



CITY OF OWOSSO PLANNING COMMISSION
Regular Meeting
Monday, July 25, 2022 at 6:30 p.m.
AGENDA

- A. CALL TO ORDER**
- B. PLEDGE OF ALLEGIANCE**
- C. ROLL CALL**
- D. APPROVAL OF AGENDA – July 25, 2022**
- E. APPROVAL OF MINUTES – May 23, 2022**
- F. ELECTION OF OFFICERS**
- G. PUBLIC HEARINGS: NONE**
- H. SITE PLAN REVIEWS:**
 - 1. 702 W Main St
- I. ITEMS OF BUSINESS:**
- J. COMMISSIONER/CITIZEN COMMENTS:**
- K. ADJOURNMENT**

Next regular meeting will be on Monday, August 22, 2022 at 6:30 p.m.

The City of Owosso will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and recordings of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon seventy-two (72) hours' notice to the City of Owosso. Individuals with disabilities requiring auxiliary aids or services should contact the City of Owosso by writing or calling the following: Amy Kirkland, City Clerk, 301 W. Main St, Owosso, MI 48867 (989) 725-0500. The City of Owosso website is: www.ci.owosso.mi.us

MINUTES
REGULAR MEETING OF THE OWOSSO PLANNING COMMISSION
Monday, May 23, 2022 – 6:30 P.M.

CALL TO ORDER: Chairman Wascher called the meeting to order at 6:30 p.m.

PLEDGE OF ALLEGIANCE: Recited

ROLL CALL: Recording Secretary Molly Hier

MEMBERS PRESENT: Secretary Fear, Vice-Chair Livingston, Commissioners Taylor, Law and Chairman Wascher

MEMBERS ABSENT: Commissioners Jenkins, Morris, Robertson, Schlaack

OTHERS PRESENT: Tanya Buckelew, Planning & Building Director & Justin Sprague, CIB Planning

APPROVAL OF AGENDA:
MOTION BY VICE-CHAIR LIVINGSTON, SUPPORTED BY SECRETARY FEAR TO APPROVE THE AGENDA FOR May 23, 2022.

YEAS ALL. MOTION CARRIED.

APPROVAL OF MINUTES:
MOTION BY VICE-CHAIR LIVINGSTON SUPPORTED BY COMMISSIONER LAW TO APPROVE THE MINUTES FOR THE March 28, 2022 MEETING.

YEAS ALL. MOTION CARRIED.

ELECTION OF OFFICERS: (DUE JULY 2022)

SITE PLAN REVIEWS:

1. 701 S CHESTNUT ST

Develop 16, 1,250-square feet storage spaces in 4 buildings on the property. The site development will include the updating to an existing building, will utilize 9 existing parking spaces and add the proposed new buildings. The property is currently zoned I-1, Light Industrial, where this use is a permitted land use.

JUSTIN SPRAGUE, CIB PLANNING, OFFERED THE FOLLOWING REVIEW:

- 1. Information items.** The site plan meets the informational requirements of the ordinance.
- 2. Area and Bulk.** The proposed site was reviewed in accordance with *Article 16, Schedule of Regulations*, as described in the following table.

701 S Chestnut State Street (I-1 Zoning)	Required	Provided	Comments
Front Yard Building Setback	40 ft.	95 ft.	In compliance
Side Yard Building Setback	20 ft.	20' & 20'	In compliance
Rear Yard Building Setback	50 ft.	100 ft.	In compliance
Maximum Building Height	40 ft.	16 ft.	In compliance

3. **Building Design & Materials.** The ordinance states that durable building materials which provide an attractive, quality appearance must be utilized. **The proposed building materials are acceptable for the I-1 District**
4. **Building Height.** The proposed building complies with the maximum building height.
5. **Mechanical Units.** No new mechanical units are proposed on the plan.
6. **Dumpster.** The proposed dumpster meets ordinance requirements.
7. **Parking Lot Requirements.** This requirement has been met.
8. **Landscaping.** **It does not appear that any new landscaping is proposed.**
9. **Buffering.** Per Section 38.389, a buffering wall of durable and high-quality materials is required along the property line separating the industrial district from the residential district. **The site plan does not show any type of buffering wall or fence or a landscaped alternate screening type which is required along the eastern property line where the property is abutting residential.**
10. **Lighting.** Site lighting appears to meet the ordinance standards. **It is noted that all new lighting should be shielded and fixed at 90-degree angles toward the ground, not at a 45 degree or other degree angle from the pole or building.**
11. **Other Approvals.** The proposed site plan must be reviewed and approved by the appropriate city departments, consultants, and agencies.

RECOMMENDATION

Based upon the above comments, **we recommend approval of the 701 S Chestnut Site Plan, conditioned upon the following:**

1. Addition of a screening wall, fence or Planning Commission approved landscaping materials to satisfy buffering requirements of the Zoning Ordinance;
2. Clarification if any new landscaping is proposed;
3. That all light fixtures are fixed in a 90 degree to the ground, downward facing position; and
4. Review and approval by the appropriate city departments, consultants, and agencies

ADDITIONAL COMMENTS:

Justin Sprague stated the updated plan incorporate the proposed landscaping and posed the question to the Planning Commission if the suggested screening of staggered evergreen trees is enough buffering in their opinion.

Secretary Fear and Commissioner Taylor inquired as to what kind of evergreen would be used; exact species is unknown currently. Justin will send a list of acceptable species to the property owner, the review of trees can be done administratively.

Commissioner Law asked if outdoor storage is planned and if so trees would not be enough of a buffer. Mr. Gregorika stated that outdoor storage is not planned at this time.

Chairman Wascher confirmed there is not to be any additional water at the property other than in the existing building that will be used as an office.

Mr. Gregorika confirmed he has spoken with nearby property owners and the Drain Commissioner who have no issues with the development.

MOTION BY COMMISSIONER TAYLOR SUPPORTED BY COMMISSIONER LAW TO APPROVE THE SITE PLAN REVIEW FOR 701 S CHESTNUT STREET FOR THE ADDITION OF 16 INDOOR STORAGE UNITS (1,250 SQUARE FEET STORAGE SPACES IN FOUR (4) BUILDINGS) WITH FURTHER APPROVAL REQUIRED BY THE SHIAWASSEE COUNTY DRAIN COMMISSION FOR

ANY WATER RUNOFF FROM THE PROPERTY BE TIED IN UNDERGROUND TO THE DRAIN AND TREE SPECIES USED AS BUFFERING WILL BE REVIEWED ADMINISTRATIVELY.

YEAS: SECRETARY FEAR, COMMISSIONER LAW, VICE-CHAIR LIVINGSTON,
COMMISSIONER TAYLOR AND CHAIRMAN WASCHER
NAYS: NONE
RCV: 5-0 MOTION CARRIED

2. 1015 S WASHINGTON ST

Add a 2,520 square foot warehouse to an existing building used for commercial purposes. The site development will include the warehouse addition, add new parking spaces and paving a new driveway. The property is currently zoned B-4, General Business, where this use is a permitted land use.

JUSTIN SPRAGUE, CIB PLANNING OFFERED THE FOLLOWING:

1. **Information items.** The site plan meets the informational requirements of the ordinance.
2. **Area and Bulk.** The proposed site was reviewed in accordance with *Article 16, Schedule of Regulations*, as described in the following table.

1015 S. Washington Street (B4 Zoning)	Required	Provided	Comments
Front Yard Building Setback	15 ft.	- ft.	In compliance, but not provided on plan
Side Yard Building Setback	-	10 ft.	In compliance
Rear Yard Building Setback	10 ft.	10+ ft.	In compliance, but not shown on plan
Maximum Building Height	35 ft.	- ft.	Appears in compliance, but not shown on plan

3. **Building Design & Materials.** The ordinance states that durable building materials which provide an attractive, quality appearance must be utilized. **The proposed building materials are acceptable for the B-4 District**
4. **Building Height.** **The proposed building plan does not show the maximum building height and must be shown on the plan to demonstrate compliance.**
5. **Mechanical Units.** No new mechanical units are proposed on the plan.
6. **Dumpster.** **The site plan does not identify a dumpster location or any required screening. If a dumpster is proposed, the location and screening and truck circulation routes must be shown on the plan.**
7. **Parking Lot Requirements.** **The proposed expansion will require a total of 5 spaces and 6 have been provided, however none of the proposed spaces are shown as barrier free. At least one space should be dedicated to barrier free access.**
8. **Landscaping.** **It does not appear that any new landscaping is proposed.**
9. **Buffering.** Per Section 38.389, a buffering wall of durable and high-quality materials is required along the property line separating the industrial district from the residential district. **The site plan does not show any type of buffering wall or fence or a landscaped alternate screening type which is required along the eastern property line where the property is abutting residential**

10. **Lighting.** The site plan does not indicate any proposed lighting. **It is noted that all new lighting should be shielded and fixed at 90-degree angles toward the ground, not at a 45 degree or other degree angle from the pole or building.**
11. **Other Approvals.** The proposed site plan must be reviewed and approved by the appropriate city departments, consultants, and agencies.

RECOMMENDATION

Based upon the above comments, **we recommend approval of the 1015 S Washington Street Site Plan, conditioned upon the following:**

1. An updated site plan with all dimensions shown on the plan including exact setback distances and building height;
2. Identification of proposed dumpster location, screening and truck routes for unloading the dumpster if one is proposed;
3. Dedication of one parking space for barrier free use;
4. Addition of a screening wall, fence or Planning Commission approved landscaping materials to satisfy buffering requirements of the Zoning Ordinance;
5. Clarification if any new landscaping is proposed;
6. That all light fixtures are fixed in a 90 degree to the ground, downward facing position; and
7. Final administrative review and approval of the updated site plan by the appropriate city departments, consultants, and agencies.

ADDITIONAL COMMENTS:

Chairman Wascher asked about the amount of traffic at the business due to the small size of the parking lot and the proposal of 6 parking spaces making the area tighter.

Business owner Travis Yaklin stated there would be almost no traffic other than the three delivery vehicles that will be pulling through the lift door in the loading/unloading zone.

Additionally, Mr. Yaklin made note that the existing shed will be removed from the property.

Justin Sprague clarified the number of parking spaces proposed (6) is required by the current ordinance.

Secretary Fear confirmed with Justin that the required parking spaces of a business would be addressed in the new Zoning Ordinance and will be reduced.

Additionally, Secretary Fear asked about the height of the new building; 18ft, existing building is 14ft.

Chairman Wascher confirmed the following: no boundary survey is required, exact setbacks to be provided in revised plans and there will not be any lighting in the newly proposed parking lot, only those attached to the building.

MOTION BY VICE-CHAIR LIVINGSTON SUPPORTED BY COMMISSIONER LAW TO APPROVE THE SITE PLAN REVIEW FOR 1015 S. WASHINGTON STREET FOR THE ADDITION OF A 2,520 SQUARE FOOT WAREHOUSE PROVIDED THE CONDITIONS/REQUIREMENTS FROM THE CITY PLANNER AND CITY ENGINEER ARE MET UNDER FURTHER ADMINISTRATIVE REVIEW.

YEAS:	COMMISSIONER LAW, VICE-CHAIR LIVINGSTON, COMMISSIONER TAYLOR, SECRETARY FEAR AND CHAIRMAN WASCHER
NAYS:	NONE
RCV:	5-0 MOTION CARRIED

ITEMS OF BUSINESS: NONE

COMMISSIONER/CITIZEN COMMENTS:

Secretary Fear asked for a status on the Matthews Building demolition.

Tanya Buckelew explained the remaining brick wall is load bearing and was an unexpected find by the demo crew; a temporary plan is being put in place to stabilize the wall until the property owners of the Matthews Building and their Architect can figure out how the wall can be safely removed without threatening the integrity of the remaining riverside building.

ADJOURNMENT:

**MOTION BY COMMISSIONER TAYLOR SUPPORTED BY VICE-CHAIR LIVINGSTON TO
ADJOURN AT 7:25 PM UNTIL THE NEXT MEETING ON JUNE 27, 2022.**

YEAS ALL, MOTION CARRIED



Janae Fear, Secretary

SITE PLAN REVIEW APPLICATION AND CHECKLIST

CITY OF OWOSSO
301 W MAIN STREET OWOSSO, MI 48867
989-725-0535
building@ci.owosso.mi.us

- Site plan required for all commercial, industrial and multi-family residential
- Application must be filed at least 25 days prior to a scheduled Planning Commission meeting for staff review and proper notices (see page 3 for submittal deadlines).
- This application is submitted with one (1) copy of the complete site plan and appropriate fees.
- Applicant shall also submit a digital version of the site plan.

Approval of the site plan is hereby requested for the following parcel of land in the City of Owosso.		
Property Details:		
Name of Proposed Development: St Paul's Church Parking Lot		
Property Street Address: 111 N. Howell St.		
Legal Description of Property: BLK 13 A L & B O Williams Add		
Site Area (in acres): 2.89	Parcel ID #: 050-660-013-001-00	Zoning: B-4
Ownership:		
Name: St Paul's Catholic Church contact: Terry Dumond		
Address: 111 N. Howell St., Owosso, MI 48867		
Telephone No: 989-277-2687	Email: tdumond64@gmail.com	
Applicant:		
Applicant (If different from owner above): as above		
Address:		
Telephone No:	Email address:	
Interest in Property (potential buyer/lease holder/potential lessee/other):		
Architect/Surveyor/Engineer preparing site plan:		
Name: PEA Group, contact: Thom Dumond		
Address: 7927 Nemco Way, Brighton, MI 48116		
Telephone No: 844-813-2949	Email: tdumond@peagroup.com	
Construction Proposed:		
<input type="checkbox"/> Residential	<input type="checkbox"/> Multi-family	<input type="checkbox"/> Number of units
<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	
Current use church	Proposed use church (with add'l parking)	
Existing building(s) square footage approx 18,800 sf	Proposed building(s) square footage none	

APPLICATION FEES:	
• Apartment/townhouse	• \$550.00 + \$4.50/unit
• Commercial/Industrial	• \$500.00 + \$50.00/acre
• Institutional (Schools, Public Services, Hospitals)	• \$475.00 + \$40.00/acre
• Mobile home park	• \$575.00 + \$5.00/unit
• Planned Unit Development/Mixed use development	• \$550.00 + \$50.00/acre
• Preliminary site plan review	• 75% of site plan review fee
• Single family site condo (prelim or final)	• \$700.00 + \$5.00/lot
• Site plan revision/review	• 75% of site plan review fee + any needed consulting fees determined by administration
• Site plan requiring review by city engineer	• all costs by owner/applicant via escrow
• Special meetings with planner/engineer	• all costs by owner/applicant via escrow
• Escrow Fee (Consultant fees for planning, zoning)	• \$1,500
❖ A cash deposit of \$1,500 shall be placed with the City of Owosso	
❖ The City will let the applicants know when additional funds are needed (typically when about 25% is remaining)	
❖ Should there be funds remaining in the account after completion of the project, the balance will be returned	
1. The attached checklist has been completed to certify the data contained on the site plan. If the required data has not been provided, the appropriate box has been checked with a statement of explanation on why the data has not been provided.	
2. I understand that if my site plan is deemed incomplete, it may be returned by the City for revisions without being forwarded to the Planning Commission for consideration, until the requirements have been adequately met.	
3. By signing this application, the applicant hereby grants full authority to the City of Owosso, its agents, employees, representatives, and/or appointees to enter upon the undersigned lands/parcels for the purposes of inspection and examination.	
	6-23-22
Signature of Applicant	Date
	6-23-22
Signature of Deed/Title Holder	Date

SITE PLAN REVIEW CHECKLIST:

Check the appropriate box. If item is marked as 'not provided', attach detailed explanation.		
	Provided	Not Provided
1. Site location Map	✓	
2. North arrow, scale – 1" equals 50' if the subject property is less than 3 acres and 1" equals 100' if 3 acres or more	✓	
3. Revision dates	✓	
4. Signature and Seal of Architect/Surveyor/Engineer	✓	
5. Area of site (in acres and square feet)	✓	
6. Boundary of the property outlined in solid line	✓	
7. Names, centerline and right-of-way widths of adjacent streets	✓	
8. Zoning designation of property	✓	
9. Zoning designation and use of adjacent properties	✓	
10. Existing and proposed elevations for building(s), parking lot areas and drives	✓	
11. Direction of surface water drainage and grading plan and any plans for storm water retention/detention on site	✓	
12. Required setbacks from property lines and adjacent parcels	✓	
13. Location and height of existing structures on site and within 100' of the property	✓	
14. Location and width of existing easements, alleys and drives	✓	
15. Location and width of all public sidewalks along the fronting street right-of-way and on the site, with details	✓	
16. Layout of existing/proposed parking lot, with space and aisle dimensions	✓	
17. Parking calculations per ordinance	✓	
18. Location of all utilities, including but not limited to gas, water, sanitary sewer, electricity, telephone	✓	
19. Soil erosion and sedimentation control measures during construction	✓	
20. Location and height of all exiting/proposed fences, screens, walls or other barriers	✓	
21. Location and details of dumpster enclosure and trash removal plan	✓	

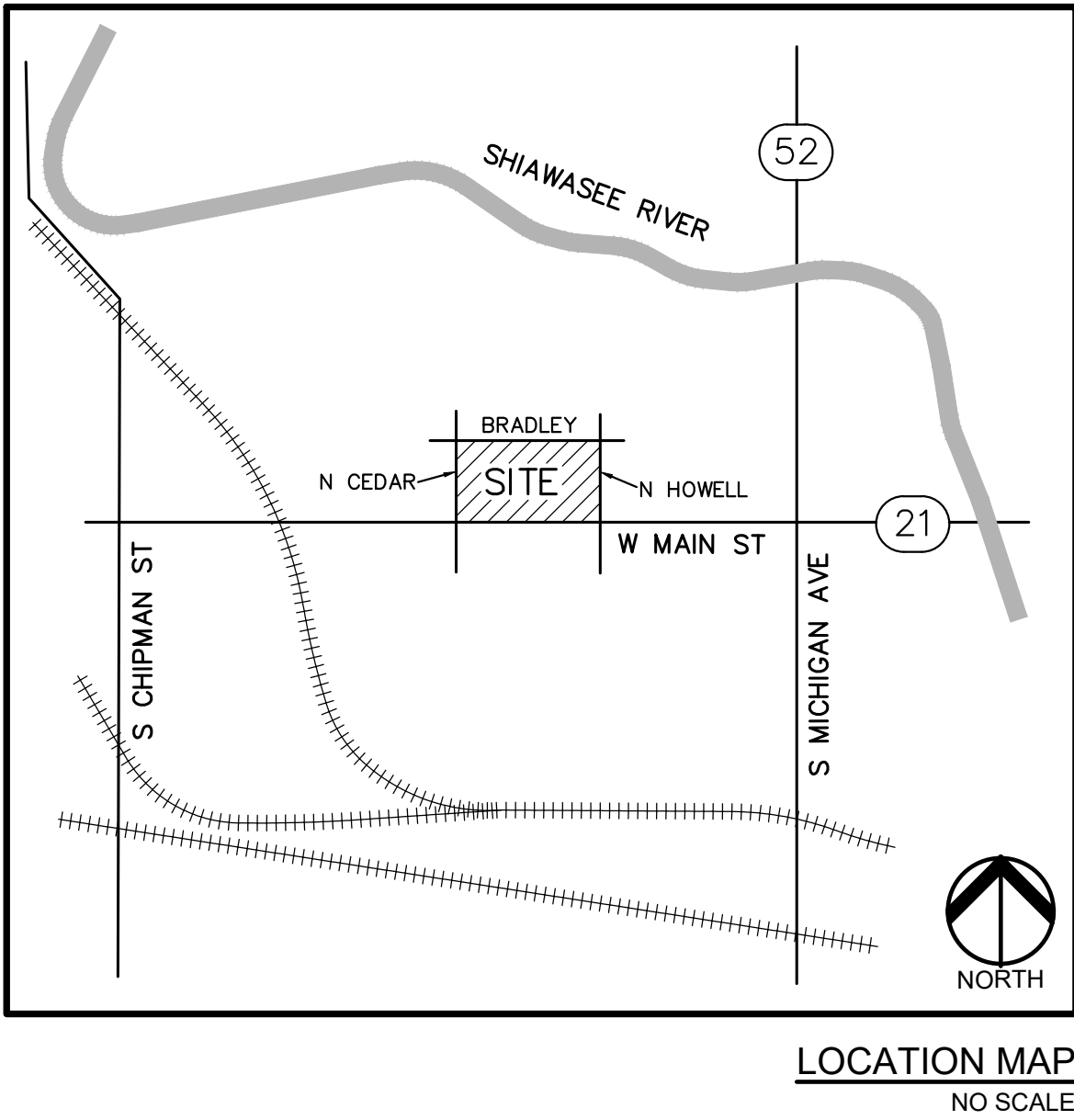
CONSTRUCTION PLANS

ST. PAUL'S CHURCH PARKING LOT

111 N. HOWELL STREET

CITY OF OWOSSO, SHIAWASEE COUNTY, MICHIGAN

PERMIT / APPROVAL SUMMARY		
DATE SUBMITTED	DATE APPROVED	PERMIT / APPROVAL
6/23/2022		CITY OF OWOSSO
		SHIAWASEE COUNTY SESC



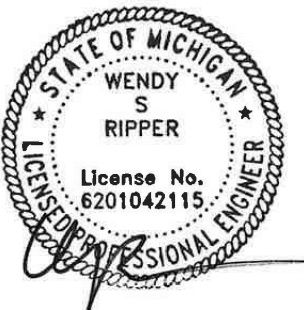
INDEX OF DRAWINGS	
NUMBER	TITLE
C-0.0	COVER SHEET
C-1.0	TOPOGRAPHIC SURVEY & DEMOLITION PLAN
C-2.0	DIMENSION & PAVING PLAN
C-3.0	GRADING & SOIL EROSION CONTROL PLAN
C-4.0	UTILITY PLAN
C-5.0	STORMWATER PLAN
C-6.0	STORM SEWER PROFILES
C-7.0	NOTES & DETAILS
C-7.1	DETAILS
C-7.2	DETAILS
SL-1.0	PHOTOMETRIC PLAN
L-1.0	LANDSCAPE PLAN
L-2.0	LANDSCAPE DETAILS

DESIGN TEAM

OWNER/APPLICANT/DEVELOPER	CIVIL ENGINEER
ST PAUL'S CATHOLIC CHURCH 111 N. HOWELL ST OWOSSO, MI 48867 CONTACT: TERRY DUMOND PHONE: 989.277.2687 EMAIL: TDUMOND64@GMAIL.COM	PEA GROUP 7927 NEMCO WAY, STE. 115 BRIGHTON, MI 48116 CONTACT: THOM DUMOND, PLA, LEED AP PHONE: 844.813.2949 EMAIL: TDUMOND@PEAGROUP.COM
	LANDSCAPE ARCHITECT
	PEA GROUP 7927 NEMCO WAY, STE. 115 BRIGHTON, MI 48116 CONTACT: THOM DUMOND, PLA PHONE: 844.813.2949 EMAIL: TDUMOND@PEAGROUP.COM



REVISIONS	
DESCRIPTION	DATE
ORIGINAL ISSUE DATE	6/21/2022
REV PER CITY	7/12/2022



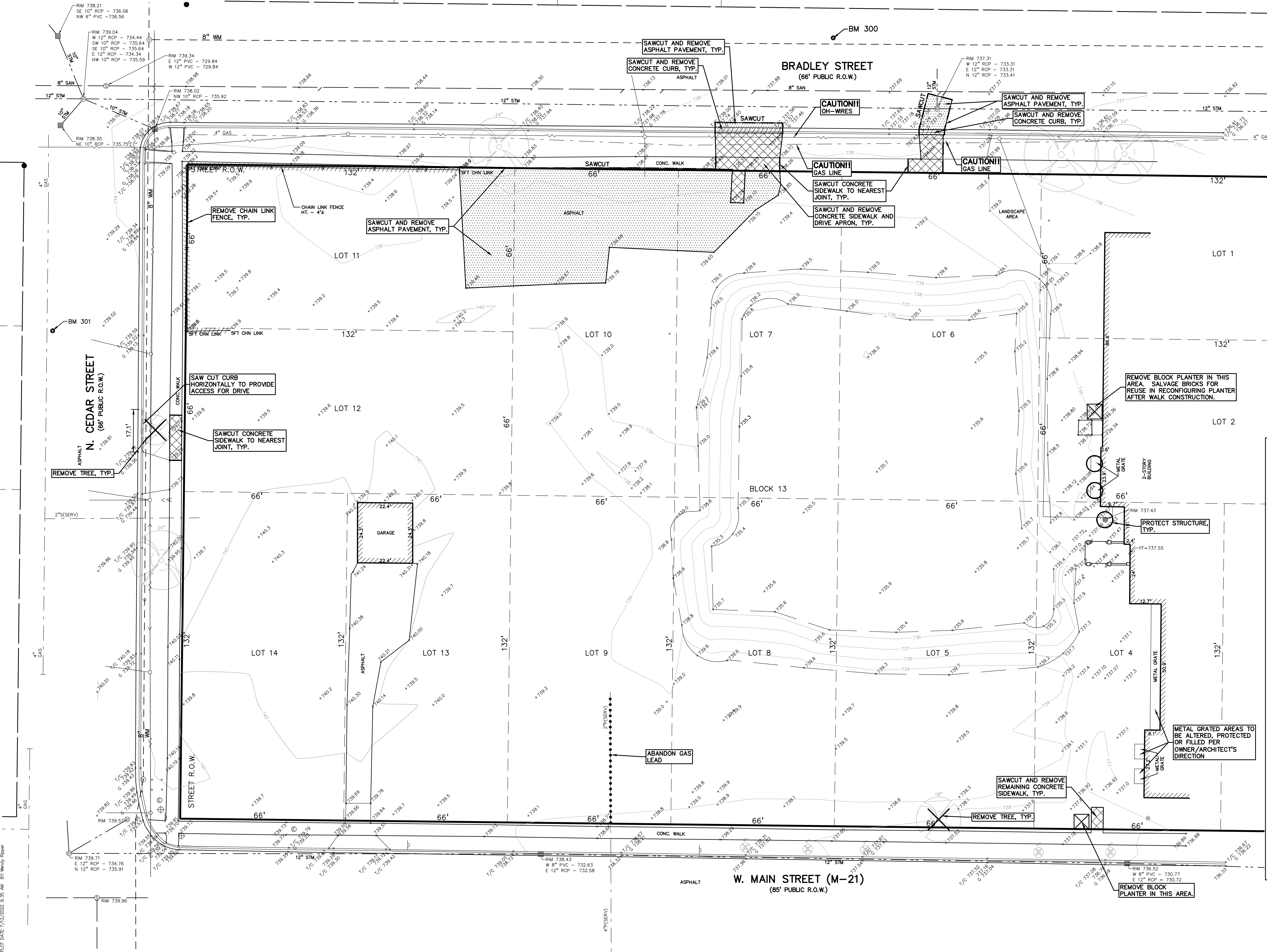
BENCHMARKS:
(GPS DERIVED - NAD 27)

BM #300
BENCH TIE ON THE SOUTH SIDE OF POWER POLE. LOCATED
20'± NORTH OF THE CENTERLINE OF BRADLEY ROAD AND 55'±
EAST OF THE WEST ENTRANCE OF PARKING LOT ON THE
NORTH SIDE OF BRADLEY STREET.
ELEVATION: 739.40

BM #301
BENCH TIE ON THE EAST SIDE OF A POWER POLE. LOCATED
20'± WEST OF THE CENTERLINE OF N CEDAR STREET AND
100'± SOUTH OF THE CENTERLINE OF BRADLEY STREET.
ELEVATION: 741.35

BM #302
GEAR PIN ON THE NORTH SIDE OF POWER POLE. LOCATED
60'± EAST OF OWOSSO DONUTS SIGN AND 25'± SOUTH OF THE
CENTERLINE OF M-21.
ELEVATION: 739.51

FLOODPLAIN NOTE:
BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AREA
DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE
FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER
26155C0231C DATED SEPTEMBER 29, 2011.



LEGEND:

- OH-ELEC- EX. OH. ELEC. POLE & GUY WIRE
- UG-CATV- EX. U.G. CABLE TV & PEDESTAL
- UG-COMM- EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
- UG-ELEC- EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
- EX. GAS LINE
- EX. GAS VALVE & GAS LINE MARKER
- EX. TRANSFORMER & IRRIGATION VALVE
- EX. WATER MAIN
- EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
- EX. WATER VALVE BOX & SHUTOFF
- EX. SANITARY SEWER
- EX. SANITARY CLEANOUT & MANHOLE
- EX. COMBINED SEWER MANHOLE
- EX. STORM SEWER
- EX. CLEANOUT & MANHOLE
- EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN
- EX. YARD DRAIN & ROOF DRAIN
- EX. UNIDENTIFIED STRUCTURE
- EX. MAILBOX, SIGN & LIGHTPOLE
- EX. FENCE
- EX. GUARD RAIL
- EX. SPOT ELEVATION
- EX. CONTOUR
- EX. WETLAND
- IRON FOUND / SET
- NAIL FOUND / NAIL & CAP SET
- BRASS PLUG SET
- MONUMENT FOUND / SET
- SECTION CORNER FOUND
- RECORDED / MEASURED / CALCULATED

REFERENCE DRAWINGS

WATER MAIN CITY OF OWOSSO - EMAIL DATED 2/22/2022
SANITARY SEWER CITY OF OWOSSO - EMAIL DATED 2/22/2022
STORM SEWER CITY OF OWOSSO - EMAIL DATED 2/22/2022
ELECTRICAL NO BILLS AS OF 5/23/2022
GAS DAY STARR - EMAIL DATED 2/23/2022
CATV CONSUMERS - EMAIL DATED 2/23/2022
C22 SYSTEMS - EMAIL DATED 2/24/2022

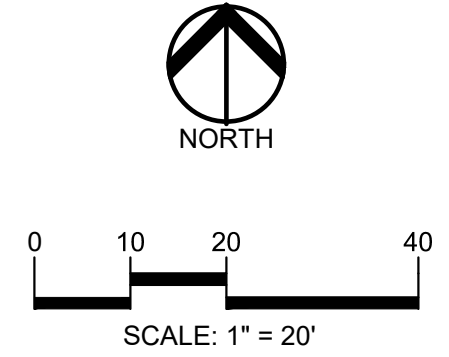
DEMOLITION LEGEND:

- ITEM TO BE PROTECTED
- ITEM TO BE REMOVED
- CURB/FENCE REMOVAL
- CONCRETE PAVEMENT AND SIDEWALK REMOVAL
- ABANDON UTILITY
- ASPHALT REMOVAL
- TREE REMOVAL
- SAWCUT LINE

GENERAL DEMOLITION NOTES:

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT:
- ALL MATERIAL TO BE REMOVED, WHETHER SPECIFICALLY NOTED IN THE PLANS OR NOT, SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. NO ON-SITE BURY OR BURN PITS SHALL BE ALLOWED.
 - ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES.
 - STAGING/PHASING OF DEMOLITION AND CONSTRUCTION IS TO BE COORDINATED WITH THE OWNER AND THE CONTRACTOR PRIOR TO CONSTRUCTION.
 - SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON THE PLANS AS A GUIDE TO THE GENERAL SCOPE OF THE WORK. IT IS THE INTENT THAT THESE ITEMS SHALL BE COMPLETELY REMOVED BY THE CONTRACTOR ABOVE AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OTHERWISE, AND THAT DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY BE LIMITED TO THESE ITEMS. CONTRACTOR SHALL VISIT SITE TO VERIFY EXISTING CONDITIONS AND EXTENTS OF THE DEMOLITION THAT WILL BE REQUIRED PRIOR TO SUBMITTING A BID.
 - REMOVE ALL STRUCTURES DESIGNATED FOR REMOVAL ACCORDING TO THE DEMOLITION PLAN. THIS INCLUDES FOUNDATIONS, FOOTINGS, FOUNDATION WALLS, FLOOR SLABS, UNDERGROUND UTILITIES, CONCRETE, ASPHALT, TREES, ETC.
 - THE CONTRACTOR SHALL, AS A MINIMUM, PROVIDE TREE PROTECTION FENCING AROUND EXISTING TREES TO BE SAVED THAT ARE WITHIN 15 FEET OF CONSTRUCTION ACTIVITIES AND AS INDICATED IN THE PLANS OR PER LOCAL AGENCY REQUIREMENTS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP, NOISE, DUST CONTROL, STREET SWEEPING AND HOURS OF OPERATION IN ACCORDANCE WITH THE LOCAL CODES.
 - THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNAGE, MARKINGS, LIGHTS AND OTHER TRAFFIC CONTROL DEVICES TO PROTECT THE WORK ZONE AND SAFELY MAINTAIN TRAFFIC PER AGENCY REQUIREMENTS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
 - THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES TO CONFIRM THAT UTILITY LEADS HAVE BEEN TAKEN OUT OF SERVICE PRIOR TO DEMOLITION.
 - ALL BUILDING GAS LEADS, METERS AND ASSOCIATED EQUIPMENT SHALL BE REMOVED AS SHOWN ON THE PLANS. COORDINATE ALL ASSOCIATED WORK WITH THE APPROPRIATE UTILITY COMPANY.
 - REMOVE ALL OVERHEAD AND UNDERGROUND ELECTRICAL LINES WITHIN THE AREA OF CONSTRUCTION AS SHOWN ON THE PLANS. COORDINATE SHUTDOWNS AND REMOVALS WITH ELECTRICAL SERVICE PROVIDER OR THE APPROPRIATE UTILITY COMPANY. (NOTE: PHONE AND CABLE T.V. SERVICES MAY ALSO BE LOCATED ON OVERHEAD LINES.)
 - THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF SIGNS AND SUPPORTS WITHIN THE WORK AREA, AS NECESSARY TO FACILITATE CONSTRUCTION. SIGNS SHALL BE PROTECTED OR STOCKPILED FOR REUSE AS SPECIFIED IN THE PLANS OR AS REQUIRED BY THE AGENCY OF JURISDICTION. THE CONTRACTOR SHALL REPLACE ANY DAMAGED SIGNS AND SUPPORTS AT NO ADDITIONAL COST TO THE OWNER.
 - THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ONE CALL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

PEA GROUP
t: 844.813.2949
www.peagroup.com



CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE OR OTHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT
ST PAUL CATHOLIC CHURCH
111 N. HOWELL ST.
OWOSSO, MI 48867

PROJECT TITLE
ST PAUL'S CHURCH PARKING LOT
111 N. HOWELL ST.
CITY OF OWOSSO, SHAWAEE COUNTY, MICHIGAN

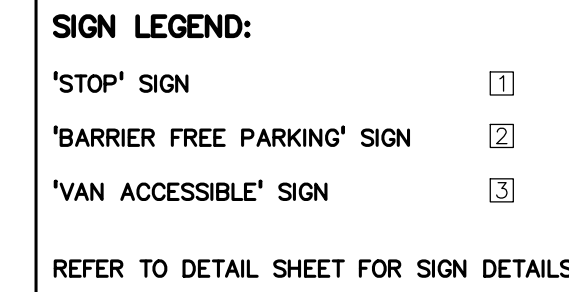
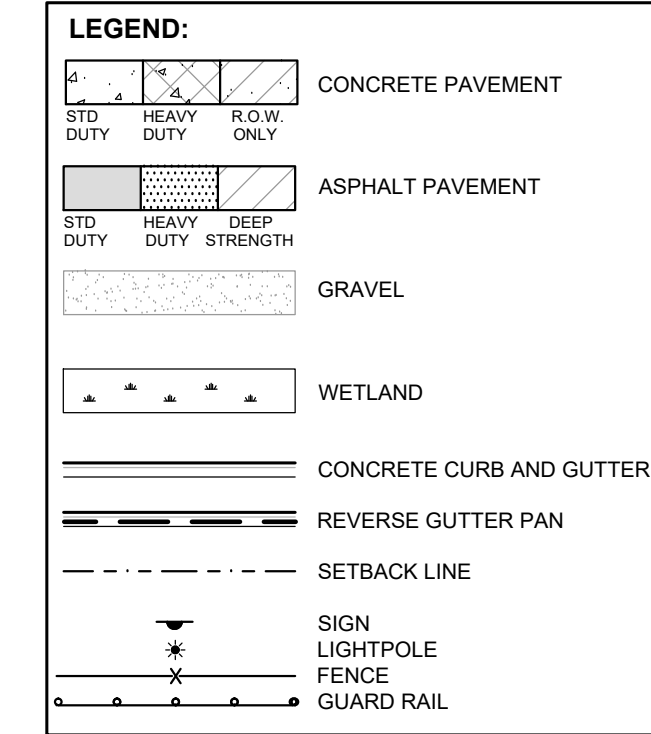
REVISIONS
REV PER CITY 7/12/22

ORIGINAL ISSUE DATE:
JUNE 23, 2022
DRAWING TITLE
TOPOGRAPHIC SURVEY & DEMOLITION PLAN

PEA JOB NO. 2022-0249
P.M. TD
DN. WR
DES. WR
DRAWING NUMBER:

NOT FOR CONSTRUCTION

C-1.0



- GENERAL NOTES:**
- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
 - REFER TO NOTES & DETAILS SHEET FOR ON-SITE PAVING DETAILS.
 - REFER TO NOTES & DETAILS SHEET FOR ON-SITE SIDEWALK RAMP DETAILS

SITE DATA TABLE:

SITE AREA:	2.89 ACRES (125,796 SQ.FT.) NET AND GROSS
ZONING:	B-4 GENERAL BUSINESS
PROPOSED USE:	EXISTING CHURCH
PARKING CALCULATIONS:	
CHURCH = 1 SPACE PER 7.5' OF PEW	
TOTAL RETAIL PARKING REQUIRED = 1008/7.5 = 134 SPACES	
TOTAL PROPOSED PARKING SPACES = 129 SPACES INCL. 9 H/C SPACES	

CAUTION!!
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CLIENT
ST PAUL CATHOLIC CHURCH
111 N. HOWELL ST.
OWOSSO, MI 48867

PROJECT TITLE
ST PAUL'S CHURCH PARKING LOT
111 N. HOWELL ST.
CITY OF OWOSSO, SHAWAEE COUNTY, MICHIGAN

REVISIONS

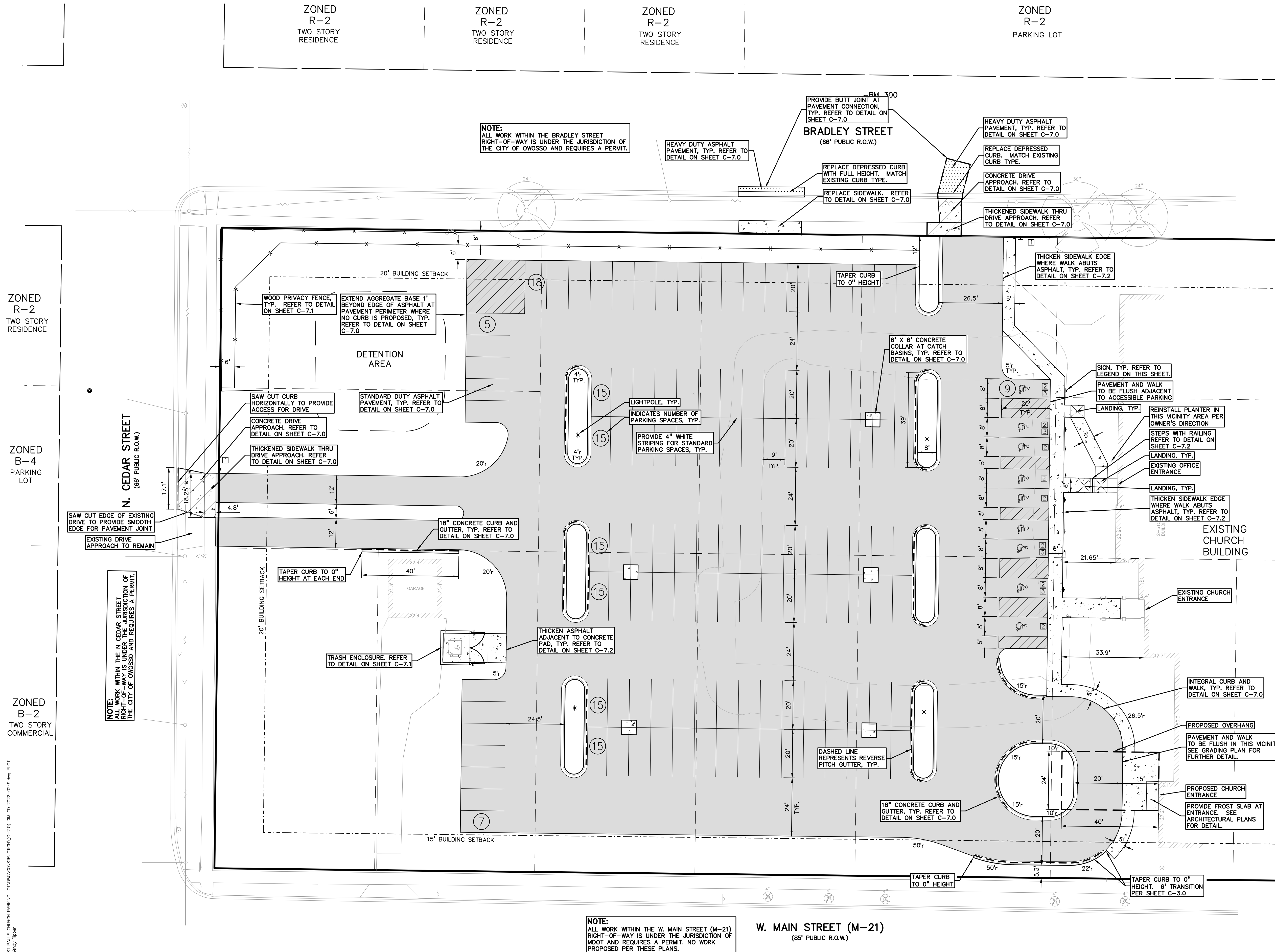
REV PER CITY	7/12/22
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ORIGINAL ISSUE DATE:
JUNE 23, 2022
DRAWING TITLE
DIMENSION & PAVING PLAN

PEA JOB NO.	2022-0249
P.M.	TD
DN.	WR
DES.	WR
DRAWING NUMBER:	

NOT FOR CONSTRUCTION

C-2.0



NOTE:
ALL WORK WITHIN THE BRADLEY STREET RIGHT-OF-WAY IS UNDER THE JURISDICTION OF THE CITY OF OWOSSO AND REQUIRES A PERMIT.

HEAVY DUTY ASPHALT PAVEMENT, TYP. REFER TO DETAIL ON SHEET C-7.0

PROVIDE BUTT JOINT AT PAVEMENT CONNECTION, TYP. REFER TO DETAIL ON SHEET C-7.0
BRADLEY STREET
(66' PUBLIC R.O.W.)

REPLACE DEPRESSED CURB WITH FULL HEIGHT. MATCH EXISTING CURB TYPE.
REPLACE SIDEWALK. REFER TO DETAIL ON SHEET C-7.0

HEAVY DUTY ASPHALT PAVEMENT, TYP. REFER TO DETAIL ON SHEET C-7.0

REPLACE DEPRESSED CURB. MATCH EXISTING CURB TYPE.

CONCRETE DRIVE APPROACH. REFER TO DETAIL ON SHEET C-7.0

THICKENED SIDEWALK THRU DRIVE APPROACH. REFER TO DETAIL ON SHEET C-7.0

THICKEN SIDEWALK EDGE WHERE WALK ABUTS ASPHALT, TYP. REFER TO DETAIL ON SHEET C-7.2

6' X 6' CONCRETE COLLAR AT CATCH BASINS, TYP. REFER TO DETAIL ON SHEET C-7.0

LIGHTPOLE, TYP.
INDICATES NUMBER OF PARKING SPACES, TYP.
PROVIDE 4" WHITE STRIPING FOR STANDARD PARKING SPACES, TYP.

STANDARD DUTY ASPHALT PAVEMENT, TYP. REFER TO DETAIL ON SHEET C-7.0

CONCRETE DRIVE APPROACH. REFER TO DETAIL ON SHEET C-7.0

THICKENED SIDEWALK THRU DRIVE APPROACH. REFER TO DETAIL ON SHEET C-7.0

SAW CUT CURB HORIZONTALLY TO PROVIDE ACCESS FOR DRIVE

WOOD PRIVACY FENCE, TYP. REFER TO DETAIL ON SHEET C-7.1

EXTEND AGGREGATE BASE 1' BEYOND EDGE OF ASPHALT AT PAVEMENT PERIMETER WHERE NO CURB IS PROPOSED, TYP. REFER TO DETAIL ON SHEET C-7.0

18" CONCRETE CURB AND GUTTER, TYP. REFER TO DETAIL ON SHEET C-7.0

TRASH ENCLOSURE. REFER TO DETAIL ON SHEET C-7.1

THICKEN ASPHALT ADJACENT TO CONCRETE PAD, TYP. REFER TO DETAIL ON SHEET C-7.2

18" CONCRETE CURB AND GUTTER, TYP. REFER TO DETAIL ON SHEET C-7.0

DASHED LINE REPRESENTS REVERSE PITCH GUTTER, TYP.

INTEGRAL CURB AND WALK, TYP. REFER TO DETAIL ON SHEET C-7.0

PROPOSED OVERHANG
PAVEMENT AND WALK TO BE FLUSH IN THIS VICINITY. SEE GRADING PLAN FOR FURTHER DETAIL.

PROPOSED CHURCH ENTRANCE

PROVIDE FROST SLAB AT ENTRANCE. SEE ARCHITECTURAL PLANS FOR DETAIL.

TAPER CURB TO 0" HEIGHT, 6' TRANSITION PER SHEET C-3.0

TAPER CURB TO 0" HEIGHT

NOTE:
ALL WORK WITHIN THE W. MAIN STREET (M-21) RIGHT-OF-WAY IS UNDER THE JURISDICTION OF MDOT AND REQUIRES A PERMIT. NO WORK PROPOSED PER THESE PLANS.

W. MAIN STREET (M-21)
(85' PUBLIC R.O.W.)

ZONED R-2
TWO STORY RESIDENCE

ZONED B-4
PARKING LOT

ZONED B-2
TWO STORY COMMERCIAL

S:\PROJECTS\2022-0249 ST PAUL'S CHURCH PARKING LOT\DWG\CONSTRUCTION\C-2.0.DWG
DATE: 7/12/22
BY: [Signature]
DWG ID: 2022-0249.dwg
PLT

GRADING LEGEND:

EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION:
TYPICALLY TOP OF PAVEMENT
IN PAVED AREAS, GUTTER GRADE
IN CURB LINES.

EXISTING CONTOUR
PROPOSED CONTOUR
PROPOSED REVERSE GUTTER PAN
PROPOSED RIDGE LINE
PROPOSED SWALE/DITCH

ABBREVIATIONS

T/C = TOP OF CURB
T/P = TOP OF PAVEMENT
T/S = TOP OF SIDEWALK
T/W = TOP OF WALL
G = GUTTER GRADE
F.G. = FINISH GRADE
RIM = RIM ELEVATION
B/W = BOTTOM OF WALL

REFER TO GRADING NOTES ON SHEET C-7.0

SYMBOLS: GRADING

PROPOSED SPOT ELEVATION:
TYPICALLY TOP OF PAVEMENT IN PAVED
AREAS, GUTTER GRADE IN CURB LINES.

PROPOSED CONTOUR LINE

ABBREVIATIONS:
T/C = TOP OF CURB
G = GUTTER GRADE
T/P = TOP OF PAVEMENT
T/S = TOP OF SIDEWALK
T/W = TOP OF WALL
B/W = BOTTOM OF WALL
F.G. = FINISH GRADE
RIM = RIM ELEVATION

SYMBOLS: EROSION CONTROL

SILT FENCE
STORM SEWER INLET FILTER
TEMPORARY CONSTRUCTION ACCESS DRIVE
EROSION CONTROL BLANKETS
APPROXIMATE TEMPORARY SEEDING LOCATIONS

REFER TO SHEET C-7.2 FOR SOIL EROSION AND
SEDIMENTATION CONTROL DETAILS



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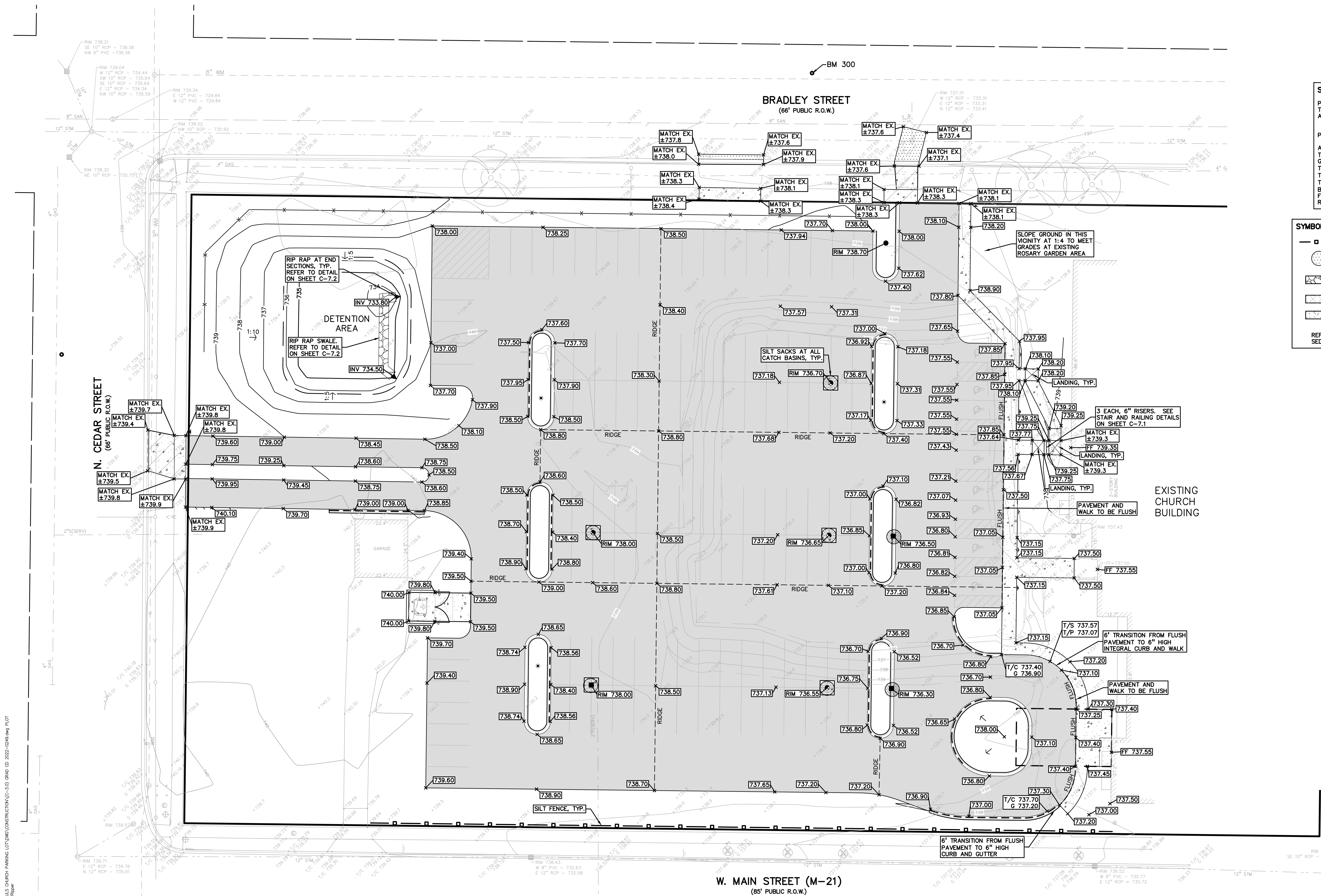
ORIGINAL ISSUE DATE:
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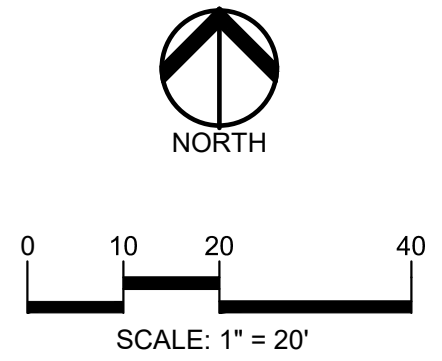
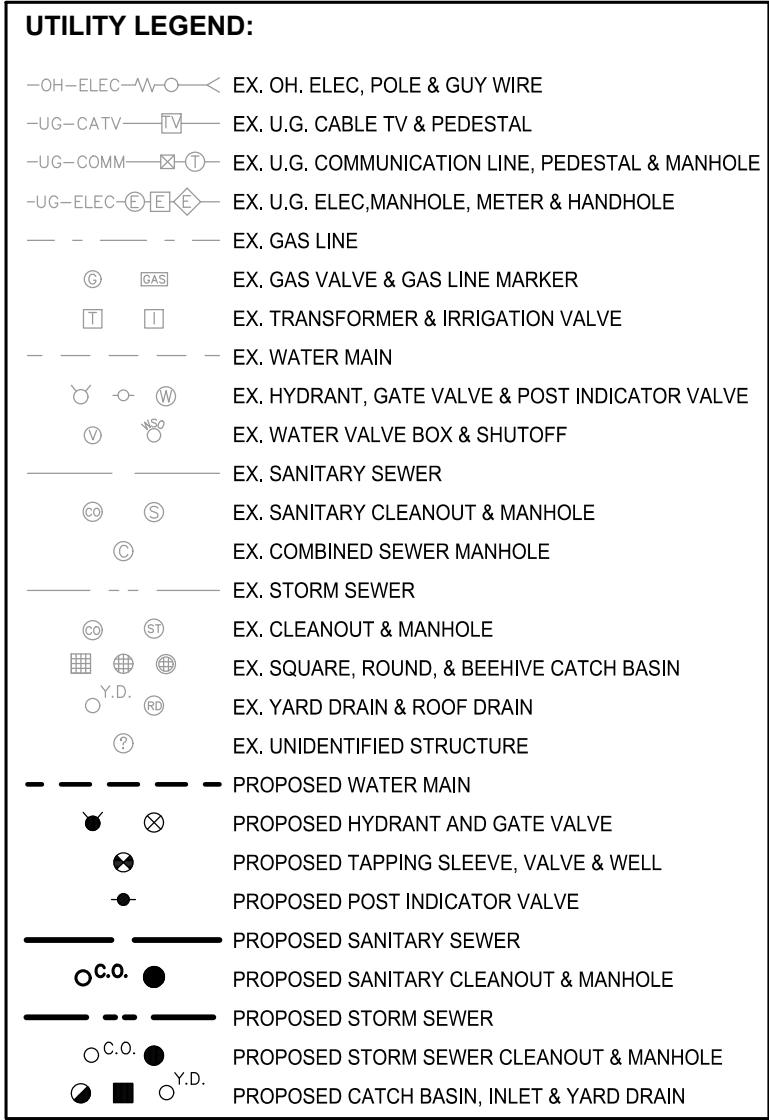
DRAWING TITLE
**GRADING &
SOIL EROSION
CONTROL PLAN**

PEA JOB NO. 2022-0249
P.M. TD
DN. WR
DES. WR
DRAWING NUMBER:

NOT FOR CONSTRUCTION

C-3.0





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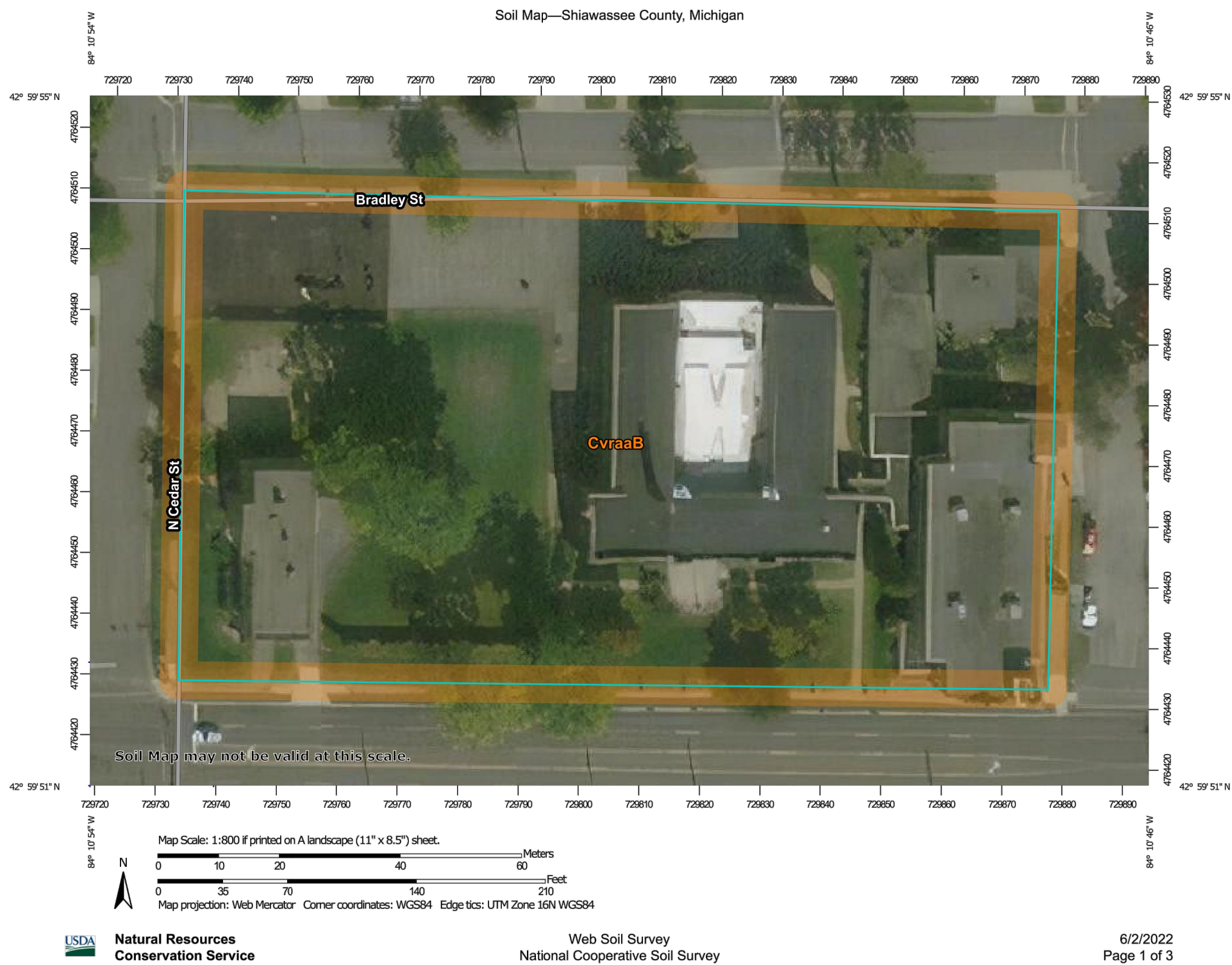
PROJECT TITLE
**ST PAUL'S
CHURCH
PARKING LOT**
111 N. HOWELL ST.
CITY OF OWOSSO, SHIAWASSEE COUNTY, MICHIGAN

[illegible]

PEA JOB NO.	2022-0249
P.M.	TD
DN.	WR
DES.	WR
DRAWING NUMBER:	

C-4.0

S:\PROJECTS\2022\2022-0249 ST PAULS CHURCH PARKING LOT\DWG\CONSTRUCTION\ (C-4.0) UTL CD 2022-0249.dwg PLOT
DATE: 7/12/2022 9:26 AM BY: Wendy Ripper



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CvrabB	Conover loam, 0 to 4 percent slopes	2.9	100.0%
Totals for Area of Interest		2.9	100.0%

DETENTION CALCULATIONS

EXISTING CONDITION										
SHIAWASSEE COUNTY DETENTION POND DESIGN CALCULATION SPREADSHEET										
Project Name: St Paul's Church Parking Lot			Proposed Percent Imperviousness: 42%			(K)				
Project Location: City Of Owosso, Shiawassee County			Proposed Runoff "C" Value: 0.49							
			Maximum Allowable Outflow (CFS): 0.45			(G)				
Cont. Drainage Area (Acres): 2.27			Storm Recurrence Interval (Yrs): 100							
A	B	C	D	E	F	G	H	I	J	
Duration (Minutes)	Duration (Hours)	100-Year Total Rainfall (inches)	100-Year Rainfall Intensity (in/hr)	Proposed Runoff Flowrate (CFS)	Proposed Runoff Volume (CFT)	Maximum Allowable Outflow (CFS)	Required Detention Storage (CFT)	Required Forebay Storage (CFT)	Total Required Storage (CFT)	
5	0.08	0.62	7.44	8.34	2,503	0.45	2,435	4120.05	6,555	
10	0.17	1.09	6.54	7.33	4,400	0.45	4,264	4120.05	8,384	
15	0.25	1.40	5.60	6.28	5,652	0.45	5,447	4120.05	9,568	
20	0.33	1.63	4.89	5.48	6,580	0.45	6,308	4120.05	10,428	
30	0.50	1.92	3.84	4.31	7,751	0.45	7,342	4120.05	11,462	
40	0.67	2.19	3.29	3.68	8,841	0.45	8,296	4120.05	12,416	
50	0.83	2.37	2.84	3.19	9,568	0.45	8,887	4120.05	13,007	
60	1.00	2.44	2.44	2.74	9,850	0.45	9,033	4120.05	13,153	
90	1.50	2.84	1.89	2.12	11,465	0.45	10,239	4120.05	14,359	
120	2.00	3.02	1.51	1.69	12,192	0.45	10,557	4120.05	14,677	
180	3.00	3.33	1.11	1.24	13,443	0.45	10,992	4120.05	15,112	
360	6.00	3.90	0.65	0.73	15,744	0.45	10,841	4120.05	14,961	
720	12.00	4.52	0.38	0.42	18,247	0.45	8,441	4120.05	12,561	
1080	18.00	4.89	0.27	0.30	19,741	0.45	5,031	4120.05	9,151	
1440	24.00	5.20	0.22	0.24	20,992	0.45	1,379	4120.05	5,499	
Total Storage Detention and Retention Required Storage (CFT):									15,112	

PROPOSED CONDITION										
SHIAWASSEE COUNTY DETENTION POND DESIGN CALCULATION SPREADSHEET										
Project Name: St Paul's Church Parking Lot			Proposed Percent Imperviousness: 59%			(K)				
Project Location: City Of Owosso, Shiawassee County			Proposed Runoff "C" Value: 0.61							
			Maximum Allowable Outflow (CFS): 0.45			(G)				
Cont. Drainage Area (Acres): 2.27			Storm Recurrence Interval (Yrs): 100							
A	B	C	D	E	F	G	H	I	J	
Duration (Minutes)	Duration (Hours)	100-Year Total Rainfall (inches)	100-Year Rainfall Intensity (in/hr)	Proposed Runoff Flowrate (CFS)	Proposed Runoff Volume (CFT)	Maximum Allowable Outflow (CFS)	Required Detention Storage (CFT)	Required Forebay Storage (CFT)	Total Required Storage (CFT)	
5	0.08	0.62	7.44	10.35	3,106	0.45	3,038	4120.05	7,158	
10	0.17	1.09	6.54	9.10	5,460	0.45	5,324	4120.05	9,444	
15	0.25	1.40	5.60	7.79	7,013	0.45	6,809	4120.05	10,929	
20	0.33	1.63	4.89	6.80	8,165	0.45	7,893	4120.05	12,013	
30	0.50	1.92	3.84	5.34	9,618	0.45	9,210	4120.05	13,330	
40	0.67	2.19	3.29	4.57	10,971	0.45	10,426	4120.05	14,346	
50	0.83	2.37	2.84	3.96	11,872	0.45	11,191	4120.05	15,311	
60	1.00	2.44	2.44	3.40	12,223	0.45	11,406	4120.05	15,526	
90	1.50	2.84	1.89	2.63	14,227	0.45	13,001	4120.05	17,121	
120	2.00	3.02	1.51	2.10	15,128	0.45	13,494	4120.05	17,614	
180	3.00	3.33	1.11	1.54	16,681	0.45	14,230	4120.05	18,350	
360	6.00	3.90	0.65	0.90	19,537	0.45	14,634	4120.05	18,754	
720	12.00	4.52	0.38	0.52	22,643	0.45	12,836	4120.05	16,956	
1080	18.00	4.89	0.27	0.38	24,496	0.45	9,787	4120.05	13,907	
1440	24.00	5.20	0.22	0.30	26,049	0.45	6,436	4120.05	10,556	
Total Storage Detention and Retention Required Storage (CFT):									18,754	

Total Area of Disruption: 2.27 Acres

Applied C Factors: Greenspace: 0.20 Pavement/Buildings: 0.85

Existing Conditions: Greenspace: 1.32 Acres

Impervious Areas: Buildings: 0.52 Acres Pavement: 0.44 Acres Total: 0.95 Acres

C Factor Existing Site: 0.47 Existing % Impervious: 42%

Required Detention per Shiawassee County Pond Design Spreadsheet: 15,112 CF

Proposed Conditions: Greenspace: 0.92 Acres

Impervious Areas: Buildings: 0.01 Acres Pavement: 1.34 Acres Total: 1.35 Acres

C Factor Proposed Site: 0.59 Proposed % Impervious: 59%

Required Detention per Shiawassee County Pond Design Spreadsheet: 18,754 CF

Detention volume required based on existing vs. proposed conditions: 3,642 CF

Detention Basin Volume			
Contour Elevation	Detention Area	Incremental Volume	Cumulative Volume
HWM 736.3	2,903	827	4,046
736	2,612	2,226	3,219
735	1,839	981	993
734	123	12	12
Bottom 733.8	-	-	-
Detention Volume Provided:		4,046	CF

EX		STORM STRUCTURES	
EX	EX	(4' DIA./2' SUMP) RIM = 737.39 8" S 733.31	
MH	1	(6' DIA./0' SUMP) RIM = 738.70 15" S 733.49 24" W 733.49 8" N 733.49	
CB	2	(4' DIA./2' SUMP) RIM = 736.70 12" S 733.64 15" N 733.64	
CB	3	(4' DIA./2' SUMP) RIM = 736.65 12" S 733.84 12" E 733.84 12" N 733.84	
CB	4	(4' DIA./2' SUMP) RIM = 736.55 12" E 734.05 12" N 734.05	
IN	5	(2' DIA./2' SUMP) RIM = 736.30 12" W 734.14	
ES	6	24" E 733.80	
IN	7	(2' DIA./2' SUMP) RIM = 736.50 12" W 733.93	
ES	8	12" SE 734.50	
CB	9	(4' DIA./2' SUMP) RIM = 738.00 12" S 734.84 12" NW 734.84	
IN	10	(2' DIA./2' SUMP) RIM = 738.00 12" N 735.05	

STORM SEWER SYSTEM DESIGN

Location: Shiawassee County, City of Owosso I=3.04 in/hr based on MDOT, Zone 9, T=20 min.

T = 20 (min.) Pipe "n" Value = 0.013													
FROM STR	TO STR	AREA (A) (Acres)	COEF. C	A x C	TOTAL AREA (Ax C)	TOTAL AREA (Acres)	TIME t (min.)	INT. I (in/hr)	FLOW Q (cfs)	PIPE CAP. (cfs)	PIPE DIA. (in.)	PIPE LENGTH (ft.)	PIPE SLOPE (%)
5	4	0.22	0.66	0.15	0.15	0.22	20.00	3.04	0.44	2.03	12	27	0.32
4	3	0.22	0.74	0.17	0.31	0.44	20.20	3.04	0.95	2.00	12	64	0.32
3	2	0.14	0.83	0.12	0.51	0.70	20.60	3.04	1.54	2.00	12	64	0.32
2	1	0.37	0.68	0.25	0.76	1.07	21.00	3.04	2.31	3.16	15	63	0.24
7	3	0.12	0.68	0.08	0.08	0.12	20.00	3.04	0.24	2.02	12	27	0.32
6	1	0.65	0.48	0.31	0.31	0.65	20.00	3.04	1.66	8.70	24	207	0.15
10	9	0.28	0.62	0.18	0.18	0.28	20.00	3.04	0.53	2.02	12	64	0.32
9	8	0.07	0.82	0.06	0.23	0.36	20.40	3.04	0.71	2.02	12	107	0.32
MIN HG PER "Q" VEL. FULL (ft./sec) TIME FLOW (min.) H.G.L. ELEV. RIM ELEV. INVERT ELEV.													
										UP STREAM	DOWN STREAM	UP STREAM	DOWN STREAM
										734.94	734.85	736.30	736.55
										734.85	734.76	736.55	736.65
										734.76	734.64	736.65	736.70
										734.64	734.49	736.70	736.70
										734.73	734.64	736.50	736.65
										735.40	735.09	735.11	738.70
										735.64	735.30	738.00	735.15
										735.64	735.30	738.00	735.15
										735.64	735.30	738.00	735.15
										735.64	735.30	738.00	735.15
										735.64	735.30	738.00	735.15

STORM SEWER FRAME & COVER NOTES

CATCH BASIN/INLET IN CURB
EJIW #7045 WITH M1 GRATE & 7050 T1 BACK

CATCH BASIN/INLET IN PAVED AREA
EJIW #1040 WITH TYPE M1 GRATE

CATCH BASIN/INLET IN GRASS AREAS
EJIW #1040 WITH TYPE N GRATE

MANHOLE
EJIW #1040 WITH TYPE B VENTED COVER

UTILITY LEGEND:	
-OH-ELEC-W-O-	EX. OH. ELEC. POLE & GUY WIRE
-UG-CATV-[-]	EX. U.G. CABLE TV & PEDESTAL
-UG-COM-[-]	EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
-UG-ELEC-[-]	EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
-	EX. GAS LINE
-	EX. GAS VALVE & GAS LINE MARKER
-	EX. TRANSFORMER & IRRIGATION VALVE
-	EX. WATER MAIN
-	EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
-	EX. WATER VALVE BOX & SHUTOFF
-	EX. SANITARY SEWER
-	EX. SANITARY CLEANOUT & MANHOLE
-	EX. COMBINED SEWER MANHOLE
-	EX. STORM SEWER
-	EX. CLEANOUT & MANHOLE
-	EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN
-	EX. YARD DRAIN & ROOF DRAIN
-	EX. UNIDENTIFIED STRUCTURE
-	PROPOSED WATER MAIN
-	PROPOSED HYDRANT AND GATE VALVE
-	PROPOSED TAPPING SLEEVE, VALVE & WELL
-	PROPOSED POST INDICATOR VALVE
-	PROPOSED SANITARY SEWER
-	PROPOSED SANITARY CLEANOUT & MANHOLE
-	PROPOSED STORM SEWER
-	PROPOSED STORM SEWER CLEANOUT & MANHOLE
-	PROPOSED CATCH BASIN, INLET & YARD DRAIN

PEA GROUP
t: 844.813.2949
www.peagroup.com

NORTH
0 10 20 40
SCALE: 1" = 20'

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

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111 N. HOWELL ST.
OWOSSO, MI 48867

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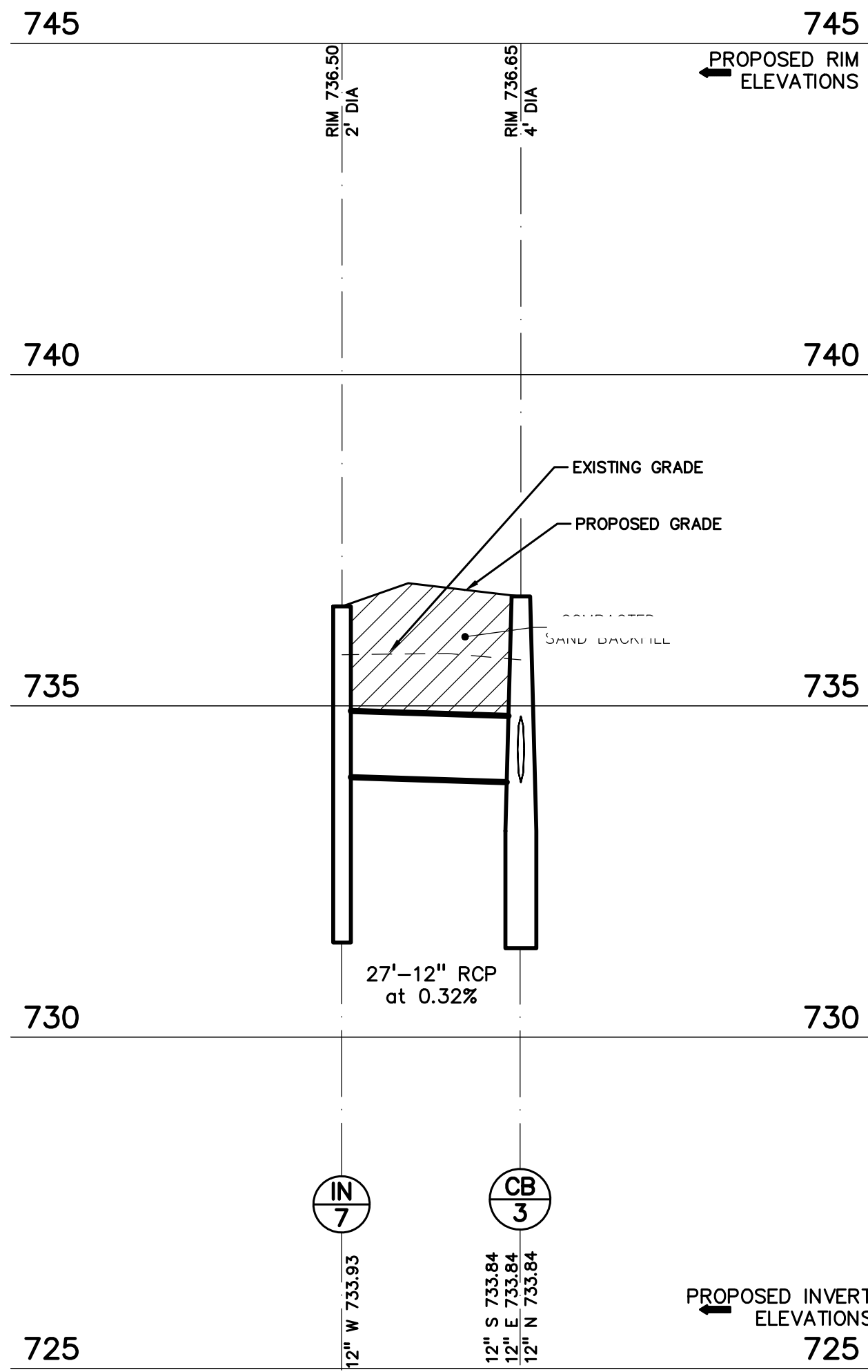
REVISIONS
REV PER CITY 7/12/22

ORIGINAL ISSUE DATE:
JUNE 23, 2022
DRAWING TITLE
STORMWATER PLAN

PEA JOB NO. 2022-0249
P.M. TD
DN. WR
DES. WR
DRAWING NUMBER:

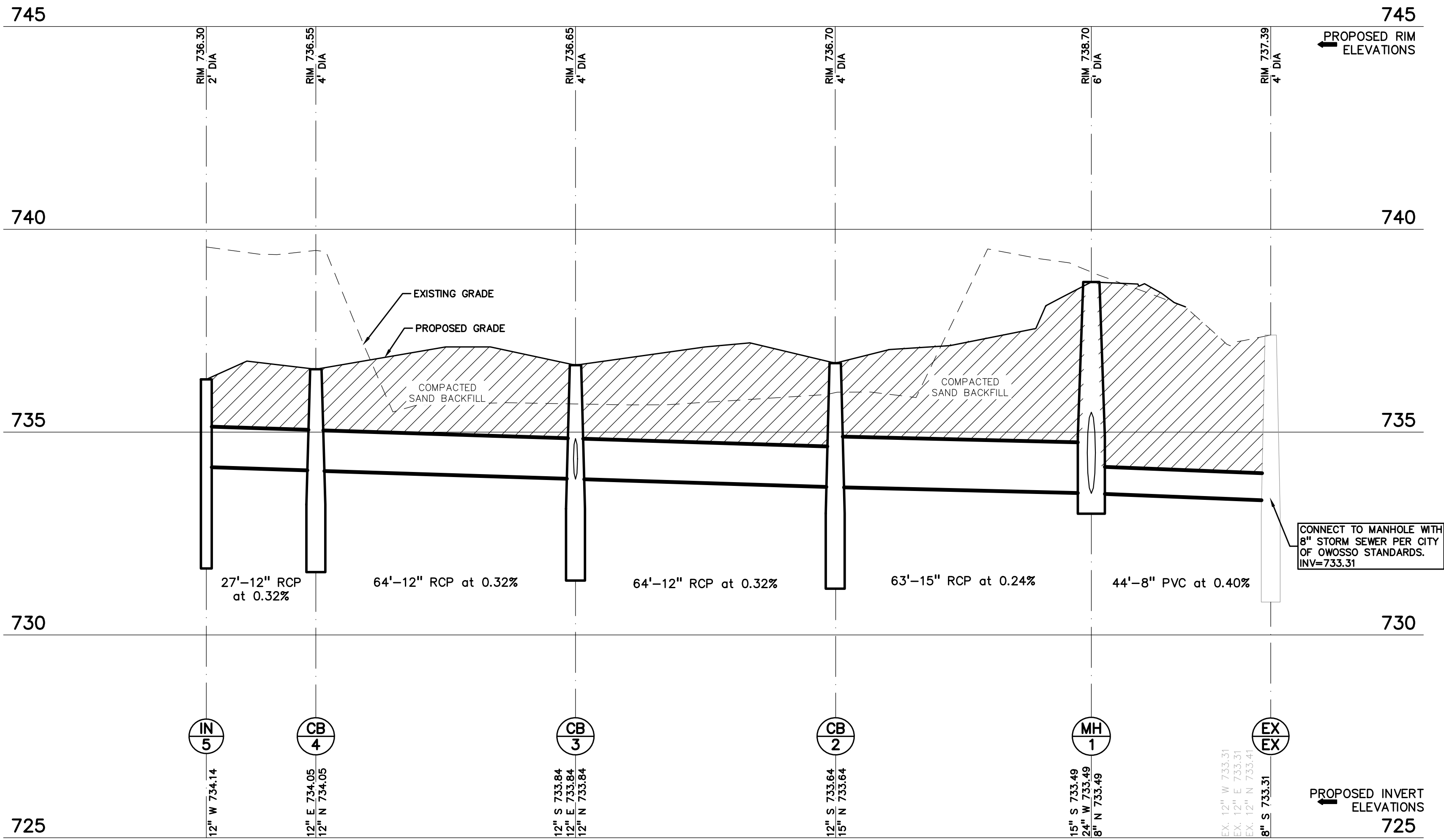
NOT FOR CONSTRUCTION

C-5.0



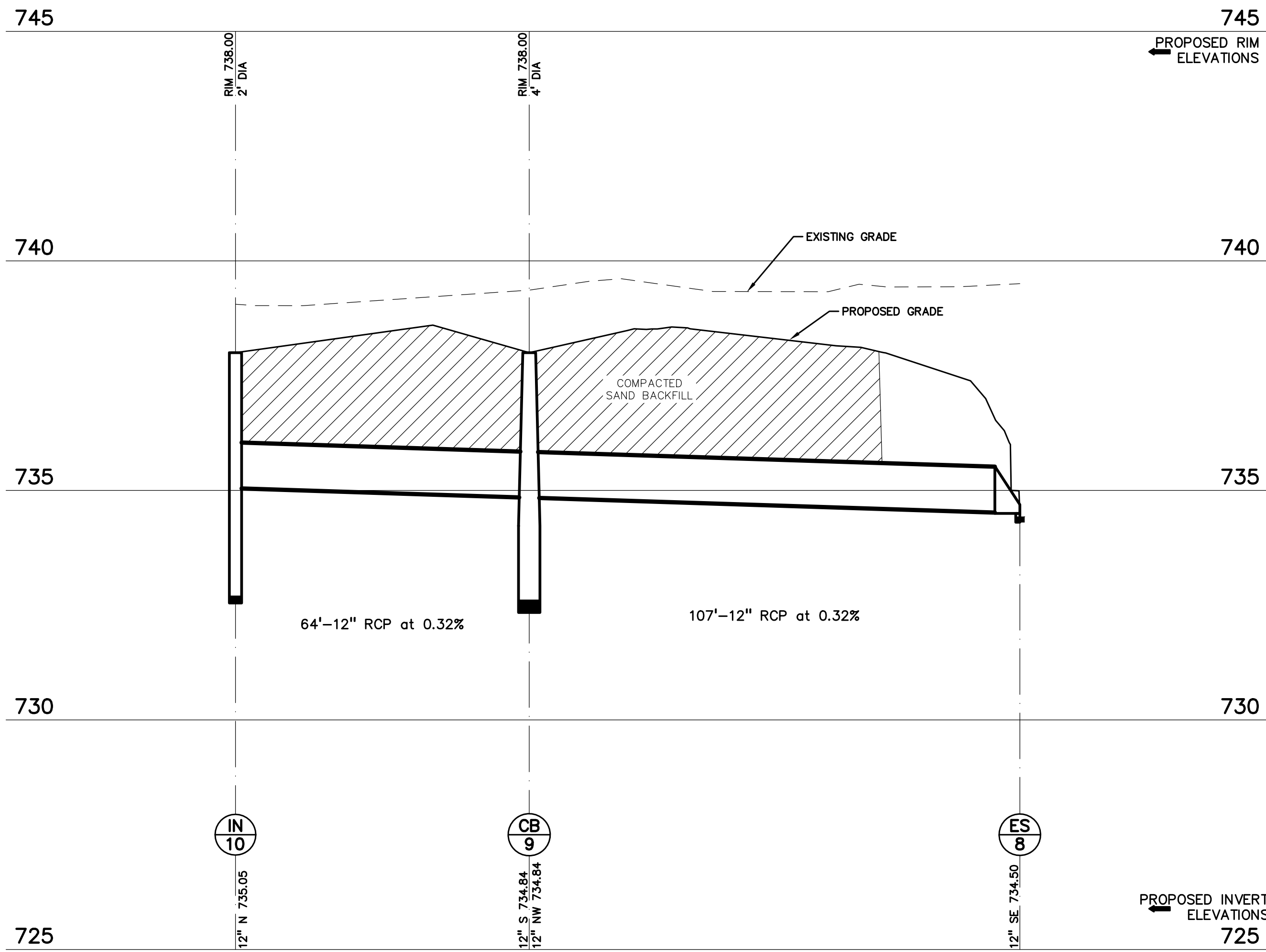
STORM SEWER PROFILE
INLET 7 TO C.B. 3

HORIZ: 1" = 20'
VERT: 1" = 2'



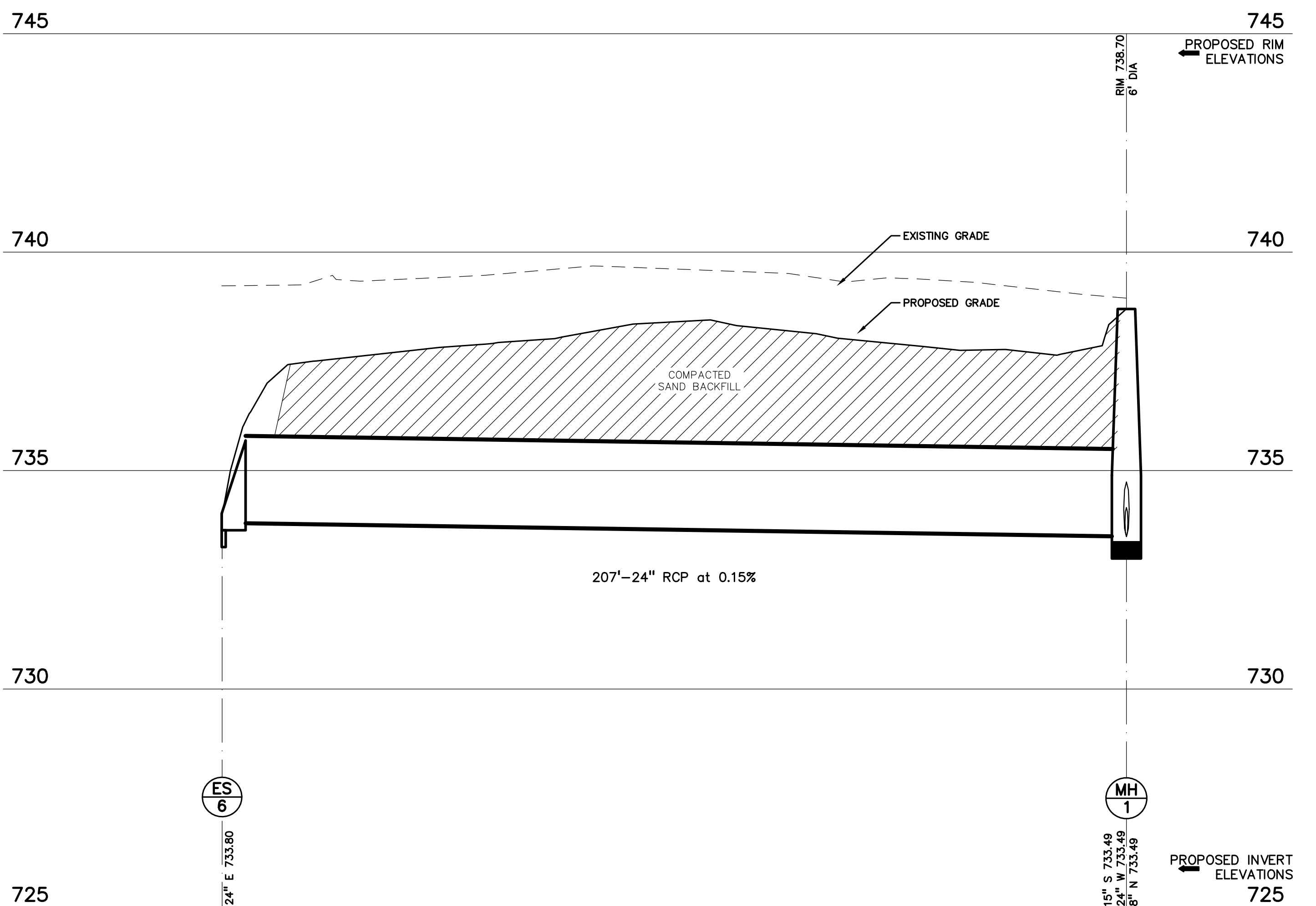
STORM SEWER PROFILE
INLET 5 TO EX. M.H.

HORIZ: 1" = 20'
VERT: 1" = 2'



STORM SEWER PROFILE
INLET 10 TO E.S. 9

HORIZ: 1" = 20'
VERT: 1" = 2'



STORM SEWER PROFILE
C.B. 2 TO E.S. 6

HORIZ: 1" = 20'
VERT: 1" = 2'

REVISIONS	
REV PER CITY	7/12/22

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JUNE 23, 2022
DRAWING TITLE
**NOTES &
DETAILS**

PEA JOB NO.	2022-0249
P.M.	TD
DN.	WR
DES.	WR

DRAWING NUMBER:

C-7.0

GENERAL NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.

- ALL CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT OSHA, MDOT AND MUNICIPALITY STANDARDS AND REGULATIONS.
- THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT THE ENGINEER SHOULD THEY ENCOUNTER ANY DESIGN ISSUES DURING CONSTRUCTION. IF THE CONTRACTOR MAKES DESIGN MODIFICATIONS WITHOUT THE WRITTEN DIRECTION OF THE DESIGN ENGINEER, THE CONTRACTOR DOES SO AT HIS OWN RISK.
- ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL CITY INSPECTION FEES.
- THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ONE CALL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF NO NOTIFICATION IS GIVEN AND DAMAGE RESULTS, SAID DAMAGE WILL BE REPAIRED AT SOLE EXPENSE OF THE CONTRACTOR. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
- CONTRACTOR SHALL VERIFY THAT THE PLANS AND SPECIFICATIONS ARE THE VERY LATEST PLANS AND SPECIFICATIONS AND FURTHERMORE, VERIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN APPROVED. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING FINAL APPROVAL, HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE AT THE CONTRACTORS EXPENSE. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE PLANS AND/OR SPECIFICATIONS, THEY SHALL SEEK CLARIFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.
- ANY WORK WITHIN THE STREET OR HIGHWAY RIGHTS-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
- ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADING, SIGNAGE, LIGHTS AND TRAFFIC CONTROL DEVICES TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). THE DESIGN ENGINEER, OWNER, CITY AND STATE SHALL NOT BE HELD LIABLE FOR ANY CLAIMS RESULTING FROM ACCIDENTS OR DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO COMPLY WITH TRAFFIC AND PUBLIC SAFETY REGULATIONS DURING THE CONSTRUCTION PERIOD.
- THE USE OF CRUSHED CONCRETE IS PROHIBITED ON THE PROJECT WITHIN 100 FEET OF ANY WATER COURSE (STREAM, RIVER, COUNTY DRAIN, ETC.) AND LAKE, REGARDLESS OF THE APPLICATION OR LOCATION OF THE WATER COURSE OR LAKE RELATIVE TO THE PROJECT LIMITS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, GATE WELLS ETC.) WITHIN GRADED AND /OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND WILL NOT BE PAID FOR SEPARATELY.

PAVING NOTES:

- IN AREAS WHERE NEW PAVEMENTS ARE BEING CONSTRUCTED, THE TOPSOIL AND SOIL CONTAINING ORGANIC MATTER SHALL BE REMOVED PRIOR TO PAVEMENT CONSTRUCTION.
- REFER TO ARCHITECTURAL PLANS FOR DETAILS OF FROST SLAB AT EXTERIOR BUILDING DOORS.
- CONSTRUCTION TRAFFIC SHOULD BE MINIMIZED ON THE NEW PAVEMENT. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, THE INITIAL LIFT THICKNESS COULD BE INCREASED AND PLACEMENT OF THE FINAL LIFT COULD BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. THIS ACTION WILL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE LOAD DAMAGE ON THE PAVEMENT SYSTEM.
- ALL EXPANSION JOINTS AND CONCRETE PAVEMENT JOINTS TO BE SEALED.
- CONCRETE PAVEMENT JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION:
 - WHERE PROPOSED CONCRETE ABUTS A STRUCTURE, PROVIDE A MINIMUM 1/2" EXPANSION JOINT. THE JOINT FILLER BOARD MUST BE AT LEAST THE FULL DEPTH OF THE CONCRETE AND HELD DOWN A 1/2" TO ALLOW FOR SEALING.
 - WHERE PROPOSED CONCRETE ABUTS EXISTING CONCRETE OR IN BETWEEN POURS OF PROPOSED CONCRETE (CONSTRUCTION JOINT), PROVIDE 5/8" DOWELS EVERY 30" CENTER TO CENTER HALF WAY ALONG THE THICKNESS OF THE PROPOSED PAVEMENT. ALTERNATE DOWELS SIZES AND SPACING MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
 - WHERE PROPOSED CONCRETE ABUTS EXISTING OR PROPOSED SIDEWALK OR CURBING, PROVIDE A MINIMUM 1/2" EXPANSION JOINT.
 - CONTROL LONGITUDINAL AND/OR TRANSVERSE JOINTS SHALL BE PLACED TO PROVIDE PANELS WITHIN THE PAVEMENT AS SQUARE AS POSSIBLE WITH THE FOLLOWING MAXIMUM SPACING PARAMETERS:
 - 6-INCH THICK CONCRETE PAVEMENT: 12' X 12'
 - 8-INCH THICK CONCRETE PAVEMENT: 15' X 15'
 - IRREGULAR-SHAPED PANELS MAY REQUIRE THE USE OF REINFORCING MESH OR FIBER MESH AS DETERMINED BY THE ENGINEER. THE USE OF MESH MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
 - IF A JOINT PLAN IS NOT PROVIDED IN THE PLANS, THE CONTRACTOR SHALL SUBMIT ONE TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
- CONCRETE CURBING JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION:
 - JOINTS WHEN ADJACENT TO ASPHALT PAVEMENT
 - PLACE CONTRACTION JOINTS AT 10' INTERVALS
 - PLACE 1/2" EXPANSION JOINT AT CATCH BASINS, EXISTING AND PROPOSED SIDEWALK OR EXISTING CURBING.
 - PLACE 1" EXPANSION JOINT:
 - AT SPRING POINTS OF INTERSECTIONS OR ONE OF THE END OF RADIUS LOCATIONS IN A CURVE
 - AT 400' MAXIMUM INTERVALS ON STRAIGHT RUNS
 - AT THE END OF RADIUS AT OPPOSITE ENDS IN A CURBED LANDSCAPE ISLAND
 - JOINTS WHEN TIED TO CONCRETE PAVEMENT
 - PLACE CONTRACTION JOINTS OPPOSITE ALL TRANSVERSE CONTRACTION JOINTS IN PAVEMENT
 - PLACE 1/2" EXPANSION JOINT AT CATCH BASINS, EXISTING AND PROPOSED SIDEWALK OR EXISTING CURBING.
 - PLACE 1" EXPANSION JOINT OPPOSITE ALL TRANSVERSE EXPANSION JOINTS IN PAVEMENT
 - CURB AND GUTTER AND CONCRETE SHALL BE TIED TOGETHER SIMILAR TO LONGITUDINAL LANE TIE JOINT (MDOT B1 JOINT)
 - IN BETWEEN POURS OF PROPOSED CONCRETE CURBING (CONSTRUCTION JOINT):
 - CARRY THE REBAR CONTINUOUSLY BETWEEN POURS
 - IF THE REBAR IS NOT LONG ENOUGH TO CARRY CONTINUOUSLY, THEN TIE TWO PIECES OF REBAR PER THE LATEST MDOT SPECIFICATIONS
- CONCRETE SIDEWALK JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION:
 - PLACE TRANSVERSE CONTRACTION JOINTS EQUAL TO THE WIDTH OF THE WALK WHEN WIDTH IS LESS THAN 8'
 - PLACE TRANSVERSE AND LONGITUDINAL CONTRACTION JOINTS EQUAL TO 1/2 THE WIDTH OF THE WALK WHEN WIDTH IS EQUAL TO OR GREATER THAN 8'
 - PLACE 1" EXPANSION JOINT WHERE ABUTTING SIDEWALK RAMP AND/OR RADIUS IN INTERSECTION
 - PLACE TRANSVERSE 1/2" EXPANSION JOINT AT MAXIMUM OF 100' SPACING
 - PLACE 1/2" EXPANSION JOINT WHEN ABUTTING A FIXED STRUCTURE, OTHER PAVEMENT (CONCRETE PAVEMENT AND DRIVE APPROACHES), UTILITY STRUCTURES, LIGHT POLE BASES AND COLUMNS

GENERAL GRADING AND EARTHWORK NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING TREES AND BRUSH AND REMOVE ALL THAT ARE NECESSARY TO GRADE SITE.
- ALL GRADES ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
- THE STAGING OF CONSTRUCTION ACTIVITIES SHALL OCCUR ONLY WITHIN THE SITE BOUNDARIES. ANY CONSTRUCTION ACTIVITIES OUTSIDE OF THE SITE BOUNDARIES SHALL BE AT THE SOLE RESPONSIBILITY AND RISK OF THE CONTRACTOR.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF THE AUTHORIZED PUBLIC AGENCY OF JURISDICTION. AN EROSION CONTROL PERMIT MUST BE SECURED FROM THE COUNTY PRIOR TO CONSTRUCTION.
- ALL EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS INVESTIGATION AND REPORT.
- REFER TO SOIL EROSION CONTROL PLAN FOR ADDITIONAL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND NOTES.
- THE DETENTION BASIN SIDE SLOPES AND ALL SLOPE EXCEEDING 1:6 MUST BE STABILIZED BY SODDING OR BY PLACING A MULCH BLANKET PEGGED IN PLACE OVER SEED.
- ALL DISTURBED AREAS SHALL BE SEEDDED AND MULCHED OR SODDED IN ACCORDANCE WITH THE LANDSCAPE PLANS. PROVIDE A MINIMUM OF 3" OF TOPSOIL IN THESE AREAS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOTE EXISTING UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE SITE. BACKFILL FOR EXISTING UTILITY TRENCHES SHALL BE EXAMINED CRITICALLY. ANY TRENCHES FOUND TO HAVE SOFT, UNSTABLE OR UNSUITABLE BACKFILL MATERIAL, IN THE OPINION OF THE THIRD PARTY TESTING COMPANY, THAT ARE TO BE WITHIN THE ZONE OF INFLUENCE OF PROPOSED BUILDINGS OR PAVEMENT SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH SUITABLE MATERIAL.
- ON-SITE FILL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED. IF ON-SITE SOIL IS USED, IT SHOULD BE CLEAN AND FREE OF FROZEN SOIL, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
- THE FINAL SUBGRADE/EXISTING AGGREGATE BASE SHOULD BE THOROUGHLY PROOFROLLED USING A FULLY LOADED TANDEM AXLE TRUCK OR FRONT END LOADER UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REINFORCED USING GEOTEXTILES OR REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
- SUBGRADE UNDERCUTTING, INCLUDING BACKFILLING SHALL BE PERFORMED TO REPLACE MATERIALS SUSCEPTIBLE TO FROST HEAVING AND UNSTABLE ANY CONDITIONS. ANY EXCAVATIONS THAT MAY BE REQUIRED BELOW THE TOPSOIL IN FILL AREAS OR BELOW SUBGRADE IN CUT AREAS WILL BE CLASSIFIED AS SUBGRADE UNDERCUTTING.
- SUBGRADE UNDERCUTTING SHALL BE PERFORMED WHERE NECESSARY AND THE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERCUTTING SHALL BE BACKFILLED AS RECOMMENDED IN THE GEOTECHNICAL ENGINEERING REPORT FOR THE PROJECT.
- ANY SUB-GRADE WATERING REQUIRED TO ACHIEVE REQUIRED DENSITY SHALL BE CONSIDERED INCIDENTAL TO THE JOB.

GENERAL UTILITY NOTES:

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY.
- ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OR THE FORTY-FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT, BUILDING PAD OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO 90% OR BETTER.
- WHERE EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER TO CENTER, AROUND PERIPHERY OF OPENING TO CREATE A PLANE OF WEAKNESS JOINT BEFORE BREAKING SECTION OUT.
- THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING UTILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE DESIGN ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. CONTRACTOR SHALL FIELD VERIFY UTILITIES.
- THE CONTRACTOR SHALL COORDINATE TO ENSURE ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED FOR THE INSTALLATION OF PHONE, CABLE, IRRIGATION, ETC. IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT AND LANDSCAPING.
- PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE AND TO END OF FLARED END SECTION UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL INSPECT ALL EXISTING PUBLIC STORM SEWER, SANITARY SEWER AND WATER MAIN STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION AND WITH THE GOVERNING AGENCY INSPECTOR PRIOR TO ESTABLISHING FINAL GRADE. NOTIFY THE ENGINEER, OWNER/DEVELOPER, AND GOVERNING AGENCY IF STRUCTURE IS DEEMED TO BE STRUCTURALLY UNSOUND AND/OR IN NEED OF REPAIR.

STORM SEWER NOTES:

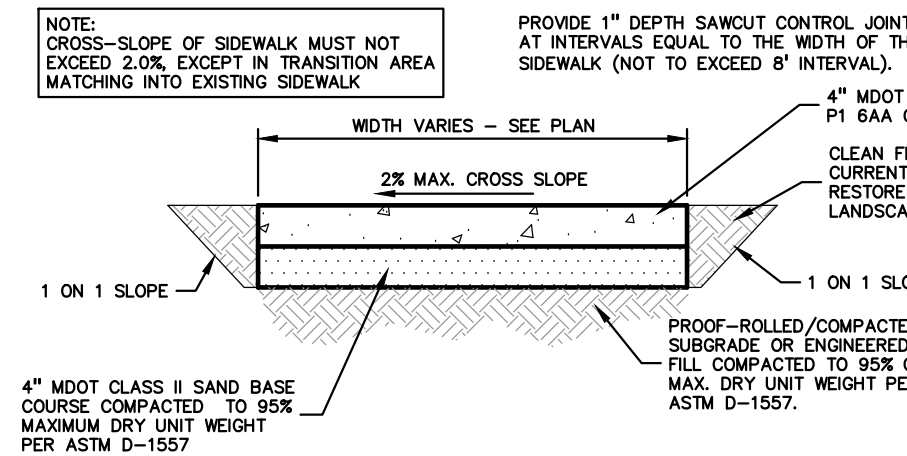
- ALL STORM SEWER 12" DIAMETER OR LARGER SHALL BE REINFORCED CONCRETE PIPE (RCP C-76) CLASS IV WITH MODIFIED TONGUE AND GROOVE JOINT WITH RUBBER GASKETS UNLESS SPECIFIED OTHERWISE (ASTM C-443).
- ALL STORM SEWER LEADS SHALL BE CONSTRUCTED AT 1.00% MINIMUM SLOPE.
- ALL STORM SEWER 10" OR LESS AND/OR LEADS SHALL BE SDR 26.
- JOINTS FOR P.V.C. PIPE SHALL BE ELASTOMERIC (RUBBER GASKET) AS SPECIFIED IN A.S.T.M. DESIGNATION D-3212.

CONSTRUCTION MATERIAL SUBMITTALS

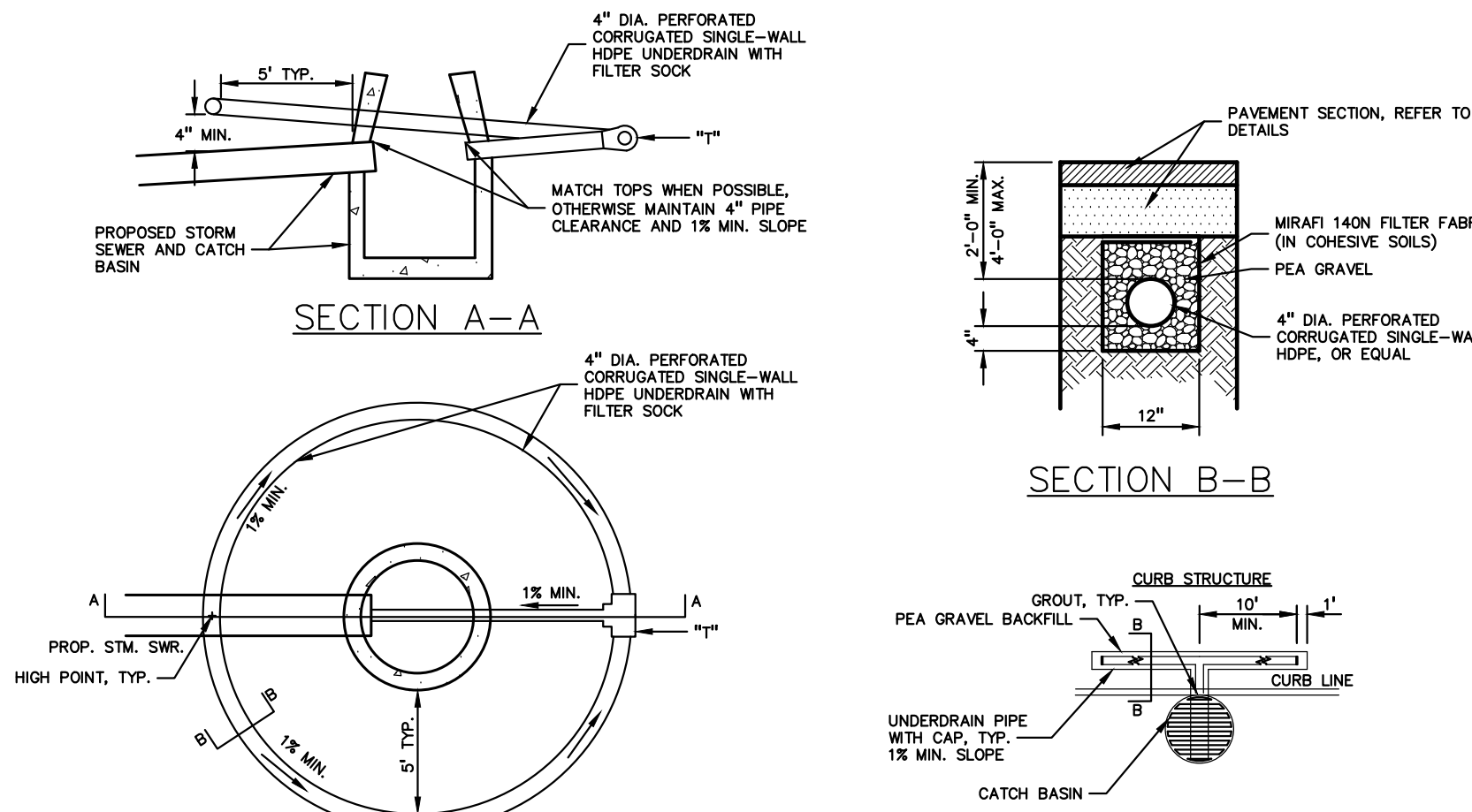
UNLESS REQUIRED OTHERWISE IN THE PROJECT SPECIFICATIONS, THE CONTRACTOR SHALL ONLY SUBMIT THE FOLLOWING CONSTRUCTION MATERIAL SUBMITTALS, AS APPLICABLE TO THE PLANS, FOR REVIEW BY THE ENGINEER, UNLESS APPROVED IN ADVANCE AND IN WRITING BY THE ENGINEER. ANY MATERIAL SUBMITTALS PROVIDED TO THE ENGINEER FOR REVIEW IN ADDITION TO THIS LIST SHALL BE RETURNED TO THE CONTRACTOR WITHOUT A REVIEW BEING PERFORMED.

- SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
- UTILITY TRENCH BACKFILL MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
- RIP RAP MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
- STORM SEWER PIPING INCLUDING JOINTS
- STORM SEWER STRUCTURES
- STORM SEWER STRUCTURE FRAME AND COVERS INCLUDING CLEAN OUTS
- PAVEMENT AGGREGATE BASE MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
- PAVEMENT UNDERDRAIN MATERIAL AND BACKFILL WITH ALL BACKFILL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
- PAVEMENT MIX DESIGNS SUBMITTED FOR REVIEW BY THE ENGINEER MUST FOLLOW THE CURRENT MDOT REVIEW CHECKLISTS AS SUMMARIZED BELOW AND ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER:
 - B1. CONCRETE MIX DESIGN REVIEW CHECKLIST (FORM 2000)
 - B2. SUPERPAVE MIX DESIGN CHECKLIST (FORM 1882)
 - B3. MARSHALL MIX DESIGN CHECKLIST (FORM 1849)
- SITE FENCING AND GATES INCLUDING FOOTINGS
- SITE RAILINGS INCLUDING FOOTING OR EMBEDMENTS
- ANY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY STATE FOR THE CONTRACTOR TO SUBMIT A SHOP DRAWING TO THE ENGINEER FOR REVIEW. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO:

- RETAINING WALL MATERIAL AND STRUCTURAL CALCULATIONS
- TRENCH DRAIN MATERIAL AND SHOP DRAWING DEPICTING THE LAYOUT OF THE SYSTEM
- ANY SPECIALITY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY DO NOT STATE FOR THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING TO THE ENGINEER FOR REVIEW BUT THE CONTRACTOR REQUESTS TO BE REVIEWED. THE CONTRACTOR'S REQUEST FOR REVIEW MUST BE IN WRITING AND APPROVED BY THE ENGINEER PRIOR TO SUBMITTING THE INFORMATION.



CONCRETE SIDEWALK
NOT TO SCALE

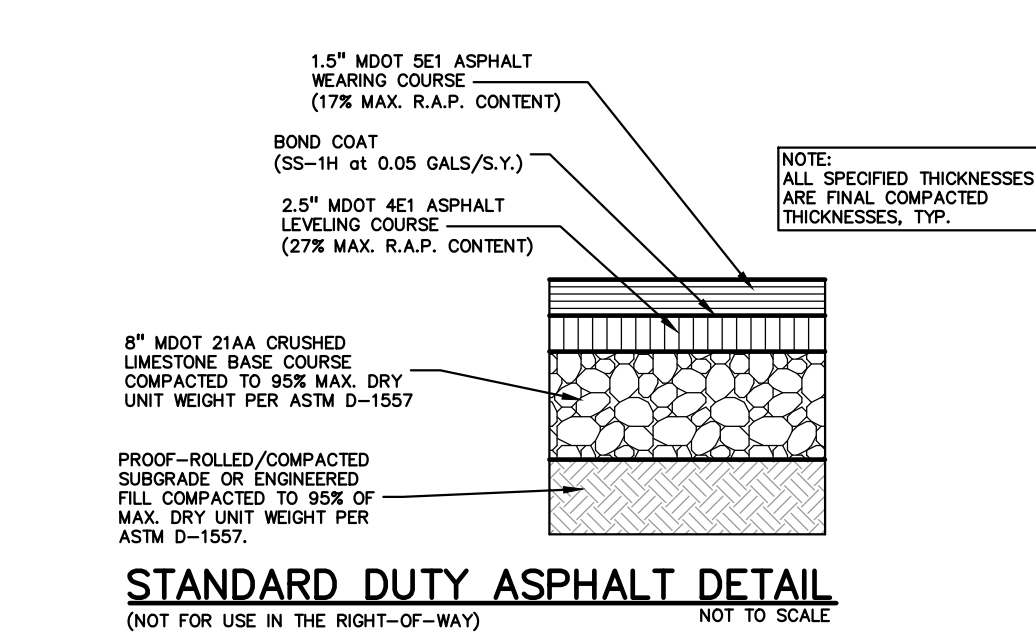


PLAN VIEW - PAVEMENT STRUCTURE

PLAN VIEW - CURB STRUCTURE

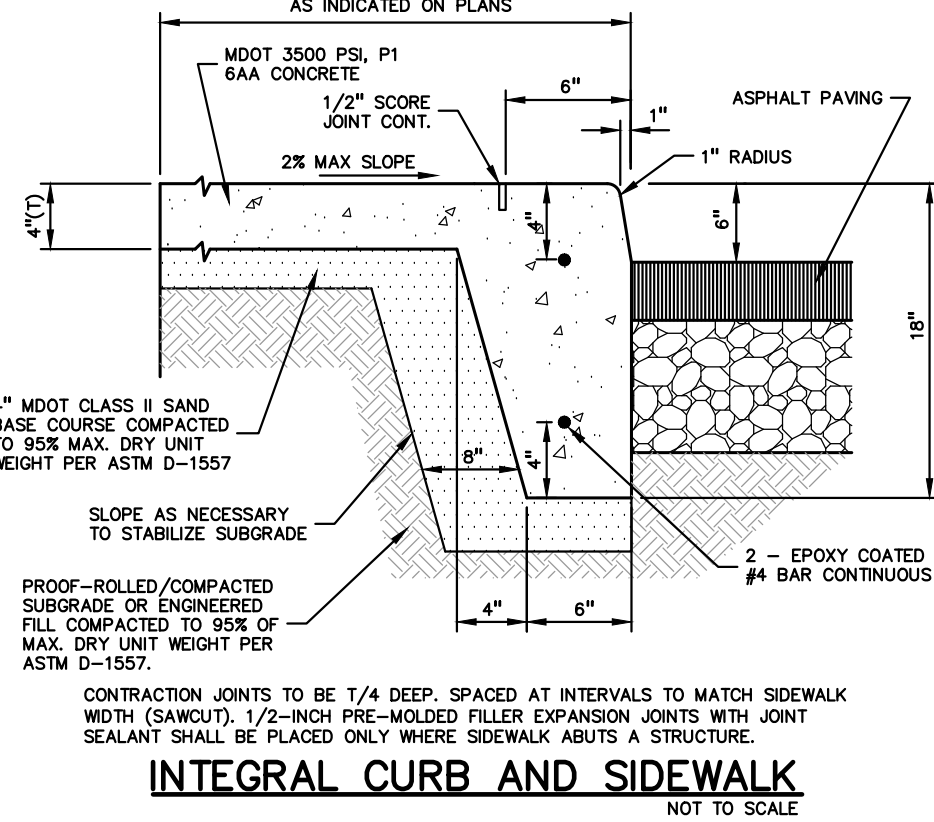
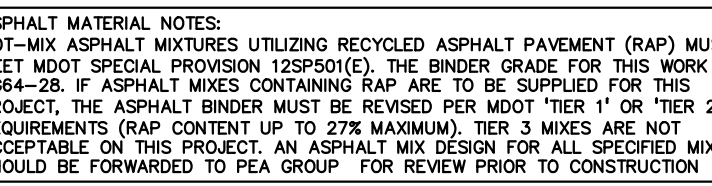
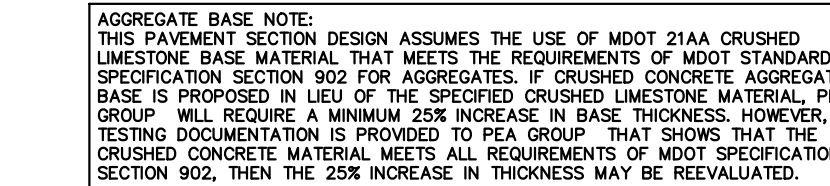
PAVEMENT INLET/CATCH BASIN UNDERDRAIN DETAIL

NOT TO SCALE

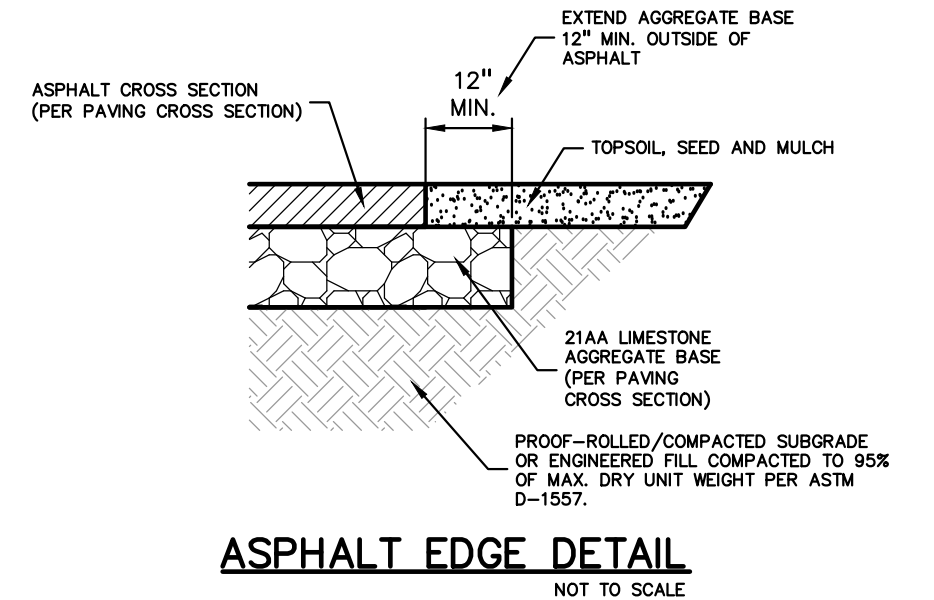


STANDARD DUTY ASPHALT DETAIL

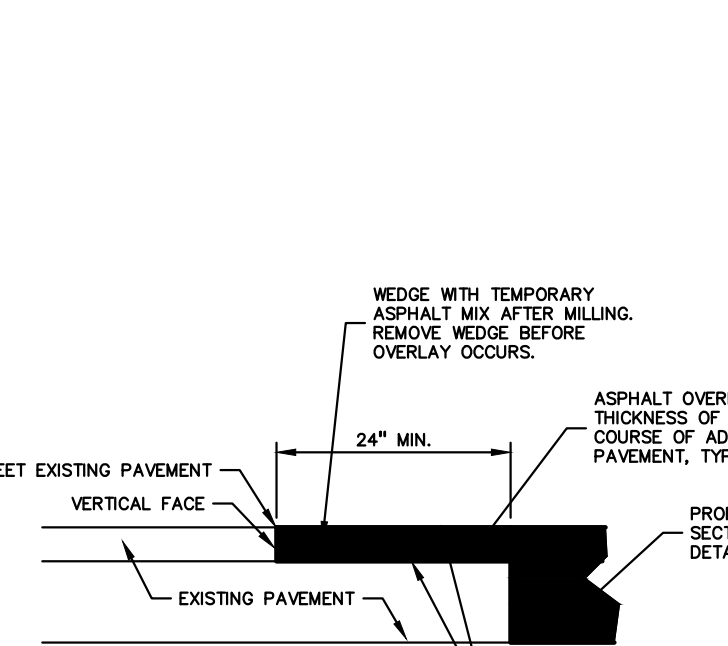
(NOT FOR USE IN THE RIGHT-OF-WAY)



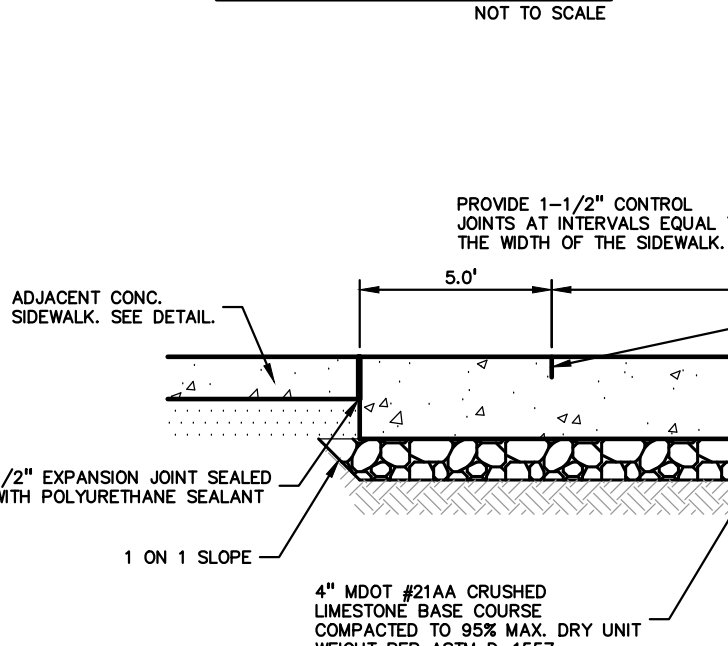
INTEGRAL CURB AND SIDEWALK
NOT TO SCALE



ASPHALT EDGE DETAIL
NOT TO SCALE

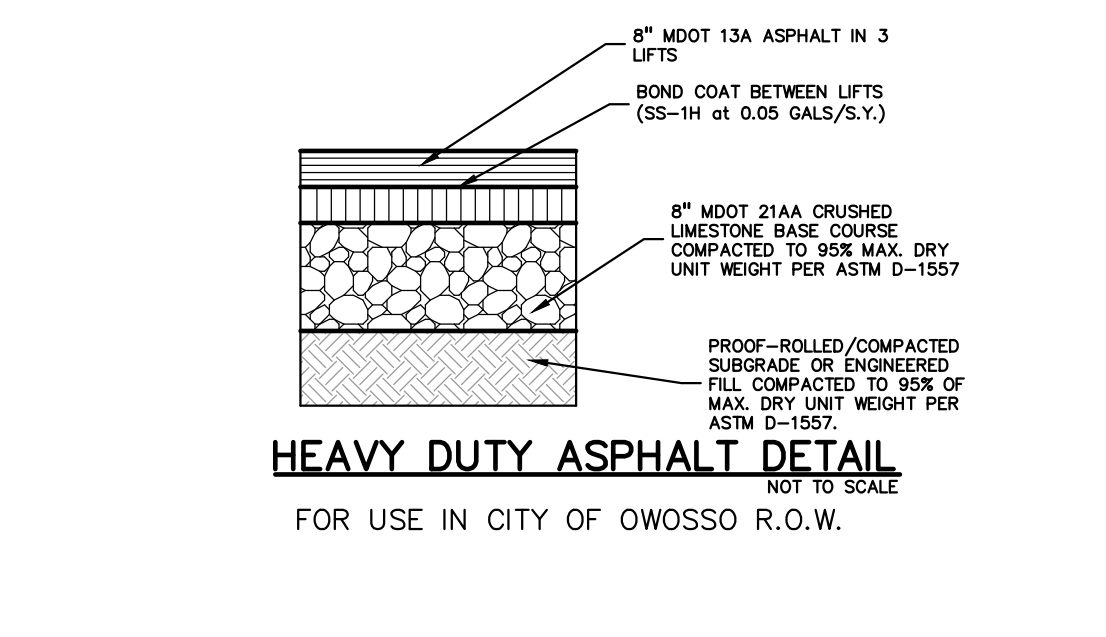


BUTT JOINT DETAIL
NOT TO SCALE



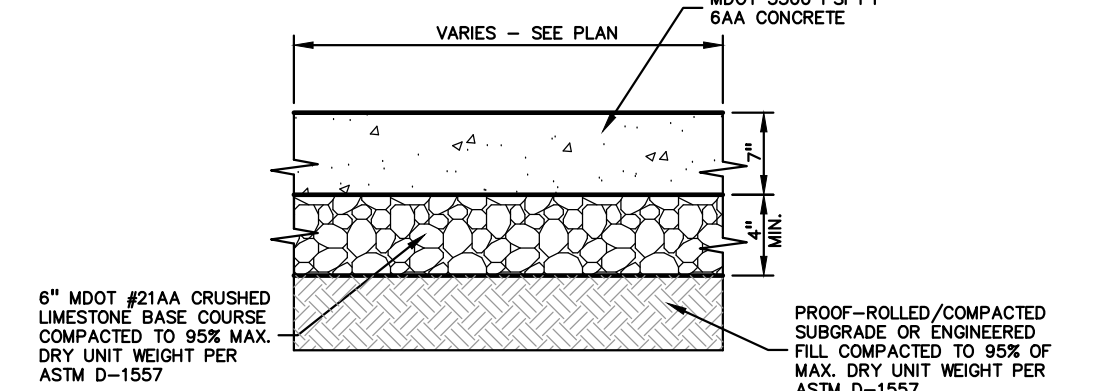
THICKENED SIDEWALK AT DRIVE APPROACH DETAIL

NOT TO SCALE



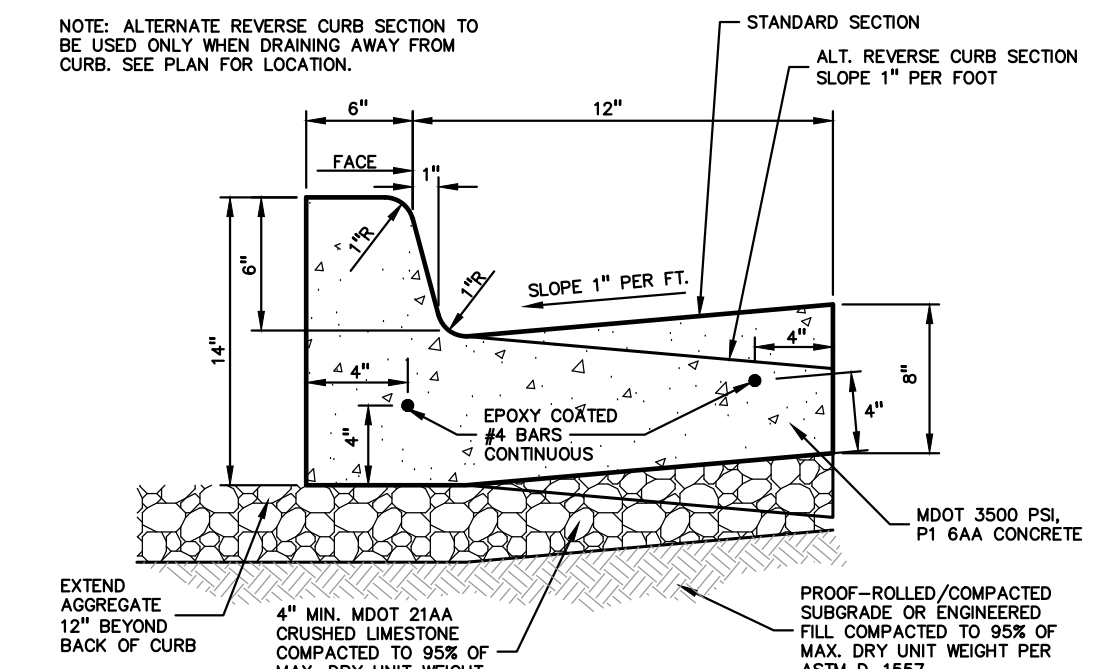
HEAVY DUTY ASPHALT DETAIL

FOR USE IN CITY OF OWOSSO R.O.W.

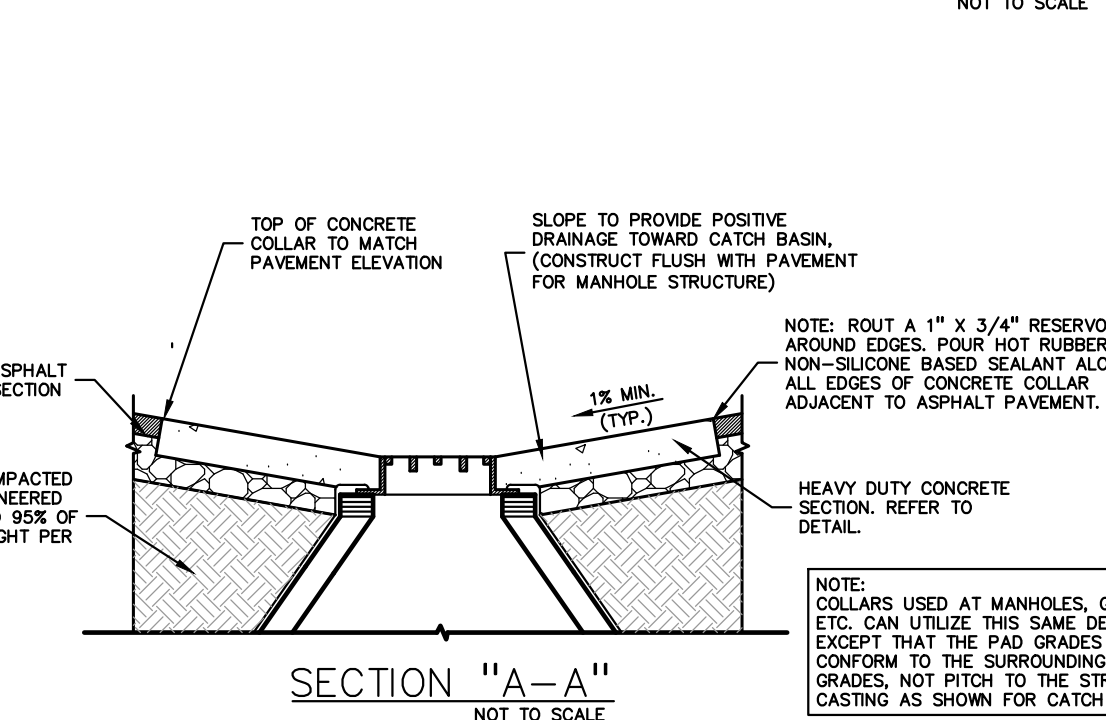


HEAVY DUTY CONCRETE DETAIL

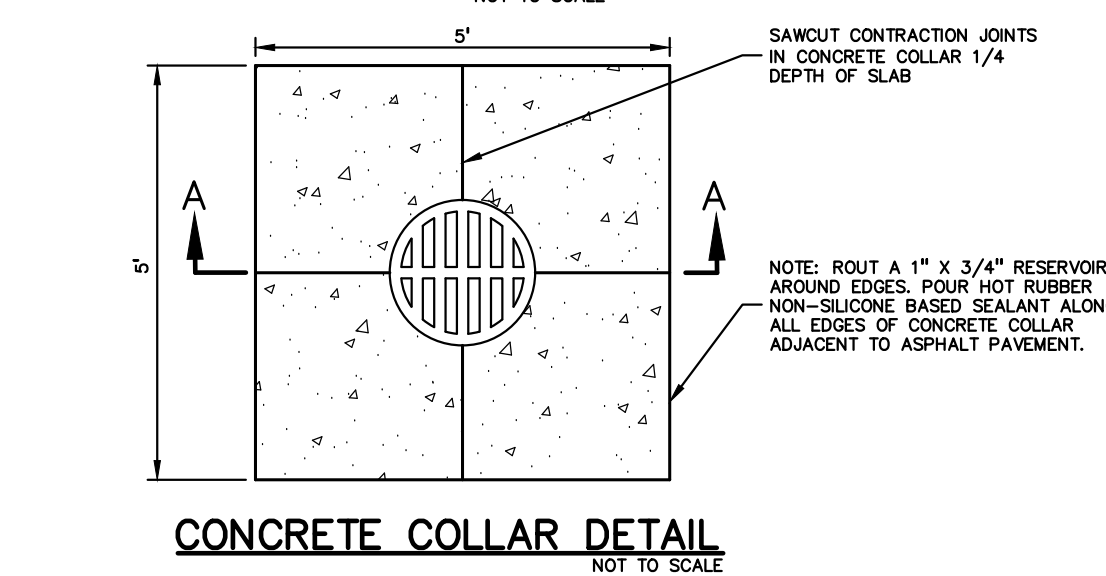
DRIVEWAY APPROACHES IN R.O.W.



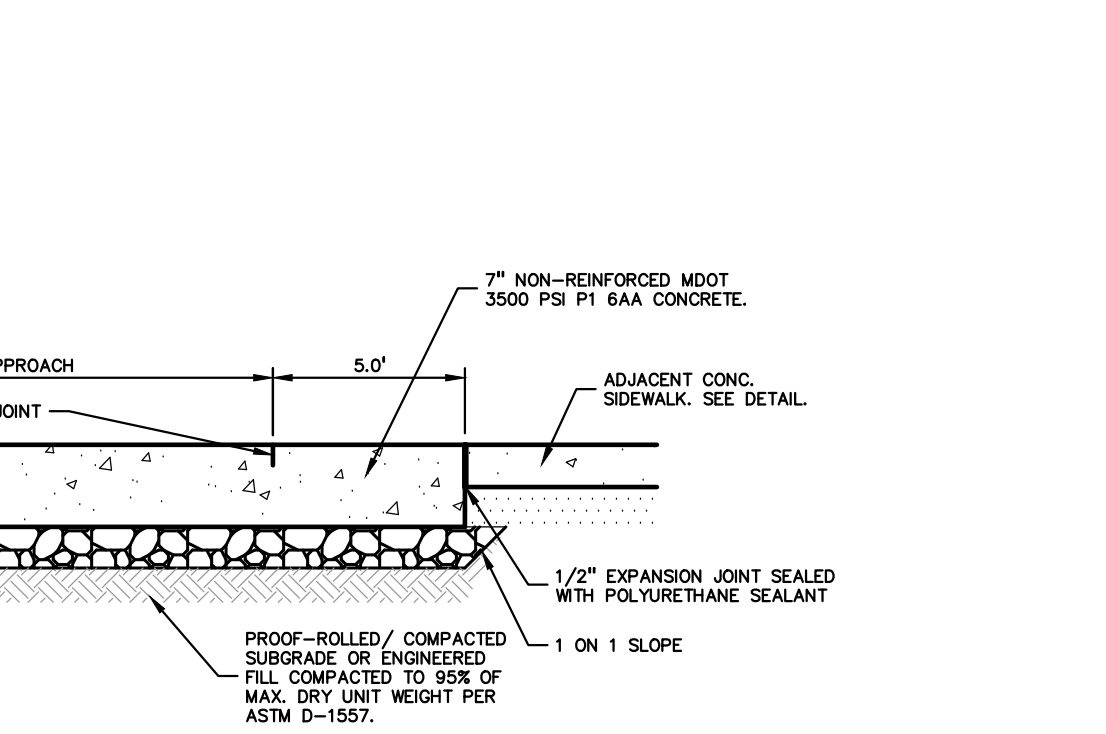
18"x6" STANDARD CONCRETE CURB AND GUTTER
NOT TO SCALE



CONCRETE COLLAR DETAIL
NOT TO SCALE



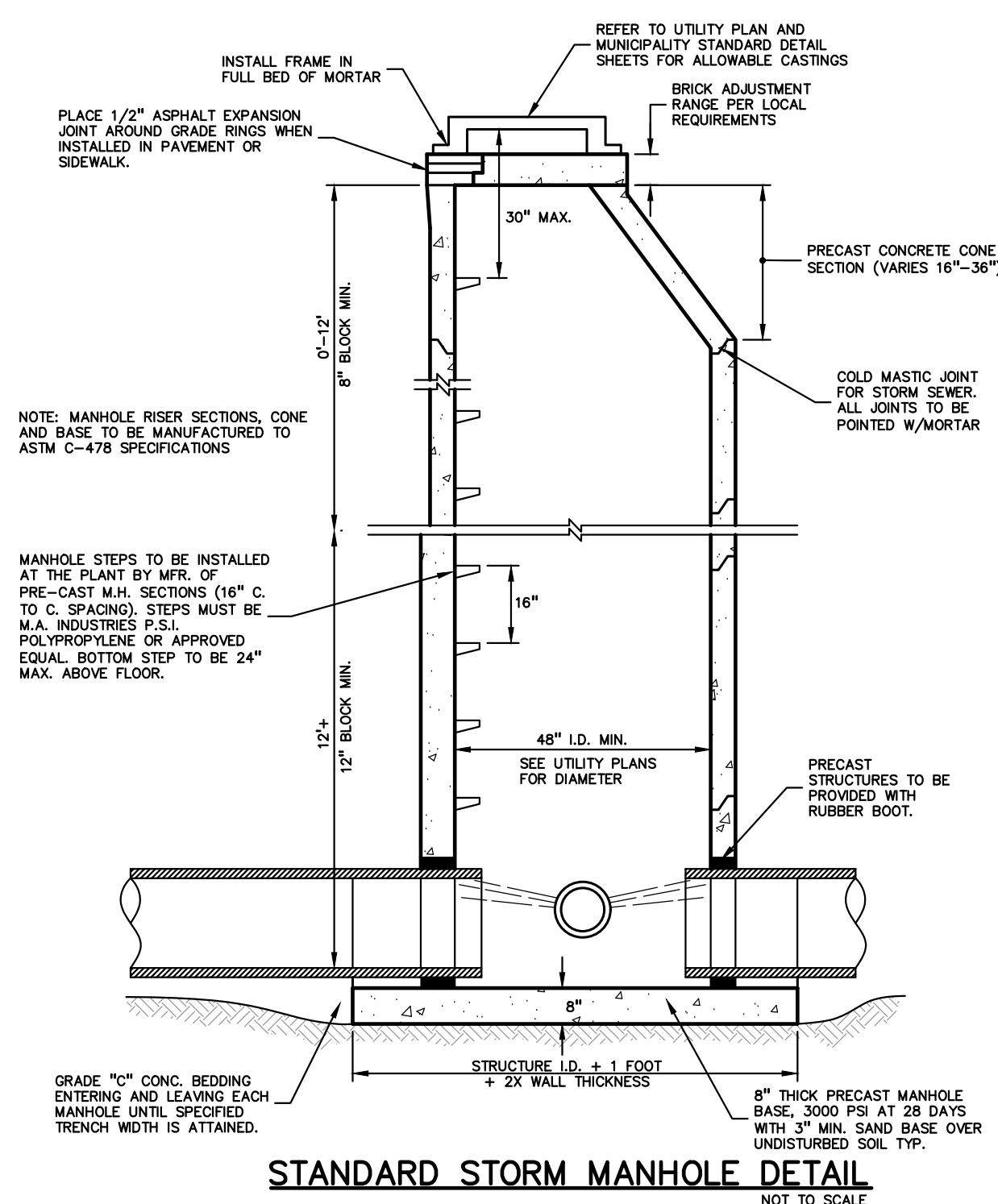
CONCRETE COLLAR DETAIL
NOT TO SCALE



CONCRETE COLLAR DETAIL
NOT TO SCALE

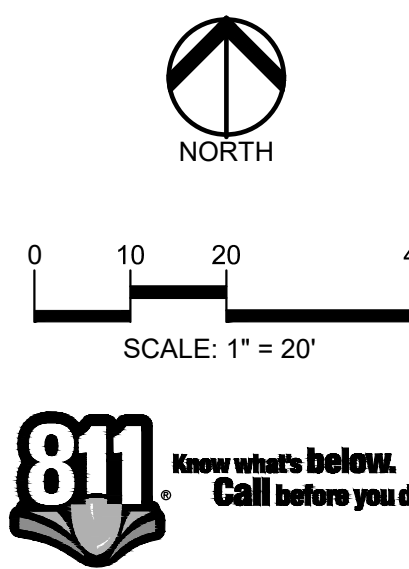
NOT FOR CONSTRUCTION

1. ONE SIGN IS REQUIRED AT EACH BARRIER FREE PARKING SPACE.
2. ALL SIGNS SHALL COMPLY WITH THE LATEST STANDARDS OF THE MICHIGAN MANUFACTURERS ASSOCIATION OF TRAFFIC CONTROL DEVICES.
3. WHEN TWO BARRIER FREE PARKING SPACES ARE ADJACENT AND FACING EACH OTHER, TWO SIGNS ARE REQUIRED, BUT CAN BE MOUNTED ON THE SAME POST.
4. SIGNS POSTS SHALL BE 10" MIN. SQUARE 14-GAUGE GALVANIZED STEEL TUBE WITH 1/16" HOLES AT 12" CENTERS. POSTS SHALL TELESCOPE INTO ANCHOR POSTS AT A MINIMUM OF 12".
5. ANCHOR POSTS SHALL BE 2.25" NOM. SQUARE 12-GAUGE GALVANIZED STEEL POSTS WITH 1/2" HOLES AT 12" CENTERS.
6. IF THESE NOTES AND DETAILS CONFLICT WITH LOCAL CODES AND ORDINANCES, THE STRICTER REQUIREMENT SHOULD BE USED.
7. ALTERNATE MATERIALS MAY BE USED IF IN COMPLIANCE WITH A.D.A. GUIDELINES AND LOCAL REQUIREMENTS.



NOT FOR CONSTRUCTION

PEA
GROUP
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CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT
ST PAUL CATHOLIC CHURCH
111 N. HOWELL ST.
OWOSSO, MI 48867

PROJECT TITLE
**ST PAUL'S
CHURCH
PARKING LOT**
111 N. HOWELL ST.
CITY OF OWOSSO, SHIAWASSEE COUNTY, MICHIGAN

[illegible]

ORIGINAL ISSUE DATE:
JUNE 23, 2022

DRAWING TITLE
DETAILS

PEA JOB NO.	2022-0249
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C-7.1

CLIENT

**ST PAUL CATHOLIC
CHURCH**
111 N. HOWELL ST.
OWOSSO, MI 48867

PROJECT TITLE

**ST PAUL'S
CHURCH
PARKING LOT**
111 N. HOWELL ST.
CITY OF OWOSSO, SHIAWASSEE COUNTY, MICHIGAN

PROJECT TITLE

**ST PAUL'S
CHURCH
PARKING LOT**

111 N. HOWELL ST.
CITY OF OWOSSO, SHIAWASSEE COUNTY, MICHIGAN

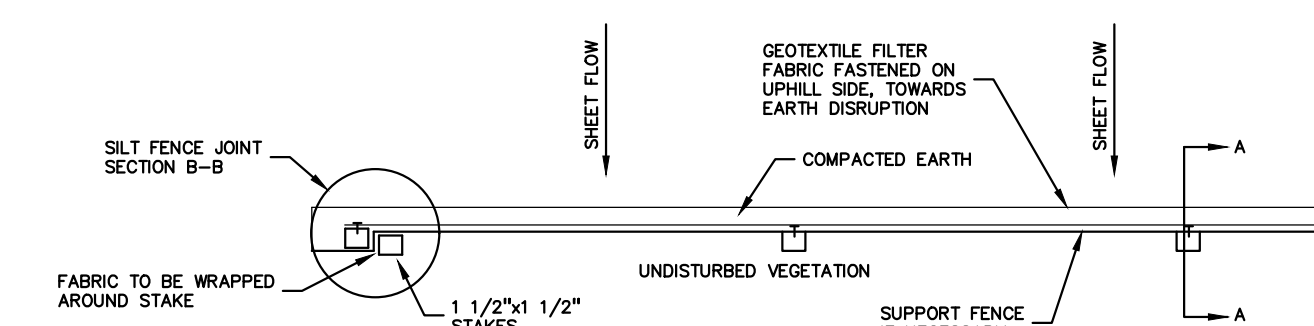
ORIGINAL ISSUE DATE:
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DRAWING TITLE
DETAILS

DRAWING NUMBER:

C-7.2

1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS AND SPECIFICATIONS OF THE JURISDICTIONAL AGENCY UNDER PART 91 OF ACT 451 OF 1994, AS AMENDED.
2. DAILY INSPECTIONS SHALL BE MADE BY CONTRACTOR WHILE WORKING TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES. ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY. ALL SOIL EROSION CONTROL PROVISIONS SHALL BE PROPERLY MAINTAINED DURING CONSTRUCTION.
3. EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF- SITE AREAS. IN WATERWAYS, WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, AND PONDS.
4. CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES WHEN REQUIRED AND AS DIRECTED ON THESE PLANS. CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT PERMANENT STABILIZATION OF SLOPES, DITCHES, AND OTHER EARTH CHANGE AREAS HAVE BEEN COMPLETED.
5. STAGING THE WORK WILL BE DONE BY THE CONTRACTOR AS DIRECTED IN THESE PLANS AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH.
6. SOIL EROSION CONTROL PRACTICES WILL BE ESTABLISHED IN EARLY STAGES OF CONSTRUCTION BY THE CONTRACTOR. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.
7. DUST SHALL BE CONTROLLED BY WATERING OR BY OTHER APPROVED MEANS THROUGHOUT ALL CONSTRUCTION OPERATIONS.
8. PERMANENT SOIL EROSION CONTROL MEASURES FOR SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED WITHIN 5 CALENDAR DAYS. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE PERMANENT SOIL EROSION CONTROL MEASURES ARE COMPLETED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.
9. THE CONTRACTOR SHALL PRESERVE NATURAL VEGETATION AS MUCH AS POSSIBLE.
10. ANY WORK OUTSIDE OF THE LIMITS OF CONSTRUCTION SHALL REQUIRE A SEPARATE GRADING PERMIT.
11. FOLLOWING THE PLACEMENT OF 4" OF TOPSOIL AND HYDROSEED, STRAW MULCH BLANKET IS TO BE INSTALLED PERPENDICULAR ALONG THE PROPOSED SLOPE OR A STEEPER FROM TOP OF SLOPE TO TOE OF SLOPE, INCLUDING DITCH BOTTOMS, AND IT MUST BE PEGGED IN PLACE.
12. ALL MUD/DIRT TRACKED ONTO EXISTING COUNTY/CITY ROADS FROM THIS SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
13. TEMPORARY STABILIZATION OF THE ENTIRE SITE SHALL BE COMPLETED AND APPROVAL OBTAINED FROM THE LIVINGSTON COUNTY DRAINAGE COMMISSIONERS OFFICE PRIOR TO THE ISSUANCE OF ANY SINGLE FAMILY DWELLING PERMITS.



Technical drawing of a retaining wall cross-section. The wall is 24" high. The top edge is labeled "TWO WRAP MIN." and the bottom edge is labeled "6" ANCHOR TRENCH". The wall face is labeled "LATH, TYP." and the backfill is labeled "GEOTEXTILE FILTER FABRIC (MIN. 10 GAL/MIN/SQ. FT)". The wall is supported by "1 1/2\" x 1 1/2\" STAKES DRIVEN INTO GROUND 1' MIN." and "SALVAGED EDGES, TYP.". The spacing between the stakes is labeled "SPACING 6' MAX.". A "SUPPORT FENCE IF NECESSARY" is shown at the bottom right. The drawing includes various symbols for materials and dimensions.

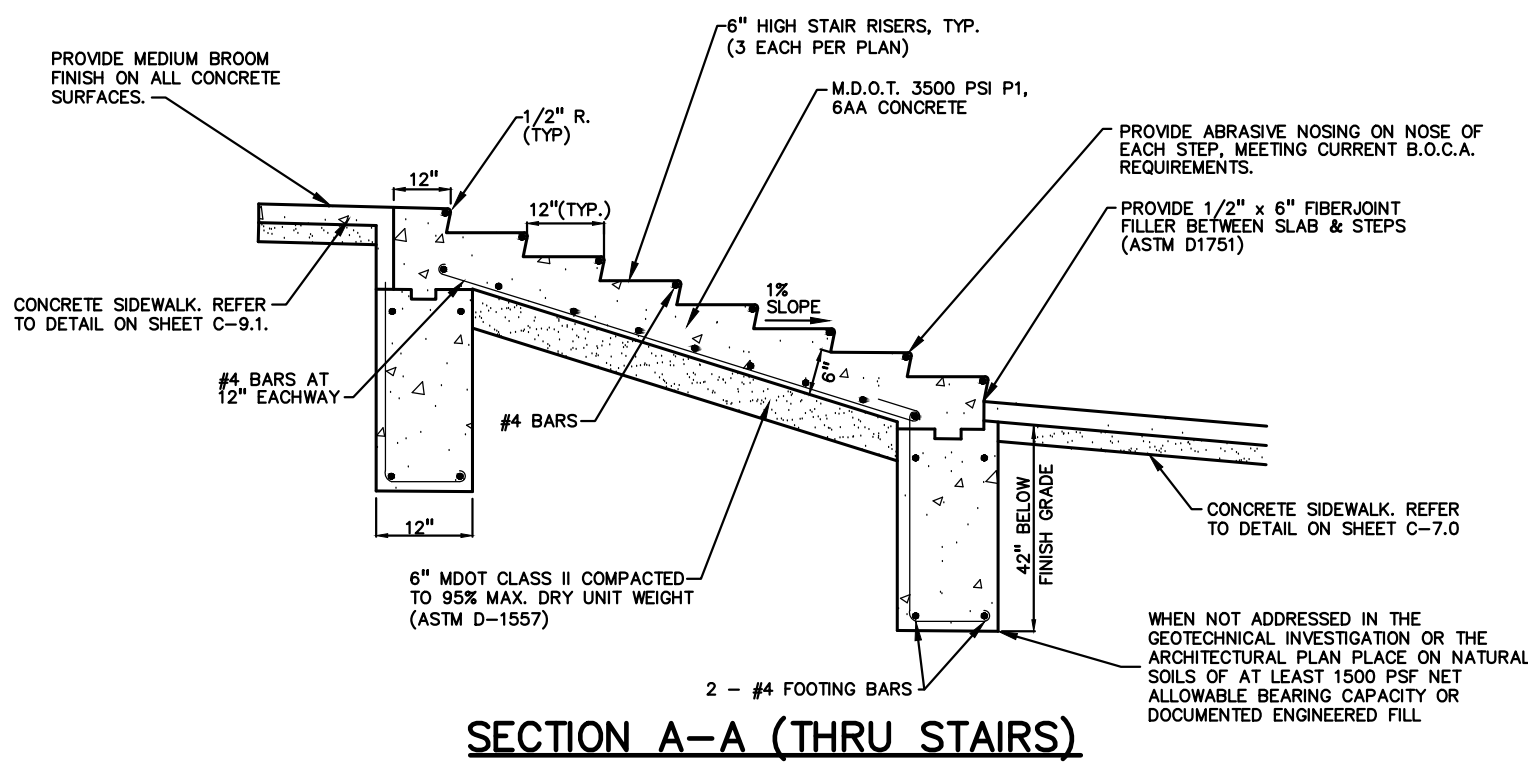
Diagram illustrating a slope stabilization system. The system includes a vertical wall structure with a lath strip, typ., and geotextile filter fabric fastened on the uphill side, towards earth disruption. The uphill side is compacted earth on the uphill side of filter fabric. A 6"x6" anchor trench is shown at the base of the wall, with sheet flow indicated. The downhill side shows undisturbed vegetation, and a 1' MIN. distance is marked from the wall to the vegetation.

SILT FENCE DETAIL
NOT TO SCALE

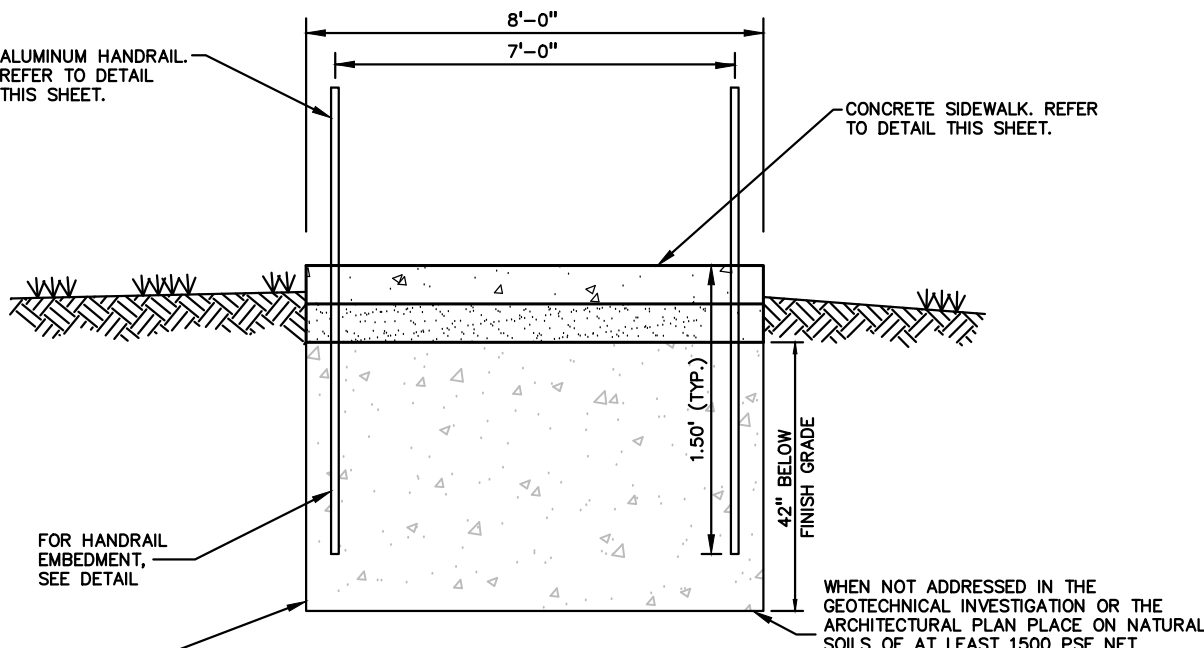
PIPE DIAMETER	"B"	"C"	"D"	SQUARE YARDS
12"	5'-0"	6'-6"	3'-0"	8.0
15"	5'-0"	7'-0"	3'-0"	8.5
18"	5'-0"	7'-6"	3'-6"	9.2
21"	5'-0"	8'-0"	4'-0"	10.7
24"	6'-0"	8'-6"	4'-6"	12.4



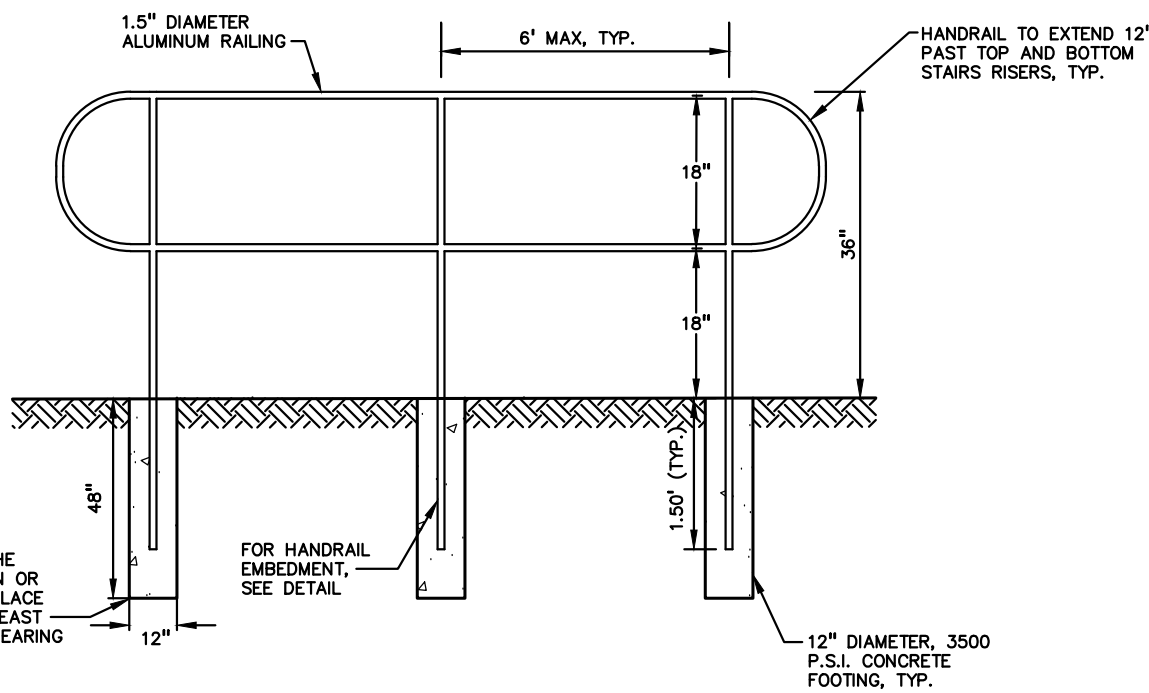
END SECTION & RIPRAP DETAIL



SECTION A-A (THRU STAIRS)

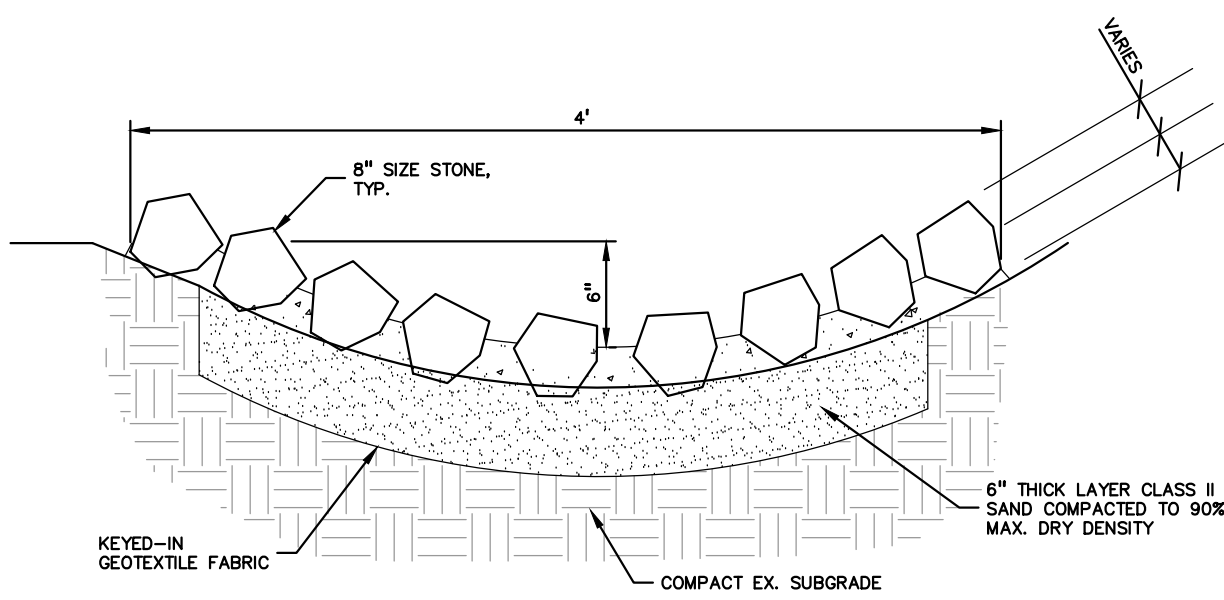


SECTION B-B (THRU STAIRS)

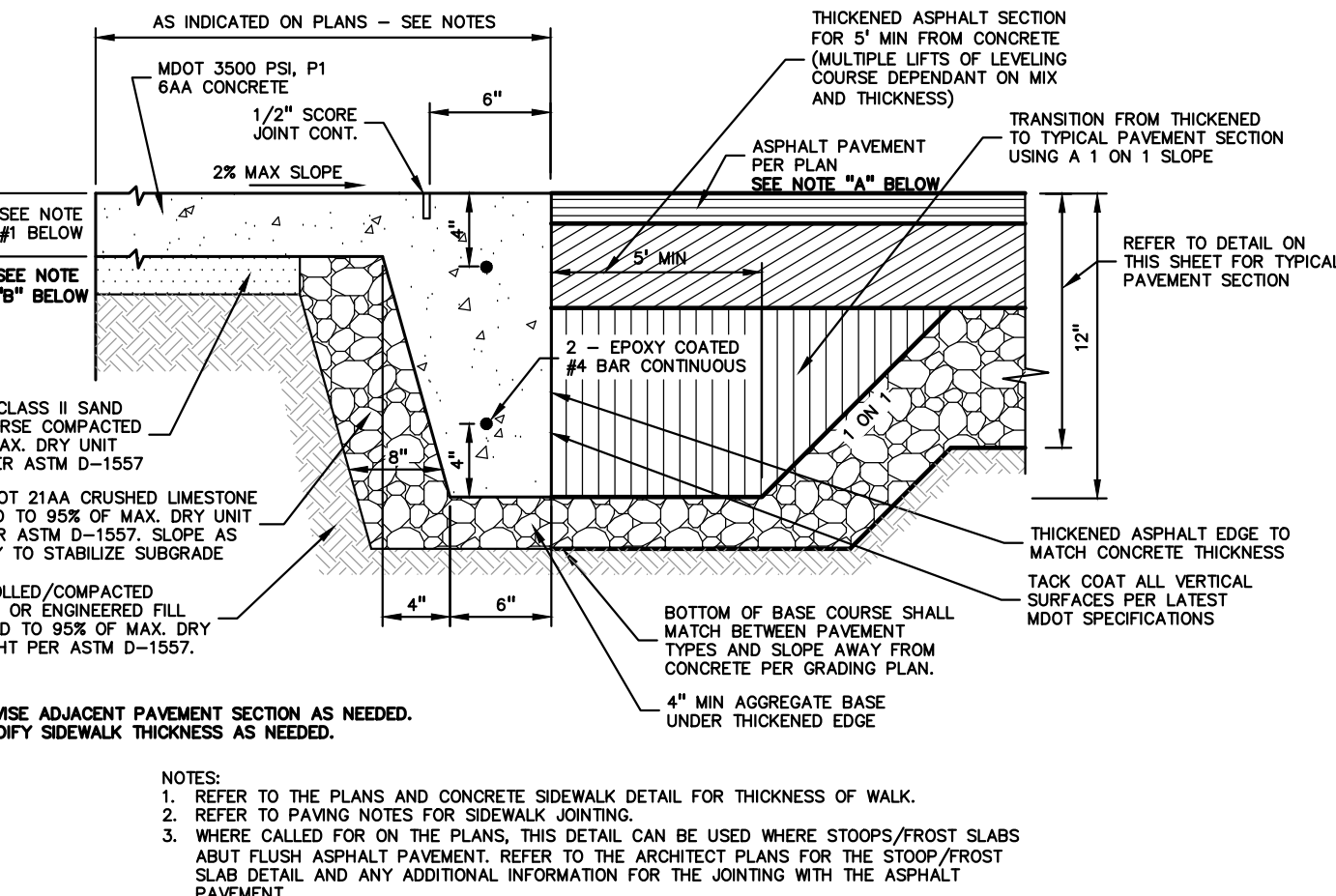


ALUMINUM HANDRAIL DETAIL

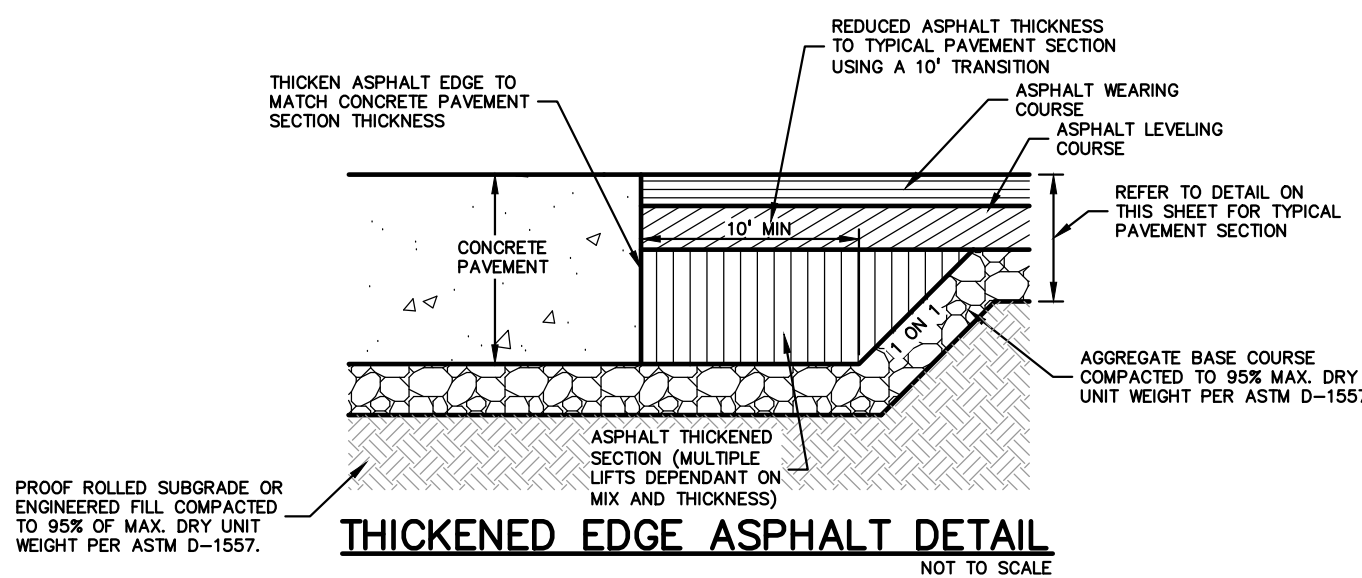
CONCRETE STAIRS AND WALK WITH HANDRAIL DETAIL



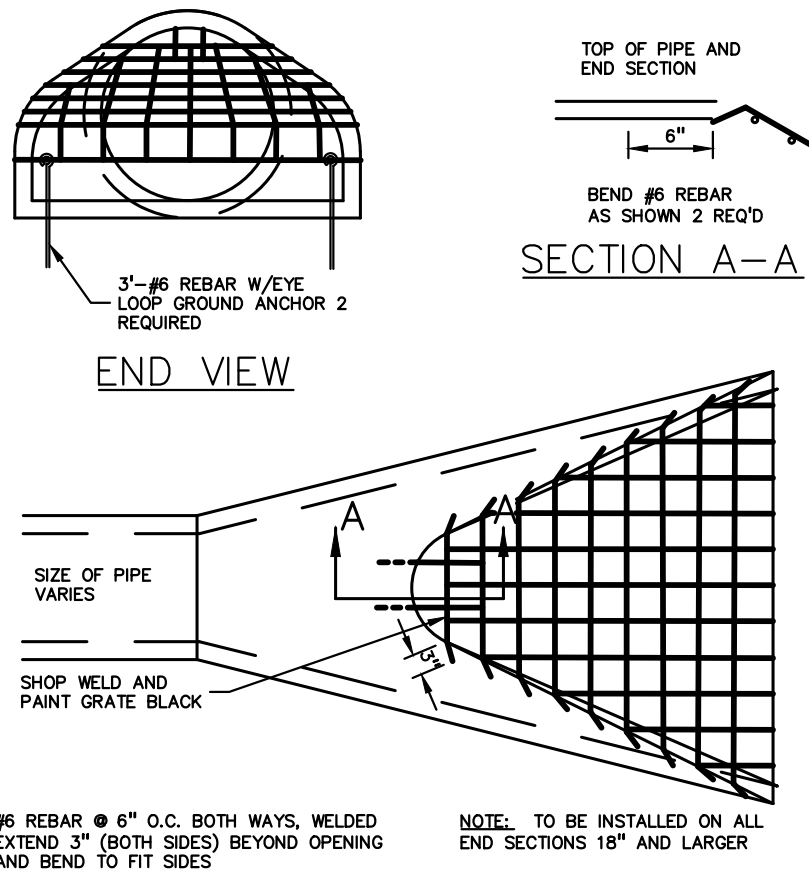
RIP-RAP SPILLWAY



THICKENED EDGE SIDEWALK TO FLUSH ASPHALT DETAIL



HANDRAIL EMBEDMENT DETAIL



BAR GRATE DETAIL

DECIDUOUS TREE PLANT LIST:					
QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
3	AC2.0	Shadblow Serviceberry	<i>Amelanchier canadensis 'Shadblow'</i>	2.0" Cal.	B&B
4	AR2.0	October Glory Red Maple	<i>Acer rubrum 'October Glory'</i>	2.0" Cal.	B&B
8	GT2.0	Sunburst Honeylocust	<i>Gleditsia triacanthos Inermis Suncole</i>	2.0" Cal.	B&B
1	LM2.0	Leonard messel	<i>Magnolia kobus var. Leonard Messel</i>	2.0" Cal.	B&B
16	TOTAL DECIDUOUS TREES				
SHRUB PLANT LIST:					
QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
9	HA24	Annabelle Hydrangea	<i>Hydrangea arborescens 'Annabelle'</i>	24" Ht.	Cont.
9	TOTAL SHRUBS				
PERENNIAL PLANT LIST:					
QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
10	HM	August Moon Hosta	<i>Hosta August Moon</i>	1 Gal.	Cont.
10	TOTAL PERENNIALS				

BRADLEY STREET
(66' PUBLIC R.O.W.)

N. CEDAR STREET
(66' PUBLIC R.O.W.)

EXISTING CHURCH BUILDING

W. MAIN STREET (M-21)
(85' PUBLIC R.O.W.)

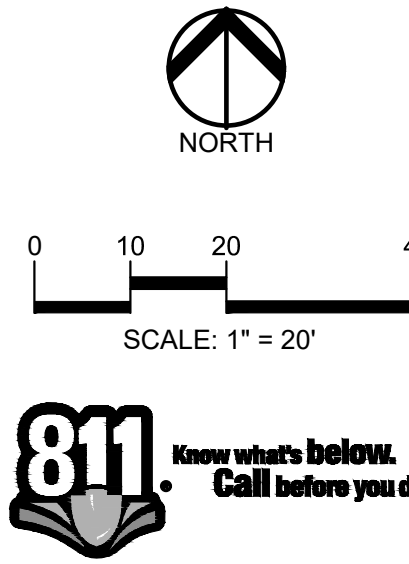
KEY:

- = PARKING LOT TREES
- = GREENBELT TREES
- = SHRUBS
- = PERENNIALS
- = SEED LAWN

GENERAL PLANTING NOTES:

- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE PRIOR TO COMMENCING.
- ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL SHALL BE NORTHERN GROWN, NO. 1, GRADE.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
- ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
- NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES; HAND GRADE ALL LAWN AREAS WITHIN THE DRIP LINE OF EXISTING TREES.
- ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
- IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS.
- ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH WITH PRE EMERGENT, SEE SPECIFICATIONS. SHREDDED PALETTE AND DYED MULCH WILL NOT BE ACCEPTED.
- ALL LANDSCAPED AREAS SHALL RECEIVE 3" COMPACTED TOPSOIL.
- SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.
- CONTRACTOR SHALL NOT INSTALL PLANTS UNDER BUILDING OVERHANG AND SHALL NOTIFY LANDSCAPE ARCHITECT IF DRAWINGS CONFLICT WITH BUILDING OVERHANGS.
- ALL LANDSCAPE AND LAWN AREAS TO BE IRRIGATED WITH AN AUTOMATED IRRIGATION SYSTEM.

PEA
GROUP
t: 844.813.2949
www.peagroup.com



CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE AS TO ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT
ST PAUL CATHOLIC CHURCH
111 N. HOWELL ST.
OWASSO, MI 48867

PROJECT TITLE
ST PAUL'S CHURCH PARKING LOT
111 N. HOWELL ST.
CITY OF OWASSO, SHAWAEE COUNTY, MICHIGAN

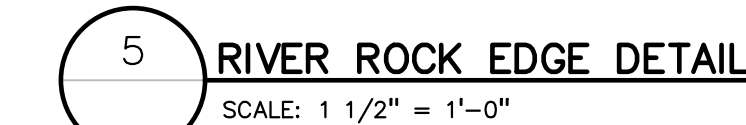
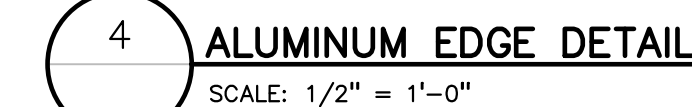
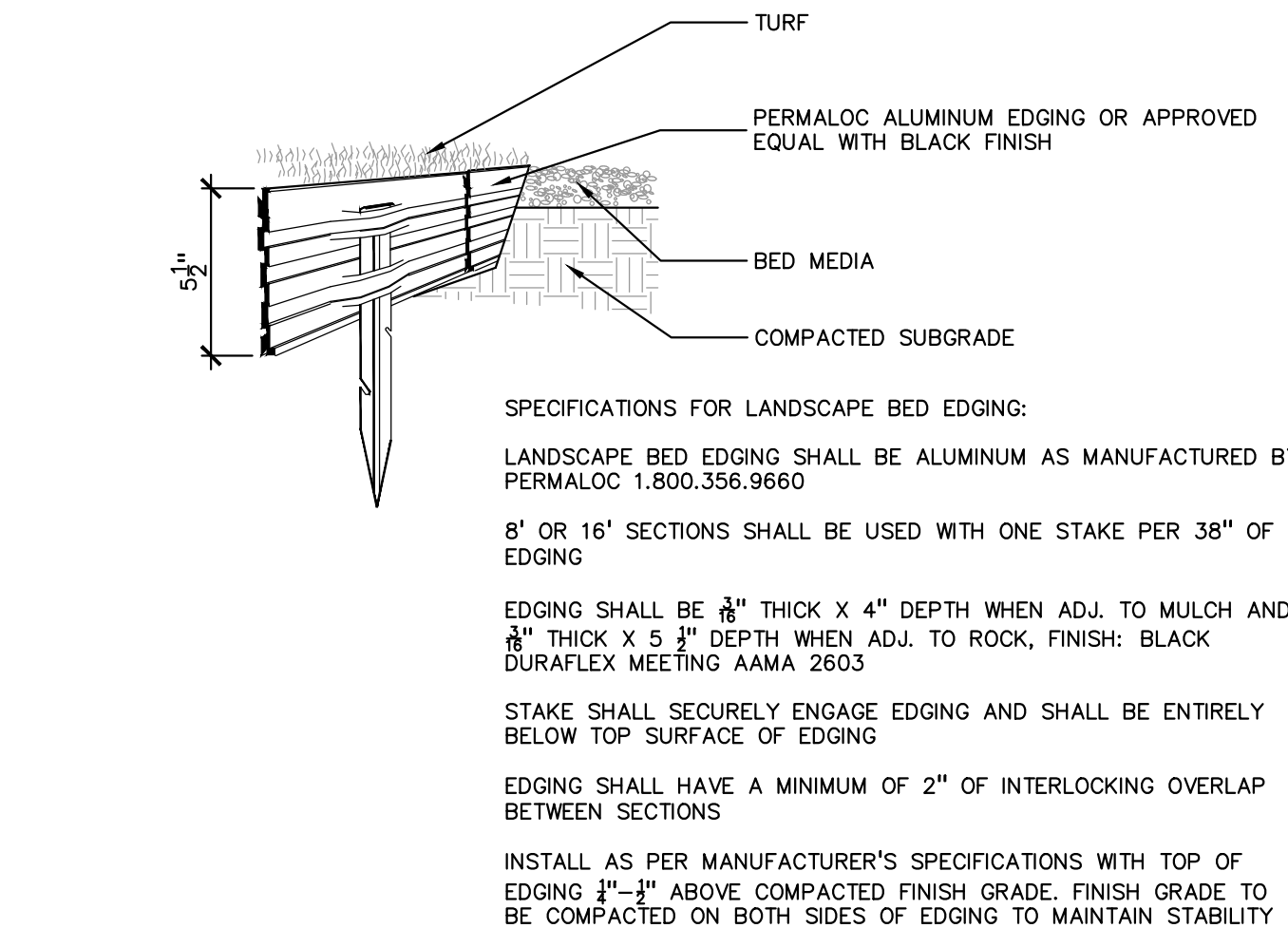
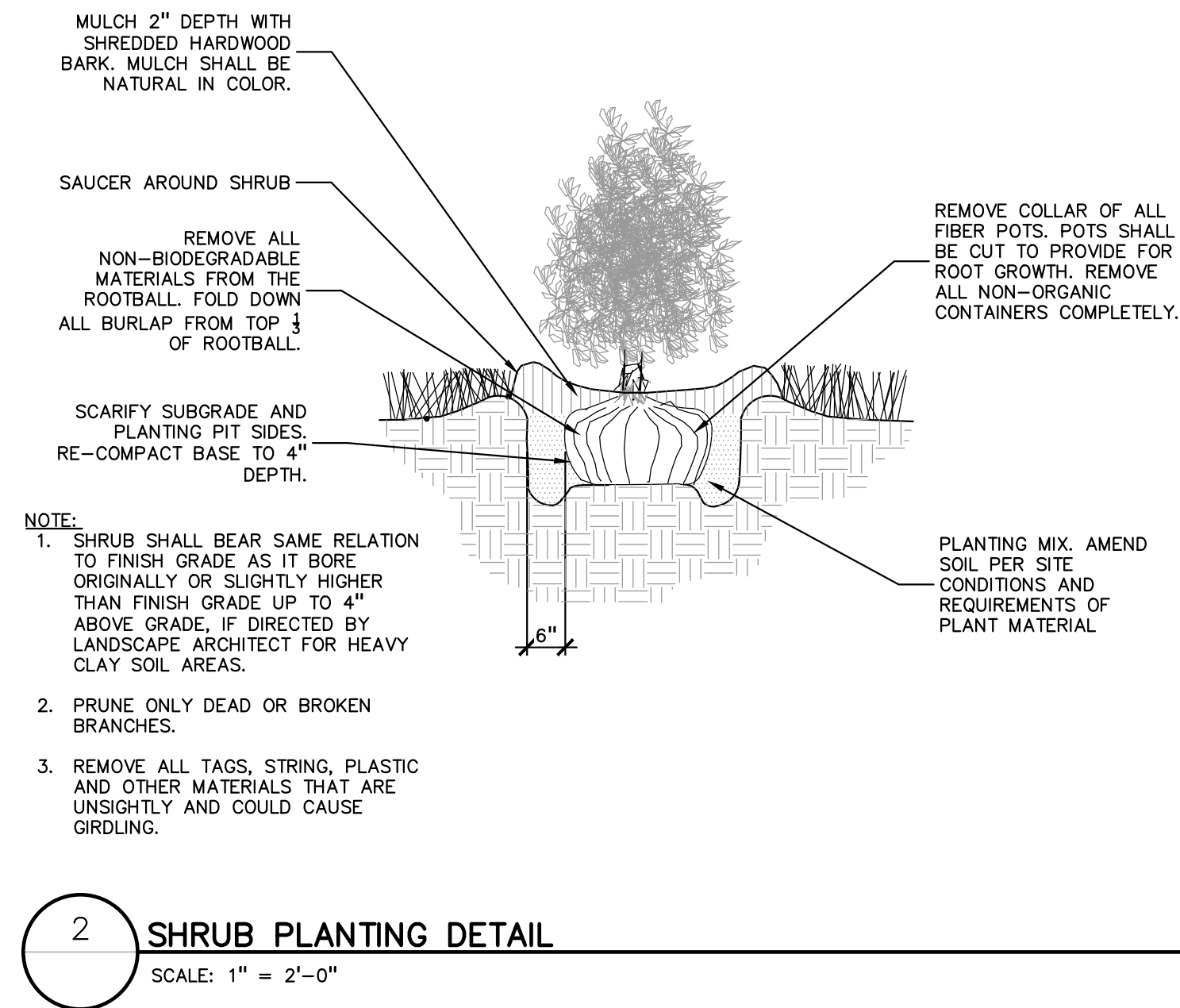
REVISIONS	
REV PER CITY	7/12/22

ORIGINAL ISSUE DATE:
JUNE 23, 2022
DRAWING TITLE
LANDSCAPE PLAN

PEA JOB NO.	2022-0249
P.M.	TD
DN.	WR
DES.	WR
DRAWING NUMBER:	

NOT FOR CONSTRUCTION

L-1.1



Schedule									
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	A	4	Lithonia Lighting	DSX1 LED P8 50K T5W MVOLT	DSX1 LED P8 50K T5W MVOLT	1	25331	0.95	414

GENERAL SITE LIGHTING NOTES:

1. THE LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.
2. ALL POLES ARE TO BE MOUNTED ON CONCRETE PEDESTALS 2 FEET ABOVE GRADE AS SHOWN IN DETAIL.
3. ALL POLES LOCATED OUTSIDE OF THE PARKING LOT AREA SHALL BE LOCATED 5 FEET FROM BACK OF CURB OR EDGE OF SIDEWALKS AND 5 FEET FROM UTILITIES WHENEVER POSSIBLE.
4. SHOP DRAWINGS FOR THE ELECTRICAL WIRING OF THE FIXTURES NEED TO BE SUPPLIED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR COORDINATION OF UNDERGROUND CONDUIT AND APPROVAL OF LAYOUT.
5. ALL AREA LIGHT FIXTURES ARE TO BE DIRECTED AWAY FROM NEIGHBORING PROPERTIES AND ROADWAYS.
6. CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL MATERIALS AND EQUIPMENT FOR THIS WORK UNLESS OTHERWISE NOTED.
7. COORDINATE LIGHT FIXTURE PLACEMENT AND INSTALLATION WITH LANDSCAPE.
8. ALL CONDUCTORS SHALL BE IN CONDUIT.

PEA
GROUP

t: 844.813.2949
www.peagroup.com



0 10 20 40
SCALE: 1" = 20'



CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT

ST PAUL CATHOLIC CHURCH
111 N. HOWELL ST.
OWASSO, MI 48867

PROJECT TITLE

ST PAUL'S CHURCH PARKING LOT
111 N. HOWELL ST.
CITY OF OWASSO, SHAWAEE COUNTY, MICHIGAN

REVISIONS

REV PER CITY	7/12/22
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ORIGINAL ISSUE DATE:

JUNE 23, 2022

DRAWING TITLE

PHOTOMETRIC PLAN

PEA JOB NO.	2022-0249
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P.M.	TD
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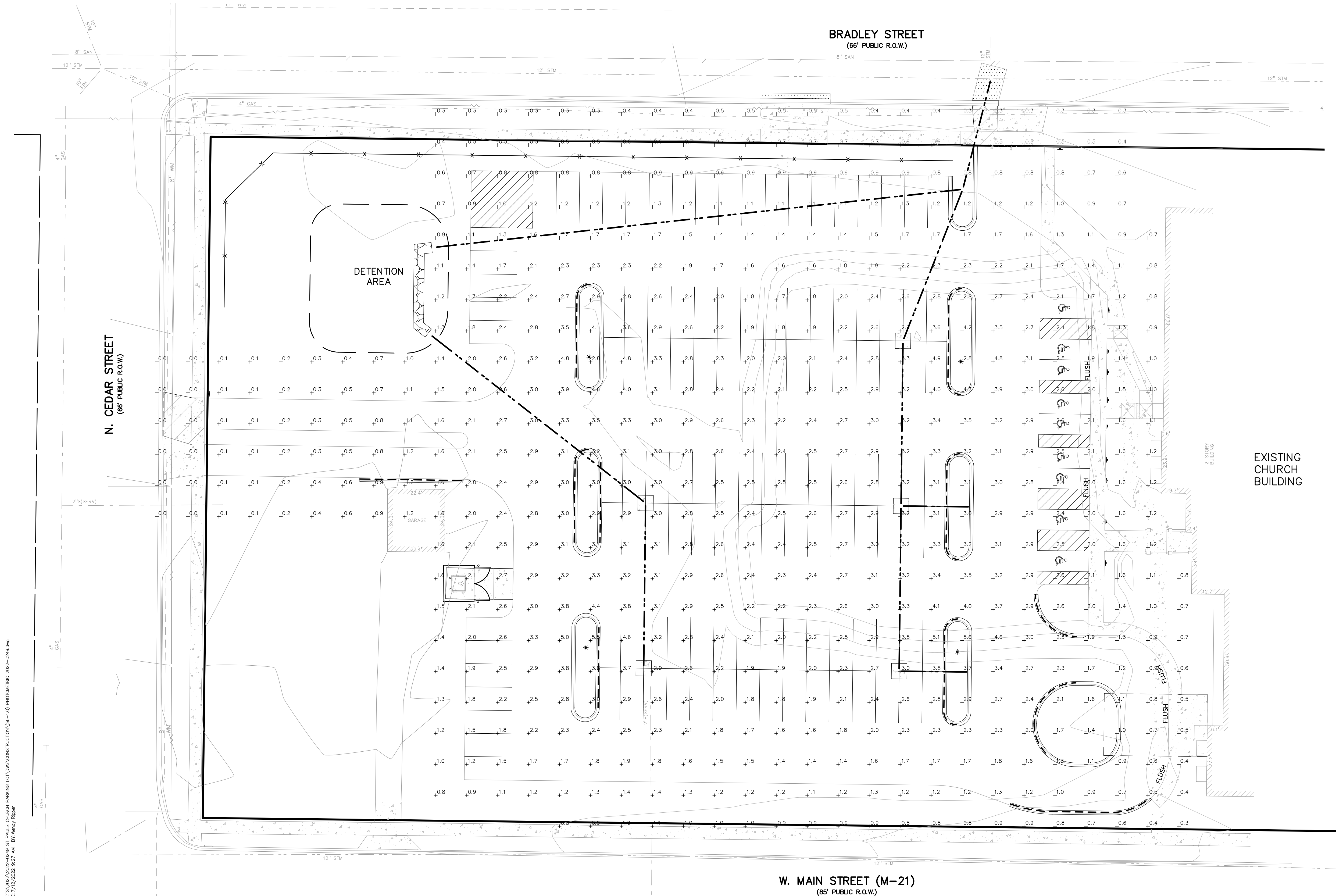
DN.	WR
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DES.	WR
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DRAWING NUMBER:

NOT FOR CONSTRUCTION

SL-1.0



S:\PROJECTS\2022\0249 ST PAUL'S CHURCH PARKING LOT\DWG\CONSTRUCTION\SL-1.0 PHOTOMETRIC 2022-0249.dwg
PLT DATE: 7/12/22 12:47 PM 8/1/2022 10:00

July 14, 2022

Planning Commission
City of Owosso
301 W. Main Street
Owosso, Michigan 48867

Subject: 111 N. Howell Street Site Plan Review. Approximately 2.9 acres, located on the entire block bound by Main, Bradley, Howell and Cedar Streets, Zoned B-4, General Commercial.

Attention: Ms. Tanya Buckelew, Planning and Building Director

Dear Planning Commissioners:

At your request, we have completed our review of the above site plan to develop a new parking lot for St. Paul's Church. The site consists of an entire block and previously was home to a school and a few other buildings that are being or have been torn down. The new parking lot will provide 129 new parking spaces with 9 barrier free spaces. The property is currently zoned B-4, General Business, where this use is a permitted land use.

The opinions in this report are based on a review of the site plan submitted by the applicant and conformance to ordinance standards. Please note that the applicant and their design professionals shall be responsible for the accuracy and validity of information presented with the application. In reaching a decision on the application, the Planning Commission should consider our comments along with those from other staff and consultants, additional information provided by the applicant, and your own findings based on ordinance standards as part of your deliberation.

REVIEW COMMENTS

Section 36-390 of the City of Owosso Zoning Ordinance lists the submittal requirements for site plan review. Based on our review of the proposal, discussions with the Planning and Building Director, meetings with the applicant and a visit to the site, we offer the following comments for your consideration:

- 1. Information items.** The site plan meets the informational requirements of the ordinance.

2. Area and Bulk. The proposed site was reviewed in accordance with *Article 16, Schedule of Regulations*, as described in the following table.

	Required	Provided	Comments
111 N. Howell (B-4 Zoning)			
Front Yard Building Setback	15 ft.	15 ft	In compliance

3. Dumpster. The proposed dumpster meets ordinance requirements.

4. Parking Lot Requirements. This requirement has been met.

5. Landscaping. New landscaping is proposed in the parking lot islands as well as along Main. Plant materials are compliant with the ordinance

6. Buffering. The ordinance requires a 4'6" buffering wall where the parking lot abuts residential areas, which are to the north of the site. Per the ordinance the Planning Commission could recommend another form of screening such as landscaping or dense shrubs to shield vehicle lights from the residential areas.

7. Lighting. Site lighting appears to meet the ordinance standards. It is noted that all new lighting should be shielded and fixed at 90-degree angles toward the ground, not at a 45 degree or other degree angle from the pole or building.

8. Other Approvals. The proposed site plan must be reviewed and approved by the appropriate city departments, consultants, and agencies.

RECOMMENDATION

Based upon the above comments, **we recommend approval of the St. Paul Church Parking Lot Site Plan, conditioned upon the following:**

1. Addition of a screening wall, fence or Planning Commission approved landscaping materials to satisfy buffering requirements of the Zoning Ordinance;
2. That all light fixtures are fixed in a 90 degree to the ground, downward facing position; and
3. Review and approval by the appropriate city departments, consultants, and agencies.

If you have any further questions, please contact us at 810-734-0000.

Sincerely,

CIB Planning



City of Owosso Planning Commission

St. Paul Church Site Plan Review

July 14, 2022

Page 3

Justin Sprague

Vice President