SCHEDULE AND DETAILS.
P. ALL DOOR FRAMES SHALL BE LOCATED 4” OFF FINISH WALLS OR 4" OFF MASONRY WALLS UNLESS NOTED OTHERWISE.
Q. ALL GLASS AT INTERIOR DOOR FRAMES, DOOR LITES AND WINDOW FRAMES IS TO BE 1/4" CLEAR TEMPERED GLASS UNLESS NOTED OTHERWISE.
R. AT BUILDING EXPANSION JOINTS, ALL PARTITIONS, CEILINGS, FLOORS AND ALL WALL, FLOOR OR CEILNG MOUNTED ITEMS SHALL BE ANCHORED TO THE BUILDING STRUCTURE ON ONLY ONE SIDE OF THE EXPANSIONS JOINTS. CONTRACTOR SHALL COORDINATE CONSTRUCTION OR INSTALLATION OF ALL ITEMS NOTED TO ASSURE THAT NO SUCH ITEMS BRIDGE ACCROSS THE EXPANSION JOINT.
S. ALL SLAB-ON-GRADE CONTROL JOINTS TO BE CLEANED AND CAULKED PRIOR TO PLACEMENT OF FLOOR FINISH.
T. SEE REFLECTED CEILING PLANS FOR BULKHEAD LOCATIONS AND DETAILS.
U. REFER TO MECHANICAL DRAWINGS FOR WALL LOUVER LOCATIONS, SIZES AND QUANTITIES.
V. SEE A800 SERIES DRAWINGS FOR FINISH SCHEDULE AND PLANS.
W. SEE A900 SERIES DRAWINGS FOR EQUIPMENT SCHEDULE AND PLANS. PROVIDE BLOCKING IN STUD WALLS AND/OR GROUTED MASONRY CORES AS REQUIRED TO SUPPORT EQUIPMENT.
X. PROVIDE FIRE RESISTANT TREATED WOOD BLOCKING SUPPORTS AS REQUIRED FOR ALL SURFACE MOUNTED ITEMS.
Y. WHERE DISIMILAR FLOOR MATERIALS MEET, THEY SHALL DO SO UNDER THE CENTERLINE OF THE DOOR UNLESS NOTED OTHERWISE.
Z. APPLY SEALANT AT ALL JUNCTURES BETWEEN DIFFERENT MATERIALS (E.G. MASONRY TO GYPSUM WALL BOARD) UTILIZING THE APPROPRIATE TYPE PER SPECIFICATIONS. COLOR TO BE SELECTED BY ARCHITECT.
AA. APPLY SEALANT AT ALL COUNTERTOPS AND BLACKSPLASHES AT JUNCTURE WITH WALL.
BB. ALL DOORS MUST BE INSTALLED WITH AT LEAST THE MINIMUM MANEUVERING CLEARANCE AT THE DOOR APPROACH PER THE MOST CURRENT AMERICANS WITH DISABILITIES ACT.
CC. BASE FLOOR ELEVATION INDICATED FOR THIS PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.

PLAN NOTES

1 ALIGN CONCRETE BOLLARD FLUSH WITH DOOR JAMB. SEE SECTION 4/A401 FOR ADDITIONAL INFORMATION.

ROOF ABBREVIATIONS

DR	DUCT THRU ROOF
DS	METAL DOWNSPOUT
EF	EXHAUST FAN; SEE MECHANICAL
EJ	EXPANSION JOINT
FS	FLUE STACK; SEE MECHANICAL
GU	METAL GUTTER
PV	PLUMBING VENT
RAV	RELIEF AIR VENT; SEE MECHANICAL
RH	ROOF HATCH

GENERAL ROOF NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE BEST QUALITY STANDARDS OF THE TRADE, AND SHALL CONFORM WITH THE LATEST EDITION OF ALL FEDERAL, STATE, AND LOCAL CODES AND STANDARDS. THE SAME ARE MADE A PART OF THESE CONTRACT DOCUMENTS, AS IF REPEATED HEREIN.
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5. CONTRACTOR SHALL REMOVE CONSTRUCTION DEBRIS FROM THE BUILDING AND ROOF DAILY.
6. STORE VOLATILE OR FLAMMABLE LIQUIDS IN UL LISTED FIRE CABINETS.
7. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SECURITY OF ALL STORED MATERIALS AND EQUIPMENT INSIDE OR OUTSIDE THE BUILDING.
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10. PROVIDE TREATED WOOD BLOCKING EQUAL IN THICKNESS TO INSULATION SYSTEM AT ROOF PERIMETER AND AROUND ALL ROOF PENETRATIONS. ANCHOR PER SECTION I-49 OF THE FM GLOBAL LOSS PREVENTION GUIDE.
11. EXTEND ALL PLUMBING VENTS TO PROVIDE A MIN. OF 12" OF HEIGHT FROM TOP OF INSULATION. ALL FITTINGS TO BE AIR AND WATER TIGHT. SEE PLUMBING PLANS FOR LOCATIONS.
12. ROOF INSULATION SADDLES AND CRICKETS ARE DIAGRAMMATIC. ROOF INSULATION MANUFACTURER SHALL DESIGN AND SIZE THESE PER THE ROOF MEMBRANE MANUFACTURERS RECOMMENDATIONS. CRICKETS AND SADDLES SHOULD HAVE A MINIMUM OF TWO TIMES THE SLOPE OF THE PRIMARY TAPERED SYSTEM OR STRUCTURAL SLOPE. THE RATIO OF A CRICKET'S WIDTH TO LENGTH SHOULD BE NO LESS THAN 1 TO 3.
13. PROVIDE SADDLES/CRICKETS AROUND ALL NEW ROOF TOP EQUIPMENT. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR LOCATIONS OF ALL ROOF PENETRATIONS.
14. PROVIDE TAPERED INSULATION WHERE REQUIRED TO TRANSITION FROM ONE INSULATION HEIGHT TO ANOTHER.
15. NOTCH ALL INSULATION AS REQUIRED TO ACCOMMODATE SURFACE MOUNTED CONDUIT, FASTENERS, OFFSETS AND OTHER PROJECTIONS EXTENDING ABOVE THE SURFACE OF THE DECK.
16. PERIMETER EDGE METAL TO COMPLY WITH ANSI/SPRI ES-1 FM GLOBAL 1-49.
17. SEE MECHANICAL, ELECTRICAL AND PLUMBING (MEP) SHEETS FOR ROOF TOP EQUIPMENT.
18. INSPECT ALL WOOD BLOCKING SCHEDULED TO REMAIN. NOTIFY ARCHITECT OF ANY DETERIORATED BLOCKING NEEDING REPLACEMENT. CONTRACTOR TO REPLACE AND DAMAGED BLOCKING ON A TIME AND MATERIAL BASIS, SEE SPECIFICATIONS.
19. ALL ROOF DETAIL DRAWINGS CONTAINED IN THIS SET ARE DIAGRAMMATIC. ADJUST ROOF DETAILS BASED ON SPECIFIC ROOFING SYSTEM SELECTED ACCORDING TO MANUFACTURER'S WRITTEN SPECIFICATIONS AND APPROVED DETAIL DRAWINGS. ALL ASSEMBLY COMPLICATIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
20. THE ROOF CONTRACTOR SHALL PROTECT ALL ROOF DRAINS, GUTTERS AND DOWNSPOUTS FROM DEBRIS CREATED DURING CONSTRUCTION. THE ROOF CONTRACTOR SHALL CLEAR ALL DRAINS, GUTTERS AND DOWNSPOUTS PRIOR TO COMPLETION OF WORK AND TO ENSURE THAT THEY ARE FREE OF DEBRIS AND FUNCTIONING PROPERLY.
21. MECHANICAL, ELECTRICAL AND PLUMBING INFORMATION SHOWN ON THIS PLAN IS GENERAL IN NATURE. REFER TO P, M AND E DRAWINGS FOR FURTHER INFORMATION AND COORDINATE ALL REQUIRED ROOF OPENINGS OR ROOF MOUNTED EQUIPMENT.

ROOF PLAN NOTES

1 ASPHAHLT SHINGLE ROOFING SYSTEM, SEE SPECS.
2 CONTINUOUS RIDGE VENT
3 ALUMINUM GUTTER, TYP.
4 LINE OF BUILDING BELOW

TRUTH · DIGNITY · RESPECT · INTEGRITY · KINDNESS · HONESTY · RELIABILITY · EQUAL OPPORTUNITY · RESPONSIBILITY

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PROJECT:
PLAINFIELD COMMUNITY SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:
These drawings indicate the general scope of the project in terms of architectural design concept, the dimensions of the building, the major architectural elements and the type of structural, mechanical and electrical systems.
The drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Contract.
On the basis of the general scope indicated or described, the trade contractors shall furnish all items required for the proper execution and completion of the work.

REVISIONS:

ISSUE DATE	DRAWN BY	CHECKED BY
05/08/2025	NRS	BCH

DRAWING TITLE:
FLOOR PLANS, CEILING PLANS, AND ROOF PLANS - BRENTWOOD

CERTIFIED BY: BRENTON C. HITE, REGISTERED, No. AR11700184, STATE OF INDIANA, ARCHITECT

DRAWING NUMBER
A202

PROJECT NUMBER
2025016

DOOR AND FRAME SCHEDULE

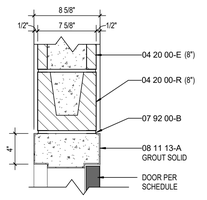
DOOR									FRAME										
	SIZE												DETAIL						
MARK	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	ELEVATION	GLASS	MATERIAL	FINISH	ELEVATION	GLASS	HEAD	JAMB	SILL	UL RATING	STC RATING	REMARKS
001-A	SGL	3' - 0"	7' - 0"	1 3/4"	HM	PT	D1	-	HM	PT	F1	-	H1	J1	-	-	-	-
001-B	SGL	3' - 0"	7' - 0"	1 3/4"	HM	PT	D1	-	HM	PT	F1	-	H1	J1	-	-	-	-
001-C	SOD	16' - 0"	10' - 0"	1 3/4"	ST	PF	D2	-	ST	PF	-	-	2/A401	J2	-	-	-	-
001-D	SOD	16' - 0"	10' - 0"	1 3/4"	ST	PF	D2	-	ST	PF	-	-	2/A401	J2	-	-	-	-
002-A	SGL	3' - 0"	7' - 0"	1 3/4"	HM	PT	D1	-	HM	PT	F1	-	H1	J1	-	-	-	-
002-B	SOD	16' - 0"	10' - 0"	1 3/4"	ST	PF	D2	-	ST	PF	-	-	2/A401	J2	-	-	-	-

HARDWARE GROUP NO. 01

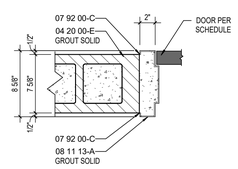
FOR USE ON DOOR #(s):
001-A 001-B 002-A

PROVIDE EACH SGL DOOR(s) WITH THE FOLLOWING:

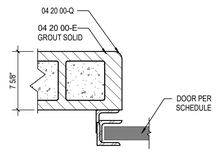
QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224XY	628	IVE
1	EA	STOREROOM LOCK	L9080BDC 06A	626	SCH
1	EA	SFIC CYLINDER	KEYED TO/MATCH EXISITNG SYSTEM	626	BES
1	EA	SURFACE CLOSER	4040XP SCUSH ST-1595	689	LCN
1	EA	KICK PLATE	8400 10" X 1 1/2" LDW B-CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	SET	WEATHERSTRIPPING	CATALOG NUMBER	AA	ZER
1	EA	DOOR SWEEP, BRUSH W/ DRIP	CATALOG NUMBER	AA	ZER
1	EA	THRESHOLD, 1/2"	CATALOG NUMBER	A	ZER



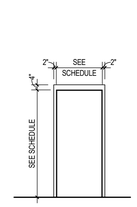
HEAD DETAIL - H1
SCALE: 1 1/2" = 1'-0"



JAMB DETAIL - J1
SCALE: 1 1/2" = 1'-0"

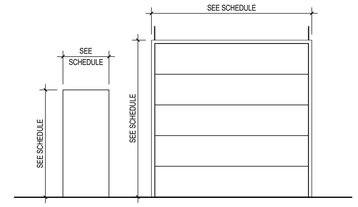


JAMB DETAIL - J2
SCALE: 1 1/2" = 1'-0"



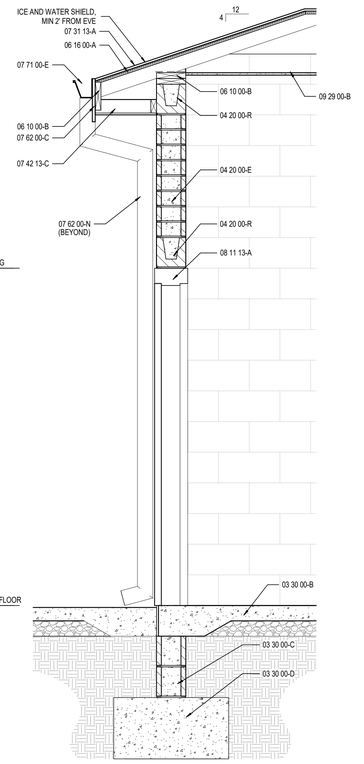
F1

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

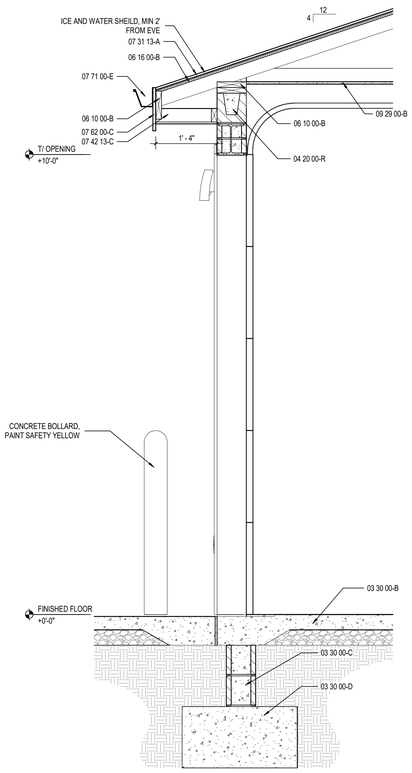


D1 D2

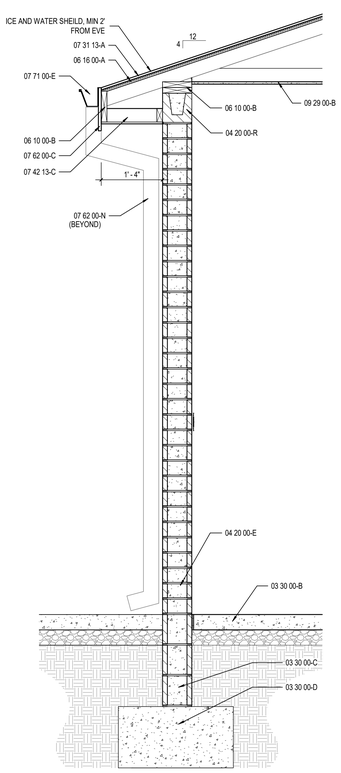
DOOR ELEVATIONS
SCALE: 1/4" = 1'-0"



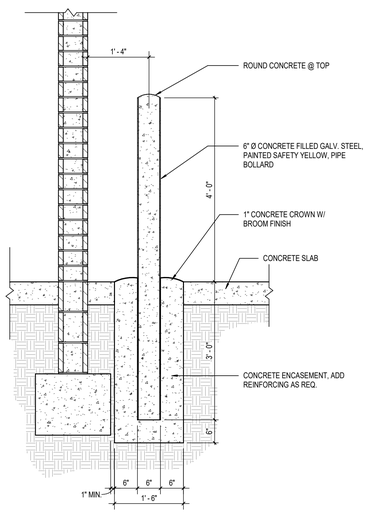
3 A203 WALL SECTION
SCALE: 3/4" = 1'-0"



2 A203 WALL SECTION
SCALE: 3/4" = 1'-0"



1 A203 WALL SECTION
SCALE: 3/4" = 1'-0"



4 A203 EXTERIOR PIPE BOLLARD
SCALE: 3/4" = 1'-0"

KEYNOTE LEGEND

03 30 00-B	CONCRETE SLAB OVER VAPOR BARRIER ON DRAINAGE FILL. SEE STRUCTURAL
03 30 00-C	CONCRETE FOUNDATION- SEE STRUCTURAL
03 30 00-D	CONCRETE FOOTING- SEE STRUCTURAL
04 20 00-E	STRUCTURAL BRICK
04 20 00-Q	BULLNOSE UNIT
04 20 00-R	BOND BEAM MASONRY UNIT
06 10 00-B	2X WOOD BLOCKING
06 16 00-A	3/4" EXTERIOR GRADE PLYWOOD
06 16 00-B	5/8" EXTERIOR GRADE PLYWOOD
07 31 13-A	ASPHALT SHINGLE ROOF
07 42 13-C	METAL WALL PANEL - SOFFIT
07 62 00-C	FASCIA CLADDING
07 62 00-N	PREFINISHED METAL DOWNSPOUT
07 71 00-E	MANUFACTURED GUTTER
07 92 00-B	SEALANT EACH SIDE, TYPICAL
07 92 00-C	BACKER ROD AND SEALANT
08 11 13-A	HOLLOW METAL DOOR/BORROWED LIGHT FRAME
09 29 00-B	5/8" GYPSUM WALL BOARD (SEE SPECS FOR TYPE)

ABBREVIATIONS LEGEND

AL	=	ALUMINUM
AN	=	ANODIZED
BL	=	BORROWED LITE
GHM	=	GALVANNEALED HOLLOW METAL
GL	=	GLASS
HM	=	HOLLOW METAL
PT	=	PAINT
ST	=	STAIN
SS	=	STAINLESS STEEL
STL	=	STEEL
WD	=	WOOD
90M	=	90 MINUTE ASSEMBLY RATING
*	=	SEE REMARKS COLUMN FOR NOTES

GENERAL DOOR NOTES

A. THESE GENERAL NOTES APPLY TO THE DOOR SCHEDULE.
B. DOOR AND FRAME NUMBERS CORRESPOND TO RESPECTIVE ROOM NUMBER. IN ROOMS WITH MULTIPLE OPENINGS, A NUMERICAL SUFFIX HAS BEEN ADDED TO DOOR NUMBERS.
C. VERTICAL FRAMING MEMBERS AT ALL DOOR FRAMES SHALL EXTEND TO STRUCTURE ABOVE.
D. UNDERCUT ALL DOORS AS REQUIRED BY FINAL FINISH.
E. PROVIDE CONTINUOUS SEALANT BETWEEN HOLLOW METAL FRAME PERIMETERS AND SURROUNDING WALL CONSTRUCTION.
F. PROVIDE CONTINUOUS SEALANT BETWEEN INTERIOR AND EXTERIOR WINDOW, CURTAINWALL AND STOREFRONT FRAME PERIMETERS AND SURROUNDING CONSTRUCTION UNLESS NOTED OTHERWISE.
G. GROUT FULL HOLLOW METAL FRAMES IN MASONRY CONSTRUCTION.
H. SPOT GROUT HOLLOW METAL FRAMES IN GYPSUM WALLS.
I. WHERE A FIRE RATING IS INDICATED ON THE DOOR SCHEDULE, HARDWARE AND DOOR ASSEMBLY COMPONENTS SHALL MEET THE REQUIREMENTS OF THAT LABEL.
J. WHERE AN STC RATING IS INDICATED ON THE DOOR SCHEDULE, HARDWARE AND DOOR ASSEMBLY COMPONENTS SHALL MEET THE REQUIREMENTS OF THAT LABEL.
K. INSTALL DOOR GLASS USING WET GLAZING METHOD.
L. ALL LINTELS ABOVE EXTERIOR OPENINGS SHALL BE GALVANIZED.
M. REFER TO SHEETS AXXX & AXXX FOR ADDITIONAL DOOR, FRAME AND BORROWED LITE ELEVATIONS.
N. COORDINATE THROAT OPENINGS WITH WALL WIDTH FOR ALL WRAP AROUND FRAMES.
O. SCHEDULED HARDWARE FOR ALUMINUM DOORS SHALL BE PROVIDED BY HARDWARE SUPPLIER AND INSTALLED BY ALUMINUM SUPPLIER. ALUMINUM DOORS TO BE PREPARED BY ALUMINUM DOOR SUPPLIER IN ACCORDANCE WITH THE SCHEDULED HARDWARE.
P. ALL NEW HOLLOW METAL DOORS, FRAMES AND BORROWED LITE FRAMES TO BE PAINTED AS INDICATED ON THE A800 SERIES FINISH PLANS. SEE FINISH PLANS FOR WOOD DOOR FINISHES.
Q. PROVIDE SILENCERS ON ALL DOOR FRAMES.
R. SEE STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR MASONRY AND STEEL LINTELS. PROVIDE STRUCTURAL STEEL LINTELS AT OPENINGS OPENINGS WHERE INDICATED ON THE STRUCTURAL STEEL DRAWINGS IN LIEU OF MASONRY LINTEL AS SHOWN IN THESE DETAILS.
S. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO FABRICATION OF DOORS AND FRAMES. BRING DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT.

DOOR NOTES

SCSO
8831 Keystone Crossing, Indianapolis, IN 46240
317.848.7800 | cscinc.net

PROJECT:
PLAINFIELD COMMUNITY SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:
These drawings indicate the general scope of the project in terms of architectural design concept, the dimensions of the building, the major architectural elements and the type of construction and materials required for the project.
The drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Contract.
On the basis of the general scope indicated or described, the Contractor shall furnish all labor and materials required for the proper execution and completion of the work.

REVISIONS:

ISSUE DATE	DRAWN BY	CHECKED BY
05/08/2025	NRS	BCH

DRAWING TITLE:
WALL SECTIONS

CERTIFIED BY:
BRENTON C. CLIFF
REGISTERED
No. AR11700184
STATE OF
INDIANA
ARCHITECT

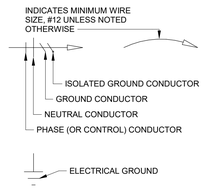
DRAWING NUMBER
A203

PROJECT NUMBER
2025016

ABBREVIATIONS

A	AMPERE
AC	ALTERNATING CURRENT; ARMORED CABLE
ADJ	ADJUSTABLE
AF	AMPERE FUSE; AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ALCR	AUTOMATIC LOAD CONTROL RELAY
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASYM	ASYMMETRICAL
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AVG	AVERAGE
AWG	AMERICAN WIRE GUAGE
BATT	BATTERY
BPS	BOLTED PRESSURE SWITCH
C	CONDUIT; CENTRIGRADE
C/C	CENTER TO CENTER
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CD	CANDELA
CF	CUBIC FEET
CFL	COMPACT FLUORESCENT
CIRC	CIRCUIT
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMB	COMBINATION
CONC	CONCRETE
COND	CONDUCTOR
CONT	CONTINUOUS; CONTINUED
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER; CUBIC
CU FT	CUBIC FOOT
CY	CUBIC YARD
CYL	CYLINDER
D	DEEP; DEPTH
DB	DECIBEL; DIRECT BURIED
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DF	DUAL FACE
DIA	DIAMETER
DIAG	DIAGONAL
DISC	DISCONNECT
DISTR	DISTRIBUTION
DN	DOWN
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DWG	DRAWING
DX	DIRECT EXPANSION
E	EAST; EXISTING
EA	EACH
EBBR	ELECTRIC BASEBOARD RADIATION
EB	ELECTRONIC BALLAST
EC	ELECTRICAL CONTRACTOR
EGC	EQUIPMENT GROUNDING CONDUCTOR
ELEC	ELECTRICAL
ELEV	ELEVATOR; ELEVATION
EM	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
ENG	ENGINE
EQUIP	EQUIPMENT
EST	ESTIMATED
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXP	EXPOSED
EXT	EXTERIOR
F	FUSED; FAHRENHEIT
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FC	FOOT-CANDLE
FD	FUSED DISCONNECT
FDR	FEEDER
FIN	FINISHED
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLR	FLOOR
FLUOR	FLUORESCENT
FM	FREQUENCY MODULATION; FACTORY MUTUAL
FT	FOOT; FEET
FURN	FURNISHED
FVNR	FULL VOLTAGE NON-REVERSING
G	GROUND
GA	GUAGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFCI, GFI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GND	GROUND
GRS, GRC	GALVANIZED RIGID STEEL CONDUIT
H	HIGH
HD	HEAVY DUTY; HIGH DEFINITION
HG	MERCURY
HOA	HAND-OFF-AUTOMATIC
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HR	HOUR
HRS/DAY	HOURS PER DAY
HT	HEIGHT
HV	HIGH VOLTAGE
HZ	HERTZ
ID	INSIDE DIAMETER
IDF	INTERMEDIATE DISTRIBUTION FRAME
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IMP	IMPEDANCE
IN	INCH
INCAN	INCANDESCENT
INSUL	INSULATION; INSULATED
INT	INTERIOR; INTERNAL
INV EL	INVERTED ELEVATION
J	JOULE; JUNCTION
JB	JUNCTION BOX
K	THOUSAND
KCMIL	THOUSAND CIRCULAR MILS
KHZ	KILOHERTZ
KK	KIRK KEY
KP	KEYPAD
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT-HOUR
L	LENGTH; LONG; LUMEN
LB	POUND; ELL CONDUIT BODY
LED	LIGHT EMITTING DIODE
LF	LINEAR FOOT
LLD	LAMP LUMEN DEPRECIATION
LO	LOCK OUT
LRA	LOCKED ROTOR AMPS
LT	LIGHT; LIQUID-TIGHT
LTG	LIGHTING
LV	POWER LIMITED LOW VOLTAGE
M	METER
MA	MILLIAMPERE
MAG STR	MAGNETIC STARTER
MAN	MANUAL
MAT	MATERIAL
MATV	MASTER ANTENNA TELEVISION
MAX	MAXIMUM
MC	METAL CLAD CABLE; MOTOR CONTROLLER
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCCB	MOLDED CASE CIRCUIT BREAKER
MCM	THOUSAND CIRCULAR MILS
MCP	MOTOR CIRCUIT PROTECTOR
MCS	MOTOR CIRCUIT SWITCH
MDF	MAIN DISTRIBUTION FRAME
MDP	MAIN DISTRIBUTION PANELBOARD
MED	MEDIUM
MFG	MANUFACTURING
MFR	MANUFACTURER
MH	MANHOLE; METAL HALIDE; MAN-HOUR
MHZ	MEGAHERTZ
MI	MINERAL INSULATED
MIC	MICROPHONE
MIN	MINIMUM; MINUTE
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MOG	MOGUL
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MV	MEGAVOLT; MEDIUM VOLTAGE
MVA	MEGAVOLT AMPERES
MVAR	MEGAVOLT AMPERES REACTIVE
MW	MEGAWATT
N	NEUTRAL
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCATION
NF	NON-FUSED
NFS	NON-FUSED DISCONNECT
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NM	NON-METALLIC SHEATHED CABLE
NO	NUMBER; NORMALLY OPEN
NTS	NOT TO SCALE
O&P	OVERHEAD AND PROFIT
OC	ON CENTER; OVERCURRENT
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OL	OVERLOAD
OS&Y	OUTSIDE SCREW AND YOKE
OZ	OUNCE
P	POLE; PULL
PA	PUBLIC ADDRESS
PB	PUSH BUTTON; PULL BOX
PC	PHOTOCELL
PED	PEDESTAL
PF	POWER FACTOR
PH	PHASE
PIV	POST INDICATOR VALVE
PL	PILOT LIGHT
PNL	PANEL
PR	PAIR
PRI	PRIMARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GUAGE
PT	POTENTIAL TRANSFORMER
PU	PER UNIT
PVC	POLYVINYL CHLORIDE
PWR	POWER
QUAN; QTY	QUANTITY
R	RESISTANCE; RELOCATED
RECEPT	RECEPTACLE
REF	REFERENCE
REFR	REFRIGERATOR
REQD	REQUIRED
RGS	RIGID GALVANIZED STEEL
RLA	RUNNING LOAD AMPS
RM	ROOM
RMC	RIGID METALLIC CONDUIT
RMS	ROOT MEAN SQUARE
RNC	RIGID NON-METALLIC CONDUIT
RT	RAINTIGHT
SCCR	SHORT-CIRCUIT CURRENT-RATING
SCHED	SCHEDULE
SCR	SHORT CIRCUIT RATING
SE	SERVICE ENTRACE; SERVICE EQUIPMENT
SEC	SECONDARY
SN	SOLID NEUTRAL
SP	SINGLE POLE
SPD	SURGE PROTECTIVE DEVICE
SPDT	SINGLE POLE, DOUBLE THROW
SPKR	SPEAKER
SPST	SINGLE POLE, SINGLE THROW
SQ	SQUARE
SQ FT	SQUARE FEET
SQ IN	SQUARE INCH
SS	STAINLESS STEEL; SAFETY SWITCH
S/S	START STOP
ST	SHUNT TRIP;
STD	STANDARD
SURF	SURFACE
SW	SWITCH
SWD	SWITCHING DUTY
SWBD	SWITCHBOARD
SQ YD	SQUARE YARD
SYM	SYMMETRICAL
T	TEMPERATURE; TRANFORMER
TB	TERMINAL BLOCK
TC	TIME CLOCK
TCC	TEMPERATURE CONTROLS CONTRACTOR
TCP	TEMPERATURE CONTROL PANEL
TD	TIME DELAY
TELE	TELEPHONE
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
THD	TOTAL HARMONIC DISTORTION; THREAD
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TO	TELECOMMUNICATIONS OUTLET
TR	TAMPER RESISTANT
TTB	TELEPHONE TERMAINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UC	UNDER (CABINET OR COUNTER)
UF	UNDERGROUND FEEDER
UG	UNDERGROUND
UHF	ULTRA HIGH FREQUENCY
UL	UNDERWRITERS LABORATORY
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
VA	VOLT AMPERES
VAR	VOLT AMPERES REACTIVE
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VHF	VERY HIGH FREQUENCY
VOL	VOLUME
W	WIRE; WATT; WIDE
W/	WITH
WAP	WIRELESS ACCESS POINT
WG	WIRE GUARD
WM	"WIREMOLD" (SURFACE RACEWAY)
WP	WEATHERPROOF
WT	WEIGHT; WATERTIGHT
XFMR	TRANSFORMER
XFER	TRANSFER
Y	WYE
°	DEGREE
Δ	DELTA
Ø	PHASE; DIAMETER
#	POUND; NUMBER
%	PERCENT
@	AT
~	APPROXIMATELY
'	FEET
"	INCHES

TYPICAL WIRING DESIGNATIONS



ROOM CIRCUIT DESIGNATIONS

* INDIVIDUAL CIRCUITS NUMBERS ARE LOCATED AT EACH DEVICE

ROOM CIRCUIT DESIGNATION SHOWN ABOVE APPLY TO EVERY DEVICE IN THE ROOM UNLESS NOTED OTHERWISE

ROOM CIRCUIT DESIGNATIONS WITH RELAY NUMBER

RACEWAYS

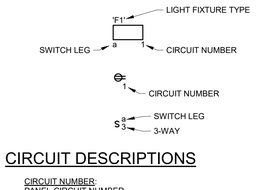
- CONDUIT, IN WALL OR CEILING
- CONDUIT, BELOW FLOOR
- CONDUIT, EXPOSED
- W — SURFACE RACEWAY ("WIREMOLD")
- CONDUIT, TURNING UP
- CONDUIT, TURNING DOWN
- CONDUIT, CAPPED
- UNDERFLOOR DUCT & JUNCTION BOX, SINGLE SYSTEM
- UNDERFLOOR DUCT & JUNCTION BOX, DUAL SYSTEM
- UNDERFLOOR DUCT & JUNCTION BOX, TRIPLE SYSTEM
- J — JUNCTION BOX
- P — PULL BOX

MISCELLANEOUS

- CLOCK (WALL)
- CLOCK (CEILING)
- BELL
- BUZZER
- THERMOSTAT
- ELECTRICAL GROUND

NOT ALL SYMBOLS ON THIS SHEET ARE USED IN THESE DOCUMENTS.

TYPICAL DEVICE DESIGNATIONS



CIRCUIT DESCRIPTIONS

CIRCUIT NUMBER:
PANEL-CIRCUIT NUMBER
(I.E. A1-1)

MULTIPLE INDIVIDUAL CIRCUIT NUMBERS:
PANEL-CIRCUIT NUMBER,CIRCUIT NUMBER,CIRCUIT NUMBER
(I.E. A1-1, A1-3)

2-POLE CIRCUIT NUMBER:
PANEL-CIRCUIT NUMBER/CIRCUIT NUMBER
(I.E. A1-1,3)

3-POLE CIRCUIT NUMBER:
PANEL-CIRCUIT NUMBER/CIRCUIT NUMBER/CIRCUIT NUMBER
(I.E. A1-1,3,5)

PANELS

- PANEL, FLUSH
- PANEL, SURFACE
- CONTROL PANEL (AS NOTED), FLUSH
- CONTROL PANEL (AS NOTED), SURFACE

POWER EQUIPMENT

- 1-PHASE MOTOR
- 3-PHASE MOTOR
- S_F — FUSIBLE BOX COVER SWITCH
- ENCLOSED SWITCH, NON-FUSIBLE
- F — ENCLOSED SWITCH, FUSIBLE
- CB — ENCLOSED CIRCUIT BREAKER
- MANUAL MOTOR STARTER
- P — MANUAL MOTOR STARTER WITH PILOT LIGHT
- MAGNETIC MOTOR STARTER
- COMBINATION DISCONNECT & MAGNETIC MOTOR STARTER
- T — SMALL TRANSFORMER
- VFD — VARIABLE FREQUENCY DRIVE
- PUSHBUTTON
- UP/DOWN PUSHBUTTON
- UP/DOWN/STOP PUSHBUTTON

RECEPTACLES AND OUTLETS

- DUPLEX RECEPTACLE
- HORIZONTAL DUPLEX RECEPTACLE
- DOUBLE DUPLEX (QUAD) RECEPTACLE
- DUPLEX RECEPTACLE ABOVE COUNTERTOP OR TOGGLE SWITCH HEIGHT WHERE NO COUNTER IS PRESENT
- DOUBLE DUPLEX (QUAD) RECEPTACLE ABOVE COUNTERTOP OR TOGGLE SWITCH HEIGHT WHERE NO COUNTER IS PRESENT
- GROUND FAULT CIRCUIT INTERRUPTER (GFCI) DUPLEX RECEPTACLE
- HORIZONTAL GFCI DUPLEX RECEPTACLE
- DOUBLE DUPLEX (QUAD) GFCI RECEPTACLE
- GFCI DUPLEX RECEPTACLE ABOVE COUNTERTOP OR TOGGLE SWITCH HEIGHT WHERE NO COUNTER IS PRESENT
- DOUBLE DUPLEX (QUAD) GFCI RECEPTACLE ABOVE COUNTERTOP OR TOGGLE SWITCH HEIGHT WHERE NO COUNTER IS PRESENT
- GFCI/ WEATHERPROOF DUPLEX RECEPTACLE
- SINGLE RECEPTACLE
- FLUSH FLOOR OUTLET, ONE DUPLEX RECEPTACLE UNLESS NOTED OTHERWISE
- PT — FIRE-RATED POKE-THRU, DUAL-SERVICE WITH ONE QUADRAPLEX RECEPTACLE & FOUR DATA JACKS UNLESS NOTED OTHERWISE
- PED — PEDESTAL-TYPE FLOOR OUTLET, ONE DUPLEX RECEPTACLE UNLESS NOTED OTHERWISE
- CEILING DROP CORD. 3#12 TYPE SO CORD WITH 2 DUPLEX RECEPTACLES AND KELLUMS GRIPS UNLESS NOTED OTHERWISE
- SPECIAL OUTLET OR EQUIPMENT CONNECTION (AS NOTED)
- RECESSED FLOOR BOX, DUAL-SERVICE WITH 4-GANGS AND TWO DUPLEX RECEPTACLES UNLESS NOTED OTHERWISE
- MULTIOUTLET ASSEMBLY, LENGTH INDICATED, 16" AFF UNLESS NOTED OTHERWISE
- INDICATES VERTICAL RUN
- LAB TOP PEDESTAL OUTLET, GFCI-TYPE DUPLEX RECEPTACLE
- LAB TOP PEDESTAL OUTLET, GFCI-TYPE QUADRIPLEX RECEPTACLE
- LAB TOP PEDESTAL OUTLET,TWO GFCI-TYPE DUPLEX RECEPTACLES
- LAB TOP PEDESTAL OUTLET, TWO GFCI-TYPE QUADRIPLEX RECEPTACLES

LIGHT FIXTURES

- LIGHT, CEILING
- LIGHT, CEILING
- LIGHT, WALL
- EXIT SIGN, CEILING
- EXIT SIGN, WALL
- EXIT SIGN WITH DIRECTIONAL ARROW, CEILING
- EXIT SIGN WITH DIRECTIONAL ARROW, WALL
- EMERGENCY LIGHTING UNIT
- TRACK LIGHT FIXTURE
- EMERGENCY LIGHT FIXTURE
- LIGHT FIXTURE DIRECTIONAL AIMING INDICATOR
- NL — NIGHT LIGHT

SWITCHES

- S — SWITCH, SINGLE POLE
- S_2 — SWITCH, DOUBLE POLE
- S_3 — SWITCH, THREE WAY
- S_4 — SWITCH, FOUR WAY
- S_K — SWITCH, KEY OPERATED
- S_P — SWITCH, WITH PILOT LIGHT
- S_{WP} — SWITCH, WEATHERPROOF
- S_X — SWITCH, EXPLOSIONPROOF
- S_D — SWITCH, DIMMER
- S_{TS} — SWITCH, SPRING WOUND, INTERVAL TIME SWITCH
- S_{DT} — SWITCH, DIGITAL INTERVAL TIME SWITCH
- S_{LV} — SWITCH, POWER LIMITED LOW VOLTAGE PUSH BUTTON
- LV — POWER LIMITED LOW VOLTAGE TOUCHSCREEN LIGHTING CONTROL
- MT — MULTI-TECHNOLOGY CEILING OCCUPANCY SENSOR
- US — ULTRASONIC CEILING OCCUPANCY SENSOR
- IR — PASSIVE INFRARED CEILING OCCUPANCY SENSOR
- ES — SINGLE POLE WALL OCCUPANCY SENSOR
- ES — TWO POLE WALL OCCUPANCY SENSOR
- SD — COMBINATION WALL OCCUPANCY SENSOR AND DIMMER
- DS — DAYLIGHT SENSOR
- TC — TIMECLOCK
- PC — PHOTOCELL
- PP — POWER PACK
- LC — LIGHTING CONTACTOR
- LCP — LIGHTING CONTROL PANEL
- LRP — LIGHTING RELAY PANEL
- ALCR — AUTOMATIC LOAD CONTROL RELAY (LIGHTING)

FIRE ALARM SYSTEMS

- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR
- M — MANUAL PULL STATION
- F — FIRE ALARM WALL HORN-STROBE
- FIRE ALARM WALL STROBE
- FIRE ALARM CEILING STROBE
- FIRE ALARM CEILING HORN-STROBE
- S — FIRE ALARM CEILING SPEAKER
- B — FIRE ALARM BELL
- EH — ELECTRO-MAGNETIC DOOR HOLDER
- R — FIRE ALARM ADDRESSIBLE INTERFACE DEVICE.
- P — PHOTOELECTRIC SMOKE DETECTOR
- D — DUCT TYPE SMOKE DETECTOR
- H — HEAT DETECTOR
- FS — SPRINKLER FLOW SWITCH
- TS — SPRINKLER TAMPERSWITCH

GENERAL NOTES:

1. 120 VOLT CIRCUITS SHALL UTILIZE SEPARATE INDEPENDENT NEUTRAL CONDUCTORS. DO NOT SHARE NEUTRALS.
2. CONTRACTOR SHALL COORDINATE WITH ALL TRADES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR INCORRECT WORK, OR FOR INFRINGEMENT UPON OTHERS' WORK, DUE TO A LACK OF COORDINATION.
3. DEVICES IN GENERAL SHALL BE CENTERED IN WALL SPACE IN WHICH THEY ARE INSTALLED OR THEY SHALL BE SPACED SYMMETRICALLY (FOR EXAMPLE, CENTER DEVICES WHEN MOUNTED ON FACE OF COLUMNS).
4. COORDINATE AND VERIFY LOCATIONS OF DEVICES WITH BLOCK COURSING, FINISH MATERIALS, CASEWORK, ETC. PRIOR TO ROUGH-IN.
5. WIRING SHALL BE MINIMUM #12 AWG IN 3/4" EMT CONDUIT UNLESS OTHERWISE NOTED OR REQUIRED.
6. WHERE SURFACE DEVICE BOXES ARE PERMITTED, DO NOT USE PLASTER RINGS. USE EXPOSED WORK COVERS INTENDED FOR THE PURPOSE.
7. WHERE SURFACE CONDUIT OR EMT IS PERMITTED, DO NOT USE CONDUIT HANGERS LESS THAN 8-FEET AFF. USE ONE- OR TWO-HOLE STRAPS SO THAT NO SHARP EDGES PROTRUDE FROM THE WALL.
8. A MAXIMUM OF THREE SINGLE-PHASE CIRCUITS SHALL BE INSTALLED IN A SINGLE CONDUIT.
9. LOCATION OF LIGHT FIXTURES SHALL BE COORDINATED IN FIELD AND LOCATED TO PROVIDE THE BEST ILLUMINATION OF THE SPACE AND EQUIPMENT. COORDINATE WITH ENGINER.
10. PROVIDE FIRESTOPPING AT PENETRATIONS THROUGH FIRE-RATED CONSTRUCTION.
11. DO NOT INSTALL RACEWAYS IN FLOOR SLABS. INSTALL RACEWAYS BELOW SLAB ON GRADE AT LEAST 6-INCHES BELOW BOTTOM OF SLAB. FEEDER CONDUITS SHALL BE AT LEAST 24-INCHES BELOW BOTTOM OF SLAB.
12. UNLESS NOTED OTHERWISE, JUNCTION BOXES AND PULL BOXES SHALL BE LISTED AND LABELLED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.

BRANCH CIRCUIT WIRING CHART

FEEDER CONDUCTOR SIZES SHOWN ON THESE BID DOCUMENTS HAVE BEEN SELECTED TO MAINTAIN LESS THAN 2% VOLTAGE DROP AT POTENTIAL FULL LOAD CONDITION (80% OF CIRCUIT SIZE) PER ANTICIPATED ROUTING AND CONDUCTOR LENGTH. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED TO MAINTAIN LESS THAN 3% VOLTAGE DROP FROM PANELBOARD TO LOAD BASED UPON 60% OF CIRCUIT SIZE LOAD CONDITIONS. THE FOLLOWING CHART REPRESENTS WIRE SIZES FOR A 20 AMP CIRCUIT BASED UPON CIRCUIT LENGTH IN ORDER TO MAINTAIN LESS THAN 3% VOLTAGE DROP FOR A 12 AMP LOAD. CONTRACTOR SHALL USE THIS CHART FOR BIDDING AND INSTALLATION GUIDELINES. FOR KNOWN CIRCUITS WITH LARGER LOAD CONDITIONS, CONTRACTOR SHALL ADJUST ACCORDINGLY. GROUND CONDUCTOR SIZES SHALL BE INCREASED SAME AS CIRCUIT CONDUCTORS, PER NEC. ADJUST RACEWAY SIZES ACCORDINGLY.

	BRANCH CIRCUIT CONDUCTOR LENGTH FOR 20 AMP CIRCUIT TO MAINTAIN LESS THAN 3% VOLTAGE DROP AT 12 AMP LOAD. ADJUST AS KNOWN CONDITIONS REQUIRE.					
WIRE SIZE	120V-1P	208V-1P	208V-3P	277V-1P	480V-3P	CONDUCTOR LENGTHS INDICATED ARE TO THE FIRST DEVICE (BUT MAINTAIN MAXIMUM 5% VOLTAGE DROP TO THE LAST DEVICE FOR KNOWN LOADS).
#12	0'-80'	0'-140'	0'-160'	0'-185'	0'-375'	
#10	81'-135'	141'-230'	161'-270'	186'-310'	376'-620'	
#8	136'-200'	231'-350'	271'-410'	311'-470'	621'-940'	
#6	201'-315'	351'-550'	411'-635'	471'-735'	941'-1475'	

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PROJECT:

PLAINFIELD COMMUNITY SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:

These drawings indicate the general scope of the project in terms of architectural design concept, the dimensions of the building, the major architectural elements and the type of construction and mechanical systems involved.

The drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Contract.

On the basis of the general scope indicated or described, the Contractor shall provide all labor and materials required for the proper execution and completion of the work.

REVISIONS:

ISSUE DATE	DRAWN BY	CHECKED BY
05/08/2025	DMH	TEH

DRAWING TITLE:

SYMBOLS, ABBREVIATIONS, & GENERAL NOTES - ELECTRICAL

CERTIFIED BY:

DRAWING NUMBER

E-001

PROJECT NUMBER

2025016

RENOVATION LEGEND:

- WORK TO BE INSTALLED
- WORK TO REMAIN

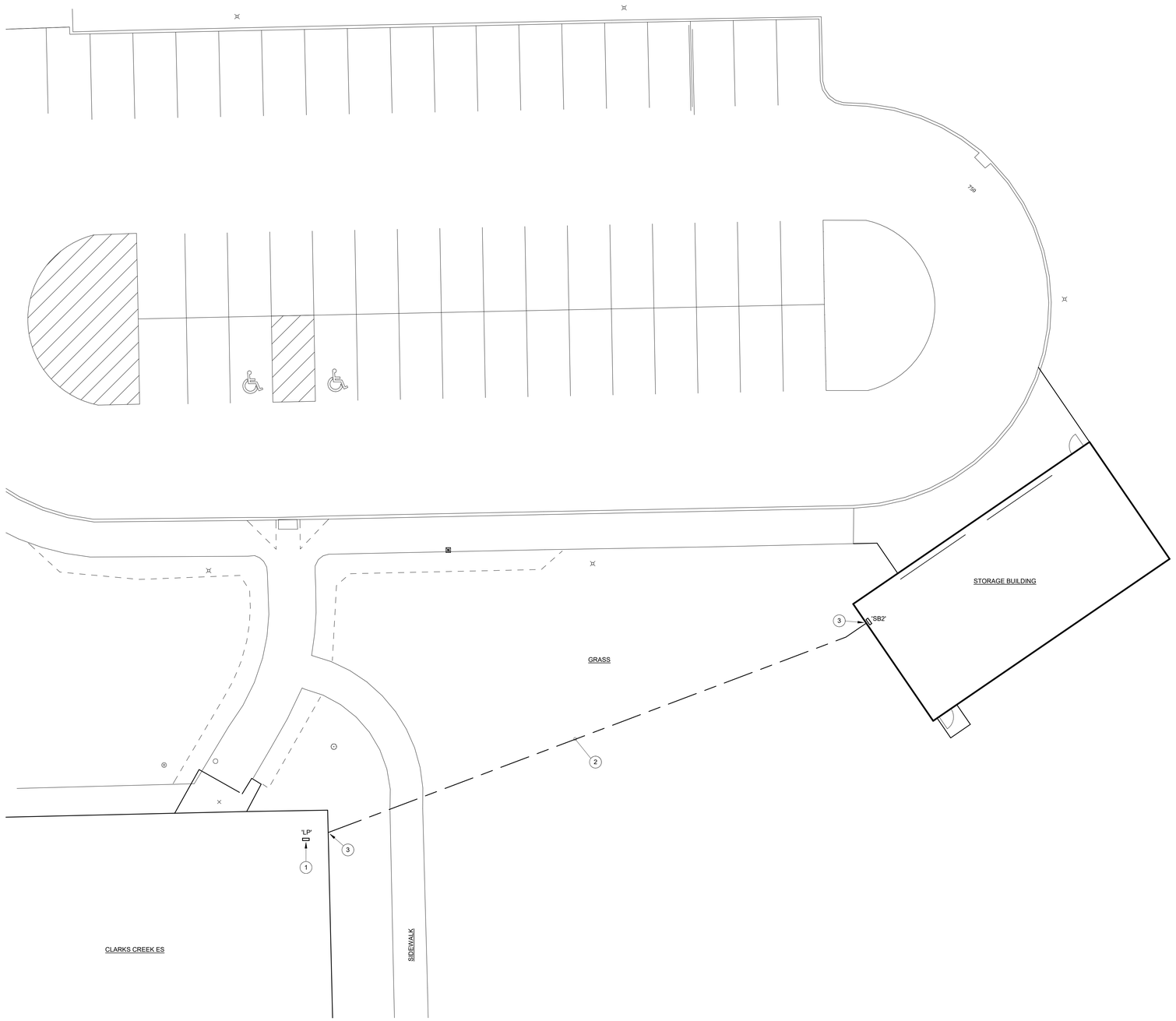
GENERAL NOTES:

1. SEE E-001 FOR GENERAL NOTES.

(#) PLAN NOTES:

1. REWORK (2) EXISTING 1-P BREAKERS IN PANEL 'LP' (CKTS 13 & 15) TO MAKE ROOM FOR NEW 100A-2P BREAKER. BREAKER TO FEED NEW STORAGE BUILDING.
2. 3#3, 1#8G - 2"C PVC SCHEDULE 80 BURIED AT 18" BELOW GRADE. PROVIDE TRACEABLE WARNING TAPE AT 12" BELOW GRADE.
3. WHERE EXPOSED, THE PVC RACEWAY TO BE CONVERTED TO GRS.

PANEL 'LP' in ELECTRICAL MEZZANINE



SITE PLAN - CLARKS CREEK - ELECTRICAL

SCALE: 1" = 10'-0"

NORTH

0 2 4 5 7 10 20 30 40

1 2 3 4

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PROJECT:

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PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:

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REVISIONS:

ISSUE DATE	DRAWN BY	CHECKED BY
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DRAWING TITLE:

SITE PLAN - CLARKS CREEK - ELECTRICAL

CERTIFIED BY:

TIMOTHY E. HILL
REGISTERED
No. PE19800083
STATE OF INDIANA
PROFESSIONAL ENGINEER

5-8-2025

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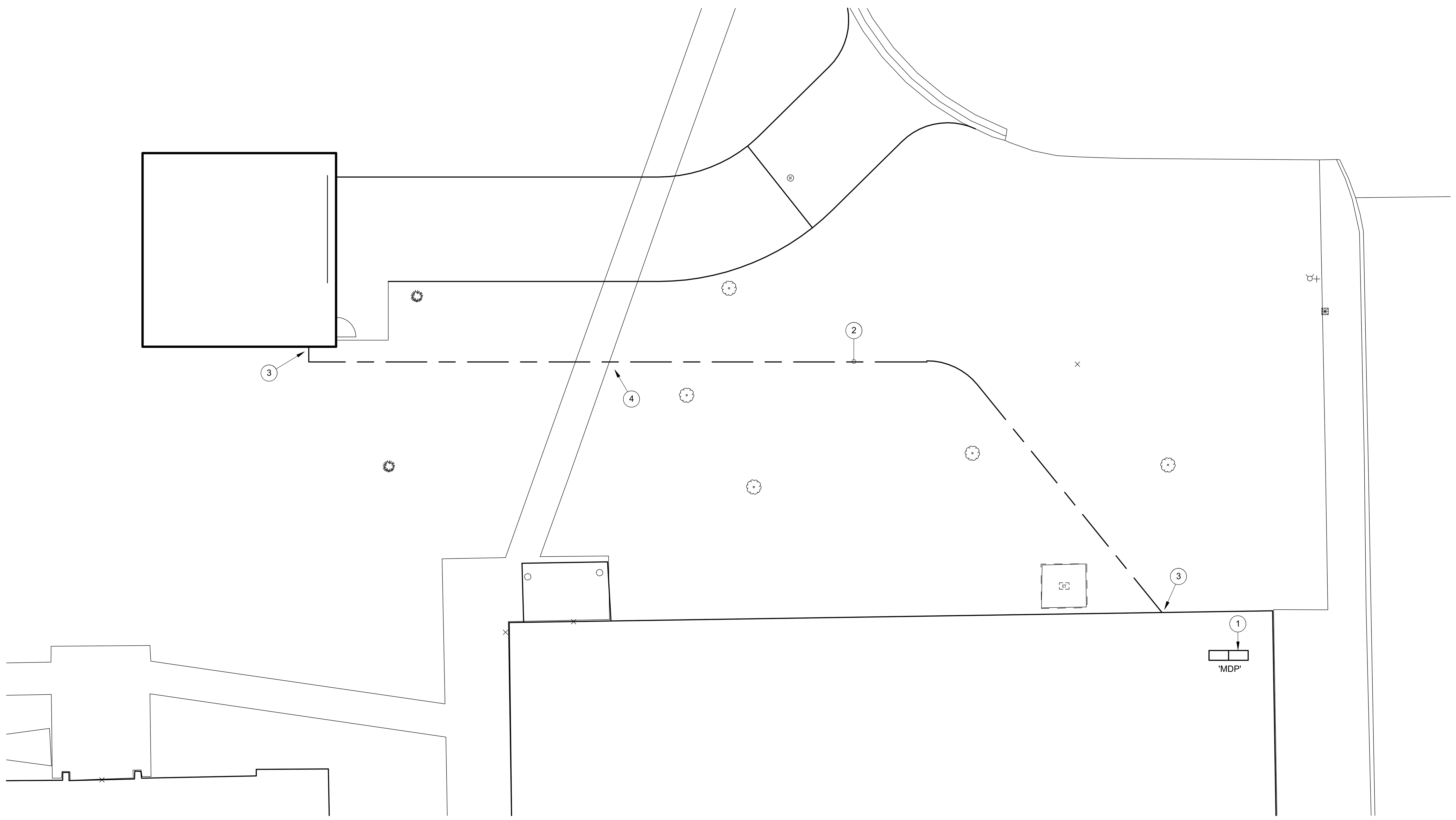
E-100

PROJECT NUMBER

2025016

MDP LOCATED IN ELECTRICAL EQUIPMENT ROOM



SITE PLAN - BRENTWOOD - ELECTRICAL

NORTH

SCALE: 1" = 10'-0"

0 2 4 5 7 10 20 30 40

1 2 3 4

RENOVATION LEGEND:

WORK TO BE INSTALLED

WORK TO REMAIN

GENERAL NOTES:

1. SEE E-001 FOR GENERAL NOTES.

PLAN NOTES:

1. FEED OUTDOOR STORAGE BUILDING FROM SPARE 60A-3P BREAKER (USING 2 POLES FOR SINGLE PHASE SERVICE).
2. 3#4, 1#6G - 2"C PVC SCHEDULE 80 BURIED AT 18"BELOW GRADE. PROVIDE TRACEABLE WARNING TAPE AT 12" BELOW GRADE.
3. WHERE EXPOSED, THE PVC RACEWAY TO BE CONVERTED TO GRS.
4. DIRECTIONAL BORE UNDER EXISTING CONCRETE WALKWAY.

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PROJECT:

PLAINFIELD COMMUNITY SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:

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05/08/2025	DMH	TEH

DRAWING TITLE:

SITE PLAN - BRENTWOOD - ELECTRICAL

CERTIFIED BY:

TIMOTHY E. HILL REGISTERED No. PE19800083 STATE OF INDIANA PROFESSIONAL ENGINEER

5-8-2025

DRAWING NUMBER

E-101

PROJECT NUMBER

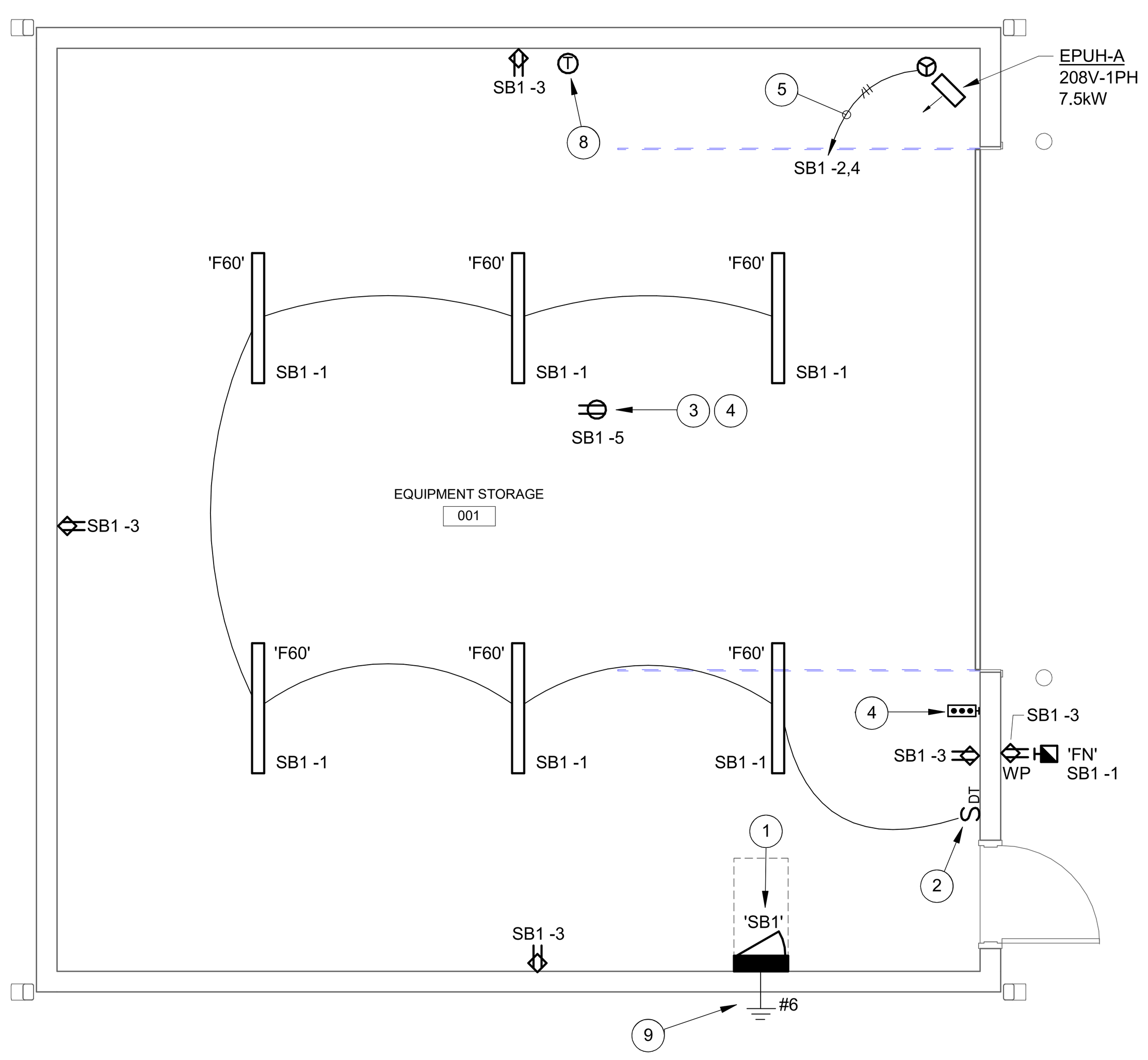
2025016

GENERAL NOTES:

1. SEE E-001 FOR GENERAL NOTES.
2. INTERIOR LIGHT FIXTURES TO BE SURFACE MOUNTED TO CEILING.
3. EXTERIOR LIGHT FIXTURES TO BE MOUNED AT 9'-0"AFF.
4. MOUNT INTERIOR WALL RECEPTACLES IN STORAGE BUILDINGS AT 48"AFF.
5. PROVIDE WEATHERPROOF, IN-USE COVERS ON EXTERIOR OUTLETS.
6. RECEPTACLE DEVICE COLOR: IVORY

PLAN NOTES:

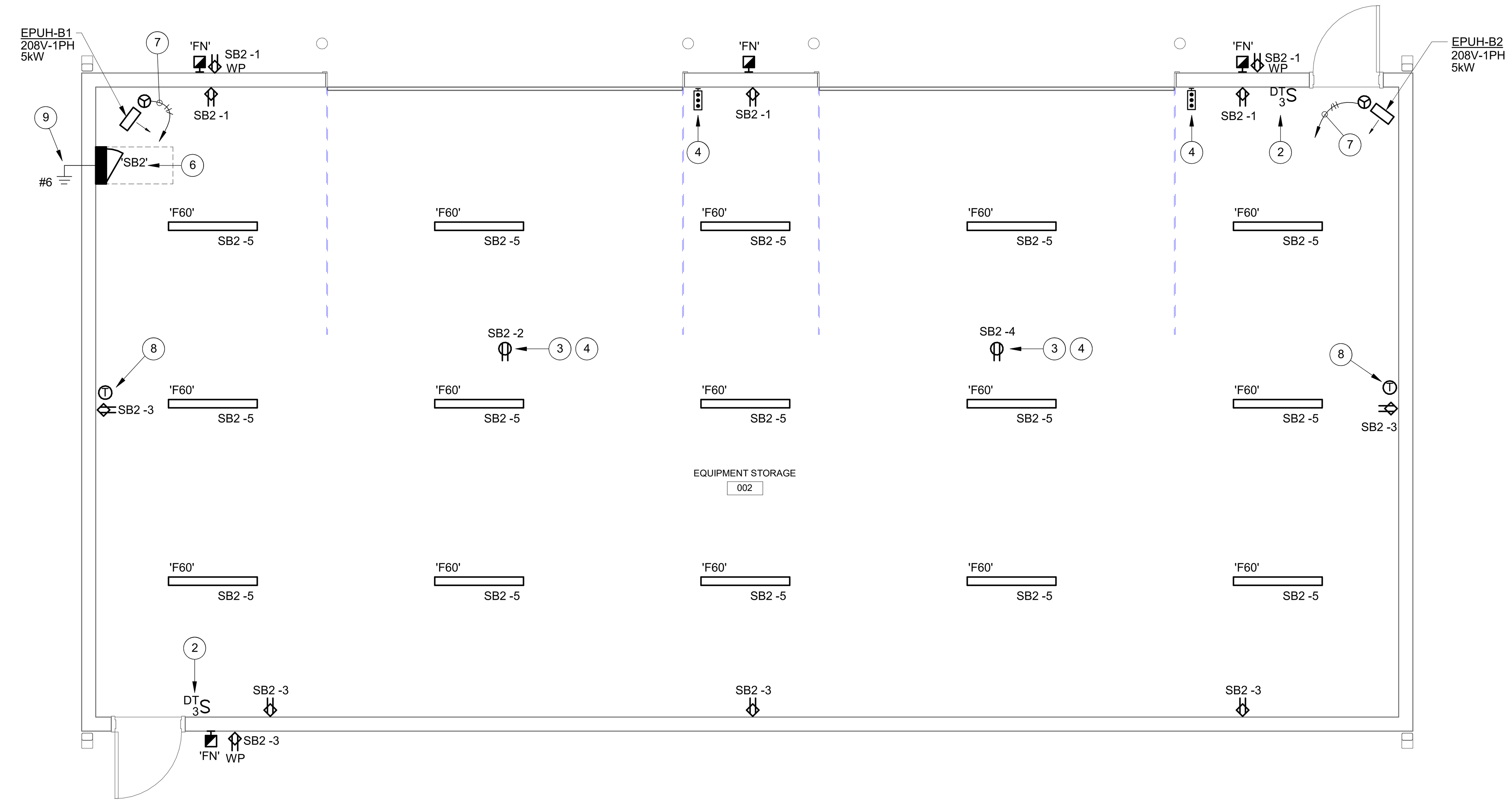
1. PROVIDE 120/240VAC, 1PH, 16-CKT, NEMA 1 LOAD CENTER WITH 60A MAIN BREAKER.
2. PROVIDE LEVITON #DT202 5-BUTTON DIGITAL COUNTDOWN TIMER FOR LIGHTS. BUTTONS TO BE SET AT 15/30/60/120 MINUTE INTERVALS. WHEN TIMERS ARE CONNECTED IN A 3-WAY CONTROL, EITHER TIMER CAN TURN ON OR OFF THE LOAD WITH BOTH TIMERS SHOWING THE SAME COUNTDOWN LED SEQUENCE. COLOR: IVORY.
3. MOUNT RECEPTACLE ON CEILING FOR GARAGE DOOR OPERATOR. RECEPTACLE TO BE FED FROM GFCI BREAKER. COORDINATE EXACT LOCATION WITH OVERHEAD DOOR PROVIDER.
4. OVERHEAD DOOR OPERATOR AND 3-BUTTON CONTROL TO BE PROVIDED AND INSTALLED BY OVERHEAD DOOR PROVIDER.
5. 2#8, 1#10G - 3/4"C
6. PROVIDE 120/240VAC, 1PH, 16-CKT, NEMA 1 POAD CENTER WITH 100A MAIN BREAKER.
7. 2#10, 1#10G - 3/4"C
8. PROVIDE RACEWAY AND BOX TO UNIT HEATER THERMOSTAT. MOUNT AT 48"AFF.
9. PROVIDE 10' COPPER-CLAD GROUND ROD,



NORTH

1 GROUND FLOOR - BRENTWOOD - ELECTRICAL

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



NORTH

2 GROUND FLOOR - CLARKS CREEK - ELECTRICAL

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

0 1 2 3 4 8 12 16

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PROJECT:

PLAINFIELD COMMUNITY SCHOOL CORPORATION
PLAINFIELD OUTBUILDINGS
PLAINFIELD, IN

SCOPE DRAWINGS:

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DRAWING TITLE:

OUTBUILDING PLANS - ELECTRICAL

CERTIFIED BY:

TIMOTHY E. HILL
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No. PE19800083
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PROFESSIONAL ENGINEER

5-8-2025

DRAWING NUMBER
E201

PROJECT NUMBER
2025016

SB1	PANELBOARD SCHEDULE		
LOCATION: EQUIPMENT STORAGE 001	SCCR (AMPS RMS... 10,000	SERVICE : 120/208V 1Φ 3-Wire+Ground	MAIN: MCB
MOUNTIN... SURFACE		NEMA: 1	AMP: 60 A

CKT	DESCRIPTION	NOTE	AMP	POLE	A	B	POLE	AMP	NOTE	DESCRIPTION	CKT
1	LIGHTING		20 A	1	328 / 3750		2	40 A		ELECTRIC UNIT HEATER	2
3	RECEPTACLES		20 A	1		900 / 3750					4
5	GARAGE DOOR OPERATOR	1	20 A	1	1920 / 0		1	--		SPACE	6
7	SPACE		--	1		0 / 0	1	--		SPACE	8
9	SPACE		--	1	0 / 0		1	--		SPACE	10
11	SPARE		20 A	1		0 / 0	1	20 A		SPARE	12
13	SPARE		20 A	1	0 / 0		1	20 A		SPARE	14
15	SPARE		20 A	1		0 / 0	1	20 A		SPARE	16
				TOTALS :	5998 VA	4650 VA					

TOTAL CONNECTED LOAD (VA) : 10648 VA

TOTAL CONNECTED LOAD (AMPS) : 51 A

REMARKS:

NOTES:
1. GFCI BREAKER

SB2	PANELBOARD SCHEDULE		
LOCATION: EQUIPMENT STORAGE 002	SCCR (AMPS RMS... 10,000	SERVICE : 120/208V 1Φ 3-Wire+Ground	MAIN: MCB
MOUNTIN... SURFACE		NEMA: 1	AMP: 100 A

CKT	DESCRIPTION	NOTE	AMP	POLE	A	B	POLE	AMP	NOTE	DESCRIPTION	CKT
1	RECEPTACLES - NORTH		20 A	1	900 / 1920		1	20 A	1	GARAGE DOOR OPERATOR - WEST	2
3	RECEPTS - EAST/WEST/SOUTH		20 A	1		1080 / 1920	1	20 A	1	GARAGE DOOR OPERATOR - EAST	4
5	LIGHTING		20 A	1	720 / 0		1	--		SPACE	6
7	ELECTRIC UNIT HEATER - WEST		30 A	2		2500 / 2500	2	30 A		ELECTRIC UNIT HEATER - EAST	8
9					2500 / 2500						10
11	SPARE		20 A	1		0 / 0	1	20 A		SPARE	12
13	SPARE		20 A	1	0 / 0		1	20 A		SPARE	14
15	SPARE		20 A	1		0 / 0	1	20 A		SPARE	16
				TOTALS :	8540 VA	8000 VA					

TOTAL CONNECTED LOAD (VA) : 16540 VA

TOTAL CONNECTED LOAD (AMPS) : 80 A

REMARKS:

NOTES:
GFCI BREAKER

LIGHT FIXTURE SCHEDULE

MARK	DESCRIPTION	MOUNTING	WATTS	CRI	COLOR	LUMENS	VOLTS	MANUFACTURER(S)	MARK
F60	4-FOOT LENSED INDUSTRIAL, FORMED STEEL HOUSING, WHITE FINISH, SEMI-FROST ACRYLIC DIFFUSER.	SURFACE/ CHAIN HUNG	48 W	80	4000K	5129	120-277V	COLUMBIA MPS SERIES CREE LS4 SERIES LITHONIA ZL1D SERIES METALUX SNLED SERIES	F60
FN	ARCHITECTURAL WALL PACK, WET LOCATION LISTED, FINISH: MATTE DARK BRONZE, INTEGRAL PHOTOCELL.	SURFACE WALL	40 W	70	4000K	4000	120-277V	HUBBELL SG SERIES LITHONIA WPX SERIES LUMARK XTOR SERIES	FN

ELECTRIC UNIT HEATER SCHEDULE

MARK NO	DRAWING NAME &/OR PURPOSE	SPECIFICATION			MANUFACTERER & MODEL NO	ELECTRIC DATA			LENGTH	WIDTH	HEIGHT	INSTALLED HEIGHT	STYLE	WEIGHT (LBS)	REMARKS
		SECTION	NAME	EQUIPMENT TYPE		WATTS	VOLTS	PHASE							
EPUH-A		23 82 39	UNIT HEATERS - ELECTRIC	PROPELLER UNIT HEATERS	TPI F1FUH07CA1 OR EQUAL	7.5	208	1	20	11	13	9		40	FAN GUARD, HORIZONTAL AND VERTICAL ADJUSTABLE LOUVERS. PROVIDE LINE VOLTAGE THERMOSTAT
EPUH-B		23 82 39	UNIT HEATERS - ELECTRIC	PROPELLER UNIT HEATERS	TPI F1FUH05003 OR EQUAL	5	208	1	20	11	13	9		36	FAN GUARD, HORIZONTAL AND VERTICAL ADJUSTABLE LOUVERS. PROVIDE LINE VOLTAGE THERMOSTAT

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REVISIONS:

ISSUE DATE	DRAWN BY	CHECKED BY
05/08/2025	DMH	TEH

DRAWING TITLE:

SCHEDULES - ELECTRICAL

CERTIFIED BY:

TIMOTHY E. HILL
REGISTERED
No. PE19800083
STATE OF INDIANA
PROFESSIONAL ENGINEER

5-8-2025

DRAWING NUMBER
E-601

PROJECT NUMBER
2025016